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CLINICAL LECTURE
ON
PENT UP SECRETIONS.

Delivered before the pupils of the Medical Department of the Yorkshire College, December 3rd, 1884.

By C. G. WHEELHOUSE, F.R.C.S.,
Consulting Surgeon to the General Infirmary, Leeds.

Gentlemen,—It has seemed well to the combined authorities of the Yorkshire College and of the General Infirmary—within whose walls it has been my privilege to work for the past twenty years—that I, together with my colleagues, Dr. Clifford Allbutt and Mr. Teale, should offer you, from time to time, in the form of clinical lectures, some portion of the experience we have gathered during those many years.

To me, gentlemen, it will be a pleasure to do this; and if, by so doing, I can add to the store you are preparing to carry from those venerable institutions out into the world, I shall deem no labour such lectures may cost me to have been labour in vain.

And to those of my fellow practitioners who honour me with their presence, I would add that, so far as I am concerned, these lectures are not intended for their instruction so much as to recall pleasant recollections of professional intercourse—as opportunities to remind us of many interesting bygone consultations, and to bring to our memories, for a few moments, such lessons as those consultations may have afforded us, for our guidance in future emergencies. If, therefore, to them, what I have to say, should, now and then, seem trite and unnecessary, I ask them to pardon the apparent presumption, and to remember that it is to younger ears that I am primarily speaking.

In the fulfilment of the ordinary physiological processes of the healthy body, and that its ordinary functions may be carried on smoothly and with regularity, certain definite laws have been established, and certain compensatory actions have been provided.

Thus: if it has been ordained that "Man shall live by the sweat of his brow," so it has been provided, also, that honest labour shall provoke repose, and that, in sleep, the wear and tear of labour shall be effaced; and, as with the whole, so with the parts of our organisation, "from labour to refreshment, and from refreshment to labour," is the order of their action, and, upon the regularity of the succession of healthy work and healthy repose depends the healthy performance of the function of each and every part.

So beautifully balanced is our organisation, that though to the incurious and unobservant eye it may seem only to possess the attributes of a wonderful and exquisite piece of mechanism, to him who, with reverence for Nature, seeks to penetrate further into its hidden mysteries the science of physiology shows that it is something greatly more.

Never, it is seen, is the action of the whole body, or of any of its parts, the same for many seconds together. A condition of constant change—of change which seems inscrutable—is for ever unfolding itself before the eye of the physiologist, constituting, in reality, the life of the body. At this moment, for instance, when you and I, acting and re-acting upon one another, are in a state of mental activity, the life and condition of our brains and nervous systems are one thing, and presently, when we have fallen into repose, they will be wholly another.

At one moment this "system" and its "centres" are flooded with an active stream of highly vitalised arterial blood; at another, that stream has well-nigh ceased; and as it is with the "nervous," so it is, also, with every other so-called "system" in the body: with the digestive organs during the ingestion of food; with those of absorption and assimilation during its imbibition and appropriation; with the muscular system in its varying conditions of activity and repose; and so with every other.

And, gentlemen, evanescent as these physiological conditions are, it scarcely needs that I should remind you that each one is accompanied by equally varying physical conditions; that, only so long as the perfect power inherent in each part to control and regulate these conditions exists, can the body, or any part of it, be spoken of as "in health."

Health consists of the even poise of the beam in every instance; and the moment the "poise" varies, even by ever so little, then come distress, disordered function, and impeded healthy action. Let the brain be overwrought, let the due proportion between labour and repose be unduly shortened, and you know how soon and how certainly the health will suffer.

Those of you who are given to the use of too much midnight oil, and to take too little rest, will appreciate what I mean, and will recognise, in the sense of weariness and inability to continue good work at its best for long together, how true the assertion is; and, as wise men to whom the well-being and bodily comfort of your fellow-creatures is, in the future, to be entrusted, you will lay every change perceived in the working of your own frames carefully to heart, that you may understand them when called upon to observe and treat them in others.

Among the various changes in the physical condition of parts and organs is the condition of what are called their "secretions" and their "excretions;" and upon the capability, or otherwise, of individual parts to deal with these, will depend many of the problems which will come before you in after-life.

As it is the province of the healthy nervous system to generate, to store, to regulate, healthy nervous force, so it is the province of the healthy pleura or pericardium to provide for the free and healthy movements of the lung and of the heart; and just as this is effected in the one case, so it is in all the others; in activity, flooded with healthy pabulum; in repose, dealing with the restoration of equilibrium, or with ejection. And herein lies the difference between the secretions and the excretions. By the one, we mean certain conditions and materials necessary to the healthy action of the part—constantly recurring, and as constantly passing away again; by the other, the final separation and ejection of materials whose future utility is destroyed, and whose retention in the body would be fatal.

Thus the pleura, the pericardium, the synovial membranes, are for ever producing, removing, and reproducing just so much "secretion" as suffices to secure the smooth action of the lung, the heart, the joints, but never, so far as we know, destroying the material out of which their secretions are elaborated.

The kidney, on the other hand, the lungs, the skin, the intestinal glands, are for ever engaged in separating that which, if retained, would tend as certainly to the destruction of the body as would so much poison introduced from without.

Over certain of the processes and proceeds of excretion we have often, fortunately, greater control than we have over those of secretion; and should any tendency arise towards failure of their ejection, or to their accumulation in the body, our power to deal with them is, in the main, much more prompt and satisfactory.

But the usual current of health does not always run thus smoothly and without friction; secretions and excretions alike may become "pent up" in the body, and, alike, may become the cause of danger, of distress, and of death, unless their evacuation can be secured.

Just as the brain may become overexcited or dulled, as the kidney may be overactive in the secretion of urine or the reverse, or the liver may pour out sometimes too much, and at others too little bile, so the evenness of the working of all organs of secretion may at times be interfered with; and, either as the result of perverted physiological action, or of organic disease, may prove too active, or the reverse, and their secretions may be either too scanty or superabundant.

If superabundant, seeing that, in the main, they are poured into closed sacs, naturally distension first, then overdistension of the sac

is the immediate result; and, unless the balance can in some way be restored, certain and definite consequences must follow.

Sometimes, nay often, I dare say, such restoration is within the reach of medicine; and very generally, even though it be beyond the aid of medicine, surgery is able to intervene, and, by a timely withdrawal of the imprisoned secretion, may be able to restore the balance; but sometimes medicine and surgery alike are powerless, and both are compelled to lay down their arms.

It may be, it sometimes is, that the consequences are neither important nor serious; thus, in the case of an overactive tunica vaginalis, beyond the discomfort arising out of the weight and size of the resulting hydrocele, no other evil consequence need be greatly feared.

In some, as in the case of the pleura, it may be that the contained viscus, though essentially vital to life, may permit a certain amount of crowding; and, if not unduly pressed, or for too long a time, may, when the pressure is removed, be restored uninjured to its pristine condition, and no permanent harm may have been done.

Thus, many simple effusions of serum into the pleura doubtless occur, are reabsorbed without causing more than temporary inconvenience, and leave no evident traces of their existence behind them; and, provided relief be obtained through the help afforded either by the physician or the surgeon, the spongy lung, uninjured in texture, will resume its normal position and functions almost as if nothing had happened, and no trace of the effusion may remain.

Let me give you a typical case. As I was driving one day past a house at some little distance from Leeds, a medical friend called me somewhat urgently into a house, to ask my opinion of a case of which he was in charge. A young gentlemen of otherwise splendid health and physique, had, a few days previously, from some cause or other, been attacked with acute pleurisy, and seemed now almost at the point of suffocation. Physical examination showed the left side of the chest motionless—dull from base to apex, vocal resonance and fremitus entirely absent, with loud tubular breathing near the spine. The diagnosis was, of course, simple enough—acute pleuritic effusion, and, considering the rapidity with which it had come on, almost certainly serous. Fortunately, I had a Roberts's trocar in my bag; and with this I was able to relieve the patient without delay, and the case was one in which delay might have caused very serious consequences. I tapped at once, and drew off six pints of clear fluid, and had the satisfaction to find the chest fully resonant, and the breath-sounds normal, even before I left the house; but, though I left the patient wholly relieved for the time, I felt bound to express my fear that, probably, the effusion would be repeated; and that, instead of simple serum, we might perhaps, on the next occasion, have to deal with pus, and have an empyema on our hands.

Fortunately, this fear proved to be a needless one, for the patient made an uninterrupted recovery, and has remained ever since quite well and strong.

But, gentlemen, pent up secretions are not always thus happily disposed of. They may bring life into imminent jeopardy, and that in various ways. In some, the course of the mischief produced may be lingering and slow, and may allow ample time for thought and consideration.

Take, for instance, the case of a distended joint; a joint distended, it may be, only by its natural secretion in excess, or which, originally so distended, has passed on into suppuration, and which, by the severity of the constitutional mischief it is causing, threatens life. You see this case well-nigh every week, you see it almost every Wednesday morning submitted to "consultation," and you see how we, your teachers, have time and opportunity to consider, to weigh, and to argue, all the "pros and cons" of the case, before we finally determine what we consider to be the best line of treatment to adopt: whether to wait upon nature, to aspirate, to evacuate by direct incision, to excise, or to amputate; and the patient suffers in no way while we do so. But contrast this with a case which once happened to me and to my colleague, Dr. Allbutt.

In the dead of the night I received an urgent message from Dr. Allbutt, requesting me to come to the infirmary to his assistance in a very urgent case. I found him sitting by the bed of a dying patient; I say dying, for so certain was his death considered, that his bed was screened from the observation of the other inmates of the ward, that they might not see him die. A hasty explanation told me of a case of acute rheumatic fever, which had resisted every kind of treatment, and was now closing, apparently, in acute pericardial effusion. Medicine, said the doctor, has done what it can. Is it in the power of surgery to do more? Remembering the teaching and experience of Trousseau, we thought it not impossible. A hasty glance at the bed showed me a patient, livid, cold, covered with a clammy perspiration, almost pulseless, eyes glazing, hair soaked with sweat, and death plainly stamped upon pinched and withered features.

I slowly but steadily thrust a small trocar and cannula along the upper margin of the fourth left rib, upwards and to the right, until I found it communicating to my hand the feeble beating of the smothering heart; withdrawing it for half an inch, I then altogether withdrew the trocar, and, leaving the cannula, had the satisfaction to see, flowing from it *per saltum*, a clear stream of fluid, and to feel the heart grow stronger and stronger as it recovered from its load. Eventually that patient also recovered; and though the operation was done in the old infirmary, he is still alive and well.

Here was a pent up secretion, which, save for the aid I was able to afford the patient, would, in a very few moments, have placed him beyond all help.

Dr. Allbutt reminded me that Trousseau, after withdrawing the fluid, had always washed out the pericardium with a weakly iodised solution; but here my natural caution came into play; and, having succeeded so far, I declined to adopt a measure which seemed fraught with danger almost as great as the original mischief, and I have never regretted that I held my hand.

Now, let me give you the outline of another case which once occurred in my practice, and which, while it interested me greatly at the time, gave me also very serious anxiety. It is a typical instance of an excretion simply mechanically "pent up," and which yet ran far towards bringing about a fatal issue.

A young lady, a member of a family of wealth and of important position, living in a mansion surrounded by its own park, and free, therefore, from the contamination of surrounding nuisances, situate in one of the healthiest and most open parts of Yorkshire, and supplied with water whose source was unexceptionable, was, nevertheless, the subject of what was supposed to be well marked and protracted blood-poisoning; constantly recurring sore-throat attacks, sometimes almost approaching diphtheria in virulence; pallor, anæmia, loss of weight and strength, occasional attacks of diarrhœa, sometimes of profuse sweating—a mixture, in fact, of irritative fever with hectic. So serious did her condition become, that her life was manifestly in danger, and yet no bodily organic disease could be anywhere detected to account for these very pronounced symptoms. The most careful examination of the chest failed to detect any mischief there; there was neither pain, nor cough, nor expectoration, nor any physical evidence of any condition which could account for them; and, so far as could be made out, all other important functions were declared to be properly, though feebly, performed.

In these days, gentlemen, of sanitary activity, the drainage of the house was not overlooked; for, as was not unnatural, drain-poisoning was suspected; and, at great expense, the whole system of the drainage and sanitary arrangements of the house was carefully, but unsuccessfully, examined.

No fault of any magnitude—none, certainly, which could bear so directly on any one member only of the family, could be detected, as to give any clue to the cause of the illness, and every one was baffled. Removal from home, sea-air, mountain-air, and every conceivable form of change was tried in turn, and failed, and hope was well-nigh extinguished.

I need not say that, in a case of such interest and such importance, every function was most thoughtfully questioned, and none more carefully so than the menstrual. But, one day, it happened that something occurred which led her usual medical attendant—a hard-headed, shrewd man—to inquire with somewhat more of circumspection than he had ever done before into this particular function. He was assured that the young lady was regularly unwell, and all that he could ascertain was that the "periods" were unusually prolonged, though the discharge was only scanty.

Examination of a diaper showed him a small amount of deeply discoloured and "fœtid" discharge, and this determined him, at all risks, to propose a vaginal examination. Before this was consented to, a second opinion was demanded; and I, on hearing the attendant's account of the case, feeling strongly with him that these were conditions which must be fathomed, seconded his request, and consent was happily given.

Gentlemen, it took very few seconds, then, to solve this hitherto great mystery. The patient having been anæsthetised with ether, we found a hymen, not indeed perfect, but so nearly so, that a tiny aperture was all that existed to permit the exit of the natural excretion.

Month after month the discharge had appeared, and so had satisfied the minds of both patient and attendants, and yet, month after month, a large residuum had been retained. This, by admixture

with air, had become a fertile source of decomposition, and, by reabsorption, had kept the system in a condition of chronic drain-poisoning indeed.

On freely dividing the hymen, the vagina was found dilated into a distended sac. Its walls were granular and over-vascular, converted, indeed, into a large absorbing surface, which had been only too apt an agent of reabsorption. A free outlet was made, and a few months sufficed not only for arrest of the mischief, but for cure, complete and perfect, of all the evil consequences.

Then, gentlemen, there is another form in which "pent up" uterine secretion may meet you from time to time, and cause you the gravest and most serious anxiety, which I must not pass over without a word of comment, threatened septicæmia following labour. There are few of us who cannot call to mind cases in which, after labours apparently the most prosperous, in which on the third or fourth day, or sometimes even later, for I can call to mind one in which it happened on the fourteenth, a rigor, followed by the severest constitutional irritation, has not suddenly cast a cloud of anxiety over all our hope of well doing.

Many such have happened to me during the course of my life, and, I doubt not, have happened also to many who are honouring me with their presence to-day. Let me advise you that such cases treated simply on general principles will almost infallibly go on to a fatal termination, but which, if properly comprehended and rightly treated, may still be conducted to a favourable issue. A small amount of imprisoned uterine discharge, a few shreds of imprisoned and decomposing membranes, or a tiny lobule of retained, imprisoned, and decomposing placenta—nay, even a little gas generated by some unhealthy condition of the interior of the uterus, may be causing all the danger. These, if not set at liberty or got rid of, may suffice to bring about a fatal issue. Under such circumstances, let me advise you, with your own hand—and, need I say, with the utmost gentleness and care—to wash out the cavity, not of the vagina only, but of the uterus itself, with an antiseptic wash.

The mere dilatation of an os, closed it may be by spasm, or even by simple swelling, may permit of the escape of such, and may suffice to rescue your patient from otherwise imminent danger. I need not say that it should be your care to do this with your own hand, not trusting to the intervention of the nurse.

Skilled knowledge is required to meet the emergency, or harm rather than good may be the result. Air may be thrown into the uterine cavity instead of being let out, the uterus may be distended, and the contents of the syringe may be forced through the unclosed Fallopian tubes into the peritoneum, or into open uterine sinuses, and instant death may thus be caused. But with gentleness, and care and knowledge combined, these evils may be avoided, and then all may again go well with your patient.

Now, gentlemen, I would point to this melancholy spectacle.[1] I have had it brought from the museum of the school to show you. This was a dispensary-patient of mine, who reached the age of 12 before death released her from one of the most terrible conditions of pent up secretion I have ever seen. The aid of the physician and of the surgeon alike, in this case, proved unequal to give the faintest relief, and death, when it came in the end, came as the only solution of many and increasing difficulties.

I have not introduced the case, however, only to tell you this, but rather to tell you that, carrying the remembrance of it with me, I have been induced, and I have seen others induced, in an earlier stage of this condition of hydrocephalus, to intervene and endeavour, by the introduction of minute capillary drains (Southey's) to command the secretion, but only with disastrous effect. Convulsions, coma, and speedy death, have, so far as I have seen, been the only results of such interference; and I, at any rate, have invariably regretted it. In a form of disease somewhat allied however to this, I think modern surgery is holding out a helping hand.

I have seen my colleagues, Mr. Atkinson and Mr. Robson, each effect a distinct cure of the hitherto uncontrollable condition of spina bifida.

In Mr. Atkinson's case, the cure was effected by strangulation with the elastic ligature; in Mr. Robson's, by a more distinctly surgical proceeding. Taking from the surface of the tumour an ellipse of skin, the sides of the inner membranes of the sac were brought into apposition by fine sutures, and the superfluous portions were cut away; then, between these and the skin, a piece of recent rabbit's periosteum was inserted, in the hope that it would develop bony growth. This it failed to do, but it lived, and added firmness and strength to the cushion which eventually covered in the opening in the vertebral column, and the child recovered.

[1] A cast of an extreme case of chronic hydrocephalus.

But so far, gentlemen, notwithstanding this unhappy instance, we may flatter ourselves that, so long as we have only to deal with secretions healthy in character, though abnormal in amount, we have, in the majority of instances, means, both medical and surgical, to enable us to deal with them; but, unfortunately, they often come before us in another and much more dangerous form.

Sometimes from the beginning, at others as a sequel of effusions originally more simple in character, we may, in every one of the regions I have mentioned, and in many others, have not simply serous and healthy secretions pent up, but diseased and unhealthy ones.

Serum may be superseded by pus; simplicity may be changed for putridity, and the constitutional disturbance produced by their presence may be changed from one of simple excitement to one of violent and virulent febrile disorder.

You see so many cases of empyema treated in this institution, and treated almost invariably by free posterior incision; you see so many suppurating joints freely incised, large abscesses opened, and all alike cleansed, drained, and antiseptically dressed, that to dwell upon them would be to waste your time; but there is a class of cases to which I wish to direct your attention, and in which these conditions are exhibited, as being not only of great importance in themselves, but as opening up a field of surgery almost new.

A few years ago I was consulted, in a great emergency, by a medical practitioner of eminence in this county, in a case of supposed empyema; indeed, I was summoned for the express purpose of removing the contents of an empyema; but, when I had examined the chest, I was very doubtful whether any empyema existed at all, and I ventured to express my doubt.

I was met with the assertion that it was unquestionably so, and that the patient was even then coughing up daily large quantities of very fœtid pus. I introduced an aspirator-needle into what should have been the pleural cavity without finding any pus, and I repeated the puncture in several places, always with the same negative result. Again, therefore, the chest was very carefully examined, and, at one point, in the middle lobe of the right lung, we fancied we could distinctly define a large splashy cavity. One of my exploratory punctures had been provokingly near this spot, but had evidently just missed it. I now reintroduced the needle, and, guided by the idea I had formed to what I supposed to be the diseased spot, pressed on my needle until, to my great satisfaction, I plunged manifestly into the middle of it, and withdrew from it thirty-six ounces of dreadfully offensive pus, to the delight of both patient and attendant.

But to me there was more than mere gratification in this result; there was an altogether new experience. I had no doubt whatever that I had tapped and emptied an abscess seated in the very middle of the lung. I had never heard of an abscess so placed and so treated before.

For a time, the patient did extremely well; no evil seemed to come from the operation, and the relief afforded was beyond expression.

Once afterwards I emptied the cavity in the same way; and again with the same gratifying result; and, though the patient eventually died, the case opened up to me an entirely new field of possibilities. Here was a poor sufferer who had been engaged for many weeks in the ceaseless occupation, necessary by night as well as by day, to the utter destruction of everything that could be called rest, of coughing up the fœtid contents of an abscess. Why should not such an operation as the one I had performed be frequently resorted to?

In the Address in Surgery which I had the honour to deliver before the members of the British Medical Association, in 1878, at the annual meeting at Bath, I propounded this question; and, for, I believe, the first time, directed professional attention to the subject. Since that time, I have heard of a few cases in which the same practice has been adopted, and I can personally point to two in which it has been followed by success. In lectures such as these I can only, in the main, draw upon my experience for cases illustrative of any opinions I may advance. I cannot show you the actual cases themselves, as your systematic surgical teachers are able to do, but I doubt not that, at some period during your pupilage, you will see this question discussed; and it may even be that, in years to come, you may live to see the practice received and acted on as a recognised method of treatment.

Let me give you in detail one of my own cases, the notes of which are before me. I was requested by a surgeon in this town to see a patient with him, about whose recovery he expressed himself as hopeless, as he considered her far advanced in phthisis, and beyond the reach of any save very temporary relief. Cough, emaciation, profuse fœtid expectoration, overwhelming perspiration whenever she slept even for a few moments, were her chief symptoms; but the characteristic feature of her case was the fœtid expectoration which she was

ceaselessly engaged in coughing up. Day and night it neither was mitigated nor abated, and even death was spoken of as a longed-for release.

In this case, too, I found a great splashy cavity at the back of the left lung; and, on placing the ear over it, the voice was transmitted directly into it as if through a trumpet. There was ground for imagining that this was an abscess which had burst into the pleura, and that I had a compound empyema to deal with. I opened and drained as if for empyema, and with perfect success, for not only was the suffering of the patient relieved, but after a time she left the Infirmary, apparently recovered, and came many times afterwards to report herself as fairly well.

The other case I desire to quote is one recorded by my colleague, Mr. Teale, in the *Lancet* of July 5th last. In this case, as in the last, the patient, supposed to be suffering from pleuritic effusion, was found to be, in reality, the subject of abscess in the lung, which, after much consultation between many medical men, was antiseptically incised and drained, and from which the patient eventually recovered.

The following is Mr. Teale's published description of the case.

On March 1st, I was requested to visit Mr. B., aged 54, in consultation with Mr. Ireland of Tadcaster. The patient had been ill for three months, and had been seen occasionally by the late Dr. Shann of York, Dr. Clifford Allbutt of Leeds, and Dr. Myrtle of Harrogate. The earlier history of the case had been most obscure, commencing in December, 1880, with a cold, shivering, loss of flesh, vomiting and retching, and pain in the hepatic region, but there was no cough, nor any symptom of lung-disease. Dr. Allbutt, in the middle of February, found hepatic dulness increasing upwards, as if there were fluid in the lower part of the thorax; and a week later (February 28th), Dr. Myrtle saw the patient; and, finding dulness occupying the lower half of the right lung, came to the conclusion that fluid was present, and advised early tapping.

On March 1st, after examining the chest, I came to the same conclusion as the other medical men; namely, that there was fluid in the pleural cavity.

The right side of the chest having been punctured, low down, with the small trocar of Bartleet's aspirator, a few drops of clear straw-coloured fluid escaped; and, even after the addition of the suction of the aspirator, only two drachms of fluid were obtained. Being still confident that fluid was present, I made a fresh puncture higher up, when very offensive, thin, greenish pus appeared, but only in drops. By applying the aspirator, more pus was obtained; and, after careful and continuous aspiration, about a pint of pus was slowly withdrawn. My view at the time was that there were two separate collections of fluid in the pleural cavity, shut off by adhesion from one another.

In consequence of the unexpected character of the case, two days later a consultation was held with Dr. Allbutt, Dr. Myrtle, and Mr. Ireland; and it was decided that, as soon as the temporary relief given by the tapping had passed by, the thorax should be opened and drained.

On the 16th, the patient had become more hectic, had expectorated for two days most offensive pus, and was, altogether, extremely ill.

Operation.—An exploring trocar was introduced at a point a little below and in front of the angle of the scapula (ninth intercostal space), and a syringeful of fœtid pus was withdrawn. The patient having been cautiously put under ether by Mr. Hartley, I made, with the assistance of Mr. Ireland, an incision at the site of the puncture, and opened the pleural cavity. No pus appeared—only a small quantity of serum. The finger, introduced into the pleural sac, discovered the lung, but no large space. The adjacent pleural surfaces were rough, and numerous adhesions were broken down easily by the finger passing in all directions. The lung felt dense and boggy, not crepitant and elastic. On reintroducing the trocar, and puncturing the lung, pus appeared. The puncture was enlarged so as to admit the finger, and two pints of most fœtid pus escaped, rendering the room almost unbearable. A large drainage-tube, about six inches long, having been introduced, the cavity was syringed out with a weak solution of carbolic acid, and the chest was encased in carbolised tow, etc.

Before Christmas—that is, within a year of the commencement of his illness, and within nine months of the incision into the lung—the patient had resumed his active work.

Since writing the above, I have read with infinite pleasure the address of Sir Spencer Wells, delivered at the opening of the Midland Medical Society at Birmingham on November 5th last; and I cannot refrain from quoting one passage in it, at least, which bears directly on this subject, and which runs as follows.

"If I were reviewing modern surgery in general, and not limiting myself to the influence upon it of the revival of ovariotomy, I should speak hopefully of pulmonary surgery, of the draining of cavities in the lungs, of incising gangrenous lung, of resection of portions of ribs to obtain contraction and closure of the pleural cavity; and of excision of parts of the lungs, or of an entire lung; even of the surgical treatment of purulent pericarditis. But these are subjects to which I can barely allude as proofs that we do not yet know how far we may go with rational surgery, or what may be in store hereafter for surgical enterprise."

Thus I have described to you cases in which secretions "pent up" in connection with the most important organs of the body, in the pericardium, in the pleura, in the lung, in the cavity of the uterus, have been successfully relieved by surgical interference, and to add similar histories in connection with brain, liver, kidney, and other important organs would be only too easy, but I will not waste your time by mere repetition. If I had notes of it, I should have been pleased to have mentioned one other, in which, in consultation with Mr. Scattergood, I withdrew a large quantity of pus by the aspirator from the mediastinum of the chest; but as I have them not, I will refrain. I wish to draw a practical lesson from such cases, and to place you in the possession of knowledge which shall be of real practical service to you in your after life.

When I was your age, such things as these were unheard of and undreamed of; now, they rest on substantial ground, and to you, I doubt not, it will be given, if life be spared to you, to carry them still further, and to achieve still greater triumphs. When I was your age he would have been a bold man who would have ventured, unless in presence of destructive disease, to make a direct and free incision into the knee-joint, whereas now we do so—shall I say with impunity? well, almost with impunity, and certainly without much fear; but I have known death follow the simple removal of a loose cartilage from the knee-joint, and I have known many limbs amputated through the thigh for injury to the knee-joint, which we should never think of condemning now, and all this is the result of one only of the many great discoveries of our age.

Have you noted how often, in speaking of the foregoing lung-cases, I have spoken of the "fœtid" discharges, and of "fœtid" pus?

Have you noticed that "fœtor" was the distinguishing characteristic of the menstrual discharge in the first case, and has it struck you that in all the admission of air to the pent-up fluid was direct?

To us, in former days, here lay the great secret; we were well aware of that; and hence the carefully precise instructions that were given, to admonish us to keep out the air from all our wounds, our explorations, our burns and scalds, and so forth; subcutaneous incisions; valvular openings, tunnelling into abscesses—anything, everything, to keep out the air!

In all this, the first faint glimmerings of the dawn of better things may now be perceived; and, taken in combination with the fact that, having steadily fought the battle of the various dressings for wounds; the old and filthy poultices and cerates, under the influence of which I, when a dresser, have seen hundreds of maggots collect in twenty-four hours in an amputation-wound; the carefully neat, elaborate, painful, and baneful dressing by tight plaster; the much-vaunted "water-dressings," and "dry-dressings," and "healing under scabs," we found men, like Spencer Wells, seeking to protect wounds, alike from the decomposition of the exudations on the one hand, and of the air on the other, by covering them with "pads of calcined oyster-shells and oil of tar," with thick layers of cotton-wool, and so on, you may be sure that we were running with a fine scent, and were pretty certain to "find" in the end!

It was, indeed, often noted that air, if closely filtered, might pass into the cellular tissue of the body without doing more than simply temporary harm, as in the case of fractured ribs with penetration of the lung, in which air so filtered by passing through the air-cells, though actually distending the areolar tissue to the point of disfiguring the body beyond recognition, was nevertheless speedily re-absorbed, if not evacuated, and did no real harm.

But to none of us, until Sir Joseph Lister arose, and drew aside the curtain from our ignorance, and showed us how the air we breathe, and which penetrates into the most hidden and secret recesses of our bodies, is laden with microscopic life and with germs, ready, the moment they alight upon a cultivable soil, to spring into life, and run riot in our wounds, our "pent up" secretions, was the revelation made that, to "sterilise" that air, was the only way in which septic mischief could be prevented, and surgery be rendered harmless.

Towards this now attainable end, we of the nineteenth century have only advanced a certain distance on the way; but, to some of you, it may be given to see the full fruition of our hope, and may you, gentlemen, bear your share in the good work.

AN ADDRESS
ON
CHOREA.

Delivered before the Thames Valley Branch, at Richmond.

By DYCE DUCKWORTH, M.D., F.R.C.P.,
Physician to, and Lecturer on Clinical Medicine at, St. Bartholomew's Hospital.

GENTLEMEN,—I assume that the purpose of the discussion which I am requested to open this evening, is to assist in furthering the inquiry now being made respecting chorea. You are aware that the subcommittee which is collecting evidence about this disease has issued, in the first number of the *Collective Investigation Record*, a preliminary report, and this showed that the inquiry was likely to prove fruitful in due time. There should be little difficulty in gathering all the necessary facts in an inquiry of this sort. The disorder is common, readily recognised, and the evidence relating to it not usually far to seek.

Permit me, then, to state the points on which further knowledge is desirable.

First, it is required to have a much larger number of cases from which to deduce facts.

Secondly, the ages and sex of the patients are wanted in all cases, and every case in each reporter's practice should be taken note of, for without this, a fallacy may come in respecting the incidence of chorea on different classes of patients.

Thirdly, information is sought as to the general prevalence of the disease in different districts.

Fourthly, under the head of exciting causes, it is of the last importance to be exact as to the nature of these, and the interval between the exciting cause and the onset of choreic symptoms.

Fifthly, more complete information is desirable as to the condition of the heart at the beginning, in the progress of, and after the disorder has passed off. It is very important to secure records not only of the state of the heart a few years after attacks of chorea, but also of the subsequent general life-history of such patients. The latter, indeed, has equal significance with the antecedents of these cases.

Lastly, more knowledge is sought as to the common ailments to which choreic patients are liable. It ought to be possible to determine the average duration of choreic attacks. My colleague, Dr. Andrew, has gathered from a study of cases that this is somewhat over ten weeks, about ten weeks and three days. With gaps such as these in our stock of knowledge respecting chorea, we may rightly feel that there is still much for us to do. To-night, then, I direct your attention to these several points, and beg you to pursue them in your respective fields of observation.

Next, I would crave your attention to an expression of the views of this disease which best commend themselves to me. We are brought in face of several theories as to causation. From the time of Cullen, we have had opinions oscillating from a nervous to a humoral pathogeny, we have also had a mechanical and mechanico-humoral, and now once more a nervous pathogeny for this malady. Sydenham well described the disorder, but he ventured on no theory of it. The writers of a century ago mostly adopted the view of debility with some degree of irritation of the organic or ganglionic nerves. They described it as a morbid susceptibility of the nervous system, generally with diminished power, increased mobility, and irregular action of the muscular system.

This irritability was thought to be due, in children, to debility of the stomach and "collatitious" organs, as Mason Good put it; and, in those approaching the period of puberty, to menstrual nisus and development of the genitalia.

Forty years ago, the teaching of Elliotson was, that chorea was due to a morbid excitability of a certain portion of the nervous system (the medulla oblongata or spinal marrow), with which the nerves of voluntary motion are connected; but not a sufficient irritation to produce tetanus. The proximate cause, he thought, was seated in the head as well as in the spinal marrow, since the highest nerves were affected.

Marshall Hall regarded chorea as an affection of the true spinal system, illustrating the want of harmony between the cerebral and spinal acts. He thought it was at first a centripetal disease, and, subsequently, a centric one. This view was coloured by the prevalent pathological ideas of the time, but is only partly held now. Elliotson believed chorea to be a constitutional disorder, but he did not know if it was hereditary.

Todd (in 1843) showed that irritation of the spinal cord was not the cause of chorea, because the hemiplegic characters of it indicated lesion above the decussation of the pyramids. Later on, the humoral view of the production of chorea came into prominence, more especially in connection with rheumatism, Bright, Scudamore, Copland, Todd, and James Begbie, having drawn attention to this. Begbie, in particular, observed the occurrence of the two diseases in different members of the same family, indicating, as he believed, their probable dependence on the same morbid diathesis. Bright conceived chorea to depend, in these cases, on irritation conveyed from the inflamed pericardium by the phrenic nerves to the spinal cord. Burrows thought the pneumogastric nerves might equally be the medium of irritant influences. Watson conjectured that a simultaneous spinal meningitis might arise, or that the cardiac disease exercised some influence on the afferent nerves of the cord. Todd preferred to associate the cardiac disease with the low nutrient state of the nerve-centres common in the rheumatic condition, believing that the defective nutrition which led to rheumatism was equally favourable to the development of chorea, and that thus the rheumatic constitution was one from which chorea might be evoked. Herein, he was well in advance of his time. The frequency of associated endocarditis led J. Begbie to the belief that the morbid state of the blood in rheumatism was the cause of chorea.

He had observed the presence of vegetations on the mitral valve, but regarded these as due to the effects of altered blood. Later on, J. W. Ogle and Barnes advanced this view. Addison, about 1849, at Guy's Hospital, first directed attention to the frequency of cardiac murmurs in chorea.

The state of opinion was now ripe for the discovery, at St. Bartholomew's Hospital, of arterial embolism by Kirkes, and his application of this theory to explain chorea by the presence of cerebral capillary plugging. This view diverted attention from the rheumatic element in cases of chorea, and, in accordance with the tendency of the pathology of that day, which somewhat limited the science to a narrow field of morbid histology (a part only, be it remembered, of this vast subject), reduced the terms of the question to the mere association of vegetative valvulitis with chorea.

For nearly thirty years, then, the battle has raged on this ground, and some of the best minds in medicine have contended for and against this embolic theory. It is right to state that, within this period, the pathology of chorea has been greatly advanced on all hands. The associated frequency of carditis is everywhere admitted, as is also that of rheumatism. Great merit is due to the Parisian school for maintaining the importance of the underlying rheumatic element in most cases of the disease; to M. Roger, in particular, who showed that heart-trouble might sometimes succeed, as well as precede, choreic attacks; and to M. Jules Simon, who affirmed that chorea was most commonly accompanied by cardiac disease, and seemed to be a consequence of the rheumatic diathesis. It was soon found that the incidence of the disease, mainly on children of the female sex, corresponded exactly with that of rheumatism, and also with the excessive occurrence in them of endocarditis; and, hence, it was no longer possible to ignore the association of rheumatism and of endocarditis with chorea. Clinical and *post mortem* evidence also afforded unequivocal evidence of the embolic theory in certain cases, but not in all.

The difficulty now was to explain the occurrence of the disorder in cases presenting no signs of rheumatism, past or present, and, in particular, in such instances as were fairly attributable to eccentric causes, such as pregnancy, or to mental emotion, such as fright. This is the place to record the masterly studies of chorea by Hughlings Jackson and Broadbent, which have done so much to throw light upon this malady. Jackson supported and elaborated the embolic theory of Kirkes, believing that vascular obstruction led to congestion and damage of the corpus striatum, or its neighbourhood, and entailed an unstable condition of these parts. He also thought that this instability might be the result of other than gross mechanical causes, and might represent a neurotic state. Broadbent endeavoured to show that chorea was a symptom rather than a morbid entity, and due to changes in certain definite parts of the encephalon. He drew attention to the many points of parallelism between chorea and hemiplegia, suggesting that these two affections did but represent two different conditions and degrees of damage of the same nerve-centres, and believed that Kirkes' embolic theory was fitted to explain many cases. Like others, however, he showed that this theory was mainly proved in fatal cases, and could hardly be invoked in simple cases where there

was no cardiac damage, and where recovery followed removal of eccentric irritation. He therefore recognised other causes for the choreic symptoms, such as impaired vigour and increased irritability of the great ganglia, resulting, possibly, from prolonged arterial spasm, capillary thrombosis, and hyperæmia.

Dickinson's researches demonstrated the presence of hyperæmic foci, spread very generally over the brain and cord, with dilated arterioles and small hæmorrhages, especially in the basal ganglia.

Broadbent affirmed that multiple symptoms in chorea were significant of multiple lesions, and hinted that to limit the area of localisation to the basal ganglia, or their vicinity, might be fallacious, since motor areas are now recognised in the cerebral cortex.

At the present time, we have the problem of chorea reduced to the following terms, in accordance with the most recent knowledge. 1. That the disorder is associated with rheumatism in a large proportion of instances. (This is denied by Dr. Sturges and others.) 2. That, consequently, it is also associated with endocarditis, and also often coexists with signs of heart-disease, even if this be not clearly of rheumatic origin. 3. That the latter conditions predispose to the occurrence of embolisms, and certainly give rise to these in some cases. 4. That the condition of the motorial centres is one of debility and instability, however induced, whether mechanically or diathetically. 5. That, given this peculiar unstable condition, eccentric or other irritants and excitants may readily evoke the irregular modes of motion recognised as chorea.

Now, as in many other cases, where disputants take up opposing sides warmly, there is probably much to be said for both parties, and each is often found to espouse portions of truth. So here, we may, I think, find the truth respecting the origin of chorea to lie completely in no one of the theories I have enumerated. Taking chorea to be always symptomatic, we find it as a result of varying conditions affecting certain portions of the encephalon. Foremost amongst these, I am of opinion that we must recognise the close connection with all that is now signified by the rheumatic habit of body. I believe that closer study of all cases will bring many more of them into this category. The remainder will, I conceive, be found in connection with an ill-nourished and feebly developed nervous system, subjected to unwholsome influences, exhaustion, and unwise nurture. The connection of chorea with other spasmodic neuroses appears, as Dr. Barlow thinks, to be very little marked; and I agree with him. As a neurosis, it is, however, probably capable of heredity and transformation, as are other like conditions.

Let us inquire, next, what may be said respecting the evolution of chorea in members of a rheumatic family. The disorder may occur either during or after an attack of rheumatism; or, again, it may appear long antecedent to such an attack. Yet, again, it may occur in persons whose family only have had attacks of rheumatism. The seat of chorea is certainly in the nervous motor centres, and rheumatism is a disease particularly affecting motor structures—for example, the heart and the joints. The latter are believed to have their nutrient centres in the medulla oblongata, whence arise also the greater portion of the nerves innervating the heart. It is easy to suppose that a common kindred vulnerability, or susceptibility, in the great motor centres should predispose to one or other, or to both, of the disturbances known as chorea and rheumatism. This susceptibility, or instability, may therefore be a part of the diathetic proclivity of rheumatism; and, given this state, an overt rheumatic attack, or some other peripheral irritant, fright or emotion, intestinal or utero-ovarian irritation, may suffice to evoke the peculiar perverted action of the motor centres. I come now to declare my belief that it is in some such mode that chorea arises as a symptomatic disorder; that it is the outcome of a motorial neurosis. This is a speculative theory, I allow;[1] but I think it is a helpful and suggestive view. It accords with much that is gaining acceptance in pathology at the present time, for the wheel has gone round again to neuro-pathology, and diseases of the blood are somewhat at a discount just now. It is perhaps not satisfactory in itself that opinions should thus oscillate, or that fashions should prevail in any science; but it is true, notwithstanding, that progress occurs with each turn of opinion; and, if we are really seeking what is true, no harm will accrue. The nervous theory of rheumatism itself is not new. Addison was wont to bring forward many facts in favour of its being primarily a disease of the nervous system, and my own belief is strongly set in this direction; for I accept the arguments in support of a basic arthritic diathesis, or potential state of certain nerve-centres, from which, under certain conditions, may be evolved either rheumatism or gout. But I none the less accept the associated humoral conditions, believing that these in themselves are, however, insufficient to explain all the phenomena of these states. I term these conditions, therefore, neuro-humoral. Let me ask you to discuss, as the outcome of this expression of my views, whether it is, or is not, probable that there is a peculiar basic or fundamental condition—a neurosis, if you will—which is capable of hereditary transmission or transformation, in the subjects of which may be set up at one time rheumatic, and at another choreic manifestations. This view will explain many cases of chorea, in which, even after skilful inquiry, no history of rheumatism, personal or family, can be obtained. The rheumatic evolution has not occurred; but the central motorial instability has given token of its presence in the form of chorea. The future life-history of some of these so-called non-rheumatic cases shows that rheumatic manifestations may supervene later, thus confirming the connection. If we accept this view, it is not difficult to conceive, further, that eccentric sources of irritation may excite chorea in subjects thus predisposed to motorial instability. Some light is also thrown by this theory on the value of arsenic in chorea. It is recognised as a most useful remedy in many cases of chronic rheumatism, promoting better nutrition and more stable condition of nerve-centres; and thus it counteracts the conditions on which these states mainly depend. Guided by this conception, you will not fail to understand the full value and importance of completing the inquiries already set forward on this subject by the Collective Investigation Committee of our Association, in whose behalf I appear before you on this occasion.

[1] Laycock held views much resembling these, and I imbibed them from his teaching. They have been elaborated and enlarged by others, notably and ably by Dr. T. J. Maclagan, and by Dr. Barlow.

THE TREATMENT OF INTUSSUSCEPTION.

Read before the Medical Society of London.

By FREDERICK TREVES, F.R.C.S.,
Surgeon to, and Lecturer on Anatomy at, the London Hospital.

In order to give precision to the data upon which the various modes of treatment adopted in intussusception are based, it is necessary to consider briefly certain points in connection with the anatomical and clinical forms of invagination, the morbid changes, the prospects of spontaneous cure, and the general mortality of the disease.

If all forms of intestinal obstruction—exclusive of those due to hernia and congenital malformation—be classed together, it will be found that the cases of intussusception will form 30 per cent. of the whole. The affection, therefore, may be considered to be a common one.

From an anatomical point of view, intussusceptions may be divided into four kinds—enteric, colic, ileo-cæcal, and ileo-colic. The relative frequency of these varieties may be represented respectively by the following proportions in every 100 cases of invagination—30, 18, 44, and 8. In the enteric form, the small intestine, and usually the lower jejunum, is alone involved, and the resulting tumours are generally small. In the colic, the colon is alone implicated, and most commonly that part to the left of the transverse colon. In the ileo-cæcal intussusception—the most frequent form of all—the terminal part of the ileum, carrying the ileo-cæcal valve at its apex, is turned into the cæcum; while, in the ileo-colic, the ileum is prolapsed through the valve, and following upon such prolapse is a secondary invagination of the cæcum into the colon. The colic form is, as a rule, chronic, while the remaining varieties usually assume an acute or subacute course.

From a clinical standpoint, intussusception may be separated into four classes: 1, the ultra-acute, in which death follows within twenty-four hours; 2, the acute, in which the disease runs its course in from two to seven days; 3, the subacute, in which the period is extended to between seven and thirty days; and, 4, the chronic, in which the duration of the malady has extended beyond thirty days. The first named variety is exceedingly rare, and would appear to be invariably fatal. Of the remaining varieties, out of every 100 cases, about 48 will be acute, 34 subacute, and 18 chronic.

Intussusception is most commonly met with in children; and, indeed, no fewer than 50 per cent. of all cases occur under the age of ten years. It is among the young also that the acute forms are especially met with, while chronic cases are most frequent between the ages of 20 and 40.

With regard to the principal pathological changes in invagination, it may be pointed out that they tend to lead to two grave conditions—to obstruction of the bowel, and to strangulation of all that part involved in the intussusception. These two conditions need not coexist;

one may be present without the other. Moreover, mere invagination does not of necessity lead to either condition, as is shown in the earlier stages of some cases of chronic intussusception, where for weeks it may be said that there is neither gross obstruction of the bowel, nor strangulation of the intussusception.

The strangulation, when it exists, depends primarily upon compression of the mesenteric or mesocolic vessels, and, secondarily, upon the constriction offered by the neck of the intussusception, a constriction that becomes potent as the intussusception becomes more and more swollen and engorged.

Among the principal causes of obstruction of the bowel in these cases, the following may be mentioned. 1. The orifice of the intussusception—as representing the lumen of the bowel—is rendered slit-like and narrow by the dragging of the mesentery, and is, moreover, frequently opposed to the wall of the intussuscepting part. 2. The inner and middle cylinders are much bent upon themselves, especially in cases where the small intestine is involved. 3. These cylinders may become enormously thickened by congestion and inflammation. 4. The lumen of the bowel may be plugged by coagulated blood or by ingesta. 5. There may be a polyp at the apex of the intussusception.

The two circumstances, however, in the pathology of intussusception that bear most directly upon the question of treatment, are those having reference to the conducibility of the invagination, and the conditions that lead to spontaneous cure. It is evident that, as soon as the intussusception has become irreducible, all treatment by means of forcible enemata and insufflation ceases to have effect; and that, even if laparotomy be performed, it may prove futile without further operative procedure. The term irreducible must be accepted in a relative sense. There are intussusceptions that can be reduced after the expenditure of considerable and undesirable force. There are others that are absolutely irreducible. From a practical point of view, however, the two classes of case must be placed together.

The chief causes of irreducibility in an invagination are the following. 1. Adhesions form about the neck, or over the whole or part of the opposed serous surfaces of the inner and middle cylinders. So far as I know, the existence of these adhesions is not to be certainly diagnosed. They may be absent in invaginations that have lasted for weeks, and present in others within three days of the onset of the malady. They are met with in about 80 per cent. of the cases of chronic intussusception, and in about 45 per cent. of such cases as are acute. It will be unnecessary to point out that quite recent adhesions are too soft to offer much resistance to attempts at reduction. 2. The intussusception becomes greatly swollen. The swelling is met with principally in two places—at the apex of the intussusception, and along its convex side. Such swelling may offer an absolute bar to all attempts at reduction, even when no adhesions exist. It is the chief cause of irreducibility in acute cases. 3. The inner and middle cylinders may become acutely bent upon themselves, or much twisted or contorted. 4. In the ileo-colic form, the valve offers a serious obstacle to reduction; and, in cases where a polyp has led to an invagination, the tumour may form a bar to the restoration of the parts to their normal condition.

The next matter concerns the question of spontaneous cure in intussusception. The question is one of considerable interest, and one that has conspicuously influenced the whole subject of the treatment of this affection. It is well known that, in any cases of invagination—excepting those that are ultra acute and some that are following a persistingly chronic course—spontaneous cure may follow the elimination of the gangrenous intussusception. Such cure has taken place in cases marked with symptoms of the gravest character, in cases where the patient has been lying *in extremis*, and in a condition that has been considered to forbid any operative interference. Indeed, it may be said that, within certain limits, no case may be regarded as so desperate as to be beyond all hope of relief by spontaneous elimination.

Patients thus relieved have made excellent recoveries, and have apparently suffered no inconvenience, even in cases where several feet of intestine have been lost.

It has been stated that patients who have recovered after the elimination of a portion of gangrenous bowel, are liable to a stricture of the intestine about the line of separation. An extended examination of the literature of intestinal obstruction, and of a large series of museum specimens, shows, however, that this possible sequela must not only be regarded as uncommon, but as quite rare.

It remains now to consider what are the precise prospects of spontaneous cure that may be held out to a patient in any given case.

Spontaneous elimination takes place in about 42 per cent. of all cases of intussusception. It must not, however, be for a moment assumed that all cases of spontaneous elimination are followed by recovery. With the mortality that attends such elimination, I shall deal subsequently.

Spontaneous elimination is greatly influenced by the site of the invagination. In the ileo-cæcal forms, it occurs in about 20 per cent. of the cases; in the colic form, in 28 per cent.; and, in the enteric variety, in 61 per cent. It will thus be seen that the charge is most unfrequent in the commonest form of intussusception.

It is much influenced also by the patient's age, as the following table, drawn up by Leichtenstern, well shows.

In patients under 2 years of age, it occurred in					2	per cent.	of the cases.
Between the	2nd	and the	5th	year	6	,,	,,
,,	6th	,,	10th	,,	38	,,	,,
,,	11th	,,	40th	,,	40	,,	,,
,,	41st	,,	60th	,,	44	,,	,,
Above the age of 60 years				,,	46	,,	,,

Here again it will be seen that spontaneous elimination is most rare in the patients among whom intussusception is most common.

As to the period of time, in the course of the malady, at which it occurs, it has been observed at the end of the third and fourth days of the disease on the one hand, and as late as the sixth or seventh month on the other. The great bulk of the cases fall between the tenth and the thirtieth days of the affection.

Now, in over 40 per cent. of the subjects of spontaneous elimination, death follows from effects directly connected with the original lesion, or with the process of elimination. In some, the gangrene has led to rupture or perforation, or to an ulcer about the line of separation that has subsequently perforated. Others have succumbed to hæmorrhage or to diarrhœa, or the gangrenous mass has blocked the intestine, or a portion of the intussusception left behind has led to a new and fatal invagination.

The mortality is much influenced by age, as the following table shows. In cases between the ages of 11 to 20 years, death, after spontaneous elimination, occurs in 28 per cent. of the cases. Between 21 and 40 years, it rises to 32 per cent., and between 41 and 50 to 36 per cent. In patients between 51 and 60, the mortality is no less than 50 per cent., while, in those over 60, it is 85 per cent. Thus the mortality is higher relatively at the very ages when spontaneous elimination is most common.

Spontaneous elimination, therefore, holds out somewhat delusive hopes, and affords but the feeblest support to the expectant treatment. If 100 cases of invagination be taken in children under 11 years of age, it may be safely reckoned that not more than twelve out of that number will be the subjects of spontaneous cure. Yet no fewer than 50 per cent. of all forms of invagination occur in patients of this age.

Before leaving the subject of spontaneous cure, it may be noted that there is much evidence to support the belief that some intussusceptions, of short standing and of moderate degree, may reduce themselves, especially when the patient is under the influence of opium. The data, however, that are available in connection with this subject are not yet of a character to definitely effect any schemes for treatment.

The general mortality of intussusception is no less than 70 per cent. It is highest in the young; and in infants under one year the disease is exceedingly fatal. In over 60 per cent. of all fatal cases, death occurs before the seventh day.

From these facts, I think that the following axiom may be deduced: the treatment of intussusception should be prompt and active, and no reliance is to be placed upon expectant measures. In dealing with the detailed treatment of intussusception, it will be most convenient to limit the matter to the treatment of the acute and subacute forms.

I think that, as the very first element in the treatment, opium should be given. It has been shown that intussusception depends upon disordered peristaltic movements in a limited segment of the bowel. This may be considered to have been proved by the remarkable experiments of Nothnagel for producing artificial invaginations in animals. Certain, at least, is it that the intussusception increases by the sole aid of the muscular movement in the bowel. Opium stills all peristaltic movements, and places the bowel in a condition of physiological rest. When a patient is under the influence of the drug, the intussusception cannot well increase in size, although the process of strangulation may still progress. The pain, moreover, is checked, the symptoms of shock are relieved, the pulse improves, the temperature rises, and the vomiting becomes less frequent and less distressing. There is, as I have already said, little doubt but that certain cases of intussusception have yielded to the early and vigorous use of opium, although, in such instances, but slight changes can have taken place in the intussusception. By the administration of the drug, moreover, the patient is placed in the most favourable possible position for the employment of further treatment. If attempts be

made to reduce the invagination by enemata, the injections will be brought to bear upon a bowel whose walls are inert and not responsive to irritation. The enemata then excite no undue peristaltic movement, but can act with their full force upon the invaginated parts. Or, if, again, laparotomy be performed, the intestines will be found to be quiet and still, and not in a state of turbulent unrest. The drug must be given with caution, and its effects closely watched. It must not be forgotten that opium may mask the principal symptoms, and may bring about so great a relief that the surgeon may be misled into believing that a permanent cure has followed.

With regard to the question of feeding, no nourishment should be given by the mouth in acute cases. At the most, the patient may have a little ice to suck. In acute cases, the question of feeding does not really arise. If any treatment be adopted at all, it must be adopted early, and, before the question arises of keeping the patient alive with food, he will be either convalescent and well able to take nourishment, or on his way to death and beyond hope. Much harm is done by pressing food upon the patient in acute cases. The food is rejected almost as soon as it is swallowed. If retained in the stomach, it will not be digested; and if it pass into the bowel, it will merely excite peristaltic action. It can do no possible good; it may do much harm. If much thirst be complained of, it can be relieved by enemata of pure water; and in certain exceptional cases nutriment may be given by the rectum. In subacute cases, when the vomiting is not marked, small quantities of food must be administered by the mouth or by the rectum. In chronic cases, the feeding of the patient is one of the most important elements in the treatment.

The next element in the treatment consists in attempting to reduce the invagination by enemata. In acute cases, this measure should be adopted as soon as the patient is under the influence of opium. In a really acute case, no benefit can be expected to attend the use of enemata after—as an extreme period—the second day. Forcible enemata given at a later stage, in acute cases, have led to rupture of the bowel; and even when such an accident has not occurred, they have appeared to do little but harm. In subacute cases, successful reduction by injection has followed at almost any period of the disease, even after ten, fourteen, or twenty days have elapsed. With every day that passes, however, the chances of such reduction very rapidly diminish. In this treatment, some use enemata of water, and others insufflation of air. The former means is certainly to be preferred. In infants, and quite young children, the enema should be administered while the patient is under the influence of chloroform. In older subjects, no anæsthetic is required, and the patient's sensations are of the greatest value in estimating the amount of force to be employed. In any instance, opium should have been previously administered. Pure water should be used at a temperature of 99. Cold water merely excites peristaltic movement. The injection should be effected slowly, either by means of a siphon apparatus, or the very excellent instrument for air inflation, introduced by Mr. Lund. By means of the elastic pad and handle of the last named instrument, all escape of fluid from the anus can be well prevented.

No rules can be given to determine the amount of force to be employed. The more recent the case, the more considerable may it be. In subacute cases, the degree of pressure employed should be at least moderate. In any case, the injection should be retained for at least fifteen minutes. The best positions in which to administer the enema are the knee and head, knee and elbow, or lateral abdominal. It is difficult to understand how inversion of the patient can be of the least assistance in applying this treatment. For an inflation, there is no instrument so admirable as that introduced by Mr. Lund.

Enemata of carbonic acid in these cases are, I think, to be decidedly condemned. A considerable degree of success has attended the treatment by enemata and air-insufflation; and it is probable that the results would be still more fortunate if more careful discrimination were exercised in the selection of cases suitable for these methods. In not a few instances, the invagination has been reduced, with the exception of the part about the neck. Some relief has followed for a while such partial reductions; but it has been temporary, and the disease has progressed, after an interval, with its original force. As the result of this treatment is best to be estimated by a repeated examination of the invagination-tumour, it may be observed that such a tumour is to be discovered either through the abdominal parietes or the rectum in nearly 50 per cent. of all the cases. It is most common in the ileo-cæcal and the colic forms; most rare in the ileo-colic and enteric. It is usually more distinct in children than in adults.

Failing reduction by these means, I would urge that, in acute and subacute cases, laparotomy should be performed without delay. It is the delay, and not the operation, that is so serious in these cases. As well might a surgeon hesitate to perform kelotomy in a case of strangulated hernia after all attempts at taxis have failed. Laparotomy is regarded as a last resort in these cases, whereas it should be looked upon as almost the first resort. There is no middle course open. Of certain other modes of treatment, such as that by massage, electricity, the use of metallic mercury in large doses, it can only be said that they waste precious time, and are merely useless when not harmful. Their employment is in opposition to the chief teachings to be derived from a study of the pathology of the disease. Modern surgery has shown that the opening of the abdomen is by no means a serious undertaking; and in discussing laparotomy in these cases, there is this operation on the one hand, and a disease with a mortality of 70 per cent. on the other. I have already pointed out how slender are the prospects of spontaneous cure. Still more slender are the prospects of the acute or the subacute disease becoming chronic. It is only in a very small percentage of cases that this change from acute to chronic disease has been noticed; and it must, moreover, be remembered that the mortality of chronic intussusception is exceedingly high. Among 59 examples of the chronic disease collected by Rafinesque, there were no fewer than 51 deaths. It is true that the present mortality after laparotomy in intussusception is very high; but it can be shown distinctly that this is due to the delay in the operation, to the custom of regarding it as a last and desperate resource. A like high mortality would attend ovariotomy if that proceeding were, as a rule, postponed until peritonitis had set in, or until the cyst had become gangrenous, or had ruptured.

When it is remembered that, of those who die of intussusception, no fewer than 80 per cent. die before the seventh day, it will be obvious that the surgeon is dealing with a disease that will not brook much delay.

I would urge that, in really acute cases, the operation should be performed within the first forty-eight hours, and, if possible, within the first twenty-four hours, when the patient is an infant or a very young child. The frightful mortality of the disease among such patients would sanction almost any operation.

The procedure, when undertaken, should be carried out with strict antiseptic precautions. In all but exceptional cases, the incision is most conveniently made in the middle line below the umbilicus. The whole area of the abdomen can be well explored through such an incision, and any form of invagination dealt with. If the incision be made over a tumour at any other part than the middle line, the surgeon is rendering himself dependent upon a very precise diagnosis, and in cases of extensive invagination may find his manipulations much hampered by the position of the wound. The intussuscepted mass should be, as far as possible, exposed in the wound, and attempts at reduction made in cases where the state of the gut would encourage such attempts. Reduction of the invagination is best effected by dragging upon the entering bowel with one hand, while the intestine about the lower end of the intussusception is gently squeezed with the other. If the bowel be found to be in a viable condition after reduction, the coil may be replaced in the abdomen, and the parietal wound closed. I am strongly of opinion that a drain should be introduced into the abdominal cavity when any evidences of more than limited peritoneal inflammation exist. The principal feature of the after-treatment should be the maintaining of perfect rest in the bowel—an end effected by the administration of opium, and by feeding the patient, as far as possible, by the rectum only.

The general mortality of laparotomy in intussusception is 72.7 per cent., as estimated from 33 recorded cases. In the instances, however, where the reduction was easy, the death-rate was only 30 per cent.; while, in the cases where it was difficult or impossible, the mortality was 91.3 per cent.

It is difficult to too strongly condemn violent and long-continued attempts at reduction in these cases; and it is needless to criticise certain cases in which a portion of gangrenous bowel has been allowed to remain in the abdomen after the operation. Should the reduction of the invagination be difficult or impossible, or should the bowel be severely damaged, or in a state of partial or complete gangrene, the whole of the involved parts should be at once resected. The involved segment should be drawn out of the wound, and placed upon a flat sponge, so that any escaped matters may be absorbed. The opening into the abdomen also, all around the involved loop, should be plugged with sponges, to prevent the entrance of fæcal matter into the peritoneal cavity. The intestine, above and below the part to be resected, should then be secured by one of the many clamps invented for the purpose. The diseased bowel should now be excised, together with a triangular piece of the mesentery, the base of the triangle corresponding to the portion of bowel to be removed. The mesenteric arteries will need to be secured. The edges of the gap in the mesentery should then be approximated by means of many points of minute suture;

and, finally, the divided ends of the bowel should be secured to the margins of the abdominal wound, and an artificial anus established. This artificial anus can, at a future time, be closed by the now familiar resection operation, and the loop, so united, returned into the abdomen. The practice of uniting the divided ends of the bowel, immediately after the resection, is, for many very pressing reasons, to be condemned.

It may be well to point out that neither enterotomy nor colotomy can lay claim to be of value in the treatment of non-exceptional cases of intussusception. These operations certainly relieve the obstruction; but they leave in the abdomen an invaginated intestine, in which the process of inflammation and gangrene can still advance.

The operation of resection has now had an extended trial. Reichel, in a recent paper, collected one hundred and twenty-one cases in which the procedure was carried out. The technical details of the operation have been elaborated, and this method of treatment bids fair to play an important part in the future of abdominal surgery.

THE MANAGEMENT OF THE THIRD STAGE OF LABOUR.

Read in the Section of Obstetric Medicine at the Fifty-Second Annual Meeting of the British Medical Association.

BY WM. J. SMYLY, M.D.,
Gynæcologist to the City of Dublin Hospital, etc.

THE third stage of labour is the period between the birth of the child and the exclusion of the after-birth; including in the latter term the placenta, funis, and membranes. I have been asked to open, or rather to re-open, the discussion of this subject, which, though apparently simple, has always been an obstetric battlefield.

The subject is one of the greatest importance both as regards the mother and her child, and it cannot be doubted by any one who has seen much midwifery practice, or who has read the cases published in the medical periodicals, that, even at the present time, numbers of lives are lost through mismanagement of this stage of labour.

The subject divides itself into two parts; first, as regards the mother; and secondly, as regards the child. I shall confine myself to the former of these, namely, What is the best method of conducting the third stage of labour so as to insure the safety of the mother? And here I would state, as the great fundamental truth, the aphorism of Professor Credé, that, "the uterus itself should expel the afterbirth, and the sooner it does it, after the expulsion of the fœtus, the better. If it do not do so it must be made to, otherwise it may be too late, and the dangers of retained placenta come into force." If this be true, and I cannot imagine any grounds for thinking that it is not so, it altogether eliminates such practices as pulling upon the cord; attempting to express the placenta from a relaxed uterus; "the imitation of the pains when absent," as recommended in one of our most popular text-books; or the introduction of the hand into the uterus, unless in cases of absolute necessity. Of all these methods, perhaps the most disastrous is that of pulling on the cord, resulting, as it has done, in its avulsion, entire or partial, with retention of the placenta and membranes; irregular and inefficient contraction; and partial or complete inversion of the uterus, and violent hæmorrhage. All these dangers have been so frequently dwelt upon, that one might have hoped that by this time the practice would have been entirely abandoned; but this does not appear to be the case, and amongst a series of communications on the subject of hour-glass contraction of the uterus, which appeared this year in the BRITISH MEDICAL JOURNAL, is one by a gentleman who not only admits having pulled upon the cord, but adds that "anyone else would have done the same." Neither does it seem to have occurred to him that the anomaly which he describes was the result of his own mismanagement. Such practice destroys the natural mechanism of placental delivery, and is almost invariably followed by considerable loss of blood.

If, then, the uterus is the proper agent, not only for the completion of the birth, but also for the extrusion of the after-birth, why not regard the third stage as a physiological process, and, just as in the other two, observe, unless in case of absolute necessity, a purely expectant attitude? This inactive method has been adopted in some of the Continental hospitals, and has been advocated by Drs. Ahlfeld, Teuffel, and Kabierske, the last of whom has set forth the following propositions. 1. "The natural powers of normal labour are sufficient for the perfect separation of the after-birth, and the completion of the placental stage, and do so much better and more completely without artificial aid than with it. 2. The expectant treatment of the placental stage is free from danger."

The first of these propositions is true, and is borne out by statistics. The method adopted in the Strasbourg clinic was, in normal cases, expectant: the state of the uterine contraction being from time to time observed, as well as the amount of discharge; and the bladder and rectum were carefully attended to. Thus hours were often allowed to pass, without any attempt to remove the placenta, even though lying in the vagina. Out of 100 cases treated thus, the placenta was expelled in 69 within three hours. This is more rapid than the observations of others would have led us to expect, and was probably, in some measure, due to the action of the bladder and rectum; for it was usually during an effort to relieve either of these viscera that the placenta was expelled. The old wives' plan of giving the woman a pinch of snuff would be equally efficacious and more agreeable.

By this method it is alleged—and this is the strongest point in its favour—that the membranes, and especially the decidua, are much more completey separated than by a more active one. Instead of being expelled as a thin, and in many places imperfect, membrane, the decidua was found to be by far the thickest portion of the coverings of the ovum. Thus the expectant plan appears to be followed by a better separation of the decidua; but, on the other hand, it is liable to be attended by violent hæmorrhages, which not only immediately imperil the patient's life, but subsequently tend to relaxation of the uterus, permitting the formation of clots within its cavity, which by decomposition might occasion putrid infection. Even Kabierske himself admits that the average amount of blood lost in his cases was greater than that recorded by others; and, though he makes light of this circumstance, there is good reason to believe that it was often sufficient to occasion alarm. It also permits irregular contraction of the uterus, and incarceration of the placenta, necessitating more frequent introduction of the hand, and thus increasing the liability to septic inoculation. Besides, the long delay is not only irksome to all concerned, but is calculated to excite and alarm the patient and her friends. The second proposition, "that the expectant treatment is free from danger," must therefore be rejected as not borne out by facts.

The relative results of the expectant and a more active methods of treating the placental stage are clearly shown by the following statistics by Dr. Weir of Copenhagen.

Cases treated.	Expectantly.	Expression.
Post partum hæmorrhage	5.78 per cent.	2.3 per cent.
Manual removal of placenta	1.33 ,,	0.64 ,,
Retention of membranes	1.78 ,,	2.3 ,,
Secondary hæmorrhage	0.77 ,,	0.32 ,,

From these statistics, it appears that the only advantage of the expectant method is that retention of the membranes is less frequent; but, in spite of this, and contrary to what might have been expected, secondary hæmorrhage is more so.

The results of the expectant method should teach us to keep a constant control over the uterus, by holding it with the hand, and never allowing it to relax. This is the method which has been practised in the Dublin Lying-in Hospital for upwards of a century, and is similar to that introduced into Germany by Professor Credé. A good deal of controversy has arisen as to whether these two methods, namely, the Dublin method and Credé's, are the same or different. I shall, therefore, describe them separately, and afterwards compare them with each other.

The Dublin method has been followed in the Rotunda Hospital certainly since the mastership of Dr. Clarke in 1789. It was described by Dr. Dease, of Dublin, in 1783, and by Drs. Hardy and McClintock, in 1848. I shall quote their description (*Practical Observations on Midwifery*, p. 221).

"Having placed the hand on the fundus uteri, friction and slight pressure are to be made, and, if the amount of contraction thereby induced be not sufficient to repress the hæmorrhage, it will be necessary to expel the placenta from the cavity of the uterus. In doing this, the organ must be grasped firmly, and pressure exerted upon it in the axis of the brim of the pelvis. If the uterus have fallen to the left side, as not uncommonly happens, it must be raised into its natural position, before commencing to exert compression upon it. It will also tend much to the success of the manipulation, if it be performed during the presence of uterine action. Indeed, we have sometimes been surprised at the ease with which the placenta was pressed off during a contraction of the uterus, while previously it had withstood our best directed efforts. These measures we have seldom found to fail in getting away the placenta, unless it be morbidly adherent."

In 1853 Professor Credé first published an account of his method.

Quite unacquainted with the Dublin practice, he was led to the discovery in the following way. Being frequently called to cases of retained placenta attended with hæmorrhage, he found that examining the uterus externally was often sufficient to excite so violent a contraction as to expel the placenta even outside the vulva.

So gratified was he by this unexpectedly favourable result, that he adopted a similar treatment in every case, with marked success. He recommends that, as soon as possible after the birth of the fœtus, the hand should be placed over the region of the uterus, making, at first, gentle stroking movements, until it is felt as it commences to contract beneath the fingers; then, as the contraction reaches its acme, the organ is grasped in one or both hands, the fingers being spread out over it; thus its walls are squeezed together, and pressure is made towards the coccyx.

The chief point is, to seize the exact moment when the contraction is at its height. By this method, in a favourable case, the afterbirth can be expelled by a practised hand, with the first or second afterpain. As a rule, however, it follows with the third or fourth, that is, in about five minutes. If it do not come, he waits for more pains, and acts in a similar manner with each; it seldom requires more than fifteen minutes. He specially cautions against impatience or violence in manipulation.

Each of these methods has some distinct advantages. By following its contraction, the intestines are prevented from falling down in front of the uterus, and thus pressure can be made more directly upon it. By never allowing it to relax, irregular contraction and hæmorrhage are avoided, so far as is possible. Professor Spiegelberg lays great stress on the importance of this practice. "It is not," he says, "identical with Credé's method. Whilst in the latter the hand is placed upon the uterus after the birth of the child, and by powerful irritation excites it to contraction; I lay the chief stress, after the example of the Dublin Lying-in Hospital, upon the immediate general contraction of the uterus, whilst through this the separation of the placenta is brought about; and this, not the expression, is the chief point. Thus from the birth of the head, by following the uterus, and by mechanically exciting it, I make the contraction, which necessarily accompanies the expulsion of the fœtus, both energetic and continuous. Thus I often obtain rapid separation of the placenta, and prevent irregular contraction of the uterus. In Credé's method, irregular contraction may set in, unobserved, between the birth of the child and the commencement of the process; whilst by the above method this is impossible." The importance of this point is also illustrated by two cases published by Dr. Garrigues, in which violent, and in one case fatal hæmorrhage occurred, before Credé's method could be practised (*Amer. Jour. of Obstet.*, May, 1884).

In Credé's method, friction and pressure are more actively and systematically carried out than in the Dublin method, and so the expulsion of the placenta is hurried; but the liability to retention of the membranes is increased. The importance of this latter complication is at present, however, uncertain. The expulsion of the placenta from the vagina by pressure alone, without introducing the fingers into the vagina, is a decided improvement, and is the natural outcome of antiseptic teaching. That it was not appreciated by Irish obstetricians, more than one hundred years ago, is not to be wondered at, yet Dr. Garrigues has seized upon this one point to disparage altogether what he contemptuously designates the "so-called Dublin method." It is much more surprising that he should himself, according to his own confession, have practised until eight years ago "the old way of pulling on the cord."

My own belief is that a mixed method, combining the advantages of the Dublin with those of Credé's method, is the best possible. The following are the most important points to attend to. Follow the contracting uterus, as it expels the child, and by pressure and friction make this contraction energetic and permanent. Never let it go, unless compelled to do so; and then always provide a substitute, the nurse, a friend, or even the patient herself. It is wrong to resign such an important function, simply to tie and divide the navel string. During a contraction, press the uterine walls together, and the entire organ towards the coccyx. When sudden flattening of the uterus shows that the placenta has been expelled from it, then by strong pressure downwards drive it out of the vagina. The placenta should not be shot out upon the bed or into a vessel held against the buttocks, since the membranes are thereby liable to be torn across, but it should be received in the hand at the vulva, and rotated so as to twist the membranes into a firm cord which is easily withdrawn, without, as a rule, leaving any portions behind. Should this accident, however, occur, I think it is less dangerous to leave them than to introduce the hand for their removal; but should they prove a cause of hæmorrhage they must be taken away.

Finally, I quite agree with Dohrn, Runge, and others, that beneficial as is the active method when properly employed, just so injurious is it when unskilfully carried out. The hasty and violent expression of the placenta from an imperfectly contracted or relaxed uterus is a frequent cause of retention of the membranes and portions of placenta, as well as of violent hæmorrhage and fever.

Mr. OLPHERTS (Downpatrick), having been educated in the Dublin School of Medicine, had imbibed the theories which had been enunciated by Dr. Smyly; and the longer he continued to practise, the more was he satisfied with the practical benefits of the Dublin plan of treatment of the third stage of labour. As a medical officer of a large country district, he must also take into consideration the utter impracticability of the expectant treatment where much of the practice was at a considerable distance from the residences of medical men. They could not wait for long periods, nor could they with safety leave their patients in charge of midwives. There was also the risk of injury to the mother, liable to ensue from prolonged anxiety.

Dr. ABRAHAM KIDD (Ballymena) considered that one hour would be too long to wait for the expulsion of the placenta. After thirty minutes, he would resort to measures for its removal, believing that, in case of irregular contraction or morbid adhesion, a longer delay would increase the difficulty of introducing the hand.

Dr. MULLAN (Ballymena) agreed with all that Dr. Smyly had said, but one point was not clearly brought out: the need of giving the uterus rest after it had expelled the child. The uterus was a muscle, and, like all muscles, became more or less exhausted by effort. After a few minutes' rest, the uterus would expel the placenta, when otherwise it could not do so. The rules recommended by Dr. Smyly deserved attention.

Dr. WALTER (Manchester) said that there was one very important item in the treatment of the third stage of labour which had not been alluded to by the previous speakers, namely, the advantage to be obtained by placing the patient on her back as soon as the second stage of labour was completed. In this position, any clots that had formed could more easily escape, whilst the attendant had more perfect control over the uterus. If slight frictions and gentle pressure over the fundus were insufficient to excite uterine contractions, the organ would be more firmly grasped, one hand being placed against the anterior wall, and the other against the posterior. By this means, both walls of the uterus would be pressed together; if downward pressure of the uterus were needed, it could be resorted to at the same time, and much more efficiently than if the patient had continued to lie on her side.

Dr. MURPHY (Sunderland) said that the management of the third stage of labour was of very much greater importance than was generally imagined. He agreed with what Dr. Playfair stated in his valuable book, that the man who was continuously meeting with cases of *post partum* hæmorrhage did not know his work. It was a lamentable fact that, as Dr. Smyly had stated, some practitioners still attempted to remove the placenta by traction on the cord, though Dr. Matthews Duncan pointed out long ago that, instead of the placenta doubling up and emerging from the os, the centre protruding first, the placenta folded upon itself and emerged edgeways. In his own practice, he always gave a full dose of ergot a quarter of an hour before he expected the birth of the fœtus. He then held the uterus with his hand, following it well down, and kept up gentle but firm pressure till the placenta came away. To do this he got the nurse to tie the cord, and to cut it, and if he found the uterus not contracting, he applied a little friction; if he found the uterus hardening, he got his hand well on the top of and behind the uterus, and firmly squeezed out the placenta. The result was that he seldom saw more than a few drops of blood.

Mr. T. M. WATT (Hovingham) stated that his experience of the expectant treatment had been confined to cases where he arrived after completion of the second stage, and that his experience of *post partum* hæmorrhage was limited to these same cases. He thought it the imperative duty of the medical attendant, following down the uterus during the expulsion of the fœtus, to retain it there, keeping the uterus under his personal control until expulsion of the secundines and permanent uterine contraction had taken place; as, in many instances, where he had entrusted to women, however experienced, the duty of keeping up manual pressure after the birth of the child, he had found, on resuming his post, the uterus enlarged by less or more internal hæmorrhage.

Dr. THOMAS ELLIOTT (Tunbridge Wells), was much struck by the entire omission from Dr. Smyly's paper of one most important point; namely, to be perfectly sure that the placenta was entirely separated before making any attempts at expulsion, whether by expression, traction on the cord, or any other method. The evidence of separation

of the placenta was the pulseless and flabby state of the cord. When this was obtained, then each case could be treated on its own merits; if there were hæmorrhage, more or less active interference was required. If there were no hæmorrhage there really was no need for active interference, and simple means, such as gentle friction or expression, would often cause the placenta to come away.

Mr. WADDELL (Newry), related a case which had occurred in his practice, in 1866. He was called to a woman in the sixth month of pregnancy, and found her in labour. She was delivered of a dead fœtus, the placenta of which, after it had become detached, he removed. At the same time he felt the movements of another child. This was retained, and the woman was delivered of a healthy boy at full term, three months afterwards. He believed that if he had been in too great a hurry to remove the first placenta and had employed the usual means for doing so, the second child would have been lost.

The PRESIDENT (Dr. Godson), considered that very different ideas were entertained as to the meaning of the terms "Expression of the placenta," and "Expectant method." He could not over-estimate the importance of placing the hand on the uterus immediately after the birth of the child, and keeping it there, if possible, until the separation of the placenta. Gentle kneading of the uterus to excite contractions was one thing, and forcing out the placenta, which invariably turned the membranes inside out, with a great tendency to leave some portions behind, was another. Such a plan was objectionable, and should only be had recourse to in cases of hæmorrhage or continued inertia, which the administration of ergot of rye and beef-tea, and, perhaps, a small quantity of stimulant, would not overcome. Compression of the uterus, *after the removal of the placenta*, to expel clots, was of great use; but, if the uterus could be coaxed to expel the placenta itself—a fair amount of patience being exercised—it was far better than forcibly expressing it.

THE TREATMENT OF LUPUS.

Read in the Section of Medicine at the Fifty-Second Annual Meeting of the British Medical Association.

BY J. HERBERT STOWERS, M.D.,
Physician to Department for Skin Diseases, North-West London Hospital.

IN accordance with the excellent rule of our Association, that communications read at the sectional meetings should be both as concise and brief as possible, I do not desire to discuss at this time the whole subject of the treatment of lupus. So numerous, and indeed various, have been the suggestions in the past, that, until comparatively recently, the experience of dermatologists has not been sufficiently complete to decide whether greater advantages are to be obtained from the use of caustics, or other methods.

My own opportunity of dealing with the disease has been considerable enough to allow me to form some judgment as to the relative merits of most of them; and it is on account of the fact that I have observed more satisfactory results by far from the combined use of the scoop and nitrate of silver, that I have resolved to ask your special consideration of the method of treating lupus by erasion or scraping.

I purposely refrain saying anything here concerning internal remedies, so necessary as they are to correct the general failure in health, or predisposition to the local development, neither can I stay to review the local treatments in their entirety.

The process of erasion advocated by Volkmann is carried out by means of a small hollow and elongated spoon, or scoop, with a moderately sharp edge, set in an ivory or bone handle. The special advantage is, that when the scoop is applied with considerable force, all the diseased tissue, or cell-growth, which is exceedingly vascular and friable, immediately breaks down, and is removed, while the healthy surrounding structures of the skin are too dense and fibrous to be included in the operation.

Those who have had experience of this method, will concur as to the remarkable way the soft, spongy, boggy tissue yields to the scoop, and how much more certainly can the extent and depth of the disease in this manner be estimated. All the cases I have treated thus have been of long duration, and the new growth in each has existed over an extensive area.

The operation should not be undertaken except with the aid of an anæsthetic, for much of its after success depends upon the complete removal of every tubercle, and, consequently, occupies a considerable period of time. With so vascular a structure also, much hæmorrhage results which should be entirely arrested before the solid nitrate of silver is used. I repeat—for it cannot be too carefully noted—that thorough eradication of the abnormal growth must be secured before the scoop is laid aside. In several instances I have operated upon large masses of disease situated over the great vessels of the neck, and, despite the force required, I can truly assert that, with even moderate care, no danger occurs of wounding them.

When the process of scraping is completed, and the hæmorrhage arrested (local depletion being, doubtless, an aid to results), the serous discharge escaping from the wounds should be carefully soaked up with clean blotting-paper. Attention to this latter point will obviate the risk of the dissolved caustic running over the surrounding healthy integument, and so adding needlessly to the suffering of the patient.

It is necessary that the nitrate should be pushed deeply into the holes and interstices left by the instrument; in fact, it should be made to burrow into the tissues quite as extensively and deeply.

Considerable inflammation of course follows, which assists ultimate absorption; but the intensity of the pain does not last nearly so long as that attending the use of other caustics.

The parts should be dressed with lint well saturated with carbolised oil, the next day more oil being allowed to run under the dressing. The second day after the operation, when suppuration has commenced, fresh carbolised oil-dressings should be applied, and so on daily. So severe is the smarting if water be used, that it is preferable, until the discharge is considerable, to cleanse the part by gently rubbing with lint dipped in olive-oil, to which a drop or two of carbolic acid may be added. Later, when the sloughs are separating, a weak carbolic acid lotion is advisable for the same purpose, and may with advantage be used with a syringe.

In the cases under my care, which have been, so far, attended with permanently good results, it was necessary to repeat the operation at intervals varying from six to eighteen months; indeed, in some, several repetitions have been compulsory. But I contend, and that very strongly, that, if every new tubercle be immediately attacked, the instances will be few and far between, if any, in which, with the addition of appropriate internal and constitutional treatment, the tendency to new development will not be outmatched.

The destructive results of this rebellious affection are too well known to require a word more in this direction; suffice it to say that in five cases, at least, I have secured noses marked now with a relatively limited scarring, which would otherwise (if left without local treatment) have broken down by extending disease and secondary ulceration, to the production of irremediable and hideous deformities.

The natural tendency to recur must never be accepted as sufficient reason for not contending again and again with the disease until that age or condition of health be reached which will secure lasting and permanent immunity.

I would recommend, not less strongly, that any neighbouring tissue, while suspicious in character, though not readily breaking down under the scoop, should be freely submitted to multiple punctiform or linear scarification, combined with a liberal use of the solid nitrate of silver.

Three cases alone, taken from my note-book, will suffice to illustrate practically the value of the above treatment, and with these I conclude.

CASE I.—Emily D., aged 20 in July 1883. Extensive lupus of nose. Residing at Chislehurst. Duration eight years. Four operations under ether: one in 1881; two in 1882; one in 1883 (February). No return up to present date. Cicatrices well formed, and healthy.

CASE II.—Anne K., aged 27 in 1877. Residing in Bedfordshire. Extensive lupus of cheek. Duration twenty years. Two operations under ether: one in January 1881; one in 1882. No return up to present date. Parts look quite healthy.

CASE III.—Elizabeth C., aged 19 in 1880. Lupus of nose. Duration nine years. Three operations during 1880 and 1881. Perfect scar-tissue now remaining. No evidence of disease returning.

BICARBONATE OF SODA IN TONSILLITIS.—In the early stages of tonsillitis, before the pain of swallowing is excessive, Dr. G. Partagas alleges that bicarbonate of soda will arrest the inflammation. He makes the application in the following manner. The index finger being moistened, is charged with as thick a layer of the powder as will adhere to it, and is then introduced into the mouth and rubbed thoroughly over the inflamed tonsil. Five or six applications are thus made at intervals of five minutes. At the end of this time, Dr. Partagas has found that the patient will find the act of swallowing nearly painless. When thus employed in the early stages, bicarbonate of soda will cut short the disease, and later will promote resolution. In hypertrophy of the tonsils, two or three applications of the powder each day will reduce the size of the glands very considerably in one or two months.

ON SOME POINTS IN THE MECHANISM OF FRACTURES OF THE CLAVICLE.

By JOHN H. PACKARD, M.D.,
Surgeon to the Pennsylvania Hospital, and to St. Joseph's Hospital, Philadelphia.

In the number of the British Medical Journal for July 19th, there was a communication from Mr. Lush in regard to a case observed by him of fracture of the clavicle by the recoil of a gun; and another is reported by Mr. Prothero in the number of August 9th. In both instances, the fractures were of the simple variety, and united without difficulty.

The mere fact of these cases being placed upon record, would seem to indicate that they were thought by the reporters to be unusual. Yet accidents of this kind are, in reality, by no means rare. During the "reed-bird" season, they often occur among the sportsmen on the marshes near this city. The reed-bird, known elsewhere as the rice-bird or bob-o-link, is a small bird, flying in large flocks; and, in getting them, large loads of small shot are used. The gunners stand in boats, pushed by a man in the stern; they become careless, and are, indeed, often inexperienced, firing rapidly, and without fairly bringing the butt of the gun against the shoulder. Hence it not unfrequently happens that the recoil comes against the outer end of the clavicle, and in a somewhat downward direction if the birds be flying well over.

Duck-shooters, lying down in a boat or blind, and firing upward at birds flying high, are even more liable to this accident, the chances of which are increased by the use of very long and heavy guns.

Now, the mechanism of these fractures I believe to be, as I suggested as long ago as 1866, by leverage over the first rib. (*New York Medical Journal*, October, 1866.) It should be remembered that the sternal end of the clavicle is firmly fixed, and that the range of motion of the acromial end is but limited; and between the inner portion of the clavicle and the first rib there is often a very close relation. In some persons, the upper part of the thorax comes much more nearly to a point than in others, the arch of the first rib being smaller, and the bone itself more delicate. Again (and these two conditions, I think, generally correspond), in some persons, the clavicle is straighter and stands out more directly from the sternum, than in others. When the first rib forms a wide and strong arch, and the collar-bone runs somewhat backward as well as closer to the rib, the two bones may be almost in contact, as far nearly as to the middle of the clavicle. Under such circumstances, it may easily be perceived how sudden violence, driving the outer end of the clavicle downward, or downward and backward, would act upon it as a lever, and tend to break it at its weakest point. The rib, being a strongly stayed arch, pressed upon at its convexity, would not give way; while the clavicle would be taken at a disadvantage, being subjected to a force at its concavity, tending to increase its curvature. Very possibly, this leverage may have something to do with some fractures by indirect violence, as when a man falls forward on his outstretched hand, and the scapula is driven backward, carrying with it the acromial end of the clavicle. And I believe it affords the true explanation of those cases in which the clavicle gives way to muscular violence, as in striking a blow with a whip at a dog, or pulling down the brace of a carriage-top. In these and all the other recorded instances, the action was such as to forcibly and suddenly depress the outer end of the bone.

The other point of which I would speak is the mechanism of the displacement in fractures of the clavicle. With regard to this, most authors simply say that the weight of the shoulder causes it to drop; and in a recent paper by Mr. C. W. Cathcart, published in the British Medical Journal for August 30th, this view is discussed at some length. He argues that the weight of the shoulder is not normally supported by a strain on the shaft of the clavicle, but that, as pointed out independently by Cleland and Duchenne, the shoulder is really suspended in position by the action of the trapezius muscle. The traction, he thinks, is not direct, but to a certain extent indirect, the clavicle acting as a lever, with its fulcrum at the sterno-clavicular joint. In a later paper (published on October 25th), he speaks of the bone as acting like the oblique beam of a crane "in supporting the weight of the arm"; and says that the "thrust" from within is lost when the bone is broken. Now it seems to me that in this last phrase he gives a more significant fact than he himself perceives.

I question whether the weight of the arm is in any material degree supported upon the clavicle; but this would be a matter requiring a good deal of space for its discussion; and I would merely suggest that when the clavicle—a purely "intermediate" bone—gives way, the muscles, which are the real agents of suspension, are as a general rule unimpaired. There must be some other reason for the downward, forward, and inward displacement so uniformly met with; and such a reason, I think, may be found in the action of certain muscles.

As soon as the integrity of the clavicle is lost, the serratus magnus and pectoralis minor rock the scapula forward around the thorax, while the rhomboideus major tilts its lower angle upward. Hence the acromion is lowered and moved toward the median line anteriorly, pushing the outer fragment of the clavicle before it. Should the line of fracture be just within the insertion of the subclavius, this muscle would tend to act in the same way, drawing the outer fragment toward the sternum; but this would, in most cases, be only a trifling accessory. The effect above described can be produced by the serratus magnus and pectoralis minor, and by them alone; nor is it opposed by any of the other muscles of the shoulder.

Very striking confirmation of the view now stated is afforded in the account given by Malgaigne of a patient of his who had an ununited fracture in each clavicle.

"Both clavicles had been broken at the middle; the two inner fragments were nearly horizontal, and very distinct beneath the skin; the outer fragments had also a nearly horizontal direction, but were buried behind and below the others, to which they seemed to have no adhesions of any kind. The overlapping was considerable.....Posteriorly, the scapulæ were separated from the spinal column by three or four inches, and inclined forward and outward; and on the whole the thorax seemed much contracted at its upper part.

"He could draw the shoulders back a little, but not enough to overcome their apparent prominence anteriorly. On the other hand, he could draw them together forwards, so that they seemed like wings covering the chest, and leaving between them, in front of the sternum, only three inches' space. In this movement, the scapulæ fitted to the sides of the trunk, and the back seemed rounded from one side to the other, almost like that of a skeleton deprived of its upper extremities" (*Traité des Fractures*, etc., tome i, p. 496).

At the time (1866) when I first published this view, I was not aware that it had been already advanced by Professor Gordon, of Belfast, in a communication to the Belfast Medical Society (see *Dublin Quarterly Journal of Medical Science*, November 1859). Nor was he probably aware of my statement of it when he, in 1875, issued his *Treatise on Fractures of the Lower End of the Radius, on Fractures of the Clavicle, etc.* Certainly, we neither of us succeeded in gaining the consideration which, as it seems to me, the correctness of the theory deserved.

Now the practical bearing of the explanation above given is by no means unimportant. Restore the scapula to its position, and the outer fragment of the clavicle is also drawn into place. It is useless to push up the shoulder, and to put pads in the axilla, and to bring the elbow forward and inward. The scapula itself is the thing to be acted upon. For this purpose, the best apparatus yet devised seems to me to be that of Dr. Sayre, of New York, consisting of two wide strips of adhesive plaster, so applied as to draw the upper part of the humerus, and with it the scapula, toward the median line of the back. A detailed description of the method may be found in many works on surgery. Rest on the back for the first week or ten days, if submitted to by the patient, would be a valuable accessory to its efficiency.

EXPERIMENTAL RESEARCHES ON DIPHTHERIA.

Read before the Lancashire and Cheshire Branch.

By CHARLES J. RENSHAW, M.D., Ashton-upon-Mersey.

I made the following experiments on animals, with diphtheritic membrane.

On June 1st, 1874, I administered membrane of diphtheria to one cat; on June 3rd, to two mice; on June 5th, to a rat; on July 2nd, to two cats; on August 7th, to a cat; on August 21st, to a cat; on September 3rd, to three mice; and on September 3rd, 7th, and 18th, to three hens. The result in all was negative. The membrane was of a yellowish white appearance. All the patients from whom the membrane was taken had enlargement of the lymphatic glands at the angle of the jaw, and three of the cases suffered afterwards from paralysis. Five cases had albuminuria, commencing on the second, third, fifth, and ninth days respectively. There was no doubt as to the membrane being that of diphtheria.

On June 6th, 1874, having seen that the stomach and bowels of a

cat were emptied, I administered some diphtherite of a whitish grey colour, taken from the throat of a living patient. The result was death from diphtheria on the seventh day. On June 6th I gave some to a second cat; the result was death from diphtheria in twelve days. On examining the first animal after death, I found patches of diphtheritic membrane on the mouth, fauces, and lining of the bronchial tubes, also on parts of the bowels. The small amount of urine I was able to collect from the bladder was highly albuminous, the kidney was of whitish colour. The second cat lived to the thirteenth day, having begun to be ill on the fourth, and suffered from a severe attack of the disease; the *post mortem* examination showing the diphtherite lining the whole mucous tract, partly in patches, from the mouth to the anus; the urine was albuminous, the kidney similar to what one meets with after death from scarlatinal dropsy.

On June 8th I administered diphtheritic membrane to a cat, death occurring on the ninth day; and on June 9th, to two mice; death occurred on the tenth and thirteenth days.

On June 10th, 11th, 12th, 13th, 14th, and 15th, I saturated some membrane, taken from the same case of diphtheria, in a solution of permanganate of potass, which gave negative results, on the administration to animals, in nine cases. I also got negative results from saturating the diphtheritic membrane in hypochlorous acid, and using it for a like purpose.

On June 12th, I introduced some of the diphtheritic membrane into the axilla of a cat by means of a wound; the animal began at once to be ill, and in three days there was membrane on the fauces and the back of the throat. The attack of the disease was slight, recovery soon taking place.

The fourteen experiments on animals with the yellowish white membrane were all failures. The six experiments on similar animals, made with greyish white membrane, were successful. All experiments on graminivorous animals were also unsuccessful.

What is the cause of diphtheria? Is diphtheria a sewer-disease? If not, how does it arise? I see in the deductions drawn by Mr. Shirley Murphy, from the papers of the Collective Investigation Society upon that disease, that less than one-tenth of the number of cases are supposed to arise from sewers or bad drainage. I at first thought the disease was met with chiefly in new houses and new drainage-areas. I find it is equally to be found in old as in new houses, well drained and otherwise, in houses in which there is no connection with drains, and in localities where there are no drains at all. It is, therefore, evidently not a sewer-disease *per se*, although it is, no doubt, possible for it to be carried by drains; and, undoubtedly, badly ventilated drains emitting noxious gases into the house of the patient make it a much more dangerous disease to treat. The disease is epidemic and sporadic, and, as far as I can make out, does not follow any particular line of drainage.

The following facts point to the disease being a ferment neither of decaying vegetation nor animal decomposition alone, but to a mixture of both. In the great epidemics of France (1818 and 1855) and Scotland, it is on record that the places were in an unsanitary state, all sorts of material, mixed and unmixed, animal and vegetable, being left about to decay and taint the air.

1. A heap of vegetable matter, on October 1st, was mixed with a quantity of animal matter by two men; both heaps had been on the ground for some months. Neither of the men were taken ill. This mixed heap was distributed over a field on March 1st. One of the men who distributed it, and a boy who assisted him, were taken ill of diphtheria, one on March 3rd, the other on the 7th. 2. A similar heap, similarly treated, was spread on a field adjoining a house in which there were children; the two men who carted the material on to the field, as also the five children, were all ill of the disease within fourteen days. 3. A heap of ordure, close to a house, having been there for a considerable time, was mixed with some vegetable refuse; no one was ill then, but three months afterwards, it being opened and used to the garden, four children residing in the house were seized with diphtheria. 4. Two children were playing on a heap of animal and vegetable manure, just opened; four days afterwards the first child was taken with diphtheria, and two days later the second child fell ill with the same malady. 5. Some strong mixture of blood and vegetable matter was spread on a rose-bed. A little child who watched the process was sick at night, and four days afterwards was suffering from diphtheria; there was no other case in the neighbourhood, and the child had not been out of its own garden.

Of 126 cases treated by means of stimulants and nourishment by the internal administration of tincture of perchloride of iron and sulphate of quinine, the painting of the throat by a saturated solution of permanganate of potash, and, where possible, the use of a hypochlorous acid gargle, together with the removal of the false membrane, where such could be done, there were only seven deaths. The following cases will show the general character of those treated.

Case I.—Mrs. M., aged 33, well made and healthy, suckling her seventh child, commenced to shiver on November 1st at bed-time; on November 3rd, she complained of stiffness of the lower jaw and sore-throat. The pulse was 130, temperature 102°, tonsils swollen, deglutition difficult, respiration 28. Eight hours later, the diphtheritic exudation appeared on the tonsils, and twenty-four hours later, ninety-six hours from the probable time of contagion, the whole of the back part of the mouth was covered with diphtheritic membrane; the pulse was 160, temperature 106°. The membrane increased so much in thickness, that there was danger of mechanical suffocation; the effluvium was most offensive. The patient recovered after a struggle of four weeks. At the outset of the disease, six ounces of brandy and as much champagne as possible in the twenty-four hours, beef-tea made with barley-water, turtle and ox-tail soup, were given. The tonsils and other affected parts were freely painted with a saturated solution of permanganate of potash, the membrane was removed morning and evening for eight days, and quinine was given till the temperature fell to 101°, and then it was combined with tincture of perchloride of iron. Albuminuria appeared on the second day of the formation of membrane; and, although much relieved, was still present, three years since the attack. At the end of six weeks, paralysis first attacked the eyes, causing internal strabismus, then the nerves of hearing, then of smell, then of the throat, chest, arms, and legs; it was treated by the internal administration of strychnine and the use of the constant current; recovery was perfect.

Case II.—L. M., female, aged 23, fairly healthy, had a severe rigor on June 24th; on June 27th, the membrane showed itself on the fauces, and rapidly spread, covering the mouth, and apparently passing down the air-passages and œsophagus, as there was difficulty in breathing and swallowing.

On June 30th, there was double pneumonia, the abdomen was tympanitic, and the mucous membranes of the rectum, vagina, and lower part of the uterus were covered with diphtheritic membrane. The following day she died. I was unable to remove the membrane from the mouth, as I could not get the mouth sufficiently open. A nourishing and stimulating method of treatment was ordered, but my recommendations, I afterwards heard, were imperfectly followed out.

Case III.—L. K. shivered on June 6th, having visited a relative suffering from diphtheria on the 1st. On the 8th, there was diphtheritic membrane over the soft palate, which spread over the roof of the mouth and lined each cheek. By the 11th of August, he recovered, after a severe attack of paralysis.

Case IV.—C. J., female, aged 23, had an attack of shivering on August 1st. Diphtheritic membrane appeared over the back of the throat and roof of the mouth on August 5th. Recovery took place after seventeen days. There was no paralysis. The supposed cause was bad smell from a mixed manure-heap.

Case V.—M. B., male, aged 11, mixed some manure on September 1st. He was taken ill on September 9th. A diphtheritic membrane appeared on the throat, cheeks, and the roof of the mouth on September 12th. Recovery took place, without paralysis, after fourteen days' illness.

It is a well known fact that scarlet fever and diphtheria may affect the patient at the same time; and Dr. Ransome, in his excellent pamphlet on the "Relations between Diphtheria and Scarlatina," suggests a strong connection between the two diseases, and throws out the idea, that the difference lies in the difference of ferments; this is a valuable suggestion, which leaves large scope for inquiry and experiment.

It is not, as you are aware, an uncommon occurrence for a patient, suffering either from scarlet fever or from diphtheria, to be seized with epistaxis. I was able to try the effect of injecting the liquor sanguinis from both cases into animals. That from scarlet fever, injected into the areolar tissue of a rabbit, caused slight illness on the second day, sore-throat on the fourth, and whitish tongue on the fifth, sixth, and seventh, with recovery on the tenth. The liquor sanguinis from a case of diphtheria caused death, in a rabbit similarly treated, seventeen hours afterwards, from congestion of the lungs, and in a frog awakened from its hibernation in twenty-four hours. I made some experiments with the membrane of membranous croup, by administration to animals, but I was unable to find any effect.

It would seem, from the above named experiments, that diphtheria is different from membranous croup; that it is different from scarlet fever; that it is a disease of itself, of a highly dangerous character, but that science has great power over it as to prevention and treat-

ment. It is conveyed by contagion, and may also arise *de novo*, from, I believe, a mixture of animal and vegetable matter in decomposition under certain circumstances; but there is little, if any, evidence to show that it is caused by sewage simply, or by animal or vegetable decomposition alone.

EXCISION OF THE RECTUM.

By D. LOWSON, M.D., M.R.C.S.,
Surgeon to the Hull Dispensary.

Much has been done, of late years, in the way of improving and perfecting the operation of excision of the rectum; and yet many surgeons are doubtful of its advantages, and prefer either inguinal or Callisen's colotomy. French surgeons, in particular, have had untoward results; and, with loud voice proclaiming their disapproval of the radical method, have advocated various modes of alleviation and compromise. The Germans, on the other hand, foreseeing the advantages likely to accrue, have quietly set themselves to render it easier of performance, safer from risk, and more satisfactory as regards the conservation of the action of the sphincter. In England, the name of Harrison Cripps is well known in this connection, and his researches into the nature of the stenoses and obstructions in this region have led to a more scientific discrimination of the cases fitted for operation.

"Whether excision or colotomy," is a question which must be mainly settled in each individual case; but I venture to formulate the following rule: that when the finger, pushed through the stricture, reaches the upper limit of the ring, or mass, *in front*, excision, and not colotomy, should be resorted to. When the disease extends higher, each case must be decided on its own merits; but of this there is no doubt, that colotomy is not, even in the best hands, a safer operation than extirpation. Indeed, statistics (according to Bryant) are more favourable for the latter operation. The advantages of colotomy are ease and rapidity of performance, as well as an absence of disease in the tissues cut through. *Per contra*, there is the danger of setting up peritonitis, cellulitis, etc. There is also the inconvenience of having the opening into the bowel in an unnatural situation; and, when all has been done, the disease itself is left. Extirpation is more tedious and difficult; but it has the great merit of being an attempt, at least, to remove the disease radically; the anus is retained in its normal position; and considerable, if not at all times perfect, sphincter power remains.

There are several ways of performing this operation, the later modifications aiming at the preservation of the sphincters. Where the anus and skin are much involved, it is common to make a circular or elliptical incision, so as to include all the disease, to separate the mass from its connections in the pelvic outlet, divide the bowel above the affected part, and stitch it to the integument. In annular strictures, an ano-coccygeal incision may suffice, though it is not a good one in most cases. Hüter of Greifswald recommends a horse-shoe incision (Fig. I), the curve of the shoe encircling the front of the anus, and the ends terminating in the ischio-rectal fossæ. The flap thus formed is thrown backwards with half an inch of rectum, to be replaced after removal of the disease, and the two pieces of bowel are stitched to each other. In the case to be related, I adopted an incision as in Fig. II. Here the curve extends round behind the anus, and the

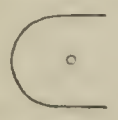


Fig. 1.

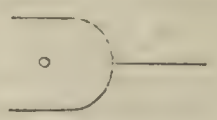


Fig. 2.

limbs, passing forward and well outward, terminate considerably to one side, and a little in front, of the bowel, and, from the centre of the convexity, a straight cut is carried backwards over the dorsum of the coccyx and sacrum.

Cancer or cancerous stricture is the disease for which excision is most frequently required. In cicatricial stenosis, the bougie or incision, followed by dilatation, is the practice usually followed, or the linear rectotomy of Verneuil; but, "in all cases," Bryant remarks, "there comes a time when treatment by dilatation ceases to be beneficial." He then proceeds to recommend colotomy. Why not excision? In the following case it had, unfortunately, been delayed rather too long.

A. M., aged 37, had for nineteen years suffered from fistulæ *in ano*, and, though twice operated upon, they did not close. Nine years ago, Mr. Brewer of Huddersfield found him suffering from stricture of the rectum. Since then, he has had little peace or comfort, suffering much from irritation and inflammation in and around the bowel; narrowing and flattening of the extruded fæces, if constipated; or acrid liquid discharges, mixed with small scybala. During the last twelve months, when under Dr. Hanson of Huddersfield, the symptoms, though alleviated as much as medical treatment could, latterly became aggravated; and, when he came to be examined, he was worn and a good deal wasted with pain and anxiety about his state. Obstruction had become worse, and defæcation more difficult and exhausting. There were two fistulæ discharging matter near the anus—one opening through an old abscess, and the other directly into the rectum. The finger could with great difficulty be pushed through the stricture, which commenced half an inch above the end of the bowel, and the finger-tip just reached its upper limit in front, where it ended rather abruptly. Behind, it extended higher; the passage was crooked, but the lining felt healthy, and there was no approach to nodulation, while a tough mass of cicatricial tissue filled the whole pelvic outlet.

The patient's weakness was the only indication against the operation, and it did not seem to be extreme; and, as he was aware his life could not be much prolonged, he was anxious to go through whatever was deemed fit. Extirpation was decided upon, and carried out with the assistance of Dr. Hanson, Dr. Coutts of Waterfoot, and Mr. Macnab of Hull. An incision was made as in Fig. II, and the flap dissected forward with half an inch of rectum. A straight cut was next carried back over the dorsum of the coccyx, which was separated by a bone-pliers. The mass was then separated from the front of the sacrum, peeled off the obturator internus muscle, and, with a catheter in the bladder, to indicate the position of the urethra, the separation was completed in front by the *écraseur*. The dissection was done in the main with the finger, with occasional aid from Richardson's saw-scissors. The mass, being now loosened all round, dropped down, bringing into view a healthy but muscular rectum, crossing the anterior surface of which was a distinct white line, marking the reflection of the peritoneum. A surprising amount of healthy rectum lay between this and the diseased mass—about an inch. The atmospheric pressure had carried up the recto-vesical pouch, in the same way as Sims' speculum acts in vaginal examinations. The *écraseur* divided the bowel without hæmorrhage; and, in fact, very little blood was lost at any stage, two small perineal branches only being secured. The stitching together of the two pieces of bowel proved a troublesome operation, the more so from the section of the bowel being rather oblique. Drainage-tubes were then introduced, and the external incision closed.

The patient revived wonderfully after a very tedious operation, and in the evening seemed quite lively; but the pulse was small and rapid, beating at 120. Next day, he kept up well. The pulse, however, did not moderate, and the thermometer stood at 100.5°. This was the highest temperature reached. On the morning of the second day, he was very weak and collapsed, and hiccough had proved troublesome all night; the temperature of the extremities was low, and a cold damp moistened the skin. The wound was healthy-looking, but inactive, and the discharge rather copious, and of a serous nature. In the evening, he remained in much the same state, the hiccough being still very harassing. The third day found him much worse, and about noon he was evidently sinking. He died seventy-two hours after the operation.

The cause of death in this case was evidently shock, reaction having been weak from the first. Had the patient made up his mind sooner to have "something done," there is considerable reason to believe the result would have been different, and it is questionable if colotomy would have been more successful.

The incision employed in this operation has, I think, certain advantages over Hüter's. It is more suitable for the removal of the coccyx, which is a considerable gain in a case like the above, where a large mass has to be taken away; and I am not aware that the absence of the bone in question is in any way detrimental. Professor Esmarch of Kiel makes an excellent suggestion in this connection. He recommends that the lower piece of bowel should be removed altogether, and that the upper portion should be stitched to the margin of the anus. This is an improvement in more ways than one. By drawing the bowel through the central opening of the flap (anus), the process of stitching is transferred from the inner to the tegumentary surface, rendering it easy, and uncomplicated with numerous long threads. But of greater importance than this is the advantage in healing. When the two pieces of bowel are stitched above the anus, we have a circular wound, through which the bowel-contents have subsequently to pass; and, unless it heal quickly by first intention, which it rarely does, the connection is broken the first time the bowels are moved, and the fæcal matter finds its way through the wound, causing a fistula, which is a long time in closing. I had an experience of this sort, where an annular stricture was removed through an ano-coccygeal incision. The bowels could not be kept constipated for more than five days, and

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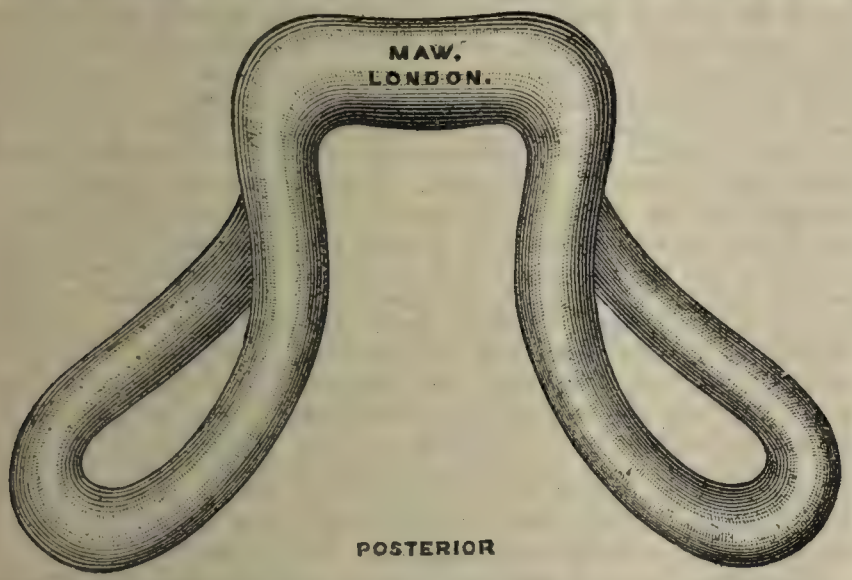
the result was as related. It is (now) six years since that operation took place. The patient is now well, having good sphincter power, except in diarrhœa; but the healing was tedious and troublesome. Any one who has had experience in excision of the rectum will, I am sure, appreciate Professor Esmarch's suggestion.

A NEW FORM OF VAGINAL PESSARY.[1]

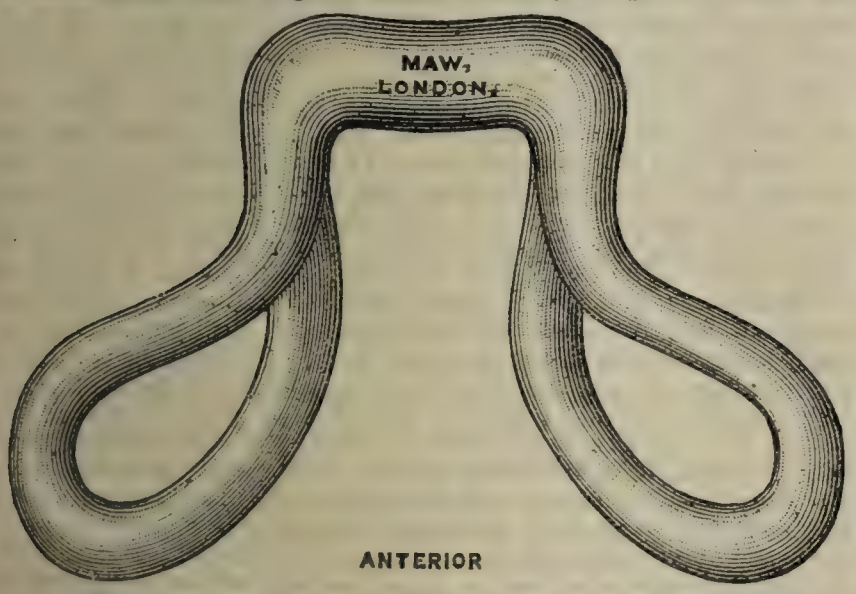
By J. G. SINCLAIR COGHILL, M.D., F.R.C.S., Ventnor.

A case of retroversion of the uterus, presenting conditions of unusual difficulty, first suggested the idea of the instrument here delineated.

It is on the plan of the familiar trestle used by builders for supporting stages or platforms, and is made of soft caoutchouc enclosing a steel spring-wire frame. The pessary consists of a transverse bar superiorly, and lateral fenestrated supports or wings. These latter are inclined outwards from the points of their attachment to the transverse bar, and also follow a curve downwards and forwards, corresponding



as nearly as may be to that of the vagina. The wings are also everted anteriorly, not only to accommodate the distension of the bladder, but to prevent the lateral rotation of the instrument. The slight concavity of the upper surface of the bar seems to give more fixed support in cases where there is great uterine mobility, or greater than usual



weight of uterus, but it may readily be bent so as to become convex if need be. The bar is intended to be placed in the vaginal cul-de-sac (*fornix*), either behind or before the cervix uteri, according to the nature of the displacement, while the wings rest on each side of the pelvic floor.

This pessary is very easily introduced, on account of its comparatively small size and the compressibility of the wings. The free curved extremities of the latter are approximated closely between the forefinger and thumb of the right hand, and the bar is passed through the vulva with its long axis antero-posteriorly; then a quarter of a turn, with gentle sustained pressure, brings the wings with their curve forwards within the vagina, and, the hold being relaxed, they separate, and their inferior curves at once adapt themselves to and rest upon each side of the floor of the pelvis. It is only then necessary to pass the forefinger up between the wings that adjust the bar behind or in front of the cervix, as desired. I have found that a pessary of this shape will give more efficient support than a Hodge's, or Albert Smith's pessary quite two-fifths longer in the vertical axis. It is necessary to bear this in mind in the selection of the necessary size. In very many cases this question of mere size is a most important consideration.

The exact *modus operandi*, even of the familiar Hodge type of pessary, is still a moot point among gynecologists; but the action of this trestle pessary is quite simple, and readily enough understood. Like every other form of vaginal pessary, it can only influence the position of the uterus indirectly, through its ligamentous connections. The uterus has, of necessity, a considerable range of physiological displacement; and indeed, so long as its utero-sacral attachments or broad ligaments do not permit a material displacement downwards, an amount of anteversion or of retroversion, quite pathological strictly speaking, may be borne without giving rise to any distressing symptoms. The transverse bar of the trestle pessary, when placed either in the posterior or in the anterior vaginal fornix, gives a point of support to the cervix, at the point of its junction to the body of the uterus, and at the same time raises it with its broad ligaments, restoring the normal tension of the latter, the loss of which is so important a factor in determining the lesion. The restored equilibrium is maintained by the lower segments of the wings resting on the sides of the pelvic floor, above the tuberosities of the ischia, where there are no sensitive or mobile viscera. The bladder and rectum are thus enabled to distend and contract in the discharge of their functions, without impediment on their part, or disturbance of the pessary.

As I have already said, this instrument was designed to meet the exigencies of a case of retroversio uteri presenting local and reflex symptoms of extreme urgency; among others, persistent and painful menorrhagia with intense nausea and gastrodynia. The patient was an unmarried lady. The displacement was of many years' standing, and complete, the fundus resting in Douglas's pouch, and easily recognised through the upper posterior vaginal wall, while the os uteri was tilted upwards and forwards, behind the symphysis pubis. The whole uterus was curved backwards, but not completely flexed. The situation was further complicated by enormous congestive hypertrophy of the dislocated organ, the sound measuring nearly six inches of cavity, and by the presence of a fibroid in the left posterior wall of the fundus, by which, probably, during a period of laborious nursing, the malposition of the organ was originally determined. After reposition, which was a work of extreme difficulty, principally on account of adhesions, every variety of pessary of the Hodge type was tried by eminent gynecologists, both of Edinburgh and London, as well as by myself; but the relief afforded by these aids was only temporary, and never complete even when the instrument was kept *in situ*, on account of the weight and extreme mobility of the uterus, while the frequent necessity for readjustment was a source of the greatest trouble and distress. The difficulty with the Hodge's pessary was the impossibility of a sufficient fulcrum for the lower bar, so as to support the weight above. This lower bar was continually slipping forwards across the vulva, while the fundus uteri was allowed to fall again into Douglas's pouch, over or by the side of the upper bar. It became evident, after much consideration, that a fixed support on the pelvic floor was the only means of meeting the indications of the case; and to obtain this I had the pessary I have described made for me by Messrs. Maw and Co. The effect of its introduction was immediate and complete; and, as far as nearly four months' experience can enable one to judge, promises to be permanent. Indeed, the results far exceeded my most sanguine expectations. The menstrual and other functions resumed their normal character, all the distressing reflex disappeared, and the patient, who had to be carried up and down stairs for the most part, and could hardly walk or drive without extreme suffering, was at once enabled to move about freely, and is rapidly recovering her lost health.

I have since had the opportunity of employing this pessary in several cases, both of retroversion and of anteversion, and also in a case of prolapsus with great protrusion of the bladder and posterior wall of the vagina of very great difficulty, and with results so satisfactory, that I am sure it is an instrument that will be found useful in a large number of cases in which the weight of the uterus, extreme relaxation of its ligamentous connections, deficiency of perinæum, or irritation of the bladder or other surfaces, necessitate a more fixed support than can be afforded by other forms of pessary acting more or less on the lever principle, with a movable fulcrum. Indeed, I venture to think that it may be used with advantage, even in a much wider range of cases that those I have indicated.

[1] This pessary is made in three sizes, of which the drawings are exactly to the scale of the largest.

OPERATION FOR RELIEF OF STRANGULATED INGUINAL HERNIA, ALSO FOR ITS RADICAL CURE, IN A CHILD TWO YEARS OF AGE.

By GEORGE BUCHANAN, M.D., F.R.S.,
Professor of Clinical Surgery, Glasgow University.

Operations for the relief of strangulated hernia in young children are sufficiently rare to warrant the report of the following case.

John M., aged 2 years and 4 months, was admitted to the Western Infirmary, Glasgow, on September 25th, at 10 P.M. The history of the case is that, when a few days old, a swelling was observed in the scrotum on the right side, and subsequently on the left. These, which could be reduced in size, were believed to be herniæ, for which a double truss was worn, but without much effect, as the rupture on the left side repeatedly came down, and the swelling on the right never was completely reduced. This state of affairs was allowed to go on till the day before the child was brought to the hospital, when, after a severe fit of crying, the swelling on the left side of the scrotum suddenly increased, became very tense, and could not be returned. During the night the child suffered much pain, and, in the morning, vomiting occurred. In the afternoon a medical man was called, who endeavoured, by careful and continued manipulation, to return the hernia, but without effect.

When the child was taken to the hospital, the house-surgeon, finding vomiting still persisting and the tumour firm and unyielding, sent for me.

I put the child under the influence of chloroform, and again tried taxis, but without avail. I then cut down and relieved the stricture, which was very tight. The intestine, which was dark purple in colour, was returned after gentle pressure. I then drew the pillars of the canal together with three silver wire-sutures, in the way I do when performing the operation for the radical cure in ordinary circumstances. The wound was dressed antiseptically.

There was no hernia on the opposite side, but distinct enlargement of the testicle. Possibly this, with a certain quantity of fluid in the sac, may have been the state of matters throughout.

It is unnecessary to give details of the progress of the case, which terminated by the complete agglutination of the inguinal canal boundaries, and the radical cure of the hernia.

Remarks.—This is the only case, within a hospital-experience of twenty-five years, in which I have had to operate on so young a child. And from a pretty extensive inquiry, I learn that the experience of other surgeons is similar. Some surgeons are under the impression that the operation is almost never imperative. But the experience of one of my colleagues, who operated on a child equally young a few months ago, shows that sometimes in children, equally as in adults, operative procedure is too long delayed. In the case referred to, attempts at taxis had been frequently repeated, before the child was sent to the hospital, and the bowel was found approaching to gangrene, and the result was fatal. But, further, I hold that delay in such cases, or even in those which have resisted very moderate attempts at reduction, is uncalled for and unwise; because advantage may be taken of the child being under chloroform to perform the radical cure; it adds nothing whatever to the danger of the operation, and brings about a most desirable result. Every year's experience convinces me that there are a very great number of children in whom cure by truss is, or at all events has become, totally impracticable. Theoretically, every child with a hernia should be provided with a truss which will keep it up; and every mother ought to be instructed so to manage the truss that the hernia will never be allowed to come down. But, practically, in hundreds of infants, this is impossible.

PERIOSTITIS FOLLOWING TYPHOID FEVER.

By JOHN D. HAYWARD, M.D. Lond., Liverpool.

Periostitis as a sequela to typhoid fever appears to me to be more common than is generally supposed; in the course of the last few years, I have met with several cases. In one case the periostitis did not suppurate, and the patient did well; in another, periostitis appeared about several of the long bones; suppuration occurred, with external discharge; but, after new attacks of periostitis had ceased to occur, and the old sinuses had healed (which they did readily), the patient sank under acute phthisis, of which, previously to the enteric attack, there had been no evidence. The attacks of typhoid fever in which I have noticed this sequela have been severe ones.

The following case is at present under treatment.

Minnie F. aged 16, was first seen by me on August 25th, 1884; she had been suffering with fever and diarrhœa for the preceding week, previously to which she had been a strong, healthy girl. The patient was found to have well-marked typhoid fever; there was deafness; the stools were characteristic. So, to some extent, was the tongue; there was gurgling and tenderness in the right iliac fossa, the morning and evening temperatures varied in the manner common in this fever, and for several days the temperature remained between 104° and 105° Fahr. The patient went through an ordinary but severe and prolonged attack of enteric fever. After the diarrhœa and abdominal tenderness had ceased, the brown dry tongue became almost normal, and the appetite good; but, although all intestinal lesion appeared to be recovered from, it was noticed that the temperature ran up every day to 104° Fahr. or thereabouts, and was never normal; night-sweats, anorexia, occasional shiverings, and increased loss of flesh were observed. Some local cause for the general pyrexia was searched for in vain; the lungs appeared normal, and there was no cough; periostitis, being quite unsuspected, was not inquired after. The cause of the pyrexia puzzled me very much until October 11th, when the patient mentioned that her leg was painful and swollen. On examination, a swelling, about the size of half a small orange, was found in front of the left tibia; it was tender and elastic. On the 13th the swelling fluctuated, and was opened, when about half an ounce of pus escaped; the leg was poulticed, and about an ounce of pus was altogether discharged before the abscess and sinus were healed, which was the case in three days. The girl recovered appetite and strength, but on the 19th of October she was found crying because her other leg was paining. A similar swelling was found over the middle of the right tibia, the left leg being now perfectly well. The second swelling was opened, and discharged about an ounce of pus; it also was quite well in three days. On November 3rd, a similar fluctuating tumour occurred at the lower end of the right tibia (quite separate from the preceding); this contained blood-clot and a little pus. It is now discharging and contracting. There is at present no sign of inflammation or tenderness over any other bone or joint, and the patient is slowly improving in general health. The periostitis has not been of a serious nature locally, and indeed an early opening was never urgently required. It seemed as if only the outer surface of the periosteal membrane were involved. No necrosis took place.

Remarks.—Some of the text-books at my disposal do not mention periostitis as a sequela of enteric fever, and none that I have consulted give it a prominent place; they merely mention it, and do not discuss its origin, frequency, or prognosis. It is possible that this local inflammation is due to the tendency to degenerative changes induced by the exhausted condition of the system after a severe enteric fever, resembling thus some of the commoner sequelæ of this fever. Or, there may be a septicæmic origin in some cases, just as some of the instances of parotitis, marasmus, and phthisis after enteric fever are supposed to arise. The course of temperature in the case mentioned above, and the development of abscesses of the lung in my previous case, are interesting from this point of view. In a late number of *Le Progrès Médical*, Routier divides these cases into those where only the external layer of periosteum is affected, those that are only subperiosteal, and those where the bone is also affected. I have never seen one of the latter class. Routier believes the local inflammation is always the result of injury, a blow, or a violent muscular contraction, these causes being sufficient to induce the condition when the body is in the enfeebled state after an attack of enteric fever. No such causes could be traced in my patients, and it is difficult to see why, if the condition is to be so accounted for, periostitis should be so much commoner (as I believe it to be) after typhoid fever than after other diseases which exhaust and enfeeble the system to an equal extent. It would be interesting if some collection of the cases where this sequela occurs could be made, and if we could have some authoritative opinion as to its frequency, cause, prognosis, prevention, and treatment. It is interesting that my cases have been in young persons, where the growth of bone is possibly not completed, and the active condition of the periosteum may in this way predispose to inflammation of the part.

Cremation in France.—At the annual meeting of the Paris Cremation Society, the President, M. Koechlin Schwartz, stated that the law proposed by MM. Gambetta, Paul Bert, Tony Révillon, and many Republican deputies, is not yet passed. Cremation remains at present illegal in France. It was generally suggested in the report that there was nothing to prevent cremation in the hospitals. The President insisted on the great security for the public health by the adoption of the system, and mentioned that in Italy there had been 396 cremations, and in Germany 186. The tariff for the transport of corpses to Italy for cremation was circulated. It is rather high, and can only be resorted to by rich families.

THE PHYSIOLOGICAL ACTION OF CUCA AND CUCAINE.

By EBER CAUDWELL, Westminster Hospital.

The following observations made on myself were undertaken at the suggestion of Dr. Murrell, with the view of ascertaining whether cuca or its alkaloid possessed any toxic action. The first series was made with valoid of cuca, a fluid extract, each part of which corresponds to an equal weight of the leaves of the cuca-plant. On December 9th, at 2 P.M., being busily engaged in seeing out-patients, I took two drachms in water, and experienced nothing but a little frontal headache. On the 9th, at 7 P.M., after a hard day's work, I took three drachms, and almost immediately fell into a deep sleep, which lasted four hours. On the 13th, I took five drachms at bed-time, slept for two hours, and then passed a restless night. On the 16th, I took a fluid ounce at bed-time, and was kept awake all night. There was a general feeling of wellbeing, with considerable mental excitement, and I was able to read steadily for many hours. On the 19th, I took two ounces at midnight, suffered severely for ten minutes from giddiness and unsteadiness of gait, and then experienced the same sensations as on the previous evening. There was renewed mental and physical activity, and I felt that any exertion could have been undertaken without difficulty.

My next observations were made with the hydrochlorate of cucaine, a supply of which was kindly placed at our disposal by Mr. E. Merck of Darmstadt. Half a grain, taken by mouth at bed-time, produced drowsiness; a grain induced sleep, followed by persistent insomnia; two grains and a half gave rise to frontal headache, great mental excitement, and marked insomnia. Failing to produce any decided toxic effect, I took, at 7 P.M. on the 29th, a single dose of three grains. I had just come off a long railway-journey, and had purposely abstained from food for nearly twenty-four hours. At first I felt decidedly sleepy, and there was slight vertigo; but these symptoms soon passed away, and, in the course of an hour, I felt perfectly fresh and well, and remained awake all night. At 10.30 on the following morning, I took five grains more, and then felt that a decided effect had been produced. In a few minutes I was so giddy I could hardly stand, and was quite unable to make any exertion. There was a slight supra-orbital headache, and a feeling of weight or sinking at the pit of the stomach. The pupils were widely dilated, and I could hardly see. My temperature was taken four times, and was found to vary from 96.7° to 98.6°. The pulse, for a few minutes, rose to 94, but, as a rule, was not above 80. The urine passed at the time had a specific gravity of 1020, and was normal. In about two hours, the unpleasant sensations passed off, and I walked to the hospital, a distance of four miles, in something under fifty minutes. By one o'clock I was quite myself again, and was as fresh and vigorous as ever. The dilatation of the pupils continued for six hours. From these observations I conclude: (1) that cuca and cucaine exert a double action, acting as cerebral sedatives in small doses, and as cerebral stimulants in large doses; (2) that cucaine, given internally, dilates the pupils; (3) that cucaine, unless in large doses, possesses no toxic action.

NOTE ON THE EFFECTS OF THE LOCAL APPLICATION OF CAFFEINE TO THE CONJUNCTIVA.

By D. ARGYLL ROBERTSON, M.D., F.R.S.E.,
Ophthalmic Surgeon to the Edinburgh Royal Infirmary, etc.

The expense of cucaine is so great, that it is very desirable that some other less expensive substance should be found which acts as powerfully as a local anæsthetic.

Caffeine, which is known to resemble cucaine in chemical constitution, and to some extent in therapeutic properties, naturally suggested itself to many as a possible substitute.

With the view of testing its merits as a local anæsthetic, I obtained a 16 per cent. solution by the employment of sodium-salicylate as a solvent, at the suggestion of Messrs. Duncan and Flockhart; caffeine and its salts being very sparingly soluble in water. This solution I applied in several cases, but was disappointed with the result, as I found that while caffeine acted like cucaine as a mild mydriatic, it did not produce the slightest anæsthetic effect on the conjunctiva to which it was applied. The dilatation of the pupil commenced about half or three-quarters of an hour after the introduction of one or two drops; it only occurred to a moderate degree, and passed off within twenty-four hours. The application produced a little smarting, which lasted a few minutes, but also induced some slight conjunctival injection, which endured for some hours. This, however, may possibly be attributable to the saline character of the solution.

To prevent needless repetition of experiments, I have thought it desirable to publish these negative results, so far as the anæsthetic properties of caffeine are concerned.

THERAPEUTIC MEMORANDA.

CUCAINE IN OPERATIONS UPON THE VAGINAL ORIFICE.

Not having seen anything recorded of the use of cucaine in operations on the female private parts, I desire to call attention to its value in the removal of vascular growths from the meatus urinarius. These are so sensitive that the administration of some anæsthetic has always been found necessary during their removal. I have performed two operations, after having twice painted the growth, and the area surrounding its attachment, with a twenty per cent. solution of cucaine, seizing it with forceps, and cutting it off with curved scissors, and on neither occasion was anything felt by the patient. I did not try a weaker solution, but am inclined to think it would answer. It is probable that cucaine will be found serviceable in most cases of operation about the vaginal orifice, the opening of labial abscesses for instance.

Clement Godson, M.D.

CUCAINE IN DENTISTRY.

A boy, aged 11, came to the Westminster Hospital to have a tooth out. He was actually crying from the severe pain, which was found to proceed from a badly decayed lower molar.

Having procured a 10 per cent. solution of the hydrochlorate of cucaine in oil of cloves, I applied it freely by means of pledgets of cotton-wool, both to the pulp-cavity and to the gums. In a few minutes' time, the tooth had ceased aching, and the mucous membrane had lost its sensibility. I now proceeded to extract the tooth. The boy gave vent to the usual yell as the tooth left its socket, and it was evident that the cucaine had failed to anæsthetise the deeper structures—a result similar to that obtained by ophthalmic surgeons.

I desire, however, to call attention to its apparent value as a remedy for toothache. In the above case, its application at once stopped the acute pain the boy was suffering from. I also think that dentists will find it useful in the preparation of cavities prior to filling them.

Morgan Hughes, L.D.S.Eng.

SURGICAL MEMORANDA.

TOTAL OBLITERATION OF URETHRAL CANAL IN A NEW-BORN CHILD: OPERATION: RECOVERY.

On January 3rd, 1880, Mrs. J. was confined at full term of a handsome and fully developed boy. A slight venous congestion marked the site of the urethral orifice, on the under side of which there was a shallow groove of about the one-sixth of an inch in length, not, however, dipping into the urethral site, nor taking from its normal length, but infringing slightly upon the frænum. The prepuce was retracted. The examination evidenced occlusion, and the symptoms called for prompt action.

At 7.30 P.M., the infant was placed under chloroform by Dr. Fothergill of this town, who ably controlled the anæsthetisation throughout.

The operation consisted in a gentle, but firm, screwing and pushing movement through the occluding material, and it proved that the canal was obliterated in its entire length. When approaching the neck of the bladder, the index-finger of my left hand was passed into the rectum, and retained there, as indicator and gubernator, until the catheter had passed through the membranous and prostatic portions, and had freely entered the bladder. Very little blood was lost. The instruments used were a probe, director, a stout curved stilette, and a small sized catheter belonging to a pocket-case. The stilette required very delicate management, but proved an apt instrument. The break into the bladder was effected by the catheter, and water immediately flowed. An oiled bougie was passed for two or three days; the wound healed rapidly, and, strange to say, the infant never showed signs of any suffering from the flow of urine over the abraded surface. At the end of a week or ten days the cure was complete, and remained so.

This case is interesting because of its rarity. Sir Henry Thompson,

in his article on "Diseases of the Urinary Organs" in Holmes' *System of Surgery*, says, "The canal is sometimes occluded, and this produces retention of urine and death during the early hours of life."

We may possibly conjecture that, in this case, the developmental process had been somewhat checked, the "uro-genital sinus" retaining something of its original character. The very slight hypospadias would give force to the supposition.

EDWARD WOOD FORSTER, M.R.C.S., Darlington.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ROYAL INFIRMARY, EDINBURGH.

COMPOUND COMMINUTED FRACTURE OF RIB: WOUND OF SPLEEN: PLEURISY: PERICARDITIS: PARACENTESIS PERICARDII: DEATH.

(Under the care of Professor ANNANDALE.)

[Reported by FRANK W. A. GODFREY, M.B., M.Ch., late Resident Surgeon.]

J. S., aged 29, a miner, was admitted on the evening of Jauuary 18th. Two hours before admission, while working in a shale-mine, a blast exploded within a few yards of him. He was struck on the back and knocked down, but was not rendered insensible. He was wearing a thin shirt at the time. After the hæmorrhage from his back, which was considerable, had been arrested by treatment, he walked three-quarters of a mile to the steamer, and again part of the way to the Infirmary.

On admission, he was not apparently suffering much pain or shock, and walked easily into the ward. The whole back, from the nape of the neck to the buttock, was riddled with fragments of shale. On the left side, five inches below the inferior angle of the scapula, and at the outer border of the erector spinæ muscle, was a deep wound, almost an inch long, which communicated with a comminuted fracture of the tenth rib. Two small pieces of loose bone could be felt at the bottom of the wound, as could also the jagged ends of the broken rib, separated some distance from one another. On the opposite side of the back, at a higher level, there was a deep wound which passed through the deep fascia into the erector spinæ muscle; and at the bottom of the wound a piece of shale, about the size of a pullet's egg, could be felt. Higher up the back, on both sides, were smaller wounds of similar nature, also containing fragments of shale. Chloroform having been administered, the pieces of shale and the loose fragments of broken rib were removed, and the sharp ends of the broken bone snipped off. There was no shale in this wound, but the costal pleura was lacerated. There was no bleeding of any importance. The wounds were cleansed with carbolic lotion; and a dressing of boracic lint, covered with a layer of salicylic wool, was applied over all. In the evening he was very restless, and suffering much pain, and there was retention of urine.

January 19th. The pain had ceased, but the retention continued; there were no signs of pleurisy.

January 20th. In the evening the temperature rose, and he complained of a sharp pain in the left side. Scattered friction-sounds over the side and the back of the base of the left lung were heard.

January 21st. The pleurisy was extending, and friction was audible as high as the fourth rib anteriorly, and at the left border of the heart. There was præcordial pain; but nothing abnormal could be detected in the heart. In the evening, the præcordial pain was much increased, and there was very loud and distinct pericardial friction, most marked over the base of the heart.

January 22nd. The pericardial friction was still marked, but the pain had ceased. There was dulness on percussion over the base of the lung posteriorly, as high as the seventh rib, and extending forwards to the anterior axillary line. Friction-sounds were heard as high as the apex behind, and the second rib in front.

January 23rd. The apex-beat was diffused and displaced upwards, and there was marked increase in cardiac dulness. No friction-sounds could be heard over the præcordia; the heart-sounds were indistinct and distant; the pleural effusion was increasing.

January 24th. There was dulness on percussion over the whole of the left lung, excepting a small area at the apex anteriorly, and a narrow band along the left border of the heart; cardiac dulness was much increased, though there was but slight displacement towards the right. The pulse was weak and slightly irregular, and there was some dyspnœa. At 10 o'clock, he was seized with intense cardiac pain, with a feeling of great weight at his heart. He was sitting up in bed gasping, and with both hands clutching the præcordial region. His eyes were fixed and staring; his face covered with heavy perspiration; and there was some cyanosis of the nose and ears. The pulse was 120, very weak and irregular; and there was extreme dyspnœa. The symptoms being evidently due to pressure on the heart, and the patient in an extremely critical condition, paracentesis pericardii was at once performed. Five ounces and a half of blood-stained serum were drawn off through the smallest needle of the aspirator. The puncture was made between the fifth and sixth ribs, about three-quarters of an inch below the apex-beat, and half an inch internal to it. The needle was directed slightly downwards, to avoid all chance of touching the heart, and was withdrawn as soon as the symptoms were relieved. The fluid came away very slowly. The dyspnœa was immediately relieved, and the cardiac pain and feeling of weight disappeared. The pulse fell down to 100, and became stronger and more regular; the cyanosis disappeared; and the patient expressed himself as feeling much relieved. The cardiac dulness was not appreciably diminished. In the evening, an unsuccessful attempt was made to tap the pleura, the largest needle of the aspirator repeatedly clogging with thick lymph. That night, the patient rested comfortably, and slept well.

January 25th. The patient felt much better, and took his food well. Another unsuccessful attempt was made to tap the pleura.

January 26th, 4 A.M. He was suffering from intense dyspnœa, with feeling of weight over the heart, and other symptoms as before. Paracentesis pericardii was again performed, and nine ounces and a half of blood-stained serum were drawn off. The relief of the symptoms was immediate and complete, and the cardiac dulness diminished markedly. There was absolute dulness over the whole of the left lung, except a small area at the apex anteriorly, where the note was tympanitic. Paracentesis thoracis was again unsuccessful. On the left side, the chest was drawn in during inspiration, and breath-sounds were absent. Expansion on the right side was exaggerated, and the left chest-wall drawn in with inspiration.

January 27th. There were pain in the right side, and friction in the infrascapular and infra-axillary regions.

January 29th. The friction on right side had extended considerably, but there was no evidence of effusion. The pulse was much stronger, and quite regular; and on January 30th, the friction on the right side had diminished. Breathing was easy, though very rapid.

January 31st. In the afternoon, the patient was wandering, and the breathing had become very rapid and difficult, with much mucus in the air-passages, abundant *râles* and rhonchi all over the right lung. In the evening, the breathing was easier, but very rapid.

February 1st. Breathing was very laboured, and there were marked cyanosis and great distress; there was a large quantity of mucus in the air-passages, and expectoration was deficient. Large doses of sulphate of zinc, ipecacuanha, mustard and water, and two hypodermic injections of apomorphia, were given in succession to cause vomiting, but in vain. The pulse was full and fairly strong, but the cyanosis increased, the breathing became more and more laboured, and the patient died at 5.30 P.M. The pulse could be felt at the wrist for fully half a minute after respiration ceased.

The necropsy was made on February 4th, by Dr. Byrom Bramwell. Between the scapulæ, and slightly to the right of the spinal column, was a lacerated wound; another deeper wound had apparently penetrated the chest five inches below the inferior angle of the left scapula, over the level of the tenth and eleventh left ribs. The pericardial sac contained ten ounces of yellow turbid fluid, in which floated flakes of lymph. The heart was thickly covered with a layer of recent lymph; it weighed ten ounces, and was normal internally. The right pleural sac contained seven ounces of slightly blood-stained serum: the left, thirty-nine ounces of yellow turbid fluid in which floated flakes of lymph. The right lung weighed one pound fourteen ounces and a half; it was very œdematous; the bronchial tubes contained a good deal of frothy mucus. The left lung weighed one pound five ounces. There was adherent to it a portion of the pericardium, which probably weighed about five ounces. It was collapsed, almost entirely destitute of air, and covered with a thick layer of gelatinous purulent-looking lymph. The wound over the tenth and eleventh ribs had fractured these ribs. A portion of bone had been driven inwards, and was found sticking in the spleen, which was lacerated and inflamed over an area of about an inch square. There was some recent thickening of the

capsule of the spleen, but no evidence of old adhesions, and there was no extravasated blood round the ruptured and lacerated organ.

	Temperature.		Pulse.		Respiration.	
	Morning.	Evening.	Morning.	Evening.	Morning.	Evening.
Jan. 18th	..	99.6	..	100	..	16
,, 19th	99	..	102	..	20	..
,, 20th	..	100.2	..	..	..	..
,, 21st	99.6	101	90	100	28	30
,, 22nd	100	100.4	86	90	24	26
,, 23rd	98.8	..	92	..	28	..
,, 24th	98	..	92	..	28	..
,, 25th	99.2	98.8	120	104	36	32
,, 26th	..	99.8	..	132	..	30
,, 27th	100.4	..	132	..	30	..
,, 30th	99	..	126	..	44	..
,, 31st	99.6	99	120	122	44	54
Feb. 1st	98.6	..	100	..	56	..

REMARKS.—In this case the pericarditis seems, without doubt, to have been a direct extension of the inflammation from the inflamed pleura. It appeared almost immediately after pleural friction became audible at the left border of the heart, and on *post mortem* examination the pleura and pericardium were found to be firmly adherent. This fact probably explains why there was so little displacement of the heart by the large effusion into the left pleura, an effusion sufficient to cause complete collapse of the lung.

The relief of symptoms following immediately on the relief of intrapericardial pressure was most marked and gratifying. On both occasions the patient was not only suffering intense agony, but was in a most critical condition, complete failure of the heart's action threatening. The finest needle of the aspirator was used in order that the fluid should be removed as gradually as possible; this diminished considerably the risks of the operation. It was unfortunate that the left pleural effusion could not be relieved; the lungs would probably have been saved, and the œdema of the right lung, which ultimately proved fatal, have been prevented. The question of incision was discussed, but, as there were no symptoms of empyema, it was not deemed advisable.

A wound of the spleen unaccompanied by hæmorrhage must be very rare. Its absence in this case was probably due to the wound being a lacerated one, and to the fact that the fragment of bone, which caused the wound, remained in it and acted as a plug.

HOSPITAL FOR EPILEPSY AND PARALYSIS, REGENT'S PARK.

EXCISION OF A TUMOUR FROM THE BRAIN.

(Under the care of Dr. HUGHES BENNETT and Mr. RICKMAN J. GODLEE.)

WE understand that the man from whose brain a tumour was removed on November 25th, died on December 23rd. For twenty-one days he continued to progress favourably, when suddenly he was seized with symptoms of meningitis, and died exactly four weeks after the operation. We are informed that the physician in charge of the case intends to bring the details before one of the medical societies; in the meantime, the facts, briefly stated, are as follows.

A young man, aged 25, consulted Dr. Bennett, and complained of paralysis of the left arm. For three years he had suffered from attacks of paroxysmal tremors, commencing in the face and tongue, and subsequently involving the arm and leg of the left side. On this gradually supervened paralysis of the arm and weakness of the leg. When he came under observation, the patient was robust in general health, and of sound intelligence. In addition to the symptoms already mentioned, he had double optic neuritis, and suffered from attacks of violent pain in the head, and uncontrollable vomiting.

The whole circumstances of the case led to the belief that a tumour of limited dimensions existed in the cortical substance of the brain, at the upper part of the fissure of Rolando. As life had become unbearable to the patient, and as it was obvious that his disease must, sooner or later, prove fatal, it was determined to attempt to afford him relief by the removal of the morbid growth. In this the patient acquiesced. Mr. Godlee therefore trephined the skull over a spot determined to correspond with the upper part of the fissure of Rolando. In the substance of the grey matter, a gliomatous tumour, the size of a walnut, was found and removed. A week after the operation a hernia cerebri appeared, but, with this exception, the patient remained perfectly well in mind and body, and free from all his former symptoms, for three weeks. At the end of this time he was seized with a rigor, fever, and the symptoms of meningitis, from the effects of which he died a week afterwards.

At the *post mortem* examination, the wound in the brain was found to have destroyed most of the ascending parietal convolution, and portions of the ascending frontal and supra-marginate gyri. From its lower margin there was a tract of inflamed meningeal membrane, covered with recent lymph, which extended downwards to the base of the brain, and spread over its surface; otherwise, the encephalic contents were essentially healthy. We refrain from comment on the case till all the facts have been placed before us in detail.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 23RD, 1884.

Sir ANDREW CLARK, Bart., M.D., President, in the Chair.

JOINT-DISEASE IN CONNECTION WITH LOCOMOTOR ATAXY: ADJOURNED DISCUSSION.

THE PRESIDENT said the meeting had been called for the special purpose of resuming and closing the discussion on Charcot's joint-disease. From some remarks made in a previous part of the discussion, he suspected that the exact position of the illustrious French physician in relation to this question was not fully understood; and he thought that in one, or at most, two, sentences, he could put the matter with sufficient clearness and accuracy to prevent any further mistake. Charcot distinctly admitted that arthropathies might occur independently of any special influence from any special nervous disorder; nay, he even went further than that, he said that an ordinary osteo-arthritis might occur in the course of tabes dorsalis, and have no specific characters; but he contended that there were injuries and diseases, acute and chronic, of the nerves of the spinal cord and of the brain, which produced arthropathies of various kinds; and he furthermore contended that, amongst this class of arthropathies, there was one which, by its anatomical characters, and by the assemblage and progression of its clinical symptoms, possessed such an individuality as to deserve, and, indeed, demand, a specific name; and it was this form of joint-disease occurring in tabes, and, as he alleged, peculiar to it, which the Society had been discussing.

Mr. MACNAMARA said that it seemed hardly possible that those who had cases of Charcot's disease under their care, or who had taken the trouble to examine the remarkable series of patients brought before the Society, could have any doubts as to the existence of the affection. But unless practitioners had watched patients suffering from Charcot's disease for some years, it was hardly possible that they could add much to the general knowledge of the subject. As a proof that the disease was not so rare as some people supposed, it was a fact that, through the kindness of Mr. Liener and Dr. Larder, there had been no fewer than five typical cases of this affection brought from the wards of a London hospital. The essential point of the suggestive questions put by Mr. Morrant Baker was not the existence of Charcot's disease, but its dependence upon lesions of the nervous system; because if such were the case there might be hope of penetrating the frail disguise of words with which the ignorance as to the pathology of some of the most common diseases of joints was hidden. He thought that joints might well be regarded as being interruptions in the continuity of bones. Embryology taught that such was their origin; histology enforced the same lesson, demonstrating the fact that the synovial membrane, like the periosteum, contained numerous osteoblasts, especially where it was reflected from the bone. Disease confirmed this idea; for in non-suppurative chronic affections of joints, osteophytes were built up from osteoblasts in the synovial membrane, in the same way as they were formed from the periosteum round the extremities of an ununited fracture, and in various forms of disease. Consequently, he failed to appreciate Mr. Hulke's argument that, because osteophytes were a prominent feature in cases of rheumatic arthritis, and were also found in Charcot's disease, therefore, these affections were identical. The dried bones were very unreliable landmarks at the best of times, but utterly unsafe guides as indicating the nature of the abnormal action which during life had caused osteophytes to form on their surface. Moreover, as Dr. Buzzard remarked, eleven years ago, there could be no reason why a patient suffering from Charcot's disease of the joints should not be affected by rheumatic arthritis, synovitis, or any of the other maladies to which human beings were liable. If

one turned from the pathological to the clinical side of this question, one could not have a better illustration of the disease than that presented by the patient whom Mr. Barker had brought to the rooms. This man had for some years been suffering from symptoms indicating lesions of the nervous system, among others, perforating ulcers on the right foot. One morning, about two years ago, he went to his work as usual, but at breakfast-time, finding his right foot hot and uncomfortable, he took his boot off, and then discovered that the foot was so much swollen that he could not put his boot on again; by dinner-time the right leg and thigh were greatly swollen, but there was no pain in the limb. The patient was, however, obliged to return home in consequence of severe retching, lightning-pains, and in truth, a violent nerve-cyclone, out of which he emerged at the expiration of three days. His leg, however, remained swollen for two months, when it gradually resumed its normal size, and at present the limb and its joint were quite sound. In July last, this man was suddenly seized with rapid painless swelling of his left thigh and leg. This had not passed off as yet, and now his left knee was totally disorganised; the leg hung like a flail on the thigh and could be moved in any direction without pain. This patient had never had any symptom of rheumatism, gout, or syphilis. In Charcot's disease, therefore, there were invariably well marked antecedent symptoms of lesions of the nervous system; there was sudden serous effusion into the affected limb, as well as into the joint; the joints were rapidly disorganised, without pain; the bones were easily fractured; there was seldom any fever; ankylosis did not occur; recovery was not unfrequent; the affected bones underwent a rapid rarefying osteitis. In rheumatoid arthritis, there was always some amount of fever, with marked synovitis, and long continued rheumatic pains, and an invariable progress from bad to worse, ending in ankylosis of the affected joints; the bones underwent a process of chronic condensing osteitis. The lesions and the symptoms of Charcot's disease and of rheumatoid arthritis were, therefore, dissimilar. Rheumatoid arthritis was characterised by well marked symptoms and lesions, and it was fair to infer that a disease having entirely different characters was not induced by it. And, further, as Charcot's disease was never met with unless among persons suffering from a remarkable train of symptoms referable to disorders of the nervous system, it seemed just to attribute the disease of the joint found in this affection to a disorder, as Dr. Buzzard suggested, of a nerve-centre controlling the nutrition of the diseased structures.

The PRESIDENT asked if he understood Mr. Macnamara aright, that there was always pain in chronic rheumatic arthritis, and that there was never condensation or eburnation in Charcot's disease?

Mr. MACNAMARA replied that, in chronic rheumatic arthritis, as far as he knew, there was always rheumatic pain, and pain in the affected joint. In Charcot's disease, the pathological changes were marked by rarefied osteitis. There might be a certain amount of condensing osteitis, but it was very rare. A marked feature of Charcot's disease was a rarefying osteitis, whereas that of chronic rheumatic arthritis was a condensing osteitis.

Dr. BROADBENT remarked that there was nothing in the extent of his experience, and nothing in any new views that he had to present to the Society, which justified him in taking part in this discussion earlier, but the protraction of the debate might perhaps leave time for the few remarks he should make. It seemed to him that one of the most important points which had come out in the discussion was the conclusion by Sir James Paget that the disease in question, the articular affection arising from tabes, as described by Charcot, was a new disease. He scarcely thought that the effect and bearing of that conclusion had been rightly appreciated, because it seemed to leave absolutely no room for any identification of this disease with chronic rheumatic arthritis. While Sir James Paget's authority was accepted as very great on any subject on which he spoke, on this subject his authority he (Dr. Broadbent) supposed was unrivalled. It was evident, from the place which chronic rheumatic arthritis took in Sir James Paget's work on *Surgical Pathology*, that it occupied his attention early, and it was certain from his late declarations that he had continued to interest himself in that and like subjects, so that his conclusion might be taken as one of special value; it seemed to Dr. Broadbent to reduce to the level of mere cavil the attempts which had been made to connect the two diseases by intermediate links, especially when those links were based on dried specimens of bones. But even were the interpretation of morbid specimens by Sir James Paget less unequivocal, he agreed with Mr. Macnamara, Mr. Barwell, and others, that the clinical features of the two diseases established a complete distinction between them. In the history of disease, vital processes were of greater importance than morbid anatomy, and the life-history must be allowed a determining influence in the opinion to be formed as to the nature of any disease. He thought that at least four different modes could be traced in which joints became deformed in a way which gave results similar to those described as belonging to osteo-arthritis, or chronic rheumatic arthritis. For example, two distinct diseases were included under that term, the early disease of which examples were seen in young females, and the late disease of morbus coxæ senilis; those seemed to him, although included under the same name, to be really two distinct clinical diseases. Then, besides chronic rheumatic arthritis, there were the effects of tabes to be considered; and he thought there were very similar results merely from neglected chronic synovitis, of which an illustration was quoted by Mr. Morris. But, as he had said, he thought the clinical history, which had been minutely described by Mr. Barwell and Mr. Macnamara, and had been referred to by Mr. Page, of itself established this great distinction. There was then a new disease, and the important point in this inquiry was what was the new morbid factor. Sir James Paget, in one part of his remarks, he thought, had coincided very much with Professor Charcot's conclusion; but in other parts he had sent them to search for the causation of this particular result as a sort of resultant of possible different morbid processes, and had left them to determine between rheumatism, gout, rheumatic arthritis, and syphilis, as the dominating influence which gave rise to this particular condition. It seemed to him that research in this direction would bring results of no value. With regard to syphilis, indeed, if they admitted (as he certainly would) the relation between tabetic arthropathy with tabes; and if they admitted (as he thought they must) the extraordinary predominance which syphilis had among the antecedents of tabes, then there seemed some sort of remote connection between syphilis and this particular disease, and perhaps the greater frequency of tabes, and the greater frequency, as he thought, which there had been of late years of syphilitic disease of the brain and the spinal cord alike. He thought all these might be, to some extent, traceable to the slipshod treatment of syphilis which prevailed for a great many years when the antimercurial ideas exercised considerable influence, and led to neglect of radical treatment of early syphilis. At any rate, in his own experience, both in regard to tabes and to syphilitic diseases of the nervous system, it was comparatively rarely that he found that a patient had undergone anything like adequate treatment for the primary syphilis. This was a mere parenthesis. It seemed to him that no result of any particular value would be reached, if it were determined that it was through a rheumatic arthritis, or through gout, or through any other tendency, that this tabetic disease acted in the production of this joint-disease. It seemed to him that it would be quite another thing if, for example, Charcot's disease were regarded not as chronic rheumatic arthritis intensified by nerve-disorder, but if the relation between chronic rheumatic arthritis and this Charcot's disease were looked on as a relation established by like causation, that both were effects of the derangement of nutrition through the influence of the nervous system. In one, in chronic rheumatic arthritis, it was reflex; in the other, it was the effect of the persistent irritative lesion in the spinal cord. If that were the relation established, a like causation in this way, then it seemed to him that an important step had been gained; but it would be an explanation of ordinary chronic rheumatic arthritis through tabes, and not an explanation of the tabetic disease through chronic arthritis. This was very much the position which had been taken up by Dr. Ord, and argued for some considerable time. It would, perhaps, be premature to say that that view was established, but certainly the weight of evidence tended strongly in that direction. There seemed to him to be no explanation possible of this joint-disease, except a disturbing influence through nervous agency. Dr. Moxon had found fault with the illustration of herpes zoster, and, of course, there was a contrast between the definite duration and spontaneous cure of herpes zoster as compared with lesions that came in the course of tabes. But Dr. Moxon had left out of sight the fact that herpes zoster left cicatrices; that herpes attacking the region of the fifth nerve would damage an eye permanently; that, from time to time, cases occurred in which the entire area of skin supplied by the fifth nerve became atrophied, and thinned, and shiny after an attack of herpes zoster. He thought that, with certain qualifications, the comparison held good, and was a fair illustration. Mr. Hutchinson had suggested that the explanation of these tabetic lesions might be the use of a diseased joint, which was permitted by the loss of sensation, or the loss of sensibility to pain, and Dr. Moxon had maintained the same view. But surely a view of this kind admitted an illustration by facts. Was it in accord with experience that those cases were the ones to suffer from this disease in which there was the most exaggerated flinging about of the limbs, and in which there existed the most striking anæsthesia? He thought that the reverse was the case; and while it was not in every case that

there were the gastric crises, to the association of which with this disease Dr. Buzzard had called attention; while that association had not been, in his own experience, absolute, yet that was the rule; and those were cases in which the violence of the movements and the degree of anæsthesia were not particularly marked. Cases were going about with impunity in which these exaggerated movements were carried to their greatest extreme; and there were others in which the ataxy had actually to be discovered after the occurrence of these tabetic phenomena. He, therefore, had no doubt whatever in admitting the accuracy, the exactness of Professor Charcot's views, as stated by the President at the commencement of the meeting. In conclusion, he thought he might be permitted to express before the Society his regret that, in the vote of thanks to Professor Charcot for sending his specimens, which had been moved by Dr. Moxon, there was a tone of sarcasm. Whilst all would be sorry to miss Dr. Moxon from their meetings and from the periodicals, while he thought that the loss of his criticism would be a loss to medical science, yet he did think that, on this occasion, it would have been better omitted. Of course, if he had been speaking otherwise than as moving this vote of thanks, it would not, so to speak, have committed the Society, but it had, in a way, almost compromised the Society that this tone should have been employed in moving this vote of thanks. He further deprecated the bringing in of an allusion to the hysterical cases of anæsthesia—that was throwing discredit on M. Charcot's work in connection with this particular disease—those facts of anæsthesia, burlesqued as they were in the amusing scene which Dr. Moxon related with regard to his gynæcological pupil or colleague. He thought it only fair that there should be some statement made in this Society of the part which Professor Charcot took in relation to the subject. It was the honour of the Society which had moved him to make these remarks; and he would only further say that Professor Charcot's attitude was throughout that of a spectator, who was as far from partaking in any extravagances which might have attached to this idea as Dr. Moxon himself. He was quite sure that Dr. Moxon, seeing, as probably he would after what had been said, that the occasion was of a special kind, would be the first to regret that his remarks should be understood as a slight upon Professor Charcot.

The PRESIDENT said that, in Dr. Broadbent's reference to the speech of Sir James Paget bearing upon the antecedent causation of arthropathy and tabes, he thought Dr. Broadbent had omitted to mention that Sir James spoke not only of antecedent processes, but most particularly and specially of the combinations of antecedent processes, such as the combination of gout and syphilis.

Mr. CLEMENT LUCAS thought that many would regret that the weight of authority in this discussion had been thrown almost on the side of conservatism. He attributed this in a great measure to the lead given by Sir James Paget in his admirable address, at a former meeting. When he (Mr. Lucas) listened to that address, although he differed from it *in toto*, he seemed fairly carried away by its eloquence, and quite wished that some one would rise at once and overthrow what he believed to be its erroneous doctrines. But those very distinguished surgeons who followed—Mr. Hutchinson, Professor Humphry, and Mr. Hulke—seemed, perhaps, under the same influence, they seemed to use similar arguments, and to come to very similar conclusions. Mr. Hutchinson and Professor Humphry, it was true, saw very great distinctions between the pathological results characteristic of Charcot's joint-disease and those characteristic of osteo-arthritis; but they could not disentangle themselves from the idea of osteo-arthritis—that this disease must be osteo-arthritis modified by some other disease added to it. Mr. Hulke seemed to take firmer ground; and he used an argument which at first sight appeared to be a powerful one, for he said: "I take here a joint which is from the upper extremity of one who is ataxic, and it shows atrophy, wearing away, characteristic of Charcot's joint-disease; and I take here another joint from the lower extremity of the very same patient, and here are outgrowths of bone similar to what you have in osteo-arthritis; therefore, these are one and the same disease." But these joints were in different stages of inflammation, and he would ask, Was it not true that all groups of diseases were very much alike at their commencement? Was it not true, for instance, that fevers at their commencement were undistinguishable until the rashes became developed? Inasmuch as there were only certain anatomical structures in the joint which could undergo inflammation, must not joint-diseases of necessity have certain similarities, and, *a fortiori*, he would say, Was it not certainly true that osteo-arthritis and Charcot's joint-disease, being both of them chronic joint-disease, must therefore, of necessity, present certain similarities? To his mind, it would be very extraordinary if it were not so. If any further argument were required in opposition to what Mr. Hulke said, he would take it from the speech of Dr. Moxon. It was well known that Dr. Moxon opposed everything that Professor Charcot had described, He did not believe that this was a distinct disease; but he brought a joint which was a case of traumatic arthritis. He said, "Look at my case of traumatic arthritis, and see the wearing away of the humerus, similar to what you get in Charcot's joint-disease." But those who examined that specimen further would have seen that, arising from the scapula, were outgrowths of bone—pieces of bone attached by fibrous tissue, not unlike the outgrowths in osteo-arthritis. Here, then, was a connection between traumatic arthritis and Charcot's joint-disease and osteo-arthritis. Why? Simply because they were all chronic joint-diseases. The question had been asked, Was this a new disease? Sir James Paget gave a double answer; he said, "Yes; in a general sense, it was a new disease, but in an especial sense it was the result of a combination of diseases." To Mr. Lucas's mind, that was a combination of errors. In the first place, it was asked, "Was this a new disease?" and Sir J. Paget's answer was, "Yes." Why? Because no old case could be found in any of the museums. He thought that was a very fallacious argument, for collectors of specimens collected what they considered to be typical specimens; and this disease had hitherto been confused with osteo-arthritis. These cases of Charcot's joint-disease were not typical of osteo-arthritis; they were different. And curators of museums annually or periodically visited their shelves, and threw away the specimens which they did not consider typical, or not good for teaching purposes, or not good as to their histories. He perfectly remembered that, when Dr. Moxon was curator of Guy's Hospital Museum, he threw away hundreds of specimens. How, then, was it known that he did not throw away all the cases of Charcot's joint-disease? As to Sir James Paget's second conclusion, that this was a result of a combination of diseases, that, he thought, was a most erroneous doctrine. He said that there might be three or four or more diseases acting to cause this disease. If one had to search for three, or four, or a dozen diseases before determining what was the matter with his patients, they would be dead and buried before he knew what was the matter with them. He thought Sir James Paget said that syphilis ran a different course in a gouty person and in a strumous person. That was true enough; but did not all diseases run different courses in different persons? Syphilis was syphilis all the world over. It gave rise to a number of secondary and tertiary lesions, but it was the same disease all through, and to those who knew all the different lesions, and knew them well, they were each and every one of them characteristic; therefore, he thought Sir James Paget's illustration most unfortunate. Then, if the pathological specimens were not sufficient to distinguish one disease from the other, he thought it was unfortunate for the Society that more attention had not been paid to the clinical signs. He was happy to hear Mr. Macnamara referring to the clinical signs, and he thought sufficient credit had not been given to Mr. Barwell for what he said about them. These were chiefly the sudden onset, great swelling, the rapid disorganisation which often took place, the peculiar joints affected, and the very peculiar painlessness of those joints. He should like to refer, in illustration, to the case brought before the Society last year, when they first had Dr. Moxon's experience of this disease, which was to the effect, he believed, that, after seeing very many cases of locomotor ataxy, Dr. Moxon had never had one case of Charcot's joint-disease. That case was interesting in this respect, that it was not diagnosed by any physician. He had come among Mr. Lucas's out-patients suffering from an inflamed foot. He had studied this disease with great care, and for some years he had worked at the cases which he had seen under Dr. Buzzard, Dr. Hughlings Jackson, and other cases that were brought to the Hunterian Society; they were all cases in advanced stages, so that he thought he knew the disease; but, in this case, which came to him among his out-patients, he saw something new. Here was a man with a great swollen foot, red, puffy, but not œdematous, extending from the malleoli up to the basis of the metacarpal bones. Was it gout? No; it was not intensely painful like gout. The great toe had never been affected; there was no enlargement of the veins, such as accompanied gout. Was it osteo-arthritis? He did not know whether osteo-arthritis suddenly came on, as this had done, in the tarsal bones, the others being unaffected. Here the foot suddenly inflamed, and the man was laid up for three or four days; and then he came walking about upon it. He asked, "Was there any other joint affected?" The man said, "I have something the matter with my elbow, but it does not trouble me very much." Upon his arm being stripped, there was seen a most extraordinary elbow-joint, a great bossy swollen joint, with which one would have said it was impossible for a man to work, and yet he had been working for two years with it. When it first became inflamed, he came amongst the out-patients at Guy's Hospital, and the joint had been strapped

up. Then he worked with it for two years. Now, neither this joint nor that foot, in his opinion, could be classified under either osteo-arthritis or gout. He was pressed for a diagnosis, but could not give one. He had Charcot's joint-disease in his mind, and looked at the man's pupils, and found that they were not contracted. He asked if there were lightning-pains, but had found none. He then let the man go, and wrote on his letter "Inflamed foot and disease of the elbow," because he could not give a better diagnosis. When the man came next time, he went more thoroughly into the case. When the man was told to shut his eyes, he was a little unsteady; and yet he himself was unconscious of anything being the matter except these joint-diseases. Unless he knew very little about these common diseases of out-patient practice, he made a very great mistake in this case in not first placing it under gout or rheumatic arthritis. It was something new to him; and it was not until the man came afterwards that he could diagnose his malady. In his opinion, this was an entirely new disease; and he thoroughly believed that a few years would settle it absolutely, and that people would look back to this discussion and wonder that these great men who had spoken should have made such very great mistakes. He believed it was an entirely new disease; and when it had been disentangled from the confusion, he hoped it would be recognised. Here was a new field for more exact clinical inquiry. Let it be pursued without prejudice; and, lastly, let the credit of the discovery be given to that great man to whom the credit was due.

Dr. MACLAGAN desired to make a few remarks from a physician's point of view. He would simply condense all that he would say on the relation which it was possible that Charcot's disease bore to rheumatism, and gout, and rheumatoid arthritis, by saying that he would entirely homologate all that Dr. Pye-Smith had said. He thought the disease was perfectly distinct from all three. But, dismissing that point, he would proceed to discuss the pathogenesis of Charcot's disease. He did not see how this disease could be divorced from tabes dorsalis; there was no evidence that it had ever been found unassociated with that disease, though it occurred in only a very small percentage of cases in tabes dorsalis; there was no evidence that there was no causal relationship between the two. It was not said, for instance, when a parturient woman had a white leg, that it had no connection with her recent confinement, simply because the immense majority of parturient women had no white leg; nor, because only one leg was affected, was it said that the local condition of the limb had nothing to do with the general condition. In the same way with Charcot's disease, simply because it was an occasional thing, and did not affect all the joints and all the limbs, it could not be said that it had no connection with tabes. The question was, What was that connection? The general characteristics of a tabetic limb were, that its general vitality was lowered; there was a loss of sensibility, and a tendency to spontaneous fracture. That was an important element in the pathogenesis of the disease, which had been lost sight of in the discussion. But all these characteristics it had only in common with other forms of paralysis—general paralysis, for instance, as Dr. Moxon showed. The special peculiarity of a tabetic limb was the loss of the power of co-ordinate movement. Attention must not be concentrated solely on the posterior spinal cord, or on the muscles. The posterior columns of the cord were no doubt the seat of disease; the muscles must have lost their co-ordinating power; the bones were also affected, as were the ligaments—the fibrous, ligamentous, and tendinous parts of the joints. He would confine his observations to the knee-joint, though his remarks applied to all the others. The absence of patellar reflex was looked on as a characteristic sign of the disease. He would simply direct special attention to this phenomenon as evidence of the loss of sensibility and diminished vitality of a ligamentum patellæ; and what was known to occur in the ligamentum patellæ might reasonably be assumed to occur also in other tendinous and ligamentous attachments of the knee-joints. Ligaments were absolutely as essential as the muscles to co-ordinate movement; the muscles could not produce co-ordinate movement unless the ligaments bound the bones together. This he thought had a most important bearing on the pathogenesis of Charcot's disease; for one could not read the accounts of the early stages of that disease as given by Professor Charcot, Dr. Buzzard, and others—one could not look on the casts of limbs in the next room, without seeing that it was the ligaments that had given way; the heads of the tibia and fibula had lost their relationship to each other and to the patella; the whole swelling of the limb which had taken place was not an ordinary œdema, but it was such a swelling as he presumed would result in a limb with diminished vitality, and in which all the soft parts were being strained simply by the absence of ordinary ligamentous support, such ligamentous support being absent at a time when the muscles retained a great deal of the power of movement, not in the condition of a paralysed limb at all. That seemed to be the condition that obtained in the early part of Charcot's disease. The ligaments gave way first, just as in later stages the bones gave way by spontaneous fracture, and they gave way without pain simply because of the loss of sensibility. In the same way, if the ligaments gave way, by-and-by, in the more advanced stages, all the bones would be rubbing against one another, and with that diminished vitality the bones would waste and wear away, and in time there would be naturally produced the pathological change which was characteristic of the advanced stage of Charcot's disease. The limb, in short, of such a man suffering from tabes was, so far as vitality was concerned, the limb of an old man, and, so far as muscular power was concerned, the limb of a middle aged man. In connection with that, he would point out that Charcot said that this condition always occurred at first in the lower limbs, and when it occurred later and in the upper extremities it was a very advanced disease. It must be borne in mind that Charcot's observations were all made in the Salpêtrière; and the people there were of course in the habit of walking and pottering about on their legs but never using their arms, and, naturally enough, their legs went wrong. There was a case to which Mr. Lucas referred, which had been exhibited there by Dr. Duckworth at the last meeting, in which the elbows were affected. But that man was a cooper, and used his arms a good deal more than his legs. That was a point to which he wished to direct attention, that they were apt to lose sight of attendant phenomena. The fibrous tissues of the joint affected were absolutely essential to co-ordinate movement, and there was a good deal of evidence to show that they primarily suffered in Charcot's disease. With regard to Professor Charcot, he entirely homologated all that Dr. Broadbent had said; his regret was that Dr. Moxon did not go a little further back in Professor Charcot's career. Seventeen or eighteen years ago, Charcot had first pointed out the existence of the minute aneurysms which were now associated with cerebral hæmorrhage; he threw more light than any other man on that subject, and had done excellent work in connection with it.

The PRESIDENT asked the speaker if he adopted all that Dr. Pye-Smith had said, that a new disease was impossible.

Dr. MACLAGAN said that Charcot's joint-disease had no connection, clinically or pathologically, with rheumatism, gout, or rheumatoid arthritis.

The PRESIDENT said that that was not exactly the question. It was stated, in reply to Sir James Paget, that a new disease could not arise, that a new disease was impossible. That statement was made by Dr. Pye-Smith; did Dr. Maclagan adopt it?

Dr. MACLAGAN did not say that a new disease was impossible, but there was no evidence of such disease.

Dr. BASTIAN said that his own experience of this particular joint-affection was extremely limited. He had seen several well marked cases in the practice of others; but, though he had been on the look-out for the disease since 1868, when Charcot's description first appeared, he had never yet had a single marked case under his care, although he had seen very many cases of locomotor ataxy. He was compelled to believe, therefore, that this joint-disease was not a necessary appanage of the ordinary lesions of locomotor ataxy, and that was precisely M. Charcot's own position; that this joint-affection, when it occurred, was to be looked on as the result of some altogether unusual extension of the ordinary pathological processes. M. Charcot's first view, at all events, was that it was the result of an extension of a pathological process, from the posterior nerve-roots and posterior columns into the anterior grey matter; but whether that was the right view to adopt, at present, would seem perhaps open to doubt. He thought it necessary to call attention to this point, because, in the remarks both of Dr. Moxon and of Dr. Pye-Smith, this seemed to have been lost sight of; they argued as if the affection were assumed to be a result of locomotor ataxy, in the ordinary lesions of locomotor ataxy in the posterior columns. Then, again, it seemed to him that, if locomotor ataxy were such a very common thing as it was known to be, comparatively speaking, and this joint-affection were so rare, that of itself must tend to throw a considerable shadow of doubt across the views of some speakers, who had laid stress upon the fact of the loss of sensibility in this disease, combined with exaggerated movements, being of themselves adequate to produce a joint-affection of this kind; and then, again, also in the same direction, as tending to discredit that view, it seemed to him that the fact must be remembered that, in a great number of these cases, this joint-affection was said to manifest itself at quite early stages of locomotor ataxy; and in very many, indeed, in several, of the recorded cases, it had manifested itself quite early, and at other times it came at irregular periods of the disease. Then, it seemed to him that, if inquiry were made into the connection of this disease with

neural disturbances, the question ought to be looked at in the light thrown upon it by other simpler joint-affections, which were more clearly related to certain disturbed neural conditions; and he would refer specially to two cases of this kind. First, there was the fact that, in certain cases of hemiplegia, there were joint-affections in the form of a simple arthritis, occurring in the limb only on the paralysed side, not on the opposite side, and that in those cases there was often the co-existence of tenderness over the nerve-trunks, and sometimes atrophy of the paralysed muscles. He believed that, in nearly all such cases, there was evidence of a sclerosis in the lateral columns of the cord, and he knew that in some of these cases it had been actually ascertained by M. Charcot himself, that there was an extension from the sclerotic region in the lateral columns of the cord into the contiguous grey matter; so that, in this case, there might be a relation between the joint-affection and changes in the grey matter, or the coincident changes in the nerves of the limb. There was another case in which there was the association of simple arthritic conditions with the onset of nerve-affections. He alluded especially to progressive muscular atrophy. This had been observed not unfrequently of late years, especially since attention had been called to it; and about two years ago he had seen a very remarkable case, in which the progressive muscular atrophy was of unusually rapid onset, and in which the joint-affection, pain, tenderness, and inflammation about the joint was so marked as to have caused this disease to be regarded, at first, by the practitioner under whose care the patient came, as one of rheumatic fever. There was no doubt that, in a certain proportion of these cases, there was a simple joint-affection which declared itself; here, again, there was disease in the anterior cornua of the spinal cord, and, possibly, changes in the nerves in connection with those anterior cornua. It seemed to be impossible to define more closely the relation between these simple arthritic affections and those two diseases, and he thought, with regard to Charcot's disease, that, in this disease, there might be extensions of the morbid process into the grey matter, and, also, they could feel reasonable probability that there might be implication of the peripheral nerves in the disease. He thought it very important not to lose sight of the fact that, during the last two years, there had been cases of locomotor ataxy of an ordinary kind, so far as their clinical characters were concerned, but in which *post mortem* examination had shown not central changes in the spinal cord, but peripheral lesions only in the nerves. Several of these cases had been recorded. Of course, further information about them was wanted; but it seemed to him quite possible that, if symptoms of locomotor ataxy could be produced in this way by diseases of peripheral nerves, it was also possible that, in the ordinary cases of locomotor ataxy, cases in which there were centric changes, there might be some amount of change of the peripheral nerve. This was a subject which future investigators would have to decide. Then, even if it were supposed that there was a causal connection between the occurrence of these joint-affections and these lesions in the nerves, it did not seem to him at all necessary that the existence of special trophic nerves should, therefore, be postulated. Some of the best marked trophic lesions seemed to occur from the mere cutting off of ordinary nerve-impressions from parts which were accustomed habitually to receive such impressions. He would mention, under this head, the secondary degenerations that occurred in the brain, those in the spinal cord, and also the degenerations that occurred when a motor nerve was cut across, and, again, the extremely well marked atrophies that occurred in muscle under those conditions. Here, when there was a cutting across of a motor path in any of these lesions, there was, as a result, a disturbance of nutrition below; and the part either underwent fatty degeneration, or a process of atrophy. At least half of the trophic processes seemed to be of that kind; but it seemed to him as if the cutting off of the neural excitations which passed along motor tracks might produce one set of these trophic changes; so, at least, the large proportion of them might be produced, by unnatural influences passing along sensory nerves, on account of pathological changes occurring either in their track or in the nuclei of the spinal cord and medulla, at the root of the sensory serves. In this way, the trophic changes occurring in the skin might be explained; that was to say, the various eruptions of the skin that had occurred, some in the course of herpes zoster, some in the course of locomotor ataxy itself, over the course of painful nerves, and ulcerations that occurred in the skin, and the ulcerations of the cornea, which had always attracted much attention, and also those peculiar atrophies of the skin to which attention was called by Sir James Paget, the so-called glossy skin, which he showed to be due to nerve-irritation. Although, as a rule, sensory nerves transmitted impressions towards the centre, still, if the nerve were irritated in its course, or if its nucleus were irritated, there seemed no reason why impressions might not be sent to the periphery from which these nerves came. It had been shown by physiologists that a nerve might transmit impressions in both directions. It seemed to him to be quite possible that this occurred, and that, therefore, if there were an irritating lesion in the course of a sensory nerve, or an irritation affecting the nerve-cells at the nuclei of one of these nerves, there might arise, in that way, a constant flow of unnatural nerve-influences going to the tissues which might suffice to disturb their nutrition. It seemed to him possible that, just as the skin-affections were produced in this way, so the joint-affections were rather results of lesions occurring in the sensory nerves or the sensory nuclei than in the motor nerves. He threw that out merely as a suggestion, because he thought at present it was one which could not be proved, and it must rather remain for future investigation to decide the question. But, whilst he thought it quite possible, therefore, that some one or other of these changes that were met with in locomotor ataxy, either the changes in the grey matter or the changes in the peripheral nerves, might act in this way as irritants, and set up an inflammatory condition in the joint, it was impossible to go further, and to say precisely how the disease was produced. It seemed to him that if the disease were produced in that way, it might progress to a certain extent, and that then also there might come into play those considerations which had been insisted upon by many; that was to say, the continued use of the anæsthetic joint, and all that might tend greatly to aggravate the condition produced. But with regard to the fact of a connection existing between the processes that might occur as part of the phenomena of locomotor ataxy and this particular joint-affection, he thought there was at present good evidence for believing that that was so, and, therefore, that M. Charcot's position in that general respect was one which might be fully conceded; but that, when one came to the details, and to ask exactly what was the precise pathogenesis, present knowledge would not enable an opinion to be given. In reference to the question whether this was a new disease, he said that it seemed to him that those who contended that this was a new disease drew a conclusion which was diametrically opposed to the conclusion of M. Charcot. Because, he took it, people had always had nervous systems, and those nervous systems had always been submitted to pretty much the same kind of influences, during periods of civilisation at all events; and it would be extremely difficult, therefore, to understand how, if this disease were one really due to the disturbing influences of pathological conditions of the nervous system, it should be new. On the other hand, it was quite possible to explain in some way which had been already hinted at, how it was that the pathological conditions had not previously been recognised. He thought that a distinct relation between this disease and locomotor ataxy should be admitted, although the exact relation could not be previously defined.

[*To be continued.*]

MEDICAL SOCIETY OF LONDON.

ARTHUR E. DURHAM, F.R.C.S., President, in the Chair.

Intussusception.—Mr. FREDERICK TREVES commenced a discussion on intussusception by reading a paper on the subject. It is published at page 6.—The PRESIDENT said that Mr. Treves's paper confirmed him in the opinion that, if any operation were to be of use, it must be performed early.—Dr. HABERSHON, in discussing the treatment, concurred with the division of cases into acute, subacute, and chronic. Medical treatment was only of use in early acute cases, especially in children. Belladonna was sometimes of use, and enemata were occasionally followed by recovery; but, supposing opium, belladonna, and enemata to have failed, then the time for operative interference had, in his opinion, most certainly arrived. The earlier the operation was performed, the greater the chance of a successful result. He related several cases in which medical treatment on the lines above mentioned had been successful; sometimes it was wise to afford operative help by the rectum, and the introduction of a bougie was thus occasionally successful. He thought that, in the future, a great deal more might be done by operative treatment than had been attempted in the past.—Dr. W. H. DAY related two cases of intussusception, in which the injection of warm water, and the administration of belladonna by the mouth, were followed by recovery.—Mr. BERNARD POTTS thought Mr. Treves too sweeping in his condemnation of manipulation and massage. Manipulation, applied in the same fashion as taxis in hernia, might be of great use; and, in support of this, he related a case of well marked intussusception in a child, where manipulation, followed by the injection of air, resulted in the reduction of the intussusception; and a second case, in which inflation failed and manipulation was successful.

—Mr. Boyce Barrow thought the failure of manipulation was often due to its improper mode of application. It seemed reasonable to suppose that the application of ice and of steady prolonged pressure would relieve congestion, and so reduce the bulk of the intussusception.—Mr. Pickering Pick thought that intussusception could not be compared to hernia, because a certain though small proportion of cases recovered spontaneously. The operation of abdominal section in intussusception was surrounded by special dangers, on account of the distension of the intestines, even in the earliest stage; in the later stage, the best treatment seemed to be to resect the gut, and stitch the two ends together.—Dr. C. H. F. Routh advocated the use of belladonna in intestinal obstruction, and especially in the intussusception of children, who bore large doses of the drug without injury.—Mr. Royes Bell related two cases under his care. In one, complete recovery followed forcible inflation.—Mr. William Rose was impressed by the facts brought forward by Mr. Treves in support of his contention, that it was necessary to operate early. He agreed with Mr. Pick in preferring to unite the two ends of the bowel, after resection, rather than making an artificial anus.—Mr. A. Pearce Gould felt some difficulty in separating the acute from the subacute cases clinically, and he also desired to learn from Mr. Treves how long, in his opinion, opium ought to be continued before attempting operation. Mr. Gould thought that, if an enema were to be given, it ought to be thoroughly given once, and if it failed some different line of treatment ought to be adopted, as enemata set up violent peristalsis. While fully recognising that children could be given very large doses of belladonna without danger, he thought opium more likely to be useful.—Dr. H. R. Crocker believed that small doses of belladonna were quite without effect on children. He would begin with doses of fifteen minims, and, if the desired effect were not produced, would then give thirty minims.—Mr. Treves, in reply, said that he was of opinion that opium acted more quickly and produced more complete quiet than belladonna. He had not intended to condemn manipulation entirely, but it could only be applied to a few cases; if the intussusception extended into the splenic or even the hepatic flexure manipulation was impossible. As to the mortality attending operation, he thought no safe conclusion could be drawn from the statistics, because the case had generally passed into a hopeless condition before operation was attempted. In no single instance had recovery occurred when the gut was resected and the two ends stitched together. After the patient had been brought under the influence of opium without result, he thought no further time ought to be lost before operating. He was in the habit of giving enemata to quench thirst in strangulated hernia, without ill effect, but he always gave opium before administering the enemata, and thus the tendency to peristalsis was reduced to a minimum.

[SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

December 3rd, 1884.

Dislocation of the Elbow with Fracture of the Olecranon.—Dr. Elliott showed a patient who had been under his care for dislocation of the elbow forwards and comminuted fracture of the olecranon. Passive motion was commenced in the fourth week, and adhesions afterwards broken down under chloroform. To the comparatively early adoption of these measures, he attributed the freedom from rigidity and almost perfect movement in the joint.

Sayre's Jacket.—Dr. Elliott also showed a child wearing a Sayre's plaster-of-Paris jacket and jury-mast; and read notes of a case of spinal caries, with double psoas abscess, successfully treated by a poroplastic jacket.

Injury to Eye.—Mr. Abbott showed a patient who had an injury to the right eye forty-five years ago, causing absorption of the lens, with leucoma and anterior synechia. In spite of the period elapsed, no treatment, further than the provision of a suitable glass, was now necessary.

Epiphora.—Mr. Abbott read a paper on epiphora. He commented, especially, on the use of styles, and described the various forms. He had tried India-rubber, and also silver wire in bundles, as materials. The former failed; the latter, though he hoped their power of setting up siphon-action would be of service, proved not superior to solid wire.

Cucaine.—Mr. Abbott also demonstrated the anæsthetic action of hydrochlorate of cucaine, performing the needle-operation for lamellar cataract, on an eye into which a 4 per cent. solution had previously been dropped three times, at intervals of ten minutes.

Splenic Anæmia treated by Phosphorus.—Mr. T. Jenner Verrall read notes of a case. The patient, a rickety child, aged fourteen months, was first seen in the middle of October, 1883. The spleen occupied the whole of the left side of the abdomen, extending forwards nearly to the umbilicus and backwards to the spine. The blood examined was very pale; about thirty white corpuscles could be counted in the microscopic field. Under Parrish's food and cod-liver oil, the child grew worse losing flesh rapidly. At the end of a month Parrish's food was discontinued, and to the teaspoonful of oil was added a minim of the oleum phosphoratum of the *British Pharmacopœia*, twice a day. From this time the child improved. The diet ordinarily given to children of the age was not allowed, except that the juice of an ounce of raw beef was given daily for about five weeks; but even this small change was not made until the phosphorus had been taken for a fortnight, and had already produced an effect. The spleen diminished in size and hardness, till, on March 12th, 1884, when the phosphorus was given up, it measured about four inches in length and depth, and was soft and movable. Very few white cells could be seen; and the blood was much darker. The improvement was permanent, the child being under observation for six months longer, growing, and gaining flesh. Mr. Verrall pointed out that this case was an exception to the rule laid down by Sir W. Jenner, that enlargement of the spleen in rickets was always due to albuminoid infiltration, and was unaccompanied by any increased number of white cells. He believed the evil lay in deficiency of nerve-power, for which the phosphorus would be an appropriate remedy. He attached great importance to the smallness of the dose, and to the length of time over which the treatment extended.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

Monday, December 1st, 1884.

J. Smith Turner, M.R.C.S., L.D.S.Eng., President, in the Chair.

Japanese Teeth.—Dr. St. George Elliott exhibited and presented to the museum some very curious artificial dentures of Japanese manufacture. These people had derived most of their technical and scientific knowledge from the Chinese, but, in this matter, they were far in advance of their teachers; for, whilst the latter could only carve a row of incisors and fasten them to the teeth on either side, the Japanese could make thoroughly serviceable dentures, and had been acquainted with the method of fixing them by suction for about two hundred years. The teeth were mounted on hard wood, those in front being made from quartz pebbles carefully ground down, but the process of mastication was performed by copper nails which occupied the place of the molars. One of these dentures had been in use for fifteen years. Dr. Elliott gave a very interesting account of the way in which they were made and fitted.

Cucaine in Dental Surgery.—Mr. S. Hutchinson read a communication from Mr. Oakley Coles on this subject. Mr. Coles found that one application of a 20 per cent. solution in oil of cloves would remove sensitiveness in the dentine, and two applications made at an interval of five minutes would suspend for a time the sensitiveness of an exposed pulp. There could be no doubt as to its usefulness in dental practice, and he urged that careful observations should be made to ascertain the most effective mode of using it.—In the discussion which followed, it was stated that nothing less than a 20 per cent. solution would give thoroughly satisfactory results, though 10 per cent. would act if left in contact with the part for several days. The ordinary 4 per cent. ophthalmic solution appeared to be quite useless for dental purposes.

Comparative Dental Pathology.—Mr. J. Bland Sutton read a paper on this subject. It was, to some extent, a continuation of one read by him before the Society on the same subject in January last. He now gave further particulars respecting some of the cases then described, and showed several specimens illustrating the serious results of alveolar abscess in animals; for, comparatively trivial as was this disease in man, in animals it was not unfrequently fatal by setting up septic pneumonia or general pyæmia. Premature shedding of the teeth was not uncommon in animals kept in captivity; it was most often associated with a general constitutional condition resembling rickets or mollities ossium; but it might also occur as the result of a local inflammatory affection, characterised by extensive deposits of tartar and absorption of the alveoli with evidence of periostitis. Cleft palate was occasionally met with in young animals, when, from any cause, the mother's diet was deficient in lime-salts. Thus it was at one time common in the young of the large carnivora at the Zoological Gardens, but ceased when a due proportion of bone was given with their meat. It might occur in dogs from the same cause, especially when this was associated with frequent pregnancies, and the rearing of large litters. Some very interesting observations on the subject of cleft palate in man and animals had lately been made by Professor Paul Albrecht, of Brussels, who endeavoured to show, by reference to cases of cleft palate, that the premaxillary bone was developed from two centres,

instead of one, as had been generally supposed. He further pointed out that, in some cases where the cleft in the palate was double, so as to isolate the inner portion of the premaxillary bones, the median piece might develop two incisor teeth in each half, and yet an incisor tooth might be found lodged in a socket, and separated from the canine by the maxillo-premaxillary suture. From this, Professor Albrecht argued that man naturally inherited three incisors on each side, but that in the course of development the middle one on each side was suppressed. In these cases of cleft palate with an enlarged median portion, there was a greater local supply of blood than usual; this extra supply of nourishment enabled the usually suppressed second incisor to be fully developed, and showed that that which was usually considered the second incisor was really the third. Cases confirmatory of this view had been met with and recorded by other observers, and it seemed probable that the so-called supernumerary incisors, which were not very frequently met with, might really be due to the persistence of one of these usually abortive teeth. Mr. Sutton concluded by showing some remarkable specimens of hypertrophied birds' beaks. Thus, in the case of an Australian parrot, the upper mandible was six inches long and of a semicircular shape, the point being in close proximity to the bird's throat.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

DECEMBER 4TH, 1884.

CHARLES OLDHAM, F.R.C.S., President, in the Chair.

Sarcinæ in Urine.—Mr. BLAKER showed a microscopic specimen from the urine of a man in somewhat feeble health, but without any definite bladder-symptoms. The sarcinæ, which were smaller than in gastric cases, had been present some time, having been found by Drs. Weber and Beale, on examining the patient's urine two or three years ago.

Lumbar Colotomy.—Mr. BLAKER brought forward a woman, aged about 50, on whom he had performed this operation thirteen months previously, on account of rectal epithelioma. She had gone about without further trouble from the cancer until quite recently; and he had similar, if not better results, in three out of five cases.

Large Gall-Stone.—Dr. Ross showed a gall-stone, weighing upwards of four drachms, passed at stool by a man, aged 50. He had suffered from frequent bilious attacks and from jaundice during the last year, and had the aspect of malignant disease. On October 16th, vomiting, hæmatemesis, obstruction, tympanites, and pain, referred mostly to the ileo-cæcal region, set in. On October 22nd, when apparently dying, he felt a sudden burst and escape of wind. The stone was then evacuated by the bowel, and he rapidly recovered.

Cystic Oxide.—Dr. MACKEY showed a specimen of this, with oxalate and uric acid, from the saccharine urine of a gouty subject, aged 70. An analysis, by Mr. Marshall Leigh, of 1,000 grains of this urine, showed a percentage of uncombined sulphur, .0768; of cystine-sulphur, .0288; and of cystine itself, .1107.

Calculus Removed from Ureter through a Lumbar Abscess.—Mr. HUMPHRY read the notes of this case, which occurred in a woman, aged 34, married, and confined of her fifth child eighteen months previously. She had been admitted into hospital with a painful swelling of the right side, which was first noticed after a fall down steps three months before. Dulness extended from the tenth rib to an inch above the iliac spine, and forward nearly to the middle line. No definite fluctuation, no spinal tenderness or deformity, could be detected. Evening temperature, 100° to 101° Fahr. The urine was normal, but, some days after admission, was loaded with pus; then it became clear for some days, and then again contained pus intermittently. A week later, the tumour being more prominent and fluctuating, a vertical incision of three inches was made in the right loin, and the muscles divided down to the fascia, when a tumour bulged into the wound; and, a hypodermic syringe detecting the presence of pus, a free incision was made, and a quantity of rather fœtid pus was let out. The cavity was large, and bounded apparently by the kidney, above and behind. At the lower angle, a stone was felt, and extracted with dressing-forceps; it was dark in colour, zigzag in shape, about one inch long, and friable in texture like urates. A drainage-tube was placed in the wound, which was washed out daily with iodine-lotion (one drachm of tincture to one pint of water); and it had, on the whole, done well, and was now nearly healed. For some time past, it could not have communicated with the urinary passages, since ferric injections made into the wound gave no reaction in the urine. Mr. Humphry, in his remarks, noted the difficulty of early diagnosis as to the cause of abscess; he found the calculus impacted in the ureter, and thought it possible that it had been dislodged by the fall, that it led to suppuration in its new position, and, by occasional changes, allowed intermittent discharge of the pus formed. The function of that kidney was now probably destroyed, but the woman was recovering well.

Pelvic Hæmatocele, with Dermoid Cyst of Ovary.—Mr. N. P. BLAKER related this case, which occurred in a woman subject to menorrhagia. Five weeks before admission to hospital, she had intense pain in the left inguinal region, which lasted for a week. Believing herself pregnant, she went to London to be married; and, on the next night, had a flooding, thought to be a miscarriage. Soon afterwards, she had a return of intense pain; and, when seen, had an evening temperature, sometimes, of 108° Fahr.; delirium, rapid pulse, and an anæmic, almost jaundiced, appearance. A hard ill-defined tumour could be felt, extending from the pubes to above the umbilicus on the left; the uterus was pushed low down and forward, and a firm mass was felt in Douglas's pouch. The symptoms being very urgent, an aspirator-needle was first passed into the tumour; and then a free incision was made, dark clot turned out, the cavity washed with carbolic lotion, and a drainage-tube inserted. The patient, however, died the next day. The necropsy showed recent peritonitis, and a large amount of clot, which was shut off from the general cavity by agglutinated intestine. The source of hæmorrhage could not be ascertained. There was a dermoid cyst in the left ovary, and its Fallopian tube was dilated; the right one was obstructed by old inflammation. There were no marks of violence. Mr. Blaker remarked on the medico-legal aspect of the case, having at first a strong suspicion of abortion.—Mr. BLACK narrated some particulars of another case, treated in the same manner, but ending more favourably; and observed that, of several cases seen in hospital, all had been mistaken, by some previous observer, either for retroversion, or for pregnancy with retroversion, and all, in his experience, had occurred in loose women.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

DECEMBER 4TH, 1884.

W. A. GARRARD, M.R.C.S., President, in the Chair.

Patients.—Mr. S. SNELL introduced (by card) two female patients, one with exophthalmic goître (monocular), and the other with congenital palsy of the third nerve.

Bacilli-Cultivations.—Mr. WRENCH exhibited, and made observations upon, 12 pure cultivations of bacilli, etc., prepared by Mr. Watson Cheyne, Director of the Biological Laboratory at the International Health Exhibition.—Remarks upon the subject were made by Mr. Knight, Dr. Cleaver, and Mr. Pye-Smith.

Cucaine.—Mr. SIMEON SNELL demonstrated on a youth the effects of this drug, when dropped into the eye. Mr. Snell referred to a number of operations, in which he had employed it as a local anæsthetic. Among these operations were two cataract-extractions, two cases of needling for opaque capsule, three squints, two iridectomies, one for glaucoma, tarsal cyst, pterygium, and several others, as well as cases of removal of foreign bodies from the cornea. He believed the drug to be of great service, and it would in many instances obviate the necessity for chloroform or ether. The mydriatic effects were mentioned, and its use in aural surgery, polypi, for example, as well as in general surgery, were alluded to.—Mr. C. Atkin, Mr. Pye-Smith, and Dr. Hannan made observations.

Cystic Sarcoma of Tibia.—Mr. ARTHUR JACKSON exhibited this specimen. The whole thickness of the tibia in its lower third was eaten away, only a thickened membrane being left in front. The patient, a man, had been knocked on the shin nineteen months previously. He had been under treatment twelve months ago, and suffered severe pain, especially at night. Later on, he was under hydropathic treatment, and he had always been a vegetarian. On Sept. 5th last, he was admitted into the Infirmary; and on the 6th the limb was amputated at the lower third of the thigh. Mr. Jackson referred to vegetarian diet as not being good for reparative processes; the stump was not doing well until the patient consented to take some meat.

Congenital Coccygeal Tumour.—Mr. ATKIN read the notes of a case of congenital coccygeal tumour, occurring in the practice of Mr. Arthur Jackson at the Infirmary. The growth sprang from the right side of the sacrum and coccyx, the bone on the left being deficient. Double talipes equino-varus was also present. Microscopic sections of the growth were shown, when it was seen to be of a very mixed character; fatty, fibrous, and cartilaginous elements were seen, as well as well marked ducts, lined with columnar shaped epithelium; cysts were also present, interspersed among the fibrous tissue, containing a semi-opaque, yellowish, granular material. Mr. Atkin made remarks on the different descriptions that had been given as to the pathology of these tumours, and laid stress on the total absence of anything that might be considered sarcomatous.

Stricture of Pylorus.—Mr. LONGBOTTOM showed this specimen. The patient, a man, aged 65, had only complained of indisposition for two months before death ; then he suffered from dyspeptic symptoms, and vomited large quantities of sour fluid containing sarcinæ. At the necropsy, the stomach was found enormously distended, and attached to many surrounding organs, including the spleen, a hard rounded mass occupying the pylorus ; the growth was well defined, not extending to the duodenum ; the other organs were healthy. Mr. Longbottom remarked on the question of operation in such cases.

Scirrhus Enlargement of Left Lobe of Liver.—Mr. LONGBOTTOM also showed this specimen, from a man aged 51. He had complained of pain in the right side for twelve months. An enlargement, the size of a hen's egg, was noticed three months previously ; it did not occasion much pain. When seen seven weeks before death, a considerable nodular swelling occupied much of the abdomen. At the necropsy, the left lobe of the liver was found enormously enlarged, extending to four inches beyond the ensiform cartilage on the left side, attached to the diaphragm, and to the abdominal walls in front ; the growth weighed ten pounds and a-half.

Infantile Diarrhœa.—Dr. CLEAVER read a paper on infantile diarrhœa, and after rapidly running over the different forms of diarrhœa and the treatment to be adopted, and pointing out the danger of medical men attempting to treat all cases of diarrhœa alike, without sufficiently inquiring into the cause and origin of each case, he proceeded at greater length to review the form known as summer diarrhœa. After considerable experience at the Children's Hospital, and in private practice, he had come to the conclusion that this particular form of diarrhœa was in a great measure due to temperature and feeding, and particularly was this the case if cow's milk had been the means of nourishing the child ; he invariably changed the diet to Swiss condensed milk, and with the happiest results, never having had occasion to regret in a single instance the substitution of Swiss milk for cow's milk.—A discussion followed, in which the PRESIDENT, Dr. DYSON, Mr. RECKLESS, Dr. LYTH, and Mr. JACKSON took part.—Dr. CLEAVER replied.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, DECEMBER 3RD.

T. H. BARTLEET, F.R.C.S., President, in the Chair.

Medical Education.—Mr. HASLAM read a paper on medical education, in which the question of what education the student should have before commencing his medical studies was discussed. Many students at present entered at a hospital with little or no knowledge of such subjects as chemistry, botany, or physics, and were consequently unable to study at once, with advantage, either physiology or chemistry ; moreover, they had not learnt how to work at scientific subjects, and so lost much time on this account. It was suggested that much benefit would be derived from having a medical college, where boys intending to study medicine could enter, after having passed one of the preliminary examinations, and spend a year acquiring some knowledge of these scientific subjects that would be of use to them later on ; they would then be able, on entering at a hospital, to study with greater advantage the various medical subjects met with there, and would have more time to devote to attending hospital-practice.

Tumour of the Bladder.—Dr. THOMAS exhibited a specimen of tumour of the bladder from a patient, aged one year and ten months, who had been under treatment at the Children's Hospital. The symptoms were those of retention of urine and cystitis. The ordinary incision for lateral lithotomy was made for the purpose of exploring the bladder, when a hard mass was felt in front and to the left of the median line. The patient was relieved by the operation, and the wound allowed to heal. He was discharged, but returned in a month suffering from a low form of bronchitis, and with a mass protruding through the incision, which had re-opened. Further exploration failed to define the tumour sufficiently for surgical interference, and the condition of the patient also made it inadmissible. He died shortly afterwards. The tumour sprang from the base and front of the bladder, and in its growth had enlarged and occupied the base, so that there seemed to be a secondary bladder above it. It was composed of polypoid masses of considerable firmness, springing from a common base.—A microscopical report by Mr. JONES-BATEMAN was read, and sections of the tumour were shown. The report stated—"To what class of tumours the specimen should be assigned, it is difficult to determine ; the base of the tumour might fairly be called a myoma, but in the peripheral portion there is no muscular tissue. The peripheral portion, however, agrees very nearly to what Sir Henry Thompson calls 'tumours of a transitional type.'"

Congenital Absence of Auricle and External Meatus.—Mr. HUGH THOMAS showed a man in whom this deformity existed. The internal ear, Mr. Thomas thought, was intact. The patient's mother, when he was *in utero*, was frightened by one of her children being burnt on the side of the head and ear.

Peripheral Facial Paralysis, with reaction of Degeneration.—Dr. SUCKLING showed a woman suffering right peripheral facial paralysis, and demonstrated the existence of the reaction of degeneration. The woman, ten weeks previously, had fallen downstairs, after which there was a discharge of blood and watery fluid from the right ear. Her husband noticed the next day that her face was drawn to the left. Dr. Suckling considered that fracture of the base of the skull had occurred, the facial nerve in the aqueduct of Fallopius being severely injured. Taste was markedly affected on the right side of the tongue ; the patient complaining of the loss. Tartaric acid, alum, sugar, and common salt, could not be distinguished by the right side of the tongue.

CAMBRIDGE MEDICAL SOCIETY.

J. CARTER, F.R.C.S., President, in the Chair.

Case of Puerperal Eclampsia.—Mr. J. H. HOUGH said he was called last May, about 1 P.M., to see a woman who was in strong convulsions. She was about six and a half months pregnant. He found her lying across the bed, nearly nude; pulse quick (120) and feeble. She was comatose, though aroused for a moment on speaking loud and shaking her. The teeth were clenched; the eyes open, and staring vacantly. By moving her into a better position, he proceeded to make a vaginal examination ; but, the instant he introduced his finger, another violent spasm came on. Chloroform having been administered, a vaginal examination was made. The os uteri was fully dilated; the membranes had ruptured; and a head-presentation was made out very high up. He gave her a drachm of fluid extract of ergot. She was then quiet for half an hour, when a convulsion came on. Chloroform was again administered, and the fit at once ceased. After an hour's interval, he gave another dose of ergot, and the pains soon became regular. Chloroform was administered at each pain. After three hours, a very violent spasm came on, but, under chloroform, it soon disappeared. Half an hour afterwards, the child was born alive, and there was no trouble with the placenta. When he saw her again in the evening, there had been one slight fit, and she had been very restless. She had a very rapid pulse. He ordered a clyster of one pint of beef-tea, and injected a quarter of a grain of morphia in her arm. The restlessness continuing, after two hours, he repeated the hypodermic injection, this time giving half a grain of morphia, with a good result. For the next week, she was fed entirely by the bowel, the tongue being so swollen and painful that she could not swallow. She had also an injection every night of a quarter of a grain of morphia. Eventually, she made a good recovery. Mr. Hough had no doubt that the convulsions in this case were due to anæmia. The patient had been in actual want for some time during her pregnancy, and was pale and emaciated. There was but the slightest trace of albumen in the urine.

Puerperal Eclampsia Seventeen Days after Labour.—Dr. EASBY (Peterborough) related the following case. A delicate woman, aged 24, was delivered by him on November 27th, after an easy labour, of a female child. It was her second confinement, and she made a good recovery. On December 13th, he was asked to see her, and found her suffering from a severe cold and constant frontal headache. The next morning, at 8, he was sent for hurriedly, as she had had several fits. He found her in a semi-comatose state; pulse 60 ; temperature 99°. The bowels had not acted, and she had not passed any urine. He prescribed twenty grains of chloral, and she had no further fit until noon. At 3 P.M., a little urine had been passed, of specific gravity 1020, and containing one-fourth of albumen. At 4 P.M. and 6 P.M., two more slight attacks occurred. The dose of chloral was repeated after each, and a turpentine enema was given. At 8 P.M., she had a violent convulsive attack, with twitching of the right arm and leg, and in five minutes another and worse attack. A catheter was passed, and a pint of urine drawn off, and a third of a grain of tartrate of morphia given hypodermically. She slept well, and there was no recurrence of the fits. She made a good recovery, and the albumen in the urine disappeared. Dr. Easby remarked that, after careful search, he had only been able to find records of one case in which so long as seventeen days had intervened.—Dr. ROPER had seen three cases—one before and two after delivery. Of the two latter, one was treated with calomel and jalap, and died; the other with chloral, and recovered.—Mr. CARVER mentioned two cases under his care, both young full-blooded primiparæ. He bled them both to twelve or fourteen ounces, and induced labour. They each made a good recovery.

Bronchial Casts.—Dr. BRADBURY showed a specimen from a case of plastic bronchitis. A young man, aged 19, who consulted him in August last for diarrhœa and pain in the stomach, informed him that he used occasionally to expectorate these casts, accompanied with a little blood. He complained also of some pain in the chest; and a double *bruit* was audible over the heart, the diastolic most marked to the left of the sternum. Nothing abnormal was heard in the lungs. The specimens had been kindly sent to him by Mr. Edwards, of Furncaux Pelham.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

The Relation between Sick Headache and Astigmatism.—Mr. H. BENDELACK HEWETSON read a paper on this subject, and showed six cases, as well as relating the notes of several others, in which patients of ages from 12 to 36 had been for many years the victims of periodic attacks of migraine. Between the attacks of migraine there had been chronic dyspepsia and vertigo in walking, in several of the cases. Two could bring on an attack of vomiting by sewing. All had some form of astigmatism, either mixed or compound, hypermetropic or myopic. All were completely cured by wearing proper correcting cylinders constantly. Mr. Hewetson believed that, when astigmatism of an abnormal character (or in some rare cases even a simple state of hypermetropia) existed in a neurotic subject, it might be the entire cause of periodic sick headache, with its accompanying dyspepsia, and could be cured by suitable glasses, constantly worn. Mr. Hewetson related Dr. Lauder Brunton's experience on this subject, but thought that the chief agent in producing this neurosis was the astigmatic element in the visual defect in most cases which had come under his notice; and it evidently had little relation to the amount of an optical defect, unless that defect were complicated by astigmatism. Astigmatism in one eye, or eyes of varying degrees of optical error, would cause the same condition in neurotic subjects.—A discussion followed, in which Dr. Solomon Smith, Dr. Jacob, Mr. Hutchinson, Dr. Clifford Allbutt, and Mr. Simeon Snell took part.

Athetosis.—Dr. BARRS showed a case. Hemiplegia had occurred on the side several years ago; but the movements of the fingers were not confined to that side.—In reply to some remarks by Dr. ALLBUTT on the possible peripheral origin of the movements, he upheld the central nature of the lesion, as evidenced by the want of wasting and degeneration, and the electric reactions of the muscles.

Fœcal Fistula: Abdominal Incision, and Resection of Intestine.—Mr. JESSOP exhibited a male patient, aged 50, upon whom, on October 2nd, he had operated for fæcal fistula by abdominal incision and intestinal resection. The fistula, which was situated on the right side, above the middle of Poupart's ligament, and had followed upon an operation for strangulated inguinal hernia in March last, was very patent, and allowed almost the entire intestinal contents to escape. In July, an attempt to close the opening by a plastic operation had failed. The abdomen was opened by an incision, about three inches long, extending upwards from the fistula. The bowel, emptied by previous starvation, was detached from the abdominal wall and withdrawn, so as fully to expose the large irregular opening from which the gangrenous coil had been detached. The ileum was involved; and the opening measured in the length of the gut about an inch and a half, whilst it extended to within a quarter of an inch of the entire circumference. The edges having been pared, and a portion of the free margin of the distal end of the bowel, "wasted by disease," cut away, so as to equalise the two mouths, six-and-twenty Chinese silk interrupted sutures were introduced, care being taken to oppose serous surfaces all round. The bowel was then returned, and the abdominal wound closed by deep wire sutures. The progress of recovery was uninterrupted.—In the discussion, Mr. Hodgson Wright, Dr. Barrs, and Dr. Jacob took part.

Phlegmasia Dolens.—Dr. FARQUHAR gave details of a case of phlegmasia dolens, of which the broad features were its severity and erratic course, the swelling and inflammation having invaded both limbs twice alternately. The subject was a primipara. The attack commenced a fortnight after premature confinement, accompanied by considerable hæmorrhage. Iodine and blistering were the most successful remedies. The pyrexia was high and constant. There was a crisis, when enemata, nutrient and purgative, with morphia and atropism under the skin, turned the scale favourably.—Dr. BRAITHWAITE had observed the frequent occurrence of thrombosis in cases where labour was much prolonged, and the cervix uteri most usually bruised and lacerated.

Massage, Faradisation, and the Zander Movement Cure.—Dr. SOLOMON C. SMITH attributed the good effects of each of these methods of treatment to their action in assisting the circulation through the lymph-canalicular system, and the flow of blood through the capillaries and veins; and he advocated their more extended use, not merely in local conditions, but in all cases in which, either from want of will or of power, large tracts of muscular tissue remain unused.—Dr. HUTCHINSON thought the principal use of these methods was to stimulate the circulation in the excretory organs.—Dr. ALLBUTT, referring to the good effects obtained by nerve-vibration, thought much of the effect to be due to reflex stimulation of the peripheral nerves.

ACADEMY OF MEDICINE IN IRELAND:

PATHOLOGICAL SECTION.

FRIDAY, DECEMBER 5TH, 1884.

A. W. FOOT, M.D., President, in the Chair.

Heart-Disease.—Surgeon-Major HAMILTON made the following communication. A soldier of fine physique, aged 30, was admitted to the Portobello Hospital, complaining of palpitation. He had been for some time employed on police-work, and he knew that his heart was affected. There were extreme præcordial dulness; a well marked systolic *bruit* at apex and over the base; a loud systolic and regurgitant *bruit*. His condition remained the same for about a month, when anasarca set in, rapidly increasing. He sat up one night against orders, and died almost immediately. *Post mortem:* The viscera, with the exception of the heart, were all healthy, but the serous cavities and cellular tissue contained much fluid. The heart weighed 1 lb. 12 oz. Mr. Abraham examined it. All the cavities were dilated, and the walls hypertrophied. The inner surface of the pulmonary artery was of a remarkably deep purple colour. Large bulging particles of atheroma, not calcified, existed in the ascending arch, and between the openings of the coronary arteries a large rough calcareous nodule projected opposite the junction of the anterior and left posterior segments of the valve, which were here confluent; and at this point of the valve was a wide irregular opening, admitting a large finger. The rest of the valve was more or less thickened and frayed, and an ulcerated spot was seen on the ventricular surface. Just below the nodule was a cavity 2 centimètres wide and 1 centimètre deep, extending below the bottom of the sinus, behind the endocardium, and into the muscular substance of the heart.—Dr. HENRY KENNEDY remarked that great contrasts were afforded by the different durations of these cases. The case in question had had an exceedingly rapid course.—Mr. ABRAHAM called attention to the microscopic preparations of the specimens.

Case of Osteoma.—Mr. ARTHUR BAKER read the notes of a case in which he had removed from the left side of the upper jaw of a lady a small osteoma. It was impossible, before removal, to tell that the growth in question was not a buried tooth or an odontoma, springing as it did from the site of the first left upper molar tooth. The case was further complicated by the existence of a cyst near the front of the jaw, combined with absence of the permanent canine tooth. The tumour on section showed lacunæ disposed irregularly round the vascular canals, which penetrated its substance for some distance. Near the periphery, however, some lacunæ were seen arranged in parallel rows. The communication was illustrated by a cast of the mouths and some drawings of the appearances of this growth.

Cancerous Stricture of the Sigmoid Flexure of the Rectum.—Dr. QUINLAN submitted a case of this kind. A woman, aged 47, in a state of great prostration and partial collapse, was admitted into St. Vincent's Hospital. Her abdomen was enormously distended, her bowels not having been relieved for eleven days. A turpentine enema was administered, but came away without effect. A great distension of the abdomen prevented an exact diagnosis, and treatment was directed to getting the bowels to act, and to keep down pain. Some vomiting was quickly relieved. On the third day, she sat up vomiting, and fell back dead. At the *post mortem* examination, the body was found emaciated and bloodless. The small intestines were enormously distended with gas. The descending colon was full of fæces. At the sigmoid flexure there was a cancerous mass. Beneath the rectum was a peculiar structure affected by malignant disease. Mr. Abraham had pronounced the tumour to be an infiltrating adenoma caseating in parts.—Dr. Biggar and Dr. Henry Kennedy made some remarks.

Strangulated Hernia. — Mr. O'GRADY exhibited a specimen of strangulation within a hernial sac, from the body of a man, aged 33. The hernia came down in the morning. He was admitted into hospital at one o'clock; and the symptoms being urgent, he was operated on at five. When the sac was exposed, a tense stricture appeared at the external rim. The intestine, a little highly coloured, could be seen through the sac. The hernia was reduced without opening the sac. For two days after the operation, with the exception of two attacks of vomiting, which were relieved, he was free from the usual symptoms.

On the third day, stomach-sickness, with pain, returned, and he died next day, eighty-seven hours after the operation. The question when internal strangulation occurred was of interest. Another question was the expediency of operation without opening the sac.

Calculus removed from a Tonsil.—Mr. F. A. NIXON exhibited a hard calculus removed from one of the tonsils of a gentleman who complained of a slight obstruction of his throat. Being in the habit of singing, he complained of the obstruction. Both tonsils were considerably enlarged. A small white speck being detected, the probe elicited a metallic ring. Having failed to grasp the mass with instruments, he enucleated it with his finger. The greater portion was behind the soft palate. There was considerable hæmorrhage.—Dr. E. H. BENNETT said the specimen was of great rarity, and moved that it be submitted to the Committee of Reference. It indicated articulation either with another calculus or adjoining bone.—Mr. CORBETT thought the formation was identical with the tartar that often formed about neglected teeth. He had seen several teeth blocked together by it even in young mouths.—Mr. NIXON said the gentleman's tonsils were very large, and were not atrophied. The calculus was similar to the tartar-formation on teeth. The teeth were black, and had a good deal of tartar. The gentleman was a great smoker.

Mammary Tumour.—Mr. ABRAHAM, for Mr. J. K. BARTON, exhibited a large mammary tumour, removed at the Adelaide Hospital from a girl aged 12. Her grandmother had died of recurring cancer of the breast. One brother was now suffering from Pott's caries. The other near relatives were well. The girl's general health had been good, and there was no history of injury to the breast. Three months ago, a small lump was observed in the left breast, which increased steadily, being at first painful. The tumour was soft, homogeneous, and elastic, the cut surface bulging, and the whole easily shelled out from the surrounding encapsulating tissue. The microscopic sections exhibited enlarged glandular alveoli, lined with proliferating epithelium, and separated by thick septa, principally made of embryonic and spindle-shaped cells. He regarded the growth as a form of adenoma, with cellular hyperplasia of the interalveolar tissue. The specimen was, on the motion of Mr. Abraham, seconded by Professor Bennett, referred to the Committee of Reference.—Dr. BENNETT said that, last year, he showed a tumour of a character usually regarded as sarcoma of the breast, about 14 lbs. weight; but, though its complete removal was effected, tumours recurred in six months in the axilla, in the neck, and in every direction.

Lung-disease in a Lion.—Mr. ABRAHAM exhibited the left lung of a lion which had been born in the Zoological Gardens, had lived there twelve years, and recently died. The animal had had good health till October 1st, when there was sudden cold weather. The lion refused food, seemed feverish and thirsty, and his respiration became exceedingly rapid. He appeared to have pleurisy, his chest being fixed, and his breathing abdominal. An attempt to administer medicine failed. He took little food, except occasionally. He drank some nitre in water, with diuretic effect. He had no cough, but two or three times he spat mucus, which towards the end became bloody. Ultimately, he became emaciated, and died. His viscera were healthy, except the lungs. There was no pleurisy, but the lungs were diseased, mottled in appearance, and hard and lumpy to the touch. On section, they presented a curious honeycombed aspect. The bronchial tubes were enormously enlarged. In the lower lobe of the left lung was a large cavity. The microscopic sections of various parts of the lung did not show the structure of tubercle, nor did any of the bronchial glands. He was not sure what the disease was. The father of the lion died in precisely the same way.—Mr. BAKER remarked that lung-disease was common among cats, which frequently suffered like the lion in question.—The PRESIDENT observed that monkeys were subject to consumption. In the lion's lungs exhibited, he had no doubt the cavity existed for years, and a small amount of cold sufficed to kill one of the large carnivora.—Mr. ABRAHAM said that, long ago, Dr. Haughton discovered that tubercular phthisis was not so common in monkeys as was generally thought, and he showed it in a paper read many years ago before the old Pathological Society. In a paper read before the Zoological Society of London, Mr. Sutton recently came to the same conclusion.

MEDICAL SECTION.

FRIDAY, NOVEMBER 21ST, 1884.

F. R. CRUISE, M.D., President, in the Chair.

President's Address.—The PRESIDENT, having congratulated the Academy on its highly satisfactory position, entered upon the discussion of some of the relations existing between medicine and law, pointing out their frequently unsatisfactory nature. In passing, he touched upon the position of medical men as experts, as witnesses, and as defendants. He discussed their relations with the Court of Chancery, both as regards their attendance on minors and lunatics, and as claimants for settlement of accounts paid through the Court. He illustrated by cases, arising within his own experience, the difficulties met—first, from the non-payment of these accounts through the fault of officers of the Court; and, secondly, by the arbitrary reduction of fees.

Lupus and its Treatment.—Dr. WALTER G. SMITH read a communication on the various forms of lupus, which he illustrated by plates.—On the motion of Dr. BANKS, seconded by Dr. GORDON, the discussion on Dr. Walter G. Smith's paper was postponed.

Case of Anuria.—Dr. WALTER BERNARD (Londonderry), related the clinical history and exhibited the morbid specimens of a case of prolonged anuria occurring in a man, aged 75. In December, 1883, micturition became more frequent. In February, 1884, epistaxis and hæmaturia occurred, accompanied by diarrhœa and febrile symptoms. In May the hæmaturia recurred, and between the 6th and 17th of June complete suppression of urine existed, without any inconvenience to the patient. When the flow of urine was re-established, the amount passed daily averaged 125 to 140 ounces. Suppression of urine set in again on July 4th and 5th, and on the third day he passed bloody urine. In August a tumour was detected behind the pubes. He rapidly wasted and died on September 13th. The *post mortem* examination was held eleven hours after death. The uro-genital organs were removed. Mr. Shattock found soft carcinoma of the prostate, bladder, and liver; both ureters were dilated. No carcinoma existed in the substance of the kidneys.—The PRESIDENT said this was the first time he had heard of total suppression of urine lasting eleven days without immediate fatal results.—Mr. ABRAHAM said that there were several cells and nests of cells, which were extremely similar to the cells of the epithelium of the bladder. He agreed with the remark as to the extreme rarity of carcimona of the prostate. Having seen many tumours, he had only come across a single case, which had occurred in the practice of Mr. Martin.—Dr. FINNY said that the pathological conditions to which Dr. Bernard had alluded were very rare. The clinical aspect of the case was also unique—that suppression of urine could exist for so many days without remarkable symptoms. Where complete suppression of urine took place head symptoms were extremely rare, but urinary fever and uræmic poisoning were not. In the absence of pathological change to account for the suppression of urine so many days, they must look to a nerve-origin.—Dr. HENRY KENNEDY said he had, in cases of cholera, frequently seen patients recover after four days, and once after five days, and the recovery was apparently due to the vomiting. He did not know there was any connection between the malignant disease and the anuria.—Dr. BERNARD briefly replied.

REVIEWS AND NOTICES.

DESCRIPTIVE CATALOGUE OF THE PATHOLOGICAL SPECIMENS CONTAINED IN THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND. Second Edition. By Sir JAMES PAGET, Bart. Member of the Council of the College; with the assistance of JAMES FREDERICK GOODHART, M.D., and ALBAN H. G. DORAN, Fellow of the College. Vol. III. Morbid Condition of the Teeth, Jaws, Alimentary Tract, Liver and Gall-Bladder, Ductless Glands, Circulatory and Respiratory Organs. London: J. and A. Churchill.

IN reviewing the first volume of this catalogue, we gave a full account of its general plan. The descriptive method adopted by Sir JAMES PAGET and his assistants is particularly suited to many of the series included in the third volume, since a careful description of an aneurysm and its relations is of, at least, some value to workers who do not live within a convenient proximity to the College Museum. Specimens illustrating the anatomy of hernia are also amenable to literary description. Thus, this volume has an advantage over the first, wherein tumours hold a conspicuous place, for morbid growths cannot be satisfactorily described in words. The series included in Volume III have been greatly enriched by additions since the publication of the previous edition of the *Catalogue*, and are rich in valuable groups of specimens presented by donors as the result of careful and continuous work. Thus we find Mr. Christopher Heath's specimens, described and mostly figured in his well known work on *Injuries and Diseases of the Jaws*, the large collection of diseased hearts presented to the College in 1876 by the late Dr. Peacock, and many

good dissections of aneurysms described in the recent works of contemporary physicians and surgeons. Mention must be made of a large number of intelligible preparations of visceral disease mounted by Dr. Goodhart, when he held the appointment of Pathological Assistant to the Museum. The founder himself must not be forgotten, and the large number of specimens described as "Hunterian" testify to the indefatigable zeal of John Hunter as a collector, and his transcendent abilities as a pathologist. Curators can also learn by ocular demonstration that, putting aside certain changes that occur during the first few months, most morbid specimens preserved in alcohol look as well at the end of a century as at the end of a year, and give less trouble to museum-servants, since they no longer stain the spirit with blood-pigments. Nor is their histology irrevocably confused, since the present Pathological Curator, Mr. F. S. Eve, has detected striated muscular fibre-cells in a centenarian specimen of renal tumour. As might be expected, seeing that they were preserved in the same medium, the specimens from the private museums of Sir Astley Cooper, Mr. Howship, and others, are in as good a condition as the Hunterian collection. These facts will especially strike the reader if he study the third volume of the *Catalogue* in the College Museum itself, since, with the exception of the first two series, nearly every specimen described in its pages consists, more or less entirely, of "soft parts." The third volume is larger by nearly twenty pages than its predecessor.

A Treatise on the Science and Practice of Midwifery. By W. S. Playfair, M.D., F.R.C.P. In Two Volumes. Fifth Edition. London: Smith, Elder & Co., 1884.

The mere fact of a fifth edition having been called for in so short a time speaks volumes as to the value of the work, and takes it almost out of the pale of criticism. Students and practitioners alike have already found out the advantage of possessing a work embodying all the recent advances in the science and practice of midwifery. It has deservedly become a standard treatise on the subject, and will doubtless remain so for many years to come. The author has endeavoured to dwell especially on the practical part of the subject, so as to make the work a useful guide in this most anxious and responsible branch of the profession. At the same time the more purely theoretical portion has not been neglected, as evidenced by the chapters on Ovulation and Menstruation, and Conception and Generation. The latter chapter has been re-written, in great part, and valuable assistance rendered by Dr. W. Tyrrell Brooks in making the subject clear and intelligible.

It is interesting to note the change which has taken place in the practice of midwifery during the present generation. Not only are difficulties anticipated, as evidenced in the description of turning by external manipulation of the abdomen, or by the combined method, before even the cervix uteri is fully dilated; but much greater attention is given to the importance of rendering timely assistance in cases of tedious or difficult labour. Patients are no longer allowed to expend all their efforts fruitlessly until *inertia uteri* occurs, with all the subsequent risk of hæmorrhage, septicæmia, or pelvic cellulitis, because some time-honoured authority laid it down as a *dictum* that nothing was to be done until the cervix uteri was fully dilated, on the one hand, or arrest of progress had lasted for at least so many hours, on the other. Dr. Playfair's *Treatise* may fairly be said to represent the modern school of teaching, and inculcates views much more in accordance with common sense and every day experience than can be said of many of the older authorities.

In fact, if we wish to form an idea of how great are the improvements in modern midwifery, we have but to contrast the present *Treatise* with works on the same subject published only fifty years ago. One such before us—a ninth edition, showing that it also had a large circulation—contains barely a fifth of actual midwifery, and this of a far different style of teaching to that found in works of the present day.

Another point which strikes one forcibly is the immense advantage of illustrating works of this nature. The present *Treatise* contains over 180 illustrations. These serve to explain the text, and in describing the application of forceps and turning, the student is enabled to follow the instructions with the greatest facility.

The more stringent regulations of the examining boards, during the last few years, have, doubtless, given an impetus to the study of midwifery, which may explain partly the demand for works on this subject, but a mere glance at the work under consideration explains its popularity.

It is a well arranged and carefully digested epitome of the science and practice of midwifery, which has not only served to enhance the reputation of the author, but, still more important, has contributed greatly to the advancement of the study of obstetrics.

Handbook of Midwifery for Midwives. Translated from the *Official Handbook of Midwifery for Prussian Midwives.* By J. E. Burton, M.R.C.S., Liverpool. Second Edition. London: J. and A. Churchill, 1884.

This is substantially a translation of the work by Professor Litzman of Kiel. A few trifling alterations have been made in the text, to give it more the character of an English work, and less that of a German one done into English; the aim of the work being to teach English midwives how they themselves must act, rather than the course prescribed for German midwives.

It is little less than a scandal that what in Germany, and nearly every other civilized community, is undertaken by the State, namely, the education and supervision of midwives, is, in our own country, left to private enterprise.

Although many of the instructions contained in the work, such as the completion of difficult breech-presentations, cross births, removal of adherent or retained placenta, will seem superfluous in this country, yet, as such cases may at any time occur in thinly populated districts, where medical assistance is not readily attainable, and even in towns where help is not at once forthcoming, we see no reason why midwives should not be taught how to save life.

We cannot endorse the advice given on page 95, to wash the child and then turn attention to the mother and see about the placenta, nor that on page 114, to dilute cow's milk with thin arrow-root and water for a newly born child. We doubt also the wisdom of applying very hot cloths to the patient's abdomen, just after labour, to relieve painful after-pains (p. 273.)

It is not our intention, however, to enter into a detailed criticism of the work. The translator has evidently done his part well, and is not responsible for all that is given. He ventures to hope that the book will prove useful, not only to the class for whom it is more immediately intended, but also to students and practitioners. In this hope we concur, and believe that the work may safely be recommended. It is clearly and concisely written, and contains a vast amount of useful information.

Daniel Gohl und Christian Kundmann, zur Geschichte der Medicinal Statistik. Von Dr. J. Graetzer. Breslau, 1884.

We have here an account of the lives and work of another pair of scientific worthies, from the pen of Dr. Graetzer, whose previous contribution to the history of the science of vital and medical statistics, *Caspar Neumann und Edmund Halley*, we noticed some months since. In that work he told us how, after a laborious search in the libraries and archives of Germany and England, he had discovered in those of the Royal Society of London, the original tables of mortality drawn up by Neumann, which Halley had used as the materials for his calculations. He now shows how Gohl continued the work begun by Neumann at Breslau, and how the tables of Kundmann, of Berlin, which, some years later, Süssmilch, who first raised the study of vital statistics to the rank of a science, had employed, as Halley had those of Neumann, were found in the collected works of Gohl after a fruitless search in the municipal archives of the Prussian capital.

Dr. Graetzer is a learned and indefatigable archæologist as well as a physician, and the present work is a contribution to the history of medical statistics in other ways than as an account of the life and labours of his heroes, and of their relation to Süssmilch. It contains a curious medical history of his own city of Breslau, full of antiquarian interest, to which are appended a number of quaint State papers and original documents relative to the epidemics of the plague, *morbus Gallicus, etc.*, contributed by Dr. Markgrass, Keeper of the Municipal Archives, as well as a history of statistical practice from the earliest times, and a contribution to the comparatively unworked field of the statistics of disease, based on the returns of the hospitals, poor-house, and workmen's societies of Breslau.

The introductory chapter will be read by Englishmen with some interest, consisting as it does of a vigorous and trenchant rejoinder to a reviewer of his former work, who had ventured to disparage the calculations of Halley. Dr. Graetzer maintains that the mathematical genius of Halley enabled him to eliminate correctly the disturbing influences of increase of population and of accidental fluctuation in the death-rate, and thus to reduce the materials in hand to the form required for his purpose, that of life-assurance, namely, a stationary and unchanging population: and he quotes the opinion of Boeckh, that "Halley, in a marvellous manner, took his stand on the highest point of scientific statistics," subsequent advances being almost solely owing to the larger and better materials now accessible.

It is not a little remarkable that both Neumann and Gohl were clergymen who had previously studied medicine and such science as

then was; but Kundmann, though a praticising physician, was a veritable polymath. His published works cover the entire range of human knowledge, theological, philosophical, scientific, historical, and literary, from numismatics to pathology, and from his inaugural thesis on the "Fall of Man" to his crowning work on vital statistics, which forms one of his contributions to the miscellanies, an encyclopædic magazine, conducted by himself and two medical friends, Drs. Kawold and Brunschurtz, and treating of all things "supra et infra lunaria."

Space forbids our giving any detailed account of the labours of either Gohl or Kundmann; but we cannot refrain from transcribing one passage from the writings of the latter, which shows how completely he grasped the idea and aims of medical statistics.

"It is much to be wished that accurate records were always attainable of the disease of which each individual dies, since we should thus be enabled to ascertain, from time to time, to what diseases one place is more liable ["dispost"] than others; also what relative influence is exerted in different years by air, weather, and other *causæ communes*, and especially what connection these have with epidemic diseases; why some do not occur more and others less frequently, with other valuable information of the same kind." These words were written a hundred and fifty years ago!

A Manual of Diseases of the Throat and Nose. By Morell Mackenzie, M.D.Lond., Consulting Physician to the Hospital for Diseases of the Throat, etc. Vol. II: Diseases of the Œsophagus, Nose, and Naso-pharynx. London, 1884.

The first volume of this manual, treating of the pharynx, larynx, and trachea, was published in 1880. The present volume completes the work, and is devoted to the diseases of the œsophagus, nose, and naso-pharynx. The whole book has been in progress for nearly twelve years, and was originally designed to include the diseases of the neck. The volume under review, however, has attained such dimensions that the author intends to publish the latter diseases in his series of essays on the "Diseases of the Throat." It is needless to say that, coming from the pen of one with so large an experience of diseases of the throat as Dr. Mackenzie, the book is of great value; but this value is considerably enhanced by the amount of care and labour that it has evidently received. As in the former volume, the description of each disease has been prefaced by a very full bibliographical history, which alone must make the book of much use to those who are working at the speciality. Copious references, moreover, are given throughout the text to the work and observation of others, both in this country and abroad. Space will not permit us to refer in detail to the way in which the subject is treated; nor would our doing so be of any advantage, as the book should be carefully read for its value to be thoroughly appreciated. There are some subjects, such as the treatment of malignant disease of the œsophagus by means of œsophageal tubes retained *in situ*, which we should like to have seen discussed, and others, such as fractures of the nose, which, if referred to at all, might, we think with advantage, have been treated of at greater length. But such minor defects can hardly be said to detract appreciably from the merits of the work, which, looked at broadly, is thoroughly well done. We can very confidently recommend it to the notice of the profession, and have no doubt that it will take its place as a standard work of reference in the English language on the subject of which it treats.

Quarantine and Sanitary Operations of the Board of Health of Louisiana, during 1880, 1881, 1882, and 1883. By Joseph Jones, M.D., President of the Board. Baton Rouge: 1884.

The main, if not the sole, interest of this voluminous collection of documents lies in the evidence it affords of the efficacy or inefficacy of quarantine regulations in checking the prevalence of yellow fever in New Orleans; but the greater part of the facts and information it contains appeared, a year ago, in the annual report of the Board of Health of Louisiana, which was a far more readable and better arranged work, besides containing a large amount of matter of more general interest to the epidemiologist and sanitarian which we miss here; while what there is of real and permanent value is buried in a mass of correspondence between the several departments, of no use whatever to the general reader.

The population of New Orleans, in 1880, was found by the census to be then a little over 216,000, of whom 158,000 were white and 58,000 coloured persons; and, assuming that it has continued to increase at the same rate as in the preceding ten years, it would now be 227,000. The total mortality in the years 1880-3 has been 25.85, 29.03, 26.60, and 33.32; but it has always been much heavier among the coloured than among the white portion of the community, the rates for the latter having been 22.32, 25.59, 21.33, and 27.56; and for the former, 34.10, 38.31, 39.14, and 49.00. The increased mortality in the last two years has been owing to small-pox, to the extent of 2 per 1,000 in 1882, and 6 in 1883; the deaths from this disease having been in the first two years 1 and 5, but in the last two years 415 and 1,266. The coloured population suffered four and a half times as heavily as the white, the deaths during these two years having amounted to 17 per 1,000 of the former, and 3.6 per 1,000 of the latter; and these chiefly among the destitute classes, as one may judge from the large proportion of hospital cases, or deaths reported by the coroner as not having had any medical attendance. That this was owing to the neglect of vaccination, is shown by the fact that, among the 4,335 inmates of the charitable institutions, all of whom were vaccinated by the medical officers in charge, not a single death, and only four mild cases, occurred during this period. In this respect, at least, the condition of the negroes was better in the days of slavery.

The geographical position, climate, and commercial relations of New Orleans, together present unrivalled opportunities for studying the phenomena of the etiology and mode of communication of yellow fever. From a comparison of the monthly temperatures and mortalities during a period of thirty-two years, it appears that the rise of the disease coincides with a mean temperature of 70° to 85°, and its decline with one of 65° to 56°. During this period, the deaths in each month have been: January, 6; February, 0; March, 2; April, 0; May, 5; June, 49; July, 2,248; August, 10,639; September, 11,346; October, 5,714; November, 1,177; and December, 119. Thus, 27,699 of the grand total of 31,028 have occurred in the months of August, September, and October. The mean temperature of the winter months does not give a correct idea of the actual relations between the season and the fever; for, though this appears as high as 56° Fahr., frosts are frequent from December to May, and a temperature of 17° has been recorded. It follows from this that, however favourable to the spread of yellow fever the condition of half the year may be, the disease invariably dies out during the cold season; and if, as is believed, it is not strictly indigenous, but the result of annual reimportation, efficient quarantine regulations ought to ensure to the city the immunity that it at present enjoys; and, New Orleans being in constant communication with Havanna, Vera Cruz, Rio de Janeiro, and other places, at distances ranging from a few days' to three weeks' sail, where yellow fever is permanently endemic, it is but natural that the question of quarantine, in its sanitary and commercial aspects, should have been, and still be, hotly contested. The fever had appeared, with more or less severity, every year, almost from the first settlement; but the earlier statistics of the mortality were very defective. From 1847 to 1855, in spite of the then existing quarantine regulations, 17,407 persons had died of yellow fever, when a new code was issued, requiring the detention, for a period of not less than ten days, of all ships coming from infected ports. The deaths, which had in the three preceding years averaged 4,000, fell at once to 74 in 1856, and 299 in 1857. The commercial association then obtained a relaxation of this rule, so far that the ten days were reckoned from the date of departure; and, next year, the mortality rose to 4,845. A period of eight years of comparative exemption followed; but it must be remembered that, during four of these, New Orleans was almost entirely cut off from commercial relations with foreign countries, through the civil war. On their resumption in 1866, there were 192 deaths, and, in 1867, no fewer than 3,107. During the next ten years, about 1,000 deaths occurred; but, in 1878, it was clearly introduced by some cases concealed on board a steamer, and the mortality amounted to 4,056; since which time, there have been been but from 1 to 4 deaths annually, and these, all of them imported cases, have been isolated, and the further extension of the disease prevented.

There seems to be no doubt but that, as in the case of cholera in the too many Continental towns, all the unsanitary and climatic conditions favouring the spread of yellow fever exist in New Orleans during part of the year; and, in 1867, the uselessness of disinfection of houses by carbolic acid was amply demonstrated.

Dr. Jones, though fully sensible of the influence of unsanitary surroundings in the spread of the disease, when once introduced, maintains that its importation can be prevented by strict quarantine, and isolation of actual cases; but insists that, the infection being generally attached to the cargoes, the minimum detention of ten days should be reckoned from the arrival of a vessel, not from its departure from the infected port; and that no fumigation of the ship, so long as the cargo is on board, is of any avail. At the present time, his practice is at once to discharge the cargo at the quarantine-station, and then to break it up and expose it to the action of the air, as far as its nature

permits; while the empty ship is thoroughly fumigated by burning sulphur, and cleansed by solutions of carbolic acid or chloride of zinc.

Sleep-Walking and Hypnotism. By D. Hack Tuke, M.D., LL.D. London: J. and A. Churchill, 1884.

This little work for the most part consists of a collection of observations which have already been brought under the notice of the medical profession. The republication in the present form is due to a desire on the part of the author to obtain, by an extended circulation, more facts bearing on subjects of such interest as sleep-walking and hypnotism. Spontaneous somnambulism is a condition closely allied to the numerous protean phenomona artificially induced by, and comprised under, the titles mesmerism and braidism, which have for long excited the curiosity and amazement of the public. This important psychological study has, however, suffered from want of an impartial scientific investigation; and if we except the labours of Elliotson and Braid, Carpenter and Laycock, it is only in recent times that this subject has attracted the attention in this country which its interest deserves. Among medical men, especially, the revelations of so-called electro-biology have always been looked upon with distrust, and the feeling of opposition to their acceptance has been fostered by the undoubtedly ignorant and unworthy pretensions of those who, for the most part, have advocated its doctrines. Artificially produced hypnotism has, however, of late years been carefully studied by the scientific world, who, by separating the chaff from the wheat, have endeavoured to base its principles on a sound foundation; and the late observations of Charcot and Richet have convinced the medical profession that the phenomenon is genuine and well worthy of careful investigation. The present work of Dr. Tuke is a contribution towards the elucidation of this subject; and the researches of so well known and so trustworthy an observer will be hailed as sound and valuable testimony in comparison with the vast amount of useless, superstitious, and unscientific data with which the literature of this question abounds. It is true that there are hundreds of persons who profess to be investigating this fascinating subject, and that there are societies on a large scale for the purpose of conducting so-called psychical research. Many of these are, doubtless, actuated by the best of motives, but others again are notoriously prejudicial or wilfully dishonest. Most of them, whether interested or not, approach the question with a mental bias, are so influenced by the mysticisms which surround it, and conduct their experiments in so unscientific a manner, as to have hitherto failed to establish, to judicial minds, the evidence of the truths they desire to substantiate. The data, however, contained in Dr. Tuke's book are those calculated to carry conviction, as the facts are presented in that form in which all truly scientific researches should be conducted. Researches are made, observations are collected and recorded, and conclusions drawn in that impartial and unbiassed spirit which merits the respect of even the sceptically disposed. Thus actuated, the author first investigates the phenomenon of sleep-walking. In order to arrive at facts, he constructed a circular of inquiry consisting of a complete series of questions, the general object of which was to elicit information bearing on the causation of somnambulism, its relations to other nervous affections, especially epilepsy, the state of the sensory and motor functions, the method of treatment found most successful, and the prevention of accidents incidental to sleep-walking. The answers to these, from many sources, constitute a valuable and substantial contribution to our knowledge of the subject, the importance of which can only be appreciated by a careful study of their analysis, which is skilfully compiled by Dr. Tuke. He points out that in ordinary sleep-walking certain tracts or centres of the encephalon are in functional activity, while others are asleep or temporarily paralysed; and the various ways in which the functions of some parts of the brain are inhibited, while others remain intact, are fully delineated. Evidence seems to indicate that the neurotic constitution is a predisposing cause for somnambulism; its relations to dreams, epilepsy, and insanity are discussed; its causes are inquired into, and its effects on the senses detailed. Various methods of treatment are commented on, the general evidence being to show that benefit is derived from producing a strong impression on the mind, in the way of calling into force the higher and coutrolling centres of the brain. The opinion is hazarded that the loss of normal equilibrium between the various encephalic centres, although in some instances due to irregular vaso-motor action and blood-supply, is, as a rule, purely dynamic in its character.

The relation existing between spontaneous and induced somnambulism is illustrated by the full details of a case at Guy's Hospital, in which this condition existed idiopathically, and could also be produced when desired. A chapter is devoted to a consideration of the mental condition in hypnotism, or artificially induced somnambulism. This was ascertained in the persons of a medical student and of a clergyman, who, when conscious, described the feelings of various sensations they experienced when in a hypnotised condition. The general conclusions arrived at were these. 1. There may be consciousness during the state of hypnotism, and this may pass, rapidly or slowly, into complete unconsciousness. 2. Voluntary control over the thoughts and actions is suspended. 3. The reflex action of the cerebral cortex to suggestions from without may come into play. 4. The consciousness being retained, the perception of reflex or automatic cerebral action conveys the impression that there are two egos. 5. Some of the mental faculties may be exalted, and vivid delusion may persist after waking. 6. Unconscious reflex mimicry may be the only mental phenomenon present. 7. Impressions from without may be blocked at different points in the encephalon according to the areas affected, and the completeness with which they are hypnotised. 8. There may be different states of hypnotism, the opposite conditions of exaltation and depression of sensation, and the special senses.

The last chapter is devoted to a description of the phenomena artificially produced by M. Charcot in his service at the Salpêtrière, as witnessed by the author. These are now well known to the English profession through the writings of the French school.

A Few Suggestions to Mothers on the Management of their Children. By a Mother. Pp. 144. London: J. & A. Churchill.

This work is clearly written by one who knows the practical difficulties of rearing children. The remarks are, for the most part, judicious, and cannot fail to prove of service to those who have the care of infants. Many a practitioner will be glad to bring such a book before the notice of young mothers.

In considering the question of feeding by hand, in place of merely stating that "a certain time should always intervene between the giving of food," and "the milk for a very young infant should be sufficiently diluted," it would have been better to have stated the interval and degree of dilution. These are details which should be taught, not learnt at the infant's expense; although, of course, they will vary with the age and strength of the child.

The chapter on croup and bronchitis is the one of which we least approve. Instructions are given here to apply simple popular remedies, but nothing is said as to the importance of calling in skilled assistance. In chicken-pox, however, the advice of a medical man is needed, we are told. In any subsequent edition, it would be well to somewhat qualify these remarks. A little more preciseness as to the doses of simple aperients would enhance the value of the work to young mothers.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

CARNRICK'S BEEF-PEPTONOIDS.

Dr. Stutzer, of Bonn, medical superintendent of the Laboratory of Rhenish Prussia, has been for some years making an interesting series of tests of the physiologically important constituents, illustrating the comparative nutritive value of meat-preparations introduced into Germany for the use of children and invalids. He has estimated the organic ingredients, the mineral ingredients, and the water, and has aimed at determining what proportion of the nitrogen is to be credited to the easily digested albumen and to peptones, which he estimates in the usual way by multiplying by 6.25 (assuming that these constituent principles contained an average of 16 per cent. of nitrogen), and thus he arrives at the quantity of albumen and peptones. He estimates also how much of the albuminous principles can be digested, and the quantity of nitrogen present in the form of stimulating meat-bases: creatine, carnine, etc., which have a high importance as provocative of appetite, and as stimulants to the nervous system. The table of his chemical results is very remarkable, and it confirms in a high degree the recent decision of the International Jury of the Health Exhibition, which has awarded a gold medal to the Maltine Manufacturing Company for Carnrick's beef-peptonoids, which was tested along with numerous competitors, and thus received a high testimony to its special merits as a digestive and nutritive element in the food of invalids and children, and of all who require the essential elements of meat in

a highly digestible form. The detailed resnlts are published in Dr. Stutzer's paper printed in a recent number of the *London Medical Record*.

These results are certainly remarkable; they show, in the first place, that Carnrick's beef-peptonoids contain upwards of 87 per cent. of organic substances, while the best known and most popular of English extracts range from 60 per cent. down to 9 per cent. On the other hand, these Carnrick's beef-peptonoids contain less than 7 per cent. of water, while others standing in he highest repute vary from 89 per cent. of water downwards. The beef-peptonoids of these manufacturers are remarkable for their high percentage of easily digested albumen, which stands at 56 per cent. in Stutzer's analysis, while none of the others figure above 17 per cent., and several vary from 7 down to 2 per cent. It is unique also in its content of fat, which stands at 10 per cent. Without entering into invidious comparisons, it is obvious that these manufacturers have succeeded in producing an article which is of singular value in the double capacity, of a nutritive, as well as a stimulant. Hitherto it has been well known to practitioners who have followed the course of recent scientific research, that the majority of the preparations submitted as "extracts of meat" were, in fact, little more than ingenious preparations of the organic bases and mineral salts of meat, and that their nutritive value was so slight, as to render them quite untrustworthy as foods, in that respect. The new method of preparation, followed in this case, by which a large proportion of albumen is preserved in an easily digestible form, and in which the beef-peptonoids are combined with the stimulant bases and mineral salts, makes a new departure in invalid and children's foods. of which the usefulness is apparent, and which will tend to bring this class of food into much higher repute, and much more extended use, than it has of late occupied in the repertory of the practitioner. When, first, extracts of meat were introduced, much more was expected of them than they were capable of affording. There was a tendency to regard them as containing all the nutritive properties of meat, in a soluble and digestible form, and this fallacy, although it has been repeatedly exposed, is still repeated by some manufacturers, whose products contain barely a trace of nutritive or albumenoid principles, and who, nevertheless, on their documents, accompanying their preparations, do not hesitate to claim for them a nutritive value, of which they are entirely destitute. The more conscientious and better instructed manufacturers make no such claims, and are careful not to represent their products as containing the nutritive elements of flesh meat. On the other hand, the knowledge that a large number of meat-preparations cannot be considered as nutritive, has done much to discredit the use of such preparations in the school-room, and it is with no small satisfaction that it will be seen, from the careful analyses of Dr. Stutzer, that, in the preparation which is now under notice, chemists have succeeded in producing one which largely combines the elements of nutrition with those stimulant properties of which the value is undoubted, but which alone are insufficient in any invalid food. For solving this problem, manufacturers deserve not only the thanks of those for whom these preparations will serve so useful a purpose, but have established a claim to the confidence and support of medical practitioners, which they will not be slow to recognise. It may be added that we have before us copies of analyses by Attfield of London, Macadam of Edinburgh, and Meluc of Paris, which confirm the analyses of Stutzer.

INDIA-RUBBER BAGS FOR SUPPORT AND FIXATION OF THE HEAD IN DISEASE OF THE UPPER PART OF THE SPINE.

By WM. JAMES FLEMING, M.D., Senior Dispensary Surgeon, Glasgow Royal Infirmary.

THE following account of this invention is extracted from the author's paper on the subject in the May number of the *Glasgow Medical Journal*.

The arrangement consists of two sets of three fusiform India-rubber bags, connected by a narrow flexible but non-elastic material, and having at the free ends flaps by which they can be laced together. In each set the bags are internally in communication with each other, and from the lowest depends an India-rubber tube with a stop-cock, to which the nozzle of an ordinary small blower fits. A size suitable to the particular case having been selected, it is, while collapsed, laced rather loosely round the neck.

On inflation, the lower bag rests upon the root of the neck, the clavicle, and the muscles of the shoulders, while the upper bag moulds itself, along the posterior portion of the jaw, the mastoid process, and the skull, back to the occipital region. The front of the apparatus, where it is laced, is, on inflation, rather withdrawn from the neck, so that no pressure on the trachea is produced.



In practice, I find it best, in the majority of cases, to adjust a piece of poroplastic round the neck, like a wide turn-down collar, as shown in the diagram, and allow the lowest bag to bear upon this rather than on the skin. If great lifting power be desired, the lateral expansion of the bags may be checked by a net or light bandage; but, from their construction, the chief expansion is in a vertical direction, so that the net is rarely necessary. Indeed, it is generally easy to lift more forcibly than the patient can tolerate; but the wearers very soon come to manage the distension for themselves, carrying it just to the point from which they derive the greatest advantage. In some experiments which I made by placing the bags round a glass cylinder, over which a broad ring just slipped, I was able to raise over eight pounds through a distance of more than an inch. No doubt greater pressure could have been obtained, but the fear of bursting the bags prevented me from carrying the inflation further. By this means, then, I allege that we have the power of taking a large part of the weight of the head off the portion of the vertebral column above its connection with the shoulder-girdle, and, to a great extent, of fixing the head. The apparatus is light, can be worn either in the upright or in the recumbent position, and, when covered with a scarf, is scarcely perceptible. No inconvenience has been complained of by the wearers, except that, in one case, the heat was objected to; but this I hope at least to mitigate by fluting the inner surface. That the whole weight of the head can be borne by the apparatus I do not consider probable; but neither can this be obtained by the jurymast, and we know how even the support of the hand in those cases, slight as this must be, gives relief.

THE Medical Officer of Health for the Bristol Urban Sanitary District, in his report to the authority, read at the meeting on the 18th ultimo, recommended that the house-to-house visitation, hitherto restricted to houses occupied by the working classes, should be extended to houses of every class throughout the district, and the appointment of three additional inspectors for that purpose. After some discussion, a resolution to adopt the recommendation was, upon the motion of the chairman, and seconded by Mr. Lockley, carried unanimously.

PROFESSOR DA COSTA recently exhibited a case at his clinic, in which an attack of facial erysipelas was cut short in a remarkable manner by a hypodermic injection of a third of a grain of hydrochlorate of pilocarpine. The patient received a blow in the face one Wednesday night, and the next morning the upper part of his face was erysipelatous, the inflammation extending rapidly up on the brow, and over to the other eye. On the Thursday afternoon, he received the injection; and, after profuse sweating, the tumidity of the eyelids subsided, and, by the next morning, he could open both his eyes. The disease did not return, and he became at once convalescent, but took iron for a few days before going home again.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 3rd, 1885.

LUNACY: SINGLE PATIENTS.

AN important correspondence has taken place, in the columns of the *Times*, during the past week, which seriously affects the position of medical men in relation to insane persons not in asylums. The *Times* of the 19th ultimo contained a notice from the office of the Commissioners in Lunacy, headed "Lunacy: Single Patients," in which, expressing their belief that the law relating to insane persons not in asylums or licensed houses is extensively violated, they "desire to draw the attention of medical practitioners and others to the provisions of the statutes" as they relate to single patients. These provisions are that "no person (unless he receive no profit from the charge, or be a committee appointed by the Lord Chancellor) can receive one patient into any unlicensed house, neither can any person take charge or care of any one patient as a lunatic or alleged lunatic without the same form of order and medical certificates as are required on the reception of a patient into a licensed house." "The word 'lunatic' is declared to mean 'every insane person, and every person being an idiot, or lunatic, or person of unsound mind." The notice concludes with the threat that "The Commissioners will feel it their duty, in cases of violation of the law hereafter brought under their notice, to proceed by indictment against the offending parties."

Referring to this notice, Dr. Bucknill, in a letter published in the *Times* of the 27th ultimo, called attention to the fact that many persons received by "medical practitioners and others" as lunatics, idiots, or persons of unsound mind, or alleged to be so, are not capable of being certified as the Commissioners require, inasmuch as the schedule of the statute limits the certificate to such lunatics, idiots, or persons of unsound mind as are "proper persons to be taken charge of and detained under care and treatment." Dr. Bucknill argues that the phrase "taken charge of and detained" implies the abrogation of personal liberty, and that many lunatics, received as single patients, are not such persons, and therefore cannot be properly certified. He expresses the belief that if the Commissioners should take proceedings by indictment in such cases, the Courts will not convict; and he says that, as a justice of the peace, he would not commit for trial unless he not only had evidence that the alleged lunatic was actually of unsound mind, but that he was "a proper person to be taken in charge and detained under care and treatment," that is to say, that he was properly certifiable.

In reply to Dr. Bucknill's argument, the Commissioners in Lunacy, in a letter to the *Times* of December 30th, declare that they are unable to accept this view of the law, on the ground that "there is no distinction drawn (in the statute) between a lunatic (that is, an insane person, or a person being an idiot or lunatic or of unsound mind) who is, and one who is not, properly certifiable." This reply of the Commissioners appears fully to justify Dr. Bucknill's criticism, which exposes one additional and hitherto unrecognised inconsistency in our complicated and unreasonable lunacy laws. It cannot be doubted that there are great numbers of persons of slightly unsound mind who are received into the homes of "medical practitioners and others" who are not proper persons to be taken charge of and detained, and who, therefore, cannot properly be certified; and, if these persons cannot be so received, and cannot be properly certified, what is to become of them?

But the law, as it is interpreted by the Commissioners, seems to us to be at least doubtful; for, although the sections of the statutes do not draw any distinction between lunatics, or even alleged lunatics, who are certifiable and those who are not certifiable, the schedules which are part of the statutes clearly do so. Dr. Bucknill argues that the sections must be read in conjunction with the schedules of the statutes, just as the Commissioners read the sections in conjunction with the interpretation clause. But, if the sections be read in conjunction with the schedules, there can be no doubt that the distinction insisted upon by Dr. Bucknill is drawn by the statutes; and it is not conceivable that any statutes can be so impracticable as to make it a misdemeanour to do that which, under the forms of th statute itself, cannot be done.

The Commissioners, however, stand pledged to proceed by indictment against such "medical practitioners and others" as may offend against the law, as it is interpreted by themselves. The right interpretation, therefore, will no doubt have to be decided in the courts of law. Such "medical practitioners and others" as are indisposed to be made the subjects of indictments for misdemeanour by a government board at the public expense, will perhaps act with more prudence if they refuse to receive any person who is even alleged to be of unsound mind, unless he be certified. But any other medical practitioner who has received, or may hereafter receive, a single patient who is, or is alleged to be, of unsound mind will, we think, act wisely if he requires the patient to be examined by professional brethren independent of all interest in the case, for the purpose of certification, if certification be right and possible. If it be not so, the evidence of such independent examiners would go far to frustrate the proceedings by indictment which the Commissioners might institute.

THE SURGERY OF THE INTESTINES.

THIS subject, which has of recent years advanced with rapid strides, will receive another impulse in the forward direction from the lectures lately delivered by Mr. Bryant before the Harveian Society of London, which we have recently published. A perusal of them cannot fail to stimulate surgeons to employ every means possible for the relief of intestinal strangulation and obstruction; whilst the suggestions which they contain respecting the early treatment, by operation, of cases that too often are allowed to drift into an incurable state will be hopefully regarded. It may serve further to accentuate Mr. Bryant's advice, derived from a wide experience, if we draw attention in this article to the chief points brought out in his lectures.

Mr. Bryant first discussed the mode of death in intestinal strangu-

lation and intussusception, showing, particularly, how it differs from death due to obstruction, though the distinction has not before been insisted upon. In the former set of cases, there is obstruction undoubtedly, together with something extra, which is of far more serious moment. This something extra is an interference with the circulation of the venous blood through the strangulated bowel, which may vary from mere retardation of the blood-current to complete blood-stasis, the symptoms of which latter condition of things, however it may have been induced, are vomiting, paroxysmal abdominal pain, and, perhaps, obstruction. When the stage of complete blood-stasis is reached, the death of the bowel is not far off. If the process of increasing congestion be slow, inflammation may complicate the change, as demonstrated by effusion, or possibly ulceration; should the process be rapid, static gangrene is the pathological result. When the strangulation is acute, hæmorrhage into the bowel may occur, and blood be vomited or passed *per anum*. This hæmorrhage is due to mechanical rupture of the overdistended vessels. As a rule of practice, Mr. Bryant would counsel surgeons to explore the abdominal cavity in every case of acute intestinal strangulation, apart from ordinary hernia, first to discover the true cause of the strangulation, and secondly to relieve it. He believes that, by the general adoption of this practice, more lives would be saved than by the continuance of the expectant principle, which now too generally predominates. The cases of strangulation produced by a band, cited to support this proposition, showed that early division of the strangulating band in any one of them might have been successful. Mr. Bryant next applied these principles to cases of intussusception, a subject since discussed by Mr. Treves at the Medical Society, in a paper published in the JOURNAL of this week. Mr. Bryant showed that in the acute variety of that disease inflation or forcible injection of fluids often leads to rupture of the distended bowel; that even in the more chronic varieties these methods of treatment should not be attempted after the third day; that in all cases of intussusception, with the exception of chronic cases in the first three days, the treatment by laparotomy is called for, and should be undertaken early; and that, when the probabilities of success are slight, the formation of an artificial anus above the seat of obstruction is suggested. When a laparotomy is in progress, the surgeon should first direct his attention to the colon, and then proceed according to the nature of the case. Mr. Bryant's rules on this point, as stated in the lecture, will probably command general assent from surgeons.

In his second lecture, Mr. Bryant demonstrated how intestinal obstruction destroys life, either by exhaustion due to the inability of the patient to take or retain food, or from peritonitis, or sloughing, rupture, or ulceration of the cæcum or colon, the result of overdistension. Where there is congenital imperforate anus or rectum, Mr. Bryant would at once open the bowel in the right inguinal region. He also advises a careful digital examination of the rectum by all practitioners in cases in which signs of obstruction do not yield readily to ordinary means, as death may occur simply from fæcal accumulation. In rectal obstruction, from any cause, the distending pressure in the bowel above, caused by the accumulating motion, is sure, sooner or later, to cause ulceration, sloughing, and perforation of the cæcum or colon. Mr. Bryant then showed how, excluding the mechanical pressure of tumours placed outside the bowels, most other causes of obstruction commence in ulcerations, which may be subdivided into simple, syphilitic, and cancerous; one of every three cases of the kind at Guy's Hospital being found to be non-cancerous, though all, unless relieved by operation, tend equally to destroy life. The distinction is, however, important, since, if the evil effects of obstruction can be done away with, life may be absolutely saved in the non-cancerous cases; whereas, in the cancerous cases, life is not likely to be prolonged for more than from two to six years, though in these, as in all the other cases of ulcer and stricture of the rectum, the relief afforded by colotomy is simply immense. The simple and syphilitic ulcers, after colotomy, usually heal rapidly. But, to secure its full advantages, the operation must be performed before the pernicious effects of obstruction occur. Mr. Bryant's method of performing colotomy is too well known to need further exposition here; it is set forth in his various papers on the subject, and he again alluded to it in the second lecture, in which he also gave, in tables, extremely interesting details of the eighty-two cases, which, up to July last, he had treated by colotomy.

In his third and last lecture, Mr. Bryant dwelt especially upon the differential diagnosis of acute intestinal strangulation and typhlitis, and remarked that the uncertainty of diagnosis had possibly made the surgical treatment of these affections so unsatisfactory. Internal strangulation is to be diagnosed when a sudden attack of abdominal pain, accompanied with vomiting, occurs in a patient previously in apparent good health; the two symptoms being more or less paroxysmal, and associated with obstruction. A sudden perforation of the intestine from ulceration, an acute attack of peritonitis following some cæcal or perityphlitic trouble, or an acute attack of gall-stones, may simulate partly the symptoms of strangulation, but should be carefully distinguished from it. The third condition falls to the lot of the physician to diagnose, and Mr. Bryant passed it by. Of the two former conditions, he recited some interesting examples. In two cases of perforation, there was sudden pain, with vomiting and collapse, though the bowels were opened. Besides, in strangulated bowel, collapse is not generally a very early or marked symptom; it means death of the bowel. The symptoms of perforation are more acute than those of the acutest case of strangulation. As regards cæcitis, as Mr. Bryant calls it, or typhlitis, he cited nine well marked cases. Eight of them occurred in boys or young males, and the disease seems to be altogether more common in males than females. In all except one, in which there was accidental hæmorrhage, peritonitis was the direct cause of death, though the abscesses opened in very different situations in the nine cases. Pain in the right side of the abdomen was generally marked for days or weeks before acute symptoms began, with, in some cases, pain down the front of the right thigh and flexion of the thigh. The bowels were regular or loose during the progress of the case, and there was no sign of obstruction. The lecturer advocated, by way of treatment, the novel and bold, though safe, procedure of an early incision in the neighbourhood of the cæcum for the evacuation of inflammatory products when once they are formed, with rest, and with opium and belladonna as drugs at the beginning of the illness. From this operative treatment Mr. Bryant anticipates the best results. The lecture was concluded by the narration of two remarkable cases of circumscribed suppurative peritonitis, due to ulceration and perforation of the stomach, one of which had been regarded as ovarian. They both well repay perusal.

The cases recorded in certain parts of his interesting lectures by Mr. Bryant were nearly all taken from the records of necropsies at Guy's Hospital, that the certainty of diagnosis might be placed beyond all

doubt. One may hope that, in future years, when the principles of treatment which he inculcates shall have borne further fruit, the lecturer may be induced to publish his successful cases also, in vindication of the surgical procedures which he advocates.

THE ROYAL COLLEGE OF SURGEONS AND ITS FELLOWS.

We have good reason to believe that the decisions of the Council of the Royal College of Surgeons, at its extraordinary meeting held on Friday, December 27th, 1884, upon the recommendations of the Association of Fellows, have given rise to much disappointment and dissatisfaction. It is true that the Council adopted the advice of the special committee that had been constituted to report on the mode of election to the Council, on certain matters relating to the Charters and By-laws of the College; and lastly, on the letter recently addressed by the Association of Fellows to the Council. The committee were in favour of several of the recommendations urged by the Fellows Thus, they agreed to the appointment of scrutineers (two, however, not three, as recommended by the Association), not members of the Council nor permanent and non-medical officials of the College, but Fellows outside the ranks of the Council, and appointed by the President ("or other member of the Council occupying the chair," added the committee in their report), to act during the annual Council election. They were also in favour of the abolition of the fee of twenty guineas hitherto required of every new member of Council on his first admission.

The recommendations as to the appointment of a Treasurer were not approved of in their entirety by the committee and the Council. The letter of the Association of Fellows recommended that a Treasurer be appointed from amongst the members of the Council, and that his accounts be audited by a professional auditor, whose report shall be submitted to the annual meeting of Fellows and Members, and further suggested that the Treasurer's balance-sheet, duly audited, shall be submitted to the annual general meeting of Fellows and Members; and that such balance-sheet shall be published with the advertisements convening such meeting. The committee were in favour of the above recommendation, save that they did not recommend any alteration in the publication of the accounts of the College other than as at present in the College Calendar. They were in favour of the exhibition, for a week at least, of the published minutes of each meeting of Council, for the inspection of Fellows and Members, adding, however, to the original recommendation the words "at which they" (the minutes) "shall have been confirmed." They agreed to the recommendations that any Fellow who has been a Fellow for ten, or a Member for twenty years, shall be eligible for election to the Council; and that absence from two successive quarterly, or four successive ordinary meetings, should make a member liable to forfeit his place on the Council; also that Members of the College shall be eligible as examiners in anatomy and physiology (this, however, does not apply to the Fellowship Examination, but only to the examiners under the new conjoint scheme); and lastly, they agree to the annual general meeting of Fellows.

It now remains for us to recapitulate and consider the recommendations of the Association of Fellows that were rejected by the special committee and by the Council. They were opposed to the yearly nomination, by the Fellows and Members at the annual meeting, of two distinguished members of the medical profession as Honorary Fellows. The committee did not recommend the Council to adopt the proposals that not more than one-half of the members of the Court of Examiners, and not more than two members of the Board, should have seats in the Council, and that an examiner should vacate his office on the Court or Board if elected into the Council. The committee considered that, if it ever had seemed objectionable that questions concerning education should be referred to the Court of Examiners, of whom many were members of the Council, this would no longer be the case under the conjoint scheme, as both Colleges would have to consider such questions. They were not in favour of the abolition of the appointment of "substitute members," on the death or premature retirement of members of Council, as they believed that such a step would unfairly shorten the tenure of office of all the members junior to their deceased or resigning colleague. The proposal, that the six members of the Council who have served longest without re-election shall vacate their office every year, instead of every three years, was rejected, as the committee were of opinion that such a plan would reduce the longest possible period of office from eight to five years, and deprive many members of a long and useful experience of their duties.

The proposed annual election of members of the Council was also rejected. It was not considered expedient that the consent of Fellows and Members, officially granted at a special or annual meeting, should be required before the adoption of any alteration in the constitution and relations, or of any new regulation or ordinance of the College, believing that the government of the College should still be vested in the Council, the members of which are elected by the Fellows as their representatives. Lastly, the proposal that the President be annually elected by the Fellows of the College, in a manner hereafter to be agreed on by the Council, was rejected.

These important decisions of the Council are too numerous for simultaneous discussion, but a few words may be said on the last subject. We have for some time been aware that the Council were very much opposed to one proposal of the Association of Fellows, namely, that, when a president is to be elected, the Council shall submit to the Fellows at least three names of its past or present members, the retiring president to be included in the nomination. Individual members object, it appears, to the discussion of each other's merits at the Council Board, and naturally hesitate in nominating, or helping to nominate, themselves in opposition to colleagues. The proposed nomination of an ex-member of Council appeared to them to be still more open to objection. It was rumoured that some of the most distinguished members would absolutely refuse to remain in the Council, or, at least, ever to seek the office of President, under such conditions. We have also learned that many members of the Council believe that it is best for British surgeons that it should retain its full powers, and they therefore intend to oppose the curtailment of its privileges; they are also of opinion that the Council is in a position to know best how the College should be governed.

They further argue that there is no indication that the Fellows really desire any change in the manner of electing a president; this assertion is contradicted by the existence and flourishing condition of the Association of Fellows. Another argument against the proposed change is that, in all large societies, acting committees elect their own chairmen. This can be met by the reply that a President of the

Royal College of Surgeons should be more than a simple chairman; he ought to be a distinguished representative of British Surgery.

It is but fair that both sides of the question should be known and considered, and that respect should be paid to the reasonable prejudices of the Council as already established. What the Fellows desire is a simplification of the laws of the College, so that the duties of President should not remain technically difficult, a bar to a good nominee who might be much desired as President, though not conversant, through contingent circumstances, with the intricacies of standing orders and other matters that beset members of Council in the actual discharge of their duties.

As to the proposed novel method of nominating a new President, it is, after all, very similar to the custom in vogue at the council meetings of many learned societies. A ballot-list is drawn up once a year, bearing the names of the nominated new president and of all the members of Council who have not served their time, as well as the names of the candidates for other vacancies. According to the system which finds favour with the Association of Fellows, the Council would simply have to nominate candidates for the presidency after this manner. It is hard to see why the present members of Council should feel such invincible repugnance to nominating each other. No doubt, intricate questions of professional policy and personal feeling would sometimes influence a nomination, but this must ever be the case, under any imaginable system of election, as long as human nature remains as it is. These delicate responsibilities are not evaded by other councils, and it is to be hoped that the Council and the Fellows will succeed in making a business-like and satisfactory compromise.

FURTHER USES OF CUCAINE.

It is said that cucaine is coming largely into use in America in dental operations. Dr. G. W. Weld, of New York, has employed it with much success for the removal of tartar from the teeth. He recommends that the gums should first be washed with a little dilute alcohol, and that a ten per cent. solution of the hydrochlorate should then be applied freely with the finger or a small brush. In five or six minutes, it will be found that there is a marked diminution in the sensibility of the gums; and that operations can be performed without much pain. An exposed nerve-pulp was treated with a solution of hydrochlorate of cucaine in spirits of peppermint—six grains to the drachm—and partially extirpated, without causing any pain to the patient. In the perforation of an extremely sensitive tooth for filling, a ninety per cent. glycerite, made by dissolving Merck's crystals in glycerine, was allowed to remain in the cavity for a period of thirty minutes with most satisfactory results. The same experiment was made with the borate of cucaine, the paste being allowed to remain in the cavity of the tooth for twenty-four hours. Dr. C. H. Shears, also of New York, has found a solution of cucaine useful for deadening the pain of lancing the gums prior to extraction.

Dr. J. R. Uhler, of Baltimore, thinks that cucaine may be used with advantage in the performance of the operation of vaccination. He denudes the skin, slightly rubs in a little of the cucaine solution, and then, when anæsthesia is produced, introduces the lymph.

Muriate of cucaine has also been employed with some success in operative gynæcology. Dr. W. H. Doughty describes briefly his experience with this anæsthetic in a case of vesico-vaginal fistula. The fistula was a small one, barely admitting a silver probe of ordinary size. Two applications, at intervals of three minutes, were made, the solution being a two per cent. of the hydrochlorate; and, five minutes later, a sufficiently decided effect not having been produced, it was painted on more freely. Three minutes later, the anæsthesia was found to be complete. The paring was proceeded with, and was carried on for sixteen minutes without any pain being experienced by the patient. She then complained that the effect was passing off, and the solution was again applied. In thirteen minutes more, the paring was finished, and the operation was completed without inconvenience. The effect on the bleeding is worthy of note. During the first sixteen minutes, there was very slight oozing; but as the sensitiveness of the part returned, the hæmorrhage decidedly increased.

Dr. William Chapman Jarvis, Lecturer on Laryngology in the New York University Medical College, reports some most excellent results in intranasal surgery. He employed a four per cent. solution of the crystalline hydrochlorate. He placed pledgets of absorbent cotton in contact with the structures requiring removal, and projected on them, by means of a glass syringe, from five to ten drops of the cucaine fluid. The effect uniformly noted was the retraction of the lower turbinated tissue from contact with the septum, thus affording more room for operative procedures. A still more marked effect was the anæsthesia for the septum of the nose, the mucous membranes, and other structures were incised and removed piecemeal without any sensation being experienced by the patient. Cucaine is now largely employed for the removal of polypi and hypertrophied turbinated tissues, it facilitates the practice of posterior rhinoscopy, and alleviates pain in the larynx and pharynx.

Few untoward symptoms have as yet been reported from the use of cucaine; but Dr. H. Knapp of New York thinks that it should be used with greater caution. He says: "I injected six minims of a four per cent. solution into the orbit close to the posterior segment of the eyeball. The anæsthesia in that part was complete, and the operation was being proceeded with, when the patient's face became quite pale. In another case, I injected five minims of a three per cent. solution beneath a sebaceous tumour the size of a small nut, situated in the centre of the upper lid. The anæsthesia was almost complete, and the somewhat laborious operation passed satisfactorily; but, during it, the patient became as pale as a corpse, felt somewhat faint, asked repeatedly for drink, and was covered with cold perspiration. In about fifteen minutes, the condition of distress—which was, however, in no way alarming—disappeared." We are indebted to Dr. Knapp for publishing these cases, and fully recognise the importance of proceeding with caution in dealing with new and comparatively unknown remedies; but at the same time we feel convinced that, as a local anæsthetic, cucaine is, for all practical purposes, perfectly safe. Any doubt there may have been on this point is cleared up by the interesting observations of Mr. Eber Caudwell, who took eight grains of Merck's hydrochlorate on an empty stomach without experiencing any very serious symptoms.

Cucaine, we understand, is coming into use as an aphrodisiac and remedy for impotence. The valoid of cuca is largely employed for this purpose in the United States, and is also recommended in the treatment of spermatorrhœa, nervous debility, and like affections. In using the alkaloid, much undoubtedly depends on getting a trustworthy specimen. From its high price, it is likely to be largely adulterated, and many complaints have already been received.

A DEPARTMENT of hygiene and the science of micro-organisms has been opened in connection with the chemical laboratory of Professor Fresenius at Wiesbaden. Dr. F. Hueppe, who has done much work under Dr. Koch at Berlin, has been appointed to the charge of this department.

MR. LENNOX BROWNE will read a paper, on "The Effects of Inebriety on the Vocal and Respiratory Organs," to the Society for the Study and Cure of Inebriety, in the rooms of the Medical Society of London, on Tuesday afternoon, January 6th, at 4 o'clock.

IN connection with the review of the recent researches on the functions of the marginal convolution contained in our Retrospect of last week, it should have been stated that Mr. Victor Horsley has been throughout working on the subject in conjunction with Professor Schäfer. The preliminary report is published in a volume of the *Proceedings of the Royal Society*.

MR. HENRY TATE, sugar-refiner, of Liverpool, and Streatham, Surrey, has announced his intention to erect in Liverpool, and furnish at his own expense, a building to be used as a homœopathic hospital for the free use of the public. It is understood that Mr. Tate's gift represents a money-value of over £10,000.

THE GENERAL HOSPITAL, BIRMINGHAM.

DR. RUSSELL has announced his retirement from the post, which he has so long held with great distinction, of Physician to the General Hospital, Birmingham. His patient, sagacious, and careful clinical work has often been before our readers. Next in succession stands Dr. Saundby, who has been now for many years assistant physician and was formerly pathologist to the Hospital. It will be a matter of satisfaction that, in a post of so much importance, the physician next in succession is one of such high attainments and wide range of scientific information. Dr. Saundby's work has been abundant, and of the highest quality, and in entering upon the larger field which the clinical wards offer, he will bring to this work an amount of carefully digested knowledge, and an acquaintance with the whole range of British and Continental medical literature, which few physicians can rival, and hardly any excel.

MUNIFICENT GIFTS TO HOSPITALS.

OUR American cousins continue to give us lessons in munificent liberality to public institutions, especially to hospitals. In addition to the Vanderbilt gift, and the many other munificent gifts of the kind, which we have recently chronicled, we notice in the last number of the *New York Medical Record* two paragraphs, of three lines each, announcing a continuous flood of this noble benevolence. The German Hospital of Philadelphia, which has recently been enlarged and greatly improved, receives the sum of 600,000 dollars, which covers the expense of the changes, given to the hospital by Mr. John D. Lakenau President of the Board of Trustees. A lady has promised to give 50,000 dollars to the Presbyterian Hospital, for the purpose of erecting a new wing, provided an equal sum is raised by other persons.

PENALTIES OF NON-VACCINATION.

Two inquests held this week afford illustrations of the results of the fatal neglect of vaccination, directly traceable to the mischievous fanaticism of the antivaccination agitators. One is the case of some children of an antivaccinator named Westwood, who "was not clear that vaccination was necessarily a preventitive of small-pox," and had therefore allowed his children to remain unvaccinated. His three children seem all to have taken the small-pox, and, as is so commonly, and is likely to be, the case under the circumstances, they suffered from small-pox in its confluent and most virulent form. To be quite consistent, this unfortunate man called in a Mr. Swindles, a confectioner by trade, who possessed no legal title, but considered himself to possess considerable medical knowledge. This worthy appears to have advised the administration of hyssop, pennyroyal, marsh-mallow, and other herbs. All three of the poor children died. Another case is that presented at an inquest held by Mr. Carter respecting the death of James and Ellen Duffin, in the Walworth Road. Neither of these unfortunate children had been vaccinated, and both of them suffered from small-pox in its confluent form. The mother dreaded calling in medical aid, for fear of the children being taken to a hospital. An adult son had also on a previous occasion died from small-pox. These poor children were living in a crowded tenement, and the medical officer stated that several persons were at the present time suffering from small-pox in the house in question. We recorded last week a somewhat similar case occurring in the family of an antivaccinator. Comment, for reasonable people, would be obviously superfluous; for antivaccinators, argument would, we fear, be useless. It is painful to see, but necessary to record, the frightful instances of the mischief done by the diffusion of ingeniously falsified figures and arguments, with which antivaccinators feed the delusion that small-pox can be averted by any other known method than that of effectual vaccination in infancy and revaccination in adolescence.

SUICIDE OF A LIVERPOOL SURGEON.

DR. ADOLPHUS FREDERICK GRAHAM, of Everton Road, committed suicide, a week since, by cutting his throat. For some months past, his friends have noticed that he appeared to be greatly occupied in his mind with religious questions; and there is no doubt that religious mania, or melancholia, was the cause of the rash act. The deceased had been in active practice in Liverpool for many years, and was highly respected. He graduated at the University of Edinburgh in 1858, and became M.R.C.S.Eng. the same year. He was formerly Demonstrator of Anatomy and Curator of the Pathological Museum at the Royal Infirmary School of Medicine, and House-Surgeon at the Workhouse Hospital. Subsequently, he became the Medical Officer to the Blue Coat Hospital, and Surgeon to the Northern Hospital. He had a considerable reputation as an ovariotomist, and was universally regarded as a very skilful and successful surgeon. He published, a few years ago, an account of some successful cases of ovariotomy. He will be sincerely regretted, and by none more than by those of his professional brethren who, by being brought frequently into intimate relations with him, had special opportunities for observing and admiring his many sterling qualities.

THE DISTRIBUTION OF DOCTORS.

THE numerical strength of the medical profession in the United Kingdom would appear to be increasing at a rather rapid rate. According to the analysis published in Churchill's *Medical Directory*, there were, at the close of 1884, residing in Great Britain and Ireland, 21,381 qualified practitioners of medicine, as against 19,947 at the close of 1882, an increase of rather over 7 per cent. In London, the increase has been nearly 12 per cent. in the same period of two years; indeed, the number of practitioners in London is extraordinary, for we calculate that there is one medical man to every 880 souls, or about a medical man and one-eighth to each thousand of the population. In England and Wales, excluding London, there is one practitioner to every 1,903 persons; including London, one to every 1,562 persons. In Scotland, there is one to every 1,624; in Ireland, one to every 2,105. It would seem, therefore, that, excluding London, where the density of doctors in proportion to the population is nearly twice as great as it is anywhere else, Scotland is best provided, and Ireland worst. Doubtless, the number recorded in the London list is far in excess of those who are actually in practice; the excess being due partly to students who have qualified, but have not yet finished their

studies, and partly to the very considerable number of qualified men who lead a wandering life, and have no more fixed address than a London club, or their old medical school. Making, however, all due allowances, the number of practitioners residing in London is enormous, and appears to be rapidly increasing. The question is sometimes asked what becomes of the great number of young men who are yearly, quarterly, and even weekly pronounced qualified to practise medicine. An answer of the most satisfactory kind is afforded by the fact that the number of registered practitioners resident abroad is rapidly increasing. In 1882 they numbered rather over fifteen hundred; in 1884, they numbered rather over nineteen hundred; this is an increase of 26½ per cent. in two years. It would appear, therefore, that the Colonies have absorbed a large proportion of our surplus medical population, just as they absorb the surplus of our general population. Altogether, there are over twenty-five thousand medical practitioners holding English qualifications.

THE UXBRIDGE TRAGEDY.

A COMMUNICATION has been received from the Home Secretary by the Governor of Newgate Gaol respiting the convict Mrs. Gibbons, condemned at the recent sessions of the Central Criminal Court, for the murder of her husband by shooting, at Hayes, near Uxbridge, on November 15th. A memorial has been drawn up and presented to the Right Hon. Sir William Vernon Harcourt, setting out a statement of facts put forth as reasons for considering the verdict—which was that of guilty, with sentence of death—as not well founded, and as unsatisfactory. Unfortunately, the surgical details of this case elicited at the trial, published in the public press, are meagre and imperfect. Some of the facts stated in the memorial are, we find, in direct conflict with the evidence as reported. This is especially the case in regard to the wound in the back, which the memorial makes both medical witnesses to admit, might have been of accidental origin; this is contrary to the medical evidence as reported in the daily press. This important case is one on which it would be rash to express an opinion without the most complete data; and a careful description of the wounds, in all their bearings, is requisite to enable any surgeon to form an opinion of value as to the case. The letter, which we publish in another column, from Mr. Bowlby throws further light upon this subject

POISONOUS CONFECTIONERY.

IN England, thanks to legislation against adulteration, the employment of poisonous, or more or less objectionable, colouring matter in the manufacture of coloured sweetmeats, has practically been stamped out. In America, which at the present time is agitated by a struggle against adulteration similar to that which took place in this country between the fifth and sixth decades of this century, all sorts of highly injurious colouring matters are still in common use. Dr. Cyrus Edison, Chief of the Second Sanitary Division of New York, reported lately that, of sixty-four firms engaged in the manufacture of sugar-confectionery, thirteen were using chromate of lead, red lead, vermilion, and fuchsine, all of which pigments Dr. Edison declares to be "highly poisonous." No doubt, both the chromate and red lead are so in an eminent degree; but, however objectionable the use of vermilion for such a purpose may be, no poisonous effects have hitherto been proved to follow its internal administration. Only its fumes, which contain free mercury, are poisonous. It is time, also, that the old and erroneous ideas about fuchsin and allied aniline colours be abandoned. Pure fuchsine, free from arsenic, is absolutely harmless, and inasmuch as the arsenic acid process of its manufacture has long been superseded by the so-called nitrobenzole method, which dispenses with arsenic acid altogether, and is much cheaper, aniline colours are nowadays, with the most rare exceptions, free from arsenic. Among the countless artificial colouring matters, it is of course possible that one or other may possess poisonous properties of its own; but of the ordinary aniline colours, fuchsine, Hofman's violet, Nicholson's blue, the various maroons, and browns, not one has ever produced undoubtedly injurious effects. The injury caused by wearing hosiery dyed with aniline colours has generally been traceable to the employment of metallic mordants used to fix the colour.

PATHOLOGICAL SOCIETY OF LONDON.

THE annual general meeting of the Pathological Society, for the election of officers and council, will be held at the Society's rooms on Tuesday, January 6th, 1885, at 8.30 P.M. The following is a list of officers and council proposed for election for the year 1885:—*President:* John Syer Bristowe, M.D. *Vice-Presidents:* H. Charlton Bastian, M.D., F.R.S.; William Cayley, M.D.; George Johnson, M.D., F.R.S.; Samuel Wilks, M.D., F.R.S.; Arthur E. Durham; John W. Hulke, F.R.S.; George Lawson; Thomas P. Pick. *Treasurer:* John Wood, F.R.S. *Honorary Secretaries:* James F. Goodhart, M.D.; Henry T. Butlin. *Council:* Robert Barnes, M.D.; Arthur E. T. Longhurst, M.D.; Norman Moore, M.D.; Joseph F. Payne, M.D.; George V. Poore, M.D.; Frederick T. Roberts, M.D.; Felix Semon, M.D.; Seymour J. Sharkey, M.B.; Francis C. Turner, M.D.; Samuel West, M.D.; Arthur E. J. Barker; William W. Cheyne; Henry Hugh Clutton; W. Harrison Cripps; Frederic S. Eve; Cuthbert H. Golding-Bird; A. Pearce Gould; R. Clement Lucas; Henry Morris; Samuel G. Shattock.

CLINICAL SOCIETY OF LONDON.

THE Clinical Society will hold its annual meeting, for the election of officers ond other members of the Council, on Friday, January 9th, 1885, at 8.30 P.M. The following gentlemen are nominated for election for the year 1885:—*President:* Thomas Bryant. *Vice-Presidents:* John W. Ogle, M.D.; James Andrew, M.D.; William Cayley, M.D.; Arthur E. Durham; W. Morrant Baker; Thomas P. Pick. *Treasurer:* Christopher Heath. *Council:* H. Radcliffe Crocker, M.D.; Sidney Coupland, M.D.; Arthur W. Edis, M.D.; William Ewart, M.D.; David W. Finlay, M.D.; F. de Havilland Hall, M.D.; David B. Lees, M.D.; Felix Semon, M.D.; T. Gilbart Smith, M.D.; John Williams, M.D.; Arthur E. J. Barker; Henry Hugh Clutton; J. N. C. Davies-Colley; Clinton T. Dent; A. Pearce Gould; J. Warrington Haward; R. Clement Lucas; John H. Morgan; Henry Morris; Gifford Ransford. *Honorary Secretaries:* Stephen Mackenzie, M.D.; Rickman J. Godlee, M.S.

THE HARVEIAN SOCIETY.

THE annual general meeting of the Harveian Society will be held on January 15th, 1885, at 8 o'clock P.M. precisely, for the purpose of electing the officers and Council for the ensuing year, and transacting the usual business. The following is a list of persons proposed by the Council as officers of the Society for the year 1885. *President:* T. Morton, Esq., M.D. *Vice-Presidents:* D. Ferrier, M.D., F.R.S.; Malcolm Morris, Esq.; J. H. P. Staples, M.D.; Charles Vasey, Esq. *Treasurer:* Thomas Buzzard, M.D. *Honorary Secretaries:* J. Ernest Lane; W. Ewart, M.D. *Council:* T. Bryant, Esq.; J. Cavafy, M.D.; H. E. Juler, Esq.; E. Symes Thompson, M.D.; A. Dunbar Walker, M.D.; G. P. Field, Esq.; F. Otley Lovell, Esq.; P. Kirkpatrick Picard, M.D.; W. H. Platt, Esq.; Henry Power, Esq.; T. Gilbart Smith, M.D.; John Williams, M.D. The President and Council of the Society have issued cards to a *conversazione* on the same evening at 8 o'clock. The President will also deliver his address.

POISONING BY CHLORODYNE.

FROM the evidence given at a recent inquest at Weymouth, it appears that, in that town, chlorodyne and other patent medicines are supplied by some local chemists to all comers, in, practically, unlimited quantities. At all events, a young lady, who had for some time been under supervision, if not restraint, experienced no difficulty in pur-

chasing three large 4s. 6d. bottles of Collis Browne's chlorodyne in the course of four days. She committed suicide, and the chemists, or their assistants, were called to give evidence. They admitted that they knew the chlorodyne contained morphia, and chloroform, and Indian hemp, and prussic acid, but did not consider that it was a poison because it was a patent medicine! If this be the impression conveyed by the Government stamp, the sooner it is abolished the better. The jury, in their verdict, urged that representations should be made to the proper quarter, making it necessary that chlorodyne, and other patent medicines of such a potent nature, should be placed under Paragraph 2 of the Poisons Act. With this recommendation the coroner concurred, and promised to take active steps in the matter. We trust that the members for Weymouth will take an early opportunity of bringing the subject before Parliament. Some months ago we pointed out that it had been stated, on good authority, that the annual mortality from patent medicines alone was something like 150,000. This we can readily believe if deadly poisons are allowed to be sold in this reckless fashion.

THE QUESTION OF OVERPRESSURE.

REPORTING on the question of overpressure, the Subcommittee of Representative Managers of London Board-Schools admit that there is evidence that, under certain conditions, some overstrain does occasionally occur. The cases, however, they say, are proportionally not numerous, nor is the evil widespread. The committee believe that the new code has done much, and will do more, to prevent overpressure; but it could not produce the results intended unless administered in spirit as well as in letter, which was not always the case. The committee do not think, as a general rule, that home-lessons are desirable, and recommend that their imposition should be left to the discretion of the managers and teachers jointly. They also recommend that home-lessons should be completely prohibited for children below the third standard, and altogether in schools of "special difficulty." The committee would absolutely forbid "keeping in," except for punishment; and strongly recommend that the Board's inspectors should be more of "inspectors" and less of "examiners." Under-feeding and irregularity, the committee say, largely conduce to such overpressure as exists, but upon this they make no recommendation.

THE LATE SIR ERASMUS WILSON.

AT the last meeting of the Council of the Royal College of Surgeons, Sir James Paget gave notice that, at the next meeting, he would move that the Council take measures for placing in the College an appropriate memorial of Sir Erasmus Wilson, who had, it will be remembered, bequeathed about £280,000 to the College, and who had previously given £5,000 and his fine collection of dermatological specimens to the Museum of the College.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

WE understand that it was arranged that a deputation from the Association of Members of the Royal College of Surgeons should lay a statement of the views of the Association before the President and Vice-Presidents of the College on Friday.

CHARGE OF NEGLECT AGAINST A MEDICAL OFFICER.

WE learn from a local contemporary that Mr. Carter recently held an inquest respecting the death of Alice Maud Kemp, aged 6, living in Bermondsey. The child belonged to the London and Manchester Medical Provident Association, to which the parents paid a weekly subscription entitling the deceased to have medical assistance when ill. On the previous Saturday, the deceased became ill; and the medical officer of the Association, Mr. Forster, of the Old Kent Road, was sent for. He did not attend, but sent some medicine, after which the child appeared better. On the following Monday, the deceased appeared very ill, and made a peculiar noise in her throat, when Mr. Forster was again applied to, when he promised to attend, or to send his assistant; but neither of them attended either before or after the death, which took place at 10.30 the same morning. The coroner remarked that it was a great pity that the medical officer did not attend; for, if he had done so, the child might have been alive at the present time, and the county saved a great expense. It was a great shame that such conduct should be common among certain medical gentlemen. The jury returned a verdict that the deceased died from natural causes, arising from an attack of croup; at the same time expressing their disapproval of the conduct of the medical gentleman referred to. We entirely agree with the comments of the coroner and the verdict of the jury, and we have to express our regret that any member of our profession should so far forget his duty as to merit such a censure. We would advise that the parents should at once sue the medical officer for the restitution of the fees they have paid. It might then be elicited whether this so-called London and Manchester Medical Provident Association has any real existence, or whether it be one of a certain class of dispensary which is springing up in all directions, and which has tended to make the poorer classes discredit all such institutions, even when respectably conducted.

TRICHINOSIS IN RUSSIA.

DR. NEBYKOFF has recently published statistics in the *Vratsch* on the history of the trichina in the Russian Empire. Professor Rudneff was the first to detect a case of trichinosis within the dominions of the Czar, having found the parasite in the muscles of a corpse in 1865. The first well recognised series of cases occurred in 1873 in St. Petersburgh. In 1874, there was an epidemic of trichinosis in Moscow; sixty people were attacked, but none died. The last epidemic in St. Petersburgh was in 1881, and another occurred recently, according to the *St. Petersburger Medicinische Wochenschrift*, in Riga. Professor Kryloff found trichinæ in rats caught at Jaroslav in 1866, Ladin found them in rats at Charkoff in 1875; in that year, and in the same city, Drs. Alexandroff and Favre examined 3,910 swine, and found 5 to be infested with trichinæ. The first case of the disease in the human subject in South Russia occurred in a Charkoff hospital during the year 1876, when Dr. Kryloff found live trichinæ in a patient who had died with symptoms of puerperal fever. During 1884, nine persons, including four medical men, were attacked in the Don-Cossack District. The authorities immediately seized 843 hams, 748 pork-sausages, and 17 swine, and ordered that they should be analysed. The result was that trichinæ were found in three of the hams and four of the sausages, all the seven samples having been prepared from three pigs. It was afterwards found that 1 in 288 of the swine in the district were diseased. In St. Petersburgh, where inspection of meat is compulsory, 27,913 pigs were examined in 1883, and 35 were found to be trichinous.

OPEN SPACES.

ACCORDING to the report of the Metropolitan Public Garden, Boulevard, and Playground Association for this year—the second of its existence—it has brought to a successful issue 30 of the 78 different matters it took in hand. Its achievements include the conversion of half the site of Horsemonger-lane gaol into a playground, enjoyed by a daily average of 2,000 children; the transformation of numerous unsightly burial grounds—especially in East and South London—into sightly public gardens; the admission of the public—subject to their good behaviour—into the School-Board playgrounds; an undertaking on the part of that Board to watch over the physical training of the scholars committed to their care; and concessions on the part of the Duke of Westminster and the Marquis of Northampton, respectively, for the use by the public of the gardens in Ebury-square, Pimlico, and Canonbury-square, Islington. The Association joined in the opposition offered to the proposed appropriation of a part of Barnes Common by the London and South-Western Railway. The result was that the company received three roods and 29 perches adjoining their station, and gave in exchange three acres and 14 perches to be added to the

Common. At the instance of the Association, the Bridge House Estate Committee of the Corporation ordered that the gardens at the south-east extremity of Blackfriars-bridge should be provided with seats and opened to the public, it being discovered that this was a requirement of the Act under which the bridge was constructed. Prior to the passing of Mr. Hollond's Disused Burial Grounds Act, 1884, the Association had prevented in several instances such grounds from being built over. By that Act it is now made illegal "to erect any buildings upon any disused burial-ground, except for the purpose of enlarging a church, chapel, meeting-house, or other place of worship." As a consequence of this Act, it is believed that there wil be now a greater readiness—or less reluctance—in many quarters to convey, under Mr. W. H. James's Metropolitan Open Spaces Act, 1881, disused burial grounds to the Metropolitan Board of Works, or the local authorities, for their conversion into public gardens, seeing that they can no longer be turned to pecuniarily profitable account. The public may, by the law, sit or walk in such gardens, but games of all kinds are prohibited in them. The Metropolitan Board of Works have declined to throw open to the public the vacant lands left by their streets improvements, pending the sale of the plots, as they have also objected to the public using as a promenade the embankment of the main drainage works. Concerning the fate of 404 burial grounds which exist, or have existed, within the metropolitan area, it has been ascertained that 41 of them are already open to the public as gardens; 27 are unbuilt over, but are private property; 8 are offered as building sites; 21 are still used for interments; 97 have been built over or are otherwise permanently let to the public; and 210 still remain unbuilt over, closed for burial, and closed to the public. It is to the preservation and throwing open of these 210 closed burial grounds, and eight sites offered for building, that the efforts of the association must in the future be mainly directed. The next meeting will be held on January 6th, Mr. Ernest Hart in the chair.

CHRISTMAS AT THE HOSPITALS.

It has now become a well established practice at all the hospitals in London to provide, at Christmas, some special amusements and relaxations for the patients under treatment at that time; these entertainments have become so much a matter of custom, and have, in recent years, attracted so much attention from the public daily press, that, in fulfilment of a resolution announced a year ago, we do not this year publish the full reports which, while the custom was still young and not firmly established in public favour, we were in the habit of printing. At some institutions, at the London Hospital and St. Thomas's Hospital, for instance, the amusements and gifts were this year chiefly reserved for the children's wards, although efforts were not wanting to give pleasure to the adult patients also. In others, all the wards were alike decorated, and, at Guy's Hospital, great pains were taken to make them beautiful, a novel effect being produced by suspending festoons of Chinese lanterns. At University College Hospital, a Christmas entertainment, of the same character as has been recorded in previous years, was given on Monday; at St. Mary's Hospital, Christmas trees were provided for the children, but the regular annual entertainment will not be held until January 16th.

WANT OF PERMANENCE OF SANITARY APPOINTMENTS.

The *Morning Post*, speaking on this subject, makes some excellent comments. Our contemporary observes that it is unfortunate that, in a large proportion of the sanitary districts throughout England, the medical officer of health is a mere amateur. He has often had no training in sanitary science; he merely devotes to his health-duties such scraps of time as he can spare from his private practice; and, if his most lucrative patients are the owners of the worst house-property, or the creators of the greatest nuisances, in the district, he must be possessed of more than ordinary conscientiousness if he takes action against them. Moreover, the worst offenders are frequently members of the sanitary body, who are his masters, and who may dismiss him if he is too energetic. It is notorious that, especially in London and its suburbs, speculative builders and owners of ruinous and unhealthy houses are the very persons who take most trouble to secure election to the Local Board, in order that they may protect their own interests. The fact that most appointments of medical officers of health are usually made for a limited term, renewable only at the discretion of the authority, has of itself a strong tendency to make the position one of dependence. In the article now under consideration, we find abundant evidence of the shortcomings of this particular branch of sanitary administration. In one district, we are told that the appointment is merely nominal. In another, there is "failure on the part of the medical officer of health to comprehend the nature and scope of the duties devolving upon him." In another, the officers have been appointed "at salaries little more than nominal," and their work is less still. In other cases, we are told, sometimes almost as a matter of course, that "the duties have been unsatisfactorily performed." Over and over again, grave sanitary defects, which any tolerable system of supervision would have detected and remedied, have only been discovered when an outbreak of disease has called attention to them; and it is lamentable to think how many lives have been squandered by this kind of neglect. We are convinced that the most important reform which is needed in our public health system is to secure, throughout the country, the appointment of medical officers of health debarred from private practice, and irremovable except for misbehaviour. The Public Health Act authorises the combination of sanitary authorities for the purpose of a joint appointment, and it is unfortunate that so little has been done in this way. We do not hesitate to say that the salaries of a large proportion of the existing medical officers are an absolutely useless charge on ratepayers; and that the sum might much better be devoted to the removal of obvious nuisances than to the payment of officials who, in many cases, do nothing except when infectious disease is actually prevalent, and then merely take some futile measures for shutting the stable door after the steed has been stolen.

QUEEN'S COLLEGE, BIRMINGHAM.

In the arrangements for the comfort of medical students, in the museums, and in the anatomical department, at Queen's College, Birmingham, Professor Windle has lately effected some extensive and important improvements. The general museum has been completely re-arranged and classified, and a number of new anatomical specimens have been added, including a complete set of bones showing the attachment of muscles, and a series of dissected preparations in spirit. The museum will be classified as much as possible for the purposes of medical teaching, and it will consist of four departments, namely (1) a pathological collection, complete as illustrative of recognised morbid processes; (2) a complete teaching series of preparations in human anatomy; (3) a museum of comparative anatomy, consisting of a typical series of skeletons and preparations suitable for students preparing for the higher medical examinations; (4) a museum of materia medica. Under Dr. Windle's superintendence, the dissecting rooms have been much improved, and the students' common room has been re-arranged and re-furnished. During the present session, the lectures and demonstrations in anatomy have been remodelled and extended. The regular course of lectures, given by Professor Windle, has been supplemented by two concurrent courses, namely, a complete course of osteological demonstrations, and a course of lectures on advanced embryology. Some of these courses are optional; that they are appreciated by the students of the school is shown by their being largely attended.

THE INGLEBY LECTURE.

In the theatre of Queen's College, Birmingham, Professor Oliver Pemberton delivered the Ingleby lecture of the year, on December 22nd, before a representative audience of the medical profession of the Midlands. By the Ingleby trust, the scope of the lectures is restricted to

gynæcology and pediatrics, and the lecturer's subject was, "The Operative and General Treatment of Cancer in the Female Breast." Mr. Pemberton, at considerable length, dealt with the development and progress of mammary cancer in their pathological and clinical aspects, and he pointed out that the best period for performing the operation of excision was between 26 and 45 years of age. He regarded cancer as both a constitutional and a local disease—constitutional in its hereditary characteristics and diathetic features, and local in some of its determining conditions. He did not advocate indiscriminate operations, and many times he had been satisfied that an operation for the removal of cancer had hastened the end of the patient by exciting greater malignant activity in the parts primarily affected, and by favouring the dissemination of secondary cancer in other parts of the body. Mr. Pemberton asserted that we are now as deficient in internal remedies for cancer as a century ago, even for retarding the progress of the disease. About five years ago, Professor John Clay submitted to the profession what he called a cure for cancer in chian turpentine; this drug had not fulfilled the expectations which Mr. Clay's papers excited. The lecturer contended, without the slightest personal reflection, that it was due to the profession of which Professor Clay was a distinguished member, as also to the college which conferred on him his title, and equally to his patients and to the public, that he should give an answer to adverse criticism without delay. Professor Pemberton's lecture was listened to with profound attention, and it was marked by wide literary research and scholarly grace, mellowed by the fruits of a ripe experience in practice.

SCOTLAND.

It has been decided to open a new eye infirmary at Greenock, the present accommodation in the Greenock Infirmary being inadequate for the needs of the place.

Scarlet fever has broken out in Paisley, and in one district of the town is exceedingly prevalent. Milk taken from a dairy where one of the children of the milk-dealer was suffering from the disease is again assigned as the cause.

Mr. D'Arcy Thompson, of Trinity College, Cambridge, has been elected Professor of Biology in University College, Dundee; and in St. Andrew's University the Chair of Chemistry has been filled by the appointment of Dr. T. Purdie.

THE LATE DR. WILLIAM MARSHALL.

The death is announced from Crieff of Dr. William Marshall. The deceased gentleman was for some years Resident Physician to the Queen, but was compelled to retire from the post three years ago on account of failing health. His remains were interred in the quiet graveyard of Fowlis Wester, and a beautiful wreath of flowers from Her Majesty the Queen showed the regard and esteem in which he was held.

AN INCURABLE HOME FOR PAISLEY.

Paisley has just had bestowed on her another handsome gift by Mr. Coats, in the shape of a home for patients suffering from incurable diseases. It has been fitted up in a manner specially suited for carrying on such work, and already five patients can be received. As soon as a committee are appointed, Mr. Coats will formally hand over the home and its management to them; and it is expected that soon sufficient funds will be raised to open the whole eighteen beds that are available.

CASE OF HYDROPHOBIA AT DUMFRIES.

A death from hydrophobia has occurred at Dumfries Infirmary. The patient was a man aged 40 years, and a gamekeeper by occupation. He was bitten by a dog about two months ago, but so slightly that he thought nothing about it, and he remained perfectly well until about a week before his death, when his illness commenced with some thoracic pain, and was soon followed by unmistakable evidences of the disease. Everything was done that medical skill could suggest, but without avail. It has been ascertained that the dog died within a day or two of inflicting the bite, but it was not thought to be suffering from rabies.

CHRISTMAS RECESS, EDINBURGH.

The classes formally closed for the Christmas and New Year holidays on Tuesday, December 23rd, but many students anticipated the strictly academic commencement by leaving town on Friday and Saturday. The kitchen-concert, given annually by the resident physicians and surgeons in the Royal Infirmary to their clerks, dressers, and student-friends, was held a week ago, and was very successful. The solos, vocal and instrumental, and the *Kinder Sinfonie*, were well rendered; and the performances of Professors Dickson and Rutherford, and several other of their leaders, were much appreciated by the students present.

INFECTIOUS DISEASES IN EDINBURGH.

At the meeting of the Public Health Committee of the Town Council, held recently, the report submitted by the medical officer of health showed that there were no fewer than 108 patients under treatment for infectious diseases in the various city hospitals, namely, 8 in the City Hospital, 73 in the Old Infirmary, and 27 in the Sick Children's Hospital. The 108 cases were made up as follows: 10 of typhus, 46 of typhoid, 3 of diphtheria, 34 of scarlatina, and 15 of erysipelas. Scarlet fever was unusually prevalent in the New Town. Since August last, there had been intimated cases of scarlet fever in the New Town to the number of 238, in the Old Town 128, and in the southern suburbs 70. Fortunately, the disease had been of a very mild type, with small mortality, and requiring but little medical attendance. Every precaution had been taken, as regarded milk-supply, etc., to limit the epidemic. A steady increase of cases occurred during the month of November. The report this week is a more reassuring one; there are now only 88 cases of infectious diseases in the three city hospitals, as compared with 101 a fortnight ago, and, of these, only 38 are of scarlet fever.

IRELAND.

Dr. O'Farrell has been appointed a Justice of the Peace for Roscommon.

Dr. Gelston has been appointed, by His Excellency the Lord Lieutenant, resident medical superintendent to Ennis Lunatic Asylum.

CHRISTMAS AT THE BELFAST HOSPITALS.

As usual, the festive season was not forgotten at the various charitable institutions in Belfast. At the Royal Hospital, the vestibule, passages, and wards were decorated; and in the evening a magic lantern entertainment was given to the inmates. Two beautiful Christmas-trees were supplied to the Belfast Hospital for Sick Children, toys and other articles being largely distributed. A Christmas dinner, consisting of roast beef, turkey, plum-pudding, and fruit, was given to the inmates of the Ulster Hospital for Children and Women, through the kindness of a friend, the hospital being prettily decorated by the lady-superintendent.

QUEEN'S COLLEGE, GALWAY.

The President, in his annual report, refers to the continued decline in the number of students for the past session, and accounts for this result in the dissolution of the university organisation of which the College formed a part. The decrease is almost exclusively confined to

the Faculty of Medicine—that department of the College which it was foreseen would be particularly affected by the reversal of the University system. He trusts that the depression which has arisen from the sudden and unexpected change in educational policy will be but temporary, and that the College will yet regain and surpass its former position. It has been stated, as an objection, that the Medical School constituted the main factor in their numerical totals; and it has been dogmatically asserted that universities should not be places for professional instruction, and that, however numerous students for professions may be, the success of colleges should not be measured by them, but only by such students as pass through the curriculum of the Faculty of Arts. In dealing with these objections, the President remarks that the Queen's University had a larger number of graduates in Arts than in Medicine, though its critics always affected to treat it as a mere professional institution; and, further, that the Queen's Colleges from the first incorporated certain arts' studies into the several professional curricula, thus insuring that all students, in whatever faculty they might be counted, should receive arts' education, and not only those who aimed at a degree in Arts. He adds that the Medical School of the College has conferred substantial benefits on the province in which it is situated, the people of which, from their social position, are particularly anxious to avail themselves of the opportunities which the School affords for qualifying themselves for a profession which affords a comparative certainty of immediate employment. The Medical School was created by the College. No such institution had previously existed in the Western Province; nor will it be considered a slight evidence of its efficiency and character, that three natives of the Province, who had received their entire undergraduate education within its walls, are now members of the professorial staff of the College.

NO ONE TO BLAME.

We are indebted to the *Irish Times* of December 9th for the following strange account of an inquest held in Tipperary. Mr. Denis Hogan, a surgeon, was called in to see Mr. O'Dwyer, a poor-law guardian, and found him suffering from debility and pains in the head and shoulders. Soon after, Mr. O'Dwyer's little daughter went to Mr. Hogan's dispensary, and said that her father wished for something to rub in for his pains. Mr. Hogan gave her an eight-ounce bottle half full of liniment, and a twelve-ounce mixture, both unlabelled. Verbal directions only were given, that the contents of the smaller bottle were for rubbing in, and those of the larger were to be drunk. In consequence of the mixture being unlabelled, the deceased's wife advised her husband not to take it. In error, however, one of his daughters gave Mr. O'Dwyer the liniment, and he drank some of it—in mistake for the mixture. Death resulted. Mr. Hogan gave evidence that the death of the deceased was caused by "senile decay," accelerated by the poisoning. The liniment which the deceased had taken contained strong liquid ammonia and camphor. The jury returned a verdict of accidental poisoning, and added that there was no one to blame! We think, nevertheless, that, spite of the exoneration of Mr. Hogan from blame, this gentleman must deeply regret that he omitted to label the bottles entrusted to the care of a little girl, seeing the lamentable result of the usual precautions adopted by medical men.

Milk and Water.—London milkmen appear, from the returns of the public analysts referred to in the report of the Local Government Board, to be more unscrupulous than their provincial brethren in the matter of adulteration. Generally, the proportion of samples reported against is about one-fifth of the number examined; but, in the metropolis, it amounts to 26 per cent. The Board is still of opinion that Londoners are paying between £70,000 and £80,000 for water sold under the name of milk. The analyst for Plumstead calculates that, in that single district, the milkmen levy an irregular water-rate of this sort to the extent of between £7,000 and £8,000 per annum, and this notwithstanding the fact that the fines inflicted on them for adulteration, collectively amount to about £100 in each year.

THE INTERNATIONAL MEDICAL CONGRESS, 1887.

The Committee on Organisation of the Ninth International Medical Congress met in Washington, on November 29th, 1884, for the determination of the general plan of the Congress, the election of officers of the committee, who will be nominated to fill the same offices in the Congress, and the consideration of questions of finance. The following rules were adopted.

1. The Congress will be composed of members of the regular medical profession, who shall have inscribed their names on the register of the Congress, and shall have taken out their tickets of admission. As regards foreign members, the above conditions are the only ones which it seems, at present, expedient to impose. The American members of the Congress shall be appointed by the American Medical Association, by regularly organised State and local medical societies, and also by such general organisations relating to special departments and purposes, as the American Academy of Medicine, the American Surgical Association, the American Gynæcological, Ophthalmological, Otological, Laryngological, Neurological, and Dermatological Societies, and the American Public Health Association; each of the foregoing societies being entitled to appoint one delegate for every ten of their membership. The members of all special and subordinate committees, appointed by the General Committee, shall also be entitled to membership in the Congress, together with such other persons as may be specially designated by the Executive Committee. All societies entitled to representation are requested to elect their delegates at their last regular meeting preceding the meeting of the Congress, and to furnish the Secretary-General with a certified list of the delegates so appointed.

2. The work of the Congress is divided into eighteen Sections, as follows. 1. Medical Education, Legislation, and Registration, including methods of teaching, and buildings, apparatus, etc., connected therewith. 2. Anatomy. 3. Physiology. 4. Pathology. 5. Medicine. 6. Surgery. 7. Obstetrics. 8. Gynæcology. 9. Ophthalmology. 10. Otology. 11. Dermatology and Syphilis. 12. Nervous Diseases and Psychiatry. 13. Laryngology. 14. Public and International Hygiene. 15. Collective Investigation, Nomenclature, and Vital Statistics. 16. Military and Naval Surgery and Medicine. 17. Experimental Therapeutics and Pharmacology. 18. Diseases of Children.

3. The General Meetings will be reserved for the transaction of the general business of the Congress, and for addresses or communications of scientific interest more general than those given in the Sections.

4. Questions which have been agreed upon for discussion in the Sections shall be introduced by members previously nominated by the officers of the Section. The members who open discussions shall present a statement of the conclusions which they have formed as a basis for debate.

5. Notices of papers to be read in any one of the Sections, together with abstracts of the same, must be sent to the Secretary of that Section before April 30th, 1887. These abstracts will be regarded as strictly confidential communications, and will not be published until the meeting of the Congress. Papers relating to questions not included in the list of subjects suggested by the officers of the various Sections will be received. Any member, after April 30th, wishing to bring forward a subject not upon the programme, must give notice of his intention to the Secretary-General at least twenty-one days before the opening of the Congress. The officers of each Section shall decide as to the acceptance of any communication offered to their Section, and shall fix the time of its presentation. No communication will be received which has been already published, or read before a society.

6. All addresses and papers, read either at general meetings or in the Sections, are to be immediately handed to the secretaries. The Executive Committee, after the conclusion of the Congress, shall proceed with the publication of the *Transactions*, and shall have full power to decide which papers shall be published, and whether in whole or in part.

7. The official languages are English, French, and German. No speaker shall be allowed more than ten minutes, with the exception of readers of papers and those who introduce debates, who may occupy twenty minutes.

8. The rules, programmes, and abstracts of papers will be published in English, French, and German. Each paper or address will appear in the *Transactions* in the language in which it was delivered by the author. The debates will be printed in English.

9. The officers of the General Committee on Organisation are a president, three vice-presidents, a secretary-general, and a treasurer; and those elected to these positions will be nominated by the General

Committee to hold the same offices in the Congress. All vacancies in these offices shall be filled by election.

10. There shall be an Executive Committee, to be composed of the President, Secretary-General, and Treasurer of the General Committee, and of four other members, to be elected by the General Committee. The duties of the Executive Committee shall be to carry out the directions of the General Committee; to authorise such expenditures as may be necessary; and to act for the General Committee during the intervals of its sessions, reporting such action at the next meeting of the General Committee.

11. There shall be a Standing Committee on Finance, composed of five members, to be appointed by the President, subject to the approval of the Executive Committee.

12. Those who are elected as chairmen of the several Sections shall be thereby constituted members of the General Committee.

The officers elected are as follows. *President:* Dr. Austin Flint, senior, of New York. *Vice-Presidents:* Dr. Alfred Stillé, of Philadelphia; Dr. Henry I. Bowditch, of Boston; Dr. R. P. Howard, of Montreal. *Secretary-General:* Dr. J. S. Billings, U. S. Army. *Treasurer:* Dr. J. M. Browne, U.S. Navy. *Executive Committee:* (the President, the Secretary-General, and the Treasurer, *ex officiis*); Dr. I. Minis Hays, of Philadelphia; Dr. A. Jacobi, of New York; Dr. Christopher Johnston, of Baltimore; Dr. S. C. Busey, of Washington.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

A MEETING was held at the rooms of the Medical Society of London on Saturday, December 27th, 1884, to consider the institution of a gynæcological society. The chair having been taken by Dr. Routh, letters approving the formation of the society were read by Dr. Heywood Smith from the following: Drs. Culver James, Macwhirter Dunbar, Protheroe Smith; Messrs. Noble Smith, T. Nunn (London); Drs. Macan (Master of the Rotunda), Kidd, More Madden, and Purefoy (Dublin); Dr. Lloyd Roberts (Manchester); Dr. Sinclair Coghill (Ventnor); Dr. Goldsmith (Bedford); Mr. Paul Swain (Plymouth); and Professor A. R. Simpson (Edinburgh). The Chairman then called upon Dr. R. Barnes to move the first resolution: "That a Gynæcological Society be now founded, to be called 'The British Gynæcological Society'."

Dr. BARNES, in proposing the above resolution, said one of the chief functions of the new society would be the establishing, for gynæcologists, a position of equality with physicians and surgeons at the general hospitals. He maintained that the handing over an ovariotomy case by the obstetric physician to the surgeon was bad for the physician, the patient, and the surgeon. The gynæcologist should be prepared to carry out the whole treatment himself. With this object in view, we must depend on the special hospitals. Ophthalmic surgery had made no advance until after the institution of ophthalmic hospitals; and, when these had existed for some time, special ophthalmic surgeons were appointed at the general hospitals. Dr. Barnes had emancipated himself at St. George's Hospital, by reason of the fact being well known that he could easily find his field outside, if it were denied him within the institution; but he knew full well that the operation of ovariotomy would be refused to his successor. Dr. Barnes, in conclusion, proposed the first resolution.

Dr. HEYWOOD SMITH, in seconding the resolution, said that the new society was the outcome of many suggestions, made in various and distant quarters for many years past. The reason for its existence lay in the fact that gynæcology was too extensive to remain in the shade of obstetrics.

The resolution was then put to the meeting, and carried *nem. con.*

Dr. GRANVILLE BANTOCK proposed the second resolution: "That the object of the Society be to promote and encourage the science of gynæcology." He said that it was intended to supplement the work of the other societies. He asked where ovariotomy and gynæcology generally would have been now if they had been left to the surgeons and physicians of the general hospitals. In connection with the operation for vesico-vaginal fistula, he referred to the career of Dr. Marion Sims. He trusted that, in addition to the reading of set papers, great prominence would be given to the exhibition of specimens and discussions arising therefrom.

Dr. AVELING, in seconding the resolution, stated that the Obstetrical Society, during the session, held ten meetings of two hours each, that is, after deducting two hours for the President's address, only eighteen hours were devoted to the consideration of obstetrics, pediatrics, and gynæcology, leaving only a period of six hours each year to each of these subjects.

The resolution was carried unanimously.

Dr. GRIGG proposed the third resolution: "That the officers of the Society be an Honorary President, President, Vice-Presidents, Treasurer, and two Honorary Secretaries; and that the following be elected to the respective offices. *Honorary President:* Dr. R. Barnes. *President:* Dr. Alfred Meadows. *Vice-Presidents:* Drs. Aveling, Granville Bantock, Routh, Protheroe Smith, Mr. Lawson Tait (Birmingham), and Professor A. R. Simpson (Edinburgh). *Council:* Dr. Sinclair Coghill (Ventnor), Dr. Grigg, Mr. Thomas Nunn, Mr. H. A. Reeves, Mr. Noble Smith, Drs. Lloyd Roberts and W. Walter (Manchester), Dr. R. D. Purefoy (Dublin), Dr. T. Savage (Birmingham), Mr. Paul Swain (Plymouth), Dr. Macwhirter Dunbar, Professor John Thorburn, M.D. (Manchester), T. More Madden, M.D. (Dublin), Professor John Wallace, M.D. (Liverpool), A. Sheen, M.D. (Cardiff), Berry Hart, M.D. (Edinburgh), with other names to be added at the first general meeting. *Treasurer:* Dr. A. W. Edis. *Honorary Secretaries:* Drs. Heywood Smith and Fancourt Barnes.

The resolution was seconded by Dr. WALTER of Manchester, who said that the special hospital in Manchester, St. Mary's, to which he was attached, was the oldest in the provinces, having been opened in 1790.

The resolution was then put, and carried unanimously.

Dr. MANSELL MOULLIN proposed: "That the Society should meet twice a month, except during July, August, and September."

Dr. MEADOWS seconded the resolution, and said that when he considered the large amount of material available for the purposes of the Society, he felt very strongly that they might safely venture upon a fortnightly meeting. He felt quite sure there would be no lack of material, for they hoped to draw their support, not merely from London, but also from the provinces, and, indeed, from the whole British Empire.

The resolution was carried.

Dr. BEDFORD FENWICK thought that, in addition to a yearly subscription, there should be an entrance fee.

Dr. GRIGG quoted the British Medical Association as being the largest medical society in the world, and as having no entrance fee.

It was then agreed to that no entrance fee would be imposed.

The last resolution—"That all duly qualified medical men should be eligible for election as members of the Society"—was proposed by Dr. LIGERTWOOD, seconded by Dr. BEDFORD FENWICK, and carried unanimously.

The proceedings then terminated with a vote of thanks to the Chairman.

The first meeting of the Society will be held in March.

PRELIMINARY REPORT OF THE INDIA CHOLERA COMMISSION.

THE following official papers appear in the *Gazette of India*.

No. 180, dated Calcutta, November 28th, 1884.

From Dr. J. M. Cuningham, Sanitary Commissioner with the Government of India, to the Secretary to the Government of India, Home Department.

1. I have the honour to submit, for the information of the Government, a short preliminary report by the English Cholera Commission of the results of their inquiries during their visit to India.

2. Their complete report will be passed through the press when they arrive in England, and submitted to the Under-Secretary of State for India.

3. It will be observed that Drs. Klein and Gibbes' conclusions are altogether subversive of the statements advanced by Professor Koch as to the so-called "comma-bacillus" being the cause of cholera.

Dated Calcutta, November 27th, 1884.

From Drs. E. Klein and Heneage Gibbes to the Surgeon-General and Sanitary Commissioner with the Government of India.

We have the honour to report that the investigations which we have hitherto carried on in Bombay and Calcutta have yielded the following results.

1. The statement of Koch that "comma-bacilli" are present only in the intestines of persons suffering from, or dead of, cholera, is not in accordance with the facts, since "comma-bacilli" occur also in other diseases of the intestines, for example, epidemic diarrhœa, dysentery, and in intestinal catarrh associated with phthisis.

2. The "comma-bacilli," in acute typical cases of cholera, are by no means present in such numbers and with such frequency as to justify Koch's statement that "the ileum contains almost a pure cultivation of comma-bacilli."

3. The "comma-bacilli" are not present in the tissue of the intestine or elsewhere.

4. The "comma-bacilli," in artificial cultivations carried out by

one of us (E. K.), do not behave in any way differently from other putrefactive organisms.

5. Mucus-flakes of the ileum, taken out soon after death from typical acute cholera, contain numerous mucus-corpuscles, many of them filled with peculiar minute straight bacilli. The same bacilli occur also outside the mucus-corpuscles. They are never missed even when the "comma-bacilli" are.

6. These small bacilli have been cultivated by one of us (E.K.), and they do not behave differently from putrefactive organisms.

These small bacilli are not present in the tissues of the intestine or any other tissue.

7. No bacteria of any kind, and no organisms of known form and character, occur in the blood or any other tissue.

8. A good many experiments have been carried out by one of us (E. K.) with the following results.

(*a*) Mice, rats, cats, and monkeys were fed with rice-water stools, with vomit, with mucus-flakes of the ileum, fresh and after having been kept for twenty-four to forty-eight hours. The animals remained normal.

(*b*) Inoculations with recent and old cultivations of "comma-bacilli," and the small straight bacilli, as well as with mucus-flakes, were made into the subcutaneous tissue, into the peritoneal cavity, into the jugular vein, and into the cavity of the small and large intestine of rabbits, cats, and monkeys; but the animals remained perfectly well and normal.

9. The material which we have had hitherto at our disposal has been very good and abundant; and, as far as the microscopic work goes, we do not think we shall require any more material.

We therefore propose concluding our inquiry by the beginning of December, and hope soon after to return to England.

The *Times of India*, in reviewing the Cholera Commission's labours, says that the Commissioners, in endeavouring to follow Dr. Koch, found that they were unable to confirm his results. Having discharged the negative portion of their duties, Drs. Klein and Gibbes proceeded to examine, both in Bombay and Calcutta, a large number of typical cholera cases; and, so far as the *Times* is able to gather, they have been unable to find any micro-organism which has any sort of relation to the disease. The British Commissioners laboured under many disadvantages from which Dr. Koch was free, for they had to endure a voyage through the Red Sea in the hottest part of the year, and had to work upon their subjects during monsoon weather, which immensely increased the difficulties of their inquiry, while it was, at the same time, trying to their health. As a matter of fact, both doctors have suffered much from fever. Dr. Gibbes leaves for England by the next mail, and Dr. Klein, who is now on a visit to Darjiling, follows on the 12th instant.

THE PROPOSED CHANGES IN THE CHARTER OF THE IRISH COLLEGE OF SURGEONS.

A MEETING of the College, at which very important matters affecting its future are to be discussed, has been convened for the 10th of January next. It is to be hoped that a full attendance of the Fellows will indicate the interest they take in the question. It will be remembered that two years ago, at a general meeting of the College, resolutions were passed involving some changes in the charter, and sent down to the Council to have them carried into effect. One of the proposed resolutions was that, at all future elections of examiners, professors, and other higher officers of the College, the whole Council should vote, instead of seven drawn by ballot, as prescribed by charter. The second resolution was intended to confer on all absent Fellows the power of voting by paper at the annual election of President and Council.

At the time these resolutions came before the Council, there was an election of a professor impending, and it seemed so important that it should be conducted according to the improved system, that the necessary steps for procuring the changes were quickly taken. As there was not the same urgency respecting the second resolution, it remained in abeyance, and, at the annual meeting last year, it was a subject of much dissatisfaction amongst the Fellows, especially when it was found that the cost of the single alteration amounted to about £150, which would not have been materially increased by one or more changes in addition.

Whilst the Council fairly laid itself open to adverse criticism, for want of zeal or even of neglect, in not having had the second point settled, there were no grounds whatever for the charges so freely made of being influenced by sinister motives in their action. Shortly after the election of the new Council, in June, 1884, it was referred to a committee to advise as to the steps necessary to be taken to carry out at once the wishes of the college in this respect. As, however, the majority of the Council believed that the Charter required amendments in other particulars, the same committee had instructions to consider these, and to make such recommendations as might be considered necessary. Accordingly, in addition to the voting by paper, already passed by the college, there were four other recommendations.

1st. The removal of disability of professors and lecturers to be elected on its Board of Examiners.

2nd. Limitation in the term of office of examiners to three years.

3rd. Admission of women to the diploma of the college.

4th. Admission of all qualified practitioners to the midwifery diploma.

These recommendations were all submitted to the Council, and more or less unanimously adopted. It is necessary, however, to call the college together to indorse the action of the Council on these four propositions.

The question most keenly contested at the Council, was that of allowing women to obtain the college qualifications. A large majority of the Council are in favour of this change, but a very active minority has expressed uncompromising hostility and determination to the proposal. The majority do not wish it to be understood that they advise females to become surgeons—quite the contrary; but they think it altogether opposed to the professional tendencies of the present day, that any disability should be allowed to remain on woman in her endeavour to enter the ranks of a profession. There are, they argue, technicalities, social, and local difficulties enough in her way; and if she possess the courage and ability to surmount these, she more than establishes a claim to have a legal status conferred on her. It will certainly, they believe, be only those who have a strong vocation for surgical work who will ever claim the diplomas, and for them there is quite enough surgical practice amongst their own sex to give employment to the infinitesimal number who may qualify.

Besides, the tendency of modern legislation—legislation postponed, but not relinquished—is to move in this direction; and the King and Queen's College of Physicians, with which it is now considered advisable for the College of Surgeons to unite, has already for some time admitted women to its examinations; and a considerable number of its graduates are now on the *Register*, and several are filling public posts of trust in this country with credit. The whole question will be debated, probably, with animation, at the forthcoming meeting.

MEDICAL NOTES FROM THE NILE EXPEDITIONARY FORCE.

[FROM A CORRESPONDENT.]

Wady Halfa, November 25th, 1884.

THE expedition is still, so to speak, forming up, or, rather, trying to form up, as the transport difficulties are enormous, and appear to be daily on the increase. The more the Nile falls, the greater the difficulty of transport, the water shallower, and the currents more rapid; it is said, on fair authority, that if we are in position or ready to move on from Dongola on the first of January, 1885, it will be as much as can be expected. Until then, one can only give some general ideas regarding prevailing diseases, climate, and so forth.

Climate.—There are great diurnal variations of temperature, from about 88.0° to 92.0° Fahr. at 3 P.M., to 50° or 55.0° at dawn. The atmosphere is very dry; there are no dews. Owing to the variations in the temperature, the body becomes much heated by day, and perspires very freely; and is suddenly chilled at night, especially as it is necessary to sleep on the ground, which is, of course, cooled down with and by the atmosphere.

Diseases.—The dysentery which prevails is of rather a mild type; it has no connection with scurvy. All cases make good recoveries; though the men who suffer from it are so reduced in strength and general physique that they will be practically unfit to take part in any active operations in the present campaign. Enteric fever is very prevalent now, and daily on the increase; many cases come down the river from advanced parties above Halfa. It is of a very severe asthenic type; though the temperature is not unusually high, seldom reaching 104°. It is most insidious in its progress; the symptoms in many cases are obscure, and masked by pneumonic or other pulmonary symptoms.

Enteric fever, with bowel complaints generally, may be expected to increase as military operations go on, and as the troops become enfeebled from marching, rowing, or hauling boats in a very hot sun, with perhaps a frequent wetting, having also to sleep on the cold ground at

night in the severe cold, with little or no means of obtaining an evening hot meal.

There are some few cases of febricula; but they do not cause any appreciable inefficiency, as the men thus disabled are only absent a few days from duty. There are no cases of sunstroke, nor of venereal diseases, at Halfa itself. The cases in hospital were brought up the river from Cairo, or Assouan. Halfa is, in the ordinary way, merely a small collection of Arab huts; there is no town, or even village.

With the exception of enteric fever and dysentery, the general health of the troops is satisfactory. There are 240 cases in hospital; 14 with enteric fever; 80 with dysentery and diarrhœa.

Food.—Fresh meat is distributed about twice a week; onions, rice, and preserved vegetables daily. The bread is good; corned beef good. Eggs, poultry, and dates are bought by the men to a great extent. Men doing hard work, and exposed to a sudden fall of temperature at night, should have an evening issue of some stimulant. Rum is only served out at very rare intervals.

MAHOMED MEMORIAL FUND.

THE following additional subscriptions have been either received or promised.

	£	s.	d.
C. E. Abbott, Esq.,	1	1	0
W. E. Audland Esq.	1	1	0
H. Cosmo Bonsor, Esq.	5	5	0
J. F. Briscoe, Esq.	1	1	0
Dr. Broadbent	26	5	0
Nat. P. Blaker, Esq.	5	5	0
H. T. Butlin, Esq.	5	5	0
Dr. Buzzard	10	10	0
Francis Bayley, Esq.	1	1	0
W. Morrant Baker, Esq.	5	5	0
Frederick Barrow, Esq.	5	5	0
Dr. Henry Barnes (Carlisle)	2	2	0
Dr. W. H. Bruce	2	2	0
Dr. Thomas Barlow (in instalments)	10	0	0
Dr. Bradbury (Cambridge)	2	2	0
C. A. Ballance, Esq.	2	2	0
Mrs. J. A. Batho	4	4	0
Edward Berney, Esq.	2	2	0
Sir Edmund Beckett, Bart.	5	0	0
Miss Behrens and her brothers	100	0	0
Dr. Lauder Brunton	10	10	0
E. H. Cardwell, Esq.	5	0	0
Sir Andrew Clark, Bart.	50	0	0
Dr. Edward Clapham	1	1	0
L. A. Dunn, Esq., F.R.C.S.	2	2	0
Dr. Dakin	1	1	0
C. D. E. (per W. Morrant Baker, Esq.)	5	5	0
Owen Fowler, Esq.	1	1	0
Professor Flower	5	0	0
Dr. Philip Frank	5	5	0
Dr. Glover	5	5	0
Dr. Herbert Griffiths	1	1	0
Dr. Gairdner	5	5	0
Francis Galton, Esq., F.R.S.	20	0	0
Dr. C. J. Hare	15	15	0
Howard Hawkins, Esq.,	2	2	0
Dr. Habershon	10	10	0
Dr. George Harley	2	2	0
T. Hyde Hills, Esq.	10	10	0
Dr. Robert Harris	2	2	0
Dr. Horrocks	5	5	0
Dr. Alexander Henry	2	2	0
Dr. Handfield Jones	1	1	0
Dr. W. Beech Johnston	2	2	0
Percy S. Jakins, Esq.	1	1	0
W. H. Jalland, Esq.	1	1	0
A. A. Jayes, Esq.		10	6
Dr. Percy Kidd	1	1	0
W. F. Laycock, Esq.	3	3	0
Sir Joseph Lister, Bart.	50	0	0
R. C. Lucas, Esq.	5	5	0
J. H. Lister, Esq.	5	5	0
Dr. Vawdrey Lush	5	5	0
Dr. G. Mickley	1	1	0
W. L. Marshall, Esq.		10	6
Dr. Duncan Mackenzie	1	1	0
Shirley F. Murphy, Esq.	3	3	0
E. Rice Morgan, Esq.	1	1	0
Dr. Norman Moore	5	0	0
E. Nettleship, Esq.	5	5	0
J. A. M. O.	1	1	0
Dr. W. Miller Ord	5	5	0
Sir Henry Peek	5	5	0
A. J. Pepper, Esq.	5	5	0
Frank T. Paul, Esq.	2	2	0
C. J. W. Pinching, Esq.	1	1	0
Dr. G. E. Paget	3	3	0
Dr. W. O. Priestley	10	10	0
Dr. G. Owen Rees	10	10	0
Dr. Frederick Robinson	1	1	0
E. S. Robson, Esq.	1	1	0
W. T. Rabbits, Esq.	5	5	0
O. R.		10	6
J. A. Shaw Stewart, Esq.	5	5	0
Hugh C. Smith, Esq.	5	5	0
Dr. Steele	5	5	0
Dr. Savage	5	5	0
C. J. Symonds, Esq.	3	3	0
Dr. Saundby	1	1	0
T. Sympson, Esq. (Lincoln)	1	1	0
W. S. Savory, Esq.	10	10	0
Alfred Scott, Esq.	2	2	0
Dr. Graham Steell	3	3	0
Dr. H. J. Sanderson	2	2	0
Dr. P. C. Smyly (Dublin)	1	1	0
Sir Henry Thompson	10	10	0
Dr. George Turner	10	10	0
Charles Ticehurst, Esq.	2	2	0
T. Pridgin Teale, Esq.	2	2	0
Francis Vacher, Esq.	5	0	0
Rev. A. B. Valpy	1	1	0
H. Vaughan, Esq.	10	0	0
Edgecombe Venning, Esq.	2	2	0
Henry Williams, Esq.	1	1	0
Dr. Walshe	5	5	0
C. H. Wells, Esq.		10	6
Holland Wright, Esq.	1	1	0
Dr. Waggett	2	2	0
Dr. S. Davies Welch	5	5	0
Peter Whitley, Esq.	10	10	0
Dr. Burney Yeo	3	3	0

ARTHUR E. DURHAM, Treasurer.
JAMES F. GOODHART, } Secretaries.
W. H. A. JACOBSON, }

OLEATE OF CHLORAL IN PRURITUS.—A writer *(St. Louis Medical Journal)* has had a so-called oleate of chloral made, which, he says, has been used with much success in pruritus ani, eczema, and other affections associated with much itching. The compound consists of one drachm each of camphor and chloral, and one ounce of oleic acid, thoroughly mixed together. Camphor and chloral in equal parts, forming a liquid, has long been known as a valuable remedy in cases where local anæsthesia of the cutaneous nerves is desired, and has been employed in neuralgia and pruritus. The addition of the oleic acid will undoubtedly increase the penetrating power of the mixture. It may thus be found useful in allaying the itching, while other means are employed to secure permanent relief.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885: ELECTION OF MEMBERS.

MEETINGS of the Council will be held on January 14th, April 8th, July 8th, and October 14th, 1885. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than twenty-one days before each meeting, namely, March 18th, June 17th, and September 24th, 1885, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COUNCIL. NOTICE OF MEETING.

A MEETING of the Council will be held in the Small Hall, Exeter Hall, Strand, London, on Wednesday, the 14th day of January next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, December 18th, 1884.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—C. SIBTHORPE, Honorary Secretary, Madras.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held at the Hackney Town Hall, on Thursday, January 22nd, at 8 P.M. Mr. Macnamara, President of the Branch, in the chair. Dr. Hentz will propose a resolution advocating the charging of hospital and dispensary out-patients a small sum of money to cover the expense of medicine, etc.—JOSEPH W. HUNT, Honorary Secretary, 101, Queen's Road, Dalston.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will be held at Gravesend, on Tuesday, January 27th. Charles Firth, Esq., M.D., in the chair. Gentlemen wishing to read papers, or to exhibit specimens, are requested to communicate with me before January 10th.—H. LEWIS JONES, Honorary Secretary, St. Bartholomew's Hospital, Chatham.

SOUTHERN BRANCH: SOUTH-EAST HANTS MEDICAL SOCIETY.

A MEETING of this district of the Southern Branch was held at the Grosvenor Hotel, Portsmouth, on Thursday, December 11th. Dr. AXFORD, President, occupied the chair.

Pathological Specimens exhibited by Mr. G. H. Snowden: Central abscess of the left testicle, the result of acute orchitis, removed from a patient aged 50; several large cysts containing clear fluid existed on the opposite side; large piece of omentum removed during operation for radical cure of inguinal hernia; sac of abscess which had opened into trachea, causing sudden death. The bodies of the lower cervical vertebræ were found diseased.

Cases, etc.—The following were shown.

1. Dr. C. C. Claremont: A female patient with a Tumour of the left Temporal Muscle.

2. Dr. Ward Cousins showed four patients after operation for the Radical Cure of Hernia.

Discussion.—Mr. Newman introduced a discussion on the Radical Cure of Hernia, and was followed by Dr. Ward Cousins.

Pessary.—Dr. E. J. Hunter showed a Zwanky's pessary, removed after remaining six years in the vagina.

Cucaine.—Dr. Axford exhibited a sample of hydrochlorate of cucaine, and also a 4 per cent. solution of the same, and made some remarks upon its properties. Dr. Guillemard mentioned the effects of the drug upon his own person. After applying some of a 4 per cent. solution to the conjunctiva, in ten minutes the surface of the eyeball became insensitive, and the pupil began to dilate. The local anæsthesia passed off in the course of half an hour, but the dilatation of the pupil increased, and was at its height in three hours, passing off in four or five hours. The pupil reacted to light throughout. He thought the drug would prove very useful in eye-operations, and as an aid in laryngoscopy.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

A MEETING of this Branch was held on December 11th, 1884; Dr. J. J. NASON, President, in the chair.

Communications.—The following communications were made.

1. Mr. Gilbert Smith showed a case of Lichen Circumscriptus.

2. Mr. Jordan Lloyd showed a case of Disease of the Head of the Right Femur, and of the left Tarsus, associated with an early stage of Locomotor Ataxy (Charcot's disease?).

3. Dr. Suckling showed Muscles taken from a case of Pseudo-hypertrophic Paralysis.

4. Mr. Lawson Tait showed a small Kidney removed from a young woman who had previously been operated upon for a renal cyst.

5. Dr. Suckling read a paper on Cerebral Disorders in Locomotor Ataxy. The writer enumerated and discussed the following cerebral symptoms, vertigo, critical pains in the head, epileptiform and apoplectiform attacks, ocular troubles, migraine, alopecia areata, and insanity. He mentioned three cases of locomotor ataxy which he had had under his care, in which insanity had supervened. He discussed the association between general paralytic dementia and locomotor ataxy; and was of opinion that the latter disease terminated in insanity more frequently than was generally supposed.

6. Mr. Bartleet read a paper on the operative treatment of Internal Hæmorrhoids. After referring to the pressing need of operative interference in many cases, he enumerated the various operative measures that had been proposed, and what appeared to be the indications for their respective employment. After alluding to excision, to the removal by the *écraseur*, to crushing, to perforating with a hot needle, he said that, practically, the operative treatment of piles resolved itself into the operation by ligature, and that by clamp and cautery. He believed that a surgeon would usually come to prefer the operation to which he was most accustomed; and while cures were, as a rule, secured under either plan of treatment, he believed that for safety, rapidity, and painlessness after operation, the use of the clamp and cautery was eminently satisfactory. Mr. Bartleet urged the stretching of the sphincter as a preliminary step whichever operation was employed.

ERRORS, CORRECTIONS, AND OMISSIONS FROM THE LIST OF MEMBERS, BRITISH MEDICAL ASSOCIATION, 1884-5.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

MEMBERS: CORRECTION.

For Johnston, D., Esq., 2, Union Street, Aberdeen, read Johnston, D., Esq., 66, Broad Street, Aberdeen.

BATH AND BRISTOL BRANCH.

MEMBERS UNATTACHED: OMISSION.

Gill, John, Esq., M.D., 31, Apsley Road, Clifton.

BIRMINGHAM AND MIDLAND BRANCH.

MEMBERS: CORRECTION.

For Lycett, J. A., Esq., The Hollies, Graiseley, Worcestershire, read Lycett, J. A., M.D., The Hollies, Graiseley, Wolverhampton.

BORDER COUNTIES BRANCH.

MEMBERS UNATTACHED: OMISSION.

Valentine. A., M.B., Sandhead.

CAMBRIDGE AND HUNTINGDON BRANCH.

MEMBERS: CORRECTION.

For Roper, W. Robert, Esq., Cambridge, read Roper, W. Robert, M.D., 3, Camden Place, Cambridge.

DUBLIN BRANCH.

MEMBERS UNATTACHED: CORRECTION.

For Murphy, John, Esq., 6, Mountjoy Square, North Dublin, read Murphy, John, Esq., 14, Gardiner's Place, Dublin.

MEMBERS UNATTACHED: OMISSION.

Kelly, J. Dillon, Esq., M.D., 31, Earl Street, Mullingar.

EAST YORK AND NORTH LINCOLN BRANCH.

MEMBERS: CORRECTION.

For Downing, H. L., Esq., Hull, read Dowsing, H. L., Esq., Beverley Road, Hull.

OMISSION.

Lowson, D., Esq., M.D., Wycliffe House, Anlaby Road, Hull.

GLASGOW AND WEST OF SCOTLAND BRANCH.

MEMBERS: CORRECTION.

For Granger, J. R., Esq., M.B., 7, Albion Crescent, Dowanhill, Glasgow, read Granger, J. R., Esq., M.B., 2, Grosvenor Terrace, Glasgow.

MEMBERS UNATTACHED: OMISSION.

Laidlaw, R., Esq., M.B., 3, Belmar Terrace, Pollokshields, Glasgow.
Thomson, A. Tinling, M.D., 44, Windsor Terrace, Glasgow.

LANCASHIRE AND CHESHIRE BRANCH.

MEMBERS: CORRECTIONS.

For Barrow, R. W., Esq., 55, Huskisson Street, Liverpool, read Barrow, R. W., Esq., Abberley Villa, Hoylake, Cheshire.
For Thornley, J., Esq., 246, Halliwell Road, Bolton, read Thornley, J., M.B., 246, Hallwell Road, Bolton.

MEMBERS UNATTACHED: OMISSIONS.

Moore, Herbert C., M.B., Winnington, Northwich.
Shearer, G., M.D., 173, Upper Parliament Street, Liverpool.
Wolstenholme, R. H., Esq., Salford.
Tidswell, H. H., Esq., 24, Hoghton Street, Southport.

METROPOLITAN COUNTIES BRANCH.

MEMBERS: CORRECTION.

For Smith, Alder H., Esq., Christ Hospital, E.C., read Smith, Alder H., M.B., Christ's Hospital, E.C.

MEMBERS UNATTACHED: CORRECTIONS.

For Cooke, R. H., Esq., 73, Church Street, N., read Cooke, R. H., Esq., 73, Church Street, Stoke Newington, N.
For Younger, E. G., Esq., County Asylum, Hanwell, W., read Younger, E. G., M.D., County Asylum, Hanwell, W.

OMISSIONS.

Norry, William A., M.B., 5, Devonshire Square, E.C.
Taylor, Sydney H., M.D., 7, Park Avenue, Willesden Park, N.W.

NORTH OF ENGLAND BRANCH.

MEMBERS UNATTACHED: OMISSION.

Campbell, A., M.B., W. Boldon, Newcastle-on-Tyne.

CORRECTION.

For Shelley, A. W., Esq., Summerford Place, Sunderland, read Shelley, R. W., Esq., 1, Ward Terrace, Sunderland.

NORTH OF IRELAND BRANCH.

MEMBERS: CORRECTION.

For Thompson, E., Esq., Bellaghy, County Derry, read Thompson, George M., M.D., Bellaghy, County Derry.

MEMBERS UNATTACHED: OMISSION.

Leeper, G. R., M.B., J.P., Kesh, County Fermanagh.

SCOTLAND: FORFARSHIRE.

MEMBERS UNATTACHED: OMISSION.

Butter, J. K., M.D., 17, East High Street, Forfar.

SOUTH EASTERN BRANCH.

MEMBERS UNATTACHED: CORRECTION.

For Benson, A., M.B., care of J. R. Bosworth, Esq., Sutton, Surrey, read Benson, A., M.B., Sutton, Surrey.

OMISSIONS.

Gabb, J. P. A., M.D., Guildford.
Hogg, C., Esq., 17, New Steine, Brighton.
Scott, J. H., Esq., Tudor House, Camberley, Surrey.
Wright, H. H., Esq., 3, Park Road Villas, Forest Hill.

SOUTH MIDLAND BRANCH.

MEMBERS: CORRECTION.

For Symington, W. D., M.B., Wolverton, read Symington, W. D., M.D., Wolverton.

SOUTH OF IRELAND BRANCH.

MEMBERS UNATTACHED: OMSSION.

Stewart. A. Y., Esq., Beresford Street, Waterford.

SOUTH-WESTERN BRANCH.

MEMBERS UNATTACHED: OMISSION.

Williams, C., Esq., Port Isaac, Cornwall.

SOUTHERN BRANCH.

MEMBERS UNATTACHED: OMISSION.

Ticehurst, C. S., Esq., Petersfield, Hants.

STAFFORDSHIRE BRANCH.

MEMBERS: CORRECTION.

For Lycett, J. Allan, Esq., Graiseley, Wolverhampton, read Lycett, J. Allan, M.D., Graiseley, Wolverhampton.

WEST OF IRELAND BRANCH.

MEMBERS UNATTACHED: OMISSION.

Nally, W. J., Esq., Thorneville, Kinvara, County Galway.

WEST SOMERSET BRANCH.

MEMBERS: CORRECTION.

For Unicume, Thomas, Weston Zoyland, Bridgwater, read Unicume, Thomas Esq., Weston Zoyland, Bridgwater.

ARMY AND NAVY.

OMISSIONS.

Handyside, P. B., M.B., Surgeon R.N., H.M.S. "Asia," Portsmouth.
Lucas, J., M.D., Surgeon, I.M.S., 55, Parliament Street, S.W.
Twiss, Geo. E., Esq., Surgeon, M.S., Garrison Hospital, Gibraltar.

FOREIGN AND COLONIAL.

MEMBERS: OMISSIONS.

Koepl, G. de, M.D., Gratz, Austria.
Polak, Joseph, M.D., Child Jesus Hospital, Warsaw.

CORRECTIONS.

For Marcey, H. O., M.D., 116, Boylston Street, Boston, U.S.A., read Marcy, H. O., M.D., 116, Boylston Street, Boston, U.S.A.
For Nelson, S. N., Esq., Poste Restante, Weimar, Germany, read Nelson, S. N., A.M., 116, Boylston Street, Boston, U.S.A.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of the above District was held at Tunbridge Wells on December 3rd; Dr. JOHNSON in the chair.

The Annual Meeting of the Association in 1886.—The following resolution was proposed by Mr. KAYE-SMITH, seconded by Mr. WATSON, and carried unanimously:—

"That the invitation of the large majority of Brighton members of the profession, and several other members of the South-Eastern Branch, for the Association to hold its Annual Meeting, in 1886, at Brighton, be supported and approved by the members now present."

Communications were made by Dr. ELLIOTT, Mr. ABBOTT, and Mr. T. JENNER VERRALL.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Inoculation from Malignant Pustule.—The Action of Antiseptics on the Circulation of Frogs.—The Toxic Action of Normal Urine.—The Liver in Cholera-Patients.—The Comma-shaped Bacillus found in the Blood.—The Use of Distilled Water for Drinking-Purposes.—The Spreading of Epidemics from Impure Water.—Death under an Anæsthetic.

A PATIENT was lately admitted into the Lariboisière Hospital with a malignant pustule above the eyebrow. He was employed in the slaughter-houses of La Vilette, and killed and prepared for sale sheep imported from the south of Russia. The malignant character of the pustule was evidenced by intense fever, 107° Fahr.; pulse 120; and considerable œdema. The subparotid glands were much swollen. Two days before the patient was admitted into the hospital, he complained of itching of the forearm and back of the hand. The œdematous area was cauterized, and the scars were removed until the tissues bled. The patient's condition improved from day to day, until all danger disappeared. Nevertheless, the glands continued hard and swollen. M. Proust, who treated the case, wished to ascertain if the blood was infected when the patient was admitted. Artificial cultivations from the blood on broth were made, but were sterile. A drop of the purulent serum taken from the pustule rendered the broth fertile, and bacteria appeared in it. Guinea-pigs inoculated from this cultivation died from charbon.

M. Gosselin communicated to the Académie des Sciences last autumn the result of his experiments to ascertain the action of alcohols and phenols on the circulation of frogs. He has extended this series of researches, and a few days ago stated to the Académie des Sciences that iodoform, tincture of iodine, and biniodide of mercury, have the same action as alcohols and phenols. They coagulate the blood in the capillaries, but more slowly. Oxidised water, zinc-chloride, and boric acid fail to produce the same phenomena, though they coagulate blood in contact with the air.

Many experiments have been made to determine the action of hypodermic injections of diseased urine. M. Bouchard has lately been injecting normal urine into the veins of rabbits. The results have never varied. The pupil contracts, the respiration becomes weaker, and urine is abundant; reflex action of the cornea and other parts disappears; the temperature lessens, respiration is arrested, and the animal dies. Respiration stops before the heart-beats disappear. If the dose do not kill, coma appears, and the respiration is quicker; in about ten minutes, the animal improves, and in half an hour it is cured. Forty or sixty cubic centimètres of urine kill a rabbit. The urine of the animals experimented on becomes generally slightly albuminous. Normal urine clearly contains different substances of unequal toxic power. All its constituent elements, even the water in it, are more or less toxic. It is, therefore, easily explained why certain pathological phenomena, like uræmia, vary according to the case; sometimes coma is present, sometimes convulsions. The toxic agent is probably different in each instance. The temperature is almost always lowered, which is probably due to the presence of several toxic agents, combined with the one which contracts the pupil. It is demonstrated that water injected into the veins increases the temperature, but urine lowers it. The toxic effect of urine varies with each specimen.

M. Hanot has communicated to the Biological Society the results of his examinations of the liver in cholera-patients. He has always found hypertrophy of the nuclei of the hepatic cells. This lesion varies in degree; sometimes the nuclei are hypertrophied; at others, the whole cell has undergone fatty degeneration. Finally, round and oval patches appear here and there among the hepatic lobes. These patches are areas of vitreous degeneration. A high power shows that the nuclei are excessively hypertrophied and increased. The protoplasm is absolutely discoloured. M. Hanot terms this lesion transparent tumefaction.

M. Doyen, a hospital house-surgeon, has, during the recent cholera-epidemic at Paris, made a number of careful necropsies. A few days ago, he stated to the Biological Society that he had found the comma-bacillus in the contents and the coats of the intestines. In rapidly acute cases (*cas foudroyants*), these bacilli were found in a pure state in the duodenum and in the upper portion of the jejunum, and no other bacteria were present. In prolonged cases, they were observed in the ileum among other bacilli. On examining the liver, kidneys, and spleen, he observed the presence of comma-bacilli, diplococci, and micrococci, arranged as chains; also thick rods. These different micro-organisms were present in the blood, either free, between the red corpuscles, or more frequently in the midst of leucocytes. M. Doyen considers the presence of these micro-organisms in the blood as evidence of a complex septicæmia, which has its origin in the intestines, and further develops in consequence of epithelial desquamation. The bacilli of the intestine migrate between its coats, and thence pass into the blood-vessels.

Dr. Dureau de Villeneuve, in a note presented by M. Marey to the Académie des Sciences, recommends that distilled water should be generally used for drinking purposes. He argues that pure water is a desideratum, especially during cholera-epidemics. Distilled water fulfils this condition, and could be easily obtained by utilising the condensers of the different steam-engines kept at works. Dr. Villeneuve suggests that water thus distilled should be distributed among the inhabitants of the different districts near the seat of distillation.

M. Michel, a medical man practising at Chaumont, in a note to the Académie des Sciences, publishes evidence confirming the accuracy of M. Marey's communications concerning the part played by water in spreading epidemics. It appears that every year there were a considerable number of deaths at Chaumont from typhoid fever. Recently, a water-supply, which was believed to be contaminated, was cut off; since that time, typhoid has disappeared.

A painful instance of the danger of using anæsthetics by unskilled hands was furnished a few days ago by a dentist. A gentleman died suddenly whilst M. Duchesne was extracting his tooth. M. Brouardel, after a most careful necropsy and examination, states that there were not any natural cause of death, but that it ensued from an excessive inhalation of an anæsthetic. The brain, heart, and intestines were sent to the toxicological laboratory. It has been ascertained that the extraction was bloodless; therefore, death must have occurred before the operation was effected.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

Cucaine.—Dr. Koch's Courses on Bacteriology.

CONSIDERABLE attention is given in the German medical press to the successes of cucaine as a local anæsthetic. Attention is drawn in the *Berliner Klinische Wochenschrift* to a claim to priority in the discovery of its value. Professor Rossbach, of Jena, writes that Dr. von Anrep, of St. Petersburg, was the first who observed its local anæsthetic effect, and that Dr. von Anrep published an account of his observations, which he made in 1879 in Professor Rossbach's pharmacological laboratory at Würzburg, in Pfluger's *Archiv*, 1880, vol. xxi, page 38 *et seq.* He here points out its effect on the nerves of the skin and tongue, and on page 70 recommends its trial, as a "local anæsthetic," on human beings. In Professor Zuelzer's polyclinic at Berlin cucaine has been used, with very susceptible people, on the urethra of men and women, from two to three cubic centimetres of a 2 per cent. solution of cucaine being syringed into the urethra, and retained there from three to four minutes. A diminution of susceptibility was always obtained, and sometimes perfect anæsthesia of the urethra, so that the catheter could easily be used. Professor Kahler, of Prague, reports a case of an unmarried woman, aged 38, who had suffered for years from hysteria, and for three weeks had been unable to take any form of nourishment through the mouth owing to inappeasable vomiting. He painted the pharynx and base of the tongue with a 10 per cent. solution of cucaine, after which she was immediately able to take liquid, and soon afterwards solid food. Some valuable results are also published from Professor Jurasz's clinic for diseases of the larynx, throat, and nose at Heidelberg; several experiments were made at Professor Jurasz's instigation by one of his pupils on six medical men connected with the clinic, all of which, including a difficult operation performed success-

fully and without pain to the patient by Professor Jurasz, justify the prophecy that this new material will be extensively and successfully used in the future.

Dr. Anton von Frisch, the representative of Bacteriology at the University of Vienna, and one of his pupils, Baron Dr. von Eiselsberg, as well as two Luxemburg medical men, Dr. Feyder and Dr. Weber, are attending Dr. Koch's lectures on the methods for investigating microbes, especially cholera-bacilli, now being held at the Imperial Board of Health at Berlin, for the instruction of medical officers of the German army. They have received special permission from the Minister of the Interior.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Ligature of Axillary Artery.—Brain-Surgery.—Charity Organisation Society.—Glasgow District Nursing.—The late Mr. Fawcett.

BEFORE a crowded theatre of students, the operation of tying the axillary artery was performed by Professor George Buchanan on the morning of December 19th, at the Western Infirmary. The vessel was ligatured in the third part of its course, and the procedure was rendered necessary by the presence of an aneurysm in the unusual position of the upper part of the brachial artery. The patient was a comparatively young man, of somewhat intemperate habits, and with an impaired arterial system. For a few days the case seemed to progress favourably, the warmth of the arm returning, and the collateral circulation becoming established; but sudden secondary hæmorrhage occurred on two occasions at an interval of a couple of days, and it became necessary to amputate the arm at the shoulder-joint. The patient died within forty-eight hours. A *post mortem* examination showed that the arterial system was in an unsatisfactory state, and the heart itself was the seat of extensive valvular disease.

The recent letter to the *Times*, showing how much the present state of brain-surgery is indebted to the results of vivisection, found its way, of course, into our daily papers. Exception has been taken to its tone by some of the Glasgow profession, who think that it is unfair to speak of Dr. Bennett's case as inaugurating a new era in surgery, when brilliant and convincing results have been achieved, during the past two or three years, by Dr. Macewen in our Royal Infirmary. There is no doubt that this is so, and that Dr. Macewen has been working most successfully in the direction of brain-surgery, as Dr. Ferrier found in a recent visit to Glasgow. At the same time, those gentlemen in Glasgow who have written to the public press, should remember that this is scarcely the channel that should be chosen for drawing attention to any apparent neglect of Dr. Macewen's well known work, and that there are very great objections to making the local papers the medium of communications on matters purely medical, and that it is undesirable to describe, for general readers, operations, with all the details and fulness of a clinical report.

To those who are interested in the administration of charity and the repression of mendicity, the recent report of our Charity Organisation Society will prove worthy of perusal. It gives some facts that not only show the need for its existence, but should be taken to heart by all. It seems that of nearly 4,000 cases investigated during the year, there were found to be nearly 1,500, or more than one third, undeserving of relief, while 221 gave false addresses, 509 were not requiring assistance, and 149 were found to be ineligible. Of the remaining sixteen hundred odd cases, the major portion were aided by grants or referred to charitable institutions, private persons, or parochial authorities. Such a record of work as this points to a real amount of good done in our midst, and to that wise and intelligent distribution of aid which is real charity, and does not demoralise the recipient.

Our District Gratuitous Nursing Association, for furnishing attendance on the sick poor in their homes, is feeling very much the want of funds. At the meeting held last week to hear the annual report, a satisfactory state of matters was not revealed. A vast amount of excellent work has been got through, but money is wanted to keep it going. I understand that a very proper decision has been come to, and that is, to have a working committee to supervise matters more closely, and see whether a stricter economy cannot be enforced. In work such as this, there is great need for care as to there being no overlapping with other charities, and interference with what is the sphere of labour for our parochial authorities. Careful medical guidance is also a factor that is required in district nursing among the sick poor.

Mrs. Fawcett has decided to have her husband's last address at Hackney printed, and to each student of the Glasgow University a copy will be presented, in memory of their late Lord Rector, who is understood to have been very proud of the honour conferred upon him by the members of an university to which he had previously no special ties.

CORRESPONDENCE.

BRITISH MEDICAL BENEVOLENT FUND.

SIR,—You have often allowed me at this season of the year to plead in your columns the cause of the widow and fatherless and of the old, broken-down, or unfortunate, who depend on the British Medical Benevolent Fund for some small addition to their comfort or, very frequently, for relief from actual want, and help was never more needed than at this moment.

The scheme of the charity is well known in the profession. It has two departments: one for giving annuities of £20 or £26 (ten shillings a week) to worn out members of the profession, their widows or daughters after the age of 60; the other for the relief of pressing necessity by donations. The annuitants, who are maintained by the proceeds of investments, now number 53, but it is very rarely that anyone can be elected under the age of 70. The donations are furnished out of money collected year by year, and it is on this department of the fund that the greatest pressure comes. The number of applications during the year has been 241, the amount distributed, over £1,900, in sums varying from £1 to £24. Examples of the cases coming before the Committee at the monthly meetings are as follows: F.R.C.S., aged 74, of excellent character, hears of the fund when he has broken into his last sovereign; he gets an immediate advance of £2, and a further grant of £15. The daughter of a medical man, a nursery governess, applies on behalf of her brother, himself qualified, who is dying of phthisis; £12 is voted, payable in weekly instalments; he dies before it is exhausted. Medical men in failing health, widows suddenly left destitute with young children, or striving bravely to bring up a numerous family, daughters of medical men worn out or broken down as governesses. These are our every day applicants. A few are kept from actual pauperism or starvation entirely through the Fund.

The profession has responded most liberally to special appeals for exceptional cases. This is natural and praiseworthy, but I cannot but fear, lest the chronic, prosaic misery of the clients of this fund be lost sight of. Our exchequer is nearly empty, and I again ask those who can afford it for contributions, to enable us to continue our help to the less fortunate of our brethren. They will be most thankfully received by Mr. Field, 31, Lower Seymour Street, or by your obedient servant, W. H. BROADBENT, M.D., Treasurer.

34, Seymour Street, Portman Square.

THE UXBRIDGE TRAGEDY.

SIR,—With reference to the numerous letters on the above case that have appeared in the daily papers, and in other periodicals, will you allow me to say very briefly:

First: That the reports of the medical evidence in the daily papers are in many respects incorrect, and in all incomplete.

Second: That, in order to explain the case as one of suicide, there is no necessity to suppose the possible self-infliction of other wounds after that of the heart, for both Mr. Parrott and myself were quite ready to agree that the heart-wound might have been, and very probably was, the last inflicted.

Third: Both at the Uxbridge Sessions and at the Central Criminal Court, I did allow the possibility of the self-infliction of the third wound, in spite of the injuries caused by the two others previously inflicted.

Lastly, sir, I feel I need scarcely remind your readers that many other matters went to the jury besides those reported in the daily papers; and I would ask both them and you to reserve their judgment until I am able to put the real facts before you.—Yours truly,

ANTHONY A. BOWLBY.

MEDICAL EDUCATION IN SCOTTISH UNIVERSITIES.

SIR,—Your Glasgow correspondent, in the JOURNAL of December 20th, notices an article of mine in the *Glasgow University Review* for December, and expresses the hope that "few will be found to echo the depreciatory criticism that is thrown on clinical teaching in our Scotch schools.....In our Western and Royal Infirmaries, the arrangements in this department are admirable.....and have had

more to do with attracting students to our schools than the mere possession of the university degree." He thus leads your readers to suppose that I call in question the ability or diligence of Scotch clinical teachers. I do no such thing; many of them struggle on most manfully under difficulties almost insurmountable. But what I do say is, that the students are so numerous in proportion to those who have to teach them medicine and surgery at the bedside, that to become practically acquainted with any except a few of the more easily demonstrable diseases, is for students, under existing conditions, quite out of the question. Does your correspondent know that one clinical teacher in Glasgow may have as many as ninety men in his class? and will your correspondent explain how each of them for himself can examine the case that the lecturer may be speaking about? Will he still further enlighten us as to how the fifteen hundred students, or thereby, who attend the Edinburgh Royal Infirmary, that has less than six hundred beds, are to become practically acquainted with disease in the patient? He characterises the system as "admirable," and so it may be in the sense that certain men earn very large fees under it, but otherwise I hope "few will be found to echo" your correspondent's enthusiastic laudation of it.

He thinks the clinical teaching in Scotland, more than the facilities for acquiring degrees, draws students hither; how, then, is it that in Glasgow the Royal Infirmary has been all but deserted since the degree-granting body removed to an inaccessible distance from it? If he knows anything at all about the matter, he must be fully aware that, if the University were to migrate to the top of Ben Nevis, thither would the students follow it for degrees, leaving the Western Infirmary, as they left the Royal, to the handful of men who in Glasgow aspire only to a surgeon's diploma.—I am, your obedient servant, D. C. McVail, Western Medical School, Glasgow.

THE REVIVAL OF OVARIOTOMY.

Sir,—Will you allow me to say, in reply to Dr. Wilks and several other correspondents, that I take the date of September 27th, 1842, as being that of the first ovariotomy performed in England by Dr. Charles Clay, because I find, on investigation of the original accounts of so-called ovariotomies before that date, that they were all cases of removal of parovarian cysts. This applies to the cases of Jeaffreson, Walne, King, West, and many others, that I have succeeded in unearthing.

The reasons why parovarian cysts should be displayed separately from ovarian tumours are very strong, and exist under every aspect, surgical, clinical, and pathological. A discussion of them would not be appropriate here; and any who may be curious upon the subject, as well as upon the early history of ovariotomy, will find what I have to say given at length in the last edition (fourth) of my Hastings essay on *Diseases of the Ovaries*.—I am, etc., Lawson Tait.

7, The Crescent, Birmingham.

Sir,—I thank Mr. Lawson Tait for his letter on this question, and, out of regard to the memory of one whose claims it has become rather a fashion to ignore, or, at least, to minimise, I ask you to publish a few facts, which may help to make more clear Mr. Baker Brown's position in this connection.

1. Upwards of fifty years ago, when a student at Guy's Hospital, he, in the year 1831, read a paper at the Physical Society of that institution, on the treatment of ovarian dropsy, and from that time took the greatest interest in the subject.

2. Having tried many plans, most of his own devising, and all, as he believed, less hazardous than complete extirpation, which were, however, followed by only partial success, his first ovariotomy was performed in 1851. His first three operations resulted fatally; the fourth case that came under his notice was that of his own sister. The tumour was attached to the left ovary. The patient made a rapid recovery, married a year later, became the mother of three girls, and lived upwards of a quarter of a century.

3. It is hardly likely that such a man would have ceased to operate from timorous motives, and the cause of the temporary decadence of the operation for two and a half years in London, in the hands of Mr. Baker Brown, was caused, as is well known, by the opposition of his colleagues at St. Mary's Hospital, his principal opponent being Dr. Tyler Smith, the physician-accoucheur, acting in the same ward with Mr. Brown, who was surgeon-accoucheur. It is reported that this physician went so far as to threaten Brown with an inquest, but he himself later succeeded in obtaining from the authorities of St. Mary's a separate building for performance of the operation which he had so strenuously condemned. It was this opposition which led Mr. Baker Brown to found the London Surgical Home, where his results of ovariotomy compared favourably with those of any other surgeon of his time, and it was mainly due to this action that the practice ceased of performing ovariotomies in large hospitals where isolation was impracticable.

4. It is assumed by Sir Spencer Wells that Nélaton learnt the operation from him, but I well remember that that distinguished surgeon paid his first visit to England for this purpose to Mr. Brown, residing in his house during his stay. On that occasion, Mr. Baker Brown performed, in one afternoon, three ovariotomies in succession, and was able to show Nélaton five other cases in various stages of progress in the Surgical Home.

The old students and *habitués* of St. Mary's will remember that before the Samaritan Hospital was established, or, at least before Sir Spencer Wells joined it, foreigners from all parts of the world thronged to the operating theatre of that hospital to see Baker Brown, not only as an ovariotomist, but as a marvellously dexterous operator for other surgical diseases of women, assuredly not less difficult, if less hazardous, than the one under consideration. I have no fear that future generations will withhold from him the merit that is his just meed. It is my duty and privilege to see that it is awarded also by the living who have learned from him, even if only "what there was to avoid."—I am, yours faithfully, L. B.

THE TITLE OF DOCTOR.

Sir,—In reply to Mr. Donovan's letter, at p. 1213 of your number for December 13th, I beg to assure him that the Royal College of Physicians of Edinburgh has no authority, either by charter, law, or by-law, to confer upon its licentiates the title of doctor of medicine, and that college has never, either when conferring its diplomas, or at any other time, officially recognised its licentiates by that designation. —I am, sir, yours sincerely, George W. Balfour,

17, Walker Street, Edinburgh. Vice-President of the Royal College of Physicians of Edinburgh.

THE ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

Sir,—The Association of Members of the Royal College of Surgeons has only been in existence for a short time, yet it has received decided encouragement from those whose interests it has at heart. Letters of approval and support have been received from all parts of the country; and the Ramsgate Medical Society has shown its interest in the undertaking by forwarding the following resolution: "That no alteration in the Charter of the Royal College of Surgeons would be deemed satisfactory by its members, unless it made provision for the Council being elected by the Members and Fellows unitedly."

The Association of Members of the Royal College of Surgeons, in many respects, approves of the recommendations and alterations proposed to be included in a new charter of the College, which have been drawn up by a Subcommittee of the Association of Fellows, passed at a general meeting of that Association, and submitted to the Council of the College.

It is hardly necessary to point out that the bulk of the revenue of the Royal College of Surgeons is derived from the fees paid by its members. During the financial year ending in July 1884, about £15,000, out of the total income of £20,000, was received in fees for the membership examinations. The principle that taxation and representation should go hand in hand is so generally conceded, that it is not unreasonable for the Members of the Royal College of Surgeons to petition for a share in the management of the affairs of the College, to the maintenance of which they so largely contribute. The Association of Members, therefore, claims the right for the members of the Royal College of Surgeons to have representatives elected by themselves, out of their own ranks, upon the Council. Until the Association of Members has had more time to ascertain the general opinion of members of the Royal College of Surgeons as to the number of seats on the Council which they may reasonably be entitled to claim, it can hardly be called upon to name a definite number.

The Association desires, first of all, to establish the great principle that a large, educated, and intelligent body of men should be permitted to have a voice in the management of an institution of which they may be said to constitute the backbone.

The objection has been raised that it would be impossible to ascertain, by any system of voting, the desires of the constituency that would thus be formed. It would, however, only be necessary that the system of election by voting papers should be adopted, which method is recommended by the Association of Fellows. The difference between taking the votes of 1,000 and of 16,000 electors is only one of degree.

The expenses of the election would not be great, and the members of the College would probably be willing to defray them.

Trusting that we are not unduly trespassing upon your space, we beg to subscribe ourselves, sir, yours truly,

WARWICK STEEL,
J. NIELD COOK,
Honorary Secretaries to the Association of Members of the Royal College of Surgeons.

3, New Inn, E.C.

MEDICO-LEGAL AND MEDICO-ETHICAL.

FRIENDLY SOCIETIES AND NOTICES.

SIR,—Would you kindly state, in your next issue, as to whether I am correct in the following case? I have, for some time, been assistant medical officer to a friendly institution here, and as such, I have signed an agreement, binding me to give one clear calendar month's notice, in the case of my leaving. I did so on December 8th, as I had obtained another appointment.

My monthly salary is due on the 25th proximo, that being the date stated in the agreement. The Committee state that my notice is illegal, as it ought to date from December 25th, that is the date of my payment, making the notice, practically, a seven weeks' one. I contend I am right. I shall be perfectly satisfied to abide by your decision.—I am, sir, your obedient servant,

CHAS. W. PURVES, L.R.C.P. and S.Ed.

*** The contention of the Committee cannot be sustained, unless there be an express condition in the agreement making it necessary, in terms that notice shall date only from day of payment. It has been held frequently in similar cases, that notice on either side—so long as it is for the full period—may be given at any date; and, further, that where payment is made, in lieu of notice, an engagement may be immediately terminated in that manner at any moment. This is a ruling which numerous precedents have fully established, and no doubt it would be confirmed in the event of any litigation.

A QUESTION OF PAYMENT OF FEES.

SIR,—Would you kindly give me your opinion as to the following case? On November 1st I was sent for, by the foreman at a cloth-mill, to attend to an accident. I went, and accompanied the patient home, and continued in attendance up to a few days ago. It was a serious case, and required, sometimes, three visits a day.

In the course of the case, by my advice, a consultant was called in, and on the father of the patient applying to the owners of the mill, they paid the consultant's fee without any objection. On presenting my account, they now tell me they are not liable for anything to me, or for their foreman having sent for me, and say that they paid the consultant's fee out of charity.

What I wish to know is this. Can I recover my fee? and does not the fact of their having paid the consultant acknowledge their liability for the other medical attendance?—Yours truly, M. BERNARD SHIRLEY.

*** The payment of the consultant's fee is a strong bit of evidence in our correspondent's favour, and a jury would be very likely to decide that he was employed by the firm. The question is, however, one of fact, and it is impossible to predict the result of a trial with certainty.

MEDICAL ETIQUETTE.

SIR,—Would you kindly let me have an expression of your opinion on the following? On August 26th, last, I was called to an urgent case for the first time, a woman, aged 73, who had just passed a large quantity of blood, mixed with scybalous masses, *per anum*. On examination, she presented the usual cachectic appearance. I readily detected a hard nodulated tumour of the size of my fist in the right iliac region. My diagnosis was cancer of the intestine. I pronounced the case incurable, and prescribed palliative treatment. After regular attendance up to the present date, I was informed by the woman's daughter, upon my visit to-day, that a neighbouring doctor had called and examined her, three days previously, and stated that, had he seen the case ten weeks earlier, he could have removed the tumour. This simple statement of facts, to my mind, involves three important points.

1. Is cancer of the intestine, in the region mentioned, commonly operated upon, especially after perforation?
2. Would an operation be advisable in a person of 73 years?
3. Is it justifiable, to say the least, for any practitioner to make such a statement before ignorant people, reflecting on the practice of another, and in a country district where reports spread rapidly, lose nothing in the spreading, and often do incalculable harm?—I am, sir, yours faithfully, M.B., C.M.

*** On the first and second "involved points," we deem it unnecessary to offer any remark; on the third, or ethical point, assuming that the "simple statement" in "M.B., C.M.'s" communication be an accurate representation of the facts of the case, it is scarcely necessary to observe that such alleged conduct on the part of a "neighbouring doctor" is not only ethically wrong, but morally unjust to our correspondent, prejudicial to the faculty, and derogatory to its author, upon whom it can scarcely fail to eventually recoil. Is it not, however, possible that the woman's daughter may have misinterpreted what the "neighbouring doctor" said to her?

CERTIFICATES OF LUNACY.

SIR,—The enclosed is an extract from a note I appended to a certificate of lunacy, upon which certificate a person was removed to the County Asylum, after having been seen by a magistrate. The publication of it in the columns of the BRITISH MEDICAL JOURNAL would ventilate the subject before the profession, the public, and the lunacy authorities.

Perhaps you will lend your aid to the attainment of some such desirable end as I have pointed out, for you will probably think with me that, if the profession cannot be protected on this matter, it ought to refuse to sign certificates of the insanity of anybody.—Yours truly, JOHN T. HARTILL.

"Considering the annoyance and inconvenience to which several medical men have lately been subjected, in consequence of having signed certificates of the insanity of various persons, I respectfully ask the Commissioners in Lunacy, at the earliest possible moment, to get the Lunacy Laws amended, so that every medical man who signs a certificate of the insanity of any person shall be considered merely to have expressed his own *bonâ fide* opinion of the person examined, and that whether he has erred in judgment or not, he shall not be liable to be sued in any civil or criminal court of justice, after the certificate has been signed by a Justice of the Peace. Further, that, in all cases in which certificates are signed by which persons may be admitted into private asylums, the law may be so amended as to require also the signature of a Justice of the Peace or other person authorised by law; and that when a Justice of the Peace or other authorised person has signed it, every medical man shall be deemed only to have expressed his own *bonâ fide* opinion of the person examined; and that, whether he has erred in judgment or not, he shall not be liable to be sued in any civil or criminal court of justice, unless it can be first shown that the medical man has a pecuniary interest in the incarceration of the lunatic or supposed lunatic, over and above the fee to which every medical man is justly entitled, for work done in recording his opinion after examination."

*** Mr. Hartill's remedy would go but a little way to cure the evil of the lunacy-certificate system, except so far as the endorsement of the magistrate would be a considerable improvement. The other proposal he makes would really leave the matter much as it is at present. *Bona fides*, of course, including due care, in the formation of an opinion and the statements of the grounds of it. Our correspondent's letter is based upon his action with regard to a pauper lunatic; but the difficulty has not arisen with regard to this class.

CHARGES FOR ATTENDANCE.

SIR,—Will you be good enough to give me your opinion on the following question? I am sent for to attend A., who resides in a village four miles from my residence; before leaving home I am requested to attend B. and C., both living in the same village.

Am I entitled to charge the full fee for mileage to B. and C.? I cannot find this point mentioned in the *Medico-Chirurgical Tariffs*, issued by the Shropshire Ethical Branch of the Association.—Yours faithfully,

A COUNTRY PRACTITIONER.

*** In the absence of minor but essential details, we are unable to reply otherwise than suggestively to the question of "A Country Practitioner," thus: If the request to visit B. and C. was conveyed by two independent messengers, we consider that our correspondent will be justified in charging mileage to each patient; if, on the other hand, the message was brought by one and the same person, it may be taken for granted that a mutual arrangement had been made between them relative to the medical man's expected visit, and that the least ailing one should avail himself of it to obtain medical advice; a matter of common occurrence. At the same time we are of opinion that, if both B. and C. were so seriously indisposed as to render professional advice essentially necessary for each, our correspondent will be "entitled to charge the full fee for mileage," severally.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SERVICE.

SURGEON-MAJOR SIR SAMUEL ROWE, M.B., K.C.M.G., Governor and Commander-in-Chief of the Gold Coast Colony, has been gazetted Governor and Commander-in-Chief of the West African Settlements, in the place of Sir Arthur Havelock, who has been transferred to Trinidad. According to Hart's *Army List*, Sir Samuel served throughout the Ashanti war of 1873-74. He was sent as Special Commissioner to the kings and chiefs of Fanti, on the invasion of the Protectorate by the Ashantis in January 1873; was present with the force under Colonel Festing at the defeat of the Ashantis in the two engagements at Elmina on June 13th, and was mentioned in despatches as having "acted in more capacities than those of his own profession," and as having "rendered valuable assistance on all occasions." He joined Glover's expedition, to which he served as Chief of the Staff (several times mentioned in despatches, C.M.G., medal with clasp).

Surgeon-General J. Hendley, C.B., has been appointed to succeed Surgeon-General R. Gilborne as Principal Medical Officer on the Staff of Lieut.-General Sir A. Alison, K.C.B., at Aldershot.

Surgeon-Major H. Muscroft, of the 3rd Battalion King's Own Light Infantry (South Yorkshire Regiment), formerly known as the 1st West York Militia, died at Pontefract on the 5th ultimo. Mr. Muscroft joined the 1st West York Militia in May 1854, was appointed Surgeon in November 1855, and Surgeon-Major in March 1873. For the last five years, he has had medical charge of the 51st and 65th Regimental Districts.

Deputy Surgeon-General H. B. Hassard, C.B., has been promoted to Surgeon-General, in the place of Mr. R. Gilborne, who has gone on retired pay. Mr. Hassard entered the service as an Assistant Surgeon on March 14th, 1851; became Surgeon, January 26th, 1858; Surgeon-Major, March 14th, 1871; and Deputy Surgeon-General,

November 2nd, 1879. He has the medal for the Kafir war of 1851-53, in one of the engagements during which he had his horse shot under him. He also has the medal and clasp for the Hazara campaign in 1868. He also served in the Afghan war in 1879-80 with the Cabul Field Force, received the medal granted for the campaign, and was made a C.B.

Brigade-Surgeon A. M. Tippetts has been promoted to Deputy-Surgeon-General, *vice* H. B. Hassard. He entered as Assistant-Surgeon, April 7th, 1854 ; became Surgeon, October 18th, 1864 ; Surgeon-Major, March 1st, 1873 ; and Brigade-Surgeon, August 25th, 1880. He served in the Russian war of 1854-55 with the 7th Fusiliers, and was present in the engagement at Bulganac, at the battles of the Alma and Inkerman, and at the siege of Sebastopol. He has the Crimean medal with three clasps, and the Turkish medal. During the war of 1878-80 in Afghanistan, he served in the expeditions into the Bazar Valley and the Hissarik Valley, and has received the Afghan medal.

Brigade-Surgeon C. G. Irwin, M.B., has been promoted to Deputy Surgeon-General in the place of A. G. Young, who has been granted retired pay. Mr. Irwin's commissions date—Assistant-Surgeon, February 24th, 1854 ; Surgeon, December 1st, 1863 ; Surgeon-Major, March 1st, 1873 ; Brigade-Surgeon, November 11th, 1880. Mr. Irwin served during the Russian war in 1854-55, and was present at the battle of the Alma, and at the siege and fall of Sebastopol. He has the Crimean medal with two clasps, and the Turkish medal.

Surgeon F. Rennie, M.D., has resigned his commission in the Tynemouth Artillery Volunteers. Acting Surgeon W. P. Mears, M.D., has been appointed Surgeon in his stead.

Surgeon Angus Fraser, M.D., of the 1st Volunteer Battalion of the Gordon Highlanders (otherwise the 1st Aberdeenshire Rifle Volunteers), has been granted the honorary rank of Surgeon-Major.

Acting Surgeon J. E. Lees, M.B., of the 1st Volunteer Battalion of the Lancashire Fusiliers (late the 8th Lancashire Rifle Volunteers), has been made Surgeon of his battalion.

Surgeon J. Strachan, M.D., has resigned his commission in the 1st Clackmannan and Kinross Rifle Volunteers. He is permitted to retain his rank, and to continue to wear the uniform of the corps.

Surgeon G. H. Macnamara has resigned his commission in the 8th (South-West) Middlesex Volunteers. He is granted the honorary rank of Surgeon-Major, and may continue to wear the uniform of the corps.

Acting-Surgeon J. B. Wright, M.D., has resigned his appointment in the 1st Northamptonshire Rifle Volunteers.

M. C. W. Philpot, M.D., has been appointed Acting-Surgeon to the 1st Volunteer Battalion of the Queen's (Royal West Surrey Regiment), till lately called the 4th Surrey Volunteers.

Mr. H. Rendell, M.B., has resigned his appointment as Acting-Surgeon to the 1st Volunteer Battalion of the East Yorkshire Regiment (late the 1st East Riding of Yorkshire Volunteers).

INDIAN MEDICAL SERVICE.

Mr. T. S. Lacy, retired Deputy Inspector-General of Hospitals in Her Majesty's Indian Army, and who was for many years Garrison-Surgeon at Agra, died at his residence, Saumarez Lodge, Guernsey, on December 18th, in the sixty-ninth year of his age.

Surgeon-Major A. H. Hilson, M.D., Bengal Establishment, has been promoted to be Brigade-Surgeon. Dr. Hilson entered the service as an Assistant-Surgeon, January 29th, 1857.

The services of Surgeon-Major O. T. Duke, M.B., Bengal Establishment, Officiating Political Agent of the Third Class, and Political Agent, Kelat, are placed at the disposal of the Home Department.

Surgeon-Major J. Duke, Bengal Establishment, is appointed Medical Officer of the Malwah Bheel Corps, and of the Bhopawar Political Agency, from the date of assuming charge, *vice* Surgeon-Major H. D. S. Compigne, M.D., who has retired.

The services of Surgeon-Major D. N. Martin, M.D., Bengal Establishment, Medical Officer 30th Bengal Native Infantry, are replaced at the disposal of the Military Department from October 26th, the date on which he was relieved of the medical charge of the Eastern Rajputana States Residency by Surgeon-Major T. H. Hendley.

Surgeon C. Adams, Madras Establishment, and Medical Officer of the Bikaneer Agency, having been pronounced unfit for duty by a Medical Board assembled at Ajmere, is permitted to proceed to Europe in anticipation of the furlough being granted to him by his own Government.

Surgeon C. Mallins, M.B., Madras Establishment, Medical Officer of the 1st Infantry Hyderabad Contingent, has been appointed to officiate as Medical Officer of the 2nd Cavalry Hyderabad Contingent at Hingolee, in the place of Surgeon-Major J. F. Sargent, who has gone on furlough.

Surgeon A. O. Evans, Madras Establishment, has been appointed to officiate as Medical Officer of the 1st Infantry Hyderabad Contingent, at Aurungabad, *vice* Surgeon Mallins. Surgeon Evans is reported as having passed the higher standard test in Hindustani.

Surgeon C. Henderson, Madras Establishment, on being relieved of the Civil Surgeoncy of Betul, in the Central Provinces, is transferred as Civil Surgeon to Hoshungabad.

The undermentioned have been granted leave for the periods specified : Surgeon-Major J. J. Monteath, M.D., Bengal Establishment, for one year, on medical certificate ; Surgeon-Major L. E. Eades, Bengal Establishment, Medical Officer of the 5th Bengal Native Infantry, for one year, on medical certificate ; Surgeon-Major R. Pringle, M.D., Bengal Establishment, an extension for 150 days ; Surgeon H. Armstrong, Madras Establishment, to sea for 182 days.

Surgeon-Major J. C. Whishaw, M.D., Bengal Establishment, on his return from furlough, is posted to the civil medical charge of the Lucknow district.

Mr. James Vaughan, late Surgeon-Major Bombay Service, died at his residence, Builth, on the 17th ultimo. The deceased gentleman served in the Crimean War, in the Persian Expeditionary Force in 1857, and in the Indian Mutiny, and was honourably mentioned in general orders on several occasions. Mr. Vaughan was Sheriff of Breconshire in 1875, and of Radnorshire in 1878, and was also a magistrate in both counties.

THE NAVY.

W. H. Colahan, Staff-Surgeon, to the *Assistance ;* G. B. Murray, Staff-Surgeon, to Plymouth Hospital ; T. Bolster, Staff-Surgeon, to the *Triumph :* F. H. Trevan and R. J. Lawson, Surgeons, to the *Triumph ;* J. Hunter, Surgeon, to the *Indus ;* S. Johnson, Surgeon, to the *Briton :* H. W. G. Doyne, Surgeon, to the *Agincourt.*

HOSPITAL AND DISPENSARY MANAGEMENT.

NEW SYSTEM FOR THE BETTER PROVISION OF SURGICAL APPARATUS FOR THE AFFLICTED POOR.

The following suggestions are put forward on behalf of the Charity Organisation Society, 15, Buckingham Street, Adelphi.

Need of Change.—From long experience, the Charity Organisation Society has found that it is extremely difficult to deal, without delay, with those in distress who require surgical apparatus, by means of the institutions that already exist. It does not appear that any plan of co-operation with these institutions is feasible, except perhaps in the case of such societies as require only one letter for each instrument supplied.

Plan of Work.—The Council of the Charity Organisation Society have accordingly established a department for the prompt and economical supply of these instruments, on the same plan as the Convalescent Department, by means of which nearly 1,500 persons requiring convalescent aid have, during the past year, been quickly and economically provided for in homes throughout the country. Without such an organisation, this would not have been possible. Persons requiring relief of all kinds now apply to the District Committees of the Charity Organisation Society ; and the District Committees obtain assistance, in this and other ways, for all suitable cases. In surgical aid cases they will send a certificate to the Medical Committee of the Society, who will arrange that the patient be at once seen by the surgeon of the hospital nearest to his home ; the proper apparatus will then be prescribed by the surgeon and made, under instructions, at trade price, by a competent surgical instrument-maker. When completed, it will be fitted on under the surgeon's supervision. Many of the surgeons of the hospitals have already agreed to co-operate in this plan.

Advantages of the Plan.—This plan will, it is believed, insure patients against badly made and ill fitting instruments. Such instruments cause much injury. It will avoid delay also, and make it unnecessary for the patient to travel long distances. Both of these evils have been the cause of permanent disablement and deformity. The District Committees will arrange that the patient, when able to pay, shall bear part of the cost of the instrument provided. The difficulties and delays connected with the letter-system will be avoided.

Contributions.—All the contributions received for the provision of surgical apparatus will be utilised for that purpose only, without any deduction whatever for working expenses. The cost of surgical appa-

ratus varies, in the case of the more expensive instruments, from £5 to £10 (and even £15); while a large number, for which there is a frequent demand, cost from £1 to £5. It is suggested that contributors should aid by giving £10 donations, which would help to meet the greater difficulty of supplying the more costly instruments; or £5 donations, which would meet the cost of the average instrument required; or smaller sums, to form a fund to provide the numerous smaller appliances. Among the more expensive appliances, for which we are from time to time asked, are invalid carriages, etc., cork limbs, spinal supports; beds, water and air. The following less costly apparatus are in general demand: leg-irons; limbs, with wooden or leather buckets; surgical boots of various descriptions; splints; crutches; trusses of various descriptions; elastic belts, stockings.

OBITUARY.

HENRY MUSCROFT, M.D., PONTEFRACT.

DR. HENRY MUSCROFT died on December 5th from disease of the heart (dilatation), from which he had suffered in a marked manner for the last two or three years.

Dr. Muscroft was the fourth son of the late Dr. James Muscroft, and was born in Pontefract on March 7th, 1830. He studied medicine at the Leeds School, and became M.R.C.S. in 1854, and L.R.C.P. in 1862, and M.D. St. Andrew's in 1872. He was placed on the commission of the peace for Pontefract in 1871.

Amongst the appointments he held were, House-Surgeon to the Leeds Infirmary, and to the Scarborough Dispensary; Medical Officer for the Pontefract Union, and for No. 1 District Rural Sanitary Authority; Medical Officer of Health for Pontefract; Factory-Surgeon; Surgeon to the Police; and Consulting Physician to the Pontefract General Dispensary. He was first President of the Pontefract and District Medical Society, and was on the Council of the Yorkshire Branch of the British Medical Association.

He was appointed Surgeon to the 1st West York Militia (now 3rd Battalion South Yorkshire Regiment) from its embodiment about thirty years ago, and saw five years' embodied service with the regiment. Since 1879, up to his recent illness, he had charge of the Pontefract Brigade Depôt, and was nearly at the top of the list of militia surgeons.

He married, March 1st, 1870, Miss Elizabeth Bisset, youngest daughter of the late Rev. Dr. Bisset, and niece of the late Vicar of Pontefract. He leaves four children—three boys and a girl.

To those who were most intimate with him, and knew him when he could be most unreserved, there appeared a never-failing sympathy with others. It was foreign to him to speak ill of anyone; it was natural to him to think the best of all. When, added to this, there was a large-hearted benevolence, a devotion to, and anxiety for, the interests of all those who were under his care, such as must materially have shortened his own life, it may be understood what a hold he secured in the affections of his fellow-townsmen and friends; for it may be said, without fear of exaggeration, that his loss has been the heaviest suffered for many years by the district in which he lived. This was strongly evidenced by the great numbers attending his funeral. These included the Mayor and Corporation, the borough officials, members of the Pontefract and District Medical Society, the staff of his regiment, with a large number of officers and volunteers from the Brigade Depôt; besides these, numerous private friends, and such an attendance of the working classes as clearly showed that both rich and poor were united in their regard and affection for one of whom the least that can be said is, that he leaves but few behind who can hope to fill a like place in the esteem or all who knew him.

WILLIAM BENNETT DALBY, M.D., F.R.C.S.E., M.R.C.S.,

RETIRED FLEET-SURGEON, R.N.

WE much regret to have to record the death of the above-named gentleman, at the early age of 60, and in the midst of a career of active professional and social usefulness.

Dr. Dalby died at his residence, Belvedere House, Torquay, on the 19th December, after an illness of three months' duration. On his retiring from the Navy, twelve years ago, he settled in practice in Torquay, where he very rapidly attained a leading position and a large practice. He was widely known and much respected in Torquay and the neighbourhood, both on account of his professional skill, and of the untiring interest which he took in all works of practical charity and benevolence. Of late years, especially, he became an earnest and steadfast advocate of the temperance cause, and on the platform gave frequent evidence of its advantages from a medical point of view, and also published a pamphlet on *Alcohol, its Use and Abuse*.

Dr. Dalby served for upwards of 20 years in the Royal Navy, rising to the rank of Fleet-Surgeon, and gaining a high reputation for energy and ability. He served in the Crimean War, holding an appointment at Therapin. He subsequently held appointments at the Royal Naval Hospitals at Haslar and Plymouth, and lastly at the Naval Cadet Hospital, Dartmouth.

Dr. Dalby leaves a large family to lament his loss; his eldest son having recently joined his father in practice. He also leaves behind a large circle of friends, by whom his kindly face and genial presence will long be remembered.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,762,354 persons, 4,353 births and 3,386 deaths were registered during the week ending the 27th ult. The annual rate of mortality, which had been 24.4, 22.6 and 21.6 per 1,000 in the two preceding weeks, declined last week to 20.2. The rates in the several towns, ranged in order from the lowest, were as follow:—Birkenhead, 13.2; Plymouth, 13.8; Salford, 15.9; Brighton, 16.2; Oldham, 16.6; Portsmouth, 16.9; Sheffield, 18.2; Nottingham, 18.3; Derby, 18.5; London, 18.6; Bristol, 18.9; Bradford, 19.4; Blackburn, 19.4; Huddersfield, 19.4; Bolton, 19.6; Leeds, 20.2; Newcastle-upon-Tyne, 20.7; Birmingham, 20.8; Wolverhampton, 22.0; Norwich, 24.8; Liverpool, 25.0; Cardiff, 25.7; Halifax, 25.9; Manchester, 26.5; Hull, 26.8; Preston, 28.3; Sunderland, 28.4; and Leicester, 32.2. In the twenty-seven provincial towns the death-rate last week averaged 21.5 per 1,000, and exceeded by 2.9 the rate recorded in London. The 3,386 deaths in the twenty-eight towns included 69 which resulted from whooping-cough, 67 from measles, 54 from scarlet fever, 36 from small-pox, 34 from "fever" (principally enteric), 28 from diphtheria, and 23 from diarrhœa; in all, 311 deaths were referred to these principal zymotic diseases, against 393 and 398 in the two preceding weeks. These zymotic deaths were equal to an annual rate of 1.9 per 1,000. In London the zymotic rate was 1.7 per 1,000; while it averaged 2.0 in the twenty-seven provincial towns, among which the zymotic rates ranged from 0.0 in Plymouth, Birkenhead, and Huddersfield, to 4.7 in Leicester and in Preston, and 5.1 in Sunderland. The deaths referred to whooping-cough, which had been 69, 75, and 91 in the three previous weeks, declined last week to 69, and caused the largest proportional fatality in Wolverhampton, Oldham, and Halifax. The 67 fatal cases of measles showed a marked decline from the number in the preceding week, and caused the highest rates in Preston, Cardiff, and Leicester. The deaths referred to scarlet fever, which had been 61 and 62 in the two previous weeks, fell to 54 last week; this disease was proportionally most fatal in Cardiff and Sunderland. The 34 fatal cases of "fever" were 10 less than the number in the preceding week, and caused the highest rates in Preston and Norwich. Of the 28 deaths from diphtheria in the twenty-eight towns, 20 occurred in London, 2 in Liverpool, 2 in Norwich, and 2 in Sunderland. Of the 36 fatal cases of small-pox, 32 occurred in London (exclusive of 3 deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside Registration London), 3 in Liverpool and 1 in Brighton. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 1,027, 1,019, and 1,026 at the end of the three preceding weeks, were 1076 on Saturday last; 171 new cases were admitted to these hospitals during the week, against 190 and 244 in the two previous weeks. The death-rate from diseases of the respiratory organs in London was equal to 4.8 per 1,000, and was considerably below the average. The causes of 82, or 2.4 per cent., of the 3,386 deaths registered last week in these twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.—During the week ending the 27th inst., 817 births and 691 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,254,607 persons. The annual rate of mortality, which had been 31.8, 28.3, and 26.9

per 1,000 in the three preceding weeks, rose again to 29.6 last week, and exceeded by as much as 9.4 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns the rate was equal to 19.5 in Leith, 20.4 in Edinburgh, 21.8 in Perth, 22.9 in Greenock, 25.9 in Dundee, 31.3 in Aberdeen, 32.1 in Paisley, and 34.7 in Glasgow. The 691 deaths registered last week in these towns included 110 which were referred to the principal zymotic diseases, against 109 and 108 in the two preceding weeks; of these, 34 resulted from measles, 26 from whooping-cough, 16 from scarlet fever, 14 from "fever," 11 from diarrhœa, 9 from diphtheria, and not one from small-pox. These 110 deaths were equal to an annual rate of 4.6 per 1,000, which was more than double the average zymotic death-rate last week in the twenty-eight large English towns. The zymotic death-rates in the Scotch towns ranged from 0.0 and 0.8 in Paisley and Edinburgh, to 4.3 in Greenock, and 8.1 in Glasgow. The deaths from measles, which had been 27 and 36 in the two previous weeks, were 34 last week, of which as many as 30 were returned in Glasgow. The 26 fatal cases of whooping-cough showed a slight increase, and included 14 in Glasgow, and 3 in Edinburgh. The 16 deaths from scarlet-fever were all recorded in Glasgow. Of the 14 fatal cases of fever, 10 were returned in Glasgow, and 3 in Aberdeen. The 9 deaths from diphtheria showed a further marked decline from recent weekly numbers, and included 7 in Glasgow. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 7.2 per 1,000, against 4.8 in London. As many as 116, or 16.8 per cent., of the 691 deaths in these Scotch towns were uncertified.

Health of Irish Towns.—In the week ending December 27th, the number of deaths registered in the sixteen principal town districts of Ireland was 395. The average annual death-rate, represented by the deaths registered, was 23.9 per 1,000 of the population, the respective rates for the several districts being as follow, ranging in order from the lowest to the highest:—Galway, 3.4; Kilkenny, 4.2; Wexford, 4.3; Sligo, 4.8; Lisburn, 4.8; Londonderry, 5.3; Newry, 7.0; Lurgan, 10.3; Waterford, 11.6; Limerick, 13.5; Cork, 26.0; Dublin, 26.1; Belfast, 31.0; Drogheda, 33.8; Dundalk, 34.9; Armagh, 36.1. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 2.4 per 1,000, the rates varying from 0.0 in Limerick, Londonderry, Waterford, Galway, Newry, Kilkenny, Drogheda, Wexford, Dundalk, Sligo, and Lurgan, to 5.0 in Belfast, and 5.2 in Armagh. In the Dublin Registration District the deaths registered during the week amounted to 179. Nineteen deaths from zymotic diseases were registered in Dublin, being 4 under the number for the preceding week, and 13 under the average for the fifty-second week of the last ten years. They comprise 7 from scarlet-fever. Fifty-two deaths from diseases of the respiratory system (including 33 from bronchitis, 12 from pneumonia or inflammation of the lungs, and 3 from croup), were registered, being 9 over the number for the week ended 20th instant, but 12 under the average for the fifty-second week of the last ten years. The deaths of 10 children under five years of age (including 8 infants under one year old), were ascribed to convulsions. Six deaths were caused by apoplexy, 12 by other diseases of the brain and nervous system (exclusive of convulsions), and 13 by diseases of the circulatory system. Phthisis, or pulmonary consumption, caused 21 deaths; mesenteric disease, 3; and cancer, 3. Five accidental deaths, and 1 case of suicide were registered. In 30 cases there was "no medical attendant" during the last illness.

Health of Foreign Cities.—It appears, from statistics published in the Registrar-General's return for the week ending the 27th ult., that the death-rate was recently equal to 27.6 in Bombay, and 46.1 in Madras; cholera caused 9 deaths in Bombay and 5 in Madras, and "fever" was almost equally fatal in both cities. According to the most recently received weekly returns, the annual death-rate in twenty-one large European cities averaged 25.9 per 1,000, and was no less than 5.7 above the mean rate in the twenty-eight large English towns. The death-rate in St. Petersburg was equal to 25.6, and showed a further increase upon the rates in recent weeks; the 455 deaths included 10 from "fever," 6 from diphtheria, and 5 from small-pox. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 22.3, and ranged from 19.0 in Copenhagen to 27.9 in Stockholm; measles caused 16 deaths in Copenhagen, and both scarlet fever and diphtheria were somewhat fatally prevalent in Stockholm and Christiania. The death-rate in Paris was 23.6, showing a further decline from the high rates in recent weeks; the deaths included 41 from measles, 41 from diphtheria and croup, and 29 from typhoid fever. The 178 deaths in Brussels, including 3 from diphtheria and 2 from "fever," gave a rate of 22.4. The 31 deaths in Geneva, including 1 from diphtheria, were equal to a rate of 22.8. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the rate was 26.9, the rate ranging from 22.6 in The Hague to 29.2 in Amsterdam, where the deaths included 11 from scarlet fever and 7 from croup. The Registrar-General's table includes seven German and Austrian cities, in which the death-rate averaged 24.9, and ranged from 20.9 in Dresden to 28.0 in Buda-Pesth and 29.1 in Prague. Small-pox caused 6 deaths in Vienna, and diphtheria showed more or less fatal prevalence in all these cities, especially in Berlin and Hamburg. The death-rate was equal to 33.6 in Rome, and 40.3 in Venice, small-pox causing 7 and 8 deaths, respectively, in these two cities. In Madrid, the death-rate was 42.8; and the deaths included 19 from diphtheria and croup, 18 from measles, and 4 from small-pox. In Lisbon, the 97 deaths were equal to a rate of 24.8, and included 8 from small-pox and 3 from diphtheria. The mean recorded death-rate in four of the largest American cities did not exceed 23.7, the rates ranging from 17.6 in Baltimore to 27.1 in New York; typhoid fever caused 22 deaths in Philadelphia, and the mortality from diphtheria was excessive in each of these American cities.

THE CONDUCT OF A MEDICAL PRACTITIONER TOWARDS A MEDICAL OFFICER OF HEALTH.

Sir,—I am the medical officer of health for a large rural district, and in one of the villages of the district an epidemic of typhoid fever has lately appeared. I am glad to say that I have received every assistance from all the medical gentlemen here except one, and to him I wrote the following note on September 22nd last.

"Dear Sir,—It is necessary that some means should be afforded me of ascertaining what patients in your charge are suffering from infectious diseases. I need hardly remind you that it is my duty to inform myself of the existence of infectious disease, and to take immediate steps to ensure disinfection when necessary. Will you, in future, adopt some means of acquainting me of infectious cases under your care? and you will oblige, Yours sincerely, etc."

I received no reply to that note, neither did he acquaint me of any infectious cases he had under his care; but, on October 4th, I find that he wrote to the Local Government Board to "complain of my professional conduct," "the bad and dirty state of the village," and "that nothing was done." When, at the same time, I had visited the village ten times, had inspected nearly every house in the village, and their surroundings, had sent a long report to the Sanitary Board on September 30th, with the good result that the Inspector of Nuisances visited the place several times, the water of the well sent to be analysed, all the cesspools repaired which were necessary, and the well and drains are to be put in good order.

On October 17th another special report was sent to the Sanitary Board after a special inspection of the place had been made by the sanitary inspector and myself. The medical practitioner alluded to, charges me with interfering with his patients. I never did such a thing. I was asked by the mother to see her boy, and, after I examined him, I was told that Dr. P. "had seen him and given him medicine." I had nothing more to do with the case. When the mother asked me to see her boy, I was, at the time, inquiring of her if there were any new cases in the village.

Please express your opinion on this case in the Journal.—Yours sincerely
E. T. D.

*** If E. T. D. is desirous that medical practitioners in his district should undertake the duty of notifying cases of infectious disease, he should recommend his authorities to offer a suitable fee for such service. It is a matter for regret that a letter was sent to the Local Government Board by one medical man complaining of the conduct of another medical man without any previous communication between them on the subject of the complaint. We are glad to find E. T. D. disclaims the action which we condemned in the Journal of November 8th.

MEDICAL NEWS.

Royal College of Surgeons in Ireland.—At a meeting of the Court of Examiners, held on December 8th and following days, the undernamed gentlemen, having passed their final examinations for the Letters Testimonial, and having taken the declaration, were admitted Licentiates of the College.

A. E. T. Barcroft, P. J. Barry, A. Blake, H. Breen, E. Browne, T. D. Browne, A. Butler, W. J. Darby, V. H. W. Davoren, I. P. Doyle, J. Emerson, J. Esmond, H. J. Flanagan, W. F. Fullam, J. W. Gallagher, J. J. Gaynor, G. E. Greene, J. Halpin, E. Howe, F. K. Blake, J. E. Lanagan, W. H. Luggar, A. J. Luther, J. D. M'Feely, J. M'Ginness, H. C. Mooney, J. J. Moore, B. Murray, J. Normile, M. P. O'Donovan, P. A. Peil, J. E. Riddle, A. J. S. Roe, J. C. Sellers, G. Stoker, H. Stoker, D. D. Tate, R. C. Thacker, and R. H. Vereker.

Fifteen were stopped.

University of Dublin.—At the Winter Commencements, held on Thursday, December 18th, 1884, in the Examination Hall of Trinity College, the following Degrees in Medicine and Surgery were conferred by the University Caput in the presence of the Senate.

Bachelors in Surgery.—B. G. Frith, W. Hallaran, F. J. Harpur, W. Kiddle, F. J. G. King, T. Smith.

Bachelors in Medicine.—A. J. Boyd, J. B. Buchanan, T. N. Flood, B. G. Frith, R. R. W. Gilmore, W. Hallaran, F. J. Harpur, W. Kiddle, F. J. G. King, W. R. Rice, R. H. Scovell, J. J. C. Watson.
Master in Surgery.—J. Chute (*stip. cond.*)
Doctors in Medicine.—F. R. Cassidi, J. W. Gowland, H. Grey-Edwards, E. F. Moore, G. F. Reid, G. Scriven, T. Smith.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 18th, 1884.

Armstrong, Leonard Henry, Newcastle-upon-Tyne College of Medicine.
Barnett, Lawrence, University College.
Bradbury, Harvey, London Hospital.
Gaston, Harry Percival, Charing Cross Hospital.
Going, Joseph Andrew, London Hospital.
Good, John, Charing Cross Hospital.
Harries, John Frail, King's College Hospital.
Hazell, Robert William, London Hospital.
Meller, Charles Booth, St. Bartholomew's Hospital.
Morris, Colin Dwight, London Hospital.
Phillips, William Edward Picton, Guy's Hospital.
Reece, Richard James, St. Bartholomew's Hespital.
Volckman, Bernard, London Hospital.
Wild, Robert Briggs, Owens College, Manchester.

The following gentlemen also passed on Tuesday, December 23rd, 1884.

Bates, George Tweedie, University College.
Caswell, George William, University College.
Fowler, Walter, Guy's Hospital.
Hildyard, Robert Loxham, King's College.
Jones-Humphreys, Yarry Meyrick, Guy's Hospital, and Liverpool Royal Infirmary.
Lavies, Harry Brandreth, King's College.
Leggatt, Gerard Stedman, St. Bartholomew's Hospital.
Monk, Henry George Hawkins, King's College.
Selway, Leonard, Guy's Hospital.
Stedman, Frederick Osmund, Charing Cross Hospital.
Stubbs, Percy Bedford Travers, St. Bartholomew's Hospital.

The following gentlemen also on the same day passed their Primary Professional Examination.

Gifford, George Taylor, King's College.
Smith, Samuel Edwin Lambert, General Hospital, Birmingham.

MEDICAL VACANCIES.

The following vacancies are announced.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications to the Chairman of the Medical Committee, by January 5th.

BOLTON INFIRMARY AND DISPENSARY.—Senior House-Surgeon. Salary, £120 per annum. Applications to Mr. Kevan, 12, Acresfield, Bolton, by January 10th.

BOROUGH OF SHEFFIELD.—Medical Officer of Health. Salary, £500 per annum. Applications by January 7th.

BRISTOL GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £50 per annum. Applications by January 10th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Clinical Assistant. Applications by January 8th.

CRICKHOWELL UNION.—District Medical Officer, Medical Officer of Health, and Public Vaccinator. Applications by January 10th.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—Assistant House-Surgeon. Salary, £50 per annum. Applications by January 3rd.

GENERAL INFIRMARY AT GLOUCESTER, AND THE GLOUCESTERSHIRE EYE INSTITUTION.—Physician. Applications by February 18th.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Salary, £80 per annum. Applications by January 23rd.

KIDDERMINSTER FRIENDLY SOCIETIES MEDICAL ASSOCIATION.—Assistant Medical Officer. Applications to Dr. J. W. Measures, 4, Lion Street.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, Soho Square.—Honorary Assistant Physician. Applications to the Secretary.

NORTHERN INFIRMARY, Inverness.—House-Surgeon and Apothecary. Salary £50 per annum. Applications to Kenneth MacDonald, Esq., Town Clerk, by January 17th.

PARISH OF LOCHS, near Stornoway.—Medical Officer. Salary, £150 per annum. Applications to the Inspector of Poor by January 10th.

PORTUMNA UNION.—Medical Officer, Portumna Dispensary. Salary, £112 10s. per annum. Applications to William Eyre, The Castle, Eyrecourt, by January 13th.

QUEEN'S HOSPITAL, Birmingham.—Casualty Surgeon. Applications by January 24th.

QUEEN'S HOSPITAL, Birmingham.—Resident Physician. Salary, £50 per annum. Applications by January 24th.

RADCLIFFE INFIRMARY, Oxford.—Honorary Physician. Applications by January 14th.

SUSSEX COUNTY LUNATIC ASYLUM, Hayward's Heath.—Junior Assistant Medical Officer. Salary, £100 per annum. Applications to Dr. Williams.

THREE TOWNS FRIENDLY SOCIETIES MEDICAL INSTITUTION.—Third Medical Officer for six months. Salary, £150 per annum. Applications to Mr. W. Curtis, 69, Charlotte Street, Morice Town, Devonport.

UNIVERSITY OF OXFORD.—Lecturer in Human Anatomy. Salary, £300. Applications to the Secretary of the Common University Fund, New College, Oxford, not later than February 1st, 1885.

WESTERN OPHTHALMIC HOSPITAL, Marylebone Road.—Assistant Surgeon. Applications by January 17th.

WHITECHAPEL UNION.—Assistant Medical Officer. Salary, £150 per annum. Applications by January 5th.

MEDICAL APPOINTMENTS.

ACKERY, John, M.R.C.S., L.D.S., appointed Assistant Dental Surgeon to St. Bartholomew's Hospital.

ADDENBROOKE, E. H., M.R.C.S., L.S.A., appointed Medical Officer of Health for the District of Kidderminster.

BOOBBYER, Philip, M.R.C.S.Eng., appointed Medical Officer of Health to the Basford Rural Sanitary District.

BUSH, J. Paul, M.R.C.S., appointed Surgeon to the Bristol Police Force, *vice* F. R. Cross, M.B., F.R.C.S., resigned.

CLUBBE, W. H., appointed Consulting Surgeon to the Lowestoft Hospital.

COLLINS, William Job, M.D., B.S., B.Sc.Lond., F.R.C.S.Eng., appointed Ophthalmic Surgeon to the North-West London Hospital.

DACRE, John, L.R.C.P.Lond., M.R.C.S., appointed House-Physician to the Bristol Royal Infirmary, *vice* J. F. Evans, M.B., promoted.

ELLIOTT, W. T., L.D.S.Ed. and Dubl., F.C.S., appointed Assistant Dental Surgeon to Birmingham Dental Hospital.

EVANS, J. Fenton, M.B., C.M., appointed House-Surgeon and Senior Resident Medical Officer to the Bristol Royal Infirmary, *vice* J. Paul Bush, M.R.C.S., resigned.

EWART, C. THEODORE, M.B., M.Ch., appointed Assistant Medical Officer to Leavesden Asylum, *vice* Lloyd Francis, M.B.(Oxon.), M.R.C.S.Eng., resigned.

HAWKINS, C. F., M.R.C.S.Eng., L.S.A.Lond., appointed Public Vaccinator for the District of Clifton, Bristol, *vice* L. Matthews Griffiths, M.R.C.S.Eng., resigned.

HUTCHINSON, Jonathan, junior, F.R.C.S., appointed Surgical Registrar to the London Hospital.

LIPTROT, A. Bailey, M.R.C.S., L.R.C.P.Ed., appointed House-Surgeon to the Liverpool Eye and Ear Infirmary.

MCMURRAY, W., M.D., appointed Surgeon to Walgett Hospital, N.S.W., *vice* R. Wilson, resigned.

MILLER, Hugh, M.R.C.S., L.R.C.P.Lond., appointed House Surgeon to the Huntingdon County Hospital.

MURRAY H. Montague, M.D., M.R.C.P., appointed Assistant Physician to, and Lecturer on Practical Medicine at, the Charing Cross Hospital.

POLAND, John, F.R.C.S.Eng., appointed Surgeon to the Miller Memorial Hospital, Greenwich.

RAY, James, Esq., appointed Surgeon to the Lowestoft Hospital.

THURSTON, Hugh C., M.R.C.S., L.R.C.P.Lond., appointed Assistant Resident Medical Officer and Pathologist to the Bristol Royal Infirmary, *vice* J. Dacre, L.R.C.P., M.R.C.S., promoted.

TIRARD, Nestor I. C., M.D., appointed Professor of Materia Medica in King's College, and Assistant-Physician to King's College Hospital, *vice* E. Buchanan Baxter, M.D., resigned on account of ill health.

WHITCOMBE, P. Percival, M.R.C.S., L.S.A., appointed Resident Obstetric Officer to St. Mary's Hospital, London.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTHS.

BURNHAM.—At 157, Simcox Street, Toronto, Canada, on Thursday, November 27th, the wife of Dr. Herbert Burnham, of a daughter.

WELLS.—On December 20th, 1884, at 13, College Crescent, Belsize Park, N.W., the wife of Charles Wells, M.D., M.R.C.S., etc., of a son.

WHITBY.—On December 29th, at Summerfield, Birmingham, the wife of Edward Vickers Whitby, M.R.C.S.Eng., of a son.

MARRIAGE.

ASHWORTH—SMYTHE.—On December 23rd, 1884, at the parish church, Hunstanton, J. Henry Ashworth, F.F.P.S.Glas., and M.R.C.P.Ed., of Halstead, Essex, to Kate, younger daughter of the late Henry Smythe, M.D., of King's Lynn.

DEATH.

LEIGH.—December 20th, at Llangabon, South Wales, John Leigh, J.P., F.R.C.S., Eng., aged 65 years, son of the late Rev. William Leigh, vicar of Eglwydilan and Llangabon.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. The Lettsomian Lectures will be delivered by Dr. T. Lauder Brunton. Subject—Digestive Disorders: their Consequences, and Treatment. Lecture I.—Digestion and Indigestion; Strong and Weak Digestion; Foods; A Typical Meal; Digestion of Foods; Absorption of Foods; Cookery a Fine Art; Courses at Meals; Stimulants; Gastric Indigestion; Intestinal Indigestion; Biliousness.

TUESDAY.—Pathological Society of London, 8.30 P.M. Mr. Lane: Fracture of First Rib alone, and its Causation. Mr. Godlee: Extensive Fracture of the Skull in an Infant, with Effusion of Serous Fluid. Mr. Pepper: A Case of Malignant Disease of the Spermatic Cord. Dr. Norman Moore: 1. Congenital Disease of Heart; 2. Hæmorrhage into the Substance of the Liver (card). Mr. Lockwood: Rudimentary Abdominal Ribs. Dr. Silcock: Tubercular Disease of the Epididymis (card). Dr. Charlewood Turner: 1. Congenital Stenosis of Œsophagus; 2. Aneurysm of the Aorta opening into

the Œsophagus (card); 3. Aneurysm of Sinus of Valsalva, with Abnormal Coronary Arteries. Dr. Herringham: Two Specimens of Calcareous Change in the Spinal Membrane (card). Mr. Poland: Synostosis of Foot (card). At 9.30, Election of Officers and Council for 1885.—Society for the Study and Cure of Inebriety, 4 P.M. Mr. Lennox Browne: On Inebriety as affecting the Vocal and Respiratory Organs. Communication from Dr. Joseph Parrish, President of the American Association for the Cure of Inebriety.

THURSDAY.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Living and card specimens at 8 P.M. Mr. F. R. Cross: 1. Case of Congenital Irideremia; 2. Cystic Tumour of Iris; 3. Cholesterine Crystals in the Vitreous. Mr. E Nettleship: Total Detachment of Retina of long standing, with Retention of some Sight. Dr. W. A. Bradley: Irido-cyclitis, with Hyphæma and enormously deep Antechamber (sequel of case shown at last meeting). Mr. G. Hartridge: Opaque Nerve-Fibres. Mr. W. H. Jessop: Tubercle-Bacilli in Blood-Serum (cultivated) and in Iris of Rabbit (after inoculation). Ophthalmoscopes will be exhibited by Messrs. Couper, Gunn, Morton, G. L. Johnson, etc. Mr. W. H. Jessop: On the Cucanised Eye. Discussion on the Action of Cucaine (adjourned from last meeting). Dr. W. A. Brailey: On the Condition of the Ciliary Nerves in various Eye-Diseases, with Microscopical Specimens. Mr. J. Couper: An Improved Ophthalmoscope. Mr. A. S. Morton: An Improved Student's Ophthalmoscope. Report of Committee on the Influence of the Vapours of Bisulphide of Carbon and of Chloride of Sulphur on the Vision and General Health.

FRIDAY.—Clinical Society of London, 8.30 P.M. Annual general meeting for election of officers and council. Dr. Hale White: Case illustrating Lesions of the Frontal Lobe with very few Symptoms. Dr. Pringle: A Case of Recurrent Hæmatemesis, with Urticaria. Mr. B. Roth: A Case of Hydrocephalus in a Boy aged 16, who has never walked (living specimen).

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

ELEMENTARY PROFESSIONAL EXAMINATION.

SIR,—I have been requested by a patient of mine to undertake to instruct her son in dispensing and surgery work, with some assistance in the subjects for the preliminary examination. I should be much obliged if you would let me know what would be a fair remuneration for so doing. The hours he would be in the surgery every day would be about four.—Yours sincerely, F. M.

*** We consider that our correspondent would be entitled to a fee of £31 10s. for his superintendence, and instruction in pharmacy, dispensing, and the rudiments of anatomy. Instruction in dispensing and the doses of drugs and chemicals is one of the most important, as it is now the most neglected part of a medical student's education.

HOSPITALS FOR MORPHINISM.

SIR,—Will you kindly favour me with a reply to the following questions? 1. Are there any hospitals in England, or on the Continent, devoted solely to the cure of chronic morphinism; if so, where? 2. What are the best books on the treatment of chronic morphinism? Thanking you in anticipation,—Believe me, yours faithfully, W. M. H. E.

*** We have made extended inquiries on the Continent, and can hear of no institution there for the special treatment of morphinism. There is none in England. In America cases of opium and morphia inebriety are received in the same way as are cases of alcohol inebriety. See an article by Obersteiner, on Morphinism, in *Brain*, for 1881 or thereabouts.

OLEATE OF COPPER VERSUS HYPOSULPHITE OF SODA IN RINGWORM.

SIR,—Under this heading, in the JOURNAL of December 13th, Dr. Liveing has somewhat hastily condemned what I and others have found to be a very valuable remedy, almost a specific, for ringworm.

Dr. Liveing used the remedy, he says, "in the form of a soft ointment," and "it was fairly tried for twelve months," but "the result did not come up to his expectation."

In "the form of a soft ointment" is a slightly indefinite description of the vehicle employed, and "fairly tried" may mean anything or nothing. Judging by the statement that the "patients' friends objected to the brilliancy of the colour of the ointment" (when applied to the head, I presume), I am forced to one of the following conclusions: 1, the oleate of copper was not in true solution in the "soft ointment;" or 2, it could scarcely have been properly applied by the patients' friends.

1. When oleate of copper is dissolved by being stirred into melted lard, it is capable, on proper application, of being almost entirely absorbed by the scalp.

2. When a small (but sufficient) quantity of the solution in a fatty vehicle has been thoroughly rubbed into the scalp, the colour of the application is practically imperceptible.

3. With all deference to Dr. Liveing's more extended experience, I would state that in my last forty cases of ringworm, the oleate of copper treatment has been uniformly successful, often when other remedies had been persistently but ineffectually tried.

4. With oleate of copper, epilation is hardly ever necessary.

Then, with regard to Dr. Liveing's hyposulphite of soda lotion (for which he has given us no formula), may I ask how, unless combined with glycerin, he expects it to reach the disease at the roots of the hairs? In what respect is it preferable to a sulphurous acid lotion? Does its use entail epilation?—I am, sir, yours faithfully, ARTHUR HARRIES, M.D.,

Assistant-Physician to St. John's Hospital for Diseases of the Skin.

202, Tufnell Park Road, N.

TREATMENT OF SEVERE COUGH.

SIR,—I see, in a recent number of the BRITISH MEDICAL JOURNAL, a short account of a paper read by Dr. Allan, at the meeting of the Leeds and West Riding Medico-Chirurgical Society, on the treatment of chest-complaints accompanied by severe cough. Would Dr. Allan have any objection to tell me the exact prescription he used, with the dose of ergot; also if his cases were of chronic bronchitis, if not, does he think the drug would be serviceable in such cases? I have at present under my care an old woman, aged 60, who has suffered from bronchitis for the last sixteen years. I have tried all the drugs I could think of, ammoniacum, etc., but nothing seems to relieve the severe cough she has. I am very anxious about the case, as should my patient die, she would be a grievous loss to those depending on her. Apologising for troubling you and Dr. Allan,—I am, etc., J. C. H.

PICRIC ACID AND POTASH TEST FOR SUGAR.

IN Dr. George Johnson's letter on the above subject, published in the JOURNAL of December 27th, the following printer's errors occurred. Par. 2. *For* "Mr. Gray's ammonia-cupric method," *read* "Dr. Pavy's ammonio-cupric method." Par. 4. *For* "or two grains to the ounce aqueous solution," *read* "a two grains to the ounce aqueous solution."

Treatment of Snake-Bite.

Numerous so-called remedies for snake-bite have at various times been put forward, both in this country and elsewhere; but, in spite of everything that has been said and done, we appear to be as far from the desired goal as ever. Want of success has, however, not deterred yet another claimant to the honour of the discovery of an effectual cure from coming forward to state his views; and as the details of the remedy are published in this country under official sanction, the matter is at least worth inquiry on the off chance of there being some ground for the claims put forward. The particulars of this new treatment of snake-bitten persons are contained in a communication from the Protector of Immigrants at St. Lucia, who vouches for the efficacy of the measures employed in the cases of several coolies who were bitten by poisonous snakes, and who completely recovered. With regard to the treatment, we are told as follows.

"If the patient seem under the influence of fear, a stiff rousing grog is given, and encouraging words are spoken. Then this draught is administered. Of the strongest ammonia, 10 to 20 drops; of therinque, one teaspoonful; of claret, one wineglassful. If the therinque is in the form of a powder, less than a teaspoonful. This draught and this treatment of the wound are repeated one hour afterwards, and again at the interval of another hour. At every draught the wound is dressed and plastered. In the great majority of cases, the cure is completed by the third draught and dressing. But if it be a very bad and stubborn case, which will now be manifest, the draught should be given and the dressing applied every half-hour. The bad symptoms are huge swelling, great thirst, and severe vomiting. For the thirst, give a warm tea of Peruvian bark; or, if the bark be not at hand, one of quinine, which may be repeated For the swelling, rub the affected part with pickle (from beef or pork), then wrap with warm pickle. If this fail to check or reduce the swelling, apply a warm poultice of oil-cake and salt; and, for the excessive vomiting, let the patient chew and swallow a spoonful of Guinea pepper.

"During the treatment described above, the patient must on no account be allowed to sleep, and nothing must be given to him to eat or drink until the poison is mastered. Damp clothes should be immediately removed, and the patient rubbed dry; and, if the weather be damp or chilly, a fire should be kept in the room."

Lancing the Gums.

Sir,—It is not my purpose to try and convince those who dissent from my recently expressed ideas on the subject of lancing the gums, even if such were possible, but I should like to write a few lines in answer to the three "free lancers" who honoured me with a reply.

Dr. Walford is surprised that there can be two opinions as to the propriety of scarifying the gums of infants while teething. His acquaintance with the literature of the subject must indeed be very limited.

Mr. Duncan's ingenuity in following up the analogy which I suggested between dentition and parturition, is very smart, in suggesting a comparison between the "tooth and the fœtus," on the one hand, and between "the gum-lancet, and the long or short forceps," on the other. This close analogy is, however, not what I meant to depict, and is, I think, rather overstrained. Mr. Duncan thinks I am "partly right" in my analogy. I must say, in this respect, I think he is "wholly wrong."

Mr. Paramore quotes some personal cases of children frantic with agony (? colic or passion), in which the gum-lancet worked wonders. I could, but will not, quote numberless cases, where other treatment, such as bromide, aperients, etc., gave equally good results; and I have powerfully impressed on my mind a case—that of my own child—which at seven months commenced twitching its limbs and facial muscles; I called in the advice of a colleague, a highly qualified and experienced practitioner, who at once suggested lancing the gums; I consented, and they were freely incised. The child got rapidly worse, and died in a few hours. The treatment in this case did, at least, no good, let us hope no harm. Like Mr. Owen, I shall continue to carry the instrument in my waistcoat-pocket (for I was brought up on the gum-lancet) and use it, if the physical signs so indicate; but, in my experience, these circumstances are not so frequently necessary as your correspondents seem to think.

Mr. Paramore says I am under a misapprehension about the practice of lancing the gums being in disfavour on the Continent and in America. Allow me, sir, in conclusion, to quote a short paragraph from the fourth edition of the standard American treatise on the Diseases of Infancy, by Dr. Lewis Smith, Clinical Professor of Diseases of Children at New York.

"The gum-lancet is now much less frequently employed than formerly. It is used more by the ignorant practitioner, who is deficient in the ability to diagnosticate obscure diseases, than by one of intelligence, who can discern more clearly the true pathological state. Its use is more frequent in some countries, as England, under the teaching of great names, than in others, as France, where the highest authorities, as Rilliet and Barthez, discountenance it."

With these sentiments I entirely concur.—Yours truly,

Liverpool. Boyd Joll, M.B.Lond.

Mercantile Marine Surgeons.

Sir,—I read with much pleasure the letter which appeared in your Journal of December 6th from Surgeon-Major Evatt. In it he suggests a new channel by which the status of the mercantile marine surgeons can be improved, making them more independent to carry out the necessary sanitary laws in the emigrant services, which so justly commends itself to our early consideration. Many letters have from time to time appeared in your influential Journal on this subject, but I do not remember any in which an association, with branches in the leading ports, was ever proposed. This idea, to my mind, appears certainly feasible.

During the past, little attention has been paid to ship-sanitation in England, possibly in some measure owing to the small power possessed by medical officers to ships. Surely the dreadful havoc which cholera has made in some of the seaport towns in Southern Europe during the past year should be a warning to civilised England, and stimulate the authorities that be to act promptly in this all important matter.

With reference to the formation of a medical staff in connection with the Royal Naval Reserve, I am sure, if it were properly represented to Government, they would grant commissions to the mercantile marine surgeons in the same way as the volunteers are supplied from the ranks of the general practitioners of England.

These subjects are so full of importance, not only to a large branch of the profession, but also to the community generally, that I think this ought to be taken up by the British Medical Association.—I remain, sir, yours faithfully,

Chesterfield. J. Goodwin Shea, L.R.C.S.I., L.K.Q.C.P.I., Late Surgeon American Line.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. A. H. Benson, Dublin; Our Glasgow Correspondent; Mr. Larner, London; Mr. C. F. Hawkins, Clifton; Mr. E. Vickers Whitby, Birmingham; Dr. Styrap, Shrewsbury; Mr. W. M. Shirrock, London; Mr. G. A. Rae, Devonport; Dr. Theodore Williams, London; Mr. H. M. Baylis, Southport; Dr. P. Maury Deas, Exeter; The Secretary of the Mahomed Memorial Fund; Mr. Louis King, Bath; Professor G. Rummo, Naples; Mr. J. Campbell, Greenock; Mr. R. McDougall, Sydney; Mr. R. J. Bryden, Gravesend: Dr. A. S. Underhill, Tipton; Dr. J. W. Hunt, London; Sir W. Guyer Hunter, London; Dr. Alder Smith, London; Mr. J. Gopal, Lahore; The Secretary of the Pathological Society, London; The Secretary of the Clinical Society, London; Mr. H. Lewis Jones, Chatham; Mr. C. Bernard Voisey, London; Our Birmingham Correspondent; Dr. Argyll Robertson, Edinburgh; Mr. T. Sutton Townsend, London; Mr. Edmund Johnson, London; Mr. Enoch Snell, Nottingham; Dr. Cosgrave, Dublin; Dr. A. Newsholme, London; Mr. W. T. Elliott, Birmingham; Mr. John Hannay, Shrewsbury; Mr. J. W. Taylor, Birmingham; Mr. W. S. Stables, Bath; M. O. H.; Mr. F. Dodgson, Cockermouth; Mr. Ralph Stockman, Edinburgh; Mr. Simeon Snell, Sheffield; Dr. E. Casey, Windsor; Our Liverpool Correspondent; Dr. Maunsell, Bath; Mr. C. S. Loch, London; Dr. R. J. McCormack, Curragh; Mr. C. W. Purves, Nottingham; Mr. James Startin, London; Mr. C. J. Booth, London; Mr. J. T. Paterson, London; Our Belfast Correspondent; Our Dublin Correspondent; Dr. Stevenson, London; Dr. H. Campbell Pope, London; Mr. H. Seymour Branfoot, Brighton; Mr. C. H. Hill, London; Mr. S. A. Tidey, London; Dr. R. Jeffreys, Chesterfield; Mr. C. B. Meller, Newport; Dr. S. Warren, Rathmines: Mr. A. Fore, Dublin; Mr. H. L. Jones, Chatham; Mr. C. L. Drew, Bournemouth; Mr. J. G. Blackman, Portsmouth; Mr. W. Williams, Abergele; Mr. J. A. Shaw, London; Mr. J. Ackery, London; Dr. W. W. Ireland, Prestonpans; Dr. P. Horrocks, London; Mr. E. Garraway, Faversham; Our Manchester Correspondent; Dr. Sieveking, London; Mr. H. T. Wharton, London; Mrs. Sidney, London; Mr. D. Archibald, St. Andrew's; Mr. J. Paul Bush, Bristol; The Secretary of the London Hospital; Mr. Boyd Joll, Liverpool; Dr. Heywood Smith, London; Dr. S. Wilks, London; Mr. A. G. Osborne, Dover; The Secretary of the University of Cambridge; Mr. A. W. Wallace, Parsonstown, Ireland; Mr. J. R. Lunn, London; Mr. R. B. Wyld, Withington; Mr. A. B. Lipptrot, Liverpool; Our Aberdeen Correspondent; Our Berlin Correspondent; Our Edinburgh Correspondent; Mr. H. C. Goldsmith, Southsea; Mr. J. Poland, London; Mr. J. Dixon, Dorking; Dr. W. J. Collins, London; Mr. W. M. Sturrock, London; Mr. E. Kennedy, Gorton; Dr. J. Althaus, London; Dr. Dakin, London; Dr. Moore, Dublin; Mr. J. V. Fitzgerald, Birmingham; Mr. F. A. Eaton, London; Mr. J. Titley, Brigg; The Clerk of the Hants County Asylum, Fareham; Dr. F. S. Palmer, East Sheen; Dr. G. Johnson, London, etc.

BOOKS, etc., RECEIVED.

The Anatomy of the Horse; A Dissection Guide. By A. M'Fadyen, M.B., C.M. Edinburgh and London: W. and A. K. Johnston. 1884.

Nature's Hygiene; A Systematic Manual of Natural Hygiene. By C. T. Kingzett, F.I.C., F.C.S. London: Ballière, Tyndall and Cox. 1884.

The Helper Preacher; Sketches and Incidents of Medical Mission Work. By George Saunders, M.D., C.B. London: J. F. Shaw and Co. 1884.

The Pharmacopœia of the British Hospital for Diseases of the Skin. By B. Squire, M.B. London: J. and A. Churchill. 1884.

Helps to Health; The Habitation, The Nursery, The Schoolroom, and The Person, With a Chapter on Pleasure and Health-Resorts. By Henry C. Burdett. London: Kegan Paul, Trench and Co. 1884.

The Encyclopædic Dictionary. Part XII. London: Cassell and Co. 1884.

The Ear; Its Anatomy, Physiology, and Diseases. By C. H. Burnett, A.M., M.D. London: J. and A. Churchill.

Practical Pathology. By G. Sims Woodhead, M.D., F.R.C.P. Edinburgh: Y. J. Pentland.

Transactions of the Sanitary Institute of Great Britain; Congress at Glasgow. London: E. Stanford.

The Calendar of the University College of South Wales and Monmouthshire. Second Session, 1884-5. Cardiff: D. Owen and Co. 1884.

Clinical Lectures. By R. Quain, F.R.S. With 40 Plates. London: Smith, Elder and Co. 1884.

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LETTSOMIAN LECTURES
ON
DISORDERS OF DIGESTION: THEIR CONSEQUENCES AND TREATMENT.

Delivered before the Medical Society of London.

By T. LAUDER BRUNTON, M.D., F.R.C.P., F.R.S.,
Assistant-Physician to St. Bartholomew's Hospital.

Mr. President and Gentlemen,—I thank you most sincerely for the honour you have done me in appointing me to deliver the Lettsomian Lectures before you this year. The subject I have chosen is one of much practical interest, but it is of such extent that, to deal with it completely, in a course of three lectures, is obviously impossible. I have already discussed the physiological processes of digestion at considerable length elsewhere,[1] and I have therefore less hesitation in passing over those which are well known, with a few general remarks, and dwelling at greater length upon some points which are not so fully described in text-books, although they have important bearings on the practice of medicine.

Man has been defined as a cooking animal. This definition may not be absolutely correct, and there may be some of the lowest races unacquainted with methods of cooking, although other characteristics entitle them to be called men. Yet the definition is, in the main, true; and the fact that man cooks his food, while the lower animals eat theirs raw, is one of the most marked distinctions between him and them. The practice of cooking was familiar to man at a very early stage indeed of his history. Long, long before the historic epoch, when man's only implements consisted of broken flints, he cooked his food by roasting; and the charred remains of bones, which he had roasted in order to enjoy the savoury marrow, have been found in caves, along with fragments of the skeletons of the cave-bear, woolly rhinoceros, and other animals long ago extinct. There is little doubt that roasting was the first method of cooking adopted, for no implements were required, beyond a piece of pointed stick, to hold the food in front of the fire. Boiling is a considerably more complex process, and requires a vessel in which to hold water. This vessel need not necessarily stand fire, because the simplest method of boiling, and the one which was probably first adopted, appears to be that of heating the water by putting red hot stones into it, until the temperature is sufficiently raised. But after man learned to make pottery, and to bake it in the fire, so that heat could be applied from the outside without the vessel cracking, the simpler plan of boiling the water by putting the earthen pot upon the fire, would be sure to be followed; for man, as a rule, likes to save himself trouble, and usually takes what seems to him to be the easiest plan.

Amongst the various pots of earthenware, early man must have noted the same differences that we do now. We see some pots of thoroughly baked earthenware so hard and strong as to resemble stone; and, indeed, in the case of a Wedgwood mortar, the earthenware is more resistant than almost any stone. Other pots we see of fine china, thin and fragile, which must be handled with the greatest care, lest they break under our fingers. Yet both vessels are equally whole. Turn them round and round, and scan them most minutely, and yet you will find no flaw in either the one or the other. There is no difference between their wholeness, or wholth, or, as we now write it, health; yet the wholeness or health of one vessel is strong, and the wholeness or health of the other is weak. The one may be put to all sorts of purposes, subjected to all sorts of treatment, meet with all sorts of rough usage, and yet it will remain whole or healthy. The other remains whole only so long as it is treated with the greatest care; the slightest rough usage will crack or break it, and then its wholeness or health is gone. Our early forefathers, when framing a language by which to communicate with one another, had evidently been struck by an analogy between the implements they used in cookery, hunting, or warfare—those implements by which they maintained the life of their bodies, and those bodies themselves; for they applied the word health to signify soundness in both. At the present day, we sometimes forget the derivation of our word health; but still we are accustomed to qualify it by the adjectives strong and weak, in much the same way as one might speak of the soundness of an earthenware pot. By strong health, we mean a soundness of body which, like that of a Wedgwood mortar, will enable a person possessing it to go through all sorts of work, be subjected to all sorts of usage, and yet remain sound or healthy. By weak health, we mean a condition of body wherein all the functions go on perfectly so long as external circumstances are favourable, in which the person is fitted to do certain work, and will do it perfectly, provided the calls made upon him be not too great for his strength; but, if he be subjected to any extraordinary exertion, any unusual exposure, or rough usage of any kind, the feeble organism at once breaks down, and is damaged or destroyed. Not unfrequently we find that a strong earthenware pot, subjected to very rough usage, is cracked; but the crack, instead of completely destroying it, reduces it only from a condition of strength to weakness; so that it remains to a certain extent whole, but is now weak; so that, unless treated with care, it will readily break, although, if tenderly handled, it may continue useful for a long time. We find a similar condition also in man; and what was originally strong health in a person may be so weakened by exposure, overwork, or the consequences of acute disease, that the health becomes permanently weak, instead of strong.

Health in man, as in other animals, depends upon the proper performance of all the functions. These functions may be shortly said to be three: (1) tissue-change, (2) removal of waste, (3) supply of new material. For the activity of man, like the heat of the fire by which he cooks his food, is maintained by combustion; and just as the fire may be prevented from burning brightly by improper disposition of the fuel, or imperfect supply of air, and as it will certainly go out if fresh fuel be not supplied, and may be choked by its own ashes, so man's activity may be lessened by imperfect tissue-change, and may be put an end to by an insufficient supply of new material and imperfect removal of waste products. It is with the supply of new material that we have to concern ourselves chiefly in the present lectures, although it is so closely associated with tissue-change and removal of waste, that we shall be obliged to consider these also to a certain extent. The old proverb, "There is many a slip 'twixt the cup and the lip," shows how clearly our forefathers recognised that neither food nor drink was available for the wants of the body until it had actually been taken. Our knowledge carries us a step further than theirs; but even yet we are very apt to forget that both food and drink are useless for the wants of the organism, so long as they are simply in the intestinal canal. The body may be roughly compared to a cylindrical box, through the centre of which runs a tube, open at both ends, but not communicating with the cavity of the box. Here, it is evident, that anything put into the tube remains as much outside the box as if it were laid against the outer surface. If the tube be of a different material from the outer wall of the box—if, for example, it be more pervious, liquids, or finely divided powders, might pass more readily from the tube through it into the box, than they would from the outer wall; but so long as they did not pass through in this way, they would remain, to all intents and purposes, outside the box; and this is the case with the intestinal tube.

Food and drink, when swallowed, are still outside the body, and in certain circumstances remain so just as much as if they had been laid against the skin. For we sometimes find that food which has been swallowed passes through the intestine, and is evacuated almost or entirely unchanged. It has simply fallen, so to speak, from the mouth to the anus, much as it might have fallen from the neck to the feet, if it had been laid against the skin. There is one great difference between the skin and the intestine, namely, that the nerves of the intestinal tract are more sensitive than those of the skin; and in passing over the mucous membrane the substance may have exercised a greater action on the body, reflexly through the nerves, than it would have done in passing over the skin; but otherwise the condition in the two cases is much the same. The epidermis also, which covers the skin, is much harder and less permeable than the epithelial covering of the mucous membrane lining the alimentary tract; and, therefore, liquids applied to the skin remain unabsorbed, while usually they pass pretty readily into the body from the alimentary canal. Solids in a very minute state of division, and especially when mixed with fat, may be absorbed by the skin, as we see in the case of inunction with mercurial ointment, where the minutely divided globules of mercury pass through the skin, are absorbed into the circulation, and are carried by the blood to the various parts of the body. It is most probable, although authorities are not completely agreed upon the subject, that solid particles in a minute state of subdivision are also absorbed by the mucous membrane of the alimentary canal; but the

[1] "Digestion and Secretion," forming Part III of Sanderson's *Handbook for the Physiological Laboratory*, 1873. London: Churchill. This Part has been revised for the French translation by Professor Moquin-Tandon, 1884. Paris: Felix Alcan.

greatest part of the food is absorbed, not in a state of simple minute subdivision, but in a state of solution.

In the alimentary tract, we have provision made both for solution and for absorption, and those two processes are included under the term digestion. Digestion, like the health generally, may be strong or weak. Some persons are able to take with impunity quantities of fat, pastry, cheese, raw apples, and various kinds of indigestible food, which in other persons would cause discomfort, pain, vomiting, or diarrhœa. Some are able to take meals at all sorts of irregular hours, to do hard work for a whole day without food, and then consume an enormous dinner, to go through all sorts of anxiety without the least diminution of appetite, and to drink all sorts of strong liquors without appearing to be any the worse. Others, again, suffer if their meals are not served exactly at the usual times; a little extra work or a little anxiety will either destroy their appetite or impair their digestive power; a meal somewhat too hearty, or the slightest indulgence in wine or alcohol, is sure to be followed by unpleasant consequences. Yet even those persons may go on for months and years with comfort, digesting their food perfectly, provided only that they take care to fulfil the necessary conditions. Their digestion is healthy, but it is weak.

When digestion is imperfectly performed, we say that the patient suffers from indigestion. Indigestion may occur in those who habitually have either a strong or a weak digestion, and by proper methods it may frequently be cured in both; nay, more, we may sometimes be able to strengthen the naturally weak digestion, though we can hardly expect to alter the natural constitution of the patient, so far as to enable a man who has naturally what is called "a weak stomach" to compete with one who has naturally the digestion of an ostrich, at a civic feast or at a succession of private dinners.

We have already compared the food by which man's activity is sustained to the fuel which keeps up a fire; but this comparison is not altogether correct, for man is a complex machine, the different parts of his body require different materials, and the wear and tear of each must be replaced by its appropriate constituents, as well as energy supplied to the whole. A steam-engine not only needs fuel to keep it going, but metal to replace the wear and tear of its parts, and oil to lessen the friction of the various parts upon one another. No doubt some of those various necessaries may be replaced by others, and we might, for example, use oil instead of fuel; but this would be a wasteful and expensive proceeding. Similarly, a mixture of foods is best adapted to supply the energy and repair the waste in the human body. Like the steam-engine, we require oils or fats and proteids, which go, in a great measure at least, to repair the wear and tear of the tissues; carbo-hydrates, which may be looked upon as like coal supplying energy to the organism by their combustion. These various kinds of food are required in different proportions. According to Ranke, about 100 grammes of proteids and a similar quantity of fats are required daily by a man, while two and a half times as much, that is, 250 grammes, of carbo-hydrates are necessary. Very few substances indeed will supply the requisite ingredients in proper proportion for the wants of the body, and so we usually employ a mixed diet. Black bread contains very nearly the proper proportion of nitrogenous and carbonaceous materials, and, when taken along with a little oil or a few olives, it may maintain a man in health and activity, without the addition of almost anything else except a little salt, as is seen amongst the hard working peasantry in the south of France.

In this country we have generally a more varied diet, and, as a typical meal, we may take a beef-steak with a piece of fat attached, a piece of bread, some salt and water. The beef-steak supplies fat and proteids, the bread supplies carbo-hydrates, and the salt and water make up the requisite constituents of food. But the beef-steak and bread cannot be absorbed in their solid condition; and unless they be absorbed, as I mentioned before, they are of no use to the body; nor is it sufficient merely to reduce them to a minute state of subdivision, they must be dissolved. The salt which we eat with the beef-steak dissolves in the water without more ado; but the beef-steak itself and the bread will not dissolve without first undergoing some change. In all processes of solution, the first thing to be done is, if possible, to get the substance which is to be dissolved into a state of minute subdivision.

If we take coarse salt in large crystals, it dissolves slowly as compared with table-salt in fine powder, and we accelerate its solution very much by breaking it up, and by stirring it through the water. If we allow it to remain at rest, the layer of water in contact with it soon becomes saturated, and the process of solution goes on slowly, whereas, by stirring, we bring the particles of salt constantly into contact with unsaturated water, and thus solution goes on quickly. In the process of solution, the particles of salt become separated from each other by the water, but the process is a physical one; each particle still continues to be salt, and if the water be removed by evaporation, the residue is salt just as it was at first. During digestion, a similar process occurs in the case of proteids and carbo-hydrates, but it is carried a step farther. Not only do the particles of proteids and carbo-hydrates become separated from one another by the water, but it penetrates into the chemical molecules of which they are composed, so that a chemical change of hydration occurs, and the large chemical molecules of the proteids and carbo-hydrates split asunder into smaller and simpler ones.

In breaking down the beef-steak or the bread mechanically, we see that we are able to make the particles of which they consist smaller and smaller, until, perhaps, we may be barely able to see each particle with the naked eye. But the process of subdivision does not stop at the limits of our vision, nor even at the limits of our highest microscopic powers. In a perfect solution, the most powerful microscope will fail to discover any particle, and yet we are able by certain methods not only to show the presence of particles, but even to judge of their size. We estimate the size of particles that we can see, by the size of the mesh in a sieve through which they will pass, and, by a similar method, we are able to judge of the size of the molecules of chemical substances.

Graham showed that some bodies will diffuse through an animal membrane, others will not. Those that diffuse are generally crystalline, those that do not are generally non-crystalline; but it is probable that the connection between crystallisation and diffusion is to be regarded as accidental rather than necessary, and the real cause why some substances diffuse and others do not, is that the molecules composing them differ much in size.

In experiments on diffusion through artificial membranes, Moritz Traube found that a membrane of tannate of gelatine would allow nitrate of barium, with a molecular weight of 130.6, to diffuse through it, and would also allow the passage of all compounds having a smaller molecular weight, but it stopped the passage of ferrocyanide of potassium, having a molecular weight of 211.4. (Moritz Traube, *Centralblatt für die Med. Wiss.*, 1866, p. 114.) Membranes may thus be regarded as atomic sieves; and if one substance will not diffuse through a membrane which will allow another to pass, we may consider that the molecules composing the substance which diffuses are smaller than those of the other. This view has an important bearing, as we shall afterwards see, on the causation of certain forms of albuminuria. It is supported, not only by the experiments of Traube on artificial membranes, but by the behaviour of hæmoglobin in regard to diffusion.

Crystalline bodies are, as a rule, diffusible, but they are usually also of much lower molecular weight than organic uncrystalline bodies. There is one crystalline substance—hæmoglobin—which will not diffuse, but it has a very high molecular weight, and probably the chemical molecules of which it consists are very large.

In the process of hydration, the molecules of albumen and of starch do not split down all at once into the smaller molecules to which they may be ultimately reduced by the action of digestion. Between the large molecules forming the myosin and starch of the beef-steak and bread, and the small ones of peptone and maltose into which they are transformed during digestion, there are a number of intermediate products. In these products, the molecules are probably of varying size, and they diffuse with various degrees of rapidity. Thus the large molecule of starch breaks down, first into dextrine, and then into sugar. The large molecules of albuminous materials or proteids, including in this term ordinary albumen or white of egg, cooked meat, the casein of milk or cheese, and the vegetable casein of wheat or peas, break down into intermediate substances termed antialbumose, hemialbumose, antipeptone, and hemipeptone, before they are finally converted into peptones. There is less necessity for the molecules of fats to be broken down chemically, because, as we have seen, fats are absorbed even by the skin, and they seem to pass through the mucous membrane of the intestines, and become absorbed, even without decomposition. Their absorption is, however, aided by their being reduced to a fine state of subdivision or emulsion, and this minute subdivision occurs all the more readily by a partial decomposition into fatty acid and glycerine occurring in the digestive canal. The presence of a slight trace of fatty acid greatly aids the formation of an emulsion; and, as we shall presently find, decomposition of fats, with liberation of fatty acid, does occur in the process of digestion.

It may be worth while now to take a short survey of the digestive processes, although time will not allow us to enter at all fully into them.

The first part of the digestive process in man is a very important one, and one which does not receive anything like the amount of at-

tention which it ought; it is the process of mastication. As I have already mentioned, whenever we wish to dissolve anything rapidly, we must comminute it finely. All the food should, therefore, be thoroughly broken up in the mouth. Thorough mastication not only subdivides the food mechanically, but the saliva, which is secreted under the two-fold stimulus of the taste of the food and the movements of mastication, tends to dissolve such parts of the food as are soluble in water, and to convert the insoluble parts into a pulp. At the same time, the diastatic ferment of human saliva begins to convert the starch of the food first into dextrin, and then into malt, sugar, or maltose. This conversion goes on very rapidly; and if one chew a piece of stale bread, even for a couple of minutes, a distinctly sweet taste will usually be perceived from the formation of sugar in the mouth. But the effects of mastication are not limited to the changes produced by it in the food within the buccal cavity; the taste of savoury meat, the rolling of a sweet morsel under the tongue, and the movements of mastication, exert an influence upon the stomach and upon the brain. In a case of gastric fistula, where the œsophagus was completely occluded, Richet noticed that the mastication of food induced secretion of gastric juice, although nothing could pass from the mouth into the stomach on account of the obstruction in the gullet. It is obvious that the secretion, both of saliva and of gastric juice, takes place reflexly through the medium of the nerves; and if the nervous system be dull or depressed, the stimulus of food in the mouth is not likely to excite secretion to the same extent as when the nerve-centres are active. But provision seems to have been made for this; and the mere act of mastication not only supplies a stimulus to the peripheral ends of sensory nerves in the mouth, it leads to an increased supply of blood to the nerve-centres. This is well shown by some observations of Marey, who found that the current of blood in the carotid artery of a horse became three times as rapid during mastication as it was before. No doubt, part of this increased supply of blood went to the salivary glands and to the muscles of mastication; but it is almost certain that a part of it went also to the nerve-centres. Even if one should deny that any part of the extra current of blood in the carotid, which is consequent upon mastication, goes to the brain, the fact would still remain that the movements of rolling the morsels about in the mouth, and sucking their sweetness and savour, increases the circulation in the brain, for this has been actually observed by François-Franck in the human subject.

When the food has been thoroughly masticated, it is swallowed, and the act of swallowing sets in action a mechanism which is calculated to increase the blood-supply, not only to the nerve-centres, but to all the glandular structures concerned in the digestive tract. Kronecker has discovered that the act of swallowing seems to remove entirely the inhibitory action of the vagus nerve upon the heart, for the time being, so that the pulse becomes exceedingly rapid. The extent to which this occurs will hardly be credited by any one who has not tried the experiment. In my own case, I find that sipping half a wine-glass full of water, will raise my pulse from 76 to considerably over 100 Hence, in fact, a glass of cold water, slowly sipped, will stimulate the heart as much as, or more than, a glass of brandy swallowed at a draught.

When the food arrives in the stomach, it will, if mastication have been properly performed, and the digestive fluids have been properly secreted, find a supply of gastric juice already in the stomach, and this will continue to increase in quantity during the progress of the meal. The alkaline saliva swallowed with the food will act as a further stimulus to the secretion of the acid gastric juice; but soon the quantity of acid will be sufficient not only to neutralise the alkali, but to leave a little acid over. The amount of free acidity is, however, very slight, because the hydrochloric acid which the gastric juice contains combines, for the time being, with pepsin and proteids, forming a compound which does not give an acid reaction. The starch, which has begun to be converted into dextrin in the mouth, undergoes still further conversion by the saliva which has been swallowed. It has not yet been definitely settled whether or not the action of the saliva is so far arrested in the stomach as to prevent the formation of more sugar; but, at all events, it appears to be certain that dextrin is formed, and this is a fact of very considerable importance, as we shall see when we come to consider the order in which food is usually taken at meals. Albuminoids, or proteids, under the action of the gastric juice, swell up, and are more or less completely dissolved. The large and complicated molecules which compose them appear, as already mentioned, to be broken up into simple ones by a process of hydration. First of all, they appear to form a compound with acid, termed syntonin, or acid albumen. This is soluble in acid, but when the solution is neutralised the albuminoid is again precipitated. The next stage appears to be the formation of a body known as propeptone, hemialbuminose, or parapeptone. This body is not coagulated by heat, and is soluble in water in the presence of weak acids or alkalies. It is precipitated by nitric acid, but when the mixture is heated it dissolves, and a precipitate forms again on cooling.

The last stage is the formation of true peptones, which are not coagulated by boiling, nor by nitric acid, nor by acetic acid and potassium-ferrocyanide. They diffuse very easily through animal membranes, and in this respect they differ very greatly from other forms of albumen. By dissolving albuminous substances in artificial gastric juice outside the body, we can produce peptones, and these are sometimes of great service as nutrients in disease. We almost always notice that the product of such artificial digestion has a disagreeable bitter taste. The cause of this bitterness has not yet been thoroughly investigated. We know, however, that amongst the strongest bitters with which we are acquainted are some of the organic alkaloids; for example, strychnine, the bitterness of which can be perceived in extremely dilute solutions. Now, the organic alkaloids are, to a certain extent, related to albumen, inasmuch as they both belong to the aromatic series of organic compounds, and several alkaloids have been obtained from decomposing albumen. To these alkaloids the name of ptomaines has been given. This relationship between alkaloids and albuminous substances would almost lead us to suspect that the bitterness developed during gastric digestion might be due to the formation of an alkaloid. As I have already said, it is not certain that this bitter substance is an alkaloid, but it is certain that an alkaloid has been obtained from peptones formed by gastric digestion by Brieger. By extracting a quantity of gastric peptones with amylic alcohol, he obtained an alkali free from peptones which had an action like that of curara.

Every effect has a cause, if we can only find it out; but we not unfrequently ascribe effects to the wrong causes, and perhaps this may be the case with regard to the activity of the pylorus. While the food remains in the stomach, it is mixed up thoroughly with the gastric juice by a sort of churning movement of the gastric walls of the stomach, the pylorus remaining contracted, so as to prevent the gastric contents from escaping in any large quantity into the duodenum.

At the end of three or four hours, however, the pylorus relaxes, and the chyme escapes out of the stomach into the duodenum. This alteration in the behaviour of the pylorus, at the end of a certain time, has been ascribed to the increasing acidity of the chyme; but this seems a little doubtful, inasmuch as we frequently notice cases of abnormal acidity, where the food is retained in the stomach for an excessive time, instead of being passed on too rapidly to the intestines. This is a point upon which we are at present quite unable to speak with any certainty; but the discovery that an alkaloid is formed during the process of digestion in the stomach opens up a new field of inquiry, and may lead us to ask whether the different behaviour of the stomach, at the end of three or four hours, is not due to the action of this alkaloid upon it.

During the process of digestion in the stomach, fats become partially decomposed, and a small quantity of fatty acids are formed, which aid in emulsifying the remainder of the fat. When the chyme passes through the pyloric orifice into the duodenum, it meets with the bile and the gastric juice. These neutralise the acid chyme, and render it alkaline. The further action of pepsin is thus prevented, and the albuminous substances, which have only been converted into syntonin, or acid albumen, are precipitated. The pancreatic secretion is the most energetic and general in its action of all the digestive juices; it unites in itself the action of the saliva and the gastric juices, besides having properties of its own. Like the saliva, it converts starch into dextrine and sugar, and it finishes the work which the saliva had begun.

Like the gastric juice, it dissolves albuminous bodies, forming peptones, though it does not dissolve them in quite the same way. The gastric juice causes them to swell up before they dissolve. The pancreatic juice attacks them from the outside, and makes them crumble away. We do not yet know whether there is any distinct difference between the peptones formed by the action of the pancreatic and gastric juices, but it seems not at all improbable that differences should exist. In addition to its action on starch and albuminoids, the pancreatic juice emulsifies fats, and tends to split them up into fatty acids and glycerine. This emulsifying action is aided by the bile, which appears to have a considerable power to facilitate the passage of fat through animal membranes. This can be readily shown by trying to make oil pass through an animal membrane wetted with water, and another similar one wetted with bile. The oil will pass through the latter much more readily than through the former. The action of bile in dissolving fats is indeed popularly known, and it is used for removing oil-stains from articles of furniture. In an examination on physiology some years ago at South Kensington, the question was put

"What is bile, and what are its uses?" One candidate's answer was, "Bile is formed in the stomach, and is used for cleaning carpets." The knowledge of physiology displayed by this student was somewhat inaccurate, to say the least of it; but his answer may serve to impress upon our memories the fact that bile has the power not only of removing stains of grease from the surface of vegetable fabrics like carpets, but of enabling oil to pass through animal tissues, such as mucous membranes. But the bile has another very important function: it tends to prevent putrefaction. Now the minute vegetable organisms which give rise to putrefaction are to be found almost everywhere; and they pass into the intestine with our food and drink. The healthy stomach, with its acid secretions, does not afford them a suitable nidus, but the products of pancreatic digestion seem to form a soil especially favourable to their development. If we digest a piece of meat with pancreas for twenty-four hours, at the temperature of the body, we usually find that not only has the meat become dissolved, and peptones formed, but that the peptones themselves have undergone a further decomposition, and that leucin, tyrosin, naphthyelmin, and a substance termed indol, nearly allied to indigo, but with an abominable smell, have been formed. Indol is not the product of the decomposition of nitrogenous matter by the pancreatic ferment; it is due to the presence of putrefactive bacteria.

The same changes which occur in pancreatic digestion outside the body may, and sometimes do, occur inside the body. In health, their occurrence is probably rather the exception than the rule; but, were it not for the antiseptic action of the bile, their occurrence would probably be the rule, and not the exception. It may seem, perhaps, that the occurrence of putrefaction might not be of any great consequence; but when we remember that, during putrefaction, organic alkaloids which have a poisonous action are formed in the body, it is evident that, if putrefaction take place to any great extent in the intestine, there may be a risk of actual poisoning by the absorption of organic alkaloids formed in the intestinal canal.

From the duodenum onwards to the rectum, the reaction of the intestinal contents remains alkaline, and so there is nothing to arrest the further action of the pancreatic ferments. The action of the intestinal juice on the food is not as yet perfectly understood, and various conflicting statements have been made regarding it. One reason of this probably is, that the action of this juice has been tested upon the raw constituents of the food, and not upon foods which have already been altered by exposure to the action of the gastric and pancreatic juices. The intestinal juice is said to have no action on coagulated albumen, and this appears to be the case; but, when I was working in his laboratory at Amsterdam, Professor Kühne informed me that intestinal juice would dissolve coagulated fibrine, which had been previously rendered soluble, but not peptonised, by pancreatic juice.

In its course through the large and small intestine, the portions of food which have been rendered soluble by digestion are gradually absorbed by the veins and lymphatics, and carried into the general circulation. Almost immediately after entering the blood-vessels, changes appear to occur in the peptones. These appear to be taken up, to a great extent, by the red blood-corpuscles, and converted by dehydration into a larger and more complicated albuminous molecule, namely, that of globulin. The blood-corpuscles thus form, as it were, a store of albuminous material, which they convey to all parts of the body, and give off where it is wanted. But the whole of the peptones do not appear to undergo this change; part of them appear to be arrested in the liver, and to form glycogen, as it has been found that the quantity of glycogen in this organ is increased by the injection of peptones into the bowel. The sugar also becomes dehydrated, and glycogen is produced from it likewise. This is stored up in the liver for a variable time, and then gradually given out again to supply the wants of the organism. The liver, therefore, acts as a wise steward, laying by provision for the organism in the times of plenty, after a full meal, and giving it out again in times of fasting. But this is not all.

We know that one of the most striking points in the action of such powerful poisons as the venom of vipers and curara is that, though deadly when injected into a wound, they are almost completely innocuous when swallowed. We know that one reason of this is, that they reach the general circulation much more slowly from the intestine than from the wound, so that the kidneys have time to excrete them, and prevent their accumulating in the blood. It is the liver which is the chief agent in retarding the absorption of poisons into the blood, and thus rendering them comparatively innocuous when they are introduced into the intestinal canal. All the blood from the stomach and intestines must pass through the portal vein before it can reach the general circulation; and, as our forefathers recognised by the name they gave it, to the porta or gate of the liver the hepatic tissue acts the part of a prudent porter at the gate, and turns back or destroys dangerous intruders. Poisons injected into the duodenum are absorbed into the portal vein; but they are removed from the blood by the secreting tissue of the liver, and poured back with the bile into the intestinal canal. Again, they may undergo reabsorption, and round and round they may go in a circle, from intestine to liver, and from liver to intestine again, without ever being able to pass into the general circulation, or produce any direct effect upon heart, lung, brain, or kidneys.

But even this is not all. The liver actually destroys some organic poisons, such as nicotin; and, were it not for the faithful performance of its duty, we would be in danger of poisoning by every meal we take. For Ludwig and Schmidt and Mülheim have found that peptones, when injected into the general circulation, act as poisons, producing loss of coagulability in the blood and great depression of the circulation. We see, then, that the products even of healthy digestion might prove fatal if they passed rapidly into the general circulation; and it is still more likely that such an effect would follow the absorption of the products of the putrefaction which occurs in cases of indigestion. Were it not for this power of the liver to obstruct the passage of poisons, and actually to destroy them, the alkaloids formed either by normal digestion or by abnormal putrefactive process in the intestine might readily pass to the heart, nervous system, and kidneys, and cause dangerous or fatal consequences.

The function of watching over the safety of the organism is not confined, however, to the liver, but is shared by other organs. The liver acts as a porter to prevent injurious substances from passing from the intestine into the blood, but the tongue and palate are the porters which prevent obnoxious substances from being taken into the intestinal canal. As a general rule, though by no means without exception, substances pleasing to the palate are useful and not injurious to the organism. The nerves of taste, like those of sight and hearing, are nerves of special sense, and are capable of education. But, while we usually regard the education of the senses of sight and hearing as a noble thing, we are too careless of the education of our taste, and look upon it rather as something degrading. Yet the education of the nerves of taste should be considered in the same light as that of the other special senses; and cookery, has, I think, a perfect right to be ranked with music, painting, sculpture and architecture as one of the fine arts. The difference between cookery and music, or painting, is, that while the objects which give rise to sight and sound remain outside the body, we are obliged to swallow the substances which excite sensations in our nerves of taste. It is not quite sufficient to turn them over in the mouth and put them out again, because the full sensation is only obtained just in the act of swallowing. For this reason, devotees to the art of cookery must either be content with a moderate enjoyment of the pleasures of taste, or consent, like some of the Roman emperors of old or German students of the present day, to eject again the food or drink which they have already taken and enjoyed. Only rarely does one meet with a dinner which gives one the sense of high artistic perfection, although I remember having partaken of one such when enjoying the hospitality of a city company. Each course seemed to excite an appetite for the one which succeeded, and was accompanied by a wine so carefully selected that it gave zest to the food, while the food appeared to give additional flavour to the wine.

This dinner was a revelation to me; it not only showed me that cookery might rank as one of the fine arts, but taught me that it might be a powerful moral agent. I went to the dinner exhausted with overwork, irritable in temper, and believing that city companies were wasteful bodies, who squandered money that might be employed for useful purposes, and that they should be abolished; I came away feeling strong and well, with an angelic temper, and firmly convinced that city companies had been established for the express purpose of giving dinners, and ought on no account to be interfered with. Nor was the good thus effected of a transitory nature; the irritability of temper, which had disappeared in the course of dinner, did not return; and the morning afterwards, instead of awaking with headache and depression, I awoke strong, well, and ready for work, and remained so for a considerable length of time. Nor do I think that mine is a solitary case. A succession of heavy dinners is, no doubt, injurious; but when the organism is exhausted, a good dinner, with abundance of wine, is sometimes of the greatest possible use. But there is one condition which must not be neglected, or otherwise the consequences will be anything but satisfactory: the dinner must be well cooked, and the wines must be thoroughly good.

It is, as I have said, only occasionally that one meets with real high artistic cookery. But, even in the courses of an ordinary dinner, an order is adopted which is thoroughly physiological, and which shows

that, whatever men may be in other things, they are not "mostly fools" in regard to the plan of their meals.

The common order of courses in a plain dinner is soup, fish, joint, pudding, bread and cheese, and dessert. The reason why soup comes first, has been admirably shown by Schiff in his experiments on digestion. This physiologist found that the stomach of an animal which some time before had digested a full meal, had very little power to digest albumen introduced directly into it; and a similar fact was ascertained in regard to an extract made from the stomach itself, this extract hardly acting on albumen at all. The stomach seemed to be exhausted by the effort of digesting a full meal several hours before, and to be incapable of producing pepsine. But if certain substances were introduced first into the stomach, the power to digest albumen was enormously increased. To these substances Schiff gave the name of "peptogens," and the most powerful of them he found to be dextrin, and soup made from meat.

If the human stomach resembles the stomachs of animals in this point as it does in others, then we may say that usually the power of the stomach to digest such substances as hard boiled eggs or boiled meat, when these are taken alone, will be very slight. But if the meal be begun with a plate of soup and a piece of bread, the bread partly converted into dextrin in the mouth, and the extractive matters of meat contained in the soup, on reaching the stomach, will be absorbed, and will supply to the gastric follicles the power to secrete an abundance of pepsine. In this country, where our butcher's meat is tender and juicy, we not unfrequently find that people in the middle of the day will take a beef-steak or a mutton-chop without soup. In this case, the savoury soluble substances are quickly extracted from the meat in the stomach itself, and, being absorbed, supply the necessary secreting power to the gastric glands. But in other countries, where the animals slaughtered for food are often old and tough oxen, which have been employed for years in agricultural service, the meat, being less savoury and juicy, will not yield peptogenic matters so readily to the stomach. Consequently, the Frenchman generally boils his butcher's meat thoroughly, and adds pieces of bread to the soup with which he begins his meal, so that the stomach can absorb sufficient peptogenic substance before the hard and tasteless boiled beef is swallowed.

Next to the soup, as I have said, usually comes fish, which is digested more easily than butcher-meat. I have already mentioned, more than once, that the rapidity with which anything dissolves depends very much on the fineness with which it is divided. Now, this is quite true of the different kinds of meat. Beef is acknowledged to be less digestible than mutton, and mutton less digestible than fish. The breast of a chicken is also reckoned very digestible. If we compare these different kinds of flesh, we will find that in beef the fibres are longer and harder than those of mutton, and those of mutton longer and harder than those of the breast of a fowl. The muscle-fibres in fish are arrayed in flaky masses, and are not only very short, but are very readily separated from one another. We see, then, that the different digestibility of these different kinds of meat corresponds exactly with the readiness with which the muscle-fibres can be broken up mechanically. That it is the physical conformation of the muscle-fibres, rather than anything peculiar to the animal from which they are derived, is shown, I think, by the fact that, although the breast of fowls is universally acknowledged to be readily digestible, the legs, in which the muscular fibres are long and hard, are by no means specially adapted for weak digestions. With the meat, come vegetables, which are not only useful as supplying inorganic salts, but probably play a considerable part in aiding the recomposition of peptones into albuminous material of the tissues, after their absorption. After the meal come the bread, cheese, and dessert. The bread will, no doubt, supply additional dextrin, and the cheese additional albuminoids; but, if we direct our attention only to the stomach, and to the chemical changes which are going on in it, it is not quite easy to see why bread, cheese, and dessert should be taken at the end of dinner. If we turn our attention, however, to the circulation and the nervous system, and remember the effect which I have already mentioned as produced upon them by the mastication and deglutition of savoury food, we can at once see a good reason for the common manner of terminating a dinner. In order to supply abundant gastric juice for the digestion of the food introduced into it, the stomach requires an abundant supply of blood, and the nervous system must be kept active in order to respond to the calls made upon it. The savoury cheese, swallowed in small morsels, and the sweet fruits, which strongly stimulate the nerves of taste, or nuts, which require considerable mastication, cause an abundant flow of blood to the nerve-centres; while the frequent movements of swallowing stimulate the heart, and increase the rapidity of the general circulation.

In the case of ordinary meals taken by a healthy man, the food is quite sufficient to stimulate the various parts of the digestive canal, the nervous system, and the circulation sufficiently to insure complete digestion. But if the meal be more than ordinarily heavy, if the person be exhausted by long fasting, by severe exertion, or have a weak digestion, other aid must be invoked. One of the most powerful stimulants, both to secretion and the circulation, is alcohol; and we find that persons of weak digestion sometimes take sherry and bitters before a meal, or take a glass of sherry with their soup. During the course of a meal, an effervescent wine like champagne is taken, the carbonic acid of which will stimulate absorption, while at the end a powerful stimulus is applied in the shape of a small glass of brandy or liqueur; and during dessert a quantity of wine is sipped, so that the effect of the sipping already mentioned upon the circulation and nervous system are combined with the action of the alcohol and ethers contained in the wine.

Provided that all those parts of a meal have been taken in moderation—and when we speak of moderation, we must always remember that this is a relative term: what is moderation for a man of strong digestion is excess for a man of weak digestion—provided, then, that moderation has been exercised, no harm will result even from a heavy meal. But if the food have been excessive in quantity, or injurious in quality, and more especially if alcoholic stimulants have been taken in excess, the stomach will suffer, and, next day, the symptoms of gastric indigestion will probably appear. The most marked of these are loaded tongue, loss of appetite, tendency to nausea, and, perhaps, even vomiting. The condition of the stomach, corresponding to these symptoms, was ascertained by Dr. Beaumont in the case of Alexis St. Martin. On looking into the interior of St. Martin's stomach, during the occurrence of such symptoms as these, Dr. Beaumont found "that several red spots and patches abraded off the mucous coat, tender and irritable, appeared over the inner surface." In such congested and irritable conditions of the stomach, the gastric juice secreted appears to have an alkaline, rather than an acid, reaction, and consequently to have comparatively little or no digestive power. The food will, therefore, pass from the stomach, not in the form of a fine emulsion, like chyme, but with undigested lumps in it, and these, irritating the intestine, will be not unlikely to produce diarrhœa; moreover, the intestine itself may also suffer by extension of the inflammatory condition, from the stomach along the mucous membrane. Then we notice, in addition to the sickness and nausea, those symptoms to which the term of biliousness is applied. The person is dull, heavy, and languid, disinclined to exertion, mental or bodily, irritable, or peevish, the complexion is muddy, and the conjunctiva is slightly yellowish, and perhaps there is more or less severe headache. All of these point to disturbance of the functions of the liver; but the explanation of the different factors of biliousness must be reserved for the succeeding lecture.

NOTES FROM A CLINICAL LECTURE ON SOME OF THE DIAGNOSTIC DIFFERENCES BETWEEN BRONCHITIS AND HEART-DISEASE.

Delivered at Guy's Hospital.

By SAMUEL WILKS, M.D., F.R.C.P., F.R.S.,
Physician to the Hospital.

Although the clinical features of bronchitis and heart-disease are sufficiently distinctive to be at once recognised by the experienced medical man, apart from a physical examination of the chest, and although the *post mortem* appearances in the two diseases are also markedly different, yet it is not at once apparent why, when both show congestion of the lungs, as the main symptom or immediate cause of death, they should present such distinctive peculiarities. It is important not only to recognise these differences, but to set clearly before ourselves their causes; since, in complicated cases, this will lead to a correct diagnosis, and suggest the appropriate treatment. In a simple case of severe bronchitis, the patient is seen sitting up in bed, and breathing with difficulty; that is, he is using all the muscular effort he can to draw air into the chest, having, indeed, true dyspnœa. At the same time his face is blue, and his extremities livid. The chest is resonant on percussion, the abdomen is not enlarged, and there is no dropsy. In the heart case, notably when the mitral valve is diseased, the patient has not dyspnœa, but apnœa; he can easily fill his chest with air, but, owing to the impeded and irregular circulation, he experiences the distress known as cardiac apnœa or breathlessness. His skin may be pale or yellow at the upper part of the body; the chest may be dull at its lower part, especially on the right side; the abdomen may be full, the liver

enlarged; there may be dropsy of the legs, and some albumen in the urine. In the first case, in spite of the lividity of the skin, the congestion, as seen by its effects on the organs, is not nearly so great as in the second, or cardiac case. I take the case of mitral disease, for in aortic, when the blood is thrown back on the heart, the body is pale and impoverished, and it is not until the mitral valve gives way that the congestive conditions become apparent.

Let us see why these differences exist. In the case of bronchitis, the blood is impeded in the pulmonary artery, as is evidenced by the hypertrophy of the right ventricle, and, subsequently, an engorgement takes place in the general venous system. The forces which urge the blood through the lung are in part mechanical and in part chemical. If the air be prevented from entering the trachea from any obstruction, the blood is hindered in its passage through the alveoli, showing that the chemical process of aëration is necessary for the natural flow of the blood. In cases of strangulation, therefore, the right side of the heart is distended, and the whole venous system gorged. If the obstruction be slower or more partial, as in ordinary diseases of the air-passages, the right ventricle, after a time, forces the imperfectly aërated blood through the lungs; and, there being nothing to impede its flow onward in the pulmonary vein or left ventricle, it takes its course through the system. In this way, the pulmonary circulation is freed, and the lividity of the countenance in bronchitis is therefore not so much owing to venous stasis, as to the presence of dark blood circulating in the arteries. This is the only explanation which I can see to account for the slight engorgement of the various organs in bronchial affections. Take, now, the case of mitral disease; the blood is thrown back on the pulmonary veins, and this arrests the flow coming from the right side of the heart through the pulmonary artery; consequently, the whole of the capillary system of the lungs is gorged on both sides of the termination of the bronchi. You will see that there is no longer a question of the possibility of non-aërated blood passing the alveoli of the lung, since there is a positive mechanical hindrance to the passage of any fluid. The congestion of the lung in the two cases is, therefore, of a very different kind; in the bronchitis, it is on one side of the alveoli only; in the heart-case, it is on both sides; in the former, it is in the pulmonary artery; in the latter, in both pulmonary vein and artery commencing in the vein; consequently, the effects are very different on the several organs, and on the body at large.

In the case of bronchitis, although the patient is livid, the congestion does not attain the intensity it does in that of the heart. Here the blood may actually stagnate in the vessels, producing a consolidation of the lung, or may burst through the tissues, so as to constitute a pulmonary apoplexy. This is known during life by hæmoptysis, and the dulness and absence of breath-sounds on percussion and auscultation. In the same way, and for the same reason, the liver becomes altered, as it rarely is in bronchitis, until the congestion produces great enlargement and the condition known as nutmeg-liver; the kidneys, also, from like engorgement, may show albumen in the urine, and the legs become dropsical. After death, the effects of the engorgement are seen in the indurated lung, spleen, enlarged kidney, and nutmeg-liver. These altered states of organs are so well marked, that their appearance alone would denote death from heart-disease. I have frequently been asked why the same conditions do not obtain in bronchitis. I have now endeavoured to give the explanation.

I have brought the subject especially before you in connection with the numerous cases we have in the hospital, on account of the important practical consequences which result from a knowledge of it. Many cases are not so simple as I have described. A patient, for example, may be found sitting up in bed, breathing with difficulty, and with so much rattling in the chest as to preclude the possibility of rightly gauging the state of the heart. If the case be one of primary bronchitis, this is the disease to treat; if the heart be at fault, that may be the organ to administer to, and the secretion in the tubes be allowed to go on as a salutary process of relief. Suppose, in such a case, the liver be found enlarged, this fact would point to the heart as being the principal cause of the symptoms, and you would prescribe accordingly. Or we might, as we often do, meet with a much more complex case, where, besides the symptoms just named, the urine is albuminous, and the patient dropsical. It is much more easy to call such a case one of renal dropsy, as I have often heard done, than to make out accurately the true causation of the different morbid processes. If, however, on careful examination, we find the liver enlarged and the lung gorged, it is much more likely to be one of heart-disease, and the albuminous urine a secondary affection. Let the case be treated on this supposition, and we may often see the dropsy disappear, the urine become healthy, the liver decrease, the engorgement of lung pass off, and the patient resume his usual condition—one of chronically impaired heart. Such instances are far from common; for I constantly see cases regarded as primary bronchitis, others as primary liver-disease owing to its enlargement, others as Bright's disease owing to the presence of albumen in the urine, and yet all these conditions are due to congestions arising from heart-disease. This has been overlooked, owing to the absence of *bruits*, or their obscuration by pulmonary sounds. It is, therefore, most important to take note of other facts and considerations on which to found a diagnosis.

I could point to numerous cases where digitalis and other appropriate remedies have been given to quiet and strengthen the central organ of the circulation, and all the other ailments have departed. I cannot, therefore, too much impress upon you the value of a diagnosis in these cases; and consider well all the points to which I have drawn your attention, for upon your due appreciation of them the life of your patient may depend. I have necessarily taken typical cases to dwell upon, and have drawn from a large general experience; at the same time, I should say that there are exceptional cases, which would require further explanation, such as the rarer instances of bronchitis associated with enlargement of the liver and dropsy.

DEATH FROM PISTOL-SHOT WOUNDS: SUICIDE OR HOMICIDE?

By ANTHONY A. BOWLBY, F.R.C.S.,
Surgical Registrar and Demonstrator of Surgical Morbid Anatomy at St. Bartholomew's Hospital.

THE case known as "the Uxbridge tragedy" is one presenting many points of medico-legal importance, the question to decide being whether certain wounds found on a dead body had been suicidally or homicidally inflicted. The result of the trial was the conviction of the prisoner for the murder of her husband.

The account which follows has been written on my own responsibility, and does not in any way implicate Mr. Parrott, the other medical witness. Nevertheless, I may say that, on almost all the main points, we were entirely agreed.

The circumstances of the case are briefly as follows. The deceased, James Gibbons, aged 65, a perfectly healthy and prosperous man, lived with his wife at Hayes, Middlesex. He had been married thirty-seven years, but had no children. He had adopted, or at any rate undertaken the care and education of, a little girl distantly related to him, and had had disagreements with his wife on this account. On November 15th, 1884, he went into the country to see his adopted child; in the evening, he returned to Hayes, and walked home from the station with the station-master—a personal friend—who testified that he left him close to his own door somewhere about 10 P.M. He was seen to enter his house by his own servant-girl, but was not again seen alive. His wife and he were the only persons who slept at his home. Shortly before midnight, the next-door neighbour was aroused by Mrs. Gibbons, who was dressed in her nightgown alone, and who said that her husband had committed suicide. The neighbour returned to the house with Mrs. Gibbons, and found the deceased lying dead on his face upon the floor of the bedroom in a pool of blood. Close to his side lay a revolver. Mr. Parrott, of Hayes, was at once sent for, and in a short time arrived at the house with Mr. Hathaway, his assistant. They found the deceased lying on his face on the floor, with his left arm stretched forwards towards the door, the right arm doubled beneath his body, and his feet towards the bed. On the side of the bed next which he lay was a depression, as though caused by some one sitting down; this depression was about half way down the bed, and close to it the sheet was sprinkled with a few spots of blood; anyone sitting on the place indicated would have his right hand towards the pillow. There were no marks of a struggle having taken place; but close to the door the wall was marked with blood-spots, so that a very large amount of hæmorrhage had taken place, the clothes of the deceased were saturated and smeared with blood; he was partly undressed, and had on a shirt, jersey, and drawers.

Mr. Parrott hastily turned the deceased on to his back, and found the three wounds to be presently described; life was extinct, but the body was quite warm. Turning to the wife, Mr. Parrott naturally asked, "How has this happened?" She replied that they had had a few words about the little girl who used to live with them; that the deceased had then taken the pistol from under the pillow; and, exclaiming that he could stand it no longer, had waved the weapon round his head, and fired off four or five shots in rapid succession. Asked by Mr. Parrott whether she had not tried to prevent her husband from killing himself, she said that she had thrown her arms

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round his neck, and then had run downstairs. It may here be remarked that Mrs. Gibbons made at different times six different statements. In one, she said that all the shots were fired after she left the room in a fright at seeing her husband seize the pistol; in another, that one shot was fired whilst she was in the room, the others after she had left it; and in the remaining accounts, she said that two, three, and, lastly, all four shots were fired whilst she was in the room. At one time, she said she saw her husband fall; at others, that after getting downstairs she heard him fall. At no time did she say that the pistol went off during a struggle, or that she herself ever obtained possession of it.

The pistol found beside the deceased was a six-chambered revolver, about six inches in length. Five chambers had been recently discharged, and the sixth was occupied by an old empty cartridge-case, which had become blocked. The six chambers could be fired in succession by a series of pulls at the trigger, without recocking; but the weapon had not what is known as a "rebounding lock"—that is, one which cocks itself as soon as the bullet is discharged. The chambers could only be rotated by either pulling the trigger or raising the cock with the finger or thumb; they did not rotate automatically; so that, after a shot had been fired, the empty cartridge-case alone lay in a line with the barrel, and no bullet could be fired until after the revolution of the chambers brought a loaded cartridge into position. Except when cocked, it required a very strong pull of the trigger to fire the weapon; each shot demanded a distinct effort and the exercise of some strength. In the room was found a box containing sixteen cartridges, each of which fitted the pistol. The bullets were about one-third of an inch in diameter.

An inquest was held on November 18th, and adjourned to enable medical evidence to be called. On November 20th, Mr. Parrott and Mr. Hathaway proceeded to make a *post mortem* examination, and their attention was at once directed to a wound in the back of the left shoulder, which had passed unnoticed by them when first called to the deceased. After a partial examination of the body, Mr. Parrott applied for leave to obtain further assistance; and, at his request, I completed the *post mortem* examination, with the assistance of himself and Mr. Hathaway.

The deceased was a man of middle height, broad shouldered, rather stout, and heavily built. The scalp presented two small contused wounds, such as might have been caused by falling against any hard blunt object; one of these was situated on the forehead, the other near the occipital protuberance. The calvaria was normal, as was also the brain. The extremities were in a natural condition. The viscera were generally healthy. The following wounds were found.

Wound No. 1.—In the left cheek, in a line with the canine tooth, was a bullet-wound. The aperture in the skin was oblique, so as to indicate that the bullet had entered in a direction from right to left, as well as from before backwards. The superior maxilla had been shattered, the missile passing beneath the malar bone and lodging against the mastoid process, deep amongst the muscles of the neck. The face, for some distance around the aperture of entry, was blackened by powder, but the hair was not singed as though the pistol muzzle had been placed in actual contact; it might well have been held at a distance of several inches.

Wound No. 2.—Immediately beneath the left clavicle, two inches to the outer side of the nipple line, was a perfectly clean cut circular bullet-wound of entry. The wound was in a direction almost directly backwards, but a little downwards, passing above the first rib towards the scapula; the bullet was found lying in the substance of the subscapularis muscle. In connection with this wound, there had been most extensive and abundant hæmorrhage, and the blood had been driven far and wide into the surrounding tissues, extending along the brachial plexus and under the sterno-mastoid, as high as the submaxillary triangle, backwards into the subscapular region, and forwards beneath the pectoral muscle. Evidently there had been a large vessel wounded; and in the subclavian artery, in the track of the bullet, was found a sharply cut hole, such as would be caused by a missile of the nature discovered. The fact that there had been some dissection of the parts before I found the injured vessel, alone prevented me from coming to a definite conclusion that the hole had certainly been caused by the bullet; nevertheless, I felt but little doubt in the matter. The skin around this wound was not blackened, and bore no traces of powder-marks.

Wound No. 3.—On the left side of the chest, two inches to the outer side of the nipple, and about half an inch below its level, was a bullet-wound of entry. This wound was not circular, but oblique, indicating an entry of the bullet from above and behind, as well as in general direction from left to right. As the arm lay by the side, a probe could not be introduced further than through the skin; and it was not until the arm was raised to a right angle, or more, from the trunk, that a probe could be passed into the thorax. It was then found, on reflecting the skin, that the fourth rib had been cleanly punctured by the bullet in an oblique manner. On removal of the sternum, the anterior mediastinum was found full of blood; to use the words of Mr. Hathaway, "the thorax was fairly swamped with it." In the anterior surface of the pericardium were two torn holes, and its cavity also contained a quantity of blood. An examination of the heart showed that the bullet had struck the right ventricle on its anterior surface, close to the septum, and near the apex; that it had entered the cavity of the ventricle; and that, being roughened and flattened by its transit of the rib, and, by the same means, having its velocity lessened, it had not made a clean cut aperture of entry and exit, but had ploughed up and torn away the muscular substance in its course, thus allowing a very free exit to the contained blood. The bullet had then traversed the diaphragm, and was found a little to the right of the ensiform cartilage, in the left lobe of the liver, and close beneath the abdominal wall. The general direction of this wound was *from left to right, from above downwards, and from behind forwards.* The aperture in the skin, the axis of the entry and of the exit wounds in the rib, were also in a similar direction, and there was every reason to believe that the bullet had not materially deviated from the direction in which it was fired. Further, it was evident that, at the moment the wound was inflicted, the arm must have been raised from the side to a considerable extent, for not only did the skin-wound not correspond to that in the deeper structures, unless the arm were so raised, but, had the arm been by the side at the time the wound was inflicted, it is certain that a bullet, entering two inches to the outer side of the nipple, and half an inch below its level, must have passed just below the fifth rib, or even lower, whereas, in this case, the fourth rib had been wounded. The skin around the entrance-wound was neither scorched nor blackened by powder. It is evident, from the position and direction of this wound that, to be self-inflicted, the weapon must have been held in the left hand of the deceased.

Wound No. 4.—In the back of the left shoulder, on a level with the first dorsal vertebra, and three inches from the spinal column, was a bullet-wound of entry. It was perfectly circular in shape, and a probe could be passed along the wound in a direction practically directly forwards, but with the very slightest tendency upwards, as far as a point immediately beneath the skin on the front of the neck; here the bullet had lodged. The wound traversed soft tissues alone, being confined to the thick and fleshy part of the base of the neck; no important structures had been injured. It was evident that the weapon that had inflicted this wound had been pointed almost directly forwards from behind the back of the deceased; for the entry-wound was circular, and the bullet had struck nothing that could cause it to deviate from its course. The skin around the wound was blackened by powder to a considerable extent.

The Clothing.—The clothes worn by the deceased at the time of his death were drawers, shirt, and flannel-jersey; they had all been washed before I inspected them, but not before they were examined by Mr. Parrott. Only the shirt and jersey presented any signs of injury by bullets.

At the back of the left shoulder, in a situation corresponding with wound No. 4, the shirt presented a ragged singed hole, of the size of a five-shilling piece; a corresponding, but smaller, hole was found in the jersey. The marks of powder were limited to the edges of the hole; there was no scattering of powder-granules around. Bullet-holes, corresponding in situation to the wounds Nos. 2 and 3, occurred in both the shirt and the jersey; each of them, when seen by Mr. Parrott on the night of the death of the deceased, was small and sharply cut; but, owing to the scrubbing during washing, had become rather ragged, and enlarged to the size of a threepenny-piece.

The shirt, for several inches around each of these holes, was thinly dotted with powder-marks, widely scattered in an irregular fashion. There was, however, no burning or blackening.

In order to satisfy myself as to the distance at which these shots had been fired, I procured eleven of the cartridges found in the room where the deceased had died; and with them, and a pistol of exactly the same make as that which had been found beside the deceased, I fired experimental shots at distances varying from actual contact (with a piece of shirting and flannel, which were then thoroughly washed) to a distance of two feet. As a result of these experiments, I concluded that (1) wound No. 4 had been inflicted with the pistol at a distance of about an inch or so from the shirt, and that the muzzle had not been actually pressed against the back; (2) wounds No. 2 and 3 had been inflicted with the pistol-muzzle at a distance of about one foot from the shirt, and certainly not less than six inches.

My next endeavour was to determine, if possible, the sequence of the wounds. With regard to Nos. 1 and 4, I did not find anything sufficiently definite to warrant me in forming an opinion on this point. Wound No. 2, however (below the clavicle), had almost certainly been inflicted before that of the heart; for the force with which the blood had evidently been pumped into the tissues argued that, at the time this shot was fired, the heart was acting vigorously, and the arteries were distended with blood; neither of which would have been the case after such a wound of the heart as I have described.

Next, as to the immediate cause of death. There was nothing immediately dangerous to life in the wounds either in the face or shoulder. The amount of hæmorrhage in connection with the wound below the clavicle, coupled with the certainty that a large vessel—almost without doubt the subclavian—had been injured, pointed to the conclusion that this wound itself was dangerous to life, and one which might well cause death from loss of blood. But the heart-wound was, without doubt, the one of all the four most likely to kill. Considering, therefore, the torn nature of this wound, the ease with which blood could be poured out, and the vast quantity of blood found within the thorax, I concluded that, either from the shock to the heart, from direct loss of blood, or from interference with the cardiac action by the pressure of the effused blood, or from a combination of all these, life could not be prolonged beyond a couple of minutes after its infliction.

Having, then, considered the facts already detailed, it became necessary to consider whether the wounds were suicidal or homicidal. And, first of all, putting aside, for the time, the wound in the shoulder, was it *possible* for the deceased himself to inflict the other three wounds—Nos. 1, 2, and 3? The first point to consider was whether, after the amount of injury inflicted by two of them, a man would yet have power to fire the third shot. I have already stated that, in my opinion, the heart-wound had been inflicted after that below the clavicle; and that there was nothing in the face-wound whereby I could say in what relation it stood to any of the other injuries in point of sequence. But, naturally endeavouring to reconcile the injuries to the theory of suicide, I found no difficulty in allowing that the face-wound also might have been inflicted before that of the heart; and thus the heart-wound would be placed last of the three. This was evidently the most favourable arrangement, if the case were to be found to be one of suicide; for it did away with the necessity of supposing that an old man, after having fired one shot through a large vessel and another through his heart, should yet be able to fire a third bullet into his face—a supposition that appeared to me impossible of acceptance, and one which, fortunately, there was no reason to adopt in order to admit the suicidal character of the injuries. Assuming, therefore, that the shots had been fired in the order of, first, the face-wound, second, the wound below the clavicle, and third, the heart-wound, I felt that, although highly improbable, it was yet not impossible for all the three to have been self-inflicted.

But an examination of the clothing placed things in a different light. I have already said that I had arrived at the conclusion that shots numbers 2 and 3 had been fired at a probable distance of a foot, certainly at a distance of not less than six inches. But if any one will take a revolver in his left hand, with his finger on the trigger, and place the muzzle in such a position that it shall point at a spot two inches outside the nipple-line, and half an inch below that level, in a direction from left to right, forwards and downwards, he will find that the muzzle cannot be separated more than an inch or two from the side; and then it must be remembered that any loose clothing, like a shirt, would also be pulled away from the body by the lifting up of the arm to at least a similar distance, so that it becomes impossible to get the muzzle of the weapon appreciably separated from the clothing.

Was there then any other way of holding and firing the pistol, so as to inflict this wound, and yet to keep the muzzle at a distance of a foot, or a little less, from the body? I could find none; for, although it is possible to fire a shot into the side by pulling the trigger with the thumb, yet, putting aside the improbability of such a proceeding, I found that, if the elbow were raised to a level with the shoulder, as was the case when the wound in question was inflicted, then it was not possible to point the weapon in the necessary direction from left to right, downwards and forwards, whilst keeping the muzzle at the requisite distance. The weapon had certainly not been discharged at arm's length, for, at a distance of two feet, the powder did not mark the shirting used for experiment at all. These points can scarcely be thoroughly appreciated except with a pistol in the hand.

Considering, then, the position and direction of the heart-wound, together with the entire absence of burning or singeing of the shirt, and feeling certain that the weapon must have been held in close contact with the chest if the wound were suicidal, I arrived at the conclusion that it was not possible for the deceased himself to have fired the shot through his heart.

Having, then, considered the possibilities of the self-infliction of the three wounds on the front of the body, I will now turn to the wound in the back (No. 4). I have already shown that this must have been inflicted with the pistol in near contact, and with the muzzle pointing directly forwards. Neither Mr. Parrott nor myself was able to place the pistol in anything like the position necessary for the infliction of such a wound on our own persons; others, who tried, were similarly unable; and putting aside the gross improbability of such a wound being intentionally inflicted, I felt justified in saying that a stout and heavily built man, even in his death struggle, could not possibly cause the injury in question; that the wound could not have been inflicted so long as the weapon remained in either hand of the deceased. I think this conclusion will be sufficiently obvious to any one who, like the twelve jurymen, tried to perform on himself the feat of placing and holding a pistol in the necessary position, more particularly with his finger on the trigger.

So far, then, I had arrived at the conclusion that two out of the four wounds were certainly not self-inflicted; and if they were not suicidal, the natural inference was that neither were the other two; it was immeasurably more probable that the same hand had inflicted all four.

The next point to consider was the probabilities in favour of or against the theory of suicide which presented themselves to a medico-legal witness.

First, was the deceased a man likely to make a desperate attempt upon his own life? The only evidence in support of such a theory was a statement by the prisoner, to the effect that her husband had injured his head five years ago, and had complained of headache at various times since. In controversion of this, Mr. Parrott, whose assistant had attended deceased at the time of the said accident, informed me that the injury had been a trifling one, and that, although he had himself frequently attended the deceased, during the past few years, for slight ailments, he had never heard him complain of his head, nor had he ever noticed any difference in his manner. The suggestion made by the prisoner was that her husband had been suddenly seized with a fit of mania, and that, in this fit, he had committed suicide.

Now, I am quite prepared to allow that there is frequently no adequate cause to be found for suicide in cases where this crime has undoubtedly been committed, yet it is a most extremely rare thing for a man to reach the age of 65 years without at any time showing the least tendency towards mania or delusions, and then to be seized with a most sudden attack of frenzy; for it must be remembered that so late as an hour before his death he was well and strong, cheerful and happy.

Then, were the wounds, taken together, such as would be likely to be self-inflicted? I thought they were not, and for the following reasons.

1. It is extraordinarily rare to find so many as three or four wounds in cases of suicide, and the extreme diversity of their situation argued against the self-infliction of all of them. The man was certainly quite sane as lately as an hour before his death; if the wounds were self-inflicted, then this was one of the most determined cases of suicide on record.

2. The amount of injury caused by the two first wounds on the front of the body of the deceased rendered it in the highest degree improbable that he should fire yet another shot, not to mention the wound in the back. The pain and shock caused by the infliction of a single wound such as that which shattered the upper jaw would satisfy most suicides, unless they were absolutely mad, and another injury, with great loss of blood, such as that caused by wound No. 2, would more than double the improbability of the wilful infliction of a third wound.

3. The position and direction of the wounds were greatly opposed to the theory of suicide. Wound No. 1 had entered the face from right to left, and, though it might possibly have been fired by the left hand, was presumably, if suicidal, inflicted with the right. Wound No. 3 could only have been inflicted with the left hand, a condition of things which argued a change of hands during the infliction of the injuries. Then it is a most unusual thing for a man naturally right handed, as was the deceased, to use a weapon of any kind with the left hand. Again, the heart-wound (No. 3) was in such a situation and direction as to make it extremely awkward and difficult for it to be self-inflicted under any circumstances. A man about to kill himself does not hold the weapon in such a position. For if anyone will try holding a pistol against his side at the spot I have already indicated,

pointing forwards and downwards, he will find that his hand is rendered so powerless by the constrained attitude, that he will have difficulty in pulling the trigger at all. But if, in addition, the previous shot had wounded the subclavian artery of the left side, as was almost certainly the case, the improbability of the left hand being used to fire the pistol is greatly increased. Every surgeon knows the numb and powerless feeling that follows on the sudden stoppage of blood to a limb. In allowing, therefore, the possibility of the self-infliction of all three of the above wounds, I felt that I had given the prisoner the benefit of whatever doubt existed; I could not conscientiously say that such infliction was at all probable.

4. The condition of the clothing around wounds Nos. 2 and 3 was adverse to the theory of suicide. Putting aside the possibility of holding the pistol at a distance whilst inflicting the heart-wound, it is a well known fact that suicides almost invariably hold the weapon in close contact with the body, and both the clothing and body become blackened by the powder. If a man wish to kill himself, he does not hold the weapon at a distance of a foot, yet this was the most probable distance at which the weapon had been fired; it had certainly not been in close contact.

5. A fifth bullet which had been fired had entirely missed the deceased, and was subsequently picked up in the bedroom. It is an extremely unusual thing for a man to completely miss himself when trying to commit suicide with a revolver.

At the trial, the question naturally arose, "Could the wound in the back have been inflicted by accident?" First, could it have been caused during a struggle between the deceased and his wife for possession of the weapon? The evident reply to this was, that it could not be so inflicted, unless the wife herself had possession of the pistol (I have repeatedly insisted on the impossibility of its infliction so long as the weapon was in either hand of the deceased); and, granted that she had possession of it, there was nothing in the character of the wound itself to give information as to whether the finger that pulled the trigger had pulled it accidentally or otherwise; it did not appear to me to be a question for a medical witness at all. Nevertheless, it is evident that the improbability of such a wound being accidental is very great, considering what must have been the position of the pistol. And it must be remembered that, in none of the statements of the prisoner, did she say that there had been a struggle, or that she had ever obtained possession of the weapon, or that a shot had been fired whilst she tried to stop her husband from killing himself.

The next suggestion of the learned counsel for the prisoner was that, after the deceased had fired the three wounds on the front of the body and face, he dropped the pistol, and then, falling backwards on it, the cartridge exploded, and the wound in the shoulder was inflicted. I declined to say that such an accident was absolutely impossible, but it was most improbable; for the deceased was found lying on his face, not on his back. And then, in order to inflict such a wound, it was evident that he must fall on the upright muzzle of the pistol, balanced with its butt against the ground; for, as the weapon lay flat on the floor, the wound in question could not possibly be inflicted. Then, there was another and almost insuperable objection to the possibility of such an accident, which, however, I omitted to mention in the witness-box. As already explained, the revolver was not a "self-cocking" one, it had not a "rebounding lock." If, therefore, it had been dropped after the infliction of the heart-wound, without being recocked, it could not explode; for until recocked, or until the trigger was pulled, the empty cartridge-case of the bullet last fired alone lay in contact with the barrel. In order to bring up a fresh cartridge, it was necessary to "revolve" the cylinder containing it by cocking, or pulling the trigger. Was it likely that the deceased, after inflicting three serious wounds—one at least fatal—would recock the pistol, drop it, and then fall so as to cause it to explode and inflict the wound in question? Most unlikely, if not impossible, it seemed to me; especially if it be considered that, had he wanted to fire another shot, he could have done so by pulling the trigger without recocking. Lastly, the condition of the clothing over the back wound negatived this supposition; for I have already stated that it did not seem probable that the weapon had been fired whilst pressed close against the back, as would have been the case if the deceased had fallen on the muzzle of the pistol. Thus, no sufficiently plausible explanation could be found in support of the accidental infliction of wound No. 4, although the possibility of its infliction by accident was not absolutely denied by myself, and was put to the jury by the counsel for the prisoner, and by the judge in his summing up.

I have now detailed, in full, the whole of the medico-legal facts bearing upon the case, and have endeavoured to place before the profession the evidence, as far as Mr. Parrott and myself are concerned, upon which the prisoner was convicted of murder. I have no intention of dealing with any of the other evidence adduced at the trial. For my own part, I may say that a very anxious and long consideration of the facts of the case in all its bearings, fully convinced me that it was one of homicide, and I found myself quite unable to reconcile the facts with the theory of suicide. Whether or not the medical evidence, taken in conjunction with the other circumstances of the case, was sufficient to justify a verdict of "guilty" is not for me to settle, but that verdict was one in which the presiding judge entirely concurred.

The case has excited much public interest, and many people have expressed their doubts as to the correctness of the conviction. I think these doubts are readily explained. The position and direction of the wounds, demonstrated by Mr. Parrott and myself on a plaster bust to the judge and jury, the explanation of medical points, whose importance it was not easy to grasp, was not the kind of evidence likely to be faithfully and correctly reproduced by the newspaper reporters. The consequence was that the most absurd statements were put into the mouths of the medical witnesses, and in no paper that I read did my own evidence occupy more than a dozen lines; indeed, one journal, which devoted two entire "leaders" to the case, and especially to the medical evidence, did not report a single word uttered by myself in the witness-box. Now, personally, this is a matter of entire indifference, except that it has exposed me to the attacks of innumerable correspondents; and, before I leave the matter, I would merely say that, had I been one of the general public, I should certainly have felt some of the dissatisfaction which found a vent in the press, though I think also I should have had sufficient confidence in trial by jury, to rest assured that there was more evidence than appeared on the surface.

But while I am not surprised at the feeling expressed by the reading public, I confess I had felt pretty confident that members of my own profession would withhold their condemnation, if not their opinion, until they were in possession of the real facts of the case; and I am only sorry to find I have been mistaken. There has, apparently, been a prevailing impression, gathered whence I know not, that in order to prove the case one of suicide it is necessary to presuppose the ability of the deceased to fire other shots after the wound of the heart. If anyone will refer to what I have written, he will find that there is no necessity for anything of the kind. Well, with this idea apparently fixed in their heads, numerous correspondents have detailed at length, as singular and extraordinary, cases in which a man has lived for a variable time, and possessed the power to perform various actions after a heart-wound. They also kindly conclude that the medical witnesses did not realise the possibility of such an occurrence. Now, the very fact that these numerous writers each considered his own case a singular one, showed very plainly that the ignorance was on their side; for every surgeon is, or should be, aware, that the cases of heart-wound that have not proved immediately fatal may be counted by dozens, not by units; and, further, that complete recovery may ensue after such injuries. Lastly, the same class of correspondents—most, I am glad to say, not in the medical profession—speak of all heart-wounds in general, and assume that, because one may not be immediately fatal, therefore all the others may run a similar course—a deduction which is simply absurd. But it is not a material point in the present case, whether the heart-wound was immediately fatal or not; and there appears to me to be no reason for raising a discussion on what is simply a side question.

I cannot, however, leave this part of the case without referring to the action taken by a medical journal in commenting on the evidence of Mr. Parrott and myself. Four days after the trial was finished, an editorial "annotation" not only threw doubt upon the justice of the verdict—a course of which I do not complain—but also made the following statement. "The inferences of the medical witnesses were at variance with similar known facts in other cases on record, in which a shot has been fired by a suicide in the interval between the infliction of a mortal wound—even of the heart—and death. Moreover, a wound in the back is peculiarly likely to be self-inflicted if the suicide falls forward, or on his side, while the arm, still clutching the pistol, is convulsively drawn, stiffened, and, by the fall, twisted back."

Such a statement, I submit, is absolutely incorrect and misleading. It implies—first, that the medical witnesses did not allow the possibility of the self-infliction of as many as two or three wounds; and, second, that there was an evident and ready explanation of the wound found in the back.

I have already explained that I did allow the possibility of the self-infliction of all the three wounds on the front of the body and face, that is, as far as the amount of injury inflicted by the first two, and

the liability of such injury to prevent the possible infliction of a third, was concerned; the probability of such self-infliction was a question left to the jury to decide.

As to the wound in the back, not only is it an entire supposition that the "arm still clutching the pistol" was "convulsively drawn, stiffened, and by the fall twisted back," whilst the deceased was found with one arm outstretched, the other doubled beneath him, and the pistol lying by his side; but I have already pointed out, and still maintain, that the particular wound in question could not by any possibility be inflicted so long as the pistol remained in either hand of the deceased. Under such circumstances, I say that it is distinctly misleading to the general public, for whom, apparently, this annotation was written, to say that "a wound in the back" is peculiarly likely to be self-inflicted, etc.; for it certainly implies that the wound found in the back of the deceased could be so caused.

And partly in self-defence, but also in the interests of medical witnesses in general, I do protest most strongly against a medical journal condemning medical evidence on the scanty and insufficient accounts in the daily press. The attacks of correspondents and article-writers are to be expected, and I have not considered it either necessary or advisable to carry on a discussion on medical subjects in the daily papers; but from those who edit the medical papers, I think medical witnesses have a right to expect better treatment, and I entirely agree with a paragraph in the BRITISH MEDICAL JOURNAL, that, "this important case is one on which it would be rash to express an opinion without the most complete data, and a careful description of the wounds in all their bearings is requisite to enable any surgeon to form an opinion of value as to the case."

The expression of hostile opinion to which I have referred above has been accepted by the public at large as indicating that of the medical profession, and implying that the prisoner was in this case wrongfully convicted by reason of some gross misrepresentation of the medical witnesses. The paragraph I have quoted has been the text for various articles pointing to this conclusion. I therefore submit the whole of the facts of the case to the profession at large; and whilst I do not for an instant suppose that, in a difficult and intricate case, my deductions and conclusions will in every particular meet with universal approval, I am confident that the prisoner was not convicted by any misrepresentation of facts by the medical witnesses.

In conclusion, I may say that I shall be very glad if this report induces those who have had greater experience than myself in medico-legal work to express their opinions on the result of the trial, and on the many points for consideration presented by the medico-legal aspects of the case. For my own part, I may say that I shall be happy to furnish any other information in my power. To Mr. Parrott I am much indebted for the most able assistance, without which the present account would have been very imperfect.

ON A CHEAP FORM OF ARTIFICIAL LEG.

By RICHARD BARWELL, F.R.C.S.,
Senior Surgeon to Charing Cross Hospital.

FOR very many years—indeed, I know not for how many—all not wealthy persons having the misfortune to lose a leg, were provided with a support for the body, termed a bucket or pin-leg. This extremely unsightly apparatus appears so hallowed by Rowlandson's and Cruikshank's drawings, and by the "Timber Toe" class of Dibdin song, that in England no serious attempt has been made to improve it. Nevertheless, it is for progression very awkward and clumsy; in sitting, especially, if other persons be moving about in the room, extremely cumbersome. Nor is the bucket, with the upright and strap, a mode of fixation to which people become accustomed without previously undergoing a good deal of galling, abrasion, and other discomfort.

Hence it is somewhat surprising that a form of artificial leg, known long ago both in Paris and Rome, should not have been more extensively introduced and appreciated here, especially as an article by Miss W. M. Wyse,[1] and a pamphlet by General Maxwell,[2] give excellent descriptions of the mechanism and reports of its efficiency. Probably the cause of this may be, that neither of those publications have fallen under the notice of hospital surgeons, or others having frequent occasion to order artificial limbs. Hence it appears to me desirable to make, through the pages of the BRITISH MEDICAL JOURNAL, these appliances more widely known.

They were invented about the year 1847, by the Comte de Beaufort, but have come more markedly into use in and after 1870. The count's inventions embrace both an artificial arm, with a movable prehensile thumb, and a leg. But in the present paper I shall speak only of the leg, deferring mention of the arm until a rather wider experience has been acquired.

Of the leg, two forms exist—the one for amputation below, the other above the knee. We will begin with the former. It consists of, to quote in part General Maxwell—1. "A wooden foot, soled, and partly covered with leather;" 2. "Two uprights of beechwood, curved to the form of the leg, when seen from before or behind, and provided with a knuckle-joint in the position of the knee;" 3. "Between the uprights are leathern sockets, laced up in front—one for the thigh, the other for the shank or stump."

In this form the limb answers admirably, and many hundreds have been supplied by the society "L'Assistance aux Mutilés Pauvres," both in France and Italy; but the mode of workmanship and the arrangements of workshops in England render it simpler, and therefore cheaper, to make the uprights of steel. The following is the mode of manufacture, which, after many consultations on the subject, I have arranged with Mr. Schramm, of Belmont Street, N.W.

Leather or poroplastic felt is cut to the proper size, soaked or steamed, and moulded by hand and bandage to the thigh and to the thigh and leg-stump. While these are hardening, the necessary measurements



Fig. 1.
The engraving is taken from a patient with an unusually short leg-stump. If in this plate, and in plate 2, the socket had been continued to the top of the boot as recommended, the appearance would have been as of a natural limb with supports. By some blunder, the hinge is not of the proper form; the lower segment should curve backward, not forward.

for length are taken. A tracing is made of the foot, that the size of the artificial may correspond with that of the natural one. Also tracings are made of the outer and inner margins of the limb, as models of the curves to which the steel uprights must be bent. The foot, be it observed, is to be made of willow, the lightest wood. It is partially covered with kid-leather, and Mr. Schramm has introduced a mode of fixing a leather sole on a removable German-silver plate, in such wise that any cobbler can renew it in half an hour.

The sole is not flat like that of a shoe, but curved, the curve being

[1] "Arms and Legs in France," *Macmillan's Magazine*, 1882.
[2] "Arms and Legs in Rome," by Henry Hamilton Maxwell, Lieutenant-General Royal Artillery, Rome.

struck from the knee as a centre with a radius equal to the height; from that joint to the ground, this curve compensates for the absence of an ankle-joint. The steel uprights, jointed at the knee, are then rivetted to this foot and to the sockets already prepared, to which straps are also to be secured; hence results an artificial limb like that depicted below, which fits firmly, and adheres well to the stump, and with which patients walk very well indeed, with very little fatigue and without chafing. Its appearance may be much improved, however, by continuing the lower socket downward to the boot.

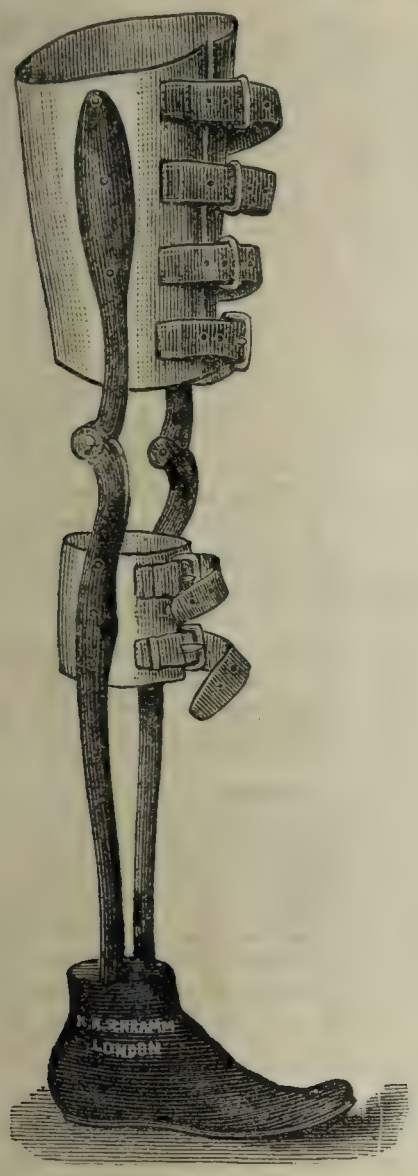


Fig. 2.

For amputation above the knee, with a tolerably long thigh-stump, some modification has to be introduced; thus the hinge of the upright at the situation of that joint must be provided with a simple mechanism that fixes it in a straight position, and quite stiff during progression, and which, by an action of the hand, may be released, allowing the limb to bend, as the natural knee does, in sitting down.

A few words concerning weight and price are now necessary. The Beaufort leg is stated by General Maxwell to weigh about five pounds; the limb as modified—namely, steel being substituted for wood uprights, weighs about four pounds. The price at which such a limb can be made is £3 3s. for amputation below, £3 13s. for amputation above the knee.[1] A pin or bucket leg costs from 25s. to 30s. Thus, in point of immediate outlay, the Beaufort leg is less advantageous than the sort of limb usually supplied; but, in point of appearance, utility, and comfort, there really is no comparison between the two; and indigent persons obtaining such pecuniary assistance as may be necessary, are able to follow their avocations with this leg in very considerable comfort, while to many a little better circumstanced, such a limb is procurable without undue strain on their resources.

[1] Mr. Schramm tells me that his calculation is the lowest possible, and that it is founded on the supposition of his having to make a large number. To make one limb, or only a few, at such price, would not pay him.

PRESENTATION.—Mr. W. J. Penny has been presented with a handsome clock, by the officers, students, and nurses of the Bristol General Hospital, as a token of their regard and high estimation of his labours, as house-surgeon, upon his retiring after three years' service.

A CASE OF DOUBLE, OR BILATERAL, HERPES ZOSTER.

By J. MAGEE FINNY, M.D.Univ.Dub., F.K.Q.C.P.I.,
Physician to Sir Patrick Dun's Hospital, Dublin.

THE following case, having recently occurred in the extern department of the hospital, is worthy of record, on account of the rarity of herpes zoster attacking both sides at the same time.

Mrs. D., aged 40, an otherwise healthy well-to-do woman, consulted me on September 29th, 1884, for what she feared was erysipelas of her neck and ear, and for a most severe headache, which had lasted for four days, and had deprived her of sleep. She stated that the headache was all over her head, but particularly on the right side, and that at the time of its first appearance she noticed a number of small red spots on the left side of her neck and shoulder, that these spots had a burning "sore" pain, that they had increased in size and number since the day before her visit, and that also her right ear was very sore, while a number of painful spots had broken out through her hair on the back of the scalp on the right side.

On inspection, the characteristic erythematous patches of herpes zoster, studded with vesicles of various sizes, were at once recognised; and it was evident that both sides were simultaneously affected, although at a somewhat different level. On the left side, the erythematous patches were most numerous; they followed the distribution of the descending sensory nerves of the cervical plexus, with the exception of the suprasternal division, and were limited to the upper part of the deltoid and pectoral muscles; a large patch occupied the posterior superior triangle of the neck, and one or two small ones were over the sterno-mastoid. The eruption on this side would correspond to von Bärensprung's variety, *Z. cervico-subclavicularis*. On the right side, the ascending branches of the second and third cervical nerves were those engaged (*Nervus occipito-collaris*), and no patches were visible below the level of the thyroid body, though a large cluster occupied the anterior triangle of the neck as far forwards as that body, corresponding to the junction and cutaneous distribution of the superficialis colli and inframaxillary branch of the facial nerve. Another patch was on the lower jaw, and a third was situated near the mastoid, over the origin of the plexus. The whole of the external ear was red and swollen, and thickly studded with very minute vesicles, the swelling extending a short way into the meatus auditorius. The scalp on the same side, and strictly limited to that side, as far forward as the mid-parietal region, was the seat of a number of scattered pimples and vesicles (the redness usual in herpes elsewhere being absent), and which followed closely the course of the greater and lesser occipital nerves.

When the patient was seen a few days subsequently, the majority of the bullæ had been arrested or had aborted, some few had become confluent and turbid, and those in the scalp were larger, and most distinctly bullous. The patient's general health had been fairly restored, as she was able to sleep, and the headache and the burning stinging pain in the affected parts had greatly abated. No new spots had appeared, but on the right side, above the clavicle, where the skin was free from all rash, very considerable soreness was complained of.

The treatment consisted of quinine and iron, in combination with sulphate of magnesia, and the local application of flexible collodion to the neck, and weak carbolic ointment to the scalp. The patient soon recovered.

REMARKS.—The foregoing illustrates at once the characteristic features of regular herpes zoster and certain unusual peculiarities. To the first belong (*a*) the sudden occurrence of the eruption, (*b*) its course along the cutaneous distribution of the sensory nerves, (*c*) the neuralgic phenomena which preceded and accompanied its appearance, and (*d*) the acute course of the complaint. To the latter may be referred (1) the occurrence of herpes of the scalp, and (2) the coexistence of the disease at different sides of the neck.

Herpes zoster, or, as I consider it might be termed, with a nearer approach to an accurate nomenclature, *neurotic herpes*, may be found in almost any part of the body. It has, however, its predilections for certain parts, if one may be permitted so to speak of a disease. The most favourite sites are in the course of the intercostal nerves and the lumbo-sacral plexus; next in order come the brachial plexus, the descending branches of the cervical, and the frontal or facial branches of the fifth nerve. Among the most rare, are the occipital nerve and the nerves of the forearms and legs.

The chief interest of the foregoing case is, however, centred in the fact that the herpes attacked both sides at the same time. This is one of the rarest manifestations of a not uncommon affection; and, indeed, in many of the most recent text-books, the possibility of

zoster being bilateral, instead of on one side only, is not even mentioned. "Unilateral herpes" is the name by which it is sometimes known; and the recognition of the almost invariable rule of its attacking but one side of the trunk, extremities, or face, is of great diagnostic value in contrasting it with catarrhal or simple herpes, which attacks one or both sides indifferently. In the comparatively few instances on record of bilateral herpes zoster, the eruption, as in the above case, is not on exactly the same level; but the cutaneous nerves attacked on one side are on a higher or lower level than those on the other side.

A CONVENIENT OPHTHALMOSCOPE FOR STUDENTS AND PRACTITIONERS.

By ARTHUR H. BENSON, F.R.C.S.I.,
Ophthalmic and Aural Surgeon to the City of Dublin Hospital.

The instrument of which the accompanying woodcut gives a fair idea, was designed to meet the requirements of the students attending St. Mark's Ophthalmic Hospital, Dublin. As it possesses, I think, some novelty of design, and is a more useful and efficient instrument than any of the cheaper ones at present in use elsewhere, I venture to draw attention to it.

A student's ophthalmoscope, as also an ophthalmoscope for all general purposes, should possess, as far as possible, the following qualities.

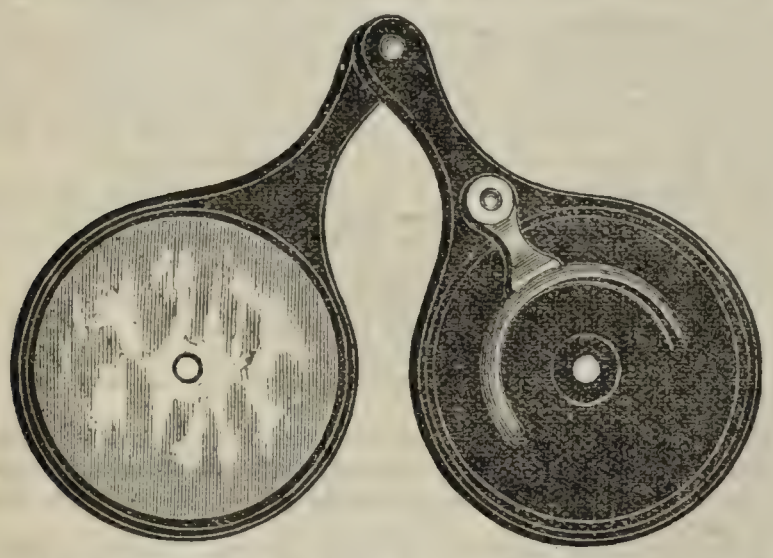
1. *Portability.*—It should be light and compact, so as to allow it to be always carried without inconvenience.

2. *Simplicity.*—It should be as free as possible from complicated mechanism, and should not consist of separable parts liable to be lost or mislaid.

3. *Cheapness.*—It should be so cheap that no medical man should be without one.

4. *Efficiency.*—By this I mean that it should be sufficiently perfect to fulfil all the ordinary requirements of an ophthalmoscopic examination, both of the fundus and of the refraction of the eye.

Since the method of testing refraction by retinoscopy has so completely taken the place of the erect image method, the elaborate and expensive series of lenses incorporated in the so-called "refraction" ophthalmoscopes (Wecker's, Landolt's, Fox's, Nettleship's, etc.) have



become almost useless; and although the specialist may still wish to possess one of these beautiful pieces of mechanism, he will find that the instrument I am about to describe will fulfil the necessities of ninety-nine per cent. of his cases.

My ophthalmoscope consists of a plane and a concave mirror of the same size and curvature as those in Landolt's. The glass in both mirrors is perforated, the hole in the plane mirror being made somewhat larger than that in the concave one. The frame is made of black horn, cut into much the shape of the old fashion double eyeglasses, with a joint in the centre to permit its folding up. Behind the concave mirror is a clip for holding the lenses (as in Liebreich's), for direct examination in cases of ametropia.

When using the instrument, one mirror is held in the hand, whilst the other is in front of the eye; thus the necessity for a handle is obviated, and the unpleasant and disturbing reflections experienced in using Nettleship's reversible mirror are avoided. The ophthalmoscope, when folded, measures only two inches and a quarter in length, and an inch and a quarter in breadth, and weighs (without the lenses) less than half an ounce. It is fitted into a small soft leather case, which also contains pockets for the four small lenses, and for one large convex lens two inches in diameter; the latter, for use in the inverted method, etc., will perhaps be more conveniently kept separate, as the case will then lie quite flat in the waistcoat- or watch-pocket, taking up no more room than an ordinary *pince-nez*. My custom is to carry the large lens in a chamois bag. The lens has a hole in its periphery, through which a loop of string is passed; this enables me to hang it, when not in use, on my wrist, or on a button of my coat, instead of laying it down where it is liable to be scratched and mislaid. This is especially convenient in working in the out-patient department.

The advantages which I claim for this ophthalmoscope are its "portability," its "simplicity," its "cheapness" (about 5s. 6d.; large lens, 2s. 6d.), and its "efficiency." I need not here restate the advantages of the plane mirror in retinoscopy, which have already been laid down by my friend and colleague Mr. Story (*Ophthalmic Review*, August 1883), and are now accepted; nor need I say how incomparably better, for all purposes, is the large inverting lens, than the small ones sold with Liebreich's instrument. The ophthalmoscope is so light that, even if it falls, it is unlikely to be injured; and, when folded, both the glass surfaces are protected, so that the soft leather case keeps it in safety. It was made for me by Mr. George Prescott, of 9, Merrion Row, Dublin.

THE TREATMENT OF VASCULAR HYPERTROPHY OF THE NOSE.

Read in the Section of Medicine at the Fifty-Second Annual Meeting of the British Medical Association.

By J. HERBERT STOWERS, M.D.,
Physician to Department for Skin Diseases, North-West-London Hospital.

Occasionally, allied to acne rosacea, we meet with instances more or less severe of hypertrophy of the nose. Apart from cutaneous disorder, cases occur in which simple passive congestion of the organ exists, attended with troublesome subjective symptoms, as tenderness, throbbing, irritability, etc.

I am not aware that any special treatment has been advocated for the above, neither do I know that in any published treatise vascular hypertrophy of the nose is fully dealt with.

Chronic passive congestion leads to connective tissue increase, and to the production of lasting deformity; indeed, examples of such must be familiar to all. I do not contend that cases of long standing can always be cured by the method I propose, especially when the apex is pendulous, or bulbous, but in acute rosaceous acne, simple passive congestion with enlargement, or fibro-cellular hypertrophy, I would commend with much favour the adoption of the plan described by the title "multiple punctiform scarification."

Hebra, years since, suggested that for the more effectual treatment of erythematous lupus, a bundle of scalpels should be tied together, to enable many, more or less deep, punctures to be made perpendicularly to the surface in the skin by one movement of the hand.

At the instigation of Dr. Sangster, physician to the skin-department of the Charing Cross Hospital, a convenient instrument has been devised whereby the necessary number of minute double-edged steel blades can be included in one handle. Such an instrument I am enabled to show you at this time.

The intense congestion of the skin in rosaceous acne I had often permanently relieved by local depletion, but it was not until I was familiar with this instrument that I learnt the lasting benefit resulting from frequent blood-letting in this and more aggravated states. After the congested organ has been thoroughly fomented with water, as hot as it can be borne for several minutes, it should be held, and somewhat compressed, between the left thumb and finger of the operator, and then rapidly punctured with the instrument (two or more blades of which are "guarded" to prevent too deep insertion), perpendicularly to the surface, from base to apex. The compression considerably reduces the pain attendant upon the procedure.

It must necessarily be at the discretion of the practitioner in what cases, and how often, this plan should be adopted and repeated.

Although the number of punctures must vary with the severity of the case, the narration of three cases under my care, permanently benefited, will, I hope, be useful and instructive. These were respectively under treatment seven months, seven months, and five months, and the corresponding number of punctures in each case were 15,750, 11,150, and 52,200. The average number of punctures tolerated at one sitting will, of course, also vary with the sensitiveness of the part and the endurance of the patient. I have found by experience that from 500 to 3,000 is about the average, for, necessarily, the process is

followed by temporary inflammatory swelling, which, however, soon subsides.

The average interval I have allowed to elapse between each operation, has varied from five days to a fortnight, and the quantity of blood abstracted from one to three drachms.

Smearing the surface with vaseline, and protecting from the outer air, especially in cold weather, is the only additional treatment needed, besides such internal remedies, saline aperients, alteratives, etc., as the general condition of the patient may indicate. I may add, I have seen no complication, or untoward symptom, result from this method. The use of alcohol must be emphatically denied.

I repeat, in all instances, lasting and satisfactory results have been procured, and are attributable to the local depletion, which allows recovery of tone of vessels, the contractibility of which has not been permanently destroyed, and also to the invisible scarring which, by after-contraction, reduces the vascularity of the skin. This after-scarring is hardly discernible.

I regard this method as capable of preventing cellular, and fibro-cellular, hypertrophy, which results from long continued passive vascular congestion of the nose.

Case I.—Elizabeth W., aged 42, single. Duration, five years. She had frequently taken spirits for alleged "weak heart." Debility, dyspepsia, and dysmenorrhœa. Total, 15,750 punctures, distributed over fifteen sittings, and a period of seven months. Commenced January 1883. Result permanent and satisfactory.

Case II.—A surgeon, suffering from acne rosacea and vascular hypertrophy. Duration, eighteen years; commencing at the age of 15. He had suffered from atonic dyspepsia. In twelve separate sittings, extending over a period of seven months, 11,150 punctures; commenced January 1882. Result permanent and satisfactory.

Case III.—Patrick P., aged 50. Plethoric; health good. Duration, six years. Very abstemious. Total, 52,200 punctures, included in twenty-two separate operations, over a period of five months. Commenced December 1882. Result to present, permanent and satisfactory.

A POINT IN THE TREATMENT OF PURULENT OPHTHALMIA.

Read in the Section of Ophthalmology at the Fifty-Second Annual Meeting of the British Medical Association.

By EDGAR A. BROWNE, M.R.C.S.Eng.,
Surgeon to the Liverpool Eye and Ear Infirmary.

In purulent ophthalmia, the indications of treatment are (1) to wash away the infective material as thoroughly and as early as possible; (2) to render the conjunctival epithelium and secretions as nearly as may be aseptic.

Too much stress cannot be laid on the necessity for securing the most perfect fulfilment of the first of these conditions. On this head, all practical surgeons are agreed. The intensity of an attack is greatly modified by the period at which the first thorough cleansing takes place. We frequently have the opportunity in gonorrhœal infection of forming a rough estimate of the virulence of the discharge by inspection of the penis, and it must have occurred to most of us to have noticed that cases in which the urethral inflammation has been at its height have, when cleansed immediately on discovery, been less violent in their course, and less disastrous in their results, than milder cases which were at first neglected. But the configuration of the upper lid renders thorough cleansing extremely difficult, and perfect antisepsis is, of course, impossible. The main difficulty lies in reaching the upper sulcus. If, in a case of moderate severity, without much swelling, we evert the upper lid, and carefully press the conjunctival *cul-de-sac* into view, by means of a probe, we often find, even immediately after a dressing, that this important portion of the mucous tract has neither been effectually cleansed by the washing, nor affected by the astringent. In other words, the strongest focus of infection receives the weakest treatment. To obviate these disadvantages, I have employed a lid-irrigator, which enables us to throw a stream of pure or medicated water into the sulcus for any length of time we please.

The instrument resembles an ordinary lid-elevator, but is rather deeper in the claw, and constructed of hollow plated tubing, instead of wire. It is furnished above with a handle, and behind a small curved nozzle is connected by means of an India-rubber pipe, six or seven feet long, with a reservoir capable of containing about a quart of solution. The limb that passes beneath the upper eyelid is pierced with six fine holes, through which the fluid issues as a douche. A stop-cock, or spring-clip, is provided to regulate the flow.

In use, the reservoir is filled, and hung up. The surgeon or attendant stands behind the patient, who holds his head slightly inclined over a basin. The elevator is gently insinuated under the upper lid, and the stream turned on.

The points requiring attention are these: 1, it is necessary to ascertain that the orifices are patent; they are liable to become clogged; four in full play are sufficient; 2, the reservoir must be well elevated to give a good fall, and it must be nearly full to give a good pressure. I generally have a cord run over the curtain-pole, or a picture-nail, so as to get the greatest elevation the room will allow. The jets should be about a foot high when the instrument is held free from eyelid. If the play be not free, we do not attain our object. 3. The application must be prolonged; a quarter of an hour for a first dressing is the minimum I should allow myself. In severe cases, a longer period is advisable. The points aimed at are: continuous flow and prolonged soakage. Now, as to the fluid to be employed. An antiseptic that shall be effective, and yet not too strong; a tissue-irritant is required. I have tried a great number of substances at one time and another, but latterly my inclinations have set in rather strongly towards a preparation of trichlorphenol. I was first attracted by an account, in the *London Medical Record* for April 5th, 1883, of trichlorphenol as an antiseptic, by Dr. Dianin of St. Petersburg. He recommended a solution of trichlor-phenolate of calcium as an application in erysipelas. But the calcium solution is not fitted for eye-work; it deposits a precipitate; it is not easy to make or preserve at an uniform strength; and some specimens have unaccountably changed colour. With the assistance of Messrs. Clay and Abraham, I have managed to attain a satisfactory solution with a magnesia base. It can be made of a uniform strength of 5 per cent.; it is stable and free from particles.

Trichlophenol—that is, carbolic acid with three atoms of hydrogen replaced by chlorine—is said to be twenty-five times more powerful as an antiseptic than carbolic acid. I have no means of judging of the truth of this statement. Practically, I find a two per cent. solution amply strong enough for the first applications in gonorrhœal ophthalmia, and one per cent. for average use. It gives rise to a good deal of smarting, which ceases directly the flow is stopped. Some skins are easily irritated by its flow over the cheek; the majority are not affected. The skin may be protected by vaseline if necessary. I use it twice a day, for about a quarter of an hour. In one very severe case I have used it three times a day. As the case progresses, a one per cent. solution is sufficient; in some, a half per cent. In order to test the antiseptic value of the solution, I asked Dr. Alexander to allow a certain number of cases of gonorrhœa to be treated in the Lock Hospital of the Liverpool Workhouse. The method of irrigation was employed by means of an elastic catheter passed into the urethra, and an elevated reservoir. Twelve cases were treated, with an average of nine days' treatment; the longest case occupying eighteen days, the shortest three, one four days, and three of six each. The cures were complete. Some credit is doubtless due to the method of irrigation.

This is, I think, a sufficient test to warrant me in recommending this solution for further trial. No remedy, no method of treatment, can have its real value appraised till it has passed through many hands.

As regards the value of the method of prolonged irrigation, I have no doubt; and I feel justified in recommending the little instrument shown as a convenient and efficient means of employing it.

THERAPEUTIC MEMORANDA.

CUCAINE IN DENTISTRY.

Cucaine, in my hands, 24 per cent. solution, has been quite valueless in preventing the pain attending tooth-extraction. Applied to the gum several times, at intervals of some minutes, it has partially saved the patient the pain of adjusting the forceps; but the actual extraction, involving, as it does, the fracture of the alveolus and rupture of the vessels and nerve at the apical foramen, has been accompanied with the usual pain attending it. Applied to sensitive dentine, it is not at all certain in its action; and to an exposed, ulcerated, or inflamed pulp, not nearly so effectual as our old remedies, carbolic acid and creasote. The oil of cloves, with which the cucaine appears to have been mixed, will account for the success attending its application in the case reported in last week's Journal.

Morton Smale, Dental Surgeon,
89, Seymour Street, W. Westminster Hospital.

TOXIC ACTION OF IODOFORM.

Seeing a case recorded in the British Medical Journal of December 13th, by Dr. Hunter Mackenzie, in which it was incidentally mentioned that the use of iodoform was followed by delirium and delusions, I take this opportunity of making known a very remarkable case of a similar nature.

M. T., a healthy young man, was admitted into the Sussex County Hospital, under the care of Mr. Humphry, on October 17th, 1883. He had an ordinary hydrocele of the tunica vaginatis, which had been injected with iodine without success. The fluid was drawn off, and some powdered iodoform was blown into the sac through the cannula. This was followed by suppuration of the whole sac, and considerable constitutional disturbance; and the patient began to have delusions, dressing himself in strange costumes, and imagining he was of prodigious height, and growing rapidly. His ideas were all of an exalted character; he imagined he had the best tenor voice in the world, and proceeded to hire a large concert-hall in his native town, to give a concert. He left the hospital, and was consigned to an asylum; but, four months afterwards, was discharged perfectly well, and returned to his work as a schoolmaster. The cure of the hydrocele was a very complete one.

I also remember a case at the London Hospital, in which the application of powdered iodoform to some extensive ulcers of the leg was followed by severe constitutional disturbance, with delusions of a similar character. As these untoward results of the use of iodoform are not, I believe, very generally known, I thought it well to lose no time in placing these cases on record.

Robert Black, Sussex County Hospital, Brighton.

OBSTETRIC MEMORANDA.

THE POTENTIAL CAPACITY OF THE FEMALE BLADDER.

On October 22nd last, at twelve noon, I attended Mrs. N., aged 26, in her second confinement, and delivered her of a healthy female child, after a perfectly normal labour. On October 23rd the patient was doing well, and, according to the nurse, had passed about a pint of urine. On October 24th, on entering the lying-in chamber, I at once detected the odour of urine, and was told by the nurse that "she thought there was something wrong with the lady's water." I promptly passed a velvet-eyed red rubber catheter, and drew off ninety-six ounces of urine. I then learned for the first time, from the patient, that at her previous confinement (at which I had not attended), she had had a difficulty with her urine. On October 25th, I drew off about half the quantity of the previous day, and, detecting a faint ammoniacal odour, washed out the bladder with a solution of hyposulphite of soda (one drachm to the ounce).

The next day, and subsequently, the patient passed her urine in the natural way, and made an uninterrupted recovery.

I have not, as yet, taken any steps to ascertain the existence, or otherwise, of any anatomical condition, to account for the retention (there were no signs nor symptoms of calculus), but I consider the foregoing fact worthy of record.

J. Headley Neale, M.B., L.R.C.P.Lond., Leicester.

FOUR CONSECUTIVE TWIN-PREGNANCIES.

On the evening of December 17th, I delivered Mrs. O., aged 29, the wife of a small farmer, living about two miles from my house, of twins.

In conversation, I found that this was the fourth time in succession that she had been delivered of twins. She was born September 15th, 1855; married June 1st, 1871, at the age of 16 years, and had been delivered in order of the following.

1.	1872. July 27	...	Girl.
2.	1874. March 11	...	Boy.
3.	1876. Jan. 18	...	Boy.
4.	1877. Oct. 7	...	Girl.
5.	1880. Aug. 24	...	Twins; boys.
6.	1881. March 12	...	Twins (fourth month); boys.
7.	1883. April 6	...	Twins; boy and girl.
8.	1884. Dec. 17	...	Twins; girls.

All the children, with the exception of the one born 1874, who died in convulsions in 1876, and the children delivered in 1881, are living and healthy.

There was, in each case of twins, but one placenta. I may add, that the left hand of the first child born December 17th, 1884, is absent, the ends of the radius and ulna apparently having no covering but connective tissue and skin. The mother of Mrs. O. had twins on two occasions, with two single pregnancies between. I can find no recorded case of four consecutive twin-pregnancies.

John Hannay, Hinton, Salop.

CLINICAL MEMORANDA.

PNEUMONIA, OR "PNEUMONIC FEVER?"

In the *New York Medical Journal* of September 8th, 1883, Dr. Schuyler sums up a long argument in support of Flint's views. Schuyler relies mainly on the local processes, and emphasises the facts that the lung-stroma receives no damage, there is no increase of local heat; as the exudation is never caused by extension, so it never causes contiguous inflammation, not even bronchitis, nor pleuritic effusion. The effused blood is stagnant; it is not renewed, but simply accumulates. There is a total absence of adhesive results. The capillaries can be injected at any stage. The exudation, moreover, is unlike any inflammatory exudation in its excessive amount, its formation by coagulum, its firm consistency, its brief duration, and its complete disappearance.

I trust I have shown that the question of the non-inflammatory nature of pneumonia has been asked before; and I sincerely hope, for my own part, that the term "pneumonic fever" will henceforth replace the term "pneumonia." Edwd. J. Edwardes, M.D.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

BRITISH LYING-IN HOSPITAL.

SUCCESSIVE CRANIOTOMIES IN THE SAME SUBJECT.

(Under the care of Dr. Fancourt Barnes.)

The patient, H. D. H., aged 28, a small rickety woman, came into the hospital on November 7th, 1883, being at that time seven months advanced in her eighth pregnancy. She came into the hospital for the purpose of having labour induced, on account of contracted pelvis. In her first labour, she was delivered at full term by craniotomy. Her second labour was induced at seven months, and terminated by craniotomy. The same procedure was adopted with the third and fourth labours. Her fifth pregnancy ended by the induction of labour at six months and a half, completed by craniotomy. Induction of premature labour was also resorted to in her sixth pregnancy, at six months and a half gestation, when she was naturally delivered of female twins, the first of which survived four hours, the second three days. Her seventh pregnancy was concluded by the induction of labour at six and a half months, and the natural delivery of a still-born female child. In her eighth pregnancy, Dr. Fancourt Barnes induced premature labour on November 7th, 1883, by passing a carbolised bougie up into the uterus, between it and the membranes. Labour supervened in thirteen hours, and delivery was effected by Fancourt Barnes's cephalotribe; the child was a male. The lying-in was uncomplicated by unfavourable symptoms. The temperature was normal, except on November 13th, when it rose to 103.6° in the morning; it fell to 101.2° in the evening of the same day. On the morning of November 14th, the temperature was 101°, and in the evening it was normal. On November 15th, the morning temperature was 100.2°; in the evening it was normal, and remained so until the patient's discharge on November 22nd.

Remarks by Dr. Fancourt Barnes.—The above case is of interest as an example of a succession of craniotomies in the same woman. The case affords a striking answer to those who regard craniotomy as a dangerous operation to the mother. In this case, the mother was safely delivered by craniotomy on six occasions. Her case also affords proof as to the safety of inducing premature labour—a proceeding which she underwent seven times. An equally important question, however, is that of the destruction of six children by craniotomy. The results of the sixth and seventh pregnancies show that, even when it was possible to secure delivery by induction of premature labour without craniotomy, the children could not survive, because labour was induced at six months and a half. When, however, labour was induced at seven months, delivery was impossible without crani-

otomy. In such circumstances as the above, the question arises: Is the obstetrician justified in continuing to sacrifice a series of children, when he might, by one of the Cæsarean operations, save both mother and child?

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 23RD, 1884.

Sir ANDREW CLARK, Bart., M.D., President, in the Chair.

JOINT-DISEASE IN CONNECTION WITH LOCOMOTOR ATAXY: ADJOURNED DISCUSSION.

(Concluded from page 23.)

MR. HOWARD MARSH referred to the question whether Charcot's disease was to be considered a new disease or not. The doctrine that it was a new disease could not be enunciated by anyone of greater authority than Sir James Paget; but he was sure that Sir James Paget would be the last to wish anyone to accept his propositions without mentioning the difficulties that stood in their way. Sir James Paget had alluded to the evolution of disease, and he supposed all must acknowledge that disease was, to a certain extent, subject to the process of evolution or modification as time went on; but the great difficulty he had was in seeing how this disease should have been evolved in the time within which they were bound to limit it. Sir James Paget said that he considered it impossible, or in the highest degree improbable, that John Hunter and others whom he named should have overlooked the disease; therefore, although that position was merely negative, he came to the conclusion that it was safe to say that, as they had left no record of it, it did not exist in their time. Sir James Paget stopped at 1850, much about the time when Stanley's book on *Diseases of the Joints* was published, and therefore at a time up to which Stanley might have been supposed to have worked hard at this subject. Following Mr. Stanley and Hunter there was Sir James Paget himself, and he was working at a time of altogether greater pathological light than that in which Hunter lived, and there were surrounding him much larger opportunities for discovering the disease than those which Hunter enjoyed. But it was said that Sir James Paget, if this disease existed, did overlook it from 1850 to 1868. Then again, looking to a later period even than that, there must be a great many who would acknowledge, even in recent times, that they had never seen this disease, that it had not been brought to the societies, that it was not preserved in the different museums; and it did seem to his mind quite as easy to believe that Hunter and Longstaff and Stanley overlooked the disease in their period, as that it had been overlooked in such recent times as those to which he alluded. Then, again, the question had been asked—Supposing this to be a new disease, out of what elements or new combinations had it arisen? Sir James Paget's opinion was that it was derived from some intermingling of such diatheses as scrofula, syphilis, gout, and rheumatism. Two difficulties struck him in the way of adopting that view. In the first place, these diseases were not in themselves new, and one could not see how they could have entered into any recent combination so as to produce such a startling outcome in these recent years, more than they could in years gone by. Those were some of the difficulties that had made him doubt whether the proposition that it was a new disease was really quite firmly established. Dr. Buzzard had said that the disease appeared to affect the bones mainly in these cases, and he thought they must agree to follow Dr. Bastian's proposition that they must return to their work, and must pay special attention to these diseases of bones. If time had allowed, he thought he could mention several diseases which presented almost as intricate problems as this one in respect to the origin of Charcot's disease. There was, for instance, osteitis deformans, to which Sir James Paget had alluded. There was a specimen shown a year ago of a skull and jaw-bone, in which, exactly in the distribution of the fifth pair of nerves, the bones had become enormously thickened, bossed, and intensely hard. Then there were those remarkable cases of fragilitas ossium, which he had not seen, but which had been so definitely described by many authors that they must exist. For his part, although he could not help seeing a large number of points in which rheumatic arthritis and Charcot's disease touched each other, he felt quite uncertain at present as to what their distinct connection was.

Dr. BARLOW said that, so far as he had followed the discussion, those who had been opposed to the specific origin of Charcot's disease had maintained that it was indistinguishable from rheumatoid arthritis. He should like to ask whether rheumatoid arthritis was itself so definite a clinical entity, that this really added anything to the knowledge of the subject. The anatomical outcome of rheumatoid arthritis, thanks to the labours of R. Adams and others, was perfectly well known; but the members should consider the very many different ways in which rheumatoid arthritis might begin. How would any pathologist, who had examined the bones of old people, distinguish many cases of senile degeneration of cartilage and bone from slight cases of rheumatoid arthritis? He differed from Mr. Macnamara with respect to the question of pain. It seemed to him that, in many cases, old people might have most extensive changes at the ends of the bone, without any pain at all. There was another point, to which Dr. Pye-Smith referred. Although he agreed that acute rheumatism was sharply defined from Adams' disease, rheumatic gout, yet there were unquestionably cases of specially young subjects who had begun with attacks of acute rheumatism, which had relapsed, and which had ultimately developed, unquestionably, rheumatoid arthritis. Again, there was the relation of gout. There were cases like that which Dr. Pye-Smith had shown, typical cases during life, in which, nevertheless, *post mortem* deposits of urate of soda were found in connection with outgrowths of bone. A number of other cases had also been seen; so that it was clear, whatever the relation might be, that one did find outgrowths of bone, and so forth, in connection with unquestionable gouty deposits. The rheumatoid arthritis, as he had himself seen, might supervene upon acute specific disease. He remembered seeing an old lady, about 80, who had typical malum coxæ senile, with the knee-disorder, and characteristic affection of the joints of the fingers, in whom the disease commenced with a virulent attack of scarlatina. During this attack, the knee and hip were affected; that was the starting-point of her rheumatic arthritis. He could also quote a case of measles in a child, which led to a typical attack of rheumatic arthritis, supervening immediately upon it. Then there was the moot point of gonorrhœal rheumatism. Mr. Hutchinson and others, whose authority was undisputed, admitted that gonorrhœal rheumatism could not be distinguished anatomically from rheumatic arthritis. He remembered two cases of arthritis deformans, both in men aged about 40. In one case it had begun with an attack of acute rheumatism, and in the other with an attack of gonorrhœa; and that man not only had arthritis deformans, but he had the shoulder and elbows and one knee affected, and the characteristic deformity of fingers. In every respect, it was a typical example of rheumatic arthritis. Of course there were cases, to which Dr. Ord had drawn attention, where rheumatic arthritis began in connection with dysmenorrhœa; as the dysmenorrhœa diminished, the rheumatic manifestations subsided. The outcome of what he had said was, that rheumatic arthritis was merely an anatomical term; it was a description of a morbid anatomical product, which could be brought about by many different processes. Was it reasonable to say that all these processes were identically the same, because the anatomical result was the same? Even granting that some of the cases of Charcot's disease were indistinguishable anatomically from rheumatoid arthritis, he submitted that it added nothing whatever to knowledge in that category; it was the life-history which must come into play. He would refer, also, to the affection of the joints, and structures round joints, in connection with disease of the spinal cord. There were not only the hemiplegic cases, and cases of muscular atrophy, of which he had seen one notable example, exactly like what Dr. Bastian had described, but also that very common disease, infantile paralysis. If any one would examine a case of old infantile paralysis of a joint, it was a very remarkable condition; he alluded especially to the hip-joint. In some respects, the hip-joint in old cases was not very unlike a joint in locomotor ataxy. The mobility of the joint was remarkable, and also the looseness of the ligaments. Furthermore, the upper end of the femur was quite atrophied; all the bony prominences were bevelled down; and altogether there was an extremely atrophic condition. But if exception were taken to this, he would refer to a condition sometimes found during the acute stage of infantile paralysis, when there had been no manner of use, so that it was distinctly related to the acute onset of the disease. He had seen two cases in children, and one in an adult, similar to the case to which Dr. Mackenzie alluded a few weeks ago, wherein there was a condition of swelling around the joint-structures, redness, extreme tenderness, and some slight heat of skin, lasting a week or ten days, or more, within the first two or three weeks of an attack of infantile paralysis. That condition was more like the appearance of acute swelling than anything to which he could compare it. But, of course, it would be absurd to suppose that in a child a few months old, within the circle of the febrile disturbance at the onset of infantile paralysis, such a condition should be set up. He had had, also, under his observation for more than a year, a case of myelitis. A young lady had come to him with symptoms of spinal apoplexy. There was complete paralysis of

motion, the sphincters also being paralysed; and he had seen in her, no fewer than three times, a swelling coming on in the knee-joint, with painless effusion, without any obvious cause, lasting a time, and then subsiding. Then there were the cases of atrophy, to which Dr. Bastian referred, and other cases, some of them coming on in connection with brain-disease also, and effusions in the joints, and swellings round the joints. As to the actual *modus operandi*, one did not know anything about it. What Dr. Bastian said would commend itself to everybody who had carefully analysed the exact amount of knowledge possessed upon the subject. As to how this was brought about he could not think, but it was clear that affections of joints did occur in connection with disease of the spinal cord; and that being so, with the fact that rheumatic arthritis was a mere anatomical name for conditions brought about by many different processes, it seemed to him by no means absurd to suppose that these curious joint-diseases in locomotor ataxy had a real association with the nerve-condition.

Dr. B. O'CONNOR said that the impression left on his mind, as the result of the discussion on so-called Charcot's disease, was, that some speakers seemed to think the disease was not this, and some thought it might be that; and he believed there were some who regarded the disease as non-existent. It would be interesting to bear in mind that the views of Dr. Buzzard, Sir James Paget, Professor Humphry, and Mr. Jonathan Hutchinson, to a certain extent agreed, They were very similar on many points, notwithstanding the fact that it was believed, and very often stated, that patients advanced in life, presenting the symptoms of chronic rheumatic arthritis, were particularly and singularly free from ataxic symptoms. Professor Charcot himself, with reference to his typical cases at the London Congress, had referred to the ataxic symptoms; and, if he recollected rightly, the only thing which he said of a definite character respecting joint-affections was, that no ordinary pathological condition was found which would coincide with dry arthritis. Regarding it for a moment as an affection other than rheumatoid arthritis, the question was, what was the disease? It had been said by several speakers that there were symptoms in locomotor ataxy which came on very suddenly, which lasted for a time, which might remain permanently, and which might disappear. There were certain conditions which had been referred to by M. Charcot himself, affecting certain joints, which remained permanently; and he took it that those elastic œdematous swellings which occurred in joints in cases of ataxy were the cases to which some persons now-a-days referred as Charcot's disease; but he could not say on what good grounds this was done. He could imagine an author writing an elaborate treatise on some of the permanent nerve-paralyses in cases of ataxy, and another writing a book on amaurosis, and another saying that some ataxic patients were unable to walk backwards; but he failed to see grounds upon which one would say that they were dealing with three new diseases. At the Richmond Hospital in Dublin, fifteen or sixteen years ago, he certainly had seen a great number of joints and bones indistinguishable, at all events by himself, from many of those specimens which had been regarded as very unusual, if not unique. With respect to the probable origin of it, it seemed to him that an hypothesis might readily be put forward; and, after all, it seemed to him that many were working on an hypothesis, which was this—that a certain nerve-lesion existed; and this nerve-lesion, whatever it might be, showed itself in certain ways. On the one hand, there might be symptoms of rheumatic arthritis; and, on the other hand, ataxic symptoms; and these ataxic symptoms might themselves be divisible into two classes—those without and those with any permanent joint-trouble.

Dr. HADDEN thought there was very little doubt that Charcot's was a distinct disease, and the arguments he should have used, if they had not already been put forward, were chiefly drawn from clinical and pathological facts. Still, as to Sir James Paget's question, Was this a new disease? he remembered that, in the *St. Bartholomew's Hospital Reports*, three years ago, Mr. Eve called attention to a case of Mr. Stanley's, which, he should think, was clearly a case of Charcot's disease. He gave the clinical symptoms—impairment of vision, incontinence of urine, and anæsthesia; and Mr. Stanley went on to remark that, unless the patient saw his legs, he could not tell their direction; but, on looking at them so as to know their position, he could readily move them. Then he had described the condition of the joints, and he thought the joints were singularly typical of Charcot's joint-disease. As far as he had understood Dr. Bastian, he intimated that Charcot's idea was that the disease really lay in a lesion of the motor cells. This was hypothesis; but, as a matter of fact, Charcot figured the condition of the anterior horns in two cases—one, a case of diseased shoulder-joint; in that case, there was atrophy of the anterior horns in the cervical region. The other was the case of a knee-joint, with atrophy just above the lumbar region.

Dr. BASTIAN said he was aware of that. The only question was whether that was the change which related to the joint-disease.

Dr. HADDEN said that possibly that might be a coincidence; at any rate, it was highly suggestive. It had also been noted, in cases of arthopathy, that there was a rapid atrophy of muscles in the neighbourhood of the joint; and he should think it was anterior poliomyelitis affecting certain multilocular cells.

Mr. HOPKINS said it appeared to him that there was a traumatic element in the case of these joints, which accounted for the manner in which they were affected unsymmetrically. There were anæsthesia of the skin, delayed sensation, perverted sensation, and anæsthesia of the ligaments; and all these things, it seemed to him, were enough to lead to the inference that they were sufficient cause of the disease. A very slight strain of a limb was sufficient to cause considerable injury to a softened ligament. A patient might not perceive at all its occurrence, and that might be the starting-point of an effusion into a joint. He would briefly allude to a case that occurred under his care. A man, turning in bed, fractured his femur; at the same time, there was a considerable effusion into the thigh, from the crest of the ilium to the knee; there was also considerable effusion into the knee-joint. The force was not wholly expended upon the fracture of the femur; it was also sufficient to lacerate the ligaments of the knee-joint, so as to allow effusion. It might be said this effusion was a part of the effusion which occurred from the thigh. If that were the case, then injury to a limb at a distance from a joint was sufficient to start the effusion into it. All these points went to show that one might readily have an effusion into a joint in an ataxic patient, and that might be the starting-point of a disease.

The PRESIDENT thought that the Society was greatly to be congratulated on having initiated, continued, and, so far as it was possible in the present state of knowledge, completed, an interesting and important discussion. The occasion had given the opportunity of bringing together more distinguished speakers on a subject of this kind than it was their privilege commonly to hear now-a-days. In the next place, it had afforded a pronouncement of English opinion, which had been much desired and needed, upon this question, which had received much attention abroad, and little public attention in England. In the third place, it would be the means of communicating that which was much needed—accurate, extensive, and important information—to the great body of the profession upon this subject. Lastly, certainly not least, it had given an opportunity of doing justice to the distinguished foreign physician, to whom was due a very great advancement in our common knowledge. It might have been considered interesting, even instructive, to have summed up the opinions which had been expressed concerning this subject in the course of the discussion; but it had already been done so well in one of the journals, that, even if there had been time (which there was not), it had been rendered unnecessary. It would have been almost equally interesting, and perhaps a little more instructive, to have summed up, not the speeches which had been delivered, but the ideas which had been evolved in the course of the discussion; but, as he saw that Mr. Morrant Baker had been taking very close notes, he had no doubt he would himself unfold and deal with those ideas with the same lucidity and ability with which he had started the discussion.

Mr. MORRANT BAKER, in reply, expressed his gratitude to the Society for the very kind and altogether unexpected manner in which they had dealt with his paper. He would not attempt to enter into every detail that had been raised; for, if he dealt with each speaker in succession, he should be repeating many things that had been said before, and he feared, if he did that at any length, he should at that late hour carry out that process which was known as emptying the church down to the sexton. He thought he had been a little misunderstood as to his view; and, although he had no pretension to be an authority on the matter, he should be glad, as he had read the paper, to state briefly what his view was with regard to Charcot's disease. He believed that the disease was identical with what was known as rheumatic arthritis. At the same time, one ought to be as clear as possible as to what was meant by rheumatic arthritis. He meant by it neither rheumatism nor gout, nor anything that could be fairly called either the one or the other. He had been taught, and had taught others, that there was a disease called rheumatic arthritis, which was neither rheumatism nor gout. That disease might best be called arthritis deformans or osteo-arthritis. This arthritis deformans was a fairly definite disease; it was characterised by the same anatomical and pathological lesions which were undoubtedly met with in Charcot's disease—eburnation, osteophytes, fibrous degeneration of cartilage, wearing away of bone, and so forth. It was not fair to take an out-of-the-way case, which could hardly be called osteo-arthritis, and to say that it was unlike Charcot's disease. To be

fair, one must take a typical case of each; and, if that were done, it seemed to him that it must be acknowledged that, from the pathological point of view, it was impossible to find any real distinction. In reading carefully one at least of Professor Charcot's descriptions of the disease, it seemed to him that he had failed to find any pathological difference, as to which it could be said: "This constitutes a radical distinction between the one disease and the other." Yet, at the same time, it was not an accidental combination of two different diseases. He believed there was a most close pathological alliance between what was known as Charcot's disease and locomotor ataxy; and the only point on which he differed from Dr. Duckworth and Dr. Buzzard was this, that, instead of looking upon the two diseases as being cause and effect, he should be inclined, from present evidence, to look upon them as dependent upon some common cause—that was to say, a disease which in one case fell especially on the nervous system, in another case on the joints, and in another on both. And supposing a case to exist in which the disease fell upon a joint and upon the spinal cord, it could readily be imagined that the concurrence of the two things would make the disease different; in other words, if the patient had tabes and disease of the joints, one could not expect the symptoms in the joint-disease to be exactly like those in a patient who had disease of the joint, but was not troubled by any disease of the nervous system. The difficulty in his mind in believing that it was merely a case of cause and effect was that he had seen cases which, so far as he could tell, clinically and pathologically, were identical with Charcot's disease, but in which there were no symptoms of tabes. There was a case that he had seen only a few days ago, under the care of Mr. Thomas Smith, of St. Bartholomew's Hospital, which he hoped Mr. Smith would bring before the Society. It was a case of a man, the condition of whose hip-joint seemed absolutely indistinguishable from Charcot's disease, as shown in the specimens; yet he was able to continue his work as a plasterer, and he had no symptoms whatsoever of locomotor ataxy. The man declared that he never had stomach-ache, so that he could not be accused of gastric crises. So long as cases of that kind occurred, it was difficult to say that this disease was due to, and always associated with, tabes; therefore they should withhold their opinion for a time, and try to obtain more facts. There was one other thing to which he would refer. In building up the knowledge of arthritis deformans, and saying that this disease was identical with it, they had been learning from cases that occurred during the years in which no questions were asked regarding the presence of locomotor ataxy, and they did not know, therefore, how many of these cases were really associated with tabes. He had seen these cases cropping up occasionally during the last few years, but only within the last year or two had he asked a patient whether he had any symptoms of tabes. Therefore, in saying that this disease was identical with arthritis deformans, he was willing to allow that he might, in some cases, be merely saying that Charcot's disease was identical with Charcot's disease. He felt sure that there were many cases that would have shown symptoms of tabes also; but, so long as there were cases in which there were no such symptoms, there was a difficulty in believing that locomotor ataxy must always be expected when this joint-disease was found. With regard to what Dr. Buzzard said about the specific gravity of bones, he did not think there would be any radical distinction in the two cases, but it would be well worth observing. Dr. White had anticipated him in what he should have said with regard to the apparent difference of opinion between Professor Charcot and Dr. Moxon. It was obviously, he thought, in a different field of observation that they had been working. Dr. Andrew, Dr. Ord, and Dr. Bastian, had each said, "I have never had under my own care a case of Charcot's disease." He would quote Professor Charcot, who, if he were not mistaken, said that his proportion of cases was six out of fifty. If he might compare small things with great, his own experience as a surgeon was this, that out of the cases of locomotor ataxy he had had under his own care within the last year, 100 per cent. had also disease of the joints; so that one might look upon it that the explanation given by Dr. Buzzard was correct, that these cases naturally came to the surgeon. Since the debate began, he had been consulted about a case which he was told was a disease of the knee-joint. He had looked at the joint, and found it was a typical case of Charcot's disease. With regard to Mr. Barwell, he had had a very large experience in diseases of the joints, but he differed from him in thinking that one could set up a clear pathological distinction between osteo-arthritis and Charcot's disease. He thought that there was eburnation in both cases, that there was fibrous degeneration, and he would refer to the microscopic specimens put up for him by Mr. D'Arcy Power, at two or three of the meetings, showing apparently the same fibrous degeneration in Charcot's disease, as had been long known in association with osteo-arthritis. He believed that the small joints were affected; indeed, in three out of four cases of Charcot's disease that had been under his care, some small joint or other had been affected as well as the larger ones; and with regard to clinical symptoms, at present he had not been able to find any such group of symptoms as would make one say that they separated Charcot's disease from arthritis deformans. In the last case of this affection he had seen, the joint had been painless; but the patient said that his sensation was defective in the whole limb. The swelling had been gradual, and so had the symptoms. There was not that sudden onset of all the symptoms which occurred in a typical case. Then he came to Sir James Paget; and of course one must feel great hesitation in attempting to criticise what he had said. He could not agree with Sir James Paget with regard to what he said about this being a new disease. Sir James Paget had said that this must be a new disease, because there were no specimens in the museums; and, if it had a separate existence, how was it that it had been overlooked? With regard to the first point, he thought that he had brought specimens from the museum of St. Bartholomew's Hospital which were not to be distinguished from specimens acknowledged by all to be those of Charcot's disease; and he thought, if these bones could be clothed again with flesh, and live, and if there could be the opportunity of asking questions as to this, that, and the other, it would be found that many of those old bones had been taken from cases of locomotor ataxy. Of course, that could be only told from their present appearance; but he should imagine that that was the case. He had known other bones besides those which he had brought, which appeared to be old specimens; and he should gather that some of these, at all events, were cases that had been enshrined in museums on account of something observed at the time as worthy of being recorded. They were, of course, labelled as osteo-arthritis, or chronic rheumatic arthritis. But he did not think with Sir James Paget that the differences between typical cases were so startling as he believed. He had referred to the case that he had seen with Mr. Thomas Smith, where apparently the symptoms were indistinguishable. With regard to the question, "How had the disease been overlooked?" he ventured to say, because it was so common. His (Mr. Baker's) argument would be this; that, as a rule, a museum was built up by carefully preserving anything which was out of the common. He believed that the reason why these specimens were not more numerous, was because they were looked upon as being common, and were not distinguished from other severe cases of osteo-arthritis. He also agreed with what Mr. Marsh had said. These cases were being overlooked five or ten years ago; and if they were overlooked then, why should they not have been overlooked fifty years ago? He had been much struck by a remark made to him by a surgeon of a large infirmary in London after the first meeting. He had asked Mr. Baker whether he would like, not to see one case of Charcot's disease in his infirmary, but to see a wagon-load. It was not to be supposed that this large number of cases had occurred in an infirmary within the last few months. Some of them must have been there for years; and if this large number within five or ten years had been overlooked, did it not seem almost certain that cases for many years had been overlooked, because they had not been dissociated from cases of osteo-arthritis? Therefore, until Professor Charcot threw light upon them by showing the connection between them and tabes, specimens had not been accumulated in museums. Again, with the greatest deference to Sir James Paget's authority, he thought it unfortunate that the term rheumatic arthritis should find a strong friend, as it had, in Sir James Paget, and he wished all could agree to discard it altogether, and only use the term osteo-arthritis, or arthritis deformans. With reference to the remarks of Dr. Ord, he had rather accused the speaker of saying that there was no attempt at repair. He (Mr. Baker) had hardly said that. He said, "either no attempt, or that it was inefficient and disorderly." He had not meant to imply that there was no attempt; that there was waste without repair at all; that would be, of course, rather a definition of death than of disease. He had meant to imply that the great characteristic of the disease was a wearing away, it might be supposed at a natural rate, and that the repair was not at a natural rate, and was deficient, and that the tendency of the repair was disorderly. He was glad that Dr. Ord was on his side in preferring the term osteo-arthritis, or arthritis deformans, to that of rheumatic arthritis; and also that he had supported Mr. Baker in believing that there was a close pathological connection between osteo-arthritis and the nervous system. He was a little doubtful whether he might look upon Mr. Hutchinson as a friend or as an opponent. He agreed with him in what he said about premature senility. He thought that would express fairly in some respects the condition which there was in the joints, and he had attempted to express that, by saying that he

thought the great feature of the disease was waste without repair. He would not suggest any term to express this, because words, which we intended, when we coined them, to be our servants, often became our masters; but still he hoped that some one with a greater knowledge of etymology would, in time to come, invent a word which would express that idea. As to the theory about standing and walking, and that being the cause of this wearing away of the joints, he would quote one of his cases; it was that of an old woman who had been paralysed, and had had paraplegia seventeen years, in which both the hip-joints had almost disappeared as joints; that is, the heads of the femora had disappeared. The upper end of the femur was drawn up above the level of the anterior superior spine of the ilium. That old woman could not possibly have been the subject of much friction of the joint-surfaces by walking, because she was more or less paralysed for the whole of the time. It would not be difficult to find facts that would oppose a theory like that of Mr. Hutchinson on the subject; and there was no doubt about the diagnosis of the case of this old woman, because she happened to be in Guy's Hospital, under the care of Dr. Habershon and Dr. Wilks, at the beginning of her illness, and her case was diagnosed there as one of paraplegia. He agreed with what Mr. Hulke had said with one exception; namely, with regard to the connection of Charcot's disease with syphilis. He could not think that syphilis had anything to do with it. So far as his own observation went, he could not trace any connection of syphilis with locomotor ataxy, or with osteo-arthritis, or with this joint-disease. With what Mr. Barwell said he did not quite agree, and when Mr. Hulke was opposing him he could not help thinking of a story of Grimm's. He felt in the position of the clever little tailor who got out of his difficulties by setting the giants to fight one with the other, and he had felt that Mr. Hulke, in dealing with Mr. Barwell, was fighting the battle on his (Mr. Baker's) side; and he would leave what he said in that way. He could not think that Charcot's disease was indefinite in the sense in which Dr. Moxon put it, and he felt sure that, if he had a case presented to him, as it had been presented to himself on several occasions, he would be converted. When one saw a case, and one was only told it was a diseased knee-joint, and upon looking at the joint and examining it for two or three seconds, one could say that the joint was almost certain to be associated in the patient with symptoms of locomotor ataxy, and then, upon asking a few questions, one found that it was so—when that happened over and over again, one could not help feeling absolutely certain that it could not be a mere coincidence. Therefore, he hoped, when Dr. Moxon had the opportunity of seeing more of these cases, he would think differently on that point. With regard to the ex-cabman to whom Dr. Moxon had referred, he must doubt the appositeness of the illustration. He could not think that Dr. Moxon could seriously wish the members to believe that when a man had damaged his shoulder-joint, any amount of movement could wear down the head of the bone when the joint was more or less disabled from the injury. If that were the case with this unfortunate cabman, the movement must have been of a very forcible description. The cases brought forward by Mr. Barker and by Mr. Henry Morris were cases of much interest, but he would not deal with them in detail, nor with those of Mr. Herbert Page. With regard to the remarks made, so many of them were in answer to previous speakers, that if he dealt with each in detail, he should be going over very much the same ground. Mr. Hopkins said that many of these cases might be determined by traumatic causes. He was inclined to agree with him. Certainly that would explain the want of symmetry in many. In more than one of his own cases the disease had apparently been started by an injury; in the case of one man, by the wrenching of the knee; in the case of an old woman, by falling off the sofa on her elbow. He thought it would be found, on closely examining into the history of many of these cases, that whatever their origin, whatever the connection with tabes, yet some slight injury started the disease. He had no wish to dogmatise with regard to this question; he had no authority to dogmatise on the subject. His anxiety had been to bring forward certain facts. He had no idea that his paper would give rise to this discussion, and that so many, infinitely more capable than himself, would speak on the subject. He was anxious to add to the facts, and in raising the discussion he thought one might venture to state, as clearly as possible, what theories might be adopted on the subject; but he felt that one could not be, at the present moment, sure as to the right one. He had his opinion. He thought Charcot's disease was identical with a disease long known; that the two diseases, tabes dorsalis and this form of osteo-arthritis, were not in the relation of cause and effect, but were due to one and the same cause; the disease of the spinal cord reacting unfavourably on the joint-disease, when both were present; but, should fresh facts arise to show that one could put on one side cases of Charcot's disease with certain symptoms, and fail to find those symptoms in osteo-arthritis, he would be glad to acknowledge that such was the fact. But he felt that, in order to get these new facts and opinions from others, he could not do better than bring his cases before the Clinical Society, and he felt especially happy in bringing them forward during the presidency of Sir Andrew Clark.

PATHOLOGICAL SOCIETY OF LONDON.

ANNUAL MEETING, TUESDAY, JANUARY 6TH, 1885.

J. WHITAKER HULKE, F.R.S., F.R.C.S., President, in the Chair.

Report of Council.—The report of council showed that the position of the society with regard to the number of members was very satisfactory, the roll showing 684 names. The report referred to the loss which the society had sustained by the death of Mr. Wheatley. It also made a brief reference to the members who had died during the past year, and dwelt at some length on the career of Dr. F. A. Mahomed. On the motion of Mr. WAREN TAY, seconded by Dr. ANGEL MONEY, the report was adopted.

Vote of Thanks to the President.—Mr. JOHN WOOD proposed, and Dr. NORMAN MOORE seconded, a vote of thanks to the retiring president, who, in the course of a short reply, acknowledged the able support he had received from the secretaries.

Vote of Thanks to Vice-Presidents and Council.—Dr. LONGHURST proposed, and Mr. WARRINGTON HAWARD seconded, a vote of thanks to the retiring vice-presidents and retiring members of council.

Report of Morbid Growths Committee.—Mr. CHARTERS SYMONDS read the report drawn up by himself and Mr. Bowlby on Mr. Barker's specimens of tumour of the upper jaw. The report confirmed the accuracy of Mr. Barker's description; and, after a long investigation of the numerous interesting points in the case, the opinion was expressed that it was a spheroidal carcinoma of the variety called adenoid or glandular.

Fracture of the First Rib.—Mr. ARBUTHNOT LANE described two cases of fracture of the first rib alone, one being united and the other ununited. The first was obtained from a woman, and the fracture was situated at a point one and a quarter inches in front of the tubercle. There was very little displacement. The second was found in a man, and the rib had yielded just behind the scalene tubercle. The man had suffered from rheumatoid arthritis, and the ends of the bones were flattened, and the opposing surfaces rendered very extensive by the formation of much marginal bony outgrowth, which was surrounded by a loose fibrous capsule. This fracture was shown to have taken place at a much earlier period of the man's life, as no articulation of any sort existed in the ossified right first costal cartilage, while a complete or loose arthrodial articulation existed on the left side. The presence of the ununited fracture in the rib had obviated the necessity of an articulation in the right cartilage. The articulations with the first dorsal vertebra were very loose. The right acromion presented an ununited fracture. Mr. Lane put forward three possible means by which the fracture of the rib might have taken place. The first was force applied directly to the seat of fracture. This could only occur when the fracture was situated near the tubercle, and he considered it very unlikely, owing to the rib being here sheltered by muscle and scapula. The second was, that it might have been broken by force applied directly to the manubrium. This was unlikely, owing to the obliquity of the first costal arch; and the force required to break the rib would be more likely to cause fracture or dislocation of the sternum. The third, and he thought the most probable, means was force applied to the clavicle, and transmitted by it to the first rib. As to the means of transmission of force by the clavicle, it might be applied to the clavicle in a vertical, horizontal, or intermediate direction, and when it would be transmitted to different points on the first rib. In the case of force applied horizontally backwards, he considered that it was transmitted more locally to the rib, and was more likely to fracture it, than when applied in any other direction. This was owing to the great obliquity of the posterior half of the rib. In the first case he described, he thought that force had been transmitted in a horizontal, or nearly horizontal, direction; and in the second case in a vertical, or nearly

vertical, direction. He remarked on the extreme rarity of the injury, and referred to a case described by Mr. Lyell in Holmes's *System of Surgery*. He also showed a specimen in which the right first costal cartilage alone had been fractured one-eighth of an inch from its outer extremity. It had not united firmly, but was sheathed in by irregular bony doposit. He considered that this had been broken by force transmitted vertically through the clavicle.—The PRESIDENT said that the question raised by Mr. Lane, the mode of fracture of the first rib, was of great interest.—Mr. CLEMENT LUCAS had only met with one case of fracture of the first rib, and in this case the clavicle was also fractured. The injury was inflicted by a cart-wheel.

Simple Fracture of the Skull in Infants, followed by the Development of a Pulsating Tumour.—Mr. R. J. GODLEE read an account of two cases of this injury, and showed some drawings and specimens in illustration. Case 1.—E. B., a female infant, eight months of age, was brought to the hospital the day after a fall of fourteen feet on the side of the head. There had been no unconsciousness or external bleeding at the time; she had vomited shortly afterwards. When seen, there was a large hæmatoma over the right parietal bone, and there was almost complete paralysis on the left side of the body ; the reflexes were absent on the left side. There was at first some difficulty in swallowing. On the fourth day, right-sided convulsions occurred. Next day, the paralysis began to improve, and the swelling also gradually to disappear. At the end of about a week, pulsation was first noticed in the swelling. Three weeks after the injury, the hæmatoma was increasing in size, and was aspirated, 7½ ounces of fluid being removed ; the fluid was muddy looking, alkaline, and contained a few corpuscles. In three days, another small aspiration was performed, and, two days later, the swelling was opened ; a large quantity of fluid similar to that already obtained came away, as well as some genuine pus. Death occurred next morning. At the necropsy, the hæmatoma was found to extend the whole length of the parietal bone. In the middle of it there was a gap in the parietal half an inch wide, with irregular edges. Brain-matter could be seen through the gap, and it was ultimately discovered that there was a direct communication between the hæmatoma and the descending cornu of the lateral ventricle. On removing the bone, the dura mater was found lacerated, corresponding to the fracture in the skull ; the brain was collapsed on the same side; and there had been a rupture of the temporo-sphenoidal lobe at the upper part, communicating with the interior of the brain, as just described. There was extensive meningitis at the base, and arachnitis of the vault on the right side. Mr. Godlee drew attention to the character of the fluid that had been drawn off, as evidence that it was partly inflammatory, and in part derived from the cerebro-spinal fluid. He also referred to the want of correspondence in gravity between the symptoms and the damage done to the brain. Case 2.—A. G., five months of age, came to the hospital two hours after having fallen on to his head from a height of eight feet. He was cold and collapsed, and had not vomited ; there was a hæmatoma extending forwards from the back of the head on the right side. Convulsions appeared a few hours later, being mostly right-sided. The twitchings lasted some days. At the end of a week, pulsation was observed in the tumour, and impulse on coughing. The temperature continued at or about normal, but the swelling increased in size, and, on the thirteenth and fifteenth days, it was aspirated. Very little fluid was, however, drawn off, and the child's general condition remained the same. At the end of two months, the child was allowed to be taken home, a shield having been provided to protect the still pulsating swelling. Shortly after this, the child was taken to another hospital, where he died in the course of a few days, with symptoms of meningitis. On examining the right parietal bone, there was found a large irregular opening, running obliquely downwards and forwards, measuring three inches long by three-quarters of an inch across. At each end of the opening, the bone was fissured for nearly an inch. The margins of the opening were very thin, and the absorption of bone seemed to have taken place chiefly at the expense of the outer table. The bone was everywhere very thin, but there were no spots of cranio-tabes. On the other parietal bone, there was an indentation corresponding in shape and size with the above opening ; the bone was very thin, quite membraniform, in this region. The symmetry of the lesions of the bone suggested that the child's head might have been squeezed in some way, but there was no history of this. Passing to consider his cases, Mr. Godlee pointed out that, in the infant, the bones of the skull were very flexible, and that they were united by sutures which were soft and permitted a considerable amount of movement ; and, further, that the dura mater in young infants was firmly attached to the bones. He thought that these facts would help to explain the different results of direct violence to the skull in the child and in the adult ; in the former, the mischief being almost altogether spent upon the part struck.—Mr. THOMAS SMITH agreed with Mr. Godlee that the condition he had so well described was less uncommon than the paucity of the recorded cases would lead one to suppose. He was confident that he had overlooked many such cases. Before his attention had been specially directed to the subject, he believed that he had set such cases down as cephalhæmatoma. The condition had been described under the name of traumatic cephal-hydrocele by Dr. P. S. Conner, in a recent number of the *American Journal of Medical Sciences*. In all the cases recorded, the condition was originated by a severe fall, producing a simple fracture ; the fracture remained large, and a tumour, containing a watery fluid, formed ; pulsation was frequently, but not invariably, present. In the case of a young girl, now under his care in St. Bartholomew's Hospital, the fracture had occurred a year ago, and the patient was admitted for an independent disease. In this case there was a gap in the skull, too large to be accounted for simply by fracture : there must have been some removal of bone in addition, and Mr. Bowlby had suggested that the large aperture might be due to some injury to one of the ossifying centres. The outer part of the margin was eroded in such a way as to show that the hiatus was not produced by the pressure of fluid from within. He believed Mr. Lucas's view that the ventricle was opened was confirmed by most of the cases on record. The pulsation was not always obvious, and the resemblance to cephalhæmatoma was, in that circumstance, greatly increased, and a mistake was almost sure to be made unless the examination were very carefully made.—Mr. R. CLEMENT LUCAS related the cases which he had published in the *Guy's Hospital Reports*. In the first case, he aspirated, and drew off two ounces of clear watery fluid, which was undoubtedly cerebro-spinal fluid. An extensive gap could be felt in the skull. The child died of acute meningitis two years later ; the descending cornu of the lateral ventricle was much dilated. The second case had come under his care six years ago. There was, in this case, a large blood-tumour at first, which was soon replaced by a more fluid tumour ; this tumour swelled up when the child cried, and pulsated. A large gap in the frontal bone could be felt. No operation was attempted, and the child was still alive. In the third case, on account of paralysis on one side, he trephined. He found that the dura mater was wounded ; cerebro-spinal fluid escaped through the wound. The child died of erysipelas contracted just before it was proposed to have allowed it to leave the hospital. A cavity, running up from the ventricle of the brain to the scalp-wound, was found after death. He believed that, in every carefully made necropsy on a case in which cerebro-spinal fluid collected, or escaped through the vertex, injury to the ventricle had been found.—Mr. VICTOR HORSLEY said that he had recently had occasion to make an experiment on a monkey, with the view of removing the ascending parietal convolution on one side. He removed the parietal bone, and lifted a flap of dura mater ; having concluded the operation, he replaced the dura mater, and sewed up the wound, which healed by first intention. A week later, at the site of the operation, a pulsating tumour had formed ; he aspirated it, and drew off cerebro-spinal fluid. The tumour filled again, but this did not recur after a second aspiration. When he again operated on the animal, he found the dura mater adherent and somewhat shrunken, so that a portion of the arachnoid was practically subcutaneous. In this case, he believed that the arachnoid had continued to secrete, but, owing to adhesion of the dura mater, the fluid could not drain away at the base of the brain. This observation served to prove that a collection of such fluid might accumulate under the scalp, forming a fluctuating swelling, without any injury to the ventricle.—Mr. A. BOWLBY suggested that the size of the gap in the skull might either be due to injury to the growing part of the bone, or to the fact that, the injury having occurred through growing bone, the continuous pressure of the fluid had prevented the growth of the bone in the immediate neighbourhood, and, by overlapping the edges of the aperture, produced also the erosion of the outer surface.—Mr. WARRINGTON HAWARD said that in the case he had recorded in Holmes' *System of Surgery*, the scalp was, from the first, raised by a collection of clear fluid, which so increased that the tumour shortly became transparent. There was, therefore, no difficulty in distinguishing the case from one of cephalhæmatoma.—The PRESIDENT had recently seen a case of extensive fracture of the right parietal region, in which a large pulsating tumour, containing cerebro-spinal fluid, formed. He had also met with two cases in boys, aged respectively 7 years and 9 years, who presented, as a sequel to fractures, pulsating tumours, which proved to contain cerebro-spinal fluid.—Mr. GODLEE, in reply, said that he did not think that the large size of the aperture could be due to arrest of development from injury to the ossifying centre, for it was difficult to believe that so much bone as would have been required to fill up this gap could have been formed in two months.

Card-Specimens.—Dr. NORMAN MOORE: Liver from a Case of Anæmia, in which death was due to sudden hæmorrhage into the substance of the liver, and through the torn capsule into the peritoneum; Mr. LOCKWOOD: Rudimentary Abdominal Ribs; Dr. SILCOCK: Tubercular Disease of Vesiculæ Seminales; Dr. CHARLEWOOD TURNER: Aneurysm of Aorta Opening into the Œsophagus; Aneurysm of Sinus of Valsalva, with abnormal coronary arteries; Dr. HERRINGHAM: Two Cases of Calcareous Change in the Spinal Membranes; Mr. JOHN POLAND: Synostoses of Foot; Dr. G. N. PITT: Viscera of a Syphilitic Infant.

ACADEMY OF MEDICINE IN IRELAND: SURGICAL SECTION.

FRIDAY, DECEMBER 12TH, 1884.

E. H. BENNETT, M.D., President, in the Chair.

Three Cases of Ovariotomy.—Mr. THOMSON read a paper on three cases of ovariotomy, which had all been successful. They were done in the presence of visitors and the students of the hospital, as were all the cases done by his colleagues. Listerian precautions were used; the pedicle, in each case, was ligatured and dropped into the pelvis, and no drainage was considered necessary. The author discussed the opinion expressed by Mr. Lawson Tait, that "no surgeon engaged in constant attendance on the promiscuous cases admitted to a general hospital, should perform such an operation as ovariotomy," and maintained the right of the general surgeon to operate in abdominal cases. He held that such an opinion was an absurdity, as it really meant that no surgeon should amputate a limb, the wound being more likely to suffer from infection than the peritoneum. An uncomplicated case of ovariotomy he regarded as one of the easiest operations in surgery. As to the others, surely a surgeon in a general hospital who was daily brought face to face with emergencies, whose wits and judgment were trained by frequent exercise to quick decision and action, might be entrusted with the treatment of adhesions of any kind in an abdominal case. He maintained that the greatest achievements in abdominal surgery had taken their start from the general surgeon, and that his familiarity with wounds and their treatment, and his training of mind, and eye, and hand, pointed to him as especially competent to deal with cases of the kind under consideration. —The PRESIDENT suggested that the debate should be limited to the questions of specialism and drainage.—Dr. ATTHILL said the intra-uterine disposal of the pedicle was that almost universally adopted. Success depended on careful attention to details, by which, whether the operation were done by a specialist like himself, or by a general surgeon like Mr. Thomson, the result would be as good as was obtained in London or elsewhere. The first question of importance was as to the size of the tumour before commencing to operate. As the result of his experience, success was greater with a small than with a large tumour, and therefore he advocated early operative treatment. Another point of importance was the size of the incision. Mr. Lawson Tait advocated an exceedingly small incision; Sir Spencer Wells and others, one of fair size. Having operated fifty times himself, he was decidedly in favour of a fairly large incision, but not larger than was absolutely essential to ascertain if anything was wrong. He objected to new sponges, as hard to be freed from sand, and on that account he used the same set of sponges, twelve in number, again and again, first boiling them in 1 in 1,000 of corrosive sublimate, and keeping them in carbolic lotion. In a certain proportion of cases, drainage was an advantage, and if used carefully there would be no bad result. While in favour of antiseptic precautions, he objected to the use of the spray as producing cold in the abdomen.—Dr. FRASER recommended liquid sulphurous acid for the purification of sponges.—Mr. H. G. CROLY advocated ovariotomy by the general surgeon as one of the most simple operations in the whole range of surgery, and one, too, that ought to be performed not only in the presence of visitors, but of the students, as he did not approve of letting students fancy there was some mystery about it.—Mr. STOKES concurred with Mr. Thomson in the justifiability of the general surgeon undertaking ovariotomy. Of his last eight cases, six were, in succession, successful, and this demonstrated not merely the justifiability but the right on the part of the general surgeon to perform the operation. In all his cases he had made a free incision and used the spray, but he took the precaution of warming the carbolic solution. In the unsuccessful cases he employed drainage, but in the successful he laid it aside, and he believed the time was not far distant when drainage would be given up, not only in ovariotomy, but in most other surgical operations. Let precaution be taken, as Esmarch indicated, by securing every bleeding vessel, and by sufficient pressure to render the wound dry—let what had been happily termed "the toilet of the peritoneum" be properly carried out—and drainage would become unnecessary. In his own cases, what was called uterine epistaxis had been a source of anxiety. He asked whether or not that form of hæmorrhage occurred in Mr. Thomson's cases, and his opinion as to the desirability of checking it. —Dr. BARTON said Sir Spencer Wells informed him that he used the Listerian method of dressing, which, while he could not say it made much difference in the result, made a very great difference in his own feeling of confidence. He did not allow the spray to play on the open peritoneum, as harm was sometimes done by reducing the temperature.—Mr. CORLEY remarked that a surgeon commencing to perform ovariotomy now, was in a much better position than twenty years ago, as he had the advantage of the experience of all the operations done since.—Dr. ROBERT MCDONNELL said Sir Spencer Wells informed him that there was no fever accompanying the operation when he used antiseptic precautions, and therefore he stuck to the antiseptic method.—Dr. NEVILLE argued that specialists had the advantage of knowing better than the general surgeon how to treat contingencies, apart from the question of diagnosis. Epistaxis was common, and, in his opinion, did not much affect the result.—Mr. KENDAL FRANKS said, though the development of ovariotomy was due to specialists, that was no argument why the general surgeon should not perform it. No hard and fast rule could be made as to drainage.—Dr. HENRY observed that, where there was a large amount of broken down adhesions, the drainage-tube was useful, it being impossible to tell how much the abdomen would take up.—Mr. THOMSON, in reply, was glad Dr. Atthill concurred with him in the desirability of removing small tumours as soon as diagnosed. Abdominal section was practically without risk. Indeed, Mr. Lawson Tait had done ninety exploratory incisions. This was an answer to Dr. Neville's doubt as to the capability of the general surgeon to diagnose a tumour. When a specialist had a doubt as to the character of a tumour, he did not hesitate to satisfy himself by making an incision, and, therefore, he was in no better position than a general surgeon. It was most important that the sponges should be clean, and hence he used new ones, which he had put through a solution of hydrochloric acid for twenty-four hours to get rid of the particles of sand, and threshed and steeped again in water. In his cases he used the spray, but in the last he did not bring it directly over the wound. Epistaxis occurred in the last case; but, as the patient had menstruated a week before the operation, he regarded the epistaxis as an irregular return of it, and in three days it passed off in the usual way. He testified to the success which attended Mr. Stokes' cases under the circumstances noticed in his paper. He was in favour of the operation being done in presence of students as well as of visitors, but he preferred its being done in the ward rather than in the theatre, to prevent any risk of contamination. He was glad to hear Sir Spencer Wells endorse the security of the Listerian method. While he did not say drainage should be done away, it ought to be diminished, the presence of the tube itself giving rise to irritation, and consequent effusion into the peritoneal cavity, which would counteract the advantages.

LIVERPOOL MEDICAL INSTITUTION.

DECEMBER 4TH, 1884.

ROBERT GEE, M.D., President, in the Chair.

Aneurysm of the Valves of the Heart.—Dr. RICH showed the heart of a man who died of pneumonia shortly after admission into the Royal Infirmary. It was not known until the necropsy that he had suffered from heart-disease. There was a small aneurysm of one of the cusps of the aortic valve, which had produced, by contact with the mitral valve, a patch of atheroma, now dilated into a considerable aneurysm of the mitral valve, bulging into the auricle.

Perforations in Typhoid Fever.—Dr. J. CAMERON showed a portion of small intestine from a case of typhoid fever, in which eight ulcers had perforated. The patient was a female, aged 38, admitted, with very severe symptoms, on the tenth day of the fever. The abdomen was tender and tympanitic, but diarrhœa was never excessive. On the sixteenth day, she had a rigor

and, on the eighteenth, hæmorrhage from the bowel. On the twenty-fourth day, sudden collapse set in, with pain and tympanites. After several hours, she rallied, and continued better for a day or two, when another paroxysm of abdominal pain, attended with collapse, occurred. In all, four or five of these attacks happened between the twenty-fourth and thirty-sixth days, when she died. At the *post mortem* examination, general recent adhesions of the peritoneum were found, with a localised fæcal extravasation on the right side, and some clear ascitic fluid on the left. On loosening two adherent coils of the lower end of the ileum, four perforations were found in each; and, in addition, numerous ulcers in various stages.—Mr. RUSHTON PARKER had met with a boy who, after passing through an attack of typhoid fever, during which he was fed on meat and potatoes, presented himself at the Royal Infirmary with numerous fæcal fistulæ over the front of the abdomen. They all healed without operative interference, and he was discharged in good health.

Multiple Fractures of the Arm.—Mr. PUZEY showed the bones from a case in which he had performed amputation at the shoulder-joint a fortnight before. They presented specimens of the following injuries: (1) very oblique fracture through the upper third of the humerus, ununited, with a large piece of intermuscular fascia lying between the fragments; (2) a well united wedge-shaped fracture of the middle of the shaft, and (3) an ununited fracture of the same bone about the junction of the middle and lower thirds, at which appeared something like a false joint; (4) incomplete ankylosis of the elbow-joint; (5) comminuted fractures of the radius and ulna just below the elbow-joint (the fractures were united, but the two bones were also connected with each other by comminuted fragments); and (6) a fracture of the lower third of the ulna, in which the upper fragment had become united to the radius, instead of to its own other portion. The man's arm had been caught in machinery twelve months before; and, although there was no actual breach of the skin, the soft parts had been so bruised, and the amount of swelling from extravasated blood had been so great, that for several days gangrene had been threatened, and it had never been found possible to treat the fractures by the ordinary methods. Six months after the accident, various methods to promote union of the fracture in the lower part of the humerus (No. 3) having failed, the bone was cut down upon, when it was discovered that the point of the upper fragment was covered by a piece of the triceps muscle, in which it had evidently been imbedded; whilst the extremity of the lower fragment was similarly covered by some fibres of the brachialis anticus. These ends were sawn off, and the fresh obliquely cut surfaces of bone wired together. Long continued suppuration resulted; and, later on, collections of pus showed themselves higher up in the arm, evidently in connection with the upper fracture (No. 1). The attempt to save the arm was persevered with, and, latterly, with apparently more favourable prospects, until a fortnight before the amputation, when rapid disorganisation of one of the phalangeal articulations took place; and this was followed in a short time by suppuration of the wrist-joint, when amputation was at once made imperative to save the patient's life. Mr. Puzey pointed out that the condition of the bony fragments of the forearm in this specimen illustrated the tendency which the fragments of the two bones had to fall towards each other, and the advisability of having the splints so padded down the middle as to obviate this accident. He also drew attention to the cause of non-union in two of the fractures of the humerus, whilst the other fractures had firmly united. The patient had done well since the amputation, and was now convalescent.

Eye-Speculum and Spectacle-Frame.—Mr. BICKERTON showed an eye-speculum in which the limbs were hinged so as to be bent out of the way of the operator, and Tosswill's spectacle-frame, in which the chief improvement was a graduated revolving circle for the lenses. After a prolonged trial, he could thoroughly recommend these instruments.

Cucaine.—Mr. SHADFORD WALKER had extracted a cataract from a very nervous old lady, after applying a 4 per cent. solution of hydrochlorate of cucaine, without causing any sensation of pain. Mr. Bickerton had submitted to an experiment upon his eye with cucaine, in which sensation was entirely lost after an application. In six minutes, the application was repeated. After fifteen minutes from the first application, sensation began slowly to return, but the pupil was dilated to three times its normal size, and accommodation was entirely lost.

A New Splint for the Treatment of Talipes was shown by Mr. PAUL.

Unusual Case of Epithelioma.—Mr. RUSHTON PARKER showed a patient from whom he had removed an epithelioma of the neck, and drawings of the growth before removal. The man was 56 years of age, and, shortly before the appearance of the lump, he was attacked with ulceration of the skin-surface of the upper lip. This rapidly healed under the application of zinc-ointment, and had remained perfectly healed ever since. A lump, supposed to be enlarged glands, formed in the left submaxillary region, and, having increased to about the size of an egg, ulcerated and assumed a malignant appearance. A scraping, examined by Mr. Paul, proved the growth to be epithelioma, and it was consequently thoroughly removed, and the adjacent surface of bone chiselled away. Shortly after the operation, the patient had a slight attack of erysipelas, but otherwise the course of the case was favourable, and now, eight months subsequently, there was no recurrence. Further examination of the growth confirmed the diagnosis, but failed to reveal any lymphatic gland-tissue; and therefore Mr. Parker thought it most probable that this was a case of deep epithelioma of the neck, originating in an epithelial remnant of tissue included at the time of the closure of the branchial clefts.—Mr. PAUL said that epithelioma was one of the very few growths which could be easily and positively diagnosed by a microscopic examination of the discharge from the surface. Of a large number of cases, some of which were disputed, he had not failed in a single instance to detect nested cells in *débris* coming from the ulcerated surface of the growth. There was now under Mr. Bickersteth's care another case of deep epithelioma of the neck, in which the diagnosis had only been made after a microscopic examination of the discharge.

Sympathetic Ophthalmitis.—Mr. RICHARD WILLIAMS showed a case of this disease. The patient was a farmer's son, aged 20, apparently strong and healthy, who, in August last, had a kick from a horse, which had ruptured the right eyeball. An irregular practitioner was consulted, and the eye was otherwise neglected. About ten weeks after the accident, the left eye became inflamed and painful, and the patient sought advice on November 5th. At that time, there was well marked iritis, with keratitis punctata, and lacrymation. Vision was $\frac{5}{60}$. Atropine was ordered. Next day, he could see nothing at a distance. The exciting eye, which was markedly injected, was removed on November 7th, and leeches were applied to the left temple, the atropine continued, and a pill of calomel and opium given. There were numerous posterior synechiæ, and a good deal of deposit on the lens. The sympathetic process quickly subsided, and, on November 17th, vision was $\frac{5}{60}$. The inflammatory symptoms had almost entirely disappeared, but the dots behind the cornea were still very well marked.

Lead-poisoning by Snuff.—Dr. WEAVER (Frodsham) read notes of the case of a solicitor who was attacked with colic, and subsequently with wrist-drop. He was a great snuff-taker, and used two varieties of snuff, Kendal brown, and brown rappee. Samples of both were sent to Dr. Campbell Brown, who found lead in the latter. The patient was warned to limit himself to the Kendal brown snuff, and rapidly recovered. Some years later, he was again attacked with severe lead-poisoning. Apparently he had forgotten which was the forbidden snuff, for he had again taken to the brown rappee, in which, as before, lead was largely present. Discontinuance of the snuff was followed again by recovery. The lead was derived from the lead-foil in which the snuff was wrapped; brown rappee being a moist snuff, and more likely to cause oxidation than the dry varieties.

Chorea, treated with Continuous Inhalation of Chloroform: Recovery.—Dr. BOSTOCK said that the patient, a young girl, was admitted into one of Dr. Davidson's wards, with a very severe attack of chorea. She had suffered from no previous illness, but there was a well marked history of fright. Up to the sixth day, she was treated in the ordinary way with conium, chloral, bromide of potassium, etc.; but became progressively worse. She could now be scarcely restrained, and the skin was already beginning to give way. Chloroform was therefore given to produce sleep, and a very little had the desired effect; it was therefore repeated when necessary. This was continued for eight days; but, as soon as she was allowed to come round thoroughly, she was as violent as ever; the chloroform was therefore given continuously for forty-eight hours, at the end of which time, the movements being much more easily restrained, the limbs were wrapped in cotton-wool, and firmly bandaged to the bed. This seemed to be of great service to her; and, from this time, she gradually improved, and ultimately made a rapid and complete recovery.—Drs. GREVES, J. CAMERON, and CARTER all spoke favourably of the use of chloroform in bad cases of chorea; Dr. Greves also recommending Calabar bean, and Dr. Carter strychnia.—Dr. W. WILLIAMS had found marked relief follow the use of the ether-spray to the spine.—Dr. ARCHER objected to any restraint of the muscular movements.

MEDICAL MAGISTRATE.—Mr. Thomas Sutton Townsend, of 68, Queen's Gate, London, has been placed on the Commission of the Peace for the County of Warwick.

SOUTHERN BRANCH: SOUTH-EAST HANTS MEDICAL SOCIETY.

THURSDAY, DECEMBER 11TH, 1884.

W. H. AXFORD, M.B., President, in the Chair.

Tumour of the Left Temporal Muscle.—Dr. C. C. CLAREMONT exhibited a female patient with a tumour of the left temporal muscle, probably a gumma. Eighteen months ago, she had suffered from an attack of apoplexy, with right hemiplegia. A month later, a second attack occurred. At present, there was paresis of the right side of the face and right limbs, with imperfect sight; also right hemianæsthesia and hemianalgesia. Double optic neuritis was also present. Her intellect was unimpaired, but smell and taste were both defective.

Atrophy of Muscles of Neck.—Dr. CLAREMONT also exhibited a young man, with marked atrophy of the left sterno-mastoid and trapezius. The other scapular muscles were less affected. During infancy, the patient had received a severe injury at the back of the head. Some lateral curvature of the spine was present.

Radical Cure of Hernia.—Mr. NORMAN introduced the radical cure of hernia. He said that at all times in the history of surgery this had been a desideratum, and its accomplishment had been sought by many devices, as by cautery and by the invagination into the canal of the hernial coverings, etc. He drew especial attention to the operation of Wutzer, and its modification by Mr. John Moore, neither of which had met with very general approval and adoption. More recently, Mr. Spanton had introduced a new procedure, which seemed to have been very successful in his hands, and in those ef others, but was only applicable to inguinal hernia. There was still wanting some method which would be applicable to all forms of hernia, femoral, inguinal, and umbilical. But the want seemed to be in a fair way of being met by procedures, applicable both to strangulated and to non-strangulated cases, in which, the hernial sac having been exposed by incisions and in some cases opened, and irreducible omental contents having been tied and the stump returned into the abdomen, after cutting away the part external to the ligature, the sac also might be tied close to the abdominal cavity, and the fibrous structures forming the hernial opening might be stitched together by proper sutures, with or without paring their edges. By due regard to the lessons taught by Listerism, and the experience gained in ovarian and other abdominal operations, he thought that not only might this practice be carried out in the case of operations for strangulated hernia, where the attempt ought, as a rule, to be attempted; but it might often be wisely recommended and urged when there was no strangulation, but in patients who suffered great inconvenience, discomfort, and anxiety, with the fair prospect of at least lessening them. His personal experience was, as yet, but small.—Dr. WARD COUSINS said that he had performed eighteen operations for the radical cure of hernia. Seven of the patients had been young children. He had practised six times Mr. Spanton's operation, and three of the cases were successful. The cork-screw method had not produced a permanent cure in three severe infantile cases in which he had adopted it, and a second operation became necessary. All his patients but two were the subjects of congenital hernia. He then mentioned several modifications of the operation of ligaturing the neck of the sac, and stitching the pillars of the ring, which he had adopted, and referred to the successful practice of Mr. Mitchell Banks of Liverpool.—Previously to the discussion, Dr. WARD COUSINS submitted for examination four patients after operation for the radical cure of hernia. All of them were young men unable to wear trusses, and therefore suffered great inconvenience and risk. One was operated on after herniotomy; another was complicated with a large varicocele; a third had a rupture as large as a child's head; and the last case had been four times strangulated, and on each occasion reduction had been accomplished under chloroform. The sac contained a large piece of adherent omentum.

Pessary retained in the Vagina.—Mr. E. J. HUNTER, of Gosport, exhibited a Zwanke's pessary which he had removed from a patient after remaining in the vagina six years. For some months it had caused great discomfort, with offensive discharge. One blade of the instrument was free, but the other blade had become deeply embedded in the posterior wall. The cervix of the uterus was much enlarged, and at the same time it was firmly adherent through the foramen of the pessary. Removal was accomplished by filing through the vulcanite in several directions, the vagina being carefully protected with cotton-wool. The patient made an excellent recovery; and the prolapsus appeared to be completely cured by the contraction of the parts. Mr. Hunter remarked that the firm impaction of the instrument was due, first, to vaginal abrasion; and, secondly, to chronic inflammation and infiltration of the surrounding tissues. He thought, at the onset, that the changes were really caused by malignant disease, but it was remarkable to find how rapidly the vagina and uterus recovered after the extraction of the foreign body.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, DECEMBER 3RD, 1884.

D. J. LEECH, M.D., President, in the Chair.

Epileptiform Neuralgia.—Mr. WHITEHEAD exhibited an elderly woman, suffering from so called epileptiform neuralgia of the right side of the face. The first characteristic paroxysms was noticed shortly after the extraction of the second molar tooth in the upper jaw. Two months ago the antrum had been opened from within the mouth, and a small loose sequestrum removed; at the same time the interior was scraped, and a quantity of granulation-tissue taken away. The thermo-cautery was then freely applied to the whole of the exposed surface of the antrum. It was inferred that, during the extraction of the tooth, the lever which was used for that purpose had pressed upon the tooth next in front, and, whilst forcing it upwards, had fractured the floor of the antrum. After the operation the pain immediately disappeared, and remained absent for some weeks, but by degrees had steadily recurred, until, at the present time, either speaking, mastication, or any exciting cause, immediately produced a violent attack of intolerable pain, which lasted several minutes. Mr. Whitehead proposed, first of all, to try the effect of stretching the superior and inferior dental nerves, and, if this attempt failed, to remove Meckel's ganglion.

Cases of Excision of the Hip.—Mr. WRIGHT showed seven cases of excision of the hip in children. Six of them were soundly healed; all were able to stand and walk, and able to stand on the affected leg alone. One case which had healed without excision after opening abscesses, etc., was shown with the others for purposes of comparison. The portions of bone removed from several of the patients were shown, as well as other specimens illustrative of hip-disease. Speaking from an experience of over sixty cases, the advantages of excision were pointed out, and the hopelessness of recovery, without operation, in the majority of instances after the disease was well established was shown.

Portion of Ear of Corn Penetrating the Larynx.—Dr. HODGKINSON gave an account of the following case. John N., aged 23, applied at the Throat Hospital, complaining of pain in the throat, increased in swallowing, together with hoarseness, slight difficulty of breathing, and cough. He stated that four days previously, whilst laughing with a piece of straw in his mouth, it slipped down his throat. He was first seen by Dr. Gamgee, who noticed a swollen condition of the higher ary-epiglottic fold, which was surmounted by a grey slough. Dr. Hodgkinson afterwards saw the case; and, the slough having cleared away, he recognised about an eighth of an inch of straw projecting from the œdematous ary-epiglottic fold. This was removed with laryngeal forceps. It was part of an ear of corn, which had been embedded in the tissue to the extent of three-quarters of an inch. All symptoms disappeared on removal; the opening in the ary-epiglottic fold remaining for several days.

Malignant Disease in the Abdomen of a Child.—Dr. CULLINGWORTH and Mr. DONALD showed a preparation from a case of malignant disease of the abdomen in a female child, aged 4½. The growth, which was a lympho-sarcoma, was situated in the meso-colon, and filled almost the whole of the left side of the abdomen. The left half of the transverse colon was imbedded in the anterior aspect of the tumour, while the right half—as well as the ascending colon—contained hard scybala, which were felt through the abdomen during life. There was a smaller tumour in the lesser omentum, opposite the smaller curvature of the stomach, and the kidneys were infiltrated with numerous secondary nodules. The chief symptoms during life were pain, diarrhœa, and loss of appetite, with occasional discharge of blood from the bowel, and, latterly, vomiting of "coffee-ground" material. The duration of illness was four months.

Field of Vision.—Dr. HILL GRIFFITH read a paper on the field of vision, illustrated by a large number of diagrams, and more than one hundred and fifty charts of the field from various cases. The first part of the paper dealt with the normal field—its shape, size, and properties—and the methods employed in tracing it. In the second part of the paper, a brief account and demonstration were given of the changes in the field in atrophy of the optic nerves, chronic glaucoma, retinitis pigmentosa, various forms of hemianopia, toxic amblyopia, etc.

REVIEWS AND NOTICES.

On Diseases of the Rectum and Anus: including a portion of the Jacksonian Prize-Essay on Cancer. By Harrison Cripps, F.R.C.S., Assistant-Surgeon to St. Bartholomew's Hospital, etc. London: J. and A. Churchill. 1884.

This work is a treatise on diseases of the lower extremity of the alimentary canal, written by a surgeon whose claims as an authority on the subject have been well established. We have already had occasion to review Mr. Cripps' *Cancer of the Rectum, its Pathology, Diagnosis, and Treatment*, published in 1880. The work in question had received the imprimatur of the Council of the Royal College of Surgeons, for it represented the essential portion of the same author's essay which gained for him the Jacksonian Prize in 1876. A full monograph on Adenoid Disease of the Rectum, written by Mr. Cripps, is published in the twenty-third volume of the *Transactions of the Pathological Society of London*. From these works, Mr. Cripps' theories on the relations of epithelial cells and their nuclei to subjacent structures, and his advocacy of excision of diseased portions of the rectum, in preference to colotomy, must be well known to the student of contemporaneous medical literature.

With regard to cancer, Mr. Cripps is still a strong advocate of excision. Some of the least extensive forms of malignant ulceration cause the most intolerable pain, and some of the most widely spread can be removed by the knife, provided that the disease have not invaded distant parts. In both these varieties of cancer, operation is justifiable and followed by excellent results. Whilst admitting that the operation is unsuitable in a large number of instances, the author has the strongest conviction that, in carefully selected cases, partial excision of the rectum is of the utmost benefit to the sufferer, and should be regarded as a most valuable resource in an otherwise intractable disease. Out of nineteen cases, in Mr. Cripps' experience, that survived operation, in nine the disease returned between four months and two years after excision; of the remaining ten, six at least were in good health at periods of two to four years after the operation. In one of these six cases recurrence took place, a second operation was performed by the author, and the patient has survived the operation for four years.

As a result of a series of dissections made at the Royal College of Surgeons, the author asserts that the preconceived opinions as to the origin and insertion of the levator ani muscle, as given in the standard text-books on anatomy, are essentially incorrect. A large portion of the fibres arising from the inner portion of the symphysis pubis and from half an inch of the anterior portion of the white line, does not, he says, pass directly downwards, but obliquely downwards and backwards, to be inserted on the sides of the coccyx. The upper half of the muscle is tendinous, whilst the lower half, or that attached to the coccyx, is muscular. The posterior edge of the muscle forms a distinct and free border which crosses the rectum almost at a right angle; the point of bisection lies about an inch and a half or more from the anus. The true course of the fibres of this muscle is best seen by a dissection exposing its entire outer surface. The two levators act as compressors of the rectum.

We may here direct attention to some interesting observations at page 205, which want of space prevents us from quoting, on the relation of muscular spasm to stricture of the rectum. The author believes that long continued ulceration may cause reflex muscular spasms, ending in a more or less permanent atrophic shortening of the muscular fibres. A similar muscular affection is observed in chronic synovitis of the knee-joint and other articular diseases.

In the chapter on Fistula, Mr. Cripps lays stress on the incontinence of flatus and fæces which sometimes follows division of the sphincter during operation; he has traced it, particularly in one case, to implication of the fibres of the muscle in cicatricial tissue, which condition prevents complete contraction.

The author divides external hæmorrhoids into a true or thrombotic variety, an œdematous, and a cutaneous form. The second kind is likened to the swelling and œdema that are so often observed in the loose cellular tissue of the eyelid after slight cuts or injuries in its neighbourhood, being secondary to inflammation commencing on an excoriated area of the very sensitive muco-cutaneous lining of the anus. The third form, where one or more flaps of skin lie upon the anus, is held to be simply a result of the second. Concerning the operations for the cure of internal hæmorrhoids, Mr. Cripps is sufficiently eclectic to believe "that the operator will have the best results who habitually practises the proceeding with which he is most familiar." He personally prefers the ligature, but admits that he has not had a large experience of crushing or of puncture by hot needles.

The illustrations are of a high order of excellence, and include some good full-page woodcuts representing diseases of the rectum as seen by the naked eye, the origin, insertion, and relations, of the levator ani, etc. The microscopic drawings, especially some that are signed "B. Harrison Cripps," are examples of skilful and conscientious work; some of them are improved reproductions of others that appeared in the author's first work. The work *On Diseases of the Rectum and Anus* may fairly be described as a standard production, and a book that should be much read; for the subject is one that may almost equally concern the surgeon, the physician, the gynæcologist, or the family practitioner. Both for its scientific and its artistic merits, this work may claim a foremost place among other well known publications upon the same theme.

Micro-organisms and Disease. An introduction into the Study of Specific Micro-organisms. By E. Klein, M.D., F.R.S. With 108 engravings. London: Macmillan and Co. 1884.

This small volume will be found an useful guide to practical laboratory-work. At the same time, it will afford to those who merely desire to make themselves acquainted with the present state of our knowledge of mycological pathology, a convenient summary of a mass of facts hitherto only to be gathered from the perusal of a vast number of pamphlets and papers in many languages. The study of this book will at least remove one misapprehension, which not unfrequently finds expression. Many would seem to have the impression that the investigation of micro-organisms is an easy kind of research, quickly carried out, and soon presenting the investigator with "results." As a matter of fact, the work is most tedious, demanding an amount of time, patience, and perseverance that the critics are seldom at the pains to realise.

The first part of Dr. Klein's book contains a description of the methods in use for obtaining pure cultivations of micro-organisms, and for making microscopical examinations; an acquaintance with this part of the subject is absolutely necessary if an intelligent criticism is to be applied to the numerous investigations and theories which are being constantly put forward. Dr. Creighton, for instance, has recently issued a small pamphlet, in which he questions the accuracy of Koch's views with regard to tuberculosis; the whole argument of this pamphlet turns on the interpretation of certain experiments. This is a matter upon which everyone ought to have an opinion; an opinion, however, of any value cannot be formed without understanding the methods in question. Dr. Klein's description of the methods will require to be supplemented by the directions given in a series of articles entitled "The Biological Laboratory at the Health Exhibition," published in the British Medical Journal, August 16th, 23rd, 30th, September 6th, 20th, 27th; for, in dealing with methods of cultivation, he confines himself rather too much to the methods he himself prefers. His description of the various classes of micro-organisms leave nothing to be desired, and the detailed account of each species is, as a rule, full, and in all cases accurate.

The book concludes with chapters on the relation of septic to pathogenic organisms, on their vital phenomena, on vaccination and immunity, and on antiseptics. We can strongly recommend it as a most trustworthy handbook.

Tropical Trials: a Handbook for Women in the Tropics. By Major S. Leigh Hunt and Alexander S. Kenny, M.R.C.S. London: W. H. Allen and Co.

This book, as its title indicates, is intended specially for the use of women in tropical climates. It is a companion work to another, published by the same authors, and which has reached a second edition, intended for the use of men, and entitled *On Duty under a Tropical Sun*.

The volume immediately under notice embraces hints on outfit, clothing, and diet; on travelling; on domestic economy; on the treatment of simple maladies; and, finally, on the management and rearing of children, to which a lengthened chapter is devoted. It thus occupies a wide field, and conveying, as it does, many valuable practical suggestions in homely language, cannot fail to prove of service to those for whose especial benefit it has been written. With many of those remarks on drinks—which we think might with benefit have been somewhat fuller—we cordially agree, for temperance, not in alcoholic drinks only, but also in food, is absolutely essential to the

maintenance of health in a tropical or sub-tropical climate. The chapter devoted to the treatment of simple maladies occupies some two hundred pages. Its scope and aim may be best shown by the following extract, taken from its pages. "All women of sound sense will see the risk they run when they step beyond their proper sphere, and play at doctoring; nevertheless, it is only proper that every woman should be aware of certain general principles on which the more serious affections should be treated until skilled assistance can be obtained."

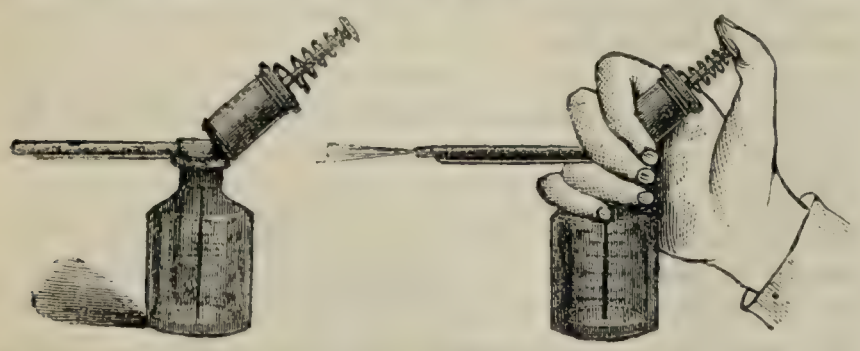
THE DESCRIPTIVE AND SURGICAL ANATOMY OF THE INGUINAL AND FEMORAL REGIONS, CONSIDERED IN RELATION TO HERNIA. By EDWARD L'E. LEDWICH, Lecturer on Anatomy in the Ledwich School of Medicine, Dublin, etc. With 17 illustrations. Dublin: Fannin and Co.

MR. LEDWICH has prepared this manual with the avowed object of lessening the difficulty with which the student meets in combining information on hernia and the different femoral and inguinal structures, which he may have collected here and there in his class-books, and in bringing it to bear on those subjects as they present themselves to him in the dissecting-room. There can be no doubt that the anatomy of the groin cannot be too well known, either to practitioners or to those who devote themselves to medicine, surgery, or obstetrics. That the hospital-surgeon, who has almost invariably filled the appointment of demonstrator or surgical registrar in his youth, should forget the broad facts in association with the subject, is most improbable; but members of other branches of the profession frequently admit that they are at a loss when questions of diagnosis of tumours from hernia come before them in practice; and a herniotomy in an emergency, always at the best a serious matter, is a very difficult operation, entailing great anxiety on anyone who has not seen it performed for several years. Hence, the student cannot be too diligent in learning the anatomy of the different forms of hernia. Mr. Ledwich has treated his subject in the proper spirit; and his method has the advantage over the text-books on general practical and systematic anatomy in being free from excessive condensation. The diagrams are clear and instructive.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE ATMONEMETOR, OR SPRAY-PRODUCER.

THIS little instrument has been designed by Dr. Alfred Wright of Margaret Street. It consists of a bottle or other convenient vessel for holding the fluid to be distributed as spray, with a plug or stopper into which are fitted tubes as represented in the drawings.



The spray is produced by means of a syringe, with a piston which is worked by the aid of a spring. The instrument is of small size, and can be conveniently used with one hand, as shown in Fig. 2. It was originally intended for use in diseases of the throat; and with this view there is a plate under the exit-tube, which can serve as a depressor of the tongue. The instrument is ingenious, and appears likely to be useful not only in throat-cases, but for other purposes where the application of a fine spray is advisable. It is manufactured by Messrs. Krohne and Sesemann, of Duke Street, Manchester Square.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 10th, 1885.

THE JUSTIFICATION OF VIVISECTION.

DR. HUGHES BENNETT'S case of successful trephining of the skull for the removal of an encephalic tumour, and the claim made by an anonymous writer in the *Times* that this case had demonstrated the clinical value of Dr. Ferrier's localisation of motor areas, has lighted up afresh the discussion on vivisection, its uses and abuses. It might have been thought that the subject had been long ago thrashed out; that, on one side, the charges brought against physiologists had been satisfactorily disposed of, and that, on the other, the necessity of physiological research and experiment, and its advantages to mankind at large, had been indubitably proved; but the daily letters in the *Times* show the contrary. It has been said to be a characteristic of the English people that they do not know when they are beaten; surely this is true of the antivivisectionists. Commissions of the House of Commons give them no assurance, Blue Books no comfort, stringent repressive laws no satisfaction. They live in fear lest it should be proved to the non-scientific world that human suffering is lessened by an accurate physiology based on truths taught by the pain of animals. Hence the warm discussion this case has provoked.

The facts are, briefly: a man was brought into the Hospital for Epilepsy and Paralysis suffering from paralysis of the left arm, with attacks of paroxysmal tremors, commencing in the lips and tongue, and invading the left arm and leg. Guided by the symptoms, a tumour was diagnosed in the cortex in the upper part of the fissure of Rolando. It was determined to remove it. The skull was trephined at the spot over the motor areas affected, and a glioma was removed from the anterior frontal convolution. The patient was relieved of all his symptoms, and was making a good recovery, when he succumbed to an attack of meningitis.

Without waiting to ascertain if the operation should prove thoroughly successful, "F.R.S." hastened to give an account of the case in the public press, pointing out that it was illustrative of the value of physiological research, inasmuch as the patient's life had been saved by the intimate knowledge of the topography of the brain obtained by Dr. Ferrier's researches, by aid of which the exact spot affected had been recognised.

In the controversy which followed, the Bishop of Oxford, Miss Frances Power Cobbe, Mrs. Anna Kingsford, M.D., Dr. Whitson, and others joined. The arguments of the antivivisectionists have been well stated, and, on the whole, with more moderation than in many previous controversies on the same subject. They are, briefly: 1, that the torture of animals is unjustifiable under any circumstances; 2, that

vivisection, even if useful, is so demoralising, that it ought to be suppressed; and, thirdly, that pathological observations could teach us the same facts as physiological experiment. The Bishop of Oxford is the supporter of the first. Reminded by a correspondent, in reply to his allegation that if experiments are to be performed man himself should be the victim, that to murder is to break a divine law, he admits that killing a man and a brute are not identical, but asserts that to torture a man and a brute are equally wrong, and insinuates that physiologists have claimed the privilege of cruelty denied to others.

To begin, we object to the use of the word "torture;" it has in it the suggestion of wantonness, the desire to give excessive pain, which is as far from the mind of the experimental physiologist as from that of the Bishop of Oxford himself. The infliction of pain is avoided by physiologists whenever possible; and, whenever unavoidable, is it justifiable in the interests of the human race? If in this world the life both of man and brute were alike sacred; if pain were a rarity, and disease unknown; if life ran its full course, and were happy, the search after physiological truths by subjecting brutes to suffering would be unjustifiable. But it is otherwise; the life of the brute is yielded up every day for man; pain and suffering break down the strong man, and disease plays havoc with the race. In despair at the suffering it is our duty to prevent and alleviate, we try, by experiments on living animals, to discover the secrets of life, the processes of disease, and the methods of cure, so as to make human life more free from suffering, more full of happiness. The end here justifies the means, in so far as man outdistances the brute.

But, replies Miss Cobbe, granted that experimental physiology has its uses for the race at large, the effect of research on the experimenters is so demoralising that the world becomes a loser instead of a gainer. This is a figment of Miss Cobbe's own brain. Where are the demoralised monsters whom she holds up to public scorn and hatred; the wanton wretches who delight in torture, and whom pity cannot move? Miss Cobbe steadily refuses to know, or even sit in the same room with, a physiologist; she is afraid of discovering that he is but a man—rather more in earnest than most men—and not a monster. As we run over in our mind the few experimental physiologists of England, we note men of the kindest heart, the warmest sympathies, and the keenest pity for human suffering. The physiologist is the high-priest of nature; he enters the sacred precincts, and the doctors without wait to learn the message he has heard; without his inspiration, the doctor would be but a bungler.

This oversensitiveness on the part of Miss Cobbe and her followers for the suffering of a few animals, is misplaced in a world full of suffering. If war and all its nameless horrors were at an end for ever; if sport and its cruel battues were done away with; if the methods of trapping and killing animals for food were free from torture; if the children of our cities no longer suffered from hunger and the diseases arising from neglect, we should then be ready to turn our attention to the physiologist, and ask if the suffering he inflicts on animals was needed, and was really beneficent in result.

Thirdly, there is the argument, or rather assertion, that pathological observation has given us as much information regarding cerebral localisation as physiogical experiment. This view has been particularly put forward in the *Times*, with superficial plausibility, by Mrs. Kingsford, a graduate of Paris. Arguing from the fact that the centre of articulate speech in the left third frontal convolution was discovered by means of *post mortem* observations, and that pathological lesions work from within, it is sought to establish that the definite motor centres now mapped out on the brain by Ferrier and others, as the result of their investigation, could have been discovered *post mortem*. This assertion simply shows a want of knowledge of the subject. The lesions of pathology are rarely definite, limited, and destructive of single confined areas; the rupture of a blood-vessel breaks down a variable amount of brain-tissue, and sets up a surrounding zone of encephalitis, so that only rarely can definite deductions be drawn from these extensive lesions; it is the same with tumours of the brain. No one denies the value of supplementing and confirming physiological research by clinical and *post mortem* observations, and it is by pathologists and physiologists working hand in hand that our present knowledge of the brain has been laboriously built up. But to the physiologists, and to the physiologists alone, must be conceded the credit of having discovered what are known as the motor areas. This, Charcot and Hughlings Jackson, in whose name Mrs. Kingsford assumes to speak, are the first to acknowledge. That this knowledge is pregnant with results to medicine has always been conceded. Owing, however, to the efforts of antivivisectionists, the valuable researches begun with so much promise to science have been arrested in England; but we trust that when the public begin to understand that curative operations on the brain, such as those described in Dr. Whitson's letter; that antiseptic surgery, with its prevention of untold suffering and its immense possibilities; that ovariotomy, giving back years of healthy useful life to thousands of women; that the prevention of anthrax, splenic disease, fowl-cholera, *et hoc genus omne* of diseases due to living contagia—when they recognise that these, and many more boons, are the recent gifts of vivisectionists to the human race, and are the results of accurate knowledge, based on physiological experiment—then we may look forward to the hysterical outcry of cruelty being silenced, and physiologists being allowed to pursue their work, guided and protected by a sound public opinion. To aid in forming such a public opinion, discussions, such as those going on in the *Times*, are not without their uses.

THE UXBRIDGE TRAGEDY.

THE tragedy at Uxbridge, by which a respectable prosperous elderly man met his death on the evening of November 15th, 1884, within less than a couple of hours of his arrival at his own house, inhabited only by his wife and himself, has not unnaturally attracted a good deal of attention. The mere statement that there was some probability that a woman of middle age should have shot the husband with whom she had lived in amity for thirty-seven years, was enough to rivet public interest. With rather remarkable rapidity, the woman was tried, found guilty of wilful murder, and sentenced to be hanged. The public was aroused, it was told that "the doctors" had made a mistake, and the short, and as it now appears incorrect, reports of the evidence of the medical experts were quoted as proving the truth of this contention. A considerable clamour arose, letters detailing curious stories of men who, after inflicting one fatal wound, had still sufficient strength left to inflict a second, were published in nearly all the newspapers, and finally the Home Secretary, glad, perhaps, to escape from the necessity of allowing a woman, however black her crime, to be hanged, commuted the sentence of death to penal servitude for life.

It has been attempted to argue the case on grounds of general probability. It has been said that it was very unlikely that a wife would, under the circumstances, attempt to murder her husband; that there existed no motive sufficiently strong to prompt such a deed. But this kind of argument cuts both ways; if it be difficult to find a motive for the wife, it is still more difficult to find any reason why the husband should commit suicide. The woman alleges that his motive was weariness of her jealousy, but this statement also cuts both ways. The case, in fact, turned almost entirely on the interpretation of the appearances found after death, and they afforded a very long train of circumstantial evidence, all pointing in one direction.

Various side issues have been raised which have served only to obscure the main question, which was, in reality, simply to decide whether a man could have inflicted on himself four wounds having the characters described by Mr. Bowlby in the paper published in the JOURNAL this week. The answer of any person who will carefully study the account of the *post mortem* examination, must be that it is exceedingly improbable, to say the least, that one of the wounds on the front of the body could have been self-inflicted; further, the wound in the back could not have been self-inflicted; it must, therefore, on the theory of suicide, have been accidental, a supposition which is not supported by any evidence, and is rendered very improbable by certain facts observed after death.

A six-chambered revolver was found beside the deceased; five chambers had been recently discharged, and the sixth was disabled. All the five bullets were accounted for; four were found in the body of the deceased, and one was picked up in the bedroom; the suicide, therefore, if such he were, must have been very determined. Four wounds were inflicted, two severe, and two fatal; of the latter, one involved a wound of the left subclavian artery, which had already, during the short time the man lived, produced a great deal of hæmorrhage into the planes of connective tissue lying between and beneath the muscles; the other wound, of fatal severity, had involved the apex of the heart. The bullet had passed through the fourth rib, and then followed a course slightly downwards and forwards through the right ventricle of the heart and the diaphragm, and had lodged in the left lobe of the liver. The wound of the heart was not a clean puncture, but a ragged tear, which allowed the blood to escape from the heart in large quantities, so that the thorax contained a very large amount. In one of the two other wounds, the bullet had traversed the superior maxilla, above the canine tooth on the left side, and passing back, lodged among the deep muscles of the neck, at the mastoid process. The fourth wound was in the back; the bullet had entered at the root of the neck, at the level of the first dorsal vertebra, and had passed almost directly forwards, but slightly upwards, still through the soft structures, and lodged beneath the skin in front; in this course it damaged no important structures. As the blood escaping from the subclavian artery had spread to considerable distances along the intermuscular planes, Mr. Bowlby appears fully justified in concluding that the blood escaped under pressure; that is, that the heart was still capable of performing its functions during the time that the hæmorrhage was taking place. It is impossible to suppose that the functions of the heart can have been effectually performed for any lengthened period after the receipt of such a wound as Mr. Bowlby has described; setting aside the direct effects of the wound in the substance of the heart and the shock thus produced, the rapid hæmorrhage must have speedily brought the heart to a standstill, partly through the mere withdrawal of blood, and partly through the accumulation of blood in the pericardium and anterior mediastinum. The rate at which hæmorrhage occurs would appear to be by far the most important factor in determining the period at which death shall occur after a wound of the heart. Several of the exceptional cases which have been recorded, in reality confirm this view, for instance, the celebrated case recorded by John Bell, of the soldier who survived twelve hours after receiving a wound of the apex of the heart; the hæmorrhage had occurred very slowly, but as soon as the quantity effused became sufficiently great to produce mechanical interference with the action of the heart, the patient died, suffocated as it was said. The exceptional cases of prolongation of life for hours or even days after wounds of the heart, are instances in which the hæmorrhage occurred slowly. The appearance of the heart after death in this case clearly pointed to rapid hæmorrhage, a condition probably incompatible with more than a few minutes of life.

However this may be, there can be no reasonable doubt that the bullet which wounded the heart was fired later than that which wounded the subclavian artery. Let us now attempt to imagine what could have been the sequence of events, on the supposition that the man committed suicide. We must suppose that, holding the revolver in his right hand, he placed its muzzle close to the left cheek, and fired. The bullet traversed the upper jaw-bone and passed backward until it was stopped by the mastoid process. Then, holding the revolver about half a foot from the chest on the left side, he must have again fired. The bullet entered just beneath the left collar-bone, wounded the subclavian artery, and was arrested by the scapula. We must suppose him to have next shifted the revolver into his left hand, in spite of the wound of the artery, and, by some strange contortion, lifted his arm so as to bring the muzzle opposite a point outside the nipple-line and over the fourth rib, and then to have fired downwards, forwards, and towards the right, the bullet passing through the fourth rib, the apex of the heart, and the diaphragm, to be arrested in the left lobe of the liver. Further, we must suppose that he fell backwards towards the muzzle of the revolver, and that that weapon happened to go off accidentally at that precise moment. Finally, in order to account for the fifth bullet found in the room, we must suppose that at some period this very desperate suicide fired off one chamber at random.

In seeking to adopt the theory which would attribute the wound in the back to an accidental explosion, we are met by two difficulties. First, the revolver had not a "rebounding lock," and could not explode accidentally, unless it were first re-cocked; and, secondly, the explosion must have occurred while the man was falling, and before he had actually come into contact with the muzzle. Hence the theory of suicide would require us to believe that, after shooting himself through the heart with the left hand, he re-cocked the revolver, dropped it, fell backwards towards it, was shot by it through the neck, and that, lastly, he either turned over on his face, or was turned over by his wife; though why his wife should turn him over on his face, if she found him lying on his back, it is difficult to conceive. Another difficulty arises in connection with the two wounds of the front of the chest; in both cases the muzzle of the revolver must have been, if we accept Mr. Bowlby's experiments as evidence, held not less than six inches from the chest when the trigger was pulled. Lastly, there is the difficulty of believing that a man could inflict such a wound on himself as the wound which involved the heart; in the first place, it would appear to be almost, if not quite, impossible, to get the hand into the necessary position; and, in the second place,

it is difficult to imagine any reason for his attempting to fire at himself in such a curiously constrained attitude. The theory of suicide involves so many improbabilities that it would be easy to consider it impossible.

If, however, a struggle took place between the husband, bent upon committing suicide, and the wife, naturally greatly excited and flustered, the probability that all the wounds were either due to accidental explosions, or to the effect of the struggles of the wife in modifying the actions of the suicide, is considerable, though there will still be the greatest difficulty in accounting for the wound in the back. Against this theory, there is the fact that the widow never stated that the pistol went off during a struggle.

As will be observed, it is only by straining facts that the theory of suicide can be for a moment entertained; their obvious bearing supports the charge of homicide. This charge the jury, who had all the facts, medical and others, before them, considered to be proved; and the presiding judge fully concurred with their verdict. Lastly, the Home Secretary, though he has arrived at a plainly illogical conclusion, has, by still leaving the woman under the next plainly severe penalty to that of death, indicated in no uncertain way that the doubt entertained at the Home Office is as to the punishment, not the offence.

THE PHYSIOLOGY OF FEEDING, AND THE ART OF DINING.

The physiology of food has formed the subject of many a learned and able discourse or dissertation; but Dr. Lauder Brunton's Lettsomian lectures will, if we are not mistaken, stand out conspicuously as forming an almost unique exposition of the physiology of *feeding*. Passing over the singularly clever and clear epitome of known facts with regard to the general process of food-taking with which Dr. Brunton prefaced his first lecture, but which should on no account be left unread by any practising member of the profession, we are anxious to direct particular attention to that portion of the discourse which treats especially of the physiology—we might say the philosophy—of dining.

It is refreshing, in these days of a rampant prohibitory policy in matters dietetic, to find a physiologist so well-informed and practical as Dr. Brunton, not only preaching a doctrine that will commend itself to the common sense of the profession and the public, but actually making a candid avowal that life, as it is, is real and earnest; and that the method of the majority in relation to the principal meal of the day is not either bad in itself or in urgent need, perhaps not even capable, of any great improvement. Dr. Brunton has, in truth, a confession to make worthy of the annals of the army of General Booth, and which certainly entitles him to the regard of the faithful and the freedom of the city of London. Indeed, we almost tremble as we contemplate the near future in the lecturer's experience. Will he—can he—survive the culinary honours which the great and good civic companies will assuredly vie with each other in heaping upon him? The story, though not in such touching language as that in which Dr. Brunton himself tells it, is as follows.

He remembers to have partaken of a certain dinner, for which he was indebted to "the hospitality of a city company." What a commotion there will be in the region of Bow Bells to know which company and when; for this rare repast was not simply rich, but it "gave one the sense of artistic perfection." Dr. Brunton went to that banquet an unbeliever; he deemed the city companies wasteful bodies, believing that they squandered money that might be employed for useful purposes, and that they ought to be abolished. Moreover, he was unhappy in his mind, exhausted with over-work, irritable in temper. That dinner was a turning point in his life. He came away feeling strong and well, with an angelic temper, and firmly convinced that city companies had been established for the express purpose of giving dinners, and ought, on no account, to be interfered with. This salutary change was wrought, not by the speeches or the conversation of the members and guests of the civic company, but by the dinner. It is needless to say that it was a good dinner and well cooked, and there was an abundance of good wine.

It is in no spirit of unfriendly criticism that we thus allude to the episode Dr. Lauder Brunton so graphically describes in his lecture. We heartily agree with him in his praise of well devised and well prepared repasts. He says: "This dinner was a revelation to me; it not only showed me that cookery might rank as one of the fine arts, but taught me that it might be a powerful moral agent." The pith of Dr. Brunton's excellent and useful homily is to indicate that it is not so much in the food as in the feeding the secret of an artistic and moral dinner really lies.

"Whatever men may be in other things, they are not 'mostly fools,'" observes the Lettsomian Lecturer of 1885, "in regard to the plan of their meals." A plain dinner ordinarily consists of soup fish, joint, pudding, bread and cheese, and dessert; and there is a philosophic fitness in the order in which these courses are arranged, and in the principal comestibles whereof they are composed. A stomach which has at all recently performed the function of digesting a fairly substantial meal, providing by its glandular apparatus a sufficient quantity of gastric juice of good quality, is not in a condition to undertake a similar duty unless it be itself first stimulated and strengthened for the task. Peptogens must be supplied to induce and enable the stomach to secrete a proper amount of pepsine. Soup made from meat-extractives, and bread which provides dextrin, afford the nourishment requisite for the gastric organ, and enable it to do its work vigorously.

In countries where the meat is generally tough, and not easily soluble, as in France, soup at the commencement of a dinner is a gastronomic necessity, and the people resort to it instinctively, without knowing why. In England, where meat is commonly tender and juicy, soup is less urgently needed, but is, nevertheless, always desirable. Its use is to be enjoined on the obvious principle and policy, of feeding the steed before we ask it to bear a burden. Then comes the fish, not superlatively nutritious in itself, as some food-economists seem to have assumed from its effects, but particularly easy of digestion, or, more accurately speaking, of solution. As Dr. Brunton points out, it is the ready solubility of food that constitutes the first and main feature in the quality of digestibility, and this solubility is, in fact, a facility for breaking up into small particles. The short flaky fibres of fish-muscle separate and, therefore, dissolve more easily and quickly than the longer fibres of the flesh of oxen or sheep or poultry. Even in the different parts of the same animal there are differing degrees of digestibility, from the same purely physical cause. Thus the shorter fibres of the breast of a fowl render that part more suited to the need of a weak stomach than the leg, in which the muscle-fibres are longer. Next to the fish comes the joint, when the stomach has been prepared for the reception of the heavier part of the meal; and appropriately with the meat come vegetables, supplying inorganic salts,

useful in the digestive process, and by their physico-chemical, as well as their nutrient, action, aiding the process of digestion. The bread and cheese, and dessert, play also useful tributary parts in the feeding as a whole. The bread gives dextrin, the cheese albuminoids, the dessert sweet fruity matters; all of which are useful.

There is, however, a matter on which Dr. Brunton lays considerable stress, but which is, we believe, of even greater moment than he seems to ascribe to it; namely, the reflex stimulation of the nervous centres by the mechanical acts of mastication and swallowing, and the sensory excitation of the higher centres by the pleasures of taste in feeding. The Lettsomian lecturer gives greatly more prominence to this element in the function than previous expositors; but we incline to think it would be right to insist, even more strongly than he does, on the importance of "pleasantness" as a quality or property of the act of feeding. If a dinner be really enjoyed, it is seldom followed by indigestion. We are not now speaking of the brutish joy of the gourmand in filling his paunch to repletion, or of the fastidious delight of the *gourmet* in his gloating appetite for delicacies, but to the contented satisfaction of the rational diner, who finds the food to his taste and is stimulated "mentally" as well as "physically," that is, in his intellectual cerebral, as well as his animal sensory, centres, by the meal.

Dr. Brunton estimates rather too highly, we think, the value and need of alcohol as an aid to digestion, for all except the very healthy of mankind. We have not space to pursue the subject further, nor is Dr. Brunton's admirable course of lectures sufficiently advanced in its publication to admit of a more detailed criticism. For the present, suffice it to say that we hail both the matter and the manner of the Lettsomian Lectures of this year as of very conspicuous merit and value to the profession, and, through its members, to the general community; and we venture to express a hope that the subject will engage the attention it deserves at the hands of all our readers.

WILL THE UNIVERSITY OF LONDON MOVE?

THE Convocation of the University of London met on Tuesday last, and again passed a resolution urging upon the Senate the desirability of holding the Preliminary Scientific (M.B.) Examination twice a year. The resolution was, as usual, carried by an overwhelming majority. In a house of nearly a hundred and fifty, there were but two dissentients. It might be taken for granted that the Senate would be ready, even eager, to give effect to the opinion thus emphatically expressed by a body which includes so many men fully qualified to represent every department of teaching. Unfortunately, past experience does not warrant such a hope. The same recommendation, made in former years, has been met by the Senate in an uncompromising spirit. That oligarchic body, confident of the infallibility of its educational theories, has not only rejected the advice of Convocation, but has even tightened the regulations which that body declared to be too tight.

If this be a fair index of the temper of the Senate, what hope is there that it will listen to any recommendation which may be made by the special committee which Mr. Anstie, Q.C., obtained, to consider the proposals lately published by the Association for Promoting the Establishment of a Teaching University for London? We are fain to hope against hope that the Senate may at length be brought to recognise the strength and depth of the movement. Dr. Robert Barnes said that if the University could not find, under the changed conditions produced by the advance of the higher education, a *modus vivendi*, it would soon find it necessary to contrive a *modus moriendi*.

There are some signs that the University may not thus commit suicide: nine members of the Senate have joined Lord Reay's Committee, and Mr. Richard Holt Hutton, the only member of the Senate who spoke on Tuesday, though he committed a mistake in making light of the importance of the present movement, admitted that a closer connection between teaching and examination was very urgently needed. This is not a large admission; still, it is something to find even one member of that anomalous body recognising the necessity for reform. There are indications that other members of the Senate are beginning to perceive this obvious truth. Objections which are grounded merely on the imperfections of the draft scheme submitted last month to Lord Reay's Committee will not advance the question. The scheme was professedly purely tentative, and, so far from being designed to settle the question, was, in reality, intended to open it up, and afford a ground for discussion. Convocation, at least, would appear to be fully impressed with the importance of the crisis which has arisen.

Mr. Anstie's motion was carried unanimously, and the committee appointed comprises many men of the first rank. It was, perhaps, unfortunate, that it was necessary to nominate the members of the committee on the spur of the moment; but, even with this disadvantage, it was not difficult to obtain a list of names which must command the respect, and, it may be hoped, also the attention of the senate.

We shall not attempt to forecast the tenour of the report of this important Committee; but as that body contains several of the most active members of Lord Reay's Committee, the necessity for reform will certainly be fully discussed by it.

The needs of the great medical school of London, and the general opinion of the medical profession, have long ago found expression; and now the demand of the teachers of all faculties has been distinctly formulated. This demand cannot be ignored. Will the University of London, which was for so many years proudly in the van of progress, make itself the champion of a movement, which is the result of the legitimate aspirations of the great teaching institutions of London, of its numerous colleges and medical schools, whose students are drawn from all parts of the kingdom?

UNIVERSITY EDUCATION FOR MEDICAL MEN.

WE have in this JOURNAL, for many years, devoted much space and much pains to the purpose of widening the connection of the medical profession with the universities. This word we use in the largest sense. Everything which can bring the students and the members of the profession into immediate relation with the culture of university life, and with the strength and purity of university tests, has our warm sympathy and support. From the first, we have done our utmost to bring constantly under the notice of the profession the immense advantages likely to result from extending university graduation throughout Great Britain, until it should become the rule, instead of the exception. We have done our utmost to favour, to foster, and to facilitate, the progress of the medical movement in Cambridge, and we may point with pride and satisfaction to the splendid results which have been achieved there; at the same time a verification of our earliest predictions, and, in some measure, a result of our

continuous support. On the other hand, we have not spared remonstrance, argument, and what has sometimes been characterised as unduly bitter reproach, of the neglect of the Faculty of Medicine in the University of Oxford, the lamentable perversion of the funds, the endowments, and the institutions, which are intended for the promotion of medicine in that university, but which have hitherto been diverted to other uses, or allowed to rest unused. There, also, our persistence has not been without effect. There is little life stirring yet in the so-called medical department of that university—a department which even yet has no real existence, and no just claim to such a title. There are, however, signs both in recent appointments, and in those about to be made, of an intention to enter upon a new path. The Physiological Institute which is in progress there, under the auspices of Professor Burdon Sanderson, the existing proceedings in progress for the appointment of a professor of anatomy, point to an early revival of medical teaching in that great university; and we have reason to hope that yet other changes may shortly be made which will enable Oxford to exercise her just influence upon medical education, and to bring into the University that element which the medical profession alone can furnish to a large class of students of biological science.

The Victoria University has come into active working, and its future career will be regarded with the greatest hope and interest. We were the first to declare, in the face of the opposition of the whole body of the metropolitan teachers in the schools of medicine, that her claim to the conferring of medical degrees was a just and rightful claim. We stood alone in London, in the press and in the schools, in maintaining that claim; and now that it has been as suddenly accorded as it was arbitrarily withheld, we shall continue to hope that the Victoria University will prove itself a living and progressive centre of professional education. Meantime, shape and form have been given to the demands which we have persistently put forward for increased facilities for graduation to medical students in London, and for the institution in the metropolis of a teaching university, in which the medical schools shall have their largest influence, by which they shall be more or less consolidated, and which will enable them to overcome the immense disadvantages under which they at present labour, as compared with the schools and students of the other great cities of the country.

The proposals for a teaching university in London, now before the world, have been so recently stated and discussed in these columns that we need not here again deal with them, except to express the hope that a just pliancy of opinions will be found in the advocates of the various interests which have to be reconciled, and that a practical plan will be adduced before we have again occasion to refer to this subject in our annual retrospect.

THE recent Hospital Sunday Collection in Birmingham, which was specially made in aid of the funds of the Queen's Hospital, has amounted to £4,674 12s. 11d.

AT the meeting of the Royal Medical and Chirurgical Society, on Tuesday, January 13th, it is expected that the evening will be taken up with the adjourned discussion on Dr. Percy Kidd's paper on "The Distribution of the Tubercle-Bacilli in the Lesions of Phthisis." The President, Dr. Hermann Weber, Dr. Green, Dr. Wilson Fox, Sir Andrew Clark, Dr. Moxon, Mr. Watson Cheyne, Dr. Coupland, Dr. Goodhart, Dr. Heron, and others, will take part in the discussion. Dr. Kidd's specimens will be on view half-an-hour before the time of meeting.

DR. EDWARD SEATON, whose services as medical officer of health and as physician are so well recognised, is a candidate for the post of assistant-physician at the London Fever Hospital.

A MOVEMENT is on foot in Birmingham, to commemorate in some substantial manner the services which Dr. Russell has rendered to the Birmingham General Hospital during the last twenty-five years, as one of the honorary physicians of the charity.

A SCHEME for the enlargement of the Royal Surrey County Hospital came before a special court of the governors for consideration on Wednesday last, the chair being taken by the Bishop of Winchester. It was unanimously resolved to erect buildings to accommodate twenty-four additional patients, and to include separate wards for children. With the view of carrying out this object, it was decided to open a donation and subscription list for the purpose of raising £6,000 for the building, and £700 *per annum* for its maintenance; the building not to be commenced until at least half the estimated cost be promised. Mr. Budgett offered a sum of £250; and before the meeting separated, £1,000 had been promised towards the building.

EXTIRPATION OF THE ENTIRE UTERUS.

THIS important subject will be introduced, as a subject for discussion, at the meeting of the Obstetrical Society, on Wednesday next, by a paper from Dr. William Duncan. The following have intimated their desire to take part in the ensuing debate:—The President (Dr. Gervis), Sir Spencer Wells, Sir William MacCormac, Mr. Knowsley Thornton, Mr. Henry Morris, Mr. Willett, and Dr. John Williams.

THE LATE DR. PARSEY.

A HANDSOME and massive tomb has just been placed in Hatton churchyard, to the memory of the late Dr. Parsey, for upwards of thirty years medical superintendent of the Warwickshire County Lunatic Asylum, at Hatton. The tomb is of Inverness granite, with landing and moulded base of Yorkshire stone, and it has been erected by the officers, committee of management, attendants, and others connected with the asylum.

ARE SMALL-POX HOSPITALS NECESSARILY A SOURCE OF DANGER TO THE SURROUNDING POPULATION?

THIS subject will be discussed at a meeting of the Society of Medical Officers of Health to be held at 1, Adam Street, Adelphi, on Friday, January 16th, at 8 p.m. Papers will be read by the following gentlemen in favour of different views:—Drs. Tripe and Gwynan, of London, and Dr. E. T. Wilson, of Cheltenham.

THE THRUSTON PRIZE.

THE Thruston Prize, given triennially to that member of Gonville and Caius College who has published, within the preceding three years, the best original investigation in Physiology, Pathology, or Practice of Medicine, has, for the year 1884, been awarded to Charles Henry Ralfe, M.A., M.D., for his treatise "On the Morbid Conditions of the Urine dependent upon Derangements of Digestion."

THE BRITISH GYNÆCOLOGICAL SOCIETY.

THE names of J. E. Burton (Liverpool), W. Culver James, M.D., W. Travers, M.D., J. Mansell Moullin, M.D., T. Vincent Jackson, F.R.C.S. (Wolverhampton), and W. Hope, M.D., were accidentally omitted from the list of the council last week. The name of Dr. Thorburn, of Manchester, was inserted by mistake.

MEMORIAL TO DR. PAGET.

THE Prince of Wales and Prince Edward have headed the subscription to provide a permanent memorial to Dr. Paget, F.R.S., Regius Professor of Physic in the University of Cambridge. The Committee have decided that the memorial shall take the form of a marble bust of the Professor, to be placed in the interior of Addenbrooke's Hospital, Cambridge. Mr. H. Wiles, sculptor, of Cambridge, has been intrusted with the work.

CHOLERA IN FRANCE.

ALTHOUGH the epidemic of cholera has officially ceased at Paris, nevertheless the disease itself, we regret to find, still lingers there. Since its apparent extinction in Paris, five cases have occurred at Aubervilliers, of which two cases were fatal, during the last week; at Saint Denis, in the poor-house, seventeen cases of cholera have occurred during the present month; and, finally, at Asnières, several cases of a choleraic character have been noted. This, in addition to the cases recently reported by telegram from Noirmoutiers, on the Vendée coast, clearly indicate the necessity for great precaution, and for the adoption in France, and the countries with which it is in communication, of all those radical measures of cleanly sanitation by which outbreaks of cholera, if they cannot be altogether averted, may at least be prevented from extending their fatal action.

THE BRITISH CHOLERA COMMISSIONERS IN INDIA.

DRS. KLEIN and Heneage Gibbes have both returned to us in good health. With the exception of a very temporary indisposition, we understand that the statement of Dr. Klein having suffered in health is, happily, unfounded. The official report is ready, and will be submitted to the India Office without delay; in the meantime, they have been invited to submit specimens of their preparations, and to give a brief scientific statement, at an early meeting of the Royal Medical and Chirurgical Society, for which, however, special permission must be obtained.

FOOTBALL: ITS REGULATION AND ABOLITION.

THE authorities of Harvard University, U.S.A., are about, in all probability, to take an important step forward in the path of educational progress. There is a very well known maxim, so often quoted that it is somewhat musty, which lays it down that a thorough study of the liberal arts softens men's manners, and suffers them not to be brutal; but this humanising influence of a liberal education may be to a great extent neutralised, if hours which should be devoted to exercise and relaxation are wasted on brutal sports. All true lovers of the higher education of mind and body will rejoice to learn that the following notice has been posted up at Harvard. "The Committee on Athletics, having become convinced that the game of football as at present played by college teams is brutal, demoralising to players and to spectators, and extremely dangerous, propose to request the faculty to prohibit the game after the close of the present season." Bear-fighting, bull-baiting, cock-fighting, prize-fighting, and other like degrading sports have had to be put down by the strong arm of the law. Does the same fate await football? Or will its admirers make and observe such regulations as shall bring it once more within the category of games?

APPOINTMENT OF A DENTIST TO PAUPER SCHOOLS.

THE appointment which we chronicle of Mr. Moxon, as dentist to the District Schools at Anerley, is of some interest, as it may afford a useful precedent. The Local Government Board recently advertised in our columns for applications for the appointment of dentist to the Anerley Schools, inviting applications from qualified dental surgeons for attendance on one morning weekly, at a salary of £60 a-year—the board supplying instruments and materials. There were, we believe, thirty-two candidates. Attention to the teeth of school-children is a matter of great importance to health, and one which is unquestionably much neglected by the poor. The wisdom, on the part of the Local Government Board, of making such provision is obvious, and the example will, we hope, be fruitful.

PROFESSOR COHNHEIM'S SUCCESSOR AT LEIPZIG.

OUR Berlin correspondent writes:—Since Professor Cohnheim's death the election of his successor has been looked forward to with much interest and curiosity. The University of Leipzig hoped and tried to secure the services of Dr. R. Koch, but Herr von Gossler, Prussian Minister of Education and medical matters, interfered, and avoided a loss which would have been irreparable for Berlin. The medical faculty of Leipzig has now proposed the following three professors to the Saxon Minister of Education—Drs. Recklinghausen, Ziegler, and Birch-Hirschfeld. As it is not supposed that Professor Recklinghausen is likely to leave Strasburg, the choice will rest between Drs. Ziegler and Birch-Hirschfeld.

PROFESSOR LANKESTER ON MICRO-ORGANISMS.

ON Wednesday next, January 14th, Professor E. Ray Lankester, F.R.S., will give an address before the Medical Society of University College, at 8 P.M., on "Bacteria and Bacilli in their relation to Putrefaction and Disease." The lecture will be illustrated by an extensive series of newly prepared diagrams, and will be followed by a demonstration of micro-organisms and methods of cultivation. The Society invite the attendance of all who are interested in the subject; no tickets are required.

CANTOR LECTURES.

THE second course of Cantor Lectures at the Society of Arts will be on "Climate and its Relation to Health," by Dr. G. V. Poore; and the lectures will be delivered on Monday evenings, January 12th, 19th, and 26th. The first lecture of the course will be delivered on the evening of Monday next, and will deal with the chief constituents of climate, latitude, heat, light, and barometric pressure. The second lecture, on January 19th, will treat of the effects of soil, drainage, and vegetation upon climate; and the subjects of the third lecture, on January 26th, will include the chief sources of atmospheric impurities, both inorganic and organic; climatic disease, and climatic health-resorts.

REPAIR OF TENDONS AFTER DESTRUCTION.

AT a recent meeting of the Berlin Medical Society, Dr. Gluck reported on a patient whom he had shown to the Society in February, in whom the tendons of the extensor communis digitorum and the extensor indicis had been destroyed in consequence of a phlegmonous affection at the back of the hand. Dr. Gluck replaced the tendons by a plait of catgut fibres, extending from the metacarpo-phalangeal articulation to the transverse dorsal carpal ligament. The operation had succeeded perfectly, the functions of the missing tendons being now completely performed—ten months after. He also showed another patient, aged 76, on whom he had performed the same operation, rather less extensively, but with equally good results. He believes that the irritation of function exerts a regenerative influence on the catgut, so that, instead of being absorbed, it becomes organised. He has tried a similar experiment with divided nerves, by stitching one extremity to each end of a decalcified bone drainage-tube, with the result that they have become united. This method has been recommended also by Dr. Vendoit, of Liège, and called by him "névrotisation du tube osseux." Dr. Gluck strongly recommends both operations.

THE LATE PROFESSOR DARLING.

THE death is reported of Professor W. Darling, M.D., F.R.C.S., who occupied, till his decease, the chair of anatomy at the University of New York. He was a Scotchman by birth, and received his professional education in the University of Edinburgh. In 1842, he went to America, and took the degree of M.D., University of New York.

He afterwards passed the Membership of the Royal College of Surgeons of England in 1856, and, ten years later, received the diploma of Fellow, by examination. He was the author of *Anatomography and Essentials of Anatomy*, and edited Professor Draper's works. Dr, Darling, during his vacations, very frequently crossed the Atlantic to revisit the United Kingdom, and devoted his holiday chiefly to visiting hospitals and museums. At the Royal College of Surgeons, his face was, a few years since, very familiar; and he was equally well known there as a pleasant companion, and an accurate scientific observer.

SUPERSESSION OF A MEDICAL OFFICER.

At the meeting of the Metropolitan Asylums Board on last Saturday, the subject of superseding Dr. Bernard, the medical officer of the South-Western Small-Pox Asylum, was brought forward. The Board, it will be remembered, has resolved to designate the suburban asylums "fever" asylums, and to have mere isolation-wards for a few small-pox cases, the rest of the wards being appropriated exclusively to the treatment of fever cases. Under this arrangement, it was brought before the managers at a meeting some time ago, that the asylum should be exclusively under Dr. McKellar, the superintendent of the fever asylum, all the other asylums being under one superintendent. Dr. Bernard then applied to the managers that they should give him some compensation for loss of office, and a motion was proposed to the effect that the question should be referred for decision to the Local Government Board. This was lost, and on Saturday a motion was carried to the effect that the services of Dr. Bernard, Medical Superintendent of the South-Western Small-Pox Asylum, should be dispensed with, and that application should be made to the Local Government Board to issue its order accordingly. This motion was carried, notwithstanding that the chairman, Mr. E. H. Galsworthy, before putting it, remarked that it might be a right and proper thing to place the asylum under one medical superintendent, but he questioned whether it was a right and proper thing to ask the Local Government Board to dispense with the services of an officer who, for nine years, had done the managers good and excellent service, and to dispense with those services, too, without compensation for loss of office.

MEDICAL OFFICERS OF SCHOOLS' ASSOCIATION.

A meeting of this Association was held on January 7th at the rooms of the Medical Society of London, Surgeon-Major Evatt, M.D., President, in the chair. Dr. Walter Fergus, medical officer of Marlborough College, was elected a member of the Association, which now numbers sixty-four. The honorary secretary (Dr. Alder Smith) then drew attention to the following resolution, which was passed at the last meeting in July:—"That the Council be requested to bring forward at the next meeting of the Association a series of resolutions on the 'Prevention of Epidemic Disease in Schools,' and that the business of the meeting consist in the discussion of these resolutions, and their adoption, modification, or rejection." He stated that, in accordance with this request, the Council had spent much time in compiling a code of rules for the prevention of infectious disease in schools, which had been printed and sent to all the members of the Association for critical remarks. A code, previously prepared and circulated, was then discussed, and each clause passed successively by the meeting, being the same, with a few verbal alterations, as the one prepared by the Council. It was then agreed that the honorary secretary be requested to have the code published in the name of the Society, and have it sold by a medical bookseller.

FEVER AND SMALL-POX IN LONDON.

The returns laid before the Metropolitan Asylums Board at the last meeting showed a small decline of patients of both classes. In regard to small-pox, 341 had been admitted in the fortnight, against 388 in the previous fortnight. The majority of the fresh cases had arisen in the eastern and south-eastern districts, and of the whole number 185 had been sent off to the hospital-ships. There had been 66 deaths in the fortnight, against 84 the previous fortnight, and 290 had been discharged, as against 296 in the previous period. There now remained under treatment 1,017, a diminution of 22 upon the numbers given in the last report. Of those remaining 728 were in Darenth Camp, 189 were on the hospital-ships, 24 in the South-Eastern asylum, 23 in the South-Western, 10 in the Western, 8 in the North-Western, 14 in the Plaistow, and 21 in the Eastern asylums. In respect to fever, 69 fresh cases had been admitted since the last report, against 97 in the previous period. The deaths had numbered 10, against double the number in the previous fortnight, and 91 had been discharged. In all there remained 319 cases of scarlet fever, 8 of typhus (7 in the South-Western and 1 in the North-Western asylums), and 87 cases of enteric fever, in all 414, a decrease of 33 upon the numbers remaining at the date of the last report. Of the whole number, no fewer than 195 of the scarlet fever and enteric fever cases were in the Eastern asylum.

BERLIN COURSES FOR PRACTITIONERS.

Our Berlin correspondent writes:—The next cyclus of vacation courses of lectures at Berlin, for practising medical men, begins on March 16th, lasting till the end of April. The catalogue of lectures can be had on application to Herr Anders, Dorotheenstrasse, 57, Berlin. The following is a list of the twelve sections: 1, Normal and Pathological Anatomy, and instruction in the tissues (9 different courses); 2, Physiology, Medical Physics, and Chemistry (4 courses); 3, Materia Medica and Toxicology (1 course); 4, Internal Medicine and Methods of Investigation (13 courses); 5, Psychiatry and Diseases of the Brain (three courses); 6, Diseases of the Nerves and Electro-Therapeutics (5 courses); 7, Surgery (three courses, including one from Professor Busch, Director of the New Academical Dental Institute, on Diseases of the teeth and mouth); 8, Ophthalmics (2 courses); 9, Aural Surgery (3 courses); 10, Gynæcology (6 courses); 11, Dermatology and Syphilis (5 courses); 12, Medical Jurisprudence and Hygiene (5 courses).

RELAPSING FEVER.

A recent epidemic of relapsing fever has occurred in Egypt, of which about eighty-eight cases are reported up to October 3rd, fifteen having proved fatal. Dr. Engel, the physician to the Sanitary Legation in Cairo, has thus had opportunities of studying the blood of some of the patients, and has found little difficulty in demonstrating the Spirochæta Obermeieri. Dr. Engel's opinion coincides with that of Hirsch—namely, that the disease is autochthonous, and that relapsing fever has its natural habitat in Egypt. He failed to discover that it had been introduced from without. The frequent association of this fungus with relapsing fever, and its characteristic shape, render it easily recognised.

ARTIFICIAL CHEESE.

In America, a cheap artificial cheese is now largely made from oleomargarine. Oleomargarine, which forms the basis of butterine, is a clarified oil, obtained from beef-suet; and, although its somewhat tallowy taste is objectionable, it is an animal product of considerable nutritive value. In the "creameries" of the United States, the cream is so effectually withdrawn from the milk as to leave the latter too poor for conversion into a saleable skimmed milk cheese. The skimmed milk is artificially charged with fat in the form of oleomargarine. An emulsion of skimmed milk and oleomargarine is made, and this artificial cream is added to the skimmed milk. This fluid, thus enriched with fat, can be made to yield cheese of fair quality. An oleomargarine cheese will not "ripen" well, oleomargarine lacking, in great measure, those soluble fats, the decomposition of which marks the green and red mould of old cheese, and gives it its peculiar piquancy.

THE ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

We publish in our editorial columns an account of the deputation from the Committee of this Association, which was received by the Presidents and Vice-Presidents of the Royal College of Surgeons, on Friday, January 2nd. The deputation laid before the Council the views of the Association of Members, with respect to proposed changes in the new charter of the College. Dr. Collum, chairman of the committee, expressed the desire of the Association that the new charter should grant to the members a voice in the management of the College; and the Vice-President, Mr. Joseph Smith, of Guildford, laid before the Council certain resolutions, which had been agreed to at the last meeting of the Association—namely, that there should be triennial elections for the Council and its President, any member of Council being eligible for a second term of three years, but not for a third, except after a lapse of three years after having vacated his seat at the expiration of his second term; and that thirteen Members of Council be elected by the Fellows, and twelve by the Members, by personal votes or by voting-papers. Mr. Joseph Smith observed that nearly fifteen thousand pounds, out of the annual income of twenty thousand enjoyed by the College, were contributed by the Members, who, in return, received a diploma, and nothing more for the rest of their natural lives. The other speakers all urged the necessity and justice of new measures ensuring representation of Membe in the new charter; and the President of the College promised to lay the written views of the Committee of the Association before the Council meeting, which has since met, and its decision will be found in this number of the JOURNAL. The Association of Members have rightly recognised one of the first principles in politics—namely, that, unless people strive for what they desire, they will never get what they desire; for the natural tendency of all corporate bodies and central authorities is to stand still, and to beg those in whose interests they are supposed to rule to rest and be thankful. Mr. Joseph Smith rightly remarked to the President of the College that he would hold a far more distinguished position, were he the representative of over fifteen thousand Members, and not, as at present, a President of the Council rather than of the College. The Members feel that the name which their diploma grants them implies what is generally understood by the word Member, whilst in reality it only confers on them a licence to practise. They may feel assured that, by constant and judicious agitation, they will gain, not perhaps all, but at least many, of their just objects.

M. CHARCOT ON TABETIC ARTHROPATHY.

THE editor of this JOURNAL has received, from M. le Professeur Charcot, a communication in which, after expressing regret at his inability to be present and take part in the discussion at the Clinical Society, M. Charcot gives an outline of the remarks which he would probably have made. He observes that the history of tabetic arthropathies cannot, philosophically, be separated from the history of spontaneous fractures which very frequently occur in the same persons, and often coincidently with the arthropathy. In his opinion these two alterations are, in reality, but one. If the change in the bone occur in the diaphysis, a fracture is produced; if in the epiphysis, the so-called arthropathy; further, in the latter case it is not uncommon for such fractures to occur in the extremity of the bone, and in consequence, bony fragments are found in the articular cavity in a considerable number of subjects. He remarks, that those who took part in the discussion, generally recognised in the clinical aspects, and in the pathological anatomy of the arthropathy a certain peculiar and special character not previously recognised. On this practical question of the special character of the arthropathy all were agreed. Sir James Paget had stated that this lesion of the extremity of the bones was not to be found in any specimens in English museums, and M. Charcot adds that the same was true of the museums of Paris, until he himself sent several specimens to them M. Charcot is not prepared to agree with those who contended that the arthropathy was merely a variety of chronic articular rheumatism; there is, he says, no reason why "chronic rheumatoid arthritis" should not occur in a tabetic patient, just as gout and fungous arthritis sometimes occur, for the presence of tabes does not exclude the influence of diathetic states; but true tabetic arthropathy differs essentially from the lesions of chronic rheumatic arthitis (*arthrite sèche*) in a number of points, among which he signalises the rapid wearing away of the ends of the bones. The heads of the bones may disappear in the manner characteristic of the diease, without the slightest sign of reaction. M. Charcot admits that bony stalactites may be met with, though rarely, on the end of a bone, which in other respects presents all the characteristics of the tabetic lesion; but he insists that the indolent nature of the tabetic arthropathy, which does not prevent the use of the limb, must not be forgotten. Patients continue to be able to walk after the knee or hip-joints have been profoundly altered; it would be singular, he thinks, if under these circumstances some bony vegetations were not produced; yet they are not always produced. The capital fact and the practical fact is, that the lesions of the bones or joints in ataxy can be recognised both clinically and by their anatomical character. So much being admitted, it would be, he says, very nteresting to discuss the nature of the lesion, whether it be of a rheumatic or of some other nature; but for the present he thinks it would be difficult, perhaps impossible, to give a definitive and absolute answer; for, on the one hand it is easy to see rheumatism everywhere, and on the other, the various chronic lesions of the diaphyses and epiphyses cannot but present a considerable resemblance, since in pathological anatomy there is no true specificity.

THE PROFESSION IN AUSTRIA.

THE responsibilities of practitioners in Austria would seem to be even greater than those which weigh on practitioners in England, or malpraxis is more severely visited there than here. A young surgeon in Vienna, being accused of having treated a wounded finger badly, so that the extremity had been lost, was condemned to undergo further examinations. The case was referred for final judgment to the College of Physicians, but, before this body returned its verdict, which acquitted him, chagrin drove him to suicide. The case naturally excites much sympathy in the Austrian capital. One of its lessons ought to be, that such a sense of humiliation as impels a man to kill himself rather than face the peril of condemnation, ought not to be too harshly regarded as "a proof that there was really something to fear." In this case there was nothing to fear, and yet this young man died by his own hand, distraught by a terror which was certainly not inspired by remorse or "conscience."

THE DARENTH SMALL-POX CAMP.

IN respect to the complaints which have been made in some of the general weekly papers respecting the management of Darenth Small-pox Camp, in which complaints, endeavours have been made to throw blame upon the medical officers and nurses, a prolonged conversation arose at the Asylums Board on Saturday, and Sir Edmund Currie stated that he had investigated the complaints. It was true, he said, that the patients at the camp were called upon to assist in the work. It was to be remembered that the patients sent thither were convalescent patients, and they were sufficiently well to work; but they were not discharged, for reasons of safety to the general public. But it was not true that sick patients were called upon to work, and for them hospital-huts were provided, because, in so large a number as had been in camp, nearly 1000 at one time, there would be cases of relapses. Most of the people were most grateful for the manner in which they had been cared for; but the managers must expect to have some grumblers among so very mixed a company as that which came to the camp. After some remarks by Mr. N. Robinson, who was disposed to throw blame upon some of the officials, Mr. Elliott, of Islington, declared that the result of private investigation into the camp was to show that

the complaints came from such classes as the domestic servants, who thought there should be "superior" accommodation for those who were used to the luxuries which the houses of the rich afforded, and these did not like mixing with the inhabitants of the east and south-east. There was abundant testimony that the great majority of the people were most grateful, and many of them would like to stop longer than was necessary; and, as a matter of course, the footman and housekeeper of Belgravia looked upon their seclusion there in quite a different light. Sir Edmund Currie added that it would be impossible to give the same proportion of staff to patients as was given in the hospitals for patients suffering from acute disease, and it would not be advisable to do so if it were possible. The grumblers had complained about the cold, but the committee could not help the inclemency of an English winter; but every means was taken to warm the tents, and to make the patients comfortable.

DENTISTRY IN JAPAN.

At the meeting of the Odontological Society of Great Britain, held on the 1st instant, Dr. St. George Elliott exhibited three very curious and interesting specimens of Japanese artificial teeth. The Japanese, he said, were the only nation outside the limits of Western civilisation who understood the fitting of artificial teeth. They had derived most of their scientific and technical knowledge from the Chinese, but in this matter they were in advance of their teachers, for the Chinese had no idea of fitting an artificial denture. They could, indeed, carve a row of incisors, and fasten them to the teeth on each side; but these productions were only intended for ornament, not for use, whilst those of Japanese manufacture were thoroughly efficient. Thus a Japanese physician who came to Dr. Elliott for a set of teeth, remarked that, though the foreign teeth were more natural in appearance, those of home-manufacture were quite as good from a practical point of view; and, in proof of this, he took up a piece of hard "rock-candy," and crunched it between his false teeth. These dentures were made on wooden bases; the front teeth were made from quartz-pebbles ground down, but the process of mastication was performed by copper-nails, which occupied the place of the molars. It was an interesting fact, also, that the fixing of dentures by means of suction had been known to the Japanese for at least two hundred years. The base-plates were carved by hand, the process being as follows. An impression of the mouth was taken in wax, and from this a model was made, also in wax. The model was then coated all over with red pigment, and the plate, after being roughly shaped, was placed on the model thus coloured. The red patches on the under surface of the plate were then carefully cut away, until at last it fitted the model exactly. It was then tried in the mouth in the same way, the gums being covered with the pigment, and any inaccuracy readily detected. Dr. Elliott stated that one of these dentures had been in use for fifteen years.

SCOTLAND.

ABERDEEN UNIVERSITY.

The Christmas recess commenced on Wednesday, December 24th, and the classes were re-opened on Tuesday, January 6th.

A CHARITABLE PAROCHIAL BOARD.

The recent conduct of the Greenock parochial authorities seems scarcely in harmony with the generous and friendly feelings that especially mark the present season of the year; and the facts elicited in a recent trial in the Sheriff's Court, where they appeared as defendants, are not calculated to bring them much credit. It appears that recently a young lad called at the house of a labouring man, asking for assistance. He seemed so ill and weak that he was taken in, cared for, and given all the comforts that the social position of his benefactor allowed. Next day he died, and when application was made to the authorities for the interment of the body, they declined to do so, compelling the man who had sheltered the lad to bury the corpse at his own expense. This he did, but sought to recover the amount of the burial expenses in court. We are glad to see that in this he was successful; and, in giving judgment, the sheriff administered a most necessary reprimand to the authorities for their want of sympathy and consideration in the case. It is to be hoped that the present incident will not be forgotten by those concerned in it, and that a little more humanity will, in the future, characterise their interpretation of the law they have to administer.

HOSPITAL SUNDAY IN ABERDEEN.

In accordance with established custom, the annual collection for the Royal Infirmary was made in most of the churches on the first Sunday of the year. The sum already intimated is about £650, but in some churches the collection will be made later. The inmates of the Royal Infirmary were provided, on "auld yule tide," with the usual Christmas tree. As usual, the medical students took an active part in obtaining subscriptions to furnish a portion of the entertainment.

IRELAND.

The death of Dr. Thomas P. Tyrrell, medical officer of Newbridge Union, after a short illness, is reported.

Dr. C. H. Graves has been elected medical officer of Cookstown dispensary district, in the vacancy caused by the resignation of Dr. Henry Graves.

CARLOW UNION.

The guardians having recently passed a resolution requesting the Local Government Board to send an inspector to hold a sworn inquiry as to the manner in which the duties of medical officer of the district were discharged, Dr. Bolton, the gentleman referred to, at once sent in his resignation.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

A meeting of the Fellows of this College has been summoned for to-day (Saturday), the 10th instant, to consider the change that it is proposed should be sought for in the College charter. Probably the most important of these suggested changes, which were stated in the last number of the Journal, p. 44, is the question of the admission of women to the diplomas of the College.

ADDRESS AND TESTIMONIAL TO DR. DENHAM.

Dr. Denham, ex-Master of the Rotunda Lying-in Hospital, and ex-President of the Royal College of Surgeons in Ireland, having retired from practice after over fifty years arduous and honourable work, some of his most intimate professional friends have formed a committee, with the object of affording an opportunity to his former pupils and numerous friends of expressing their esteem and respect for him. The committee, which includes amongst its members the Presidents and Vice-Presidents of the King and Queen's College of Physicians, and of the Royal College of Surgeons in Ireland, has already received a number of subscriptions from Dublin medical men. Circumstances, unfortunately, render it desirable that the testimonial should be subscribed to widely. It would, of course, be impossible to ascertain the names and addresses of all those who experienced Dr. Denham's kindness or his great hospitality, so ungrudgingly extended to all who passed out under him when Master of the Rotunda. Many of these gentlemen owe their professional success in a great measure to his instruction, and not a few of these will, we hope, show their appreciation of the "old Master"—now stricken in years, and in failing health—by contributing to the testimonial. Subscriptions, which are limited to two guineas, may be sent to Dr. G. H. Kidd, 58, Merrion Square, one of the honorary treasurers.

THE ANNUAL REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD.

TIME was when the annual account of his stewardship, by the chief medical officer of the Government, attained almost to the dignity of a State paper. We have now, for several years, become accustomed to expect, in the blue-books of the Medical Department, something much more prosaic than the striking and scholarly utterances of Mr. Simon. The 6,000 references, on matters of ordinary business, to which Dr. Buchanan refers, with mingled pride and regret, in his report for 1883, just published, quite put it out of the power of the department to codify for us, after the fashion of Mr. Simon's earlier reports, the progress of State medicine during the year. It would even appear, indeed, from the report, that the medical staff of the Local Government Board is now so attenuated that there is no time to keep the progress and spread of cholera in the east under observation. This is a most serious admission for the head of a public department to make. Probably Dr. Buchanan's remonstrances against the meagre resources at his command have taken another form than expressions of regret in a blue-book published to the world; but the bold, and to outward seeming, somewhat cynical statement that, owing to the loss of Mr. Retten Radcliffe, "and also by reason of the urgent pressure of daily duties upon our very limited staff, the desired observation of the behaviour of cholera has not recently been possible," reveals an almost incredible state of business in a public department. That inspectors should have to fritter away their time advising on the plans of a hospital here, or the site of a cemetery there, or inquiring into the state of the drainage and excrement-disposal at this or that place, presumably already in the charge of a local medical officer of health, is absolutely indefensible, whilst the great imperial interests bound up in our possessing a complete and thorough knowledge of the progress of eastern epidemics remain unappreciated and neglected. Whatever else is left undone, the systematic study of Asiatic epidemiology ought certainly not to be overlooked. It may not be possible to get the work done so well as by the late Mr. Radcliffe, who had a special kind of genius for piecing together the varied and seemingly contradictory items of information that reach this country, about the behaviour and spread of diseases like cholera and plague; but the work should at least be attempted, with an intelligent foreknowledge of its importance and intricacy, and not be cast aside because a dirty village or dirtier town reaps the inevitable consequences of its complacent filthiness in one outbreak of typhoid fever or of diphtheria.

The medical interest of the report before us lies chiefly in the appended papers by Dr. Sanderson, Dr. Klein, and others, on the chemistry of putrefaction, infection and disinfection, and allied topics. For the rest, Dr. Buchanan's preliminary preface concerns itself chiefly with a sketch of the current work of the department during the year. The more important inquiries made by the staff have already been noticed in these columns, on the appearance of the separate reports; and there is, therefore, little occasion to dwell upon them, even if they did not belong to what, in the present age of progress, must be regarded as already ancient history. But, for purposes of record, it may, perhaps, be as well to mention that, of the births registered in 1881, all but 3.8 per cent. (or, including postponed cases, 4.5 per cent.) are now accounted for as regards vaccination. The returns of which this is the summary are the tenth made since the Vaccination Act of 1871, and indicate, in Dr. Buchanan's view, "a fairly steady advance in obedience to the law." The proportion of omitted vaccination to births was, as usual, rather larger in the metropolis than in the provinces. During the year, 340 unions, containing 1,645 vaccination-districts, were visited by the medical inspectors with regard to their public vaccination? Is not this now rather a waste of strength? Triennial inspections would seem to be sufficient for all practical purposes. The National Vaccine Establishment sent out 3,998 charged points and 17,870 capillary tubes of human vaccine lymph to 8,830 applicants. It also sent out, to 1,666 applicants, 9,249 points and 2,101 tubes of calf-lymph derived from the animal vaccine station at Lamb's Conduit Street. Mr. Shirley Murphy, the assistant director of the station, contributes an excellent technical paper on the practice observed and the results attained at certain animal vaccination establishments in Holland and Belgium which he visited in the autumn of 1883. A report by Dr. Page shows up very clearly the sort of evidence upon which vaccination is credited with the responsibility for the sufferings and death of children. The history he gives is that of an infant badly nursed, badly cared for, and drugged—admittedly so, by the mother's own account. Vaccination is proved to have been successfully performed, and to have run its normal course, uninfluencing, and uninfluenced by, other events with which it became coincident, and which led to the death of the child being ascribed, as usual, to vaccination.

Besides Dr. Ballard's general and comprehensive inquiry into the causation of infantile diarrhœa, and a good deal of administrative work, the Department succeeded in making twenty-four inquiries into local prevalences of disease, or matters of general sanitary administration. Two of these, at Hendon and Devonport, had reference to outbreaks of diphtheria spread by milk, and a large proportion of the reports had to take account of the influence of schools in the distribution of infectious diseases, especially scarlatina and diphtheria. The etiological skill of the Department seems to have been considerably reinforced by its latest recruits. Thus, Dr. David Page contributes a capital report descriptive of the recrudescence of scarlatina in a village in the Fens; whilst Dr. Arthur Downes writes a paper which shows, almost mathematically, the use that diphtheria made of school-assemblage, particularly at one school, as its chief means of maintenance and dissemination in a village called Oaksey, near Malmesbury.

The auxiliary scientific investigations of the year had more than usual interest. The allocation of the £2000 annually allowed by Parliament for these investigations is not given, though it would be useful to have some sort of notion as to how and in what ways the money is being spent. Dr. Buchanan has been able to re-enlist among his scientific helpers Dr. Burdon Sanderson, who writes a quite characteristic paper on the chemical products of putrefaction in their relation to disinfection. Discussing the septic process from a chemical point of view, Dr. Sanderson dwells upon the circumstance that many of the chemical products of the process are endowed in a very remarkable degree with the power of putting an end to the life of those minute organisms which appear to be themselves causatively related to the septic process. He then proceeds to discuss in succession the various groups of chemical substances which are the result of the action of septic organisms, yet which thus appear fatal to those same septic organisms. Of these, the most remarkable and the most interesting in relation to the present subject are included in the group of compounds called "aromatic," among which some only are disinfectant, the best known example being carbolic acid. It is, however, by no means the only, nor even the most effectual, weapon which bacteria fabricate for their own destruction; and the object which Dr. Sanderson has had in view has been to search out from among these substances those which, on account of their physiological or chemical properties, are most likely to be of practical value. In concluding his report on this part of the subject, he indicates the extreme difficulty which necessarily attends the exploration of a region so unknown, in which every inch of ground must be laboriously won by pathological experiments.

The substances chosen for experiment were the two aromatic acids known respectively as *phenylpropionic* and *phenylacetic;* and these were employed in very numerous experiments by Dr. Klein. The method employed by Dr. Klein was based on the principle that the question to be first answered with reference to each disinfectant is not so much that of its ability to restrain the vegetation of any specific microphyte, as of its ability to destroy that power which the microphyte possesses of directly or indirectly producing disease. When, therefore, he wished to determine whether a certain chemical substance was or was not a disinfectant for a particular virus or morbific poison, he first exposed the one to the action of the other, under defined conditions; then, after withdrawing the virus from the antagonistic influence to which it had been subjected, he allowed it, in its turn, to act on the test animal (whether rabbit, guinea-pig, or other) by the reaction of which to the poison the question of the mitigation or destruction of the poison could alone be determined. This method of interrogation showed itself to be as satisfactory in its application as it was correct in principle. Inasmuch as disinfection (when real) is essentially the victory of a chemical substance (therefore called a disinfectant) over an infectant poison (virus), it is obvious that the only way of testing the efficacy of any given disinfectant of known abilities, is to observe its influence upon the infectant.

The particular results of the experiments made with phenylacetate and phenylpropionate solutions on the virus of anthrax, swine plague, and tuberculosis, cannot here be described; but it may be stated that, experimenting with the bacillus anthracis in its two life-phases, and commencing with its spores, Dr. Klein arrived at the remarkable result that neither solution had any effect on the virus in this phase, even when the spores were subjected to the action of the "disinfectant" for forty-eight hours; for, after remaining for that period in 0.5 per cent. (1 in 200) solution of either acid, the spores of bacillus anthracis were found to be still capable of producing the disease in its unmitigated form when inoculated to guinea-pigs. On the other hand, it was com-

pletely established, as regards the agents in question, that, provided the virus is free from spores, the activity of this most virulent of all contagia can be annulled by extremely minute quantities of either of these disinfectlng agents, and that the time required varied with the dose. Another important result of Dr. Klein's observations, alike of pathological and practical interest, was this—that in all the experiments the destruction of virulence was seen to correspond with the loss of vitality of the bacillus. In every case, those specimens of "disinfected" blood which, when tested pathologically, were followed by infection and death of the test-animal, were found to be capable of growing bacilli when transplanted to a suitable undisinfected soil; while all those which failed to grow them when so transplanted were also harmless when inoculated. The operation of these acids upon the virus of swine-plague gave results closely resembling those obtained by this action on anthrax-virus. The results of the experiments as to the operation of the same "disinfecting" agents on virus of tuberculosis were equally conclusive, but much less encouraging. They go to show that the material of this disease retains its virulence even when acted on for a long time by "disinfectants" in doses which kill the rods of anthrax instantaneously. Both as regards tuberculous virus derived from man and that derived from cattle, it was found that even half per cent. solutions were inefficacious unless the morbific material were steeped in the solution for several days. Tuberculous matter, therefore, in its power of resistance to these particular "disinfectants," would appear to be comparable with bacillus anthracis in its phase of spore rather than with its filaments or rods.

Besides these researches on disinfection, Dr. Klein contributes to the report some valuable additions to existing knowledge of pathogenic organisms, in which he criticises the results as to attenuation of virus by sub-cultures, claimed by M. Pasteur, and deals also with the relation of the specific bacillus of tubercle, discovered by Dr. Koch in 1882, to the pathological process in artificially induced tuberculosis of the lower animals. The question of the mitigation of virus and the applicability of our knowledge of pathogenic organisms to the prevention of disease by inoculation, has advanced considerably in recent years, but further researches in this direction are much required; for this reason, and in view also of the new knowledge acquired by Dr. Klein and his coadjutor, Dr. Heneage Gibbes, during their recent investigations in India, the appearance of Dr. Buchanan's next Blue Book will be awaited with some impatience.

THE ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

An important deputation from the Committee of the Association of Members of the Royal College of Surgeons was received by the President and Vice-Presidents on Friday, January 2nd, at four o'clock, at the College. The object of the deputation was to lay before the Council the views of the Association with respect to the alteration or proposed change in the new charter about to be applied for.

The deputation consisted of Dr. Collum, Chairman of the Committee (Surbiton); Mr. Joseph Smith (Guildford), Vice-Chairman; the Honorary Secretary, Mr. Cooke; and Messrs. G. Brown, Brindley James, John Charles Smith, Dr. Mason, Messrs. Ellis, Hayter, and others.

Dr. Collum, having introduced the deputation, stated that their object in attending that day was to point out to the Council the present position of the Members, and to ask the Council to take such steps as would ensure in any new charter which should be granted that the great body of Members, numbering some 1,600, should have a voice in the management of the College. Speaking for himself, he had been a Member for 48 years, but, as far as his knowledge of the management of the College was concerned it was *nil*. It was time that Members should have some voice, so that the affairs of the College should progress, and not let other licensing bodies pass them by. He declared that the College had lost touch of the profession and required fresh blood.

Mr. Joseph Smith (Guildford), Vice-Chairman of the Committee, said: Mr. President and Vice-Presidents, The Committee of the Association of Members of the Royal College of Surgeons has asked me to lay before you various resolutions which were agreed to at their last meeting on the 30th of December. I will, with your permission, do so in as brief a manner as possible, and not detain you by any lengthened remarks of mine, but go at once to the points.

At a meeting of the Committee of the Association of Members of the Royal College of Surgeons of England, held on Dec. 30th, the following resolutions were agreed to be presented on Friday, January 2nd, before the President and Vice-Presidents of the College.

1. That the Council consist of 24 members and President; that the election take place every three years; and that the members of Council be elected for three years, and eligible for a further election for three years.

Any member of Council who has served for the full term of six years, be not eligible for re-election until he has vacated his seat on the Council for three years.

2. That the members of Council be elected by the Fellows and Members of the College—that is, thirteen by the Fellows, and twelve by the Members.

Voting to be personally at the College and by voting-papers, to be sent to each Fellow and Member of the College in the United Kingdom whose names are on the *Register*.

These, sir, are the main points we wish to bring before you, and to ask you and the Council of this College to have these measures inserted in any new charter you may obtain. We feel that our demands are just; and the wonder is, that the great mass of Members have remained so indifferent for such a length of time. Although our Association has only recently been formed, and imperfectly worked, in consequence of the demands on our time as busy practitioners, nearly 1,000 Members have given their assent to the great principle for which we contend—namely, representation. We feel, sir, that the time has arrived when the whole subject must at once be taken in hand by the Council. To show you the feeling which has been aroused, an important provincial town has sent us the following resolution: "That no alteration in the Charter of the Royal College of Surgeons would be deemed satisfactory by the Members unless it made provision for the Council being elected by the Members and Fellows unitedly, and for the President being elected by the Council." It would be idle for me to point out to you that out of £20,000 *per annum* of income which this College enjoys, nearly £15,000 is contributed by the Members. What do they have in return? a diploma; and after that, as far as the management of the College is concerned, they are practically dead. They have no voice in it in any shape or form. Surely, sir, this must make them utterly indifferent as to its future welfare. To conclude, sir, I repeat again, all we want is representation on the Council, and, when we get that, we shall have confidence. At present, the distinguished office you hold cannot correctly be said to be that of President of the College, but rather of the Council. How much more distinguished would it be if you felt you represented the 15,000 or 16,000 Members. We trust, sir, that our demands may receive your attention; and, in no revolutionary spirit, we say that, if you feel called upon to reject them, our only plan will be to lay our case before the Home Secretary.

Mr. George Brown spoke at considerable length, pointing out how necessary it was for some new blood on the Council, so that the two bodies—the College of Surgeons and the College of Physicians—could go to the Legislature, and ask for powers to grant the M.D. degree. Numbers of students were flying to other places, such as Edinburgh, Glasgow, etc., in consequence of their inability here to obtain such a degree except at the London University.

Mr. Brindley James urged on the Council the absolute necessity for representation upon it, and deemed it most unjust that Members had been deprived for so long of what was just and right.

The President replied that the views of the deputation should be laid before the Council, if the Committee of the Association would place on paper what they required.

After thanking the President and Vice-Presidents for the courtesy they had shown them, the deputation retired.

A committee-meeting was appointed to be held on Tuesday, the 6th of January, at 3, New Inn, to finally revise, if necessary, the resolutions to be submitted to the Council on Thursday, the 8th of January.

The resolutions were finally agreed to on January 6th at an important meeting of the Committee, held that day, and ordered to be forwarded to the Council of the College.

Recommendations and Alterations proposed to be included in a New Charter of the College.

1. That there shall be a general election of the Council every three years. That members of the Council be eligible for re-election for a further term of three years; but not after that until they shall have been out of office for three years.

2. That the Council shall consist of 25 members including the President; that the Fellows of the College shall elect 13, and that the Members shall elect 12, who shall be either Fellows or Members of the College, and that the President shall be elected by the Council.

3. That the election of the Council shall be conducted by persona

voting at the College, and also by voting papers, which shall be sent to every Fellow and Member of the College on the Register resident in the United Kingdom.

THE UNIVERSITY OF LONDON.

A MEETING of Convocation took place on Tuesday evening last; Dr. STORRAR, the chairman, presiding.

The CHAIRMAN, at the commencement of the proceedings, called attention to a portrait of the late Sir G. Jessel, Vice-Chancellor of the University, which had been placed in the room by request of Dr. Quain, the treasurer of the subscription-fund.

On the motion of Dr. J. CURNOW, seconded by Mr. W. L. CARPENTER, the report of the annual committee to Convocation was adopted. The report contained, as an appendix, a reprint of documents in regard to the question of holding more frequently the preliminary scientific (M.B.) examination; and, on this subject, the annual committee, "holding a strong opinion that the interests of medical education are injuriously affected by the want of due facilities for passing this examination," had recommended the following resolution: "That Convocation again urges upon the Senate the desirability of holding the preliminary scientific (M.B.) examination twice a year." Dr. Curnow then proposed that resolution, which he thought was the more necessary in view of the new regulations of the committee on examinations in medicine. He did not believe in the objection that the proposal would disorganise the present course of study, nor could he agree that there would be any difficulty in securing the services of examiners possessing the necessary experience. At present, a man plucked in one or two subjects could not go up again for twelve months, and the expense and loss of time were felt as a serious grievance in the medical schools.

Mr. M. P. CHRISTIE seconded the motion, and remarked upon the need for the proportional representation of graduates upon the Senate. —Dr. WEYMOUTH said that, in consequence of the present system, the number of medical students going to Oxford and Cambridge for their degrees had greatly decreased.—Mr. G. T. BETTANY supported the resolution, which was carried, on a division, by 116 to 2.

The House then proceeded to the consideration of the following resolution: "That a special committee of forty members be appointed to consider the proposals lately published by the Association for Promoting the Establishment of a Teaching University for London, and to report thereon to Convocation; and that it be an instruction to the committee to take the necessary steps for summoning a meeting of Convocation to receive their report at the earliest convenient opportunity" —Mr. J. ANSTIE, Q.C., proposed it, and spoke at some length in support of it. What, he asked, would be the effect on this University of the carrying out of the suggestions for the creation of a teaching University in London? Such an University would absorb the most important of the existing bodies, which taught and examined, but did not give degrees; and it was manifest that no candidates from those bodies would then come to the present University. He did not think the proposals in question meant hostility to the University; but, if carried out, they would be ultimately injurious to it. Looking at the names of those who were supporting the new scheme, he thought the University could not afford to pass the movement by. The fundamental principle of the scheme was evidently the union of teaching with examination and the conferring of degrees.

Dr. PYE-SMITH, in the absence of Dr. Wilks, seconded the proposition.

Dr. ROBERT BARNES spoke strongly in favour of the new movement, eeling that the effect of the present University of London upon the medical schools of the metropolis was simply disastrous; its standard was too high, and medical students were compelled to flock to Scotland and abroad to obtain the coveted title of M.D.

Mr. J. W. BONE thought the new movement would increase and add to the influence of the present university; at the same time, they should not rush blindly into the arms of those who offered to associate with them.

Mr. H. A. NESBITT thought no new teaching body was wanted in London; what was wanted, was greater sympathy between the present University and existing teaching bodies.

Mr. R. H. HUTTON sympathised a good deal with Mr. Anstie's able speech. Extension of teaching bodies to a larger number of localities was wanted, and a closer connection between those who were practically engaged in teaching and those who instituted the examinations of the University. These two things had his utmost sympathy; and he did not scruple to say, though he had not been one of the least active of the members of the Senate, he would willingly resign his place on the Senate if he could insure its being filled by one of the most eminent teachers in London. He did not believe that any teaching University would be half as good as the University of London. What they had now was a body which tested the teaching in other places, but which was very deficient in sympathy with those who were undergoing practical teaching.

Mr. ANDREW M'DOWALL thought that the various advanced educational movements had originated in discontent with the relations existing between teaching and examination in this University. The evils at present existing arose from the peculiar constitution of the University. He thought that the Senate restricted itself too exclusively to examination, and did not bring itself sufficiently into contact with teaching. If this movement did nothing else than establish a greater sympathy between the two, he thought it would be a very good thing for their *alma mater*, and not the evil thing which had been prophesied by some speakers.

Mr. A. W. BENNETT, Mr. T. E. SCRUTTON, and Mr. THOMAS TYLER, also addressed the House.

The resolution was carried unanimously, and the following were appointed members of the committee:—Mr. Anstie, Q.C., Mr. Magnus, Mr. Arthur Charles, Dr. Michael Foster, the Rev. Dr. Newth, Mr. Sully, Mr. Carey Foster, Lord Justice Fry, Dr. Pye-Smith, Dr. Stock, Mrs. Bryant, Mr. Justice Wills, Miss Clara Dawes, Mr. Howse, Mr. M'Dowall, Dr. Curnow, Dr. Hopkinson, Dr. Wormell, Mr. Cozens-Hardy, Q.C., Dr. Samuel Wilks, Dr. Weymouth, Mr. E. H. Busk, Sir Joseph Lister, the Rev. R. W. Dale, Mr. Thiselton Dyer, Mr. W. L. Carpenter, Mr. J. Stansfeld, M.P., Mr. H. F. Morley, Mr. W. Hunter, Mr. Savory, Dr. Bristowe, Mr. Henry Power, Dr. Barnes, Mr. Henry Matthews, Q.C., Dr. S. Ringer, Dr. Ord, Mr. Unwin, Mr. Morris, Dr. Aspland, and Mr. E. Pinches.

On the motion of Mr. W. J. SPRATLING, seconded by Mr. BONE, it was resolved that the House, at its rising, be adjourned till that day four weeks. Immediately afterwards, it was moved by the Rev. F. W. AVELING, seconded by Dr. S. COUPLAND, and carried, "That this House do now adjourn," and Convocation was adjourned accordingly.

POISONING BY CANNED FOODS.

IN a recent issue (December 20) we drew attention to a paper by Dr. J. G. Johnson, of New York, on some supposed cases of acute poisoning by canned goods, where it was alleged that the poisoning was due to the presence of metallic compounds (zinc and tin). This conclusion has been warmly contested in the United States, and at a meeting of the Medico-Legal Society, at Columbia College, a paper on "Poisoning by Canned Goods," was contributed by Dr. Thomas Stevenson. A portion of it was as follows.

"Acute metallic poisoning is not known in this country (England) from canned goods. Now and then cases of acute poisoning occur that may be traced to the use of canned meats, but there is every reason to believe that this has occurred only when the goods were tainted or bad. An inquest was held in 1883, at Pimlico, a suburb of London, where it was alleged that death was due to poisoning by nitrate of tin, and a tin or can of meat was shown from which, by corrosion, tin had been removed from the iron on which it had been deposited, but I could not find any analysis confirmatory of the supposition. In February, 1884, several cases occurred in Glasgow of poisoning by eating provisions taken from a tin can. The symptoms indicated gastro-enteritis. Chemical analysis showed that the food contained only traces of tin, and this being the rule in canned goods, these cases of tin poisoning must be rejected. I have never met a case of acute metallic poisoning from canned goods in a varied experience of thirteen years."

Dr. Johnson arrives at very positive conclusions on altogether insufficient data. His remark that the faded appearance of the tomatoes is accounted for by the chlorine in the chloride of zinc, shows that he has failed to grasp the chemistry of the subject on which he writes.

"That canned goods usually contain traces of tin has been proved by several British chemists, and the fact is believed to be well established, 'that such provisions, when eaten, do not usually produce any serious illness, is a matter of common experience.' I have" (Dr. Stevenson says) "made many experiments upon this subject, and have fed dogs for weeks together with food contaminated with tin compounds, without producing any perceptible injury. I have also watched the effect of the daily use, for a lengthened period, of tin-contaminated food by adults without discovering any injurious effect. I am not prepared to say that tin compounds are inert, but evidence is wanting to show that the daily ingestion of fractions of a grain of tin compounds is manifestly injurious to health."

Dr. IRWIN, in commenting upon the paper of Dr. Stevenson, said:—

"It is necessary to determine whether canned goods are contaminated by tin, lead, zinc, or arsenic, and if so, are they or either of them likely to injure the public health? The paper of Dr. Stevenson gives strong evidence that these goods contain salts of tin. Professor Attfield says: 'The public have not the faintest cause for alarm from the use of tin.' It is the opinion of physicians generally that canned goods are injurious to health. There is no doubt about lead being a poison, and if it can be found in canned goods, it will surely produce much injury. The power of arsenic and yellow salt of zinc is seen from the minute doses in which they are given to patients. Salts of tin are not in the materia medica. I have never prescribed them, and do not know of any physician who has. They are only used in commercial pursuits. Tin filings in the olden times were given as a vermifuge, on the basis that they would prove rather unpleasant to the digestive organs of worms. Salts of tin are a corrosive irritant poison, yet there is not one case of a fatal result on record where it has been taken. I was called, in 1872, to attend a woman who had gastro-enteritis, after partaking of a heavy meal of canned salmon, which terminated fatally, but no analysis was made for poison. There is no doubt that a large amount of the sickness that appears after eating canned goods is due to the fact that, in many instances, provisions are put into cans that are already far advanced in decomposition. Much can be said on both sides of this subject. I lived for a year on canned goods that had passed through the extremes of temperature, and have known others that did the same thing without injury; and again, I have known people, after eating these goods, to become seriously ill. That canned goods will in time become putrid and unfit to be eaten may be assumed without contradiction. A law should be passed compelling packers to stamp the date when goods were put up on the outside of the can."

THE BRITISH GYNÆCOLOGICAL SOCIETY.

We understand that a considerable number of members have already joined this Society, launched last week, nearly 100 applications for membership having already been received. The meetings of the Society will be held fortnightly, on the second and fourth Wednesdays in each month (except July, August, and September), at the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, at 8.30 P.M.

The first meeting of the Society will probably be held on the second Wednesday in March.

EDINBURGH ROYAL INFIRMARY.

The annual meeting of the contributors to the Edinburgh Royal Infirmary was held on Monday. The Lord Provost, Sir George Harrison, presided.

The report submitted by the managers showed that, during the year from October, 1883, to October, 1884, the number of patients treated in the hospital was 7,624; of these, 3,733 were dismissed cured; 2,204 dismissed relieved; and dismissed on other grounds, 590. The number of deaths in the hospital was 520; and there were remaining in the hospital 577 patients. There were 519 cases of infectious disease treated in the fever house, of which 162 were cases of scarlet fever; 2,682 were ordinary medical cases; and 3,793 surgical cases. The average number of children in the hospital during the year was from 40 to 50, most of whom were treated in the surgical wards. The daily average of patients was 599; the greatest number at any one period was 645, the lowest 512; the average time during which each patient remained under treatment was 28-6 days. The total number of patients treated during the previous year was 6,829; the daily average, 555; the greatest number at one period, 607; the lowest, 502; and the average time of treatment was 29.6 days. Of the cases treated to a termination, during the past year, there were, from Edinburgh, 3,689; from Leith, 614; from the country, 2,744; total, 7,047. The number of deaths which took place forty-eight hours after admission to the infirmary was 98; these were mostly cases of severe injury of hopeless character, and they unduly raise the rate of mortality in the hospitals. The percentage of deaths throughout the whole of the medical and surgical cases treated is 6.7; deducting the deaths which occurred forty-eight hours after admission, the percentage is reduced to 5.3. In the fever house, 10 deaths took place forty-eight hours after admission. The percentage of deaths to the whole of the cases of infectious disease in the fever-house was 7.3; deducting the deaths forty-eight hours after admission, 5.5. At the convalescent house 859 patients were treated during the year, being 101 more than the preceding year. The average daily number of patients was 49.7; and the average period of residence, 21.0 days. In addition to the in-door patients, about 25,000 out-patients have attended the infirmary during the year, obtaining the benefit of the high professional skill of the medical and surgical officers, and receiving all necessary dressings and appliances at the expense of the institution.

The financial report showed that during the past year there were received legacies and donations of £100 and upwards, £30,126 8s. 11d., out of which had to be met the following, namely, extraordinary payments, £4,496 5s. 4d.; expenditure on new buildings and fever-house, etc., £3,526 16s. 2d.; excess of ordinary expenditure of Infirmary, including fever-house (£33,821 15s. 5d.) beyond ordinary receipts (£29,795 19s. 6d.), £7,024 15s. 11d.; total, £15,047 17s. 5d. Deducting the sum of £15,047 17s. 5d. from the legacies and donations received, amounting, as above, to £30,126 8s. 11d., there remains a balance for the year of £15,078 11s. 6d., of which sum £15,056 9s. 3d. falls to be added to permanent capital. The income for the year, £26,796 19s. 6d., shows an increase of £4,160 on the preceding year, the income from the munificent bequest of the late Dr. Duncan Vertue alone amounting to £3,093 1s. 5d. during the past year. The managers had great satisfaction in stating that, in spite of the depression in trade, the ordinary contributions to the Infirmary show an increase of over £494. The ordinary expenditure of the Infirmary for the past year was £33,821 15s. 5d., as against £32,625 16s. 1d. for the preceding year. The report of the Convalescent House at Corstorphine was in every respect considered satisfactory. The report of the nursing department showed that there were twenty-seven head-nurses, forty-six night and day assistants and extra (trained) nurses, twenty-five probationers in training for the Infirmary staff, three probationers on special terms (for short periods), and six probationers training for other institutions. During the year, four institutions had made applications to have nurses trained for them—notably one from the Crown Princess of Germany, who is establishing a lay school of educated nurses at Berlin; and during the autumn, Her Royal and Imperial Highness, when in Edinburgh, visited the Infirmary, and saw each of the pupils. Mr. Joseph Bell, Dr. Halliday Croom, and Mr. Cathcart have given valuable lectures to the nurses; and Mr. J. Baxter again most kindly gave the prizes. Another outdoor department, for treatment of diseases of the skin, has been organised, under the charge of Dr. Allan Jamieson. At the urgent request of Dr. Affleck, senior assistant-physician for the treatment of nervous diseases, the managers have considerably increased the accommodation at his disposal for the treatment of such cases. In other departments, increased accommodation has been urgently asked for; and the subject has engaged the attention of the managers, who, however, cannot see their way to grant it, unless more funds are placed at their disposal.

Their Royal Highnesses the Prince and Princess of Wales, and family, when they visited the Infirmary in August, named two wards—one the Albert Edward, and the other the Alexandra. Princess Frederica of Hanover also visited the Infirmary. The managers expressed regret at the death of Mr. Peter Bell, clerk to the Corporation for forty years.

The report was considered satisfactory, and six managers nominated were re-elected.

MAHOMED MEMORIAL FUND.

The following additional subscriptions have been either received or promised.

	£	s.	d.
Anonymous	5	0	0
Dr. Anningson	1	1	0
Dr. Birt	1	1	0
Dr. Bowles	5	5	0
Dr. Thurston Bassett	1	1	0
Dr. Brabazon	1	1	0
Dr. T. Bridgwater	10	10	0
Edward Cock, Esq.	5	5	0
A. E. Cumberbatch, Esq.	5	5	0
E. S. Dashwood, Esq.	1	1	0
Mrs. De Vaynes	2	0	0
Miss De Vaynes	2	0	0
A. D. E.	1	1	0
Charles Fagge, Esq.	1	1	0
J. A. Fraser, Esq.	2	2	0
Sir Thomas Gabriel, Bart.	5	0	0
R. J. Godlee, Esq.	5	0	0
[1]W. D. Husband, Esq., F.R.C.S.	10	10	0
Dr. Alfred Kershaw	1	1	0
W. A. Lane, Esq.	2	2	0
L. S. A.	1	1	0
Dr. Marcet	3	3	0
Dr. G. Oliver	3	3	0
E. H. P.	1	1	0
John Poland, Esq.	2	2	0
"A Painter"	2	0	0
James Purdey, Esq.	1	1	0
— Probyn, Esq.	5	5	0
Mrs. Powell	1	1	0
Dr. F. T. Roberts	3	3	0
Charles J. Stewart, Esq.	1	1	0
Mrs. Sedgwick	3	0	0
James Startin, Esq.	1	1	0
Lumley Smith, Esq., Q.C.	5	0	0
S. W. Sibley, Esq.	5	5	0
H. T. Sells, Esq.	1	1	0
Dr. Frederick Taylor	15	15	0
J. Knowsley Thornton, Esq.	10	10	0
W. Travers, Esq.	2	2	0
James Wilson, M.D.	1	1	0
Percy Warner, Esq.	2	2	0

[1] Accidentally omitted from previous list.

ARTHUR E. DURHAM, Treasurer.
JAMES F. GOODHART, } Secretaries.
W. H. A. JACOBSON, }

WHITTLE AND HUTCHINSON FUND.

THE following additional contributions have either been received or promised.

	£	s.	d.		£	s.	d.
Dr. J. Cameron	10	10	0	Mr. F. W. Lowndes	1	1	0
Dr. Walker (Birkenhead)	5	5	0	Mr. R. Williams	1	1	0
Mr. E. Lund	5	5	0	Mr. C. Puzey	1	1	0
Dr. E. H. Dickenson	5	5	0	Mr. G. E. Walker	1	1	0
Dr. Fitzpatrick	5	5	0	Dr. McAfee	1	1	0
Mr. R. Hamilton	3	3	0	Dr. Finnegan	1	1	0
Dr. Glynn	3	3	0	Mr. B. Blower	1	1	0
Dr. Adam	2	2	0	Dr. Hibbert Taylor	1	1	0
Dr. Burton	2	2	0	Dr. Caton	1	1	0
Dr. Bowen	2	2	0	Dr. Imlach	1	1	0
Mr. J. Hakes	2	2	0	Dr. Prytherch	1	1	0
Mr. R. Harrison	2	2	0	Mr. D. Harrisson	1	1	0
Dr. Beaman	2	2	0	Dr. Rawdon	1	1	0
Dr. Wallace	2	2	0	Mr. N. Marsh	1	1	0
Dr. Davidson	2	2	0	Dr. A. W. Pierce	1	1	0
Dr. Pierce (Hoylake)	1	1	0	Mr. J. Newton	1	1	0
Dr. Barron	1	1	0	Dr. J. P. Harris	1	1	0
Mr. E. Parker	1	1	0	Mr. C. Johnson	1	1	0
Dr. Weaver	1	1	0	Dr. A. Cameron	1	1	0
Dr. D. Hendry	1	1	0	Dr. Renshaw	0	10	6
Mr. Roger Parker	1	1	0	Mr. W. Turner	0	10	6
Dr. Hopper	1	1	0	Dr. Mules	0	10	6
Dr. Gorst	1	1	0	Dr. Pitcairn	0	10	6
Dr. C. B. Wilson	1	1	0	Mr. T. Dawson	0	10	6
Dr. R. Branigan	1	1	0	Dr. Bailey	0	10	6
Dr. Sinclair	1	1	0	Dr. Bernard	0	10	6
Dr. Oxley	1	1	0	Mr. E. Jackson	0	5	0
Mr. E. A. Browne	1	1	0	Dr. Bradley	0	5	0

Subscriptions should be sent to Dr. Nevins, 3, Abercromby Square, Liverpool, or to the "Whittle and Hutchinson Fund," North and South Wales Bank, Hardman Street, Liverpool.

COLLECTIVE INVESTIGATION.

LIST OF RETURNS RECEIVED DURING DECEMBER 1884.

THE Committee begs to acknowledge the following returns received during the month of December.

Birmingham and Midland Counties Branch: III, H. R. Ker, F.R.C.S. (2).

Lancashire and Cheshire Branch: Chester District: II (2); III (2), W. H. Dobie, M.B. Manchester District: III, IV, P. J. Leniham.

Metropolitan Counties Branch: X, Maurice Davis, M.D. (3); Mrs. Tarn (*per* Maurice Davis, M.D.) (2); Francis Hutchinson, M.D.; Alfred T. Brett (4); F. H. Berry, M.B. (5); XI, Maurice Davis, M.D.

North of England Branch: III, G. H. Mackay, M.B. (4).

South Eastern Branch: East Kent District: I (3), II, III (3), Thos. F. Raven; IV, Frank Wacher (7); Thos. F. Raven (2); Brian Rigden (11); IVa, Frank Wacher (2); Thos. F. Raven.—East Surrey District: II, Henry G. Thompson, M.D.

South Wales Branch: III, E. J. Fernandez.

Southern Branch: Isle of Wight District: III, X, W. E. Green.

Staffordshire Branch: II, E. A. Dingley, M.D.

Thames Valley Branch: II, J. Brown, M.B.; X, Mrs. Muspratt; also IV, Sidney Davies, M.A., M.B., Cairo.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY meeting of the Council of the College was held on Thursday, the 8th instant, at the College. The minutes of the last ordinary Council, held in December, were read, and, after a prolonged discussion regarding the reduction of fee for the diploma of the College under the conjoint scheme, were confirmed.

The Council agreed to a recommendation from the Committee of Management under the conjoint scheme that members of English universities, who shall pass the examinations of their own universities in the subjects included in the first and second professional examinations, shall be admitted to the final examination under the scheme on a payment of five guineas, on the understanding that, if they wish to obtain the diplomas of the College in virtue of having passed such examination, they may do so by the payment of a further fee of twenty-five guineas.

Mr. Hutchinson was elected a member of the Board of Examiners in Dental Surgery.

A petition was read from the northern provincial schools of medicine, praying that arrangements should be made under the scheme for the written part of the examinations being conducted at the schools themselves. It was referred to the Committee of Management for consideration.

A communication was read from the Association of Members of the College, advocating the election of members of Council by the Fellows and Members, the Council to consist of twenty-five members, whereof thirteen to be elected by the Fellows, and twelve by the Members Members as well as Fellows to be eligible for election, and the whole Council to act for three years, and at the end of that time to go out of office, but to be eligible for re-election for another period of three years. The letter was referred to the Committee on Charters and By-laws.

A letter was read from the Association of Fellows containing copies of two resolutions passed at a meeting of the Association, expressing appreciation of the concessions made to them by the Council by the adoption of some of their recommendations regarding the alterations of charters and by-laws, and regretting that the Council had not seen its way to consider others; and expressing the hope that the Council will not proceed with the alterations of the charter and by-laws until after a general meeting of Fellows and Members. It was proposed, and seconded, that this request of the Fellows be granted. As an amendment, it was moved, that the Association of Fellows be asked to send delegates to confer with the President and Vice-Presidents on the subject. The amendment was carried.

The motion, of which Sir James Paget gave notice at the last meeting of Council, regarding the erection of a suitable memorial in the College to Sir Erasmus Wilson, was moved by him, seconded by Mr. Marshall, and carried unanimously; and it was referred to the President and Vice-Presidents to consider and report to the Council as to the best mode of giving effect to the motion.

It was resolved, that candidates examined in anatomy and physiology under the old regulations, by which they are required to take up both subjects, will, in the event of failure in one subject, be accredited with the subject in which they pass. This regulation applies only to candidates examined after January 1st of the present year.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885: ELECTION OF MEMBERS.

MEETINGS of the Council will be held on January 14th, April 8th, July 8th, and October 14th, 1885. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary, not later than twenty-one days before each meeting, namely, March 18th, June 17th, and September 24th, 1885, in accordance with the regulation for the election of members, passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COUNCIL.
NOTICE OF MEETING.

A MEETING of the Council will be held in the Small Hall, Exeter Hall, Strand, London, on Wednesday, the 14th day of January next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, December 18th, 1884.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary. —C. SIBTHORPE, Honorary Secretary, Madras.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT. —The next meeting will be held at the Hackney Town Hall, on Thursday, January 22nd, at 8 P.M. Mr. Macnamara, President of the Branch, in the chair. Dr. Henty will propose a resolution advocating the charging of hospital and dispensary out-patients a small sum of money to cover the expense of medicine, etc.— JOSEPH W. HUNT, Honorary Secretary, 101, Queen's Road, Dalston.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will be held at Gravesend, on Tuesday, January 27th. Charles Firth, Esq., M.D., in the chair. Gentlemen wishing to read papers, or to exhibit specimens, are requested to communicate with me before January 10th.—H. LEWIS JONES, Honorary Secretary, St. Bartholomew's Hospital, Chatham.

DUBLIN BRANCH.—The eighth annual general meeting of the Dublin Branch will, by kind permission of the President and Fellows, be held on Thursday, January 29th, at 4 P.M., in the Hall of the King and Queen's College of Physicians, Kildare Street. The officers and Council for the ensuing year will be elected by ballot, and any other necessary business transacted. Dr. Lombe Atthill, President-elect, will deliver the annual address. The annual dinner of the Branch will be in the College Hall, at 7 P.M. on the day of the meeting. Dinner-tickets for members who purchase their tickets on or before Wednesday, the 28th instant, 17s. 6d.; for members purchasing their tickets after that date, and for guests, £1.—RICHARD A. HAYES, M.D., Honorary Secretary and Treasurer, 56, Merrion Square South, Dublin.—January 5th, 1885.

SOUTHERN BRANCH.—A meeting of the South Wilts District will be held at the Angel Hotel, Salisbury, on Wednesday, 23rd instant, at 2 o'clock. Mr. W. Martin Coates will read a paper entitled "What is Hysteria?" and will exhibit a new inhaler, and a new clamp. Mr. Kelland will open a discussion on Hey's internal derangement of the knee-joint. Luncheon will be provided at one o'clock, at 3s. 6d. a head, wine not included. Members intending to be present to give notice to the Honorary Secretary, H. J. MANNING, Laverstock House, Salisbury.

STAFFORDSHIRE BRANCH: GENERAL MEETING.

THE first general meeting of this session was held at the Station Hotel, Stoke-on-Trent, on Thursday, November 27th, 1884: Present, Dr. E. T. TYLECOTE, President, in the chair, and twenty-eight members.

Election of Members.—The following gentlemen were elected members of the Branch:—Mr. William Edward Ranson, the Infirmary, Stafford; Dr. Spence, Burntwood, Lichfield.

Specimens.—The following specimens were shown.

1. Mr. Spanton: The middle lobe of a large bronchocele, removed from a girl, aged 14, on account of urgent dyspnœa, and threatened exomphalos. A strong silk ligature was applied to each side, and left hanging out of the wound. The patient was convalescent.

2. Mr. Spanton: Two Calculi, successfully removed by Bilateral Lithotomy from a man, aged 34. The symptoms were of eight years' duration. The entire calculus weighed 4½ ounces.

3. Dr. McAldowie: A specimen of Aneurysm of the Ascending Aorta, which had proved fatal by bursting into the pericardium.

4. Dr. McAldowie: A large Aneurysm of the descending Thoracic Aorta. The posterior aspect of the aorta was adherent to the spine from the upper border of the third to the lower border of the sixth vertebra. The bodies of the vertebræ were slightly absorbed; in some parts rough and bare; in others covered by the epithelium lining the aneurysm. The aneurysm had burst into the œsophagus, and the stomach was distended with blood.

5. Dr. McAldowie: An aneurysm of the transverse portion of the Arch of the Aorta, which had burst into the left primary bronchus. After death, a second aneurysm, about as large as a small apple, was discovered on the ascending portion of the arch of the aorta, filled with lamellated fibrinous concretion, and apparently of long standing. There was no history of this aneurysm.

6. Dr. Hatton: A large Uterine Fibroid, successfully removed by the *écraseur*.

Living Cases.—The following living cases were shown.

7. Dr. Davidson: A little girl, aged 9, who had scarlet fever three years ago, with enlargement of the glands of the neck. In a short time, the swelling on the right side subsided, and that on the left to some extent, but never entirely. A few months later, it was observed the swelling here had again increased, forming a pretty clearly defined tumour of an oval shape, and about half the size of a hen's egg. The artery, considerably dilated, could be traced lying on the surface of the tumour, and pulsation was observed over a space corresponding to about two or three times the normal breadth of the vessel. A distinct *bruit* of a rasping character was heard in the whole course of the artery, but loudest over the swelling. Compression of the carotid lower down seemed to diminish the tumour, but compression of the tumour itself did not do so. The child was, in other respects, in good health, and the swelling in the neck had undergone no perceptible change during the last two years.

8. Mr. Spanton showed five patients upon whom he had performed his operation for the Radical Cure of Hernia. In one case, the operation had been performed five years ago; in another, four years and a half; in two, three years and a half; and in the remainder, three years. In three of the cases, no truss had been worn since the performance of the radical cure.

9. Mr. Mitchell Banks showed a healthy and active looking man, aged 47, who had come from Bristol to Liverpool to be operated upon for the cure of a very large right Inguinal Hernia. The operation was followed by the best possible result.

10. Mr. Vincent Jackson showed a little boy, aged 18 months, for whom he had, in the Wolverhampton and Staffordshire General Hospital, cured a very large right Inguinal Hernia by excising the sac and closing the external ring. No truss was required after the operation.

11. Mr. Alcock showed a woman, who had been admitted into the North Staffordshire Infirmary for a large irreducible Umbilical Hernia. The sac had been freely incised, the omental contents cut away, and the edges of the ring closed; the result being a complete cure.

Radical Cure of Hernia.—A discussion upon the radical cure of hernia was commenced by Mr. Spanton, who read a paper. Mr. Mitchell Banks, Mr. Falker, Mr. Vincent Jackson, Mr. Alcock, Mr. F. Marsh, and Dr. Eddowes also spoke.

Dr. Crutchley read a paper on Stenosis of the Trachea and Larynx; in illustration, four living cases were shown.

Trusses.—Messrs. Maw, Son, and Thompson exhibited an extensive collection of trusses.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THE second meeting of the session was held at the Hackney Town Hall, December 18th; Dr. HERMAN in the chair.

A discussion on the Use of the Forceps was opened by Mr. F. Wallace, and continued by Drs. Daly, Gilbert, Bate, Gibbings, Brunton, and the Chairman.

SOUTH AUSTRALIAN BRANCH: MONTHLY MEETING.

A MONTHLY meeting was held at the Adelaide Hospital, on September 25th, 1884. The President, Dr. C. GOSSE, occupied the chair.

Election of Member.—Mr. W. Magarey was elected a member of the British Medical Association and of its South Australian Branch.

Spina Bifida.—Dr. GARDNER showed a boy, aged 3, suffering from spina bifida. Morton's solution had been injected into the sac after a hypodermic syringeful of spinal fluid had been removed. The tumour had shrunk, and could be handled without pain or inconvenience to the patient, who was able to run about as well as other children.

The Medical Register.—Dr. STIRLING reported that he and Dr. Cockburn had waited on the Chief Secretary, who had at once agreed to have fuller information published in *The Medical Register*, as it was the wish of the profession, and that it was unnecessary for the deputation to interview him, as he would give the necessary instructions as soon as he received a list of the names with the information attached. Dr. Corbin agreed to move, at the next meeting of the Medical Board, that such a list should be made and forwarded to the Chief Secretary.

Case of Supravaginal Amputation of the Uterus: Recovery.—Dr. STIRLING read notes of this case.—Dr. GARDNER said that the result was very gratifying. He himself was the first to perform the operation in South Australia, four years ago, before the clamp was obtainable in the colony. A large fibroid tumour of the uterus filled the abdominal cavity. The pedicle had to be dropped back into the cavity, and the patient died nine hours afterwards, of secondary hæmorrhage. Since then, he had obtained a Koeberlé's clamp, and had found it successful, controlling the hæmorrhage in another case of large fibroid tumour upon which he had operated. He thought that, as an operation, it would never become as generally useful as ovariotomy, because there was not the same field for it, as suitable cases were often amenable to other treatment; and because the operation could not be performed under strict antiseptic precautions, owing to the impossibility of shutting off the stump from contact with septic matter in the vagina. Hegar's plan of passing the first three stitches, above the stump, through the peritoneum only, closed this membrane round the stump, and tended to prevent the entrance of septic matter from the stump, which was of course rendered septic through the vagina. The wound of the peritoneum would be united in twenty-four hours. This was the first successful case in South Australia. Two had been recorded in New South Wales, and none from Victoria. An important question to decide would be as to when to remove the uterus and its appendages, and when simply the uterine appendages. In doing the latter, there was certainly much less risk to the patient; and, if it could be shown that this would be sufficient, the suitable cases for the supravaginal removal of the uterus would be still further curtailed.—Dr. THOMAS was surprised to hear that the ligatures, being made of Chinese silk, were afterwards discharged, and showed no signs of absorption. He thought that kangaroo tendons would be the best, as they would afford no foci of infection. In a case of abdominal section, in his own practice, he had found that the kangaroo tendons became absorbed, leaving no traces or ill effects behind. In another case, when silk sutures had been used, they had acted distinctly as foreign matter.—Dr. STIRLING quite agreed with Dr. Thomas as to the superior value of kangaroo tendons; but he had been guided in what he did by the example of

former operators. Excellent though tendon was, he had felt diffident about going out of the prescribed routine in such a formidable operation. Silk had been tried successfully, and he was astonished at its non-absorption.

Extra-uterine Fœtation.—Mr. TOLL read the notes of a case of extra-uterine fœtation that had occurred in his practice, and exhibited numerous bones which had been passed by the rectum.

Pathological Specimens.—Reference was made to the custody of the pathological specimens belonging to the Association. The PRESIDENT said that the matter was under the consideration of the Council, and that something definite would be decided upon in a few days.

Specimens.—Dr. GARDNER exhibited a solid tumour of the ovary, which he had successfully removed.—Dr. POULTON exhibited an hypertrophied bladder, dilated ureters, and sacculated kidneys, following upon chronic stricture of the urethra; also a gall-stone of egg-like shape, and a portion of atheromatous abdominal aorta, from a woman aged 60. The liver was markedly fatty.—Mr. DUNLOP exhibited an hydatid from the brain of a boy, aged 12, and showed its effect on the brain and the coronal structure of the skull.

JAMAICA BRANCH.

AN adjourned quarterly meeting of this Branch was held on November 5th, 1884, at 8 P.M., at 35, North Street, Kingston; Dr. PHILLIPPO, Vice-President, in the Chair. It was resolved that the annual meeting be held on December 30th, in the Public Library, Kingston.

The proposed Government tariff for Government district medical officers was discussed, and a resolution passed that a circular be addressed to all members of the Branch, asking them to attend a special meeting on December 11th, to express their views on the matter, and take any action that might seem advisable.

A paper on a Case of Puerperal Eclampsia was read by Dr. Phillippo, and discussed.

CORRECTIONS IN THE LIST OF MEMBERS OF THE BRITISH MEDICAL ASSOCIATION, 1884-5.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

MEMBERS UNATTACHED: OMISSION.

Thomson, A., M.B., 25, Church Street, Huntley.

CHANNEL ISLANDS AND ISLE OF MAN.

OMISSIONS.

Godfray, A. C., M.B., St. Helier's House, Jersey.
McMunn, J. A., M.B., Alderney.

GLASGOW AND WEST OF SCOTLAND BRANCH.

MEMBERS UNATTACHED: OMISSION.

Stevenson, James, M.B., Barns Place, Clydebank.

GLOUCESTERSHIRE BRANCH.

MEMBERS UNATTACHED: OMISSION.

Ryan, J., Esq., The Limes, Northwich.

LANCASHIRE AND CHESHIRE BRANCH.

MEMBERS: CORRECTION.

For Macdonald, A. B., M.B., 30, Walton Street, Liverpool, read Macdonald, A. D., M.D., 26, Spellow Lane, Liverpool.

MEMBERS UNATTACHED: OMISSION.

Marshall, B., Esq., Atherton, Manchester.

METROPOLITAN COUNTIES BRANCH.

MEMBERS: OMISSION.

Sedgwick, William, Esq., 12, Park Place, N.W.

MEMBERS UNATTACHED: CORRECTION.

For Mosse, H. R., Esq., Bolingbroke House, Wandsworth Common, S.W., read Mosse, H. R., M.B., Bolingbroke House, Wandsworth Common, S.W.

OMISSIONS.

Rogers-Harrison, H., M.B., 11, Englefield Road, N.
West, C., M.D., 2, Bolton Row, Mayfair, W., and Nice.
Vivian, R. T., Esq., Chase Side, Southgate, N.

MIDLAND BRANCH.

MEMBERS UNATTACHED: OMISSION.

Penny, Alfred, M.D., Pinxton, Alfreton.

SOUTH-EASTERN BRANCH.

MEMBERS UNATTACHED: OMISSION.

Mathews, R. H., M.D., Lindfield, Surrey.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

MEMBERS UNATTACHED: OMISSION.

Richards, D., Esq., Llangeitho, Cardiganshire.

SOUTH-WESTERN BRANCH.

MEMBERS UNATTACHED: CORRECTION.

For Hobbs, F. R., Esq., Culmstock, read Hobbes, F. R., Esq., Lambscroft, Uffculme, Cullompton.

YORKSHIRE BRANCH.

MEMBERS UNATTACHED: OMISSIONS.

Johnson, C. J. B., Esq., Kirkby Overblow, Wetherby, Yorks.
Mathews, Samson, M.D., 262, Intake Road, Sheffield.

ARMY AND NAVY.

OMISSIONS.

Hendley, J., C.B., M.S., Deputy Surgeon-General, Thame, Oxon.
Twiss, G. E., Esq., Surgeon M.S., Station Hospital, Gibraltar.

CORRECTION.

For Hartley, E. B., Esq., Surgeon-Major, Cape Mounted Rifles, Kingwilliamstown, South Africa, read Hartley, E. B., C.B., Surgeon-Major, Cape Mounted Rifles, Kingwilliamstown, South Africa.

FOREIGN AND COLONIAL.

OMISSIONS.

Chiappini, P. J., M.D., senior, Cape Town, Cape of Good Hope.
Triary, A. J., M.B., Gibraltar.
West, C., M.D., 29, Promenade des Anglais, Nice, and London.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Albumen in Urine after administering Chloroform.—Venous and Hypodermic Injections.—Experiments with Cucaine.—The Influence of Nitrogenous Food on the Liver.—The Etiology of Typhoid Fever and its Treatment.—Diarrhœa in Infantile Athrepsia.—Army Diet.—Street Ambulance Organisation.—M. de Lesseps on Quarantine.—Death from Ear-piercing.

M. FERRIER, one of the surgeons attached to the Bichat Hospital, and M. Patein, its resident chemist, have made a series of researches to discover the condition of urine after administering chloroform, followed by surgical operations. In six cases out of nine, albumen was present in the urine. The presence of albumen in urine has apparently a closer connexion with the anæsthetic condition than with its duration. In some cases chloroform was administered during 20, 45, and 55 minutes without the slightest trace of albumen being found in the urine. The result of these researches indicates that there are certain pathogenic conditions connected with the appearence of albumen in urine which have not yet been elucidated. M. Bouchard's interesting experiments taught that albuminuria may be provoked by lesions of the peripheral nervous system, also from inhaling chloroform, even in small doses.

M. Bouchard recommends venous injections for physiological experiments in preference to hypodermic injections. They are easier, and their effects are more exact and more rapid. In hypodermic injection, absorption goes on slowly; whilst it is in course of operation, the process of elimination is at work, which renders the study of the physiological action of a substance difficult, as it is impossible to accurately determine what dose is absorbed, what is not absorbed, and what passes away by venous and cutaneous elimination. Hypodermic injection often produces septicæmia, which never results from venous injection. M. Bouchard considers that venous injections ought to be generally adopted in experimental physiology. Distilled water is a very good medium to mix with the substance experimented with, also alcohol or glycerine. Alcohol is the least painful, and does not provoke pulmonary embolus. Pure glycerine is too viscous: used by itself, it produces pulmonary embolus. M. Bouchard has used the venous method for studying the action of creasote, resorcin, and antipyrin. The action of the first substance considerably lessens the respiratory movements, that of the second determines vibratory convulsions, at the onset localised and afterwards generalised; that of the third produces muscular rigidity and a cataleptic condition, which does not prevent voluntary contractility.

M. Laborde continues his experiments with cucaine, and stated the following facts to the Biological Society. Cucaine, in the circulatory system, acts invariably as a neuro-muscular stimulus, followed by general analgesia, most strongly marked in the hind legs of the animal. This condition sometimes lasts two or three days. Reflex action is unimpaired. Respiration is quickened, and is very irregular. The heart-beats stop a short time after the respiration is arrested. If large doses be used, the phenomena are identical; but they are more exaggerated and more rapid. Central and peripheral blood-pressure is in-

creased. There is increased excitability of the pneumogastric nerve. Intoxication by cucaine has a very slight effect on the secretions. Urine is lessened in quantity, and the secretion of the submaxillary glands is slightly increased. The local action of cucaine, especially on the mucous membrane, is only superficial, but may be utilised with great benefit in surgery. The anæsthetic action of cucaine on the skin is very evident ; it was applied to a dog suffering from scabies, and the animal ceased to scratch itself. The toxic effects of this substance are very slight ; very large doses must be administered in order to determine symptoms of poisoning. It apparently acts as a stimulus on the motor nerves, and with a contrary effect on the sensory nerves.

M. Morel, from clinical observation, believes that a highly nitrogenous diet is frequently the cause of hepatic diseases. In order to obtain some exact data on the question, he fed a certain number of rabbits on cheese. Six or ten months subsequently, the livers of the animals were a twentieth to a seventy-third of their entire weight. Another batch of rabbits were fed on vegetable food, and their livers represented a thirtieth to a thirty-third of the animals' weight. At the necropsy, the liver was hard and dense. The influence of a nitrogenous diet apparently increased the weight of the liver. M. Morel made known these results at a meeting of the Biological Society, and observed that they indicated that a healthy diet in hot countries would exclude nitrogenous substances, a system which is adopted by the inhabitants of such countries. It is only the European settlers who take animal food. M. Charles Richet, who was present at the meeting, suggested that M. Morel should undertake a second series of experiments ; he did not consider those recently concluded convincing, inasmuch as cheese contains fatty substances, as well as nitrogenous ; therefore, it was impossible to say which of these two orders of substances provoked hepatic lesion. M. Morel said that there was not in any instance fatty liver.

M. Bertrand, the Secretary to the Académie des Sciences, has, at a recent meeting, presented a memoir by Dr. Pecholier, on the etiology of typhoid fever, and its treatment by sulphate of quinine. In it the author states that, in 1869, he published his belief that the presence in the human organism, especially in the blood, of an organic ferment, which behaves as the microzymes of Béchamp, and determines typhoid fever. These ferments, according to this physiologist, have a parasitic existence ; and, in exchange for the nutrition they withdraw from the elements which surround them, they return excrementitial products containing toxic principles which deteriorate the blood. The symptoms attending typhoid fever, M. Pecholier regards as the result of the reaction of these toxic principles, which are developed in the animal organism.

MM. Clado and Damaschino have studied infantile athrepsic diarrhœa. They have discovered a distinct species of microbe in the stools ; sometimes it is alone, at others associated with other species. They describe this microbe as being rectilinear, or bent, most often crescent-shaped. It is six or seven times larger than the cholera-bacillus, and two or three times larger than the bacillus tuberculosis ; the bacilli are in constant motion. M. Clado has invariably found these bacilli in the diarrhœa of athrepsic infants. He is now occupied in making cultivations of the bacillus.

A member of the Académie des Sciences has presented to it a work by an army officer, Captain Hirn. Its title is *De l'Alimentation du Soldat* (Food for Soldiers). It gives in detail the different systems adopted in European countries, and reviews their merits and demerits. The author arrives at many sound and practical conclusions on the subject.

An Ambulance Committee has been formed for the purpose of insuring immediate attention for people who are struck down in the streets from sudden illness or accidents, also for similar sufferers in workshops, factories, etc. MM. Renan, Administrateur of the College de France ; Béclard, Professor at the Paris Medical Faculty; Caro, Professor at the Collège de France ; Berthelot, Pasteur, also Drs. Charcot, Brouardel, and Nachtel, compose the Committee. The Committee proposes to adopt the ambulance-system which has been so successfully tested at New York. Some of its members are in communication with the heads of the Assistance Publique and the Police Prefecture.

M. Ferdinand de Lesseps proposed to the Académie des Sciences to appoint a commission for the purpose of deciding whether quarantine be useful or useless. Should the committee decide that it is useless, M. Lesseps considers that this, according to his views, superannuated custom should be entirely remodelled. It has, for more than a century, M. de Lesseps asserts, impeded commerce and navigation in all civilised countries. M. Gosselin objected to the suggestion ; he urged that the Academy has not the documents necessary for making an exhaustive investigation into the quarantine question ; also that other scientific bodies are more competent to undertake the task. M. de Lesseps withdrew his proposition, but observed he thought that his personal experience of nearly fifty years of the inefficacy of quarantines entitled him to take the initiative ; and he hoped that the Académie des Sciences would be associated with so progressive a movement, which would apparently be effected.

A short time ago, a female jeweller was brought up for manslaughter under the following circumstances. A mother, with a little girl, asked her to pierce the child's ears. Madame Massard had frequently seen her husband perform this operation, and complied with the request. The child left the shop, wearing a pair of gold ear-rings. One hour later on, her ears, then her neck, became swollen ; she was taken to one of the Paris hospitals, where she died the same night. Madame Massard had pierced the cartilage instead of the lobe of the ear, and the wound became gangrenous. A charge of illegally practising surgery was added to that of manslaughter, but was withdrawn ; and the prisoner was fined £2, and condemned to pay £6 damages.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

From Dr. Koch's Laboratory.

I HAVE received some details connected with Dr. Koch's bacteriological course which, I think, will be of some interest. Dr. Koch has been giving lectures in the laboratory, which he has fitted up for the purpose, since the beginning of October, and will continue doing so till the end of January. His whole time, from 8 A.M. till 4.30 P.M., is daily devoted to giving instructions in bacteriology, for which he has received a large sum of money from the German Government. Medical men, civil and military, have been summoned in small batches of ten or twelve to take part in these courses. I have been enabled to learn the following details from one who was fortunate enough, as a stranger, to obtain permission to attend the course. He tells me that he has learnt more during his ten days' course, under Dr. Koch, than he has learnt in any course of lectures in his life. The primary object of these courses is, that a certain number of medical men in Germany should learn how to make pure cultivations of comma-bacilli, so as to be able, in the event of danger from cholera, to detect its presence at once, and to take measures for confining the plague to within as narrow limits as possible. But the instruction given does not end here ; it extends over the whole field of bacteriological research. Dr. Koch, his companions in Egypt and India, Dr. Gärtner, and other assistants, keep each member of the course perpetually at work during the whole time spent in the laboratory. Certain precautions are adopted ; namely, everybody is recommended not to put his hands to his mouth, and is obliged continually to wash his hands with sublimate ; he is also recommended not to eat or drink for an hour and a half after leaving the laboratory. Above all, the members of the course are warned to lead a regular life, and to indulge in no form of dissipation or excess during the period of the course, in order to minimise, as far as possible, the risk incurred from connection with the comma-bacillus.

On coming to the laboratory, the first thing is, to learn how to make the medium for making the pure cultivations. For this purpose, a considerable time is spent in the preparatory room, where each receives his ingredients. Half a pound of fresh beef, without any fat, is finely chopped up and strained through an ordinary towel ; this meat-juice is kept sufficiently heated, and water is added to it to make the whole solution 500 grammes in weight. Then 50 grammes of gelatine, 5 grammes of pepton, and 2½ grammes of common salt are added. The whole is neutralised and boiled, and then strained through two pieces of filtering paper, and poured, in small quantities, into a number of test-tubes, which have been plugged with cotton-wool, and then sterilised at a high temperature. The next process is to sterilise the material in these test-tubes. About fifty test-tubes are filled with the gelatine solution, and are then sterilised by subjecting them to the action of steam for fifteen or twenty minutes, for three days in succession. When all is in readiness for inoculation, the so-called cholera-room is entered. Three test-tubes are taken at a time, and, from Koch's cholera-tubes, comma-bacilli are fished by dipping a platinum wire, previously sterilised, into them. The point of the platinum wire, thus impregnated with comma-bacilli, is then dipped into the surface of the galatine medium contained in one of the three test-tubes ; the original cholera-tube is then put aside, and into No. 1 tube, now impregnated, a platinum point is dipped three times successively to impregnate test-tube No. 2 ; then the same process is continued six times in tube No. 2, in order to impregnate No. 3. The tubes are then heated to make the medium just flow a little, then the

contents of Nos. 1, 2, and 3 tubes are poured upon glass plates six inches by four in size, and these plates, kept separate by means of glass bridges, are covered with a bell-jar, where they remain for twenty-four hours. At the end of twenty-four hours, when examined under a low power, cholera-colonies will be seen on the first plate, and they will be less marked on the other two. After another space of twenty-four hours, the plates are examined again, and fresh test-tubes are impregnated from the colonies, the contents of these tubes being also poured out upon glass plates.

Luncheon is at one o'clock, and occupies half an hour, during which Koch relates his experiences in Egypt, India, and France, every word he says being listened to with the greatest attention. Another quarter of an hour is allowed for smoking, and then time is called, and all return to work, which lasts till 4.30 P.M. This forms the daily routine, time not actually taken up in the cholera-room with the cholera-bacillus being devoted to the cultivation and study of other bacilli. Other bacilli are cultivated in the same way. Demonstrations are made with the so called Finkler and Prior bacillus, and the peculiarities of all are carefully pointed out. Each member of the course has an assistant by his side, and Koch goes the whole day from one member to another, asking and answering questions.

In order to profit by the course, a good knowledge of the use of the microscope, and some knowledge about bacteriological research, are necessary. My informant entered upon the course somewhat prejudiced against Koch's claims. He now says that, whether the comma-bacillus be the cause of cholera or not, one thing is certain beyond a doubt, that Koch has discovered a new bacillus, one which is different from every other known bacillus, both in appearance, and in its mode of development in the cultivating medium. He says that anybody confusing Koch's bacillus with that of Finkler and Prior, can have had no experience in bacteriological research, which is exactly what Koch maintained himself in the paper reported a few weeks ago in the BRITISH MEDICAL JOURNAL. He showed me one of Koch's own preparations from Asiatic cholera, and a preparation he had himself made of Finkler and Prior's bacilli. There is not the slightest doubt that the difference between them pointed out by Koch does actually exist.

Dr. Koch would have been pleased if a few Englishmen and Americans had attended one of his courses, in order that his method of cultivation and his views could be fairly represented in England; but space and time are limited, and the main object was to give Germans the necessary opportunities of learning. The few foreigners who have had the privilege of obtaining permission from the German Government, are unanimous in their appreciation of Dr. Koch's obliging conduct, and of the immense amount of knowledge that they have acquired.

It is unnecessary for me to enter into detail about the appearance of the bacillus, for that has already been done in the full translation of Dr. Koch's paper published in the BRITISH MEDICAL JOURNAL.

Your suggestion, mentioned in a recent number, that a conference should be called to discuss the question, is well received here, and there is no doubt that London would be looked upon as the most suitable place for the conference.

LIVERPOOL.

[FROM OUR SPECIAL CORRESPONDENT.]

Outbreak of Small-pox.—Infanticide in Liverpool.—Deaths of Medical Men.—The Death-rate for the past Year.—Medical Appointments.

A STRIKING illustration of the inefficiency of the present system of local government is afforded by the state of affairs at the south end of the city. A large hospital for infectious diseases has recently been erected in Toxteth Park, at a cost of £15,000. The district of Toxteth Park is in part within the city boundaries, and in part without. A few weeks ago, small-pox broke out beyond the boundary of the municipal borough, and at first spread rapidly. The Local Board naturally thought of sending their cases to the new and costly establishment that the city authorities had seen fit to erect on the confines of their district; but, the Park Hill Hospital having been built for the use of the borough alone, no cases occurring outside the city proper could be received; so the Toxteth guardians were obliged to set apart a portion of their workhouse-hospital for the reception of their small-pox cases. It should be mentioned that, at the time when the city health-authorities denied admission to these cases, there were only twenty-two small-pox patients in the new hospital.

The subject of infanticide in this city seems at last to be attracting the attention it deserves, although no definite steps in the direction of finding a remedy have yet been taken. Every year, about 150 infants are suffocated in Liverpool, or about 3 per week. Dr. Hope, the assistant medical officer of health, has indicated on a map the localities of the cases, from which it is seen that by far the greater number occur in the most squalid parts of the town. It is remarkable that, of the 152 infants suffocated in 1883, in not one single instance has criminal prosecution been instituted, although one would imagine that some of these deaths must have taken place under suspicious circumstances. The mothers, indeed, are, as a rule, hardly inconvenienced at all; for, if there be evidence of drunkenness on their part, they are merely censured by the coroner, and this is all their punishment. A special inquiry into the whole question is being made, under the auspices of one of the local papers. The results obtained so far are that almost all these infantile deaths are preventable; that, in many instances, the drunkenness of the mother is positively criminal; and that most frequently the infants are under the age of three weeks. In some cases, the suffocation appears to be in part due to the ignorance as well as carelessness of the mother, who, being disturbed by her baby's cries, suckles the child, and, being perhaps under the influence of liquor, falls to sleep again with her breast tightly pressed over the infant's mouth and nostrils.

Death has been busy in the ranks of the profession here during the past month. Besides the melancholy end of Dr. Graham, already reported in your columns, Dr. Baylis, Mr. May, and Dr. Crichton have died. Dr. Baylis, who had retired and was living in Southport, was medical officer of health for Birkenhead for about ten years previously to 1873, and afterwards held a similar appointment in West Kent. Mr. May had been in large practice at Crosby for many years. Dr. Crichton, who practised in Walton, transferred his practice to Dr. McArthur early last year on account of ill-health. Owing to the sudden death of his successor last August, Dr. Crichton was obliged to return home, although he was really unfit for work.

A few statistics to hand respecting the death-rate here during the past year are encouraging, as proving that the many sanitary improvements that have been effected during the past few years are already proving beneficial. The rate for the first quarter of the year was 23.2; for the second, 24.7; for the third, 27.4; and for the fourth, 25.0; or for the whole year, 25.1. This is 1.5 less than the rate for 1883, 2.5 below the average rate for the last ten years (1874 to 1883), and 7.0 less than that for the previous ten years (1864 to 1873). These figures show that the death-rate is much lower than it has ever been.

The committee of the Ladies' Charity have appointed Dr. Armstrong, Dr. Briggs, and Mr. R. A. H. Wood, to be honorary medical officers to the new lying-in hospital.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Christmas in the Infirmaries.—Representatives of the Faculty of Physicians and Surgeons in the Royal Infirmary.—Town Sanitation.—Sunday Drunkenness.—Glasgow Sunday Society.

THE inmates of our different hospitals have not been forgotten during the past Christmas and New Year season. As in previous years, there were numerous indications of the warm interest taken in our sick poor, and everything was done that circumstances would allow, to render the surroundings in the infirmaries as cheerful as possible. Many of the wards, with their evergreens and decorations, presented a very cheerful aspect, and in all of them some steps were taken to add to the creature-comforts of the occupants, so that those who were compelled, by illness or accident, to spend their new year away from home, could not but feel they were among friends. At the Royal Infirmary the usual meeting between the managers and the nurses was held on New Year's Day, under the genial chairmanship of Professor McKendrick, who spoke at some length on the great improvement that had taken place in recent years in the art of nursing, and impressed on his hearers the importance and dignity of their office.

At the last business meeting of our Faculty, among other matters considered, was the election of representatives to sit on the Board of Management of the Royal Infirmary. Looking to recent events at that institution, and the attitude taken up by one of their representatives in connection with the medical question of the administration of chloroform, it was felt that some change was required. The difficulty was simplified by Dr. Eadie not seeking re-election, and in his place Dr. Maclaren was chosen, along with Dr. Ebenezer Duncan. There can be no doubt that, in the hands of these gentlemen, the interests of the medical school of the Royal Infirmary will be well looked after; and Dr. Maclaren's long experience as visiting physician to the infirmary particularly well qualifies him for giving an opinion on the

different questions connected with the management of that institution.

Our city death-rate has been again very high, reaching last week to 39 per thousand. I recently stated that the authorities had decided to extend their operations for testing the condition of the house-drainage in some of the poorer parts of the town. The last report of the sanitary inspector gives some details as to last year's work in this direction. It appears that, of a total of 686 drainage-pipes tested, only 24 were found free from defects and in safe working order. The examinations were not confined to any one class of dwellings, but included self-contained houses, tenements with one or more apartments, offices, banks, and hotels. It would have been very instructive to have placed side by side with these figures a record of the diseases that showed themselves in these buildings during the year. In this way some useful facts might be elicited.

The recent return that has been issued of Sunday drunkenness in Scotland, does not place our city in a favourable light. Of the burghs, Glasgow heads the list, showing a total of 984 cases, with a population of 511,532; while Edinburgh, with its population of 228,357, has had but 212 convictions. The chief offender in this respect is, however, Greenock, where the proportion of cases is very high, there being 249 persons convicted out of 65,884 inhabitants. From these figures, it is satisfactory to turn to the condition of many of the counties, where there has not been a single conviction for Sunday drunkenness recorded during the year.

Our Glasgow Sunday Society, which aims at promoting the delivery of Sunday lectures on literary, philosophical, and scientific subjects, had for its lecturer last Sunday evening, Dr. N. Heinemann of London. He took as his subject, "The Human Face," and adapted his lecture most admirably to the audience he had to address. He dwelt at some length on the changes that education, with its corresponding increase in the power of mind and brain, has wrought on the configuration of the face; and, dealing with the present time, he gave it as his opinion that the English face had gone back to the best type of the Elizabethan period.

CORRESPONDENCE.

THE PATHOLOGY OF ACUTE PNEUMONIA.

SIR,—In the JOURNAL of December 20th there is a paper by Sir Andrew Clark "On a Case of Relapsing Pneumonia," in which the author does me the honour to quote and to combat an expression of mine, to the effect that pneumonia "is not only an inflammation, but the pattern and model of all inflammations."

May I be allowed to say that this statement relates to one side of the question only, and not to my own individual opinion? Elsewhere, in the same book, where the pathology of the disease is discussed, it is maintained that pneumonia, "as to its local part, is of the nature of a hæmorrhage" (p. 173), and that "it occupies a middle place between the specific fevers and the local inflammations, having something in common with both" (p. 177), conclusions which do not seem to differ materially from Sir Andrew Clark's own.

I am the more anxious to make this correction (unimportant as it is in itself) because the main purpose of my book, and perhaps its only excuse, following as it did the well known treatise of Dr. Wilson Fox, was to maintain that what is called simple acute pneumonia is not an inflammation of the lung merely.—Your obedient servant,

OCTAVIUS STURGES.

CUCAINE: FURTHER RESEARCHES.

SIR,—Since the publication of our letter in the BRITISH MEDICAL JOURNAL for December 6th, 1884, on the local anæsthetic effects of cucaine, we have been led to make a further series of experiments on ourselves, with a view of prolonging the duration, and extending the anæsthetic area produced by the drug when injected hypodermically. For this object, a bandage was wound round the arm, just above the elbow, tightly enough to compress the superficial veins, and an injection of half a grain of cucaine administered subcutaneously into the forearm. It was found that under these circumstances the anæsthetic area was increased from two inches square to six inches by two inches, and that the effect lasted about three quarters of an hour.

We also ascertained that, if an injection of half a grain were administered on the trunk, and the point of injection were enclosed by a glass ring three inches in diameter, which was firmly pressed down on the soft parts, the anæsthetic area was increased from half an inch square to an area two inches square; but the duration of the anæsthesia remained unaffected.

In order to correct any sources of error, the injections were repeated three times into the forearm, and twice into the trunk, in each of us respectively. From the results of these further experiments, it will be seen that the effects of the drug, both as to extent and duration, may be considerably enhanced by the use of some such contrivance as the above, a fact of no little importance in the operations of minor surgery.—We are, sir, yours obediently,

J. H. ERNEST BROCK, M.R.C.S.
C. J. ARKLE, M.R.C.S.

University College Hospital.

THE TITLE OF DOCTOR.

SIR,—At page 49 of the JOURNAL, Dr. George Balfour states that the Edinburgh College of Physicians never officially recognised their licentiates by the title of "doctor of medicine." Now, no one charges the college with recognising its licentiates as doctors of medicine, but, in my own experience, the college undoubtedly styles its licentiates doctor. When admitted in 1875, I was orally addressed by an official of the college as "doctor." The annual list of Fellows, etc., was addressed to me as "doctor" until within the last year or two, when the designation was altered to "Esq., L.R.C.P."

Some eighteen months ago, I received from the college an official document, anent the Medical Bill, addressed to me as doctor. I have preserved the wrapper of this last, and will send it to Dr. Balfour should he so desire.

I give no opinion as to the desirability, or otherwise, of L.R.C.Ps. styling themselves "Dr."—Yours truly, W. I. KEIR.

A NEW SYMPTOM AND A NEW THEORY OF LOCOMOTOR ATAXY.

SIR,—I much regret to find that my friend, Dr. Ross, should have been annoyed by my having made a quotation from a private letter of his to me on the above subject. My excuse must be that I had no reason whatever for believing that Dr. Ross looked upon that letter as confidential, for it treated of nothing but scientific matters. I have, however, much pleasure in apologising to Dr. Ross for any unintentional vexation which I may have caused him.

That so able and accomplished a physician and author as Dr. Ross should claim what I still consider to be my theory as his own, or should at least consider my theory as a mere modification of his, shows, at any rate, quite plainly that this theory, to whomsoever it may belong, possesses considerable merit; and this is, perhaps, the best reply to the attacks which have been made on it from another quarter. I must, however, confess that I am still unable, after a careful reperusal of Dr. Ross's paragraphs on this subject (*A Treatise on the Diseases of the Nervous System*, second edition, vol. i, p. 183, and vol. ii, p. 60), to perceive that the two theories are identical. The pith of my theory is, that there are certain definite centres and paths in the brain and spinal cord which, when brought under the influence of sclerotic degeneration at certain points, respond to such degeneration by the symptom of locomotor inco-ordination, while there are other definite centres and paths which, when brought under the same pathological influence, respond to it by the symptom of ataxy of equilibration. This, however, is not by any means Dr. Ross's theory; for, after quoting the sensory and motor theory of ataxy, he says (*loc. cit.*, vol. i, p. 183), "My own opinion, however, is that the ataxic symptoms are caused by disease of the cerebello-afferent conducting paths in the spinal cord. The undue amount of tonic contraction of the muscles of the calf, front of the thigh, and of the erector spinæ, in the early stages of the disease, would appear to indicate that, at that time, the irritability of the cerebello-afferent fibres of the cord is increased; while, in the later stages of this affection, although there is no cerebral paralysis, yet there is cerebellar paralysis, and the consequent abolition of the tonic muscular contractions regulated through the cerebellum, overthrows the balance of the delicate muscular adjustments necessary for the maintenance of the erect posture and for locomotion; the muscles of the trunk and limbs are not maintained in that state of balanced and continuous contraction which will enable the alternate contractions regulated through the cerebrum to act efficiently and harmoniously."

Now, this is a perfectly plain, straightforward, and intelligible theory of ataxy; but I submit that it is entirely different from the one which I have proposed. Indeed, in the passage quoted, and which is most pregnantly and deliberately written, Dr. Ross does not, by as much as a single word, draw a distinction between different centres and paths in the brain and spinal cord, as intended severally for locomotor co-ordination, and equilibration, as I have done.

A second passage occurs in the same work (vol. ii, p. 60), in which Dr. Ross expresses the same theory in somewhat different terms; but there, likewise, no distinction whatever is drawn between what is there called "the swaying movements on closing the eyes, and the ataxia."

If, therefore, Dr. Dixon Mann, in epitomising my paper in the *Medical Chronicle*, says that "my theory is clearly set forth by Dr. Ross in his *Diseases of the Nervous System*," I can only explain this by Dr. Mann not having read my paper very carefully. Perhaps I may render my meaning clearer by stating that clinical observation has shown me, what does not appear to have been noticed by previous observers, that the degree to which locomotion and equilibration are impaired in tabes, is not by any means proportional, except in the later stages of the malady, after wholesale destruction of the parts concerned has taken place, and whereby any attempt at a finer localisation is rendered difficult or impossible. In the earlier periods, however, where the disease has only picked out certain portions of the posterior and cerebellar columns, just the reverse is commonly seen. A patient was recently under my care, who was still able to walk three or four miles at a time, and without showing the peculiar ataxic gait, but who was utterly unable to stand, even for a few seconds, with his eyes closed, without staggering like a drunken man. Such a case as this would be utterly unintelligible, except on the supposition that the centres and paths which serve for equilibration were, in this instance, more involved than the centres and paths which serve for locomotion. Such a case, which is not at all exceptional, affords a striking illustration of the correctness of my theory that these influences run in different grooves; and it could not be explained by the theories of Leyden, Erb, or Ross.

On the other hand, I have seen cases where the patient had the greatest difficulty in walking, yet could still stand fairly well, even on one leg, with his eyes closed. I explain this condition, in consonance with my theory, by assuming for such cases a more severe affection of the paths and centres serving for locomotion than of those concerned in equilibration. At one time, the opinion was held that, in tabes, the impairment of locomotion proceeded *pari passu* with that of sensation, and this led to the enunciation of Leyden's theory. It was, however, afterwards found that there was really no definite relation between the degree of ataxy and anæsthesia; and Leyden's theory has therefore lost ground. Similarly, I claim to have ascertained clinically that there is no constant relation between ataxy of movement and of equilibration; and this has led me to form the opinion that the two functions are not identical, but have separate centres and paths assigned to them. *Post mortem* examinations of such cases are not easily obtained, as patients rarely die in the commencement of the second stage of tabes; but if, in a case of the kind referred to, an inspection were obtained, I have no doubt that the anatomical distribution of the lesion would be found to correspond to the clinical symptoms observed during life.—I am, etc.,

JULIUS ALTHAUS, M.D.

THE UNIVERSITY OF LONDON AND A TEACHING UNIVERSITY FOR LONDON.

SIR,—As one who is becoming one of the elder graduates of the University of London, but who is outside the pale of metropolitan academic interests, I may, perhaps, be allowed to state shortly what is the view in which, from my distant standpoint, the agitation respecting the need of a "teaching University" in London presents itself.

I presume nobody would be found to deny that there is in London at the present time as able teaching of the medical sciences, and that there are also as many facilities in the way of museums, laboratories, physiological and chemical, etc., for the acquisition of a sound knowledge of the medical art, as in any other part of the United Kingdom. There might be some advantage in the merging of the smaller medical schools into the larger; but we cannot suppose that any of the larger, such as Guy's, Bartholomew's, University College, or King's College, would consent to sink their individuality by coalescing into one gigantic institution; nor can we see that any advantage, but rather the reverse, would result from the carrying out of any such scheme.

What is it, then, that the advocates of the new institution seek to gain? "A *teaching* University," it is replied—in contradistinction, I suppose, to an examining one. Does that mean that the teachers of students shall be the same men who will afterwards examine them? Well, nearly if not all the examiners of the present University of London are, or have been, themselves teachers, and could scarcely be fit examiners were it otherwise; but it has always been considered a distinguishing merit of the University that its examiners are drawn from such a wide area, that their own pupils bear but a fractional proportion to the whole number of candidates for degrees, and that thus the dangers of a partial judgment are reduced to a minimum. It surely cannot be sought to raise the chances of partiality to a maximum.

It remains, then, to suppose that what is meant by a teaching University is one more examining board, giving greater facilities, as it is called, for obtaining the degree of Doctor of Medicine; in other words, a board which will set up a lower standard of examination, and so enable every average student to obtain the coveted title of M.D. As things are at present, we know that this title may mean a good deal, or something very little indeed; and so in proportion to the cheapness of the new degree will be the low estimation in which it will be held.

If, again, it be replied that it is not a low degree which is intended, but one which shall testify to the thoroughly practical knowledge of its possessors, I ask what examinations have ever existed more thoroughly practical than those of the University of London? Did not this University, more than thirty years since, establish the system of compelling its candidates to examine and report upon actual patients, when neither College nor Hall, and, as far as I know, no other University in the kingdom, had thought of such a thing? What crammer is ever able to coach a man for its examinations? What, but a close study of the human body by laborious dissections, can ever fit a man to answer its anatomical papers? It cannot, then, be said that there is not already a body in London able, in conferring the Doctor's degree, to give a *testamur* of practical knowledge.

And so the point at issue is narrowed down to this—that there is required a body which will be satisfied with a less amount of knowledge, both practical and theoretical, and will yet give a title *sounding* the same. Well, be it so; but, remembering that a rose by any other name would smell as sweet, I, for one, cannot see how, in the long run, the future generation of medical men, or their patients, will be benefited by the new diploma.—I am, sir, obediently yours,

Cheltenham. THOMAS MORLEY ROOKE.

SIR,—The agitation to obtain another university in London, in which medical students could graduate more easily than can be done in the present University of London, commends itself to all extra-university teachers and students. There is no doubt that, in England, the degree of the university is now more coveted than the diploma of the college; and that the desire to possess it is more widely spread than formerly. The obstacle in the way of this legitimate aspiration is that, with the exceptions of the University of London and the Royal University of Ireland, the other universities, instead of being open to all who would wish to pass their examinations in them, and making excellence the only test, require the attendance of the students for one or more years. This, in most cases, is a hardship; and I would here remark that it was a pity the profession ever allowed the University of St. Andrew's to be closed to its ranks, and I think that efforts should be made to have it re-opened. Its examinations were conducted by some of the most eminent medical men in Scotland, about whose desire to admit only really qualified men to graduation there could be no mistake. But my object in writing this is to ask if it is not possible for the united colleges and corporations of England, Scotland, and Ireland to obtain an addition to their charters, enabling them to grant the degrees of M.B. and M.D., instead of the diploma of physician? It seems absurd to have more than one title amongst members of the profession, and that all should either be dubbed doctors of medicine and masters of surgery, or physicians and surgeons. There is no doubt the title of doctor is most convenient. If this suggestion were followed, it would obviate the necessity of instituting a new university, involving a large expenditure of money and organisation, without any better result.—Your obedient servant,

Glasgow. M. THOMAS, M.D.

EXAMINATIONS, DIFFICULT OR GOOD.

SIR,—I quite agree with "M. D." in your last number; only it is a hard case for a student to be examined in a subject in which he has not been taught. That I consider the vice of the London University. No father can find out a school where a boy can be taught so as to pass the examination. For myself, I have been at three universities, and know something of examinations. At Edinburgh the teachers were the examiners; and an industrious student had only to learn all they taught, to go up with confidence. At Cambridge I prepared Latin, and Greek, etc., and was asked a question in Hebrew, which I declined to answer, and also in Greek history, which my tutor had not told me to get up. I just scraped through. At Dublin, the very morning of the examination my tutor asked me if I had read my logic. I said no, and rushed off to a bookseller, got the book, and read it during breakfast. As I had some years before got up this subject,

with a first-rate Oxford coach, all turned out well. Now the simple cause of the plucks at the University of London is, that the men can never find out in what books they are to be examined.

The unfortunate candidates who were lately plucked in logic might have passed in honours ten days subsequently.

The result of this uncertainty is, that some of the best educated men in the profession are licentiates of the Society of Apothecaries.—Your obedient servant, RALPH RICHARDSON, M.A.Dubl., M.D.Edin.

10, Roland Gardens, South Kensington.

MEDICAL LOGIC.

SIR,—I am pleased to observe you remark in the JOURNAL upon the fact that, at the recent M.D. examination of the University of London, the examiners in logic and psychology alone rejected over 50 per cent. of the candidates.

Seeing that the present regulations of the University of London allow Bachelors of Medicine (provided they pass in the first division) to enter for the M.D. examination of the next year, it cannot possibly be expected that they shall, during the interval, acquire such a profound knowledge of logic and psychology as is necessary to answer fully some of the questions set at the recent examination, and at the same time read medicine, attend to the medical clinical practice at some recognised hospital, and their own professional duties. Such depth of knowledge is only expected of a learned professor of some university chair, or of others who have nothing to distract them outside the sphere of their own science. And, as evidence that such knowledge is impossible in the greater number of candidates, who in most cases are men engaged in private practice, we have but to refer to the results, and observe that fifteen out of twenty-nine fail to reach the necessary standard (in the eyes of the examiners).

The Senate seem prepared to admit the difficulties of the examination, and allow a candidate to present himself in logic and psychology alone (but the result is even here more disastrous, seven out of nine failing), or in both subjects; and if he fail only in medicine, and pass in logic, etc., it is only required that he shall enter for and pass in medicine at some future time; but why, if he fail in logic and psychology, and pass "a highly creditable examination in medicine," should he be asked to again undergo the ordeal of an examination in both subjects?

The apparently anomalous fact is, that the most important subject of an examination for a degree in medicine is logic and psychology.

I enclose my card, and beg to remain, yours faithfully,

London, W. ONE OF THE UNFORTUNATE SIX.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE RIGHT TO SEARCH DEAD BODIES.

AN unfortunate conflict of jurisdiction is reported to have taken place between the deputy coroner for Westminster, Mr. A. Braxton Hicks, and the authorities of the Charing Cross Hospital, as to the right of the coroner's officer to search dead bodies. On the 1st instant, Mr. Braxton Hicks was holding an inquest at the hospital, when it was stated that the policeman who conveyed the deceased to the institution was not allowed to search the body, as the hall-porter stated that he had orders not to allow anybody to search bodies but himself. The coroner's officer also said that he went to the hospital to search the body, but was met by the warden, who told him that it was one of the standing orders of the hospital that the porter was to perform the duty. The coroner called the warden, and asked him whether it was by his instructions that the porter had refused to allow the officer to search the body. The warden replied that it was by the orders of the committee. The deputy coroner thereupon asked him whether he was aware that he had given strict orders, on December 27th, that his officer was to search the bodies. The warden said he had consulted the committee, who quite approved of his (the warden's) conduct. Mr. Hicks repeated the order he had given, and said he should expect to be obeyed.

This collision is a matter of regret. No doubt the hospital authorities have good reasons for objecting to a coroner's officer searching bodies lying in the hospital without the sanction of the warden; and, indeed, in many instances when a crime has been committed, the examination of a body by the average coroner's officer might lead to grave disaster; neither do we conceive that a hall-porter should alone be entrusted with so responsible a duty. The search should always be made in the presence of some person responsible and competent to observe any marks or injuries of the dress or person, having a bearing upon the cause of death. The legality of the position taken up by the hospital authorities is questionable; and as much may probably be affirmed with respect to the mandate of the coroner. This official is endowed with the powers of a magistrate, and, in virtue of this office, he perhaps has the right to himself search bodies; but it is very doubtful whether the coroner's subordinate officer has this right on the general instructions of the coroner. We trust that good sense and good feeling will prevail, and that an amicable arrangement may be made, enabling the coroner's officer and a hospital official to make a joint search of dead bodies in the hospital.

SIMULTANEOUS ELECTIONS OF MEDICAL OFFICERS AT HOSPITALS.

SIR,—A. and B. are appointed on the staff of a hospital as honorary surgeons at the same meeting of the committee, both unanimously. A. graduated in 1870; B. qualified in 1877. A. is older than B. In seniority on the staff, should the names be placed in alphabetical order, or what should decide their relative positions? An answer in your next issue will greatly oblige, as the staff is awaiting your decision to arrange priority of days of admission, etc.—Yours faithfully, AGONISTES.

*** When it is the custom amongst hospital-authorities to formally elect one medical officer before a second when there are two vacancies to be filled, then although the second may be just as formally elected one minute later than the first, it is evident that the first is legally the senior. When, however, two officers are elected simultaneously, by a single ballot or a single show of hands or by any other method of voting in vogue at the particular hospital in point, it is evident that the elder of the two medical officers by qualification must, under ordinary circumstances, be the future senior. In the case of A. and B., since A. is the senior both by age and by qualification, there can be no doubt of his seniority, if elected simultaneously with B. It is possible, however, that in another case, a candidate C. might have qualified before a candidate D., though much younger and less distinguished in his profession; in that case, the authorities would decidedly be justified in declaring the seniority of D., should the matter be disputed.

UNQUALIFIED PRACTITIONERS.

SIR,—While acting as locum tenens in a mining district, I was greatly surprised to find that nearly half of the medical practice of the neighbourhood was in the hands of unqualified men, not as assistants, but conducting practices of their own. One man, who has "Dr." engraved on his surgery door-plate, has a practice of such extent that he requires to keep a pony-trap.

In the course of my work, I was called in to see a man suffering from lumbago. He had received a certificate from this man, who signs himself R.S.D., but as his fears were excited on receiving such a certificate, he called in Dr. A., for whom I was acting. I attended the patient, and he informed me that he had always been of opinion that this R.S.D. was a real doctor.

As far as I could make out he, the R.S.D., is the surgeon for this particular friendly society. Now, is it not the case that such appointments cannot be held by unregistered practitioners? Cannot the Medical Council take steps for the better protection of the public?—Yours etc., C. N. L.

*** The alleged illegal practice to which "C. N. L." solicits our attention, bare-faced as it seems to be, cannot, we fear, be effectually checked by instituting legal proceedings against the parties for the penalty imposed under Section XL of the Medical Act; for which purpose, proof of the use of the title of "Dr." on the door-plate will suffice to obtain a summary conviction.

In reference to the user of the assumed but unreal professional initials, "R.S.D.," acting as surgeon to the friendly society in question, we would remark that, according to the Section XXXVI of the same Act, no unregistered practitioner can legally hold an appointment as medical officer "to any friendly or other society, for affording relief in sickness, infirmity, or old age." It may, we think, be well to caution the local Registrar, relative to certificates of death, signed by the illegal practitioner; and also the club-authorities as to non-qualification. Unfortunately "for the better protection of the public," the General Medical Council invariably decline to prosecute in such and like cases.

SIR,—In a letter just received from France, the following passage occurs: "He (the doctor) has ordered medicated baths, and will administer the anodynes himself, and not permit another hand, as it is against the laws of the country." The patient is a lady with cancer of the tongue, and the anodynes are hypodermic injections of morphia. Will you be so good as to inform me whether it is correct that the French law forbids the use of hypodermic injections by a non-professional person?—I am, sir, yours very truly, S. D. CLIPPINGDALE.

*** It is not against the laws of France that the injections of morphia should be made by a non-professional person. Very often the hypodermic injections are made by nurses, or by the patient himself. A chemist cannot sell morphia without the prescription of a qualified practitioner.

CODE OF MEDICAL ETHICS.

IN answer to "M. K.'s" note, we find, on inquiry, that the first edition of the *Code* is exhausted, and that a second and enlarged one is prepared and is now being revised by various eminent practitioners.

WHAT TO CHARGE.

MR. W. M. N.—Our correspondent is a somewhat indifferent observer, otherwise he might have noted the information which he is solicitous to obtain, in the JOURNAL of November 15th, page 988, in the columns devoted to Medico-ethical and Medico-legal items, to which we would now refer him.

MEDICAL ATTENDANCE ON WOMEN'S CLUBS.

SIR,—I should be obliged if any of your readers could give me any practical information as to the payments that should be made for medical attendance by the members of a club to be composed of married women and their children.—I am, yours faithfully, ALPHA BETA.

* There are many difficulties in determining what payment should be made by club-members, even when exclusively males, local circumstances, distances, etc., exercising a very large influence. Again, the rates for such clubs are by no means authoritatively settled, vary a great deal, and are in some cases not at all satisfactory. A pretty general custom, however, with male clubs, is to pay four shillings per year per member, and an increased amount when the distances are over three miles. Women and children should certainly be charged not less than the above sum for each individual; and then the work for such clubs will generally be found very heavy. There are lower and fancy rates in many "provident dispensaries," but these are fixed on semibenevolent and sentimental bases.

MILITARY AND NAVAL MEDICAL SERVICES.

INDIAN MEDICAL SERVICE.

THE authorities in India, as our readers who are interested in matters relating to the medical services are aware, have given effect to an act of tardy justice, extracted, after much pressure by Mr. Gibson, from the India Office. The offensive and irritating term of "unemployed pay," for which a good deal of hard "employment" was obtained from Indian medical officers, has disappeared, and the term "grade pay" has been substituted. With this also vanishes one inequality between the pay of army medical staff officers and those of the Indian service, which of late years has naturally caused so much heartburning and such a rankling sense of injustice in the minds of the sufferers. The unemployed, or, as it is now called, grade, pay amounts to 286 rupees, 8 annas. To this is now added 31 rupees per month, bringing young Indian medical officers up to the level of men in their own rank in the army medical staff. But with the meanness that has characterised all the dealings of the Government of India to its medical servants since that Government passed under the Crown, this little morsel of bare justice, so grudgingly given, is coupled with a condition—namely, that, "when they are in receipt of staff-salary, they shall only get the 'grade pay'"—a condition, as we gather from several Indian newspapers before us, which does not apply to officers belonging to the army medical staff. There is another matter to which the attention of the public and the authorities at home and in India is now being frequently invited by the most influential Indian journals, and which we hope Mr. Gibson will bring under the notice of Parliament when it meets, and that is, the almost daily increasing practice of bestowing nearly all the extra charges upon officers of the army medical staff. The BRITISH MEDICAL JOURNAL has never lent itself to the unworthy purpose of fostering a spirit of mean jealousy between the two services. We have, on the contrary, always urged that equal justice should be meted out to both; and, when the sun did not shine brightly on what was the Medical Department of the Army, its claims to more just and honourable treatment were persistently kept before the profession, the public, and the Government, not only in the pages of this journal, but by the Parliamentary Bills Committee of the Council of the British Medical Association. We none the less, indeed, all the more on this account, recognise the claims of the Indian Medical Service to just treatment and consideration, and to an equal share of such support as our great Association can give. Without wishing to disparage the army medical staff, or to draw invidious comparisons between it and the medical service of India, we must remind those who are now abusing that influence and authority, by using both to the injury of the latter, of its great history, the names of the eminent men that adorn its annals, and the immense service they have rendered to the Government and people of India. Nor can we shut our eyes to a fact, patent to all who keep a watchful eye on the qualifications of those who, at the present time, enter the ranks of the sister services, namely, that, if merit is, as it should be, the gate to preferment, it is certainly not the medical service of India that should be left out in the cold. We hope those who are making themselves conspicuous as instruments of what we venture to call service-nepotism, will reflect on the impolicy of exciting ill blood between two bodies of men who serve the same Royal mistress and the same State, and who ought to have but one rivalry—how best to heal the sick. In the noble words of Bacon, "Let it not be the strife between the briar and the thistle, which can wound the deepest, but rather that between the olive and the vine—which can produce most fruit."

THE OFFICES OF THE ARMY MEDICAL DEPARTMENT.

THE offices of the Army Medical Department in Whitehall Yard will, it is stated, be removed, in the course of the year, to a new site—possibly a few doors higher up. The Crown having leased a portion of the land on which the offices stand to the Whitehall Court Company, it will become necessary to bisect the building, and the new road to be constructed from the Horse Guards to the Embankment will dispose of the remainder. It is a great pity that there is much delay in building the new War Office, so that the scattered branches, of which the Army Medical Department is of course one, can be collected under one roof. At present, the War Office is spread over the south-west district, having fragments in Victoria Street, Spring Gardens, Whitehall, Whitehall Yard, and Pall Mall. This arrangement is seriously detrimental to the expeditious conduct of business, and, in times of pressure, the delays in correspondence between the several branches are numerous. We are ostensibly a practical people, and take much credit to ourselves for our celerity, but this long postponement of a much needed reform is fatal to our claims in that respect.

ARMY MEDICAL SERVICE.

SURGEON-MAJOR E. T. D. Harrison has resigned his commission in the 4th Battalion of the South Wales Borderers (otherwise the Montgomery Militia); he is permitted to continue to wear the uniform of the corps.

Surgeon A. de W. Baker has resigned his commission in the 1st Devon Yeomanry.

Mr. J. T. Jacques has been appointed Surgeon to the Leicestershire Yeomanry.

Surgeon E. O. Milward, at present serving in Bengal, has been granted furlough for six months on medical certificate.

Surgeon-Major J. Williamson has been appointed to the medical staff of the Station Hospital at Sattara, Bombay.

Mr. F. Spurrell has resigned his commission as Honorary Assistant-Surgeon to the 2nd Volunteer Battalion, Queen's Own West Kent Regiment (late the 3rd Kent Rifle Volunteers).

Acting-Surgeon F. A. Stokes has resigned his appointment in the 2nd Middlesex Volunteers.

INDIAN MEDICAL SERVICE.

SURGEON-MAJOR O. T. Duke, Bengal Establishment, has been appointed to officiate as joint medical officer of Simla, during the absence on leave of Surgeon-Major R. Power.

Surgeon-Major W. H. Boalth, Madras Establishment, in medical charge of the 2nd Madras Native Infantry, has been appointed to the civil medical charge of Saugor, and to the executive charge of the district jail, *vice* Surgeon-Major E. O. Tandy.

Surgeon-Major C. Prentis, Bengal Establishment, has returned from leave, to retake civil medical charge of the Goruckpore district.

Surgeon-Major W. A. C. Roe, Bengal Establishment, is posted to Sealkote, on transfer from Dalhousie, *vice* Surgeon J. C. Smith, of the 31st Bengal Native Infantry.

Surgeon-Major J. Ross, M.B., Madras Establishment, in medical charge of the Queen's Own Sappers and Miners at Bangalore, has been promoted to be Brigade-Surgeon, *vice* G. Bidie, M.B., C.I.E., who has been made Deputy Surgeon-General.

Surgeon-Major A. M. Branfoot, Madras Establishment, medical officer of the Madras Infantry Volunteers, and superintendent of the Lying-in Hospital, and professor of midwifery, has returned to duty from furlough.

Surgeon P. J. Damania, Bombay Establishment, officiating in medical charge of the 1st Bombay Native Infantry at Deesa, is confirmed in that appointment, *vice* Surgeon A. H. C. Dane, M.D., who has been confirmed in the medical charge of the Bhopaul Battalion.

Surgeon-Major A. Barry, M.D., Bombay Establishment, in medical charge of the 2nd Bombay Cavalry at Deesa, and officiating obstetric physician of the Jamsetjee Jejeebhoy Hospital, has returned to duty by permission of the Secretary of State for India.

The undermentioned gentlemen have been granted furlough for the period specified: Surgeon-Major G. Henderson, M.D., Bengal Establishment, an extension for six months, on medical certificate; Surgeon J. Moorhead, M.D., Bengal Establishment, civil surgeon of Mymensingh, for three months, on medical certificate; Surgeon M. O'Dwyer, Bengal Establishment, superintendent of the Chenawan Central Jail, for one year, on medical certificate.

Dr. G. E. Morton, late of the Bengal Establishment, died on December 28th, at his residence, The Coëd, Stroud, Gloucestershire. He entered the service as an assistant-surgeon February 27th, 1841, attained the position of Deputy Inspector-General of Hospitals January 1867, and retired March 12th, 1872.

THE NAVY.

THE following appointments have been made at the Admiralty during the past week: H. Scanlan, staff-surgeon, to the *Nankin*, additional; R. Nelson, fleet-surgeon, to the *Monarch*; C. W. Sharples, surgeon, to the *Falcon*; G. Maclean, M.A., M.B., fleet-surgeon, to Haslar Hospital; J. Flanagan, fleet-surgeon, to the *Northumberland*.

INDIA AND THE COLONIES.

INDIA.

THE SANITATION OF BOMBAY.—Dr. Hewlett, the Sanitary Commissioner of Bombay, states, in his report for 1883, that the sanitary condition of the city of Bombay was unsatisfactory, as the death-rate for the year had been unusually heavy, owing to the widespread prevalence of cholera and small-pox, two distinctly preventable diseases. Within the city, sanitary improvements are being steadily proceeded with. The high death-rate of Bombay city appears to be contributed to by the extremely unsanitary condition of the town and villages in the immediate neighbourhood, between which and the city there is constant intercourse. Regarding one of these adjacent towns, a sanitary official writes: "No water-supply except a foul tank, and the condition of the town most filthy. Scavenging now neglected for want of money." And, as Dr. Hewlett considers that it is from villages that the great cholera-epidemics spring up, he suggests that Bombay should pay the expense of maintaining a sanitary inspector for the towns and villages in the neighbourhood of Bombay. The Government have, consequently, asked the Municipal Commissioner to set forth his views on Dr. Hewlett's proposal to adopt special measures to ensure the sanitation of all villages and towns in the island of Salsette, as far as the Vehar and Tulsi lakes and their gathering grounds. And, persuaded that village sanitation lies at the bottom of effective sanitation in the city, the Government has decided to circulate to all the municipalities and principal villages a pamphlet in the vernacular, dealing with the elementary principles of sanitation, which, it is hoped, will induce the people to take steps for the sanitary improvement of their towns and villages. In the smaller municipalities, the Commissioners, as a rule, do not consider it any part of their duty to make any inspection whatever into the sanitary condition of the towns they live in. In villages where there are no municipal bodies, matters are naturally much worse.

CHOLERA-HOSPITALS FOR BOMBAY.—It is stated that the Municipality of Bombay have decided to proceed at once with the erection of one of the six cholera-hospitals which they propose to establish within the city. The first of the hospitals is to be erected in the compound of the European General Hospital, as being within the area of greatest cholera-prevalence. The erection of so many as six hospitals has been decided on in view of the widely scattered distribution of the native town, as it is of prime importance that the hospitals for the treatment of a disease so rapid in its course as cholera should be near at hand. The erection of a cholera-hospital within the precincts of the European Hospital finds many objectors, on the plea that the *morale* of the patients in the General Hospital is likely to be injuriously influenced by the knowledge that people are dying of cholera in their immediate vicinity.

MEDICAL INFLUENCE WITH NATIVE TRIBES.—A correspondent with the Afghan Boundary Commission writes as follows. I have referred to the confidence of the people in European medical skill. Large numbers have followed the mission; important operations have been performed; Dr. Owen has performed many serious operations; and, had the march of the mission been less rapid, many important cases of disease would have received relief. It is only to be regretted that it has not been possible to follow up skill in treatment with skilful care and observation after operation. The people entreat to be healed; the diseases they are afflicted with are as numerous as would be expected in an inclement climate; calculi are common, and eye-affections prevalent. I have not, however, observed the loss of sight amongst so many people as other travellers have. The recollection of Europeans amongst the people of Seistan appears to be associated with the humanity and skill of medical men. They spoke much of Sealkote (Quetta), and of extraordinary cures and alleviations of afflictions effected there. I could not ascertain who the medical men were whose skill had fixed the attention and remained in the remembrance of these wild people. I should like to have known who they were. Some members of a profession that have done in their duty of charity much to soften race hatreds and antipathies have been doing noble work near Quetta, extending the influence of their countrymen, their reputation for generosity, charity, and knowledge. The largesses which a Government may have lavished have been known only to a few, and have soon been forgotten by those who knew of them. The skilful gifts of medical men are not only remembered by all; but, as time passes, they are more prized and remembered, and their value magnified.

A MEMORIAL is being raised in the Madras Presidency to the late Dr. T. S. Thomson, whose name as a medical missionary has become a household word in that presidency, where he has resided for many years. The Mahárájáh of Travankor has liberally subscribed 250 rupees; but more money is required before a memorial worthy of the man can be established.

CALCUTTA MEDICAL COLLEGE.—Surgeon D. G. Crawford, officiating Resident Surgeon at the Medical College Hospital, is appointed to act also as Professor of Surgical and Descriptive Anatomy at the Medical College, during the absence on leave of Surjeon-Major J. O'Brien.

LUNATIC ASYLUMS.—The Lieutenant-Governor of the North-West Provinces has directed that from the 1st of April, 1885, district boards in the North-West Provinces shall be relieved of all concern with lunatic asylums, and that both the administrative control and the financial responsibility of these institutions shall be provincial.

A CENTRE of the St. John Ambulance Association has been established at Hong Kong, under the presidency of Major-General Sargent-C.B., commanding the Forces. The Hon. E. L. O'Malley, Attorney-General, has been appointed chairman, and among the members of committee are Lieutenant-Colonel G. A. Crawford, R.A.; Commodore Morant, R.N.; the Hon. P. Ryrie, and Lieutenant-Colonel Shapland Groves, of the "Buffs." Large supplies of stores have been sent out from St. John's Gate.

THE death, in his seventy-seventh year, at Caledon, of the well known colonist, Dr. Albertyn, is reported. Dr. Albertyn was born in Stellenbosch; and, after finishing his preliminary studies in Cape Town, went to Germany. In Berlin, he commenced the study of medicine, and, having finished it with credit to himself, he returned to the colony, settling down to practise at Caledon. As district surgeon, he attended for many years to the leper institution at Hemel-in-Aarde.

AUSTRALIA.

QUARANTINE.—An Australasian Sanitary Conference, under the presidency of Dr. Mackellar, chief medical officer of New South Wales, has been sitting in Sydney, for the purpose of discussing the question of federal quarantine against vessels coming from infected ports outside the colonies. New South Wales, Victoria, Queensland, Tasmania, Western Australia, and Fiji, were represented officially, and a long series of resolutions was agreed to for recommendation to the various Governments as the basis of a Federal Quarantine Act. The two principal questions discussed and decided upon in the affirmative were the imposition of compulsory vaccination in those colonies where it does not at present obtain, and the establishment of quarantine outport stations at King George's Sound and on the northern coast of Queensland, where vessels bound for other colonial ports should, if infected, leave their sick and be purified, subsequently proceeding on their voyage in quarantine. This was adopted with the view of preventing the spread of disease to each port where an infected vessel might call, and of reducing the ultimate term of quarantine at the final port of call.

OBITUARY.

THOMAS BUCHANAN WASHBOURN, M.D.Lond., F.R.C.P., GLOUCESTER.

DR. WASHBOURN died on December 11th, 1884, at his residence, Ashmeade House, Gloucester, of Bright's disease and pneumonia, at the early age of 55. He was descended from a very old Gloucestershire family, the name being derived from the parish of Washbourn in that county. He was educated at the Gloucester Cathedral School, where he was especially noticeable as a brilliant and industrious pupil with a most retentive memory.

The commencement of his medical education was at the Gloucester Infirmary, as pupil of the late Mr. Thomas Cox Buchanan, from whence he went to Guy's Hospital, where his career was marked with unusual success. He matriculated at the University of London, and

n 1850, at the First M.B. examination, obtained a gold medal for chemistry, and honours in anatomy and physiology. In 1853 he graduated Bachelor of Medicine, and obtained a gold medal for physiology and comparative anatomy, and the scholarship and gold medal for medicine. In the following year he became M.D. and M.R.C.P. London, and subsequently, in 1865, he was elected Fellow of the Royal College of Physicians.

Unfortunately, Dr. Washbourn's health prevented him from attempting to practise his profession in London, as he intended to do, and he was obliged, most reluctantly, to refuse the offer of an assistant-physicianship at his Alma Mater. A long sea-voyage somewhat improved his health, and shortly after his return to England he settled in Gloucester, where he has ever since practised as a physician. Amongst the appointments held by Dr. Washbourn were the posts of senior physician to the General Infirmary at Gloucester and the Gloucestershire Eye Institution, consulting physician to the Gloucester Dispensary, and consulting physician to the Lydney Hospital.

Dr. Washbourn was a Justice of the Peace for the city of Gloucester, a trustee of the Gloucester Charities, and in 1859 filled the office of Alderman of the city. Whilst occupying this latter position he devoted himself to sanitary matters, and it was largely through his work and influence that the new system of sewers and the public park were obtained for Gloucester. He was the author of *Reports of the Sanitary Condition of Gloucester*, 1851 *to* 1868, and other papers and pamphlets on allied subjects. He was elected an honorary member of the Metropolitan Association of Medical Officers of Health, and Fellow of the Statistical Society, and was also a member of the Anthropological Institute and F.R.G.S.

Dr. Washbourn, essentially a man of culture and refinement, was an elegant writer, a graceful speaker, and a good classical scholar. He was also a great reader of both the scientific and general literature of modern times, and kept himself well acquainted with the scientific work of the day. For some years he had been regarded as the head of the medical profession in the county of Gloucester and its neighbourhood, and was ever held in the highest respect and esteem by his medical brethren. In addition to his great talents, profound knowledge, and medical skill, he had in a marked degree "the genius to be loved," and the loss sustained through his death both by patients, colleagues, and friends, is well nigh irreparable.

He married in 1857 Miss Sowdon, daughter of T. Sowdon, Esq., of Woolhope, Herefordshire. His wife and children, one son and two daughters, survive him.

GEORGE WILLIAM HARRY COOK, M.R.C.S., L.R.C.P.Ed., Surgeon, Army Medical Staff.

Many old students of the London Hospital will hear with regret of the death of this gentleman, which took place at Malta on December 26th, at the early age of 26. Mr. Cook was educated at the Royal Naval School, New Cross, whence he proceeded to the London Hospital. After completing his curriculum, and taking the diplomas M.R.C.S. Eng. and L.R.C.P.Ed., he entered the Army Medical Department in 1880. He was stationed at home until 1882, when he was sent to Malta. After a short residence there, his health began to fail, and he evinced premonitory symptoms of phthisis. In the early part of 1883, he came to England for six months' sick-leave, and returned to Malta feeling better. Shortly after his return, he had an attack of hæmoptysis, and since then became gradually worse. Finally, he succumbed to an attack of tubercular meningitis. His funeral took place on December 29th, with full military honours, and was largely attended by the officers in garrison at Malta. Few who knew him could fail to appreciate his sterling worth of character; and both during his career at the hospital and in the army he won the respect and esteem of all who came into contact with him. Well known as an athlete, he was captain of the London Hospital football team in 1877-78-79.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE ST. PANCRAS INFIRMARY.

The Guardians of the Poor of St. Pancras have been much exercised lately by a circumstance that has occurred in their workhouse infirmary, at Highgate, an establishment which has hitherto enjoyed a considerable reputation for the admirable manner in which its medical officers have performed their duty to the sick poor remitted to their charge. It would appear that, on June 19th last, one Amy Chapman was admitted sick; and as, some days afterwards, she manifested symptoms of mental derangement, she was, under the direction of the superintendent medical officer, sent back to the workhouse, where she died about seven hours after her admission. Whether there was any special circumstance in this case which warranted a coroner's inqury, or whether it was prompted by the feeling arising from an inquest held in the preceding year, where a somewhat similar case occurred in the person of one James Bolton, who died soon after his arrival at the Highgate Infirmary, to which he had been sent at the instance of the medical officer of the workhouse, and at which inquest a special verdict was come to, on which the jury expressed a decided opinion that the death was accelerated by the removal, we know not; certain it is that the jury, on this last occasion, came to the decision that it was a "death from natural causes: to wit, syncope," with this rider: "That certain complaints having been given in evidence against the officials of the St. Pancras Infirmary, Highgate, the jury suggest to the guardians to fully inquire into the same." In accordance with this suggestion, the Infirmary Committee proceeded to make an inquiry, the chairman being Dr. Adams. The inquiry not proving satisfactory, a request was made that a further one should be instituted by the Local Government Board, and upon oath. In the letter making such application a passage appears to this effect, "that the chairman of the Infirmary Committee, who is a medical man, stated that he was of opinion that there were reasonable grounds for believing that Amy Chapman had suffered from typhoid fever; and that her death was, therefore, accelerated by her removal from the infirmary to the workhouse"—a conclusion, as it appears to us, scarcely warrantable after the verdict of the jury, arrived at on the sworn testimony of Dr. Stevenson, Medical Officer of Health for Paddington, who made the *post mortem* examination, and whose evidence disposed of the notion that it was a case of fever at all.

It would further appear that complaint is made as to the manner in which the medical chairman of the Infirmary Committee acts when going through the wards, to wit, "that he examines the patients, and orders the bandages to be taken off." Such a course of procedure, if correctly stated, cannot be held to be other than highly reprehensible, as it is not only unprofessional, but calculated to destroy the authority of the medical officer of the institution.

As we learn that an official inquiry has been asked for, we forbear at present from further comment, contenting ourselves with the remark that, from the statements before us, there would appear to be "much ado about nothing."

VEXATIOUS CHARGE AGAINST A WORKHOUSE MEDICAL OFFICER.

At Skipton, as elsewhere, there are, it would appear, Guardians who labour under the impression that fussy zeal in keeping down the rates will atone for any impolicy or outrage of decency of which they may be guilty in indulging a disposition to find fault with their medical officers. Dr. Wylie, the Medical Officer of Skipton Workhouse, is just now the victim of such an attack. Finding a pauper excited and unaccountable for his actions, he sent him to the County Asylum. For this he has been condemned by at least one member of the Local Board. There is only one way to test questions like that raised—practically and sensibly. What would have been said or done if Dr. Wylie had either placed this refractory pauper in a straight waistcoast, or sent him adrift to display his eccentricities and perhaps do mischief in the neighbourhood? We think that Dr. Wylie acted with wisdom in the course he took, and it is much to be regretted that those he has loyally served do not see his endeavour to do his duty in the light in which he discharged his obligation. There was no question here of placing a sane man in an asylum. The only allegation is that the pauper, being an imbecile, might—for cheapness' sake—have been retained in the workhouse. The insulting imputation that the Medical Officer signed the certificate to get a paltry fee of ten shillings is too contemptible to call for an answer. In justice to their character, the Board of Guardians should cause an apology to be offered to their Medical Officer.

MEDICAL OFFICERS OF WORKHOUSES AND FEES AT INQUESTS.

We have been requested to publish the decision of Mr. Arthur Beetham, of 14, South Square, Gray's Inn, Barrister-at-law, who has kindly given his opinion on the interpretation of the fifth section of the Coroner's Witnesses Act. It would be seen therefrom that Dr. Danford Thomas, about three years ago, and more recently Mr. Morison, Coroner for East Surrey, misinterpreted the language of the section when they refused to pay the fees which have been always paid

to the medical officers of workhouses and the workhouse infirmaries, which for the better treatment of the in-door sick poor were established under the provisions of the Metropolitan Poor Act, 1867. The following is a copy of the decision.

"14, South Square, Gray's Inn, 18th Dec., 1884.

"I do not think the fifth section of the Medical Act (Witnesses) applies to workhouse infirmaries. A workhouse infirmary may be described as a building or place belonging to the workhouse, and used for the reception of sick paupers; therefore, part and parcel of the workhouse. It would, therefore, not come under the term of a place attached to a hospital. It is decidedly not a public infirmary, or a medical institution, and is not supplied by endowments, and undoubtedly not by *voluntary* subscriptions. The question that remains so as possibly to bring it within the section, is: Is a workhouse a charitable institution? There is a case mentioned in Prideaux, vol. ii, 398, and reported in 28 L. J., *ex* 326, which is a case where a conveyance was made to trustees to build a workhouse, the contention being that it was a charitable institution, and came within the statute of mortmain; but it was held not to be within that statute, as there were no charitable uses. From that you will gather that an infirmary to a workhouse cannot be, if the workhouse itself is not, a charitable institution; neither can it be a public one, for the above reason. Whether it was or not contemplated to include institutions of this sort, at the time of the passing of the Act, is not of so much importance as whether the infirmary in question comes within the difinition of one of those institutions in which the officers are precluded from receiving fees. I am of opinion that such do not come within the fifth section. I should have wished to refer to Lumley's work, but we have not it in the library. The medical officers should sue in the county court. "(Signed) ARTHUR BEETHAM."

DUTY OF MEDICAL OFFICER OF HEALTH AS TO EXAMINATION OF INFECTIOUS PATIENTS.

SIR,—A letter, under the above heading, appears in your JOURNAL of December 8th, signed by J. U. P., intimating that some medical officer of health interferes with his patients, and even "frightens them." I am the medical officer of health for the district where a medical practitioner who bears the initials of J. U. P. resides; and if he allude to me in those charges which are brought forward in that letter, my answer is, that he is mistaken in his statement.

Thanking you most cordially for your remarks on that letter, and hoping you will allow this one to appear in your next issue.—Yours sincerely,

E. T. D.

LIABILITY TO DISEASE AT ALL AGES.

SIR,—I notice in your answer to J. S., on the "Liability to Diseases at all Ages," in the JOURNAL of November 22nd, that if the estimation of the duration of each case of severe illness is five weeks, 21 persons would be ill for each death. Where I am medical officer of health, we had, in 1877, 592 deaths with a population of 24,000. This would give 12,432 people as having been ill for a period of five weeks each during that year, or more than half the population. In 1883, with an estimated population of 26,840, we had 536 deaths, which signifies that 11,256 people were ill for five weeks each.

Should I be correct in assuming that, since there were 56 fewer deaths in 1883 than 1887, there were also 1,176 fewer people ill for five weeks? I am trying to get up a ladies' health society. Should I be correct in saying to them that, for every death that can be avoided by sanitary work and information given amongst the people, 21 people would be saved from an illness of five weeks' duration each? Does this calculation exclude cases of cold, etc., which only lay people up for a day or two? An answer will oblige.—Your obedient servant,

M. O. H.

*** Although it may be true, as was calculated by Dr. Farr, that, in any body of men, there are, on an average, two constantly suffering from severe sickness to each annual death, it would not be safe to assume that there would be 21 illnesses, each of five weeks' duration, to every death that might be "avoided by sanitary work." The proportion of cases of attack to deaths from zymotic diseases, judged by the statistics of hospital-treatment, averages about 15 to 1. It must not be forgotten that a very large proportion of incapacitating illness occurs among elderly persons, and is due to decay of nature rather than to the neglect of sanitation.

MEDICAL ATTENDANCE AT INFECTIOUS HOSPITALS.

SIR,—Will you kindly inform me if it is the duty of the local sanitary authority of a municipal borough to provide and pay for medical attendance to a hospital which is provided by the local sanitary authority during an epidemic of small-pox, or whether it is the duty of the medical officer of the district (that is, the parish doctor) in which the hospital is situated to attend them without any extra remuneration.—I am, etc.,

VARIOLA.

*** The arrangements for medical attendance at a hospital for infectious disease are matters for settlement at the discretion of the authority providing the hospital. They may either throw the hospital open to any medical man who chooses to follow his cases thither, or may place it under the superintendence of the medical officer of health, or may appoint a separate and distinct medical officer for the hospital. A good deal would, of course, depend upon the size of the institution. Clearly the corporation has no power over the parish doctor, who is the official of another body altogether, namely, the board of guardians. These queries are somewhat vaguely put, and there is always difficulty in answering hypothetical questions without a knowledge of the circumstances which have given rise to them. Perhaps our correspondent, if he be not satisfied, will put his inquiries in a more definite form.

PAUPERS IN HOSPITALS.

SIR,—In a borough of 15,000 inhabitants, is a small infirmary supported by voluntary subscriptions, and which has a staff of honorary medical officers. Some of the staff hold appointments as district medical officers under the "Poor-law," and it has been the custom to admit paupers into this infirmary, although there is in the same town a workhouse-infirmary. As paupers are sometimes occupying beds when other patients are waiting for admittance, the question has arisen, should paupers be admitted at all? Again, in cases of accident to paupers attended in this infirmary, would the district medical officer be entitled to the usual fee from the guardians? Again, would paupers be eligible as out-patients to be supplied with medicines at the expense of this infirmary? I shall be much obliged if you will be good enough to state in your JOURNAL what are the usual rules in such cases.—I am, sir, yours, etc.,

W. B. W.

*** Our correspondent has raised a subject of general importance, both to medical officers of voluntary hospitals, and of poor-law districts, and we will therefore proceed to answer his queries *seriatim*.

1. We hold that, having regard to the fact that there is a poor-law infirmary in this town to which pauper-patients could be sent, such class should not be admitted to this hospital at all, or only under very exceptional circumstances.

2. We doubt very much whether the fees that might be recoverable from a board of guardians, so long as the pauper was treated at home, would be paid by the guardians if the patient were sent into the hospital; and, in case of refusal, we are satisfied that the guardians would be supported by the permanent officials of the Local Government Board, who pretty generally settle all such matters without taking either the President's or Parliamentary Secretary's opinion thereon.

3. We see no reason why paupers should not be eligible as out-patients, and as such be supplied with medicines at the expense of the funds of the hospital, though there is nothing in the shape of any rule binding on the governors to provide the same. At the same time, we do but express our opinion, judging from the poor-law medical relief arrangements existing in the union, that there is small prospect of the pauper sick getting any medicine at all unless it be supplied from voluntary charity. We perceive that the workhouse medical officer receives the very munificent sum of £16 a year. There is clearly need for an independent hospital, when the legitimate wants of the pauper sick can be provided for.

MEDICAL NEWS.

UNIVERSITY OF CAMBRIDGE.—The following candidates have passed the Examinations for Medical and Surgical Degrees, Michaelmas Term, 1884.

First Examination for the Degree of Bachelor of Medicine.—Chemistry and Physics: H. K. Anderson, Caius; Anson, M.A., Trinity; Carling; Colbeck, Caius; Collins, Downing; Crosse, Cavendish; Crosskey, Trinity; Duigan, Christ's; Earl, Cavendish; Gamble; Gott, Caius; Grabham, Jesus; Hardy, Jesus; Lazarus, Downing; Low, Clare; Melsome, Queens'; Nix, Caius; Peat, B.A., Cavendish; Reeves, Caius: Russell, B.A., Trinity Hall; Shaw, Jesus; Shepheard, Cavendish; H. E. Smith, Caius; Smithson, Christ's; Stabb, Caius; Stokes, B.A., Pembroke; Usher, Caius; Wakefield, Trinity; Wilks, Caius; Williams, Trinity; Wingfield, B.A., Caius; Young, Caius. *Elementary Biology:* Adams, Peterhouse; C. H. Cayley, Pembroke; Chaplin, St. John's; Cobbett, B.A., Trinity; Crosby, Caius; Crosse, Cavendish; Day, Christ's; W. C. Devereux, Selwyn; Eccles; Elsmore, Christ's; Gamble; Hill, Jesus; Low, Clare; Low, Caius; Melsome, Queens'; Metcalfe, Trinity; Molson, Emmanuel; Peat, B.A., Cavendish; Russell, B.A., Trinity Hall; Smithson, Christ's; Walker, Pembroke; Wild, Jesus; H. Williamson, Trinity; Wingfield, B.A., Caius. *Animal Biology:* Adami, B.A., Christ's; A. H. Barker, B.A., Trinity; Barnett, B.A., Caius; Bratton, M.A., Caius; Brodie, Cavendish; Bromhead, Jesus; Case, B.A., Pembroke; W. Clarke, B.A., Cavendish; Courtney, B.A., Pembroke; Daggett, Caius; Dickson, B.A., Caius; Drabble, Caius; Edwards, Peterhouse; Fyffe, Caius; Goulston, B.A., Clare; Graves, Caius; F. P. Haviland, B.A., Pembroke; Hicks, B.A., Caius; Hicks, Cavendish; Jaques, M.A., St. John's; Johnson, Caius; Kerr, B.A., St. John's; Rendel, B.A., Clare; Ronald, B.A., Trinity; Scott, Peterhouse; Shaw, B.A., Caius; Stanley, Peterhouse; Taylor, Caius; Trevithick, B.A., Trinity; Tuppen, Caius; White, B.A., Clare; Wickham, B.A., Caius; A. S. Wilson, B.A., Pembroke.

Second Examination for the Degree of Bachelor of Medicine.—Pharmacy and Pharmaceutical Chemistry: Adami, B.A., Christ's; Arkwright, Trinity; Armitage, B.A., Trinity; Baker, Trinity; Barker, B.A., Trinity; Barnard, B.A., King's; Bickersteth, B.A., Trinity; Blaikie, B.A., Caius; Bradley, Caius; Bratton, M.A., Caius; H. T. Bulstrode, B.A., Emmanuel; Burd, B.A., Caius; Carey, B.A., Emmanuel; Carter, Pembroke; E. H. Cooke, B.A., St. John's; Cordeux, Caius; H. Cox, M.A., Trinity; Curwen, St. John's; de Jersey, Pembroke; Dewhurst, Trinity; Dickson, B.A., Caius; Donaldson, Caius; Dumergue, Corpus; England, Caius; Ferguson, B.A., Caius; Foster, B.A., Trinity; Goddard, Caius; Graves, B.A., Caius; Griffith, Downing; Hawkins, Caius; Hewer; Heywood, Trinity; Holden, Caius; Howard, Trinity; E. L. Jones; H. R. Jones, B.A., St. John's; Kerr, B.A., St. John's; D. A. Kidd, Trinity; King, B.A., Cavendish; Ledlie, Christ's; Lipscomb, B.A., Caius; Luard, B.A., Catharine; McConkey, B.A., Caius; May, B.A., Trinity; Mitchell, Trinity; Morrice, B.A., Trinity; Muir, Trinity; G. R. Murray, Trinity; Olive, B.A., St. John's; Parker, B.A.,

Catharine; C. S. Pollock, Trinity; Prowse, B.A.; Punch, St. John's; T. Redmayne, B.A., Trinity; Roberts, B.A.; F. E. Saunders, Caius; Shore, St. John's; Smyth, M.A., King's; Tatham, B.A., Clare; Weber, Trinity; Webster, B.A., Caius; Welsford, Caius; Wilde, B.A., Clare; Winfield-Roll, Christ's; Wyman, Trinity; Wynne, B.A., Catharine; Yeoman, Pembroke.

Human Anatomy and Physiology: Adami, B.A., Christ's; Beaumont, B.A., Downing; Blaker, B.A., Cavendish; Bromhead, B.A., Jesus; Cautley, King's; Cocksedge, M.A., Caius; Dickinson, Caius; Dutt, B.A., Corpus; England, B.A., Caius; Evelyn, B.A., Caius; Goodman, B.A., St. John's; Griffith, Downing; F. P. Haviland, B.A., Pembroke; Light, B.A., Clare: Luard, B.A., Catharine; Macdonald, Jesus; Miley, B.A., Trinity; Morrice, Trinity; Olive, B.A., St. John's; Rolleston, St. John's; Servaes, B.A., King's; Shore, St. John's; A. S. Taylor, B.A., Pembroke; A. H. Williams, B.A., St. John's; A. S. Wilson, B.A., Pembroke; Wynne, B.A., Catharine.

Third Examination for the Degree of Bachelor of Medicine: Part I.—J. M. Clarke, B.A., Caius; Griffith, Downing; Habershon, M.A., Trinity; G. D. Haviland, M.A., St. John's; Hillier, B.A., Caius; Musgrave, B.A., Magdalene; Piggott, B.A., Emmanuel; Reid, B.A., Cavendish; Ritchie, B.A., Trinity; Sherrington, B.A., Caius; Stericker, B.A., Clare; Turner; Weston, Caius.

Part II.—Emerson, B.A., Clare; Griffith, Downing; Habershon, M.A., Trinity; Knaggs, B.A., Caius; Lyon, M.A., Emmanuel; Rutherfoord, B.A., Caius; Sherrington, B.A., Caius; Styan, M.A., Trinity; Trott, B.A., Caius; Turner; White-Cooper, B.A., Trinity.

Examination for the Degree of Bachelor of Surgery.—Piggott, B.A., Emmanuel; Shaw, Sidney; Street, M.A., Trinity; Ritchie, B.A., Trinity.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 1st, 1885.

Ensor, Henry Collen, Guy's Hospital.
Hart-Smith, Franke Chamberlain, University College.
Michell, John Charles, London Hospital.
Thurston, Daniel, London Hospital.
Watt, Alexander Kinnear, Edinburgh University.
Wethered, Frank Joseph, London Hospital.

The following gentleman also on the same day passed the Primary Professional Examination.

Botham, Richard Henry, King's College.

In the Apothecaries' Hall Pass-list in last week's JOURNAL, for Stubbs, Percy Bedford Travers, St. Bartholomew's Hospital, read Stubbs, Percy Belford Travers, St. Bartholomew's Hospital.

MEDICAL VACANCIES.

The following vacancies are announced.

BOLTON INFIRMARY AND DISPENSARY.—Senior House-Surgeon. Salary, £120 per annum. Applications to Mr. Kevan, 12, Acresfield, Bolton, by January 10th.

BRISTOL GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £50 per annum. Applications by January 10th.

CRICKHOWELL UNION.—District Medical Officer, Medical Officer of Health, and Public Vaccinator. Applications by January 10th.

DONCASTER GENERAL INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £100 per annum. Applications by January 31st.

EPPING UNION.—District Medical Officer. Salary, £21 per annum. Applications by January 15th.

GATESHEAD DISPENSARY.—Assistant-Surgeon. Salary, £120 per annum. Applications to Mr. Joseph Jordan, Honorary Secretary, 2, Side, Newcastle, by January 24th.

GENERAL HOSPITAL, Birmingham.—Honorary Physician. Applications by January 24th.

GENERAL INFIRMARY AT GLOUCESTER, AND THE GLOUCESTERSHIRE EYE INSTITUTION.—Physician. Applications by February 18th.

INVERNESS NORTHERN INFIRMARY.—House-Surgeon. Salary, £50 per annum, and £15 as Medical Officer of Health. Applications by January 13th.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Salary, £80 per annum. Applications by January 23rd.

KIDDERMINSTER FRIENDLY SOCIETIES MEDICAL ASSOCIATION.—Assistant Medical Officer. Applications to Dr. J. W. Measures, 4, Lion Street.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—House-Surgeon. Salary, £52 10s. per annum. Applications to the Secretary.

NAAS UNION.—Medical Officer, Rathmore Dispensary. Salary, £140 per annum and fees. Election on January 13th.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, Soho Square.—Honorary Assistant Physician. Applications to the Secretary.

NORTHERN INFIRMARY, Inverness.—House-Surgeon and Apothecary. Salary £50 per annum. Applications to Kenneth MacDonald, Esq., Town Clerk, by January 17th.

PARISH OF LOCHS, near Stornoway.—Medical Officer. Salary, £150 per annum. Applications to the Inspector of Poor by January 10th.

PORTUMNA UNION.—Medical Officer, Portumna Dispensary. Salary, £112 10s. per annum. Applications to William Eyre, The Castle, Eyrecourt, by January 13th.

QUEEN'S HOSPITAL, Birmingham.—Casualty Surgeon. Applications by January 24th.

QUEEN'S HOSPITAL, Birmingham.—Resident Physician. Salary, £50 per annum. Applications by January 24th.

RADCLIFFE INFIRMARY, Oxford.—Honorary Physician. Applications by January 14th.

SOLWAY LODGE OF ODDFELLOWS, Whitehaven.—Medical Practitioner. Applications by January 17th.

SPALDING UNION.—Resident Medical Officer. Salary, £40 per annum. Applications to A. Maples, Clerk to the Guardians.

SUSSEX COUNTY HOSPITAL, Brighton.—Physician and Assistant-Physician. Applications by February 11th.

SUSSEX COUNTY LUNATIC ASYLUM, Hayward's Heath.—Junior Assistant Medical Officer. Salary, £100 per annum. Applications to Dr. Williams.

UNIVERSITY OF OXFORD.—Lecturer in Human Anatomy. Salary, £300. Applications to the Secretary of the Common University Fund, New College, Oxford, not later than February 1st, 1885.

WESTERN OPHTHALMIC HOSPITAL, Marylebone Road.—Assistant Surgeon. Applications by January 17th.

WEST LONDON HOSPITAL, Hammersmith, W.—Physician for Diseases of Women. Applications by January 29th.

MEDICAL APPOINTMENTS.

ARMSTRONG, James, M.B.Edin., L.R.C.S.Edin., appointed one of the Honorary Medical Officers to the Ladies Charity and Lying-in Hospital, Liverpool.

HARTT, Charles H., L.R.C.S.I., L.K.Q.C.P., L.M., Medical Officer of Health for Greenwich, appointed Medical Officer to the Miller Memorial Hospital at Greenwich.

MOORE, Thomas, F.R.C.S., appointed Surgeon to the Miller Memorial Hospital, Greenwich.

NANCE, H. Chester, L.R.C.P.Lond., M.R.C.S., L.S.A., appointed House-Surgeon to the Norfolk and Norwich Hospital, Norwich, *vice* D. D. Day, M.B., F.R.C.S., resigned.

SHAW, John A., M.R.C.S.Eng., reappointed Registrar to the Victoria Hospital for Children.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

MARRIAGES.

HENDERSON—BULL.—At St. Michael's Church, Highgate, on the 6th instant, by the Rev. Edgar Smith, Vicar of All Saints, Highgate, assisted by the Rev. D. Trinder, Vicar of St. Michael's, Alexander Milne Henderson, M.D., son of George Henderson, Whitecrook, Keith, N.B., to Florence, eldest daughter of Henry Bull, of Hazlemount, Hornsey Lane, N.

WALLER—PALMER.—On the 6th instant, at the Friends' Meeting House, Reading, Augustus D. Waller, M.D., son of the late Augustus Waller, M.D., F.R.S., to Alice Mary, second daughter of George Palmer, Esq., M.P.

DEATHS.

HAY.—On the 4th instant, suddenly, William Banks Hay, M.R.C.S. and M.D., of Aberdeen, L.R.C.P.Ed., of 1, Albion Street, Hull, aged 68 years.

PARRY.—On the 19th December, 1884, at his residence, Swan Hill, Shrewsbury, Edward James Parry, M.R.C.S.Lond., L.R.C.P.Edin., in his 75th year. He practised successfully for some years at Bridgnorth, Salop, and afterwards for twenty-eight years at Ballymenoch, Argyleshire, where he was presented, on leaving, with a handsome testimonial.

STUART.—At 4, Kyd Street, Calcutta, on 14th December, 1884, Dr. Kenneth Bruce Stuart, aged 49.

WAGHORN.—On 11th October, 1884, Matilda, wife of Surgeon-Major Henry Waghorn, Army Medical Department, Quetta, Afghanistan, from premature birth.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Heron will show specimens in pure cultivation of the "Comma-Bacillus." Dr. Samuel West: A Case of "Aphasia:" Lesion in the Supramarginal and Angular Gyrus.—Odontological Society of Great Britain, 8 P.M. Election of Officers and Council for ensuing year. Communication from Mr. E. A. Bogue, of New York. Mr. Storer Bennett: On Herlist's Method of Filling Teeth with Gold. The President will deliver his valedictory address.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Adjourned discussion on Dr. Kidd's paper on "The Distribution of the Tubercle-Bacilli in the Lesions of Phthisis." Dr. Kidd's specimens will be on view half an hour before the meeting.

WEDNESDAY.—Hunterian Society, 7.15 P.M. Council. 8 P.M. Dr. Radcliffe Crocker: The Internal Administration of Turpentine in Cutaneous Diseases.—Obstetrical Society of London, 8 P.M. Specimens will be shown by Dr. Edis, Mr. W. S. A. Griffith, Dr. Amand Routh, Dr. Heywood Smith, and others. Dr. William A. Duncan: On the Extirpation of the Entire Uterus.—Epidemiological Society of London, 8 P.M. Surgeon-General W. J. Moore: The Constitutional Requirements for Tropical Life, with especial reference to Temperaments. A meeting of the Council will be held at 7.30 P.M.—Royal Microscopical Society, 8 P.M. Mr. A. D. Michael: Notes on the Life-history of some of the little known Tyroglyphidæ. Mr. C. Thomas: On a New Species of Acineta.—University College, London, Medical Society, 8 P.M. Professor E. Ray Lankester: On Bacteria and Bacilli in their Relation to Putrefaction and Disease. The lecture will be illustrated by a large series of newly prepared diagrams. After the lecture, there will be a demonstration of micro-organisms and methods of cultivation.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

ARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., ; Dental, M. W. F., 9.30.

Y'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

NG'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

NDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

DDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

IVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

STMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

OPERATION DAYS AT THE HOSPITALS.

ONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

ESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 3 P.M.

EDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

HURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

RIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M. —East London Hospital for Children, 2 P.M.

TURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

MMUNICATIONS respecting editorial matters should be addressed to the Editor, 7 A, Strand, W.C., London; those concerning business matters, non-delivery f the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, trand, W.C., London.

order to avoid delay, it is particularly requested that all letters on the editorial usiness of the JOURNAL be addressed to the Editor at the office of the JOURNAL, nd not to his private house.

THORS desiring reprints of their articles published in the BRITISH MEDICAL URNAL, are requested to communicate beforehand with the Manager, 161A, trand, W.C.

RRESPONDENTS who wish notice to be taken of their communications, should uthenticate them with their names—of course not necessarily for publication.

RRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

BLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of ealth if they will, on forwarding their Annual and other Reports, favour us ith *Duplicate Copies*.

CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE RHYMING PHARMACOPŒIA OF AN AMATEUR PHYSICIAN.

SYDNEY SMITH was not only an Edinburgh reviewer, a canon of St. Paul's, and a country parson, but added to the duties of the latter capacity the accomplishments of an amateur physician. He had probably picked up a smattering of the art at Edinburgh. When incumbent of Foxton, a rather out-of-the-way village in Yorkshire, he kept in his parish-room a small village dispensary-chest. To the mixtures, pills, and liniments contained in it he applied grotesque but expressive names; for instance, "heart's delight, the comfort of all the old women in the village"; "the gentle jog, a pleasure to take it"; "the bull-dog, for more serious cases;" "Peter's puke," and "up-with-it," need no explanation; "rub-a-dub, a capital embrocation;" and "dead stop settles the matter at once." But he had a more exact knowledge of drugs than might be imagined from the above extracts; this is sufficiently shown by the following rhyming directions for filling a family medicine-chest, addressed from Combe Flory at a later period of his career to a lady named Howard. We quote from the *Life and Times of Sydney Smith*, recently published by Mr. Reid.

"With store of powdered rhubarb we begin;
(To leave out powdered rhubarb were a sin).
Pack mild magnesia deep within the chest;
And glittering gum from Araby the blest;
And keep, oh lady, keep within thy reach
The slimy surgeon, blood-devouring leech.
Laurel-born camphor, opiate drugs prepare,
They banish pain, and calm consuming care.
Glauber and Epsom salts their aid combine,
Translucent streams of castor-oil be thine,
And gentle manna in thy bottles shine.
If morbid spot of septic sore invade,
By heaven-sent bark the morbid spot is stayed;
When with black bile hepatic regions swell,
With subtle calomel the plague expel.
Anise and mint with strong Æolian sway,
Intestine storms of flatulence allay,
And ipecacuanha clears the way.
Soda and potash change the humours crude,
When hoven parsons swell with luscious food.
I know thee well, thou antimonial power,
And to thee fly in that heartrending hour
When feverish patients heave their laden breath,
And all is sickness, agony, and death!
Spare not in eastern blasts when babies die,
The wholesome vigour of the Spanish fly;
From timely torture seek thy infant's rest,
And spread the poison on his labouring breast.
And so, fair lady, when in evil hour
Less prudent mothers mourn some faded flower,
Six Howards valiant, and six Howards fair,
Shall live to love thee, and reward thy care."

[We have altered the position of one couplet which, in the version as published by Mr. Reid, had evidently become displaced.]

A CASE OF TYPHOID FEVER VERY SEVERE AND QUICKLY FATAL.

SIR,—A. L., a well developed and strong girl aged 13, a farmer's daughter, after eating dinner, on December 9th last, about 2 o'clock P.M., began to complain, about 4, of being, as her mother stated, heavy, and feeling a chill, and went to bed. Very soon afterwards, violent diarrhœa set in, accompanied by vomiting of matter somewhat similar to the ingesta taken as drink, which consisted of milk and water and new milk-whey. I was sent for in the evening, and saw the patient at about 12.30 A.M. The decubitus was dorsal; tongue very foul, and teeth covered with sordes. The pulse was imperceptible at the wrist, with a single heart-sound somewhat muffled and very quick. The skin of the chest showed a slightly rubeolar mottling. The pupils were so much dilated that the iris merely formed a linear circle, and was perfectly insensible to light, with great injection of the sclerotics. There was coma-vigil, with nervous or Cheyne-Stokes respiration, fifty per minute. The skin felt very hot; temperature, 105°. The abdomen was quite natural and flaccid. The patient, fully unconscious, was scarcely able to swallow even a teaspoonful of fluid. There was well marked subsultus and jactitations. To please her friends, though hoping against hope, I administered, after some attempts, a calomel and jalap powder, dissolved in a teaspoonful of water, applied a blister to the nape, with a large mustard-poultice over the heart and abdomen. After an interval of half an hour, I gave her half a teaspoonful of three-star brandy in water, which was swallowed with very great difficulty; soon afterwards, the breathing became quicker, and the sclerotics more injected. She also had half a teaspoonful of tartar emetic mixture (2 grs. to 8 oz.), once. Going from bad to worse rapidly, she died at 1.15 A.M. on the 10th. There being no necropsy, the deductions from this case must be hypothetical. The diagnosis above was arrived at from the fact of a servant-boy in the house being stricken down with typhoid fever, and, after three days' illness, being removed to hospital. Though the looseness of the evacuations, even though not bloody, was the only symptom specially characteristic of typhoid fever, still all the others were the usual accompaniments of aggravated cases of that disease.

As to typhoid fever being an endemic disease, I attended two families in the neighbourhood, about ten years since, attacked with a like virulent type of the disease in one family (the next), five were laid up; the father himself died of it at the same time. Though the above case was perhaps by no means unique, still I consider it slightly worthy of presentation to the readers of the BRITISH MEDICAL JOURNAL, as being certainly remarkable on the three following counts: 1st, the suddenness of the attack very soon after a meal; 2nd, the very great severity of the symptoms; 3rd, the rapidly fatal issue.—I am, etc.,

Kilmallock, Co. Limerick, Ireland. M. M. SHEEDY, L.R.C.P. and S. Edin.

A MEMBER'S question has been repeatedly answered in these columns.

REPRODUCTION OF LECTURE.

A VERBATIM report of Sir William Thomson's lectures at the Johns Hopkins University, United States, has been reproduced by the papyrograph plate process. A bibliography of the subjects considered will also be given with the lectures.

Coca in South America.

Sir,—The following extract from Dr. Hartwig's book, *The Tropical World*, may be of some interest now that cucaine is under discussion.—I am, sir, your obedient servant,

R. Eaton Power.

Portsmouth.

"Although but little known beyond the confines of its native country, coca is, beyond all doubt, one of the most remarkable productions of the tropical zone.

"The sultry valleys on the eastern slopes of the Peruvian and Bolivian Andes are the seat of the *Erythroxylon coca*, which, like the coffee-tree, bears a lustrous green foliage, and white blossoms, ripening into small scarlet berries. The leaves, when brittle enough to break on being bent, are stripped from the plant, dried in the sun, and closely packed in sacks. The naked shrub soon gets covered with new foliage, and, after three or four months, its leaves are ready for a second plucking, though in some of the higher mountain-valleys it can only be stripped once a year. Like the coffee-tree, the coca-shrub thrives only in a damp situation, under shelter from the sun; and, for this reason, maize, which rapidly shoots up, is generally sown between the rows of the young plants.

"The local consumption of coca is immense, as the Peruvian Indian reckons its habitual use among the prime necessaries of life, and is never seen without a leathern pouch filled with a provision of the leaves, and containing, besides, a small box of powdered unslaked lime.

"At least three times a day he rests from his work to chew his indispensable coca. Carefully taking a few leaves out of his bag, and removing their tendrils, he first masticates them in the shape of a small ball, which is called an acullico; then repeatedly inserting a thin piece of moistened wood, like a toothpick, into the box of unslaked lime, he introduces the powder which remains attached to it into the acullico, until the latter has acquired the requisite flavour.

"The saliva, which is abundantly secreted whilst chewing the pungent mixture, is mostly swallowed along with the green juice of the plant.....The taste of coca is slightly bitter and aromatic, like that of bad green tea, but the addition of lime, or of the sharp ashes of the quinoa, renders it less disagreeable to the European palate.

"It is a remarkable fact that the Indians, who regularly use coca, require but little food, and, when the dose is augmented, are able to undergo the greatest fatigues almost without tasting anything else. Professor Pöppig ascribes this astonishing increase of endurance to a momentary excitement, which must necessarily be succeeded by a corresponding collapse, and, therefore, considers the use of coca absolutely hurtful. Tschudi, however, is of opinion that its moderate consumption, far from being injurious, is, on the contrary, extremely wholesome, and cites the examples of several Indians who, never allowing a day to pass without chewing their coca, attained the truly patriarchal age of one hundred and thirty years. The ordinary food of these people consists almost exclusively of roasted maize or barley, which is eaten dry without any other addition; and the obstinate obstructions caused by these mealy aliments are obviated by the tonic effects of the coca, which thus removes the cause of many maladies.

"Tschudi often found the coca the best preservative against the asthmatic symptoms (it might be found useful in spasmodic asthma) 'which are produced by the rapid ascension of high mountains. While hunting in the Puna, 14,000 feet above the level of the sea, he always drank a strong infusion of coca before starting, and was thus able to climb among the rocks, and to pursue his game, without any greater difficulty of breathing than would have been the case upon the coast.'

"'So far for its use; the consequences of its abuse he gives as follows.

"'The confirmed coca-chewer, or coqueso, is known at once by his uncertain step, his sallow complexion; his hollow, lack-lustre, black rimmed eyes, deeply sunk in the head; his trembling lips, his incoherent speech, and his stolid apathy. His character is irresolute, suspicious, and false; in the prime of life, he has all the appearances of senility, and, in later years, sinks into complete idiocy. Avoiding the society of man, he seeks the dark forest, or some solitary ruin, and there, for days together, indulges in his pernicious habit. While under the influence of coca, his excited fancy riots in the strangest visions, now revelling in pictures of ideal beauty, and then haunted by dreadful apparitions. .....No historical record informs us when the use of coca was introduced, or who first discovered the hidden virtues of its leaves. When Pizarro destroyed the empire of the Atahualpa, he found that it played an important part in the religious rites of the Incas.....'"—*The Tropical World*, by Dr. G. Hartwig, page 184, 1881.

The King and Queen's College of Physicians and its Old Licentiates.

Sir,—Permit me to support the complaint of L.K.Q.C.P., 1868, which appeared in the Journal of November 29th. When I passed the examination at the College, I questioned the then president as to the precise meaning of the declaration I was required to sign; and, being assured that I was at liberty to dispense for my own patients, I signed. I now find myself in the unpleasant position of being unable to take that rank in the College to which I consider myself justly entitled, because of the impossible condition attached thereto. Having broken down from overwork in a large town, and not wishing to lead an entirely useless life, I am practising in a village where the nearest druggist is about four miles away; so that I am compelled to dispense. My neighbour in the next village, years younger than myself, is a member of his College of Physicians, and yet dispenses his medicines; and, in the nearest town, London M.Bs. and M.Ds. dispense, although there are druggists in the same street. Under these circumstances, we old licentiates feel we have ground for complaint; and, had we known, most of us would have hesitated before taking a diploma that bars our future collegiate progress, and places us at a disadvantage. Can nothing be done to remedy this injustice, and give us that position which we had every right to expect would be accorded to us when the new charter was obtained?—I am, yours faithfully, Another L.K.Q.C.P.I.

Himrod's Asthma-Cure.

Sir,—With reference to Himrod's asthma-cure, about which one of your correspondents was inquiring, the following is its composition as recently given in the *Therapeutic Gazette*: powdered lobelia, stramonium-leaves, nitrate of potash, and black tea, āā equal parts, mix and sift well.—I am, yours faithfully,

H. Rendell.

The Risk of Certifying Lunatics.

Sir,—It may interest some of your readers to study the subjoined form, propos by the late Dr. Joseph Bullar, of Southampton, and which he published 1865, as noted in the *Medical Digest*, Section 1390 : 2, where, for vol. ii, 1865, mu be read vol. i, 1865. I append a copy of Dr. Bullar's communication in full. Yours obediently, Richard Neale, M.D.Lond.

"Sir,—Some of your readers may wish to keep by them a copy of a form guarantee which has been drawn up by an experienced barrister, to be signed the solvent relatives of a lunatic who requires a certificate for an asylum. Aft being signed and witnessed by two witnesses, it should be sent, within a for night, to Somerset House, to be stamped. The stamp is sixpence.

"In a recent case in which I have used it, there was no difficulty in obtainin the signatures of the wife, two brothers, and two sisters of the lunatic.

"The risks are so considerable, that it is obviously prudent to take every pr caution; and, if you would give circulation to this form, you may confer a bene on some of your readers, and oblige, your obedient servant, Joseph Bullar M.D., Physician to the Royal South Hants Infirmary.

"Southampton, April 13th, 1865."

"To Dr. ——— and Dr. ———.

"Gentlemen,—We, the undersigned, having requested you to sign a certificat for the admission into a lunatic asylum of Mr. ———, of ———, whom w believe to be a person of unsound mind, who ought to be confined in an asylu for lunatics, do hereby, in consideration of your so signing the same, and pe mitting the same to be used at our request, agree and undertake as follows.

"First, to guarantee and save harmless you and each of you against all cost damages, and expenses of you or either of you, and all claims and demand against you or either of you, by reason of or touching your signing the sam certificate, or permitting the same to be used; and,

"Secondly, that you and each of you shall be completely indemnified by u against all the consequences of you and each of you so signing the same, an permitting the same to be used.

"Thirdly, we undertake to defend, at our own cost, any action, suit, or othe proceeding against you or either of you, touching or relating to that certificat or to the use thereof, or to the confinement and treatment of the said lunatic b reason thereof.

"As witness our hands this day of , 18 ."

Advertisements in Public Journals.

Sir,—I notice in the Journal, of December 20th, (p. 1263 *seq.*) that two member of the local (Bath and Bristol) Branch are to bring before the next meeting th question of "advertisements in public journals." Their energies are to b directed against pamphleteers only. Allow me, as an outside member of th profession, to bring before your notice the question of "advertisements in publi journals" of the names of surgeons and physicians connected with public in stitutions—our leaders (?) in the profession—the methods of advertising ou names in connection with tickets issued by our charities, hospitals, dispensaries etc., for which the profession at large has, by its work, to pay much too great price.

I am no advocate for unduly bringing our names into public notoriety; i other words, "advertising," and have never done so, at the same time I shoul hesitate to take up the part of "censor morum," unless I were tolerably wel sure that my eye was single. I would direct attention to the fact tha the name of one of our worthy honorary secretaries appears, and, I presume has appeared for years, in connection with the Bristol General Hospital.—I am dear sir, yours faithfully, J. Maunsell, M.D.

34, Henrietta Street, Bath.

Away from the Cholera-Scare.

Sir,—One cannot fully realise the absurdity of the cholera-scare until he has com abroad through the so-called infected districts.

I started from London on December 4th, and went through, without stopping to Amiens. There I stayed the night, and found all the people following thei usual occupations, except perhaps the unfortunate hotel-keepers. Next day went on through Paris to Marseilles, where the same conditions existed, an then crossed to Algiers. After spending a day or two in the suburb of Mustaph Supérieur, I came on to this place, not having experienced one minute's quaran tine or inconvenience the whole way. On the contrary, the journey was ver pleasant, for that usually crowded *route* from Calais to Marseilles was agreeabl deserted, and every one was most willing to serve and accommodate.

My objects in now addressing you are, first, to point out that the danger and inconveniences of travelling are quite imaginary; and, secondly, that it is great mistake to suppose that cholera has ever existed within two hundre miles of Algiers, or to a great extent in the large province of Algeria; and, even a Oran, 250 miles away, the cases were few and doubtful.

Here, among the mountains, with the fresh clear air, sunshine, flowers i bloom, and an average temperature of 55° to 60° Fahr., an almost pharisaic feel ing rises within me when I think of crowded London with its fogs, sleet, mud and rain, and the thermometer going down many nights to freezing-point. Th hotel here is more comfortable, living *en pension* reduced to ten and twelv francs per day, and the other arrangements have also improved since last winter —I am, sir, yours truly, Thomas D. Savill, M.D.

Hotel des Bains, Hammam Rirha, near Algiers.

P.S.—Those interested in the matter will find a short description of this health resort in the last volume of *St. Thomas's Hospital Reports*.

A Pharmacist's View of the Cholera-Epidemic.

A pharmacist's letter, quoted in the *Chemist and Druggist*, runs as follows.

"It is not at all such a source of profit to persons in my business as mer catch-cold weather. The undertakers do not even benefit by it, as the death rates, on the whole, are no higher; and the families of those who die of choler bury them as fast and as simply as they can. Where we recoup for the losse occasioned by its rapid mode of operating is in selling precautionary medicines Nearly everyone who can afford to buy anticholera drops, elixirs, and disinfect ing drugs, procures a store of them. The sale of phenol and mineral sulphate has been colossal ever since the epidemic broke out at Toulon. The sulphates o copper and iron are now the favourites; 50,000 francs' worth has been supplie to the police-stations for gratis distribution. Dr. Trousseau's cholera-drops costing two francs a small phial, are splendidly brisk in the market. Ladie can carry them about in their muffs, and business men in their breast-pockets without inconvenience."

Mr. G. G. Campion will find an article on the micro-organism of yellow fever, i the British Medical Journal of November 24th, 1883.

A Copy of Gerarde's Herbal.

Sir,--I have lately become possessed of a peculiar and interesting book, 4to size, 1,630 pages, title as annexed, and printed by Adam Islip, Joice Norton, and Richard Whitakers, anno 1633. Is it of value to any of the societies?—Yours,

T. P.

"The Herball, or Generall Historie of Plants. Gathered by John Gerarde, of London, Master in Chirurgie. Very much enlarged and amended by Thomas Johnson, Citizen and Apothecarie, of London. Anno 1633."

*** A correspondent writes: "I have in my possession a copy of the original unedited work of Gerarde, bearing the date 1597." In Bernard Quaritch's *Catalogue of Books*, 1874 and 1875-7, three editions of the *Herball*, edited by Johnson, are named; the dates are 1633, 1636, and 1640. The first appears to be identical with that mentioned by our correspondent. Of the original, it may be said that it is well spoken of and constantly quoted by Sir James Smith in his *English Flora*; and Dr. G. Johnston, in the preface to his excellent *Berwick Flora*, calls it "a book in which the botanical student will find much matter of amusement, and sometimes an excellence of description rare even in modern works." Gerarde describes the remarkable barnacle-goose superstition, declaring that he had seen the process of development of a gosling from a barnacle with his own eyes. He fell into error simply through imperfect observation. In the *Catalogue of the Library of the Royal Medical and Chirurgical Society of London*, where it appears that the Society possesses the 1640 edition, it is noted that the woodcuts in both Gerarde's and Parkinson's botanical works are almost identical, and are probably taken from Rembert Doedeus' or Dodonaeus' contributions to botanical science. "T. P.'s" copy would be a valuable acquisition to a medical or botanical library.

Prevention of Habitual Abortion.

Sir,—A lady, aged about 34, has had three miscarriages during a married life of little over two years. She is now about seven weeks pregnant, we suppose; a good deal of sickness is present. She is quite willing to be constantly on her back, and has a constant attendant in the shape of an experienced nurse.

My instructions, for the present, are that she is to pass her entire time between her bed and a sofa in a room in the same flat, walking from the one to the other till after quickening, that is, for the most, this month; and, further, that, at the time when she would have expected her ordinary illness, she is to remain in bed for four or five days entirely.

I have advised very plain food, with a limited quantity of animal food; and her husband understands that she is to undergo a temporary divorce.

Is this sufficient, or should she be kept in bed altogether? and for how long? and how long should her husband and she occupy separate beds.—I am, etc.,

J. G.

*** The treatment adopted is satisfactory. It might be useful to give small doses of opium at the menstrual epochs. We presume that iodide of potassium and mercury are not indicated, although "J. G." does not say there is no specific cause for the repeated abortions.

Coleridge and Opium.

Sir,—Your correspondent "D.," in the Journal of December 13th, is quite right in regarding Cottle's statement as incredible. ["Oh! Amos Cottle, Amos Cottle oh!" *Lord Byron.*] The statement is, "two quarts of laudanum a week to a pint a day," and the inference is, that Coleridge took these potions uniformly. I had the honour of knowing both Coleridge and De Quincey, and had more or less acquaintance with their habits. There was this difference between them as to their opium-eating; De Quincey was systematic to a degree, both when advancing from lesser to larger doses, and after Dr. Scambler's warning, when gradually lowering himself from the fatal quantity he had once reached. But Coleridge took his opium by fits and starts, as he did everything else, occasionally in such excess as to render him *hors de combat*. Take this incident for an illustration: Dr. Dibdin says he walked through sleet and snow to hear one of Coleridge's lectures on Shakespeare at the London Philosophical Society, and the lecturer never appeared. He had taken an unusual quantity, and forgotten all about the appointed lecture. When eventually the members of his family placed Coleridge as a boarder with James Gillman, a medical practitioner at Highgate, this man judiciously reclaimed the "old man eloquent" from opium-eating.—Yours truly,

Cornelius Nicholson.

Ventnor.

De Quincey as an Opium-Eater.

Mr. Payn, in his literary reminiscences, tells the following story. During his Cambridge career, he made the acquaintances of De Quincey, and in his account of this extraordinary man, tells how, lunching with the De Quinceys, "I was asked what wine I would take, and not caring which it was, I was about to pour myself out a glass from the decanter that stood next to me. 'You must not take that,' whispered my hostess, 'it is not port-wine, as you think.' It was, in fact, laudanum, to which De Quincey presently helped himself."

A Patent Medicine.

Sir,—Could any of your readers kindly inform me what the composition of Steedman's teething powders is, or if their administration is likely to be followed by dangerous symptoms?—I am, faithfully yours,

J. G. B.

Vivisection Literature.

M.B.—The following is a list of published literature on the subject of vivisection:—

Vivisection; What Good It Has Done, by Professor G. M. Humphry, M.D., F.R.S. *Address in Surgery*, by W. Bowman, (Hon.) M.D., LL.D. *What Has Experimental Physiology Done for Advancement of the Practice of Surgery?* by R. McDonnell, M.D., F.R.S. *Experiments on Life as Fundamental to the Science of Preventive Medicine, and as to the Question between Man and Brute*, by J. Simon, C.B. *The Value and Necessity of Experiments for the Acquirement of Knowledge*, by Samuel Wilks, M.D., F.R.S. *The Action of Remedies, and the Experimental Method*, by T. R. Fraser, M.D. *Experiments on Brute Animals*, by J. Cleland, M.D., F.R.S. *Speech Delivered in the House of Commons on the Second Reading of Mr. Reid's Bill for the Total Suppression of Scientific Experiments upon Animals*, by the Right Hon. Sir Lyon Playfair, K.C.B., LL.D., F.R.S. *The Utility and Morality of Vivisection*, by G. Gore, LL.D., F.R.S. These may all be obtained of Mr. J. W. Kolckmann, 2, Langham Place, W.

Filters.

Sir,—I would advise "W. H. B." to adopt the following plan with his Cheaving's filter: place it under the pump, and put a few crystals of permanganate of potash into the reservoir, and pump slowly, allowing the tap to run at the same time; continue to add the permanganate and water till that flowing from the tap is of a bright crimson colour, then continue to pump till the water comes through colourless. Mine has been in constant use five years, and with only one cleansing, as above. The water from it retains the pink hue on the addition of one minim to the ounce of a solution of permanganate of potash (gr. ii ad ℥xss), whereas the water, without filtering, requires three minims. Cheaving's filter has also the advantage of removing lead from water.

If "W. H. B." adopts the above plan, I should like to know the result, as I have had no experience of boggy water.—Yours truly, C. J. B. Johnson.

St. Helen's Cottage, Kirkby Overblow, Wetherby, Yorks.

Nurses.

Senex should apply to the Secretary of the Nightingale Fund for the Training of Nurses, at St. Thomas's Hospital; Mr. H. B. Carter, 91, Gloucester Terrace, Hyde Park; to the Westminster Training School and Home for Nurses, 8, Broad Sanctuary; the Cambridge Association for the Training and Employment of Nurses, 13, Fitzwilliam Street, Cambridge; or some other of the numerous nursing institutes.

The After-Treatment of Vaccine-Vesicles.

Sir,—In the Journal of Dec. 20th, page 1271, there is a short note, by Dr. Sinclair, on the after-treatment of vaccine-vesicles. As I have had considerable experience in connection with this subject, you will probably allow me to reply to his communication. In the first place, as regards vaccine-shields, I look upon them as a source of harm, and sometimes of actual danger to the children upon whose arms they are used; and, personally speaking, I do not know a single good point in their favour. The shield, to hold it in its position, has to be tightly tied round the child's arm, which constricts the circulation and produces more or less swelling in the immediate neighbourhood of the vesicles, and this, I need hardly say, it is most necessary to avoid. On the other hand, if the shield be not tightly fixed, it moves about on the arm, and its hard and dirty edges coming in contect with the vesicles, rub them into open sores, and probably inoculate them with impure discharge from another child's arm, as—and I make a strong point of this—in poor localities the mothers are in the habit of lending them to one another.

In respect to the other points touched upon, namely, the treatment of the vesicles; I always urge upon the mothers who bring their children to my station, on no account to use any moist application, but, on the contrary, to let them dry and form a natural scab; and if there be a tendency in the vesicles to "run," to dust them well with powder of oxide of zinc. In cases of tardy recovery, especially those associated with an eczematous condition, I find an invaluable remedy in the following ointment: unguentum hydrargyri ammon., ℥j, unguentum plumbi carbonatis ℥j; misce; fiat unguentum. Of this prescription, personally, I cannot speak too highly, for it rapidly promotes a healthy appearance in the vesicles. I shall certainly try Dr. Sinclair's suggestion respecting the use of blotting-paper; it has the strong recommendation of being one of those common-sense and simple plans of treatment which invariably in practice we find to succeed; and I hope he will give his consideration to the remarks I have made respecting vaccination-shields. I am confident, if he does, that in his observations he will soon encounter such serious results, clearly traceable to their use, as I have observed at my station, and that he will arrive at the same conclusion as myself, namely, that they are dangerous to the children, annoying to the medical man, and that the only individual benefited by them is the manufacturer of the article.—I am, etc., Enoch Snell, F.R.C.S.E., Public Vaccinator.

Nottingham.

Oleate of Copper in Ringworm.

Sir,—On December 4th last, I read a paper before the Willan Society on the use of oleate of copper in ringworm. I am surprised to read a note in the Journal of December 13th by Dr. Liveing, saying that "the results of treatment in his hospital-practice did not come up to his expectation." I have been using the drug for two years; and am so satisfied with the result, that I recommend it to my colleagues, who also express their satisfaction on trying it. But there are oleates and oleates, and impure oleate will irritate the skin. The oleate now made by a process of double decomposition is perfectly pure; and, in my opinion, a very reliable application in ringworm. I have never had complaints, either by hospital or private patients, from its use; and I have used it to some hundreds.

With regard to washing the head in ringworm, I agree with other writers that too frequent washings are not advisable, not for the reason stated, that they carry the spores about, but that any moisture is favourable to the growth of this phytiform parasite. I cannot agree with Dr. Liveing, for the same reason, that frequent washing of the head is a good preventive for ringworm. I should suggest that a little pure olive-oil, occasionally rubbed into the roots of the hair, with the addition of a little thymol or eucalyptol, is a better preventive. Hyposulphite of soda is a good application, and is one of the prescriptions of the *Skin-Hospital Pharmacopœia*, published in 1841, for the cure of ringworm; but, in my opinion, it is not equal in value to carefully prepared oleate of copper of 10 per cent. strength.

Oleate of mercury is a drug that should be used with caution, as it is liable to produce constitutional effects; at least, several instances have come under my notice when this drug has been used, producing salivation. It seems to me much more care should be taken by parents, schoolmasters, and mistresses, in preventing this troublesome affection from being spread in the wholesale manner it now is, at schools and in families, by seeing that the heads of children are more frequently examined, and at once isolated and treated. All brushes, towels, etc., should be carefully disinfected, and used by the patient affected only.—I am, sir, your obedient servant, James Startin, House-Surgeon and Lecturer

17, Sackville Street. to St. John's Hospital for Skin-Diseases.

A Subscriber.—1. We see no particular objection to the use of the word "oculist." As far as our experience goes, it is commonly understood in country districts to mean one who treats diseases of the eye—what, in more refined and scientific language, is called "ophthalmic surgeon." 2. We cannot explain the meaning of "heart-hives." It is probably a Scotch expression. 3. It is not usual, nor is it considered consistent with medical ethics, for a qualified medical man to advertise in shop-windows (for instance, in that of a druggist) that he gives advice to the poor gratis.

Medical Practice in the Argentine Republic.

The prospects of the medical profession in the Argentine Republic, as related in the *South American Journal*, are of an unusually satisfactory character; and in these days, when the cry of overcrowding is heard from every profession (and the medical profession is no exception), the following statements will be read with refreshing interest, and give to the despairing hope.

"All the medical men here are said to be making fortunes, and there is still room for 'healthy competition.'

"The ordinary charge for a consultation at a medical man's house is said to be two dollars (about 8s.); for a visit, four dollars, say 16s.; for attendance at confinement when all goes well, about £20; but when any special care or operation is required, these fees mount up to hundreds of pounds. Accounts for medical attendance are sent in and paid without remark, which would make the hair of a paterfamilias in the 'old country' stand on end. My friend mentions the following fees as having been lately obtained by doctors who, though of good standing, are not looked on as 'stars:' for extraction of ovarian tumour, £1,200; amputation of arm, principal, £600; amputation of arm, two assistants, each, £400; delivery with operation, £400; attendance during typhoid fever, £200; visit by a physician for dropsy, £50; consultation-fees, £20 and upwards.

"Much depends, of course, on the position of the patient, but there are sufficient wealthy people to make up for any small fees or gratuitous work which may have to be done among the poorer classes.

"Nor are we led to believe that there are any serious drawbacks to this pleasant outlook. The Argentine Republic, which, as is well known, comprises a vast area of fertile territory, extending from the tropics down to Cape Horn, with a firm and settled government, has a climate pronounced to be one of the most temperate in the world, and should be the healthiest; but, owing to defective sanitary arrangements, it is not so. Buenos Ayres, with a population of about 300,000, has a mortality of 33, which it may reasonably be expected will be considerably lessened in view of the extensive drainage and waterworks now in course of construction.

"Expenses are, of course, much higher in South America than in Europe, and it would be unwise to compare charges in two places without taking this into consideration.

"In the city of Buenos Ayres, there are said to be now practising about a dozen English-speaking doctors, all doing well. In other large cities of the interior and in the country, there are a good number to be found. But immigration is flowing into the country, and everything growing so fast, that there seems to be be no fear of overcrowding.

"Owing to the facilities offered in the government schools and universities, a young man in the Argentine Republic obtains a complete education free from all expenses in fees. The medical schools are well attended, and the natives prove apt scholars. The standard (so far as my friend can judge, he not being of the medical profession) seems to be as high as in European universities, and there are many Argentine doctors who would take a high rank in their profession in any part of the world. Besides these native-taught doctors, there are in practice in the Argentine Republic many medical men of every European nationality; and, at a first glance, one would think that the profession was rather overcrowded.

"However, when one sees that nearly all the doctors are making fortunes, and hears of the enormous fees which they can easily obtain, he perceives that there is still room for 'healthy competition.'

"The statements given above are confirmed by another correspondent, who states that a friend of his paid £100 for attendnace at the confinement of his wife; and adds that the charges by dentists are on a like magnificent scale, as much as £5 or £6 being paid for stopping a tooth. There, however, appears to be one important condition: before a doctor is allowed to practise in the Argentine Republic, he must pass an examination, and be licensed by the Government Medical Board; and before he can do this he must, of course, be master of the Spanish language. The population of the country is so cosmopolitan, that the more modern languages he speaks, the better will be his chances of success."

Carriages for Medical Men.

Sir,—I have frequently seen the question asked in the Journal, "What is the best trap for a country practitioner?" I unhesitatingly reply the single two-wheeled gig, but, unfortunately, these are not so comfortable as one would wish (at least the majority of them).

Requiring a conveyance, I, a few months ago, ordered a "Premier" gig, built by Messrs. Harrison and Brass, of Elgin, and find it to be highly satisfactory. It is the most comfortable carriage I ever sat in, being roomy, with a good rest for the back, elegant in appearance, yet strong and substantial, well balanced, and of light draught, while the springs are so constructed as to avoid any jolting, even over the roughest roads. For comfort and expedition in travelling, I do not know of its equal. I look upon it as *par excellence* the country doctor's trap.

—Yours, etc.,
D. Charles Cox.
Annan.

Lactate of Lead.

A correspondent wishes to know if any of our readers could inform him how the liquor plumbi lactatis is prepared, and how it is therapeutically administered.

Toronto University.—1. It is difficult to advise; the fees under such circumstances, would vary very much. £500 to £750 for the whole term would not be unreasonable. 2. Yes; it is customary to pay half fees, unless there be an arrangement for a fixed sum.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. D. Powell, London; Our Edinburgh Correspondent; Our Dublin Correspondent; Mr. T. M. Stone, London; The Secretaries of the Mahomed Memorial Fund; Mr. J. Armstrong, Liverpool; Dr. J. W. Moore, Dublin; Mr. H. C. Nance, Norwich; The Secretary of the Royal Medical and Chirurgical Society, London; Mr. P. B. T. Stubbs, London; Mr. H. Briggs, Liverpool; The Secretary of the Society of Arts, London; Miss Emily Hay, Hull; Messrs. Street and Co., London; Mr. J. Hamilton Croome, Edinburgh; Mr. J. Bautch, Beverley; Mr. R. Savage, London; Mr. W. Grant, Birmingham; Dr. George B. Monat, Cairo; Our Aberdeen Correspondent; M. G. H.; Surgeon-Major Hodder, Newry; Mr. Moore, Blackheath; Mr. F. M. McClement, Queenstown; Dr. F. C. Coley, Newcastle-on-Tyne; Dr. T. Palmer Stevens, London; Mr. Wm. J. V. Harle, London; Dr. Edward Seaton, London; Mr. Laurence Humphry, Cambridge; Mr. G. F. A. Harris, Calcutta; Mr. A. A. Woodson, Sheffield; Mr. Vere George Webb, Wood Green; Mr. C. Roberts, London; Mr. Oliver Pemberton, Birmingham; Mr. H. E. Waddy, Gloucester; Mr. J. Headley Neale, Leicester; Dr. Mulville Thomson, Newport; Mr. W. B. Walls, Pembroke; Mrs. R. Napper, Eastbourne; Dr. H. E. Galton, Gloucester; Mr. F. Thornton Macklin, Suffa, India; Mr. G. H. Kidd, London; Mr. Morrant Baker, London; Mr. H. P. Dunn, London; Mr. A. J. Pepper, London; Dr. J. Rogers, London; Dr. W. Alexander, Liverpool; Mr. William Donovan, Romsey; Mr. H. S. Branfoot, Brighton; Jeyes Sanitary Compounds Company; Mr. G. Terry, Mells, Frome; Mr. W. I. Keir, Melksham; Dr. Gordon, Glasgow; Dr. Donovan, Newbridge; Dr. Atthill, Dublin; Dr. Ward Cousins, Southsea; Mr. Duncan, Ottery St. Mary; Mr. Watson Cheyne, London; Messrs. Lebon and Co., London; The Secretaries of the Epidemiological Society; Mr. A. L. A. Eccles, Torquay; Our Liverpool Correspondent; Mr A. A. Bowlby, London; Mr. H. J. Moxon, London; The Secretary of the Royal Microscopical Society; Mr. Walter Whitehead, Manchester; Dr. J. Thorburn, Manchester; Dr. W. Roger Williams, London; Dr. R. Jeffreys, Chesterfield; Mr. J. W. Taylor, Birmingham; Dr. O. Sturges, London; Dr. O. Pemberton, Birmingham; Mr. R. F. Bell, Woolwich; Dr. Stevenson, London; Mr. D Hepburn, London; J. C. H.; Dr. R. Paramore, London; Mr. W. Thorburn, Manchester; Mr. D. Christie, Carrigart, co. Donegal, Mr. M. Smale, London; Mr. J. Beatty, Dublin; Mr. A. H. Haggard, London; Dr. J. J. Charles, Cork; Dr. M. Thompson, Newport; Mr. H. A. Powell, Beckenham; Mr. G. P. Atkinson, Pontefract; Dr. C. Wylie, Skipton-in-Craven; Dr. W. G. Walford, London; Dr. J. Lindsay Steven, Glasgow; Mr. S. D. Clippingdale, London; Mr. F. S. Goulder, Dudley; Mr. S. A. Tidey, London; Miss Emily Corlwell, London; Dr. W. H. O. Sankey, Baschurch; Mr. W. H. Cole, Ashford; Dr. de Valcourt, Cannes; Mr. J. J. Emerson, Alfreton; Dr. R. Wyckoff, Brooklyn, New York; Dr. Percy Boulton, London; Dr. James Ryley, Great Yarmouth; Our Belfast Correspondent; Our Manchester Correspondent; Dr. H. Corby, Cork; Mr. S. Rogers, London; Mr. H. W. T. Ellis, Crombe: Messrs. Oppenheimer, Brothers and Co., London; Mr. H. Miley, London; Dr. Illingworth, Accrington; Dr. N. P. Walker, Vienna; Dr. Charles Richet, Paris; Dr. Alder Smith, London; Mr. J. B. Martin, Ventnor; Mr. Chauncey Puzey, Liverpool; Mr. W. Austin, London; Mr. A. N. Godby Gibbs, Bristol; Mr. F. W. Humphery, Winchester; Dr. W. H. Drosier, Cambridge; Mr. Percy Downes, Hull; Mr. S. Philpot, London; Mr. C. C. Whitefoord, London; Mr. Walter Rivington, London; Dr. R. S. Archer, Liverpool, etc.

BOOKS, etc., RECEIVED.

An Introduction to the Study of the Diseases of the Nervous System. By T. Grainger Stewart, M.D. Edinburgh: Bell and Bradfute. London: Simpkin, Marshall and Co., and Adams and Co.

Transactions of the Medical Society of the State of Pennsylvania. Philadelphia: Collins, printer, 705, Jayne Street.

Fifth Annual Report of the State Board of Health, Lunacy, and Charity, of Massachusetts. Boston: Wright and Potter Printing Company.

Charley Kingston's Aunt. By Pen Oliver. London: Macmillan and Co.

The Care of Infants. By Sophia Jex-Blake, M.D. London: Macmillan and Co.

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THE BROWN LECTURES ON PATHOLOGY.

Delivered at the University of London, December, 1884.

By VICTOR HORSLEY, B.S., M.B., F.R.C.S.,
Brown Professor of Pathology to the University.

It having fallen to my lot to deliver the annual course of five lectures on Pathology, prescribed by the conditions of the will of the late Mr. William Brown, I originally chose as my subjects three topics of practical surgical interest, namely, the operative treatment of goître, simple traumatic pyrexia, and urethral fever. The issues hanging upon that now much debated question, the surgical treatment of goître, are really so wide, that experimental research soon showed the necessity of a greater breadth of view; and thus it comes about that I am prepared, in my first two lectures, to support the dictum (first completely enunciated by my friend, Dr. Felix Semon) that cretinism, congenital or acquired myxœdema, and cachexia strumipriva, are merely phases of one and the same state, and due to the same cause, namely, arrest of the function of the thyroid gland. I have artificially produced myxœdema in the monkey, and therefore hope to show you, in the following lectures, that the evidence in favour of the foregoing dictum rests on a sound basis of experimental fact. In my third lecture, I shall treat of the etiology of traumatic fever, as illustrated by the pyrexia following simple fractures; and in my fourth, I shall consider the varieties and pathology of urethral fever, so called. The fifth lecture will be delivered at the Brown Institution, and will be a practical demonstration of the working of that laboratory and hospital, as directed in the provisions of Mr. Brown's will. Further notice of this lecture will be given on the evening of the fourth lecture.

Lecture I.

The Thyroid Gland: its Relation to the Pathology of Myxœdema and Cretinism, to the Question of the Surgical Treatment of Goître, and to the General Nutrition of the Body.

Various as have been the surmises as to the function of the thyroid gland, it is not a little surprising that, although arrest of it had been vaguely known for hundreds of years to be connected with the cretinous state, it was not, until eighteen months ago, that it was suspected to be of serious importance to the animal economy.

The extraordinary condition, known as cachexia strumipriva, into which patients relapsed, in whom the operation of extirpation of goîtres had been performed, was first discovered and published by the Swiss surgeons, Reverdin (quoted by Kocher; see foot-note, p. 274) and Kocher (*Archiv für Klin. Chirurgie*, Band xxix, p. 254, 1883); and the pressing need of settling the practical question of the justifiability of this surgical procedure has led to new discoveries in the relation of the thyroid body to the general nutrition of animals.

We are, consequently, able to study the w[illegible]bject from the scientific stand-point of facts, deduced from exact experiment, and I shall arrange the matter of these lectures in the following way.

First, I must very briefly allude to the anatomical position and structure of the thyroid body; secondly, various theories concerning its function, which have been put forward up to 1883, must be passed in review; thirdly, I shall fully describe the phenomena which follow the excision of the gland in the higher animals; next, the relation of the gland to the pathology of myxœdema, cretinism, and cachexia strumipriva; while, fifthly and lastly, will come the practical surgical point, namely, the operative treatment of goître, with a fitting summary of the foregoing facts and arguments.

Structure.—The thyroid gland consists as is well known, of a bilobed organ, surrounded by a fibrous capsule, with trabeculæ of connective tissue derived therefrom, penetrating the interior of the mass, and forming a stroma with large alveolar spaces. The stroma demands special attention, since running in it is so rich a network of blood-vessels and lymphatics that the sum of the sectional area of the thyroid arteries is more than half that of the cerebral arteries, as you see by the transverse sections of these vessels, which have all been distended at exactly the same pressure, and afterwards dried; while the lymphatics have been shown by Frey (Communication to Medical Society of Turin), Boéchat (*Recherches sur la Stricture Normale du Corps Thyroide*; Paris, 1873), and Baber (*Proc. of Roy. Soc.*, vol. xxiv, p. 240), to form huge lacunar spaces immediately outside the margins of the alveoli. But also must be noticed the large lymphatic nodules lying along the blood-vessels, as they will be shown to play an important share in the formation of the blood. Hitherto the nerve-fibres, coursing in the meshes of the stroma, have not been shown to be more than vaso-motor in function.

It is, however, to the acini of the gland (for gland we ought to call it, it seems to me, in view of most recent researches) that I wish to draw especial attention. It is only necessary to mention that, in development, the thyroid follows a course exactly similar to that of a racemose gland, for us to remember that belief in the intercommunication of the acini is still held by Virchow and Boéchat (*loc. cit.*), although the anatomical proof of such communication, by means of injection, etc., is still wanting. It is interesting to couple with this idea the statements of the older writers, especially Theophile de Bordeu (*Rech. Anatomiques sur la Position des Glands et sur leur Action*; Paris, 1751) and Ricou (*Recueil de Mémoirs de Méd. et Pharm. et de Chirurg. Militaires*, July, 1869), who believed that they had discovered slender ducts leading from the gland into the mucous membrane of the trachea, according to the former, and of the larynx, according to the latter.

Whether the notion of the acini all forming part of a ductless racemose gland will be proven or not, it does not alter the claim of the thyroid to be regarded as a gland, anatomically speaking; since, apart from the evidence of development, we have cavities lined with an epithelium, columnar in an early stage, and later cubical, the walls of the cavities surrounded by a rich capillary network, while the lumina of the acini contain a glairy fluid containing mucin, according to Kühne and Eichwald (*Lehrbuch der Physiolog. Chemie.*, 1868); while Gorup-Besanez states that, although very similar, it yet differs from mucin in being soluble in acetic acid. Everything seems to favour the view advanced by Baber (*loc. cit.*), with many authors, namely, that the mucinoid contents of the acini are excreted from the blood by the lining epithelium, and that reabsorption into the circulation is effected by means of the large lymphatics.

Function.—We must leave for a moment the argument respecting the excretory function of the thyroid gland until the second lecture, when we shall have seen the results of extirpation.

Two further distinct views respecting the functions of the thyroid gland have been advanced by different writers, arguing from different points of view; first, that it was a regulator of the cerebral circulation; and, secondly, that it secreted something necessary to the perfect nutrition of the brain. The first of these was originally advanced by Mr. Simon, but is generally attributed to Liebermeister and Guyon, and rested partly on the anatomical relationship which the gland bears to the carotid arteries in the human being; it also found support in the exceedingly elaborate researches of Mr. Simon, who found that, in all vertebrates which he examined, it was in close relation to the cerebral arteries. Guyon, relying on the fact that the pulsation of the carotidean branches disappears on prolonged effort, believed that this was beneficial to the central nervous system, by diminishing the flow of blood in those parts where venous stasis of course was already occurring from the prolongation of the effort; and considered it to be effected by the pressure of the thyroid gland on the common carotid artery, such pressure being produced by the contraction of the neck-muscles upon it. The physiological fact of the diminished pulsation in the carotid arteries anyone can at once confirm by experiment, but the explanation given above must be criticised by means of experiment in persons or animals deprived of their thyroid gland.

The argument is sometimes adduced that the blood-supply in the thyroid and brain are nearly equal, as I have just shown you; but this, of course, has no value; for, to imagine a paradoxical converse, the brain might be regarded as a mechanical regulator of the circulation in the thyroid gland. Luschka, indeed, regarding it as a mechanical structure, considers it to act as an elastic bolster, keeping off the pressure of the muscles from the important structures.

The idea that it may secrete something peculiarly necessary to the nutrition of the brain arose with Mr. Simon (*loc. cit.*); but, as will be shown, although profound changes occur in the nervous system, still the whole body is affected (whether secondarily or not is uncertain), so that we must rest content with simply stating the view expressed without further comment.

An idea, which scarcely can be considered as ever formulated into a definite theory, has from time to time been put forward, namely, that the thyroid gland is, in some way or another, hæmatopoietic. I must consider this point at length in discussing the course of the

oligæmia produced by thyroidectomy, and only now refer to the existence of lymphatic nodules (which were described above) as lending support to this notion.

So much for what was known and surmised up to 1883. I shall now proceed to lay before you evidence that this highly vascular mucin-excreting gland has a far wider relation to our general health than is even suggested in the foregoing theories.

Effects of Excision.—This brief retrospect of our knowledge up to last year will serve as an introduction to the next question, namely, what happens if you remove the thyroid body completely.

Kocher (*loc. cit.*) has shown that, under these circumstances, the human being becomes a cretin. Schiff (*Revue Médicale de la Suisse Romande*, February and August, 1884), Wagner (*Wiener Medicin. Blätter*, 1884, Nos. 25 and 30), and the Italian experimenters, Sanquirico and Canalis (*Archivio per le Scienze Mediche*, vol. viii, Fascic. 2, Turin, 1884), have shown that dogs exhibit great nerve-disturbance, become idiotic, and die comatose; while I think I shall be able to demonstrate, from my observations during the last three months, that this operation produces, in monkeys, the disease first accurately described by Dr. Ord (*Medico-Chirurgical Transactions*), and called by him myxœdema. I shall afterwards attempt to show that this is only a phase of a loss of nutrition determined by the destruction of the thyroid gland, and, like cretinism, is the effect of some as yet undetermined law. I wish here to state that, during the first few days, I enjoyed the collaboration of Mr. Godlee, who was unable to continue the research, owing to numerous engagements, and that the first four experiments were thus begun with him.

A few words are absolutely necessary regarding the details of the experiment, as futile discussion has arisen from want of knowledge on this point.

From a frozen section of a normal Macacque monkey's neck, you will see that the thyroid body rests in a mass of fat and connective tissue, forming the so-called outer sheath or false capsule; and that it is separated by a considerable distance from the jugular vessels and nerves. The steps of the operation obviously had to be conducted so as to ensure healing by the first intention, and the avoidance of injury to, or irritation of, nerves; therefore it was performed under strict antiseptic precautions, and in the following way, the animal being under ether. The superficial structures were divided exactly in the middle line, and the sterno-hyoid muscles separated and held aside gently, while the fascia covering the isthmus was divided with the knife. The isolation of the isthmus was effected by a blunt instrument, a seeker, and a loop of catgut was passed beneath it to produce traction when required. The separation of the false capsule was then cautiously performed by holding the gland in forceps, and stripping off the tissues with the seeker or forceps. In this way, the gland was completely enucleated, except where the arteries entered. To avoid ligaturing these, they were seized in forceps, and torn out of the gland, so that the rupture prevented hæmorrhage; and, as it occurred in the gland, the proximal portion of the trunk, with its surrounding nerves, was left uninjured. In all my experiments, I have only seen the thyroid arteries spirt three times, and this would, therefore, seem a practical means to adopt when one-half of a goître has to be excised; all bleeding stopping in a few seconds with light pressure of carbolised wool, no ligature was ever employed. The total bleeding was usually not more than half a drachm to a drachm. The wound was then completely closed with, usually, fifteen horsehair-sutures, and dressed with a small piece of dry gauze and collodion. It was invariably healed absolutely in three days; and, as the seat of operation could be handled on the second day without the animal appearing disturbed, I think we may assume that it practically suffered no pain.

Post mortem observation showed that the gland was always completely removed, and that in no case was there any injury to the recurrent laryngeal nerve, the only one lying within two millimètres of the gland. In fact, as you may see in the specimens under the microscope, the sympathetic and other structures are perfectly normal; so the theories which would base the pathology of myxœdema on a primary disease or injury of the sympathetic, are, to my mind, inadequate.

Schiff's first series of experiments was performed septically; the wound was often not healed at the death of the animal, so that they cannot be accepted as trustworthy; but his second series, he states, was performed antiseptically, and although the duration of healing is not mentioned, I think we may assume that it was rapid; and it is these experiments that I shall quote. Wagner (*loc. cit.*) and the Italians (*loc. cit.*) obtained union by the first intention; and as they simply confirm Schiff (*loc. cit.*), I shall quote all together in comparing the results obtained from dogs with those seen in monkeys and man.

The phenomena which follow thyroidectomy in monkeys are very striking, and may be summarised as follows. At a variable period after the operation, but averaging about five days, the animal is found to have lost its appetite for a day or two, and, on closer examination, to exhibit slight constant fibrillar tremor in the muscles, of the face and hands and feet more especially. These tremors disappear at once on voluntary effort. At the same time, the animal is noticed to be growing pale and thin, in spite of the appetite returning quickly, with great increase; rapidly the tremors increase, affect all the muscles of the body without exception; the animal becomes languid, paretic in its movements, and imbecile. Then puffiness of the eyelids and swelling of the abdomen follow, with increasing hebetude. During these last stages, the temperature, gradually falling, becomes subnormal; and then the tremors gradually disappear as they came. Meanwhile, the pallor of the skin often becomes intense; and, leucocytosis having been well marked, oligæmia follows, and the animal dies perfectly comatose in a variable period, but usually about five or seven weeks after the operation.

I will now describe these symptoms in detail before enumerating the appearances found after death. It will have been noticed that the most obvious effects arise from disturbance of the nervous system; and, therefore, we will take the motor symptoms first.

In the dog, these are almost exactly similar to what I have described, but beyond that, in that animal, they are usually paroxysmal, and very frequently tetanic, we have no further information as to rate, etc. Wagner (*loc. cit.*), however, distinctly observed them to commence by fibrillation, and then by clonic spasm to pass over into tetanus and rigidity.

The same condition was observed in cats, but proceeding much more rapidly.

In the monkey, I have found that, as a rule, the animal, after complete thyroidectomy, appears perfectly well for (on the average) about five days. Then there is noticed a slight fibrillation of the intrinsic muscles of the hands, feet, and jaws, following this order in successive invasion. As a rule, this fibrillation soon becomes a constant tremor, a tracing of which I now show you. (Fig. 1.) You will see that it is perfectly

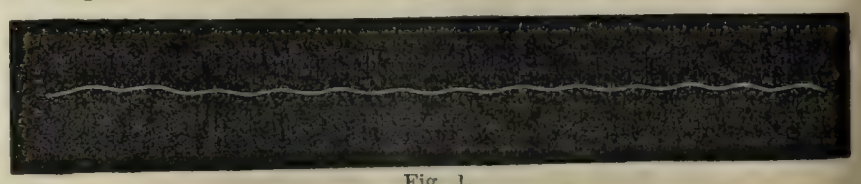


Fig. 1.

steady, and having a wave-rate of 8 to 10 per second; in passing, let me first show you the tracing (Fig. 2) of ankle-clonus in a man suffering from caries of the spine, which is of exactly the same rate. I shall return

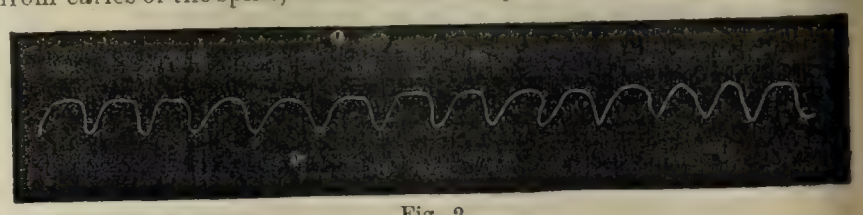


Fig. 2.

to this point directly. Occasionally, the tremor commences immediately after the operation, as will be shown presently. (Fig. 3.)



Fig. 3.

This constant tremor is soon replaced, or rather is added to, by a series of powerful clonic spasms, so that a tracing (Fig. 4) now shows large waves indicating massive movements of the trunk and limbs. Superposed on these large waves, we see a fairly constant tremor forming little undulations, the lengths of which vary from the rate just given to double and even treble that speed, usually 20 to 40, multiples of 4 and 10.

I shall refer to the large waves as paroxysms, since you can see by this tracing that the intervals between them are often very considerable, namely, half a second or more. This paroxysmal stage usually appears about the second or third day after the tremors were first noted; but they rapidly (in twenty-four hours) completely shape the curve in the way just indicated, which it preserves on the average for about twenty days. This stage of the tremors may be so violent

as to deserve the term convulsive; but I have never witnessed true tetanus in the monkey as it occurs in the dog, nor have I ever seen the spasms produce pain, as in the latter animal.

I now show a tracing where the spasms are very violent (Fig. 4). You

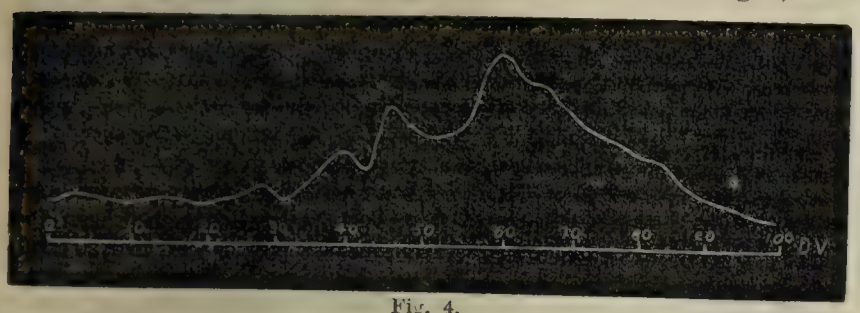


Fig. 4.

will notice that, although the contraction is powerful, the rate is 20 per second, and that the tonicity of the spasm (producing what I may call the "tetanoid paroxysm") is due to the summation of the effects of four waves as a rule. The force of individual contractions is variable, but always greatest during a paroxysm, and least immediately afterwards.

There is, apparently, an important point of difference between the dog and the monkey; namely, that it is the rule in the former animal for death to occur when the tetanic paroxysms are often at their height, while invariably, in the latter animal, they gradually fall in force, reassume the type seen at their onset, and disappear sometimes as much as ten days before death. Hence, if ordinates represented force and abscissæ time-intervals, a curve representing the tremors would show a rapid rise, then a constant pause, followed by a gradual fall.

It would require much more minute analysis than I have been able to give the time for, to elucidate the origin of these tremors; but a very cursory observation shows the subject to be one of immense importance, as tending to explain, not the pathology of occasional fits of trembling, such as a rigor, etc., but, what is of infinitely more importance, the causation of a constant tremor, such as in paralysis agitans. I here show you a tracing (Fig. 5) from a well marked case of the

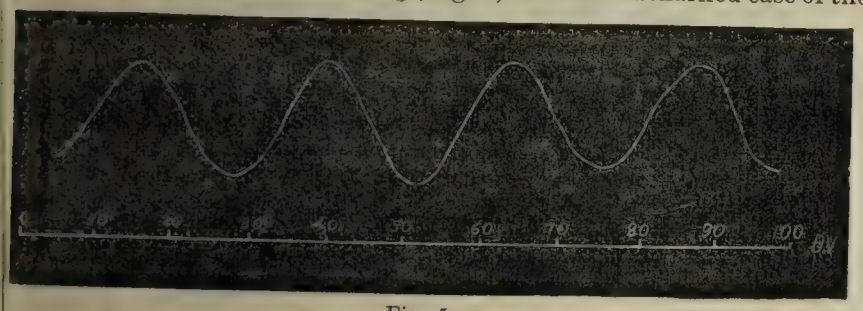


Fig. 5.

remor of paralysis agitans, kindly sent me by my friend Dr. Beevor, rom which you will see that we have to do with a violent tremor, the ate of which is half as rapid as ankle-clonus or the early tremors I ave shown you. Consequently, the wave-rate is 4 or 5 in a second. But I have found, in further observation, that there are frequently ndications of each wave being a compound of two, so that the customary ate of 8 or 10 in a second is still shown to be the common one. But the eld of observation does not, of course, rest with paralysis agitans, lthough I have only time to refer to that disease. Those familiar ith paralysis agitans would have seen many similarities to it in these remors; and, in connection with them, I may now mention that, lthough so-called voluntary effort abolished the tremors at their nset, it, if anything, increased them in the later stages. Then, gain, Wagner has noticed retropulsion, which is an extremely sug- estive observation, but one I was not able to confirm; but future re- earch will be directed especially to elucidate this subject.

The origin and seat of these tremors must now be discussed very riefly.

Schiff showed, by division of the motor nerves, that the tremors ere probably of central origin. This I have confirmed; but it has nly been possible to make one experiment on this point, namely, to .tempt to determine whether the stimulus affects the cortical motor ea, the bulb, or the spinal cord. In one case, I removed the upper nb-centre in the cortex, producing absolute brachioplegia, but ithout interrupting the tremors, as you see in this tracing (Fig. 3). The gument in favour of the symptom being due to disturbance of a wer centre in the bulb, or spinal cord, or basal ganglia, gains pport from the fact that, at first, voluntary effort abolishes it; that e inhalation of ether increases it; that it disappears on reflex irritation; and that the rate is at first 8 or 10 per second, and, later, a multiple of that; while it happens to be the rate which Lovèn has determined for the spinal cord in frogs, and, I have shown you, is probably the spinal cord rate in man. These experiments, however, do not disprove the possibility of these tremors being idiomuscular.

During the whole time that the animal is the subject of these tremors, there is marked rigidity of the affected muscles, and also paresis. The rigidity varies directly as the force of the tremors; but the paresis commences gradually, and progressively gets worse up to death. Occasionally the animal will appear to recover power slightly, and to be more active; but, as a rule, they steadily grow weaker.

Almost complete paralysis of the extensors of both limbs, but especially the upper, I have frequently observed; but it is never absolute, although the appearance of wrist-drop may be excessively marked. The ordinary paralytic posture of the hand is also very commonly to be noticed. A most interesting fact I have twice observed, namely, a complete attack of hemiplegia. In the best marked case, the animal presented every classical symptom. The onset was very sudden, the animal being weak, but in possession of equal motor power on the two sides, when it suddenly fell over, and was found to be absolutely paralysed on the left side (the right side was in a state of paresis, but this was



Fig. 6.

so before the attack). Rigidity was well marked; but the tremors almost entirely disappeared from the left limbs, though not from the jaw-muscles. The animal was perfectly conscious and normally emotional. In an hour, these symptoms disappeared, and the tremors became very marked. It was clear that this was an attack of functional hemiplegia, and the *post mortem* examination some days later proved it to be so.

Although we see such profound alteration in motion, the same cannot be said of sensation. It is never easy to determine the sensibility to touch in animals, or, for the matter of that, their appreciation of pain; but, from continued observation, I believe that only during the most advanced paroxysmal stage is sensation affected—perhaps delayed; and at the same time there is slight anæsthesia, but this is very incomplete.

Reflexes. Superficial.—These are diminished, with tactile sensibility; the conjunctival remaining normal. *Deep.* The knee-jerk was always marked when rigidity did not prevent its exhibition. Ankle-clonus I never succeeded in eliciting.

Centres.—The spinal lumbar centres all act normally; although, of course, in the final comatose stage, the bladder becomes overdistended, unless attended to.

I have never seen permanent bulbar symptoms, and none to indicate irritation of the general vaso-motor centre, but have observed transient difficulty of swallowing, and, as will be described directly, occasionally slight attacks of dyspnœa.

I have purposely postponed the consideration of the affection of the higher functions of the cortex cerebri until now, because, although most important, they vary directly with

the degree of severity of the foregoing symptoms. Briefly, they may be summed up as the slow onset of hebetude, terminating in complete or partial imbecility. From these lantern-photographs, the change from the well known vivacious condition of the healthy monkey is very obvious, while in this one (Fig. 6) is shown a remarkable position, which is quite characteristic, and which the animals assume in the advanced condition of imbecility following the operation. In this state they take no notice of anything going on around, and only rouse up to eat.

The same listless air is observable in severe cretinism, and, through the extreme kindness of Mr. Lunn, I had the opportunity of seeing in Marylebone Infirmary an advanced case of myxœdema assume a closely similar attitude and expression. There is little change in the emotions, except that the animals are easily enraged in the same way as idiots. There is almost complete so-called inhibition of voluntary power, as will have been seen from the foregoing facts.

Among the rarer symptoms, the importance of which will be seen hereafter, were occasional attacks of dyspnœa, never very urgent, nor occurring more than twice in the same individual.

Peripheral Nervous System.—The pupils always reacted normally.

To trace the remaining symptoms, we must describe the changes in the functions of the various systems, and will begin with the circulatory.

Circulatory System. — The blood-pressure steadily falls from the time of the operation, and shortly before death, is scarcely more than two or three millimètres of mercury; but the most noteworthy changes are those in the composition of the blood. Starting with a normal average of 61 in the field, the number of the red corpuscles steadily decreased from the time of the first operation to 48 (average) at the end of the first fortnight. About this time, it apparently found an equilibrium; and though, of course, a state of oligæmia, it remained at this point, or with very slight rise (to 50), until death. But, while the red corpuscles were diminishing, the white were increasing. The normal average number in a field being 4, it rose in a fortnight to 14; then, in concert with the oligæmia, it steadily diminished till death, even slightly below the normal.

In the course of very numerous observations with Gowers's hæmacytometer, I have come to the conclusion that it does not give safe results concerning the proximate number of white corpuscles, when these are only counted by means of squares. I have taken the average of ten fields, which I find more accurate; and remembering that it gives about three or four per cent. higher estimations, it is easy to convert the results.

The condition of oligæmia can be recognised with the naked eye. In daily observations, one saw the animals becoming paler, until the equilibrium-point referred to was reached, and when the drop of blood was drawn for the cytometric observations, it could be seen to be thinner than normal. At the same time, it clotted with difficulty and slowly, but when it did, it formed a well marked buffy coat.

But the next important change in the blood is a chemical one. My friend, Dr. W. D. Halliburton, kindly undertook the chemical analysis of various tissues, simply estimating the quantity of mucin (extracted from known quantities of the tissue) by weighing the precipitate produced, by adding acetic acid to baryta-water holding the mucin in solution. He has found that, whereas mucin is absent from the blood of healthy monkeys, it is present (in increasing quantities, according to the duration of life after the operation) in my artificial myxœdema, as may be seen on this diagram (see Section 2).

He has also found that, while the total proteids are about normal in amount, the serum-globulin is probably increased, and that the serum-albumen is not differentiable into three varieties by heat-coagulation, as it is in the normal monkey.

Respiratory System. — The only abnormal symptom was dyspnœa. This was probably simply of bulbar origin, since it came on suddenly and disappeared soon, without any other physical signs.

There was never any laryngeal stenosis nor paralysis of the vocal cords, nor alteration of the trachea, as has been suggested, to account for the symptoms.

From the microscopic specimens, you will see that the recurrent laryngeal nerves are perfectly sound.

Alimentary System. — A point of extreme interest and novelty is to be found in the alimentary system, namely, that the salivary glands undergo an enormous hypertrophy. In this photograph (Fig. 6), you see them forming swellings, like those of mumps, on each side of the animal's neck. This swelling of the glands is quite painless, and it is simply an increase of the secretion of mucin, for not only does Dr. Halliburton show the increase to be very great (in one case sixty times the normal amount), but physiologically the condition is very interesting, because the parotid gland is normally a serous gland, while here it is seen to become a muciparous one. This important point must, of course, be again referred to.

The condition of the appetite is a prominent feature in the disorder, namely, the post-thyroidectomy state; for, as an invariable rule, I have seen the appetite fail at the onset of the tremors, then, after a few days' depression, rise far above the normal, the animal seizing greedily everything offered it. This continues until shortly before death, when it fails again completely.

Connected with the digestive, but also with the hæmatopoietic, system, is the spleen. The observations made by Crede, Zesas, and Tauber, show that there is a connection between the thyroid and the spleen to this extent, that when one is excised the other temporarily swells. I can fully confirm this, for I have detected the swelling of the spleen by increase of the splenic dullness during life, and proved it by *post mortem* inspection.

But an important point is, that we have in these animals a gradual swelling of the abdomen, just as in myxœdema, and this is due to hypertrophy of the great omentum, and distension of the intestines. There is also always some amount of peritoneal fluid, but never enough to deserve the term ascites. This fluid also contains mucin.

Renal System.—The urine I have very frequently examined qualitatively, and have found that, as a rule, it is perfectly normal. I have however, occasionally observed glycosuria, lasting a day or more, but this is very variable, and has occurred both before and during the stage of tremors. Throughout the life of each animal, there was always a trace of mucin in the urine, but this was not pathological.

Genital System.—I have never seen the reproductive instinct in action.

Skin.—Beyond the pallor due to the anæmia, the skin, to outward appearance, is normal. The question of perspiration is a difficult one to decide in monkeys, but I thought that the skin remained averagely moist. But we have repeated here the swelling and hypertrophy, as in myxœdema; the lower eyelids become puffy and elastic, so much so as to diminish the palpebral fissure one-half, and the face of the animal becomes very similar to that pathognomonic of the disease mentioned.

Although dryness of the skin has not been observed, here is a example of atrophy of the hair in the animal that lived longest. It was interesting to observe the bald patches appear, first, on the right side, and then on the left; and their situation just above the root of the tail is very suggestive, in view of the ordinary site of bed-sores in man. I may here remark, parenthetically, that, of course, in the monkey, these parts are never submitted to pressure.

In the way of varying the experiment, I have also cut off hair in an early stage, and found that, even after several weeks, it had grown very little.

But the most scientific method of estimating the constitutional change in the animal's condition is, of course, thermometry; and, from a complete series of morning and evening observations, I have constructed the average curve of temperature. It will be seen at once that, immediately consequent on the operation there is a slight rise followed by a fall, in a few days, to normal; this, of course, is simply traumatic fever, as I shall explain in my third lecture. Then, as the tremors develop, there follows a condition of exaggerated morning fall and evening rise, but nothing which can be considered more than

Temperature after Thyroidectomy; Morning and Evening.
Normal Temperature before Operation, 100.2.

Day after Operation.	M.	E.	Day after Operation.	M.	E.	Day after Operation.	M.	E.
1	101.5	100.7	16	100.7	100.6	31	98.6	98
2	100.6	100.8	17	101.2	101	32	97.8	96
3	100.3	—	18	99.4	100.9	33	96.6	100
4	100.4	100.8	19	99.5	100.5	34	97.1	98
5	100.6	—	20	99.4	100.3	35	98	99
6	100.4	100.3	21	99.3	101	36	98.8	96
7	100.8	101.2	22	99.9	102	37	98.4	98
8	100.5	101	23	99.6	101	38	98	—
9	101	101.1	24	99.7	100.6	39	95	—
10	100.8	101.3	25	100.3	101.4	40	95.2	—
11	100.3	100.9	26	100.3	102	41	96	—
12	99.9	100.2	27	100.7	101.2	42	95.4	96
13	99.2	101	28	—	101.6	43	95	—
14	98.6	100.4	29	—	100.1	44	94	—
15	100.4	101.4	30	97.9	99.2	45	92	—

superexcitable thermic condition. Schiff (*loc. cit.*) has described hi fever in dogs when the tremors were most marked, but I have se nothing of it in the monkey. After the severest stage of the tremo

the temperature gradually falls to death, at which point it is many degrees subnormal. Clinically, this is shown by cold extremities at the commencement, followed by general coldness of the whole body-surface. I have never seen shivering excited by cold air, however: a fact not without interest.

It is difficult to express, by *seriatim* discussions of aberrant functions, the full force of the symptoms exhibited after thyroidectomy; but those conversant with the appearance and bearing of myxœdema-patients will have no difficulty in recognising a parallel condition, in which, however, some symptoms, for example, the tremors, are more exaggerated than in the human being.

Possibly, the mere rapidity of death may seem to some the most striking result, considering the hitherto undreamt-of importance of the thyroid gland; but, although the *post mortem* appearances about to be described may seem inadequate, it must not be forgotten that the perversion of nutrition indicated thereby is really profound, and is the result of a small but constantly acting force.

THE PLACE WHICH ALCOHOLIC DRINKS SHOULD OCCUPY IN THE TREATMENT OF DISEASE.

Read at the Hunterian Society.

By ALFRED CARPENTER, M.D., M.R.C.P.Lond.

NEED not apologise for bringing this subject to your notice. It is ne of the burning questions of the day, and likely to stand in the irst rank, both politically and therapeutically. As citizens of a free ountry, we must not refuse to look at its political aspect, and to form ur opinions according to the evidence which may be forthcoming as o the conditions under which the sale of such articles as wine, spirits, nd beer may be carried on; but I shall avoid that side of the subject n this occasion, and restrict my observations as much as possible to ne therapeutic value of these agents. I cannot shut my eyes to the ecessity which exists for accurate information upon this point; a fear-il responsibility rests upon our profession in this matter, and it must e faced. Our duty is threefold.

First, as members of a great commonwealth, which must override very other consideration, we must be just and honest men first, we ust be true citizens. We must not do evil that good may come, in pite of any teaching to the contrary. The end will never justify the eans, if the means be wrong.

The second duty is to our patient. He engages our services for a vofold purpose; first, to cure him of his disease; and, in the second ace, to prevent its recurrence. The therapeutic duty is not the ly one which we have to perform. If a workman be sent for to stop leak in a water-pipe, and he content himself by plugging it with me material which stays the leak, but which is dissolved by the ter, so that the waste is, sooner or later, renewed, that workman ils in the duty for which you employed him. He must not only op the waste, but prevent its recurrence. It is so in the treatment disease. The physician has only done a part of his duty who limits s work to the removal of the present set of symptoms, but gives no structions for the purpose of preventing their recurrence. If he ve advice which may be beneficial for to-day, but which is certain to pernicious if it be persevered with beyond a stated time, he has ly done half his duty, and that half badly.

The third and last duty of a physician is to himself, as regards cuniary reward. He must place this in the last rank, and not in e first position. Self must be put aside. The man who follows ese rules will be a blessing to his patient, and will assist to guide s country through one of the greatest dangers which can possibly set a nation in its battle with the drink evil.

Having made these few observations upon duty, I will go to the ecial object for this evening's discussion.

It is now nearly seven years since I had the privilege of delivering e oration to the Medical Society of London. In that address, I en-voured to show that alcohol in all its forms was unsatisfactory as lliet, and that its daily use by men in health ought not to be en-uraged by the earnest followers of the healing art. I was then supported by one of the greatest authorities of the time, who wrote to a few days afterwards, and said "that he agreed with every word t I had spoken in that address, excepting, however, two lines," in hich I had stated that I could not advise an old man accustomed to e wine daily to give it up. That same authority has reiterated his view within the last month. I refer to Sir A. Clark. He says, "a healthy man is better without alcohol, which agent is not a helper but a hinderer to work." I am glad to find that Sir Andrew is very decided upon this point, as decided now as he was seven years ago. The experience of the past seven years has not led me to modify the view that I then held, but, on the contrary, to render it even more decided than it was in 1878. A close observation of effect, on families and individuals, tells me that my views, as then expressed, are essentially right on this point. I propose on this occasion to consider the position which alcohol should occupy in the treatment of disease. Before, however, we can thoroughly assess its value in the cure of disease, we must be quite certain as to its physiological action in healthy tissue. I shall, therefore, ask you to allow me to trace its physiological effect, then to consider the pathological consequence which may result from its regular and irregular use, and afterwards detail the class of cases in which it is accustomed to be used, and in which it may or may not produce beneficial effect. Having considered the physiological action, we shall then be able to say whether it does good or evil as usually presented. Finally, I propose to point out the cases in which it may be of inestimable benefit, if rightly used, and if rightly discontinued when its effect has been secured.

Physiological Action.—Take absolute alcohol, its formula being $C_2 H_6 O$; it is an oxide of the radical ethyl. It is not met with as such in ordinary circumstances, but it is better known to us as proof-spirit. This is defined by law as a mixture of water with 49.24 per cent. of alcohol. Every 0.5 per cent. of alcohol above this corresponds to one degree over proof. Concentrated alcohol acts as a poison in whatever way it may be administered, and numerous instances are on record in which death has been rapidly produced by it, its attraction for water being the real cause of this effect. Half a pint of gin has proved fatal to an adult. Works on toxicology give numerous instances in which death has been brought about in from two to six hours, and in some cases it has been almost instantaneous in its effect.

There may be intense coma; convulsions are not uncommon; and occasionally the symptoms have all the characteristics of an irritant poison, according to the tissue affected by it. Indeed, an early, free, and active vomiting, succeeded by a sound sleep, especially if it be accompanied by profuse sweating, may be the saving of the patient's life when a deadly dose has been given.

The symptoms of alcoholic poisoning vary somewhat according to the habit of the person affected. They are immediate and decided in the total abstainer, whilst, in the habitual drunkard, at one time a large quantity produces but little effect, but at another, especially after a time of abstinence, a much smaller quantity of liquor sets up a series of symptoms which end in delirium tremens and death. I need not give you all the points in connection with this side of the subject. I cannot do better than refer you to Dr. V. Magnan's work on *Alcoholism: the various Forms of Alcoholic Delirium, and their Treatment*, which has been translated by Dr. W. S. Greenfield, entirely without reference to the temperance-question. If you will study that wonderful work, and follow the thirty-nine separate cases which are given in minute detail, and in which the symptoms have varied considerably, you will be perfectly satisfied as to the toxic character of alcohol in *all* its forms. The perfect pictures which the author has drawn of its numerous phases, and the ramifications which arise in its development as an irritant or narcotico-irritant poison, are described by a master hand.

Dr. Tidy says, in his *Handbook of Forensic Medicine*, "Alcohol acts as a true poison, whether the vapour be respired or the liquor swallowed, or injected into the cavity of the chest or into the cellular tissue" (p. 498).

It is certain that children at the breast have been killed by imbibing it with the mother's milk, and that convulsions have been but too often caused by an infant being nursed by a drunken mother. I labour upon this point, for recent sensation-writers have tried to altogether ignore the toxic effect of alcohol. They have tried to make out tha , as wine and beer, it is not the same thing; forgetful, or rathe sirous to put the analogy which exists in nature altogether out of sight.

Morphia, however diluted, is morphia still, if it can be recovered as such from its solution. Strychnine is not altered in its constitution or its effects by subdivision; and arsenic is arsenic still, though it may be subdivided into doses of 100,000th of a grain. Two of the poisons I have mentioned are also cumulative, and will, in time, produce certain effects if the minutest doses be persevered with; and those who have thoroughly looked into the daily use of intoxicants, but too well know that there is a result from even a single glass of wine, which is shown at once by the feelings of those who, long

accustomed to take the glass, are suddenly deprived of their daily quantity. They miss it, and the feeling of deprivation or want is more or less persistent, according to their ability to stand against the renewal of the habit. I well recollect this feeling in my own person. When I first started in practice, I was accustomed, about 11 A.M. every day, to take a glass of ale and a sandwich ; sometimes I was prevented from going home at the ordinary time, and took my sandwich with me, and did without the glass of ale. Whenever this happened, I did not feel up to my work in the middle of the day ; I missed something, and it dawned upon my mind that I was becoming a slave to a glass of beer. I gave it up, and that act of self-denial was the commencement of experiments upon myself, which ultimately led me to abstain altogether from the daily use of intoxicating liquors as a diet, because I found, by clearly defined observation, that I did my work better without them.

But alcohol is not the only poison which alcoholic liquors contain. The hydrate of ethyl changes into aldehyd and acetic acid when it is exposed to the action of certain oxidising agents. Aldehyd, itself an irritant poison, is capable of setting free metallic silver from its nitrate, and various radicals may be formed, each of which has its specific power, and may set up different kinds of toxic results, accounting for death. It is also known that all new spirits contain more or less minute quantities of amylic alcohol ($C_5 H_{12} O$), which goes by various names, as fusel-oil, potato-spirit, or oil of grain. It is less volatile than ethylic alcohol, and only comes over at the end of the distilling process. It is a virulent poison, producing extreme irritation, and acting at once on the brain-cells in a most energetic manner, giving rise to violent delirium or temporary insanity. How far it is possible for these compounds to be formed within the body itself, and thus for oxidation to produce still more poisonous agents than is alcohol, is not positively known ; but that there are etherial products, must be manifest to all who come into personal contact with drunkards. The breath of a drunken person, or of a person who has been drinking, does not always give out the vapour of alcohol, but other vapours allied to the ethers, or easily recognised by the nose. The oxidation of alcohol, as it takes place in the human tissue, does not give rise to materials capable of being used in the production of force, but the results are allied to acetic acid, acetal, acetone, and other matters which have passed out of the range of force-producers as much as carbonic acid itself has done. We have also to recollect that the quantity of carbon compared with hydrogen in alcohol brings it into a different category from that of sugar, starch, and oil.

It is true that vinegars may be useful in dietaries as adjuncts to something else, but I have never heard it stated that they were beneficial in themselves, but only as agents to bring about some other effect, enabling a man to take more of a given article, or to turn the change in another direction for the time being. It is possible that, under some conditions of the digestive functions, the acetic acid passes out of the system as an acetate, producing a diuretic effect on the kidneys, by means of which the toxic action of alcohol is diminished. It is said that drunken soldiers will steady themselves by a glass of vinegar when going into barracks after a debauch. If this be so, it must be by changing the character of the oxidation, and arresting for a time the poisonous effect of the intoxicant; but is is not a constant result, and cannot be depended upon. Vinegars, as diets, are dreadfully injurious, if persistently taken. The chemical action of alcohol must be the same, in one way or another, whether it be in the laboratory or in the stomach of the drinker, either as regards itself or its component parts. Its effect upon protoplasm is easily seen ; its action upon the blood-corpuscles is very manifest, and can be shown by means of the oxyhydrogen microscope. The blood-cells of the decided toper are many of them altered, irregular in shape, have lost some of their plastic character, so that the contour which is seen, and the *rouleaux* which form in healthy blood, are less definite than those. The nose of the toper, the face and eyes of the habitual drunkard, tell us, in most conclusive terms, that effete matter has not been oxidised, but is retained in the capillaries. Harley proved before the Royal Society that fat is increased in quantity by wine and spirits in the serum of the blood. The ordinary chemical changes are partially arrested, and there is no doubt that, when full doses are given to a healthy person, the temperature of the body falls within a defined time. Stress is sometimes laid upon Dr. Dupré's experiments, published in the *Proceedings of the Royal Society*, in 1872 ; and it is argued, in consequence, that alcohol is oxidised in the system with a corresponding liberation of force ; but, as one of Dr. Dupré's conclusions is contrary to common observations, namely, "that the amount of alcohol eliminated by the breath is a minute fraction only of the alcohol taken," I feel sure that his other conclusions are also erroneous. Ask any police-constable you like, as to why he knew that the man in custody had been drinking, he will say, "by his breath ;" and I never yet came into close contact with a man accustomed to take wine, and who had taken wine or spirits within an hour or two of my interview with him, without being able to smell the result in that individual's breath : so that one feels sure that immense quantities of the constituent atoms of alcohol, in some form or other, do pass away through the lung-tissue, in spite of Dr. Dupré's observations to the contrary. Dr. de Chaumont says that a fall in temperature has been conclusively proved by the experiments of several noted physiologists, whom he names in his edition of Parkes's *Hygiene*. It is manifest that the action of alcohol upon the blood-corpuscles is to diminish or arrest their oxygen-carrying power by a change in their plasma. The effect of alcohol upon membrane is easily seen in both plant and animal life ; it soon puts a stop to the action of endosmose and exosmose, by altering the elastic and physical state of the membrane by which the process is carried on, so that it soon ceases; its influence upon the blood-corpuscle is similar in effect. Professor Marshall, in his *Outlines of Physiology*, sums up the properties of alcohol thus :—"The administration of alcohol does not increase, but diminishes, temperature, and also the quantity of carbonic acid gas evolved." I want this fact to be kept fairly in mind. "The quantity of urea excreted is likewise diminished. The effect seems to be due to the lowering, in some manner, of all those organic processes which lead to the formation of carbonic acid by the disintegration of blood and tissue" (vol. ii, f. 543).

Dr. W. B. Carpenter fully supports these views, and Dr. J. H. Bennet, who does not seem to recognise the fact that heat is not generated by it, nevertheless says: "Its combustion interferes with the combustion of the disintegrated and effete tissues of the economy. The pernicious influence exercised on the brain and liver is thus increased by the physiological influence which alcohol exercises in arresting the destructive metamorphosis of molecular tissue." (*Nutrition in Health and Disease*, f. 65.)

The array of names given by Professor Marshall, the consensus of opinion as to the material facts which are probable, are overwhelming as to the true physiological action of alcohol; diminished temperature, decreased excretion of carbonic acid and urea; whilst its effect upon the liver is so undoubtedl, that I need scarcely argue that acholia is a consequence of its use. Yet only the other day I read in a new work "that much nonsense has been written on this point, even by such men as Dr. A. Carpenter, as if this process (that is oxidation could not be too active," and the writer then proceeds to class alcoho with the ordinary fat-producers, the hydrocarbons, apparently forgetful of the point that the fat which alcohol produces is a fatty degeneration; it is found in a different position from the fat which starch, sugar and oil, or nitrogenous food, will put aside when the latter are taken in excess, whilst the fat which arises from excess of alcohol is not obtained from the alcohol itself, but by reason of changes, arrested in the *débris* arising from the ordinary act of living, which were already there, and which were being oxidised. Alcohol takes away the oxygen, and leaves the rest *in situ*. Consider its chemical composition, and the reason for this is manifest. This is very different from the fat which excess of ordinary hydrocarbon produces, and which is obtained from the hydrocarbons themselves.

Let me give, in a few words, its effect on each organ, as detailed by eminent physiologists.

The Stomach.—It reddens the mucous membrane, produces a chronic catarrhal condition, and increases the connective tissue between the glands. Dr. Wilson Fox likens the result to cirrhosis of the liver. Its first effect upon the stomach in small doses is increased secretion, by paralysing some of the capillaries, and delaying the progress of the blood into the venous channels. As a consequence, it may for the moment increase appetite, because there is more gastric juice at hand for digestive purposes; but let the dose be repeated, and the result is as Dr. Wilson Fox describes it. No one doubts the first result ; drop a few drops into the eye, even in a very dilute form, and there is an increase of tears. This may be all very well for a temporary purpose but continue the application day by day, and we may feel quite certain as to its effect upon the mucous membrane of the eye; though the eye itself may have become accustomed to it, and not then perceive its application, it will become less equal to its duty. So, I believe, is the day by day application of small doses of alcohol to the mucous membrane of the stomach. As a consequence, there is a necessity for an increase in the quantity to obtain the same result.

The Liver.—It causes enlargement of the gland by producing albuminoid or fatty deposit ; it arrests the change which should take place in the amyloid, or whatever name you like to call the materia which is compounded out of chyle, a change which is a duty devolvin

upon the liver to perform; or else it increases the supply of material in the connective tissue of the gland, which sets up irritation by its presence because it is not in accord with the wants of the tissue. The result of that irritation is so called chronic inflammation of the organ; then follows contraction of the new tissue and cirrhosis.

The Lungs.—It lessens the amount of carbonic acid, and the watery vapour, which ought to be excreted. It alters the molecular constitution of the lung-tissue, giving rise to chronic bronchitis and emphysema.

The Heart and Blood-vessels.—It first quickens the action of the heart, by altering the balance of power. The blood-vessels all over the body are more easily dilated, so that the *vis à fronte* has not to be overcome, and blood is pumped into the tissues more easily than before. The period of rest which the heart requires is shortened, and its nutrition is interfered with both by pressure on the nutrient vessels and shortened time for recovery. After a time there is defective muscular power, whilst the quantity of work to be performed is really increased.

The Skin.—The superficial capillaries become dilated, a turgescence is produced which soon subsides, unless the dose is repeated; if it be a continuous repetition the turgescence becomes permanent. The skin alters in appearance, loses its smoothness and proper colour, becomes liable to disease, partly in consequence of the non-supply of lubricating material by the sebaceous follicles, and partly by interference with sweat-glands. Cold is felt more intensely than is the case when intoxicants are not habitually taken.

The Nervous System.—The symptoms which arise prove very conclusively that alcohol interferes with nerve-currents. At first it increases the discharge of energy, but at the same time producing a larger quantity of *débris* which remains more or less *in situ* in consequence of the semi-paralysed state of the vaso-motor system, and probably gives rise to the languor, headache, depression, and fatigue, which follow upon the excitement which alcohol has produced.

Kidney.—This is at first stimulated into increased action by the turgid vascular tissue, but the ultimate result is precisely the same in effect as arises in the liver; there is first enlargement, then a cirrhotic state. It is usually styled Bright's disease, and appears in several forms.

Muscular System.—Voluntary muscular power seems to be diminished, and the finer combined movements are less perfectly made. So says Professor de Chaumont in his splendid edition of Parkes's *Hygiene*, from which work I have extracted the major portion of these references to its physiological action on particular organs. Personal experience in my own case tells me very conclusively that, if I were to take three glasses of wine or beer to-day, I should feel tired, and not up to my work to-morrow; and this is the general experience of the abstainer.

How are the conditions which give rise to these morbid changes produced? My contention is, that there is arrest of the changes by which healthy functions are promoted. Those functions, and the ordinary faculties which belong to life, require that those changes be carried on regularly. Some are fond of calling them metabolism. The waste material which results from the performance of either function or faculty must be removed as fast as it is formed, if the body is to remain in a healthy state. If the change be interfered with, if the alcohol which is imbibed seize upon the nascent oxygen just at the moment when the latter is about to oxidise the resultant waste, that is left *in situ*, in a form which ultimately starts the degenerative stage, such as is found in the first stage of fatty degeneration, in cirrhosis, in atheroma, in emphysema, in Bright's disease, and all the class of maladies which are connected with the abuse of intoxicants. This is called nonsense by some of the supporters of the so-called temperate use of intoxicants, yet it is in accord with the views expressed by all the leading physiologists of the day; that which is nonsense in my writings must be as much nonsense in theirs; the grand physiological principles upon which these statements are based cannot be put out of sight by abuse.

(To be continued.)

BEQUESTS AND DONATIONS.—The Hon. and Rev. William Henry Lyttleton, Rector of Hagley, has bequeathed such a sum not exceeding £1,300 as will produce £40 per annum, to be called "The Emily Lyttleton Fund," for providing a nurse in midwifery and non-infectious cases for the parish of Hagley.—Mr. George Bond, of Richmond-on-Thames, has bequeathed £1,000 to the Richmond Infirmary, in default of any of the children of his son attaining 21 years of age.—Sir Thomas Fowell Buxton, Bart., has given £200 to the Norfolk and Norwich Hospital.—The Corporation of the City of London have given £105, and the Goldsmiths' Company £50, to Queen Charlotte's Lying-in Hospital.

THE LUNACY LAW: ITS DEFECTS; AND A SCHEME OF REFORM.

BY WILLIAM R. HUGGARD, M.A., M.D., M.R.C.P.LOND.

THE lunacy law has lately given rise to much discussion; and as fresh legislation on the subject may be expected, the points wherein the present law is defective deserve to be carefully examined.

The points to which attention will here be chiefly directed are, first, the means of ascertaining and determining insanity; and, secondly, the custody and general supervision of the insane, especially in private asylums. The outlines of a scheme of reform for giving the public greater protection from insanity on the one hand, and for giving the alleged lunatic more efficient safeguards on the other hand, will then be put forward.

Let us see what would be accomplished by a perfect law—by a law that should give complete expression to recognised principles; and let us put in contrast what is accomplished by our present law. Under a perfect law, every insane person—that is, every person who, through mental defect, is unable to conform to the requirements of society, and whose inability is not curable by punishment—would be under efficient supervision and control, though not necessarily in an asylum; and the interference with individual liberty would not be greater than absolutely necessary for the protection of society. A good law would also see that its provisions are not evaded either intentionally or unintentionally.

Now, what are the provisions of the present law, and how far do they give effect to the intention of the legislature?

The means for ascertaining insanity—that is, the means for bringing all cases of insanity within the knowledge of the authorities—are not at all complete. This incompleteness is, in one case, intentional. Thus a lunatic, provided he be not kept for profit, can be confined in the house of a relative or friend. Although this may be a defect, any remedy for it would probably be worse than the original evil; and so long as the lunatic is under proper control, probably no great harm is likely to arise. But if the lunatic be not under proper control, there is no adequate provision for dealing with the case; and this incompleteness is probably unintentional. If the case come to the knowledge of any constable, overseer, or relieving officer, such officer is bound immediately to take the lunatic, or cause him to be taken, before a justice of peace, whose duty it is then to take proper steps for placing him under control. The weak point is that it is nobody's duty that the case should come to the knowledge of any constable, overseer, or relieving officer. Our coroners' courts and our criminal courts testify only too plainly to the number of insane people not under proper control, and to the enormous preventable waste of human life through insanity in consequence—a waste of life that might readily be prevented by proper precautions; for warnings are rarely lacking beforehand which, to a trained mind, would indicate the event about to take place. It is not necessary to speak of the many cases that do not come directly before courts of law, but which cause a great deal of misery and anxiety, and do not fail, indirectly, to furnish their quota of crime.

The next point is the certifying of insanity—the procedure by which a lunatic is put under proper care and control. There may be said to be four methods of procedure, according as the lunatic is—1, a private patient (paid for by himself or by his friends); 2, a pauper patient (maintained wholly or in part out of the parish rates); 3, a Chancery patient (that is, found lunatic by inquisition); 4, a criminal lunatic. In every one of these cases, the procedure is more or less unsatisfactory.

These various methods need not occupy us in detail. The important point in which they all agree is, that not one of all the persons engaged in certifying insanity is required to have any acquaintance, practical or theoretical, with insanity. The medical men, the Master in Lunacy (at any rate, till he have acquired some experience), and the jury, may all, in the respective cases where their services are required, be absolutely incompetent to determine the precise nature of the individual case on the one hand, and may be absolutely ignorant of the nature of insanity generally on the other hand. Not one of them may be able to discriminate between the forms of mental defect that jeopardise the peace and security of society from those forms of mental defect that neither annoy others nor endanger the person himself. On the one hand, melancholia, though fraught with danger, may be regarded as a mild ailment, not requiring vigilant supervision; on the other hand, a harmless though absurd belief may

be looked on as a dangerous insanity. This result is not to be wondered at. A person can hardly fail to do badly what he does not know how to do well; and there is no reason for thinking that any of the persons necessarily concerned in any of the plans at present in use for determining insanity are capable of making a systematic and thoroughgoing examination into the various mental functions in relation to society. What Horace said of fools may with almost equal truth be said of the ignorant; when they avoid one extreme, they rush into the opposite. Medical men (and others), who do not happen to have any very clear idea of insanity, are apt either to diagnose it on very insufficient grounds, or to fail to see it in spite of the most palpable evidence. Any asylum-superintendent could furnish examples of both kinds.

As a result partly of the system of certification, and partly of various other causes, we have what may be termed a zig-zag borderland of insanity.

We come now to the custody and supervision of the insane. In regard to pauper lunatics, and private lunatics in public hospitals and asylums, custody and supervision probably require few, if any, improvements. The case of private patients in licensed houses, in single care, and under the care of the Court of Chancery, is somewhat different; and to these we will confine our attention. For one reason or another, the law in these three classes seems to me to be radically bad.

A word, first, as to the amount of supervision over the custody. The patients in licensed houses in the Metropolitan District are visited six times a year by the Commissioners in Lunacy; in the Provincial Districts, twice a year by the Commissioners, and six times by the County Visitors in Lunacy. The acting portion of the Board of Commissioners consists of six members (three medical men, generally with special training, and three barristers). The County Visitors in Lunacy (three or more justices, and one medical man) are elected annually; and, as a rule, probably have no acquaintance with insanity, except what they acquire during their term of office. Single patients must be visited every two weeks by a medical man who need not have any special knowledge of insanity; and the visits may, by sanction of the Commissioners, be made less frequently. The Commissioners also, as a rule, visit single patients twice a year, although they are not required by law to do so. Chancery patients in private asylums are visited twice a year by one or other of the Lord Chancellor's visitors in lunacy (two medical men with special training, and one barrister). The Commissioners in Lunacy, or the County Visitors in Lunacy, visit these cases in common with all others in the asylum, but have very little jurisdiction over them. Chancery patients not in asylums are visited four times a year by the Lord Chancellor's visitors.

I will now point out my objection to the protection the Court of Chancery affords the patient. The forms and procedure for an inquisition, and for susperseding an inquisition, are so slow, so cumbrous, and so expensive, that there would naturally be reluctance and hesitation in attempting to undo what might perhaps be required again before it was undone. In other words, a patient, under the protection of the Court of Chancery, would hardly regain his liberty on recovery as soon as any other patient would. It is, however, true, that a Commission in Lunacy is rarely held, except in cases that are not likely to recover.

Single care is hardly sufficiently under supervision to be satisfactory.

Licensed houses have been violently decried from time to time; and, if for no other reason than that the public distrust has a strong tendency to drive the best men from the work, and to leave it in the hands of less suitable persons, I think some reform is needed. There is, however, another reason for reform; and that is, the ground on which the distrust is based.

The proprietor of a private asylum is entrusted with an anomalous combination of adverse functions. He is at once landlord and discretionary custodian, paid host and gaoler-at-will. By discretionary custodian and gaoler-at-will, I mean not a gaoler to whom a prisoner is committed for safe custody during a certain period, but a gaoler who is himself charged with the duty of determining how long the prisoner should stay.

This anomalous combination of duties is, as a rule, I believe, carried out in a way that does the highest credit to proprietors of private asylums. The system is, however, not the less objectionable on that account. That prejudice biases the decisions of the mind is a failing of our common humanity. The wisest and best of men have at times formed their opinions in the coloured light of emotion rather than in the dry light of intellect. Self-interest warps the judgment as powerfully as does any other emotion, and it is never well to unite duties so antagonistic that a more than average mental endowment is required, not for the honest, but for the impartial performance of them.

Though property is a matter of less importance than liberty, provision should certainly be made for the better administration of the property of insane persons. When a person is certified insane, his property is left without legal guardian; and, except when the property is very small, the process of appointing a legal custodian is so costly, as well as so slow, that probably a little friendly plunder and mismanagement would damage the estate less. When a lunatic is interdicted, why should not a responsible person be appointed to act for him in regard to his business or property?

The foregoing seem to be the main points wherein the present law of lunacy fails in carrying out its own principles. We will now see whether a scheme cannot be devised that shall give complete expression to acknowledged doctrines.

First, as to the notification of insanity. I think that, when a lunatic is not under proper control, any person to whose knowledge the circumstance may have come, should be required to notify the fact to the police, or other authority.

Secondly, as to certification. On this point I may quote from a leader in the BRITISH MEDICAL JOURNAL (December 6th, 1884). "The object in putting the insane under 'care and treatment' is twofold—the protection of the public, and the protection of the patient. That the protection of the public should depend on the chance inclination of private persons is hardly in accordance with any accepted theory of the duties of Government; and when the patient's own protection is the sole object, it would hardly be too much to expect that so onerous a duty as the interdiction of personal liberty should be undertaken by the State itself. On the one hand, the protection of the public, and, on the other hand, the abrogation of the liberty of the subject, belong properly to the functions of Government, and not to individual private opinion."

When a case of alleged insanity is brought under the notice of authority, in what way should the State determine the question? My proposal is simply this. All certification (except in cases of emergency) should be done by a competent Government official, at a fixed salary, a Medical Examiner in Lunacy. The procedure might be somewhat after this plan. The Medical Examiner, upon the written requisition of a medical man, of a magistrate, or of a relieving officer, stating the grounds of the application, should examine the alleged lunatic. Such an official should be empowered, if he think fit, to take evidence on oath, in so far as his inquiry is concerned.

How many of these officials would be required, and how would they be paid? These questions will now be considered.

There are somewhere between fourteen and fifteen thousand persons certified insane yearly; and of these, upwards of twelve thousand are paupers, and upwards of two thousand are private patients. Probably the money at present paid for certification exceeds £20,000; that is, calculating at the rate of one guinea for each pauper, and four guineas (two guineas for each certificate) in the case of each private patient. Under the suggested scheme, nearly the whole of this money could be readily turned into the State coffers, by causing a stamp duty of one guinea on each pauper certificate and two guineas on each private certificate. This would raise between £17,000 and £18,000, a sum more than sufficient to pay competent men. Sixteen men would probably be enough to do all the certification; and each might have a district formed with due regard to the populousness of the country on the one hand, and to its accessibility on the other.

The process of raising money to pay the Medical Examiners in Lunacy is, therefore, both simple and inexpensive. In the case of a private patient, the outlay to the friends would perhaps be less than at present; as the fee for a medical man's requisition would hardly be as much as the fee now generally charged for a lunacy certificate. In the case of a pauper patient, the relieving officer would make the requisition, so that the fee would simply go in stamp duty instead of direct to the medical man. Moreover, the plan suggested does not impose on any one a new tax or burden; it merely diverts the expenditure from a number of petty dribblets into a single channel. And the result would be, increased efficacy at less cost.

The next suggestion for reform concerns the custody of the insane. It has been shown that, in some respect or other, the law is unsatisfactory in regard to private patients in licensed houses, in single care, and under the protection of the Court of Chancery. Under the proposed scheme, these classes will all be included.

That the proprietor of a private asylum should have the discretionary custody of the insane is, as we have seen, utterly indefensible in principle. The remedy for this evil, however, is, not to abolish private asylums, but to do away with the anomalous combination of antagonistic functions—to separate the duties of paid host from the duties of discretionary custodian. The proprietor of an asylum should be entrusted simply with providing for the safety and

for the well-being of the patients; and the State should undertake, in a much more immediate manner, than at present, the discretion of continued detention. The immediate responsibility for a patient's detention should rest with a government official, or Medical Visitor in Lunacy. Almost all the duties, in fact, that now fall on the proprietor or superintendent of a private asylum, in virtue of his office as discretionary custodian, should be transferred to the Medical Visitor; such, for example, as the duty of reporting (or supervising the reporting) of the mental and bodily health of the patients at weekly, monthly, or quarterly intervals, according to the nature of the case; and it should be in his power, subject to the control of the Commissioners, to authorise a discharge, or a transfer, should he think fit.

Let us now see the number of medical visitors that would be required, and whence the money would come to pay them.

There are, roughly, about eight thousand private lunatics in England and Wales. Of these, more than half are in registered hospitals, or other public asylums, and need not, therefore, occupy us further. Of the remainder, upwards of three thousand are in private asylums, and less than a thousand are either lunatics by inquisition, under the immediate supervision of their committees, or patients in single care. It is with the custody of these four thousand patients (in private asylums, etc.) that we are concerned, and for whom it is suggested that Medical Visitors be appointed. To determine the number of Visitors, let us see the requirements. The proportion of recent cases of insanity (cases under one year's standing), to chronic cases, is about one in four. Out of four thousand cases, about one thousand would be recent cases. This proportion is, more or less, permanent; the admissions being nearly balanced by the discharges and deaths. Visits by the Medical Visitor should, for the first month, be made once a week; for the next three months, once a fortnight; for the remainder of the first year, once a month; and, in chronic cases, once every three months. Calculating as closely as I can, I think one Visitor would be able to supervise, in this manner, about two hundred patients. This number would, on the average, include about fifty recent cases. On this basis of calculation, twenty Medical Visitors of Private Asylums would be required in all. In forming districts, however, other considerations, besides the mere number of patients, would have to be borne in mind.

The payment of these officials stands on a somewhat different footing from the payment of the Medical Examiners in Lunacy. To pay the Medical Examiners, no fresh outlay is incurred, no new burden is imposed; the expenditure is merely turned into a different channel. The Medical Visitors, however, would be an altogether new creation. They have no counterpart under the present system; and the question is, on whom should the burden of payment be thrown, and how should the money be raised? Now I do not think it would be unfair to say that those who can afford to pay for the greater luxury, privacy, and comfort of a private asylum or of private care, should be required to pay also for increased security against unjust detention. It happens, too, as is shown by putting together the facts scattered throughout the Commissioners' Report for 1882, that private patients in private asylums are on the whole a wealthier, or at any rate a much better paying class, than are the private patients in public asylums. For example, I find by calculation from data afforded by the report in question, that the sum paid to proprietors of licensed houses alone for private patients under their care, is about £450,000; while the sum laid out on about the same number of private cases in public asylums does not probably exceed £200,000. The amount paid for single patients and for Chancery patients, with their Committees, is not included in these figures. If added, it would probably bring the sum spent on lunatics not in public asylums to over £500,000.

My proposal for raising the money is this. A charge should be made, not on the sum paid for the patients, but in proportion to it. A charge of 4 per cent. would raise £20,000. A larger sum than this would readily be raised in the following manner. The person who has charge of the patient's affairs, or who is responsible for his maintenance, should be required to make a quarterly declaration on stamped paper, stating the rate of payment for the patient, or anything else that might be thought proper; the stamp being at the rate of 10s. 6d. for each £50, that is, £4 4s. per cent. *per annum*.

In touching questions of this kind, one enters on delicate ground; for the pocket is the seat of the tenderest susceptibilities of our nature. The tax proposed, however, is not of a very burdensome nature. To some small extent, in the case of poor private patients, the charge would unquestionably be borne by the asylum-proprietor. With this exception, however, the tax would very properly fall on the patient or on his friends; who, if they can afford to pay for the advantages a private asylum has over a public asylum would not grumble at having to make a trifling additional payment to secure such supervision as would put it beyond question that the patient will be detained only on public grounds, and not for private reasons.

With regard to the administration and supervision of the lunacy law, I think the present Board of Commissioners and the Lord Chancellor's Visitors in Lunacy, with the Masters in Lunacy, should be amalgamated, and should have their power increased. The number of Commissioners should, I think, certainly not be less than twelve. Under the present system, the object of a commission in lunacy is to protect the patient's property. Under the suggested scheme, ordinary certification would extend this protection to all lunatics with property, but in a less cumbrous and expensive manner; so that a commission for this purpose would be unnecessary. A commission, however, on any certified patient, if requested on the affidavit of a medical man, or of a magistrate, should, I think, be held by two or more Commissioners (one, at least, medical, and one legal). The primary object of such a commission would be to determine fitness for liberty.

One or two points more I would venture to suggest: namely, that the medical officers of asylums should form a branch of the Civil Service; and that some test of competency should be exacted from all who should enter the service. A brief recapitulation of some of the more important points may be allowed.

First, the means for ascertaining and certifying insanity are clumsy and imperfect. It cannot be said to be anybody's business to see that insane persons are under proper care and control. Then, when someone, apprehensive of danger, does move in the matter, what tribunal determines the question whether the person is to be deprived of his liberty or not? If the alleged lunatic be a man of property, the tribunal charged with determining this question, and vested with the power to give effect to its decision, is a private one, that is, it is not appointed or remunerated by public authority, but is selected and paid by the person who brings forward the allegation; and, as a rule, it has no special qualification for performing the office it undertakes.

Secondly, the private asylum proprietor is entrusted with an anomalous union of antagonistic functions; he is, at the same time, paid host and discretionary custodian.

Thirdly, a simple, inexpensive, and comprehensive scheme of reform is put forward.

In conclusion, I have only to say that the subject is an extremely thorny one. That the present system admits of many improvements, is generally acknowledged; and yet scarcely a single improvement could be suggested that would not excite opposition from some quarter or other. To one thing we may resign ourselves. No matter how perfect our lunacy law may be, it will never give satisfaction so long as there are lunatics who think themselves sane; and this race does not appear to be in immediate danger of extinction.

HERR ARONSOHN has presented a report of experiments to the Physiological Society of Berlin, which he instituted in conjunction with Herr Sachs, and which had led to the discovery, he maintained, of a thermal centre in the cerebrum. Starting with the idea that, in consequence of a diabetic prick of the medulla oblongata, an increase of temperature would manifest itself in the liver, and finding by experiment no confirmation of this conjecture, Herr Aronsohn pushed his investigations for other thermal centres in the brain; and, in the course of these researches, came upon a spot where, on wounding it with a needle, a very considerable rise of temperature quickly set in. The speaker was not able to specify more exactly the spot at which it was necessary to make the prick in order to produce this effect. It was at all events certain that it was rather limited, and should be determined by more minute anatomical examinations of a number of brains of animals preserved in chromic acid after being operated on. Equally deep pricks, made at every other spot of the cerebrum, had either produced no effect on the temperature of the body, or had lowered it somewhat. In all the successful cases, the corpus striatum was pierced by the needle; in all the unsuccessful cases, the corpus striatum remained untouched. There was yet, however, no warrant from this circumstance to conclude where the exact site of the thermal centre was situated.

PRIZES ON SANITARY SUBJECTS.—Mr. Lomb, of Rochester, New York, has offered to the American Sanitary Association the sum of 2,000 dollars, to be distributed in the form of prizes for essays on the following subjects: Healthy Homes and Foods for the Working Classes; Sanitary Conditions and Necessities of School-houses and School Life; Disinfectants and Individual Prophylaxis against Infectious Diseases; Appliances and Means for Saving Life, and for Protection against Injurious Influences of Occupations on Health. The essays should be sent in before April 1st, 1885, addressed to the secretary, Dr. Irving A. Watson, of New Hampshire.

PORRO'S OPERATION: A SUPPLEMENT. By CLEMENT GODSON, M.D., Consulting Physician to the City of London Lying-in

published in the JOURNAL of January 26th, 1884. They contain those cases which were omitted, and those which have since 56.57 per cent., a little higher than that recorded in the original table.

TABLE I.—*True Porro's Operations.*

No.	Date.	Operator and Locality.	Hospital or Private House.	Age.	Number of previous labours.	Cause of difficulty.	Available pelvic space.	Height of Woman.	Time in labour before operation.	Condition of woman at time of operation.	Result to woman.	Result to child.	Cause of death in woman.
138	1880. March	Dr. Laroyenne, Lyons, France	Hos.	30	1	Occlusion of vagina from cicatrices	Admitting only a finger.	—	A few days before term	Favourable	Died on 3rd day	Living	Peritonitis
139	Nov. 1883.	Dr. Fochier, Lyons, France	,,	38	Primipara	Rickets	1⅛	Very short	2 days	,,	,,	Stillborn	Septic peritonitis
140	Oct. 11	Dr. H. Fehling, Stuttgart, Germany	,,	33	7	Failure to turn in arm presentation because of contracted pelvis from osteomalacia	C.V. 2½in. bisischiatic 1¾ in.	—	14 hours	—	Recovery	Living	—
141	1884. Jan. 9	Professor J. Späth, Vienna, Austria	,,	38	8	Osteomalacia	—	—	15 hours after waters broke	Very weak & emaciated	,,	,,	—
142	Jan. 25	Dr. H. Fehling, Stuttgart, Germany	,,	32	7	Rickets	1⅛ in.	4ft. 7in.	12 hours	Favourable	,,	,,	—
143	Jan. 30	Professor Simpson, Edinburgh, Scotland	,,	—	1	Fibroid tumour of lower segment of uterus filling pelvis	1½ in.	Average	18 hours	Very unfavourable	Died	Stillborn	Peritonitis
144	Jan. 30	Professor Tibone, Turin, Italy	,,	18	Primipara.	Rickets	1⅛ in.	4ft. 1in.	38 hours	Favourable	Recovery	Living	—
145	Feb. 14	Dr. Herman, London, England	,,	29	,,	,,	1¼ in.	Short.	48 hours	Unfavourable	Died on 10th day	,,	Tubular nephritis, œdema of lungs. Slight local peritonitis
146	April 10	Professor Léon Dumas, Paris, France	,,	30	Primipara	Rickets	C.V. 2¼ in.	3ft. 10in.	4 hours	Favourable	Died on 6th day	,,	Peritonitis
147	May 3	Dr. Sänger, Leipzig, Germany	,,	40	,,	Myomata	—	—	Not in labor	Febrile	Died on 3rd day	Putrid	Septicæmia
148	June 28	Professor J. Späth, Vienna, Austria	,,	31	5	Osteomalacia, spondylisthesis	—	—	3 days	Unfavourable	Died on 6th day	Living	Peritonitis
149	Sep. 11	Dr. Fancourt Barnes, London, England	,,	28	Primipara	Dermoid cystic tumour in pelvis	1¼ in.	Medium	48 hours, 40 hours after waters broke	,,	Died on 5th day	,,	Septicæmia
150	Oct. 23	Dr. Vincenzo Lesi, Imola, Italy	,,	28	,,	Rickets	C.V. 2½in.	4ft 3in.	10hrs. waters broke 8 hrs.	Favourable	Recovery	,,	—
151	Nov. 13	Professor Fritsch, Breslau, Germany	,,	27	,,	,,	C.V. 2¾in.	4 ft. 1 in.	Not commenced	Anæmic	Recovery	Living	—
152	Dec. 2	Dr. M. Handfield-Jones, London, England	P. ho.	36	,,	Subperitoneal fibroid impacted in pelvis	About 2in.	About 4ft. 10in.	27 hours	Unfavourable	Died on 3rd day.	Stillborn	Peritonitis

TABLE II.—*Utero-ovarian Amputations during*

No.	Date.	Operator and Locality.	Hospital or Private House.	Age.	Number of previous labours.	Cause of difficulty.	Space between tumour and symphysis pubis	Advanced in pregnancy.	Condition of woman at time of operation.	Result to woman.	Cause of death in woman.
6	1877 Jan. 7	Dr. Robert Barnes, London	P. ho.	—	Primipara	Fibro-myomata of uterus	Hardly any	2 months	Greatly prostrated. Suffering from peritonitis	Died in 30 hours	Shock and peritonitis
7	1883 Jan. 13	Professor Schröder, Berlin	Hosp.	40	,,	,,	,,	3 months	Favourable	Recovery	—
8	Sept. 15	Dr T. Savage, Birmingham	,,	22	1	Occlusion of vagina from sloughing after previous labour	—	6 months	,,	,,	—
9	1884 Jan. 17	Dr. George Fortescue, Sydney New South Wales	,,	21	Primipara	Ovarian cystoma	Normal	5 months	,,	,,	—
10	June 23	Professor Schröder, Berlin	,,	34	,,	Large fibro-myoma of uterus	Hardly any	2½ months	,,	,,	—

Hospital ; Assistant Physician-Accoucheur to St. Bartholomew's Hospital. The subjoined tables are contributed as an Appendix to those occurred. The true Porro's operations now amount to 152 ; of these there are 66 recoveries and 86 deaths, which gives a mortality of

TABLE I.—*True Porro's Operations (continued).*

Treatment of pedicle.	Dressing ordinary or Listerian.	Duration of operation.	Special Notes.	References.
Fixed in lower angle of wound surrounded by elastic ligature	Listerian	45 mins	—	Discussion of Society of Medical Societies in Lyons.
Kept out. Fixed in lower angle of wound	,,	36 mins	Uterus opened *in situ*	,, ,, ,, Communication direct from operator.
Extraperitoneal ; transfixed by long pin surrounded by elastic ligature		—	—	Centralblatt für Gynäkologie, 1884, No. 2.
Kept out with Billroth's écraseur and two long needles	Listerian. No spray	40 mins	Chain fell from pedicle on 13th day	Archiv. für Gynäkologie, 23 Band, Heft 2, 1884.
Transfixed by long pin surrounded by elastic ligature	Iodoform dressing. No spray	—	—	Communication direct from operator. Not yet published.
Kept out with Lawson Tait's clamp	,, ,,	—	The bulging tumour caused tension on the pedicle and prevented drainage. Removal of tumour impossible. Müller's modification	Edinburgh Medical Journal, July, 1884. Communication from Dr. Barbour.
Transfixed with Kaltenbach's needle and elastic ligature applied through centre of pedicle	Listerian	1 hour	Uterus opened *in situ*. Woman left hospital well, March 15	Communication direct from operator. Annali di Obstetricia, No. 2 and 3, 1884.
Kept out with Lawson Tait's clamp	Listerian with spray	40 mins	Uterus opened *in situ*	Not yet published. Communicated direct from operator.
Kept out with Cintrat's constrictor and two long pins	Listerian with spray	1½ hours	Uterus opened *in situ*	Annales de Gynécologie, October, 1884.
Fixed in lower angle of abdominal wound by Hegar's method	Listerian	—	Patient was 4 weeks over term when operation was undertaken. Uterine walls contained six myomata	Not yet published. Communication direct from operator.
Kept out with écraseur chain	Listerian without spray. No drainage	1 hour	Uterus opened *in situ*	Information from Dr. Ehrendorfer. Not yet published.
Kept out with Kœberlé's serre-nœud and two long pins	Listerian without spray	30 mins	Uterus opened *in situ*. Placenta removed before serre-nœud was applied	Communication direct from operator.
Ligatured and stitched to abdominal wound, ligature of both broad ligaments below ovaries	Listerian	35 mins	Pedicle did not unite very satisfactorily at first and gave considerable trouble	Communication direct from operator.
Ligatured and dropped in after application of iodoform	,,	—	Müller's modification. Patient left Hospital well on 15th day	Centralblatt für Gynäkologie, No. 1, 1885.—Heilbrun.
Fixed in lower angle of wound with Kœberlé's serre-nœud and two long pins	Listerian with spray	45mins	Tumour freed from adhesions and removed with uterus. Attempts to raise tumour per vaginam failed. Craniotomy also failed	Not yet published. Information direct from operator.

Pregnancy, but before the Fœtus was viable.

Uterus opened?	Treatment of pedicle.	Dressing, ordinary or Listerian.	Duration of operation.	Weight of tumour.	Special notes.	References.
No	Ligatured with strong whip-cord and dropped in		—	—	Uterus was compressed between two fibroid tumours, the larger locked in the pelvis, the smaller projecting over the symphysis pubis	St. George's Hospital Reports, vol. viii, 1874-76, page 91. Communication from operator.
No	Dropped in		—	—	Uterus with two interstitial and one subperitoneal fibroids removed, being amputated at the internal os uteri	Communication direct from operator, 13th July, 1884.
No	Kept out with clamp	Ordinary	1 hour	—		Birmingham Medical Review, Nov., 1883. Communication direct from operator.
Yes	Kept out with Spencer Wells's clamp	Listerian dressing ; no spray. Drainage tube through abdominal wall	1½ hours	—	Uterus was removed because it was wounded during ovariotomy. The uterus was punctured believing it to be a second ovarian cystoma	The Australian Medical Gazette, Sydney, May 15th, 1884.
No	Dropped in		—	—	The tumour, measuring 24 kilomètres, was situated beneath the pregnant uterus, and was removed together with it, the amputation being at the internal os	Communication direct from operator, 13th July, 1884.

TABLE III.—*Operations for Removal of Fœtus from Abdominal Cavity by*

No.	Date.	Operator and Locality.	Hospital or Private house	Age	Previous confinements.	Time of operation after rupture.	Condition of woman.	Result to woman.	Result to child.
7	1883. Dec. 18	Dr. Luigi Violani, Forli, Italy	Private house	27	3	12 hours	In state of collapse	Died in 48 hours.	Dead before operation.

TABLE IV.—*Cases omitted from*

No.	Date.	Operator and Locality.	Hospital or Private house.	Age.	Number of previous labours.	Cause of Difficulty.	Available pelvic space.	Height of woman.	Time in labour before operation.	Condition of woman at time of operation.	Result to Woman.	Result to Child.	Cause of death in Woman.
	1882. Oct. 2	Dr. M. Sänger, Leipzig, Germany	Hosp.	21	2	Retention of a macerated fœtus in the left horn of a bicornered uterus	Normal	Ordinary	Had labour pains for 12 hours 9 weeks before operation	Fair	Recovery	Stillborn macerated	—

A CASE OF PORRO'S OPERATION.

Read before the West Kent District of the South-Eastern Branch.

BY FANCOURT BARNES, M.D.,

Obstetric Physician to the Great Northern Hospital; Physician to the British Lying-in Hospital and the Chelsea Hospital for Women.

THE case which I am about to relate is, as far as I know, the sixth in which Porro's operation has been resorted to in this country. The patient, Mrs. S., aged 28, primipara, was sent into the British Lying-in Hospital, on September 10th, 1884, by Dr. Pearce, on account of a pelvic tumour obstructing labour. I was sent for to the hospital at 9.30 P.M., and, on making a vaginal examination, found the pelvis nearly completely occupied by a hard semi-solid tumour, lying behind the posterior wall of the vagina, and fixed to the sacrum. The os uteri was only dilated to the size of a five-shilling piece, although the patient had been forty-eight hours in labour, and said that the liquor amnii had escaped soon after the commencement of labour. Finding that it would be impossible, owing to the narrow space between the tumour and pubes, to deliver by craniotomy without the certainty of rupturing the tumour, I endeavoured to push the tumour up out of the pelvis. This, however, I was unable to do, it being firmly fixed to the concavity of the sacrum. It being now clear that one or other of the Cæsarean operations would be necessary, I sent for my colleagues, Drs. Phillips and Handfield-Jones, and my father, Dr. R. Barnes. On their arrival, the patient was examined by them, and further unsuccessful attempts made to push the tumour up out of the pelvis. After consultation, it was decided to deliver by abdominal section, in the interest of the mother as well as of the child. The patient having been anæsthetised by Dr. Phillips, I proceeded, at 12.30 A.M., to the operation. An incision from one inch below the umbilicus to an inch above the pubes was made through the abdominal wall. I then made an incision about four inches in length perpendicularly, down the anterior wall of the uterus. The right shoulder of the child presented at the uterine opening. I therefore passed my hand into the uterus, seized a foot, and delivered a live male child, weighing 7 lbs. Having separated the child from the cord, I removed the placenta. The hæmorrhage from the incised uterine walls was controlled by Sydney Jones's ovariotomy clamp-forceps. The uterus, which was now empty and contracted, was drawn forwards out of the abdomen. A Kœberlé's *serre-nœud* was then applied round the cervix, underneath the ovaries. The *serre-nœud* was tightened, and the uterus, together with the ovaries, amputated just above the *serre-nœud*. The pedicle formed by the cervix was transfixed by two straight pins, and fixed outside the abdomen at the lower end of the incision. Some sponges, on sticks, were passed down into the pelvis, and returned unstained, showing that no fluid or blood had escaped into the peritoneum. The abdominal incision was united by silver-sutures. The wound was covered over with cotton-wool; a piece of carbolised lint being placed over the stump. With the exception of the spray, the operation was performed under antiseptic precautions. The operation occupied forty minutes. The child survived.

During the night, the patient slept at intervals, and was free from pain. She received four doses of thirty minims of tincture of opium during the night.

On September 11th, at 10 A.M., nine ounces of urine was drawn off. Her pulse was 84, temperature 98.2° Fahr. The *serre-nœud* was tightened, and some perchloride of iron was applied to some oozing vessels in the stump. I prescribed compound spirit of chloroform, fluid extract of ergot, and tincture of digitalis, to be taken every four hours. Between twelve and one o'clock, she vomited about two ounces of yellow mucus. She had iced champagne at intervals of twenty minutes during the afternoon, to allay the vomiting. The urine was drawn at 8.30 P.M. At 10 P.M., the pulse was 104; temperature 98.2°.

At 10 A.M. on September 12th, the pulse was 96, and the temperature 99.4°. Eighteen ounces of urine had been drawn off during the night. The abdominal wound, which looked healthy, and had united, was dressed under the carbolic spray. The pedicle was healthy and odourless. Tongue moist and clean. The vomiting had ceased. Nine ounces of urine were drawn off. At 3.30 P.M., the *serre-nœud* was tightened, and nine ounces of urine were drawn off. She was taking beef-tea, gruel, milk and soda-water, alternately, in doses of a tablespoonful. At 10.30 P.M., the tongue was clean and moist; pulse 96, temperature 99.8°. The respirations had gone up to 21. She looked well, and said she felt comfortable.

September 13th, 10 A.M. The pulse was 120; respirations 21; temperature 102.8°. She had had a rigor at 6.45 A.M. The urine was drawn three times during the night; eight ounces each time. The vagina was syringed with carbolic solution, and some offensive sanious fluid washed out. The stump looked healthy. She was ordered quinine in ten-grain doses, with tincture of opium. At 3.30 in the afternoon, six ounces of urine were drawn off. Nourishment was well taken, but the abdomen had become distended and tympanitic. Pulse 120, respirations 20. In the evening, at 10 P.M., the pulse was 122; temperature 100.4°; respiration 24. During the day, three enemata of soap and water, with turpentine and oil, were administered, which gave vent to large quantities of flatus, and relieved the abdominal distension. The *serre-nœud* was tightened, and the pedicle found healthy and free from smell. The vagina was syringed with carbolic lotion, which returned clear.

September 14th, 10 A.M. The pulse was 120; respiration 28; temperature 101°. Nine ounces of urine had been drawn off at 4 P.M. She had hiccough. She was perspiring freely. She had passed some urine into the bed. At 3.30 in the afternoon, the pulse was 140. Diarrhœa had set in, with clay-coloured stools. In the evening, she became delirious, and tried to get out of bed. During the night, she rapidly grew worse, and died at 4.45 A.M. on September 15th.

The *post mortem* examination was made by Dr. R. Burnet, twelve hours after death. The body was that of a large, well developed, and well nourished woman, aged 28. A complete examination was forbidden; hence only the pelvis and abdominal cavity, through the incision, could be examined. The whole of the incision had united, except the lower

Laparotomy, followed by Amputation of Ruptured Uterus, with Ovaries.

Cause of death in woman.	Treatment of pedicle.	Dressing, ordinary or Listerian.	Duration of operation.	Reference.
Septic peritonitis	Extraperitoneal; Cintrat's serre-nœud	Imperfect Listerian	40 minutes	Raccoglitore Medico di Forli, 1883, vol. xx, p. 054.

Table I, for reasons assigned.

Treatment of pedicle.	Dressing, ordinary or Listerian.	Duration of operation.	Special Notes.	Reference.
Peritoneum stitched over stump with 8 silk sutures; pedicle dropped in constricted with elastic ligature	Listerian, without spray	1½ hours	Operation performed 9 weeks after death of fœtus, when separation of a decidua occurred, with symptoms of internal hæmorrhage and peritonitis	Centralblatt für Gynäkologie, 1882. Communication direct from operator

part, where the stump of the uterus was found transfixed by the needles, and commenced to separate. The surfaces of the incision were healthy; and, when the stitches were removed, the adhesion had to be broken down. The abdominal cavity appeared healthy; there was no fluid, and no signs of peritonitis. On passing the hand into the pelvis, a large tumour could be felt, lying rather towards the left side, and about as large as a child's head, tense, and globular in form. When raised, the tumour was found to be attached to the posterior aspect of the pelvic margin by a peduncle narrow at the tumour, and spreading out on the sacrum in a digitate manner.

On removing the tumour, it was found to be a large globular semi-solid mass, with several definite thickenings in its walls, apparently cystic. On opening the cyst, it was found to contain a quantity of thick creamy sebaceous matter; a mass of hair about half an inch thick, and about the size of a penny in circumference. This mass of hair was not attached to the wall, but slid freely on a fibrous band which penetrated it. On dissection, the nodular masses in the wall were found to contain several more or less completely developed teeth.

Remarks.—Neither the operation of Porro nor the ordinary Cæsarean section is likely ever to be frequently resorted to in England, for the simple reason that, in our country, badly distorted pelves are not commonly met with. In Italy and Germany, the various deformities of the pelvis arising from rickets and osteomalacia—an Italian name, by the way, for an almost Italian disease—are abundant. Spiegelberg, indeed, thought that, in Germany, nearly every seventh pelvis might be regarded as deformed. It is of absolute necessity to a just appreciation of the advantages and disadvantages of Porro's operation by the profession in this country, that the failures should be scrupulously published. We know that the successful cases will not be concealed. On referring to the table drawn up by Dr. Godson, I find that, out of five cases of Porro's operation in Great Britain which he has collected, only two had been published: the first by Professor Simpson, in which the patient died; the second by Dr. Godson himself, in which the patient recovered. The remaining three deaths remain unpublished. And so, until Dr. Godson collected all the cases he could, the death-rate in Porro's operation in this country, gauged by published cases, might have erroneously been set down at only 1 in 2, whereas it has really been 5 in 6. I have mentioned this to emphasise the importance of all such cases being published. Out of the 138 operations collected by Dr. Godson, 77 deaths are recorded, against 61 recoveries. It must, therefore, at present, be regarded as a most severe proceeding.

In the case I have just related I was obliged to resort to Porro's operation, owing to the impossibility of delivering the child *per vias naturales*. The pelvis was occupied by a fixed semi-solid tumour, leaving only room for the examining finger to pass between it and the pubes to the os uteri at the brim. In performing the operation, I incised the uterus whilst it was still in the abdominal cavity; I then removed both the child and the placenta before drawing the uterus forwards out of the pelvis. My reason for emptying the uterus of the placenta as well as of the child before applying the *serre-nœud* is that it allows of more perfect and natural contraction of the uterus, and thus materially facilitates the adjustment of the *serre-nœud* round the uterine neck. It further allows the cervix to be embraced by a smaller loop of wire, and so obviates the tightening of the wire too soon after its application. Müller's modification of making a large abdominal incision and then drawing out the gravid uterus before incising it, seems to me a needless and dangerous complication. The object is to prevent hæmorrhage by applying a constrictor round the cervix before incising the uterus, and also to prevent blood and amniotic fluid escaping into the peritoneum. Both these accidents are easily avoided by an assistant supporting the uterus while it is being incised, and by applying pressure by clamps or the hand to the walls of the uterus, until it is drawn out of the abdomen. In my case, no blood or fluid ran into the abdominal cavity. Where it is considered advisable to insert a drainage-tube, I think it would be best to pass it through a small opening in the posterior vaginal pouch into the peritoneum.

The two chief dangers of the operation are, first, shock; second, blood-poisoning. It is well known that amputation through the cervix uteri is a great shock to the nervous system. Dr. Savage regards this as the chief danger in cases of hysterectomy for fibroid tumours. If the patient, however, rally from the shock, as in my case, there is still the probability of septicæmia to be encountered. Up to the fourth day my patient did not exhibit any bad symptom, and seemed to be progressing so well that her recovery seemed assured. The prevention of septicæmia must always be difficult where we have to deal with a pedicle fixed outside the abdomen. I regard this as the chief danger after the operation, and cannot help thinking that, as in ovariotomy, it would be safer to transfix the pedicle, securely tie it, drop it into the abdomen, and close up the wound, leaving, if necessary, a drainage-tube through the vaginal wall into the peritoneum. In the case I have described, the presence in the pelvis of a suppurating dermoid cyst was an additional and great source of septic danger. I think that, had it not been for this complication, the patient would have recovered.

In the British Medical Journal, November 1st, 1884, a case is reported from the Prince Alfred Hospital, Sydney, in which Dr. Goode removed both ovaries, together with the uterus, which was amputated through the cervix uteri. Instead of fixing the pedicle as usual in the lower angle of the abdominal wound, Dr. Goode transfixed it with a double ligature of carbolised silk, tied it, and returned it into the abdomen. The patient recovered.

The results of the treatment of the pedicle by the intraperitoneal method have not hitherto been more encouraging than those obtained by the usual method of securing it in the abdominal wound. It is reassuring, however, to find that, of the deaths after the intraperitoneal treatment of the pedicle, not one is attributed to bleeding from the pedicle. Seeing that the dangers from septic absorption are increased by the extraperitoneal method, this should be an argument in favour of a further trial of the intraperitoneal treatment of the pedicle.

To conclude; we are yet far off the day when it will be possible to decide which of the three, Porro's operation, Cæsarean section, or laparo-elytrotomy, affords the safest chance for the mother.

ON ACNE ROSACEA.

Read before the Harveian Society.

By TOM ROBINSON, M.D., L.R.C.P.,
Physician to St. John's Hospital for Diseases of the Skin.

The various arteries of the face communicate not only with the arteries of the same side, but also with those on the opposite side, so that they form a real rete arteriosum faciei. This pre-eminent supply of arterial blood manifests itself in the red cheeks of the white race.

There can be little doubt that the redness of the cheeks compared with that of the adjoining parts is due to the filling of the capiliary net from different sources, and is not the result of a thinner diaphanous coat. The connection between the nervous system and local hyperæmia is rendered here sufficiently evident by the influence of certain emotions, by which the blood-current may be either suddenly intensified or arrested, as seen in sudden blushing or pallor of the face.

The cutis at the apex and alæ of the nose is also unusually rich in its blood-supply, and also in the number and size of the sweat-ducts and sebaceous follicles; and in this position the skin is so firmly united with its cellular substratum that it cannot easily be detached from it. This solidity of its tissue explains the painful tension which accompanies inflammation of these parts. There are many other clinical phenomena which have long attracted the notice of the physician to the face; such as the colour of the cheeks in pneumonia, and in the febrile stages of phthisis; the pinched and pallid face of cholera, and its aspect in summer diarrhœa. The grouping of small-pox pustules on and around the nose demonstrates a proclivity for this tell-tale spot. Again, we look at the nostrils in the last stage of "capillary bronchitis," or the suffocative catarrh of children, as an index of the amount of carbonised blood in the body, and we do not look in vain. The permanent vascular, or, rather, varicose dilatation, as noticed in cardiac disease, is well worthy of observation in this region.

The rapidity with which cicatrisation of the nose takes place after injuries, even after detachment of the part, is an indication of the extreme activity of the circulation in this spot; a region which is much exposed to cold, parts with its heat in proportion as the circulation is more active. Thus the circulation is very active in the pulp of the fingers and toes, the lobule of the ears, and the tip of the nose; and these parts are readily frozen, and are the seat of chilblains; and on the ears, and nose, and cheeks, we usually find erythematous lupus; and these are the situations which become cold as dissolution takes place.

What singular depth and power is shown in Shakespeare's description of Falstaff's death!

"So 'a bade me lay more clothes on his feet: I put my hand into the bed and felt them, and they were as cold as any stone; then I felt to his knees, and they were as cold as any stone; and so upward and upward, and all was as cold as any stone."

I am almost tempted to give Shakespeare's word-painting of Bardolph's nose; and amongst my own friends, I often speak of advanced stages of acne rosacea as "Bardolphian noses."

I would most gladly have changed the heading of this paper, were it not for a rigid belief which I have in retaining old names, names to which we attach a definite and an antique significance. Perhaps no domain of surgery or medicine has been so mystified by new definitions and new nomenclatures as that of skin-disease; and having felt at frequent intervals the difficulty of conveying to others the exact value which I attached to certain substantive names, I have retained the old-fashioned name, acne rosacea, which has, at least, the sanction of time.

The word acne is unquestionably derived from the Greek ἀκμη (*acme*), one of its meanings being bloom, or efflorescence. The eruption on the face, accompanied by pimples, was also called by the Greeks ἴανθος (*ianthos*), *i.e.*, of a violet colour. Old writers called these pimples "vari cuperosi," which is held to be a corruption of "goutterose," or rose-like drops. Others again derive the name of couperos from Cyprus, that is to say, the rose of Venus, as Cyprus is alleged to have received its name from the copper found in it, so the name does not appear to be so far fetched as at first sight.

"Jolly noses" must have existed at all times, but, as they did not interfere with the health, they did not claim the attention of the physician or surgeon, but afforded material for the satirists and the poets, as we find in the works of the ancients. The red noses were then, as now, ascribed either to the votaries of Venus or of Bacchus; it remained for modern dermatologists to classify them. Hebra distinguished them, so to speak, into "beer-noses," "brandy-noses," "wine-noses," etc., a classification which is not adapted to actual experience.

Celsus, Paulus Ægineta, Aetius, Fernelius, Ambroise Parè, Guido de Chauliac, Nicholas Florentinus, Daniel Furrer, and Lorry have each described face-eruptions, which evidently include acne rosacea. A translation of Celsus, lib. vi, cap. v, *De Varis, et Lenticulis, et Ephelide, et Corium Curantionibus*, is all I will quote.

"It is almost a folly to treat of pimples, and lentils, and ephelides, yet the anxiety of women concerning their beauty cannot be overcome. Of such as I have already mentioned, vari and lentils are commonly known, while that species the Greeks called "semion," being of a more ruddy colour, and more unequal on the surface; but the ephelis is known by few, being nothing more than a certain asperity and hardness of a bad colour. The others, pimples and ephelides, appear only on the face, the lentils appear sometimes in other parts."

Turner (*De Morbus Cutaneis*, Lond.: 1721, third edition) was evidently well acquainted with the disease. In the fourth chapter of his work, he treats of disease incident to the skin of the face, and he observes: "If I have given instructions how to abate the fiery red complexions of the face with other breakings out that so disfigure it, I cannot think the task below the duty of a physician. It is certain," says Turner, "that the redness does not always owe its origin to hard drinking, since it is sometimes observed to attend the most temperate and abstemious. However, for the most part, the constant tipplers of strong beers and wines, especially the first, are the most obnoxious to the malady."

Sir Theodore Mayern (*Observations*, Obs. 25), in his regimen for my Lord Maxwell, subject to these *exanthemata faciei cum nasi rubidine*, after taking notice that it was hereditary to the family, the brothers and sisters being subject thereunto, lays the fault chiefly in the liver. I might quote the observations of Plumbe, Hunt, Burgess, and many other keen observers of skin-affections, but without gaining any other result than great respect for their work.

I would define acne rosacea as a disease which is seen almost exclusively on the nose, cheeks, chin, and brow. It will sometimes attack the scalp, but only in the bald, and I have once seen it on the sternum.

It is a disease which is found about equally in both sexes, but is never met with before the age of puberty, and seldom before 25 years of age; it occurs in women with much greater frequency at the climacteric period of life, than at any other age, but it is not by any means limited to this epoch.

It is always heralded in by flushings of the regions attacked, which flushings are much increased after food, or by an injudicious diet; these flushings then run into suffused red patches, with permanent dilatation of the blood-vessels; afterwards pimples form, these may go on to suppuration, and the parts then become the seat of a chronic inflammatory process. When the inflammation has continued for some time, large patches of lead-coloured tissue will form, and the sebaceous follicles may, and frequently do, become involved, but they in no way form an essential part in the etiology of acne rosacea.

My chief object in introducing the subject this evening, is to endeavour to show that the greater number of cases of acne rosacea are associated with an irritable state of the mucous membranes, especially that of the stomach; or, in other words, that gastric catarrh is the forerunner of acne rosacea. I should eliminate from this proposition those cases which are found as a sequel of small-pox, or of any other inflammatory process which has occurred in and around the sebaceous follicles of the face; neither do I wish it to be understood that I in any way postulate that every case of gastritis is associated with rose-coloured papules on the face; but I do wish to emphasise my belief that in all cases (excepting those just referred to), it will be found that these patients have flushings after food, and, lest this statement should appear unsupported by other testimony, let me draw attention to the red faces which we see after a dinner; to the blanching of the face in those who are sea-sick; to the pinched face of cholera; to the abdominal face, as it is called, which we see in wounds of the intestines, or perforation from ulcers. These point to a sympathy between the circulation of the face and the condition of the abdominal organs which every student knows.

Again, the sympathy is evidenced in the pigmentation which occurs in "Addison's" disease, which commences in the face and neck; also in the yellow eyelids, which culminate in xanthelasma palpebrarum, as found in those who, in common phraseology, are bilious. The pigmented brow, or uterine chloasma, of pregnant and suckling women is another instance of distant and common sympathy. I might point

to the changes in the joints which we find occurs in some cases of locomotor ataxy, to the ulceration of fingers which takes place in division of nerves, as illustrations of the same law. No doubt it is through the nervous system that this sympathy is made evident. One of the chief offices of the nervous system is to control and regulate the vascular system, and in no part of the body is the capillary system more liable to be influenced by disturbed nerve-force than in the face. Again, it appears that there is a quicker sensibility in the face. In fact, the stimulant that attracts the blood to this part does not act with the same force elsewhere. For instance, a blow upon the ear will redden the cheeks more than a similar blow elsewhere.

The blood is withdrawn from the capillary system of the face with the same rapidity as it flows to it. In the space of a moment, passions will alternately impress upon the features either the fiery complexion of fever, or the pallor of syncope. This applies especially to the young. The aged blush not easily.

We must also notice the singular proneness which some forms of skin-diseases have to appear on the face; with few exceptions, we may say acne rosacea, lupus erythematosus, rodent ulcer, sycosis, and the other lupoid processes appear only on the face.

I am not stating this as an absolute truism; in fact, I may say I have seen every skin-disease appear on the face, excepting chloasma and itch. Doubtless, this proclivity is due, in a great measure, to structural peculiarities, but more especially to the sources of irritation which influence much the location of all skin-diseases. In the male, the use of the razor, and in all the influence of wind, sun, soap, hard water, and dirt, have to be recognised as factors in determining the seat of any disease of the skin.

I should like to include in my description of acne rosacea other conditions which have been described under a multiplicity of names. I refer to the cases where the skin of the bridge of the nose and over the malar bones often becomes the seat of an acute erythema, often vesicular, and always fugitive, leaving behind traces of its visit, such as increased density of the subcutaneous tissue. Other cases occur where the redness attacks an area of skin in other portions of the face; it comes when the sufferer is out of health; it occurs on exposure to certain forms of irritation. It is surprising how terribly sensitive the skin of the face becomes in some individuals. I know a lady whose face is brought out into a copious vesicular rash whenever she is exposed to the daylight. Others get degrees of inflammation on a repetition of the exciting cause.

I have for some time past been directing my attention to the very close relationship which exists between acne rosacea and lupus erythematosus. We find both conditions occurring after the age of puberty, attacking, as a rule, the same regions, and resisting with parallel obstinacy our endeavours to cure them. I must also mention the proneness to relapses, which spread over some years in these diseases. I have now under observation cases of erythematous lupus, and also of acne rosacea (without organisation of tissue), which have been apparently quite well, but which have come back to me with the malady returned. Again, you will find these cases of lupus are, like rose-acne, intensified by an irritable state of the digestive organs, also by the effects of sun, wind, or soap; and they are always worse after eating.

In some of my cases, I have not been able to distinguish by any outward signs the difference between the two conditions. I am aware of the ease with which we recognise erythematous lupus, when the disease is pronounced, by its well defined edge, its colour, and its adherent scales; but our difficulty exists at the commencement of the two diseases; and I should be disposed to classify this form of lupus with the inflammatory skin-diseases, and not as a new growth.

I may be permitted to introduce a piece of personal pathology to indicate my theory.

I get, at intervals, a condition of health which has the following train of symptoms; a succession of chills across my shoulders and up my spine, a slight frontal headache, a feeling of depression, and a slightly yellow skin. This continues for two or three days; then a patch of herpes comes out at the angle of my mouth. The patch comes in precisely the same spot each time. I introduce this to show that tissue once damaged by inflammation is prone to reinflame when the exciting cause again arises. We see many instances, in both medicine and surgery, which illustrate the same law; but in the dominion of cutaneous diseases we find our best examples, and there we can the most readily watch them. The local forms of eczema, notably about the wrist, occur over and over again in precisely the same spots. Many patients will tell us that "herpes præputialis" attacks them in the same situation each time. The forms of relapsing chancres, the revivifying of old syphilitic inflammation, are parallel examples. I might illustrate the tendency by showing how gout and rheumatism attack the same joint at intervals. Sir James Paget has given us instances, in his own personal experience, of the same observation; and Mr. Hutchinson has the following pregnant words in his last work. "We need not feel much difficulty in interpreting the phenomena which we witness in recurring erysipelas and persistent elephantiasis; they are doubtless examples of the pathological power of habit and indulgence. Just as a man, who has yielded to intemperance, is in danger of becoming a drunkard, so it is with his tissues. The oftener they have yielded to any special process of inflammation, the more prone are they to yield again."

I have introduced this digression to bring me to its application to acne rosacea. If we watch attentively the victims of this malady, we shall notice that precisely the same spots become inflamed over and over again, until the intervals between the attacks grow less and less, and the disease becomes permanent.

It is an error to describe acne rosacea as a papular disease, as much as it is to designate it a pustular eruption. We meet with instances which, in some skins, are eczematous, and we rarely meet with it in individuals who have not other evidence of an unstable skin. Only last week I saw a young lady with the following history. "Her grandfather had eczema of the arms; her father and brothers had chloasma; another brother has, at the present time, vivid coloured papules on the nose and cheeks, with conspicuously dilated blood-vessels at the alæ of the nose; another brother has lichen planus on the right arm. My patient tells me she had an exceptionally thin skin at birth; at two years of age, she had an eruption on her neck, which was called 'erythema.' Soon afterwards, a peculiar hardness of the skin of the hands commenced, which has continued ever since. This condition is worse in the winter than it is in the summer. She scarcely ever sweats, and she is liable to colds and coughs. She had erythema of the legs at 18, and was unable to walk for three weeks. For the last four years, she had had an eruption of the face, which is worse after food."

I will not detain the Society with my notes, but briefly state that she had common psoriasis-spots on the elbows and knees; that the soles and palms were covered by a hard dense mass of hypertrophied papillæ; and where the pressure was greatest, these papillæ formed a close homogeneous mass, which she kept down by rubbing with pumice-stone. She had typical rose-coloured spots on her face.

I introduce this case to show that acne rosacea is frequently associated with other skin-diseases.

Personally, I object to the elaboration of definitions, believing, as I do, that the hard and fast lines which have been introduced into the nomenclature of skin-diseases have made a subject, which of all others ought to be as clear as noonday, singularly embarrassing and confusing.

But, for the purposes of description, I would distribute all the cases of acne rosacea into the following classes.

First, Those cases which we might conveniently call congestive acne rosacea, which generally commence by reddish patches, occupying, by predilection, limited spaces on the cheeks, the forehead, the sides of the nose, whence the redness in some cases spreads over the whole face, and even to the ears, the shoulders, and the chest, appearing usually in an unsymmetrical manner. The red patches appear at first for some moments only, generally during or after dinner, and towards evening rather than in the morning, being more evident in very hot rooms. The redness, in the first instance, is very fugitive, but afterwards becomes deeper in colour and more lasting, and is not uncommonly followed by desquamation. A precisely similar condition is met with amongst huntsmen, gamekeepers, and farm-labourers, and others who live much in the open air, but it is only found in those who have thin skins.

Secondly, Those cases where, in addition to the congested state of the integument, papules form, which in the first instance are not red, but afterwards they become vividly so, and sometimes they suppurate at their apices. These spots come out in successive crops, and in women are more marked about the menstrual period, and are intensified in colour by improper food or hot drinks. I should include in this group all the cases of relapsing erythema, and the so-called relapsing erysipelas, because I believe these are only degrees of the same proclivity.

Thirdly, The "jolly," or "bottle-noses," as they are called—that is, those cases where, in addition to the varicose condition of vessels and papules, we find at times enormous hypertrophy of the cellular tissue, giving rise to the most grotesque disfigurements. A careful examination of these cases will enable us to see the whole glandular system is involved. The sebaceous glands are in every stage of inflammation; the blood-vessels stand out in bold relief. This state in no way differs from elephantiasis of the legs, which we see in the wake of varicose ulcers.

I should like to include a fourth variety, which is common in women at the climacteric period of life. It has been noticed, from the time of Shakespeare, that old women grow beards; and it is a well known fact that, gradually, as menstruation ceases, women often become fat, and many of them grow a crop of hair on their upper lip, but chiefly on the chin; and it is this physiological activity in the hair-follicles which, in many instances (especially in those who had the acne of youth), that transgresses the boundaries of health, and we see developed unsightly papules, most obstinate to cure.

This condition, more accurately speaking, should not be classified with acne rosacea, but rather with the acne of puberty; but in so many instances I have not been able to find the spots were in any sense umbilicated, that I have placed it with the disease which we are considering this evening.

I by no means wish it to be understood that these different degrees of acne rosacea have a distinct line of demarcation. Nature does not draw for us clear lines, especially in dermatology, rather do we find the diseases shade into each other gradually.

I must say, in treating any case of acne rosacea, how essential it always is to estimate any superadded influence, such as syphilis, scrofula, or gout; each will give a local colour to the disease, and embarrass a great deal both our diagnosis and our treatment.

A few words respecting the etiology and pathology of acne rosacea. It appears clear that any portion of the body which is the subject of repeated congestion will eventually be the seat of an inflammatory action, and in this disease we have a good illustration of the law.

We must believe there are some skins which will not, under any circumstances, take on a diseased condition; but, given a cutaneous area, with an inherited tendency to become inflamed under provocation, which tendency is exaggerated in the face, because of its pre-eminent blood-supply, and its close sympathy with the digestive process, which association is conveyed from the solar plexus up the great splanchnic nerves to the lower, middle, and upper cervical ganglia, to the nerves of the face; the skins become congested in cases of difficult digestion. This exaltation leads to a temporary congestion of the blood-vessels; the congestion becomes stasis. The papillæ becoming congested, and afterwards inflamed, sometimes suppurating, the nutrition of the portion of the skin is altered, so that the surrounding tissues become inflamed, and eventually hypertrophied. The inflammation and new growth select those situations which are the richest in blood-supply and glands, that is, the alæ nasi, the cheeks, and the chin. The arrangement of the papillæ in excess around the hair-follicles accounts for the frequency with which we find follicular acne associated with acne rosacea.

A few words, also, as to the influence of alcohol upon acne rosacea.

That alcohol does produce in some skins all the degrees of acne rosacea is undoubtedly true; but, to associate all cases of the disease with excessive drinking is unscientific and unfair. I know very many most rigidly careful people afflicted with the malady; and the popular name for these red spots being "grog-blossoms," in no way diminishes their suffering.

The treatment may be summed up in a few sentences. It is essential that all those who are afflicted with acne rosacea should abstain from all food which is difficult to digest, such as pork, veal, hashes, stews, and uncooked vegetables; and, as a general rule, from wine, beer, and spirits. The face should not be irritated by common soap, and care should be exercised as regards exposure to the wind and sun. The meals should be slowly eaten at regular hours, and the fluid put into the stomach at the end of the meal.

In the first degree of the disease, it will only be necessary to prevent the development of the papules, by applying a lotion, made with bismuth and the glycerine of starch of the *Pharmacopœia*, diminishing the starch by three-fourths.

When the papules are developed, nothing answers so well as a lotion made with two grains of the bisulphuret of mercury in one ounce of almond-emulsion or glycerine of starch, used every night.

When the inflammation is acute, and suppuration is going on, we must, in the first instance, foment the face with hot water (placing a hot sponge over any troublesome spot is a simple and useful plan); and, when the acuteness of the inflammation has subsided, rub in an ointment made with twenty grains of the yellow oxide of mercury in one ounce of lard, and continue this treatment until the inflammatory process has stopped; after which, the bismuth and starch lotion answers well.

Internally, I always rely upon a mixture made with an alkaline carbonate; soda, I think, is best. If there be much inflammatory thickening, I add the solution of perchloride of mercury, or if there be any syphilitic tendency to grapple with, I add the Donovan's solution; if scrofula, cod-liver oil; but internal and external remedies are useless where organisation of tissue has taken place. I have never seen an operation performed upon the advanced cases of acne rosacea.

CLINICAL MEMORANDA.

NOTES ON RINGWORM.

In the JOURNAL for November 15th, Mr. Malcolm Morris took exception to my advice that the scalp should be washed during some forms of treatment of ringworm; I am pleased therefore to see in the JOURNAL that Dr. Liveing defends this old practice, and says: "Free washing with soap and water is a good preventive," etc. When ordering an ointment that causes but little irritation, I seldom advise the scalp to be washed oftener than once or twice a week—the time depending upon the amount of scurf, etc., accumulating—and, with oleate of mercury, only once a fortnight; but with the saturated solution of boracic acid in alcohol, and with the chrysophanic acid in chloroform (as suggested in the JOURNAL of November 1st), I still think it is advisable to wash the places once a day, and thus prevent the accumulation of sebaceous matter and scurf, which hinders the lotion from penetrating into the hair-follicles. A reference to my paper will show that I only advised the *patches* of ringworm to be washed; and I always caution the nurse against washing the chrysophanic acid over other parts of the head, and thus prevent extensive red staining.

Dr. Liveing is to be thanked for again drawing attention to the fact that the hair-dresser often (unknowingly) communicates ringworm. While this is due, at times, to great carelessness on the part of parents and others, yet it more often happens from the fact that they are unaware that their children are suffering from a contagious and uncured form of ringworm. But hair-cutting is not the only way in which this troublesome disease is spread. It is just as common for children who have ringworm to be taken to the hatter, and to be allowed to try on numerous caps—with what result to those who happen to put them on afterwards, I need not remark. Parents who wish to avoid the risk of sending their children to the hair-dresser should have him to their houses, and insist upon his using the brush, comb, and scissors belonging to the house. I trust that, in time, it will be thought as wrong to send a child with ringworm to the hair-dresser, or to try on new caps, as it would be if he were suffering from an infectious fever.

But the most important point to remember, in reference to the etiology of ringworm, is the fact that many children are still permitted to mix freely, in schools and elsewhere, who have chronic, uncured, and often untreated ringworm of the head. Having often drawn attention to this fact, I feel I ought to give some proof of my assertion, and therefore publish the following table, which shows the percentage of boys who have ringworm of the scalp when first presented for admission into this school.

It should be remembered that our boys are drawn from all parts, and from all grades of middle-class society.

CHRIST'S HOSPITAL.	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	Total in 10 Years.
The number of boys examined the first time, supposed to be quite free from ringworm ..	193	190	174	187	205	217	183	179	182	102	1812
The number of ringworm-cases (of the scalp) detected.....	15	20	10	10	16	16	16	15	13	5	145
Age 8 to 10 years. Average percentage in the ten years	..	..	..	..	..	..	..	..	..	..	8 per cent.

This table proves that 8 per cent. of the boys presented at our examinations (aged between 8 and 10) have ringworm of the head; and that, as a rule, this fact is unknown to their parents, for the children are supposed to be free from this disease. The greater number were suffering from chronic and untreated ringworm; and, in all cases of doubt, microscopic aid was employed to assist the diagnosis. During the last ten years, there have been 217 more rejections of these children when brought up a second, third, or even a tenth time. Many of these boys had been attending schools just before our examinations, and had certainly been mixing with other children. Thus it is easy to see why there is such a large percentage of this troublesome complaint amongst boys and girls in this country. Some institutions suffer greatly; and it is becoming a very serious question what means are to be adopted to remove the large percentage that undoubtedly

exists in many of the Board and elementary schools, and which, if allowed to continue, must help to increase the amount which is already present in the middle and upper classes of society.

ALDER SMITH, M.B., F.R.C.S., Resident Medical Officer,
Christ's Hospital.

PERIOSTITIS FOLLOWING TYPHOID FEVER.

AGREEING with Dr. J. D. Hayward, that there is room for more facts as to the above condition (which in my experience is rare), I desire to record briefly the following case, recently under observation.

Miss A., aged 26, states that she had a very severe attack of typhoid fever about two years ago. There was profuse hæmorrhage, and she was unconscious or delirious for six weeks. She has never been well since, suffering from debility, dyspepsia, constipation, and monthly, or more frequent, attacks of migraine. She was always considered delicate and neurotic. Convalescence has been further retarded by inability to walk, on account of a painful swelling in the lower third of the left tibia; she believes it has been there more or less since the fever, but certainly it has been much worse since the part was irritated by a boot-lace a year ago. There is another small, tender, and slightly swollen spot under the left ankle, and the first phalanx of one finger on the same side is similarly affected. The pain is made worse by exercise, and sometimes by warmth, but does not, as a rule, prevent sleep at night; there is no definite pyrexia associated with it; its very acute and darting character suggests a neuralgic element, but a form of periostitis seems the main cause, and this has been told her by several consultants of eminence in London. It is not only chronic and somewhat different in character from the rheumatic or specific form, but is less amenable to remedies. She had tried many before visiting Brighton, and though a first vesication relieved, subsequent ones did not, neither did iodoform, oleates of mercury, or morphia to any appreciable extent; iodides internally in various doses caused quickly gastric catarrh and consequent migraine, and treatment had to be several times interrupted. As she is now leaving this place, I advise for the present iodoform and cod-oil internally, and the oleates locally, and a visit to Schlangenbad in the summer; but I am struck by the obstinacy of the disorder.

EDWARD MACKEY, M.D., M.R.C.P.,
Physician to the Alexandra Children's Hospital, Brighton.

SURGICAL MEMORANDA.

NEPHROTOMY-TROCAR.

THE accompanying illustration represents a combined trocar, grooved stem, and dilator, which will be found very serviceable in cases of pyonephrosis, or in other renal operations where the simultaneous use of these instruments is indicated.

It was made, at my suggestion, by Messrs. Mayer and Meltzer, and I have recently used it in a case of nephro-lithotomy with a most satisfactory result.



The trocar being introduced, fluid runs away along the groove, and the aperture in the kidney-substance can be enlarged along this, which serves as a director. By pressing with the thumb on the handle, the opening is further expanded, and, by lacerating, instead of cutting, the kidney-substance, hæmorrhage is much diminished.

The instrument is represented about one-third of its size, and is simple and very serviceable.

H. A. REEVES, 78, Grosvenor Street, W.

NON-PENETRATION OF THE LINING FALSE MEMBRANE: AN UNNOTICED DANGER IN TRACHEOTOMY.

IN a recent operation for laryngo-tracheotomy, on a child about four years old, for croup, where the general condition and the absence of lividity seemed to promise a favourable result, I was baffled at finding, after the insertion of the tube, that but one feeble inspiratory effort with the well known "whiz" of entering air was made, and that artificial inflation failed to distend the lungs.

Though an examination with the finger showed that the tube had entered the windpipe, artificial respiration was fruitless, and I had the pain of seeing my little patient die during the operation.

A necropsy revealed the difficulty; the opening into the larynx had been made rather on the right side of the median line, and Fuller's bivalve tracheotomy-tube had passed down between the trachea and the false membrane, thus pressing together the sides of the lining tube of false membrane, and preventing the passage of air.

A freer opening into the larynx or trachea would render it less likely that a false membrane could escape division; and I hope, by placing this failure on record, that more stress may be laid on the importance of this point, as insisted on in the excellent text-books of Holmes or Bryant, where, though a free opening of the normal tissues is recommended, no mention is made of the risk of the cannula in its passage pushing before it the undivided false membrane, as happened in this instance.

Nor is the danger alluded to in the discussion which followed Dr. Buchanan's paper on tracheotomy, at the International Medical Congress of 1881. Thus, from the silence of those who have frequently operated, it would appear that this source of danger has not often been met with.

ASHBY G. OSBORN.
Dover.

LARGE PELVIC ABSCESS OF OBSCURE ORIGIN, OPENED *PER RECTUM.*

IN April, 1884, Mr. R. C., aged 20, articled clerk, born in New Zealand, thus described his first symptoms.

"In the evening of April 3rd, a pain began in my stomach, gradually increasing in severity until I vomited, and the bowels acted; not having done so for two days. I was drawn together with pain, and felt cold. The pain lasted several hours, and left me sore and prostrate. Although the bowels had acted fully, there still remained a fulness about the left bowel, accompanied with pain. On the 4th instant I used an enema, but without any effect; soon after a severe pain commenced in the bowels, causing me to go to stool, but without results further than the passing of some watery looking slimy stuff after severe straining, and the pain continued, without ceasing, until the evening of the 6th instant, when I called in the medical man."

On my seeing him he had abdominal pain, but no marked tenderness. His temperature was 102°; pulse 88; he had tenesmus. As he had been exposed whilst fishing, I considered it a slight febricula, and ordered salines and Dover's powder three or four times a day, which, as he said, kept him quite easy. This continued until April 13th, with usually a subnormal evening temperature. He had now some pain when passing urine. In the evening I noticed suprapubic dulness, and, thinking the bladder was distended, passed a catheter, but drew off only a small amount of urine.

On the 14th, finding the same dulness after passing a catheter, I examined by the rectum, and there found a large rounded fluctuating tumour, occupying the position of a distended bladder, and flattening the rectum. This I aspirated, and drew off about a pint of the most foul smelling pus. It had reaccumulated on the 16th, when I made a small incision. A free escape took place, and small quantities continued to pass daily after each action of the bowels.

On the evening of the 19th, however, pain commenced again, with shivering and rise of temperature. I gave him quinine in large doses, and diagnosed a secondary abscess higher up. On the 21st, Dr. Page, of Newcastle, saw him with me, and, after a most careful examination, suggested the probability of some disease of the pelvic bones (os pubis or ischium). We agreed to thoroughly drain and wash out the abscess. This was done on the 22nd, when I introduced a winged catheter, and injected a lotion of carbolic acid, and this was continued morning and evening, until June 17th, when the cavity had almost closed, and the discharge had ceased, and the catheter was withdrawn. For some time, he had abdominal pains and patches of dulness, and a small amount of ascites, with enlargement of the right inguinal glands. In August he went to the seaside for a month, and is at present well, has regained weight, and is without dulness or pain of any kind, except under circumstances of extreme fatigue.

I think such cases are rare, and perhaps worthy of record, and I should be glad to hear from other more experienced surgeons of similar cases, and the probable result if left entirely to nature's treatment; also with regard to pelvic or vertebral abscesses forming in such a locality.

COTTENHAM FARMER, M.R.C.S.Eng.
Hexham.

MR. H. BAYS has contributed £1,000, as a New Year's gift, to the Walsall Cottage Hospital.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

MANCHESTER ROYAL INFIRMARY.

CHRONIC ABSCESS IN THE SHAFT OF THE RIGHT TIBIA: TREPHINING: IMMEDIATE AND COMPLETE RELIEF: SUBSEQUENT INJURY TO THE LIMB, FOLLOWED BY DIFFUSE CELLULITIS: AMPUTATION OF THE THIGH: RECOVERY.

[Under the care of Mr. THOMAS JONES.]

JOHN McN., aged 27, was admitted on November 14th, 1881. When he was seven years of age, a swelling appeared on the inner side of the right ankle. It soon suppurated and discharged; subsequently, several other abscesses formed along the course of the tibia. Pieces of bone, which the patient described as narrow, and about an inch in length, escaped from the openings; a period of six months elapsed between the onset of the swelling and the final closure of the sinuses. No injury had been sustained, and both before and after the appearance of the abscesses the patient enjoyed perfectly good health. The present illness commenced twelve months before, when he felt occasional severe starting pains in the right tibia. The pains, which were absent during the day, would recur for two or three nights, and then disappear for weeks. Three months after their first appearance, they became more frequent, and increased in severity; they were now present during the day as well as at night. Two months before admission, he was obliged to discontinue his work, owing to the suffering and lameness which the disease produced. Six weeks before admission, he noticed a gradually increasing swelling in the middle third of the leg, in the situation where the pain had existed for several months. The patient described the pain as deep seated, and of a gnawing, though frequently of a throbbing, starting, character. At first, there were long intermissions, and the pain appeared to leave the leg and gradually pass out at the ankle. Recently, the periods of ease had been very few, and at long intervals. The pain had been almost continuous in the middle of the limb, and often accompanied with a pain in the ankle.

His condition on admission was as follows. There was a swelling occupying the middle third of the right tibia; it was confined to the front and inner side of the bone, and its upper and lower limits were not prominent, but gradually shaded off into the contiguous parts. The circumference of the leg over the most prominent part of the tumour was half an inch more than the other limb at the same point. The swelling was very hard; and the skin over it was glazed, and red, and the temperature was higher than that of the surrounding integuments. There was no effusion into the soft structures covering the swelling. The part was exquisitely tender, and extreme suffering was produced by even gentle pressure. Several cicatrices of former abscesses were still visible along the tibia, which was a quarter of an inch longer than its fellow. The evening temperature was 100°; the morning, 99°.

The limb was placed on a bark splint, the swelling covered with lead and spirit lotion, and iodide of potassium administered internally. At first, there appeared some slight improvement. In a few days, however, the swelling markedly increased, and so did the pain. The skin at the same time became swollen and œdematous. The circumference of the limb was again measured, and an increase of half an inch recorded. As the symptoms pointed very strongly to an abscess within the tibia, and as the patient's suffering had become well-nigh intolerable, it was determined to use the trephine and remove a circle of bone from the most prominent part of the swelling, and where, on pressure, the pain was most acute. The patient being fully anæsthetised, a longitudinal incision was made through the soft structures covering the swelling. The periosteum, which was much thickened and infiltrated, was reflected by a crucial incision, and the trephine applied. A circle of sclerosed bone, half an inch thick, was removed, and the opening enlarged by means of a chisel. Healthy pus welled up into the opening, and a considerable quantity escaped. A very distinct cavity, lined by a soft vascular pyogenic membrane, was displayed, but no sequestrum detected. The lining membrane was scraped away by a Volkmann's spoon, the cavity syringed with solution of chloride of zinc (forty grains to the ounce), and filled with antiseptic gauze. The operation was conducted antiseptically.

The patient experienced immediate relief; the anxious expression, denoting intense suffering, quickly subsided; sleep and appetite soon returned. In the course of a week, granulations began to spring from the circumference of the cavity; and within two months the limb had resumed its normal shape and appearance. The discharge of pus daily diminished, and the cavity became filled with growing granulations. The limb was encased in a plaster-of-Paris bandage, and the patient left the infirmary with a good prospect of an early and complete restoration to health.

For some time the limb continued to gain strength, and the patient was able to resume work. Unfortunately, one day, in entering a tramcar while in motion, he struck his right leg against the footboard. He was immediately seized with an acute pain in the position of the former disease, and he was again compelled to seek admission. The limb soon became enormously swollen from knee to ankle, and from a small sinus which remained on the anterior surface of the tibia, there exuded some sanious purulent fluid. The patient was in great distress, and the slightest movement sufficed to cause a pain of an agonising character.

It appeared that now there was a diffuse cellulitis of the limb, and it was suspected that the bone at the seat of the previous disease had sustained considerable injury. The diffuse inflammation soon terminated in suppuration, which necessitated free incisions. Notwithstanding this, the mischief extended to the lower part of the thigh, and it became necessary to remove the limb. Amputation in the middle of the thigh was practised, and the patient eventually made a good recovery.

Examination of that portion of the limb where the abscess had previously existed, showed granulations and fibroid tissue rapidly disintegrating. When they were cleared away, the cavity which remained extended almost through the entire thickness of the tibia. A thin bridge, at the posterior part, alone sufficed to keep the bone intact; while macerating, this bridge gave way, so that it is more than probable that a crack existed in it at the time the examination was made. A section of the tibia exhibited very decided traces of the old inflammatory mischief. In some parts, the medullary canal was wholly and entirely obliterated; while in others, it was replaced by a bony tissue of firmer consistence than normal cancellous structure. Immediately above the abscess-cavity, no traces of the canal could be discovered, the bone being hard and of uniform density throughout; while at the upper part, it presented a tolerably healthy appearance.

REMARKS BY MR. THOMAS JONES.—The points of interest in this case are the following; 1, the typical character of the symptoms indicating an abscess within the bone; 2, the unusual locality of the disease; 3, the evidences of a former osteitis which the bone presented; 4, the complete relief afforded by the evacuation of the pus; 5, the length of time which an abscess-cavity in bone takes to heal. The peculiar association of symptoms which were present, pointed very decidedly to the presence of pus. Pain was throughout the most severe as it was the most typical symptom; its severity and character assisted very materially in determining its cause. It was followed by a swelling, which was due partly to effusion into the soft structures overlying the bone, and partly to the deposition of new bone beneath the periosteum. The position of the abscess in the shaft of the tibia must be regarded as unusual. Chronic circumscribed suppurative inflammation is not unfrequently met with in the extremities of the tibia, but the disease seldom attacks the shafts of long bones. It is quite probable that the attack of osteo-periostitis, during the early period of life, may have been instrumental in deciding the position of the disease. However, other examples of abscess in the shaft of the tibia had the history of previous disease, so this cannot be considered as the sole determining cause.

The influence of previous pathological changes in the production of osseous disease is a subject of considerable interest and importance, and one about which more accurate information is required. Might it not be possible that caseous remnants of a disease which has long ago subsided may be the starting point of a fresh morbid action? In this event, chronic bone-abscess would correspond to residual abscess in the soft parts. This case, and some others which have lately come under my observation, appear to suggest such an explanation.

The treatment which the symptoms obviously demanded proved a decided success. The peculiar tensive pain, so distressing and agonising to the patient, immediately subsided when the abscess was opened, and there was every appearance of a speedy and successful termination to the case when the patient left the hospital. The limb was encased in a plaster-bandage, but this was discarded when the increasing strength of the leg seemed to render it unnecessary. In view of what subsequently took place, it would have been better if the supporting apparatus had been worn a much longer time. By

this means, the result of the unfortunate accident might have been minimised.

The fact deserves to be remembered, that the time required for the sound healing of a cavity in a bone must be reckoned by months; and, until that result is accomplished, the greatest care must be given to the limb.

NORTHAMPTON GENERAL INFIRMARY.

CEREBRAL TUMOUR: SCANTY SYMPTOMS OF LOCAL PRESSURE.

(Under the care of Dr. BUSZARD.)

[For the notes of this case we are indebted to Mr. J. OSWALD LANE, M.B.Cantab., House-Surgeon.]

S. S., AGED 38, was admitted on December 3rd, 1883, with the following history. He was a married man, with four healthy children; he knew of no hereditary disease; he had enjoyed good health till June 1883, when he suddenly felt giddy, with pains in the head, and "lost power over his left side;" he had since had great paroxysmal pain in the head, and frequent giddiness; his sight had been failing, and he frequently saw double; he vomited occasionally; there was no history of paræsthesia or of convulsive seizures.

He was a well developed man; his face was expressionless, but there was no facial paralysis; there were internal strabismus and dilated pupils; the gait was slow but not ataxic; he was lethargic and forgetful, but had no hallucinations, and answered questions slowly but correctly. He complained of great cephalalgia, especially on the right side and on the vertex, coming on at intervals, and of feeling very giddy at times. He could discern objects, but had diplopia. The senses of hearing, taste and smell, were unaffected; the reflexes were normal. There was no evidence of any previous left hemiplegia, and no history of muscular spasms. The pulse was, sometimes, as slow as 50, until five days before death, when it became very rapid. No syphilitic history could be obtained. Opthalmoscopic examination showed marked optic neuritis in both eyes; the right disc was invisible beneath a pale swelling depressed in the centre, over this the veins, which were very large, curved. The left disc showed a similar condition; both discs, after a few weeks' observation, assumed the aspect of "consecutive atrophy." The patient remained till February 20th in somewhat similar condition; there were no fresh symptoms, except that vision had gradually failed, so that now there was complete amaurosis. There was also, at this date, well marked left facial paralysis; the left pupil was larger than the right; he had left ptosis and paralysis of the left external rectus; but no paralysis of the extremities. During the next week he vomited four times, his gait became worse, and the lethargy increased. The patient gradually became comatose, and remained in that state for thirty hours before death, during which time his temperature, which had been previously normal, rose as high as 104.2°, while the pulse gradually increased in proportion, so that it was as rapid as 170 before he died.

Necropsy.—The brain being removed, there was only a little fluid in the arachnoid cavity. The right hemisphere was distinctly larger than the left, and bulged laterally. On making a horizontal section through the right hemisphere, a tumour presented itself about a third of an inch from the surface in the direction of the following lobes, namely, ascending parietal, superior parietal, inferior parietal, three occipital cuneate and quadrate convolutions. A part of it presented itself on the under surface of the brain, in front of the right half of the pons Varolii and behind the optic tract, so pressing on the third temporo-sphenoidal lobes, and the structures in that situation. The growth weighed 6 ounces, and consisted of a main, almost circular, tumour, whose circumference was $6\frac{3}{4}$ inches, and three lesser processes, which measured $4\frac{3}{4}$, $3\frac{1}{2}$, $1\frac{1}{2}$ inches respectively in circumference; it appeared to start from the floor of the lateral ventricle, as the choroid plexus was stretched over part of the growth. It was quite distinct from the brain-substance, and shelled out perfectly easily. No growths were found in any other part of the body.

REMARKS BY MR. OSWALD LANE.—Considering the size of the growth, the local symptoms which might have been expected were exceptionally scanty. There was a large amount of pressure upon and absorption of the cortical, motor, and other special centres. The left motor oculi, abducens, and facial nerves were alone affected previously to the *ante mortem* comatose condition. I presume this lack of symptoms to support the theories of "localisation of function of the brain" is probably due primarily to the growth not invading the true cerebral tissue, and, secondly, to the probable slowness of the growth. Microscopically, the growth showed a well marked fibrous stroma, with many sharply defined cells, round in shape, and enclosing prominent "round nuclei."

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 13TH, 1885.

GEORGE JOHNSON, M.D., F.R.S., President, in the Chair.

Distribution of the "Tubercle-Bacilli" in the Lesions of Phthisis.—Dr. HERMAN WEBER, at the President's request, resumed the debate on Dr. Kidd's paper "On the Distribution of the 'Tubercle-Bacilli' in the Lesions of Phthisis." He remarked on the few instances, in the many excellent specimens of Dr. Kidd's which were on view, in which the bacilli were to be seen within the cells; that possibly was due to the late stage of the disease from which they were taken. He was anxious to learn whether there occurred, in warm blooded animals, any such fight between the blood-cells and the bacilli as Mr. Bland Sutton had described as occurring in *Daphnia*. In some cases, it seemed as if the blood-cells had the advantage in man; at all events, the foci of bacilli became encapsuled and calcified; at least, that was the probable explanation of many cases of arrest in the development of the disease, which he had noticed before any theory had led him to inquire particularly how far they were bacillary.

Dr. GREEN said that Dr. Kidd's paper did not admit of much discussion. It was an addition to the ever-increasing accumulation of facts, which tended to show that the bacillus of tubercle was present in all those pulmonary lesions which were considered phthisical, and absent in others; and, on such a question, facts were wanted rather than opinions. Sir Andrew Clark, however, had indicated a wider field of discussion, and he would join with Sir A. Clark in asking Dr. Kidd what he meant by phthisis? For himself, as a definition of clinical pulmonary phthisis—speaking quite irrespectively of Koch's discovery—he would say that it included all cases of pulmonary disease which possessed (1) lung-consolidation, generally more or less apical; (2) lung-consolidation, which tended to undergo softening and disintegration; and (3) lung-consolidation which possessed infective properties. This would exclude chronic basic pneumonia, stone-masons' phthisis, etc.; inflammatory disorganisations from pressure on a bronchus; and, lastly, syphilitic lesions. Now, such a grouping, which could be arrived at clinically, agreed with the presence or absence of Koch's bacillus. Koch's discovery tended to confirm the unity of phthisis. Were apex-consolidations known, excluding the pneumonic, which were non-tuberculous? There were some slight cases of catarrh in the apex of the lung; whether, in any particular case, there was tubercle or not, must be settled by the presence of bacilli in the sputum, and by the clinical history of the case. Where the bacilli were found, the case was tuberculous; where they were not, the diagnosis must still remain uncertain. Even slight cases, with rapid recovery, were not certainly non-tuberculous; some such gave evidence of tubercle by bacilli in their sputa, and yet completely and permanently recovered. It was important to consider the attidude which should be assumed towards the statement that the bacillus of tubercle was an essential element in the causation of phthisis. It should be one of scientific criticism. Supposing such a statement proved, it did not upset the previous ideas of pathology, but endorsed its indications that the infectious nature of tubercle implied the agency of organisms. The main difficulty seemed to be the question of the communicability of the disease; and, with increasing observation, there was some possibility that this difficulty would disappear.

Dr. WILSON FOX felt that comparatively few were competent to discuss the essential points; for to do so an acquaintance with the Bacteridæ was necessary, to which he at least had no claim. He thought the evidence conclusive that, in all tubercle, and nearly all pus from tubercle, bacteridæ existed; but there were discrepancies of opinion as to which existed. The question could not be settled on an *ipse dixit*. They were indebted to Dr. Creighton for raising a point as to Dr. Koch's procedure, and to Dr. Kidd for his most painstaking and thorough inquiries. The old dicta about giant-cells had passed away, and it was possible that even the bacillar doctrines might not be final. They were dealing in part with the action of an aniline dye, that belonged to one of the most uncertain classes of dyes, though its results looked good at present. As to the methods of propagation, more facts were wanted. There was very good evidence that tubercle was the only inoculable thing which produced tubercle, but it was a very grave step beyond that to say that phthisis was contagious; in fact, as Koch said, only to be caught by the inhalation of dried sputa. Dr. Reginald Thompson had not been able to establish its infection between husbands and wives; and the returns of the Collective Investigation Committee had only shown 262 cases out of 1,078 where it was possibly contagious. It rather surprised him that medical men

should have taken the trouble to return as many as 816 cases where it was not contagious, when such was the nearly universal opinion, which, he should have expected, would be regarded as being sufficiently supported without cases. It was true there might be a variability in the potency of germs, and alterations in that matter might take place with what would at first sight seem astonishing rapidity; but a generation which had recognised Darwin might easily understand that, when it realised that a fortnight in the life of germs was equivalent to about 30,000 years in the life of men. He must conclude by expressing an opinion that it was still questionable whether the bacilli alone produced and propagated the disease. There were, at any rate, many surrounding conditions which contributed; and it was for England to show herself in this matter, as in many others, the greatest of all nations in the prevention of disease.

Dr. MOXON expressed his earnest wish to do what little he could towards making the Society feel with him that this was the most important subject that they had had before them in this century. In his practical acquaintance with tubercles, he had always been impressed by their spherical shape, and had sometimes compared them, he must admit almost poetically, to fairy rings, in which the centre was often dead and the periphery alone alive. He had always felt a belief in the unity of phthisis, though he did not know its cause. Now he thought the factor was revealed which made phthisis one and the same thing. He was reminded of a discussion before another society, twelve years ago, in which in answer to the question, what is tubercle? Dr. Wilson Fox had said that the histology of all tubercle was alike, whether the tubercle was grey or yellow, miliary or scrofulous. So far he had agreed, but Dr. Wilson Fox had hesitated to say that all tubercle was pathologically one, and there he had not felt the same hesitation. All phthisis, he had said, was tuberculosis, and he desired to quote the following conclusions to which he had then come, namely, "that the anatomical characters of phthisis, as seen by the unaided eye, are positively sufficient to separate from all other pulmonary diseases, and to gather together all the phthisical cases into one natural group, practically coinciding with the tuberculous phthisis of Laennec and Louis; that there were no intermediate links between ordinary broncho-pneumonia and phthisis; that fibroid phthisis was only phthisis with its age forgotten." (*Pathological Society's Transactions*, 1873.) Now Koch had demonstrated the grounds of this unity of phthisis. He had himself observed all the purulent sputa of his patients in Guy's Hospital, and, when beginning the observations, had been very much disinclined to believe that phthisis could depend on bacilli, that it could be, in fact, a kind of ringworm of the lung; but he had become gradually satisfied that where there was clinical evidence of phthisis there were bacilli, and *vice versâ*. In three cases of chronic cavities in the lung produced by gangrene, he had not been able to find a single bacillus. But it could not be expected that all times in the life of a phthisical patient a bacillus should be to be found; the life of a tubercle was probably three months, that of a phthisical patient might be twenty years. The history of phthisis was the history of successive attacks of lung-disease, so that at the end the lung might be a compendium of nearly all lung-diseases, except cancer. Pregnancy and heart-disease disinclined people to tubercle; venous blood always was against it, it was rare in the Pacchionian bodies, and common at the base of the brain. The life of the bacillar parasite was difficult, and easily discouraged by unfavourable circumstances, like an aphis by an easterly wind. The preparation and diagnosis of microscopical specimens he considered very important, and he suggested that there might be some competent judge to appeal to at the great museum in Lincoln's Inn Fields, who would return an opinion on specimens sent, as to whether they were tubercle or not. The bacilli were certainly more unfavourable when seen in groups than when scattered. What had seemed to him at first laughable, might, after all, be true; namely, that the reason why it was difficult to get small-pox a second time was, that the germs in the first attack ate up all the food there was for them in the body, and later comers found no more to eat. A simple experiment might be tried in similar conditions. A sheep which had been vaccinated with M. Pasteur's mild form of charbon might be killed and boiled, and a second attempt made to grow charbon on him; if the charbon grew, there must be food for it. Prevention was not easy in tuberculosis; he had found a man, with tubercle in one lung, whom he had soaked with iodoform as far as he dared, nevertheless very rapidly develop tubercle in the other lung, without any hindrance from the iodoform.

Mr. WATSON CHEYNE wished, in the short time at his disposal to call the attention of the Society only to a few important points. The central epithelioid cells of a tubercle were well known, and it was in them, and often in them alone, that bacilli were found. These epithelioid central cells he could often trace into giant-cells. The bacilli were sometimes overlooked in fibroid cases when sufficient attention was not paid to these localities. He was rather sceptical as to the conclusion that caseation was due to defective blood-supply, and thought it more likely to be due to the influence of bacilli; they had some chemical action. He showed various micro-photographs representing tissues dead round micrococci, and probably killed by some poison produced by the parasites. He considered that the course of events in phthisis might roughly be put as follows: bacilli were inhaled into a predisposed lung; they attacked epithelial cells in the alveoli, and produced poisonous chemical substances; most of the cells died; the stronger survived as giant-cells, but ultimately died also; the inflammation grew around, and slowly crept from cell to cell. The pyrexia of the condition was very possibly due to the poisonous products of bacilli. As to the criticisms which Dr. Creighton had made at the last meeting on Dr. Koch's method, he considered them to amount to charges of bad faith against Dr. Koch, in answer to which he would not adopt the personal method, but allow Dr. Koch's reputation to reply. Dr. Creighton accused Dr. Koch of departing from his pure method of dry cultivation in solids; and further, said that cultivation in fluid media would have been better; but, for his own part, he could not admit that Koch had departed from his pure method of cultivation in solids; and, as to the cultivation in fluid media, it was not a good thing to recommend, because the tubercle-bacillus would not grow in fluids. When it was grown on solids, as on the surface of blood-serum, it was easy to distinguish and isolate the tubercle-bacillus. He described the process briefly; the animal was first made tubercular, then killed in six or eight weeks; the tissues were washed with a solution of bichloride of mercury, a small piece of tubercle was picked out and pressed on the surface of prepared blood-serum; in eight or ten days "crusts" appeared. It was easy to recognise those of the the tubercle-bacillus, and the other tubercular matter was evident; a piece of the "crust" of the bacillus was picked up and planted on a new soil of blood-serum, when it grew better than at first; the bacillus was easy to separate from the tubercular matter. He directed attention to a microscopical specimen prepared after Ehrlich's method with fuchsin, and then with methylene blue. The bacilli were red, and there was nothing else there at all which was not blue, which he considered sufficient proof that there was no other tubercular matter there at all. When Koch had originally advocated the dry method of cultivation, he had been much disappointed, thinking that the cultivation in fluids was better, but he had found reason gradually to change his ground, and to come to agree with Koch. In cultivation on solids the tubercle could not move, and the bacilli could and did, and so separated themselves from the tubercular matter, unless it were supposed that they carried some of it with them, which was not likely.

Dr. WILSON FOX explained that it was only owing to his own want of clearness in expression that Dr. Moxon could have thought he did not believe in the unity of phthisis, for that had been what he had always held. With regard to the remarks of Dr. Creighton's that he had read, he could not see that he had brought any charge of bad faith against Dr. Koch as Mr. Cheyne had suggested, though, of course, he had been critical.

As it was now 10.30 P.M., and there were several other gentlemen who had signified their desire to speak, the PRESIDENT adjourned the debate until a special meeting, to be held on Wednesday, January 21st.

CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 9TH, 1885.

SIR ANDREW CLARK, Bart., M.D., President, in the Chair.

Lesions of the Frontal Lobe.—Dr. HALE WHITE gave details of cases. The first case brought forward was that of a woman, aged 26, who was admitted into Guy's Hospital for severe headache. There was a history of injury to the head eight years previously. She had been ill a month, with occasional loss of sight; and during this time she was twice sick, but her whole illness had been so slight, and she had been so well able to walk about and perform all the duties of life, that neither her friends nor her medical attendant thought that anything serious was the matter with her. On admission, the only symptom to be detected was optic neuritis, and she complained of nothing but intense headache. One day, after she had been in the hospital about a month, being very tired with walking about all day, and having a severe headache, she went to bed early, and was soon afterwards found dead in her bed. At the *post mortem* examination, a large glioma of the frontal lobe was discovered. It did not extend far enough back to implicate either the motor area or the island of Reil. The rest of the brain was absolutely healthy.—The second case

was that of a woman, aged 31, who was admitted into Guy's Hospital with aortic disease; she also had paralysis of the left arm and leg, but there were many signs showing that this was not due to organic lesion, but was probably functional; this paralysis soon recovered, and the patient was well able to walk about the ward and use her hand. After she had been in about two months, whilst in the water-closet, she had an epileptiform convulsion, was cyanosed, frothed at the mouth, and was insensible. On coming round, she vomited excessively; in a few days, she quite regained her former condition; but, about two months afterwards, her cardiac symptoms became worse, and she gradually sank and died. At the *post mortem* examination, severe aortic and mitral disease were discovered, with infarcts in the kidney and spleen; on slicing through the brain, at the level of the corpus callosum, a black-coloured clot was found situated in the white matter of the right frontal lobe. It implicated slightly the gyrus fornicatus, but did not extend into the ventricles or affect the motor region of the brain. It was pointed out that the great interest of these cases lay in the great paucity of the symptoms produced by the lesions of the frontal lobe, for in neither case were there any motor sensory or intellectual symptoms referable to the disease of the brain; in fact, in the second case, the hæmorrhage was not even suspected, nor would the tumour, with any certainty, have been diagnosed in the first case, but for the optic neuritis. The sudden death, in the first case, was also pointed out. Although the frontal lobes were generally looked upon as presiding over the intellectual faculties of the individual, from these and many other cases, it was proved to be possible for one of them to be seriously influenced without any impairment of such faculties. The author enunciated it as a law, that the later, in the animal series, or the life of the individual, any faculties were developed, the more readily, in cases of injury of the brain, was some other part capable of taking on the work. Thus, motion of the leg and arm of one side, when destroyed by lesion of the opposite side of the brain, was slowly recoverable, because the faculty of motion had been so long formed as to become quite fixed in the motor areas on each side of the fissure of Rolando; whilst motions of the face, as used in gestures, being later formed, were not so definitely fixed, and, therefore, either some bilaterally associated part, or the sound side, was capable of taking on the duty of the injured part; and thus the face, in ordinary hemiplegia, recovered comparatively quickly. Coming to faculty for connecting words with signs, which was still more lately formed here, the uninjured side was quickly capable of taking up the function of the injured one; whilst, in cases of lesion of the frontal lobe destroying functions so lately formed as the intellectual, the opposite side so quickly took up the work of the damaged side, that no impairment was detected. The author was inclined to think that the recently acquired capabilities, such as the intellectual, were stored up on both sides of the brain; in the course of many generations these became more fixed to one side, so that then it would take some time for the functions of one side to be taken up by the other, whilst later functions were taken up at once by the sound side. The extent of injury, in his first case, seemed to negative the possibility of the bilaterally acting centre theory being true for intellectual faculties.—Dr. MOXON observed that too little recognition was given to the fact that people suffering from brain-tumours died suddenly; and in explanation of the reason for this susceptibility, he referred to the anatomical disposition of the pneumogastric nerve, which was tightly adherent in elderly people to a finger-like process springing from each side of the fourth ventricle, and the extreme vascularity of which materially influenced the amount of pressure to which the vagus might be subjected from time to time.—Mr. VICTOR HORSLEY was of opinion that the absence of symptoms in such cases arose from the unaffected lobe taking on the functions of its diseased fellow, which it could do by reason of the bilateral endowments of the lobes. He thought, however, that the two sides could not act separately, as was shown by the inability of anyone doing two separate actions with his hands simultaneously, for example, drawing a circle with one hand and a triangle with the other. The functions of the frontal lobes had not been experimentally demonstrated, but Mr. Horsley was of opinion they might be the seat of the emotions. Most injuries to them occurred among children; and as, after such injury in these young subjects, no emotional disturbance had been noticed, it was argued that the lobes in question could not be the seat of the emotions. But he (the speaker) believed rather that the truth was that the emotions were undeveloped in children, and hence the negative result.—The PRESIDENT reminded the meeting that a rich collection of cases illustrating the points under discussion could be found in Baron Larrey's *Memoirs*, and in Abercrombie's *Lectures;* and, although not collected with a view to establishing any particular assumption, they were still of the utmost illustrative value.—Dr. HUGHES BENNETT said his own clinical experience of such cases suggested to him the inquiry whether the absence of symptoms might not be due to the fact that none developed. In other parts of the brain than the frontal lobes, disease was evidenced always by signs that could be read; but this was not always so in lesions of the lobes in question. It would, he thought, be unwise to form a definite opinion on the comparative intelligence of a patient, assisted only by the statements of the latter's friends; and on every ground it was very desirable to accumulate further clinical experience, prior to forming any definite conclusions respecting the non-existence of apparent signs of frontal mischief. It should be remembered, also, how, for a long series of years, it was stated and believed that the subject of the American crowbar-accident was intellectually unaffected by the injury. This was now known to have been the opposite of what took place.—Dr. F. TAYLOR instanced the case of a woman on whom Mr. Birkett attempted to remove a tumour of the frontal bone, but which was found to grow into the cranium. Death occurred ten days later, and was preceded for a few days by an entire change of character on the part of the patient, who, from being a quiet and decorous woman, became troublesome, talkative, and obscene, both in language and in gesture. *Post mortem*, an abscess was found in the frontal lobe. He had at that time under observation a girl, aged 10 years, who underwent a curious mental change, becoming childish, etc., when the signs of injury first became apparent in her.—Dr. SEYMOUR TAYLOR suggested that the two hands of the same individual might be educated to perform unlike operations simultaneously, and instanced the well known capacity of telegraph-instrumentalists in this direction, and of pianists when playing different tunes with the two hands. He considered, also, that emotional expressions were well marked in children, even at the moment of birth.—Dr. WHITE had himself given consideration to pressure as causing death, but such a cause even was insufficient in this particular case. In spite of the extensive disease present, his patient had not lost the higher affections, as shown by her love for her relations and friends. Dr. White expressed the belief that facial expression of mental acts was acquired.

On a Case of Recurrent Hæmatemesis with Urticaria.—Dr. J. J. PRINGLE described the case of a gentleman, aged 51, with no family history of gout, hæmophilia, or other disorder bearing on the case, who in 1872 had two attacks of ordinary nettle-rash, attributed to indiscretions of diet. In 1878 he had several attacks of severe nettle-rash with undue prostration. In 1879 these recurred with increasing frequency and severity, the tongue, mouth, and fauces being involved, and clear, watery fluid being vomited. In the latter part of the year, small quantities of altered blood were also ejected. During 1880 the patient was never free from urticaria or its subjective symptoms, and, at intervals of about two months, attacks of great severity occurred, during which vomiting often lasted twenty-four hours at a time, large quantities of pure red blood being ejected. These attacks diminished in frequency, but continued to increase in intensity during 1881 and 1882, culminating in November of the latter year in an attack in which the blood vomited filled two hand-basins, besides saturating the bed. This next attack occurred in April, 1883, and its latter part was witnessed by the writer, kindly accompanied by Dr. Wilks and by Dr. Hurd-Wood, of Leatherhead, who had watched the case from its commencement. Bright pink urticarial wheals, nowhere purpuric, were thickly studded over the trunk and extremities; the blood vomited filled a large hand-basin; the patient's general condition was such as might be inferred from the loss of blood, and the free use of morphia subcutaneously, which had been found the only means of use in allaying sickness. Recovery ensued, as usual, the patient always recuperating with amazing rapidity. Shortly afterwards he had two unequivocal attacks of gout, affecting the right foot and left hand respectively; the subsequent attacks were less frequent and less severe, and apparently controlled by subcutaneous injections of morphia and ergotin, used as soon as nettle-rash appeared and nausea was felt. Three days after one of these arrested attacks, a copious tarry motion was passed, and in another attack, in which a little altered blood had been vomited before the injections were used, all gastric symptoms were immediately allayed, although copious crops of nettle-rash made their appearance for three days. Previously to some of the attacks there had been evidences of hepatic derangement. The immediate exciting cause in almost every instance had been exposure to cold, to which the patient was formerly very susceptible. In the intervals he was free from pain and all other symptoms of gastric disorder or ulcer. The liver and spleen were of normal size both during and between the attacks. The urine passed during the attacks had never contained blood; in the intervals its specific gravity ranged from 1020 to 1025; it was often loaded with urates, and invariably contained a large excess of uric acid; it was free from albumen, sugar, and casts. The radial

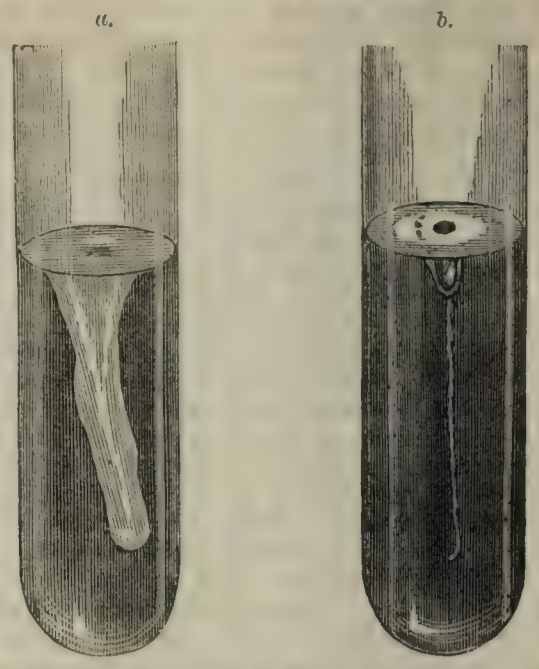
pulse was hard, tracings from it being flat topped. There was no decided cardiac hypertrophy; the second sound over the aortic area was accentuated; the fundus in both eyes was normal. Minute doubtful tophi had appeared in the right ear within the last six months. From the absence of all symptoms of gastric ulcer, except the vomiting of blood or other causes of hæmatemesis, and from a general consideration of all the features of the case, the writer expressed himself as forced to the conclusion that the hæmatemesis was due to capillary rupture, occurring when the gastric mucous membrane was in an urticarial condition. Presuming the possibility of such a condition, he considered that the great vascularity of the organ, and the position of its rich capillary network, separated from its cavity only by a delicate membrane and a single layer of cells, accounted for the occurrence of hæmorrhage and for its amount. No exactly similar cases had been described; but Murchison mentioned the case of a boy of nine years of age with urticaria tuberosa and purpura urticans, and with hæmorrhage from the bowels, kidneys, and urinary passages, and with the discharge of much lithic acid in the urine. Cases described by Graves as "exanthema hæmorrhagicum" presented also certain points of similarity. The relationship between hepatic disorder, the gouty condition, and skin-eruptions in general, was merely referred to. The case had been under the observation and treatment of Dr. Hurd-Wood of Leatherhead, Mr. Hill of Crickhowell, and Mr. T. B. Scott of Bournemouth, to whom the writer expressed his obligations, but his special thanks were due to Dr. Talfourd Jones of Brecon, who from the first recognised its true nature and laid down a line of treatment, from which no tangible departure had been made.—The PRESIDENT said this subject had engaged his attention also, and that he had, while reading a paper on asthma at the Cambridge meeting of the British Medical Association, pointed out the association of the disease with urticaria. Eczema occurred on mucous membranes, but its occurrence was not generally recognised.—Dr. STEPHEN MACKENZIE remarked on the interesting connection of the hæmorrhage with lesion of the mucous membrane, which also existed in hæmoglobinuria, the influence of the vaso-motor nerves on which condition had been pointed out by Dr. Pavy. An explanation of it, based on the occurrence of changes in the renal glomeruli, was thus possible. In reference to the spread of skin-diseases, Dr. Mackenzie mentioned that, some years ago, he found a crop of herpes in the throat and œsophagus of a body on which he was conducting a *post mortem* examination.—Dr. WILBERFORCE SMITH asked if the patient had suffered while in India from malaria or dysentery.—Dr. PRINGLE said the question of eruptions required much more extended investigation than had yet been given to it. His patient had suffered only from a very mild attack of dysentery while in India.

MEDICAL SOCIETY OF LONDON.

MONDAY, JANUARY 12TH, 1885.

ARTHUR E. DURHAM, F.R.C.S., President, in the Chair.

The Bacillus of Cholera.—Dr. HERON showed specimens of the comma-bacillus described by Dr. Koch as occurring in cholera Asiatica, and of the comma-bacillus found by Finkler and Prior in the stools of cholera nostras thirteen or fourteen days old. Dr. Heron said that he had no intention of discussing the causal connection between the comma-bacillus of Koch and cholera, but proposed to deal merely with certain peculiarities of the two varieties of bacilli above named. The comma-bacillus of Finkler and Prior was associated with decomposition, and its cultivation evolved a putrefactive odour. It closely resembled Koch's comma-bacillus when seen under the microscope. He insisted, however, that much importance could not be attached to such a resemblance. When planted on nutritive beef-jelly, both the organisms multiplied, but in a very different way. At ordinary temperatures (about 60° Fahr.) the bacillus of Finkler and Prior grew with great rapidity, producing an appearance which was characteristic. The gelatine in the neighbourhood of the puncture made by the inoculating wire was liquefied and permeated by a homogeneous opaque growth, having an appearance somewhat resembling the finger of a glove, or, as had been said, the toe of a stocking, pushed into the gelatine. The bacillus of Koch grew very much less rapidly under the same conditions. On the second or third day the track of the inoculating wire was marked only by a thin line of colonies, along which the comma-bacillus was slowly growing, springing from a dimple on the surface of the gelatine. These differences in the mode of growth were constant, and afforded a means of distinguishing between the two organisms. When sown on potatoes, the bacillus of Finkler and Prior grew with great rapidity, but the bacillus of Koch developed but very slightly. The specimen shown illustrated these points of difference in a very striking manner, and exactly corresponded to the appearances shown in the subjoined drawings, which we reproduce from the *Fortschritte der Medicin*, January 1st, 1885.



a. Culture of Finkler-Prior's comma-bacillus. *b*. Culture of Koch's comma-bacillus. Two days after inoculation in each case.

In conclusion, Dr. Heron pointed out that these peculiarities of growth ran counter to the statement made by the English Cholera Commission, as reported in the BRITISH MEDICAL JOURNAL, p. 43, January 3rd, 1885, which was as follows:—"The comma-bacilli in artificial cultivations carried out by one of us (E. K.), do not behave in any way differently from other putrefactive organisms."—The PRESIDENT thanked Dr. Heron for bringing forward specimens illustrating a subject of so much importance.—Dr. SIDNEY F. COUPLAND observed that the points of difference between these two organisms brought out by Dr. Heron's demonstration were of great importance, for Finkler and Prior had said that the comma-shaped bacillus they had found was the cause of cholera nostras; that it was identical with the comma-bacillus discovered by Koch, and that, therefore, cholera nostras and cholera Asiatica were one and the same disease. In studying the writings of Koch, he had been much impressed by the extreme scientific caution he had displayed. Impressed with the feeling, he was quite prepared to accept the facts observed by Koch as absolutely correct; such an attitude, however; did not involve the acceptance of the large generalisations made from the facts.—Dr. HERON, in reply, dwelt on the care and accuracy with which Dr. Koch's experiments were conducted. Having in view the impossibility of distinguishing by clinical features cholera Asiatica from cholera nostras, the recognition of this bacillus, if it should be proved to be peculiar to cholera, as Koch believed, would be of great use in arriving at an early diagnosis. This was of the greatest importance, as it would allow of sanitary precautions being taken early.

Aphasia without Lesion of Broca's Convolution.—Dr. SAMUEL WEST read a paper on a case of aphasia.—Dr. W. H. BROADBENT thought it would be safer to restrict the term aphasia to motor disturbances, reserving the term amnesia for lesions which arose on the sensory side of the speech-apparatus. He had met with several cases belonging to the same class as Dr. West's case; most of these cases resembled Dr. West's very closely, but in others the symptoms were further developed; in one case which he had recorded, the patient suffered from more complete loss of speech and greater obscuration of intellect; he neither understood spoken nor written signs. Now and then, under great excitement, a whole phrase would slip out, but as a rule his utterance was merely gibberish. Here it was found that the motor convolutions were completely spared. He had seen other cases with slighter symptoms which threw light on the subject, and instanced the case of a man who talked quite intelligently, but was unable to name any object at sight, and could not read; yet he could write both from dictation and spontaneously. In this case, the lesion was found to be an old hæmorrhage immediately beneath the angular gyrus. Word-blindness was a bad, misleading, and inadequate term. In partial amnesia, the want of power of naming objects at sight was a not very uncommon symptom; he quoted several cases bearing on this point. In another case, in which a lesion was supposed to exist about the angular gyrus of the left side, and in which at one time aphasia with right hemiplegia and lateral deviation of the eyes to the left occurred, the aphasia was persistent

He had seen cases of word-deafness in which the patients did not understand what was said to them; these patients sometimes answered in gibberish, but in other cases they would reply to a question in a quite inappropriate manner, apparently guessing at the answer which would be expected. In conclusion, he referred to cases in which there was an inability to use nouns of any kind (see BRITISH MEDICAL JOURNAL, vol. i, 1884, p. 1149).

ACADEMY OF MEDICINE IN IRELAND: MEDICAL SECTION.

FRIDAY, DECEMBER 19TH, 1884.

F. R. CRUISE, M.D., President, in the Chair.

Living Specimens.—The following were shown. Dr. R. A. HAYES: Lupoid (?) Ulceration of the Larynx. Mr. A. BENSON: Primary Lupus of the Conjunctiva. Dr. C. F. MOORE: A Case of Eczema Capitis in an Infant aged 6 months.

Specimen by Card.—Dr. FINNY: Double Pneumonia with Pleuritis.

Lupus and its Treatment.—Dr. WALTER SMITH read a paper on the nature and treatment of lupus. He found the frequency of lupus in Ireland (Dublin) to be about 1 in 200 cases of skin-disease. In England and Scotland, the proportion was about 1 in 50. He dealt chiefly with the arguments in favour of the doctrine that lupus was a branch of the tuberculous stock, and was produced by an organised pathogenic virus. These arguments were derived from three sources: (1) clinical, (2) histological, (3) experimental. Clinically, numerous skilled observers in England, France, and Germany recognised the points of contact between scrofula and lupus, and noted the frequent coincidence of cheesy affections of the glands and joints with lupus. In 1883, among thirty-eight patients under M. Besnier's treatment for lupus in the Hospital St. Louis, eight presented well marked physical signs of phthisis. Histologically, the close resemblance between a caseating miliary tubercle and a lupus-nodule had been often pointed out; and recently Dr. R. Koch had examined seven cases of lupus—in four, excised bits of skin; in three, scrapings of the lupus-tissue. He found tubercle-bacilli in all the four excised bits, but never more than a single bacillus in a giant-cell. Experimentally, both culture and inoculation-experiments had yielded positive results. As to the treatment, it was pointed out that, if the tuberculous doctrine of lupus were accepted, it strengthened the position of those who advocated constitutional treatment, and especially antistrumous remedies. The different plans for dealing locally with the lupus-neoplasm were referred to, particularly linear scarification and erosion.—Dr. HENRY KENNEDY had combined constitutional with local treatment: and, of thermal applications, he had used plain hot water, as hot as the patient could bear. In one case, he established an issue in the patient's arm, which had the effect of keeping her face well for six years. Cod-liver oil was one of the best constitutional remedies. He had used blistering with good effect.—Mr. ARTHUR BENSON alluded to some experiments made by introducing pieces of living granulations, taken from the conjunctiva of a child suffering from lupus, into the eyes of rabbits. One rabbit died, after a week, from hæmorrhage into the stomach. The eye was examined, and found healthy. In the eye of the other rabbit, there soon appeared patches of tissue of a yellowish colour, with a pinkish appearance very similar to tuberculosis of the cornea. After three weeks, this animal succumbed to chloroform; and sections made from the enucleated eye by Dr. Abraham exhibited tuberculosis of the cornea and iris. Almost all the patients he had seen with lupus of the conjunctiva showed a marked tubercular tendency, but without lupus appearing elsewhere in the body.—Dr. DOYLE had reason to think that, in a number of the cases, eczema had formerly been mistaken for lupus.—Dr. CORLEY asked whether the presence of the bacillus was an accident, or whether it was common to tubercular ulcers. In the treatment of lupus, he had tried several remedies—red iodide of mercury amongst others; but latterly he had chiefly employed the method of scraping with Volkmann's spoon, which, he thought, gave the best results. Still, some of these cases returned after two or three months, when he had to repeat the scraping. He wished to know what class of cases would be most favourable for this treatment. Constitutional treatment, especially by cod-liver oil, was of great value in some cases.—Dr. FINNY stated that his treatment was chiefly scooping, combined with linear incision. He had adopted scooping where the lupus was in the tuberculated form, and not where it had formed large thick crusts. Thus, where the tubercle was disseminated, with a certain amount of skin between the patches, a good cicatrix might be anticipated. If a portion of skin apparently healthy, but not really so, were left without being touched with the nitrate of mercury, lupus-nodules developed. In many cases, the return of disease was due to the inefficiency rather than the inutility of the treatment. The intense pain caused by exposure to cold wind in some of his cases was relieved by the scraping process and linear incision, and burning out every spot with nitrate of mercury.—Dr. ROBERT M'DONNELL related the particulars of a case in which various remedies, including arsenic, had been tried without permanent relief, until eventually the patient was cured by the free use of cod-liver oil internally; but she died some years afterwards of phthisis, showing the tubercular character of the disease in her case. Whilst a student in Paris under Cazenave, he had paid a good deal of attention to the disease. Cazenave observed a case of lupus of the face which became attacked by erysipelas; and, when it passed away, the patient recovered rapidly. Effects of this kind suggested the use of counter-irritants to imitate erysipelas; and Cazenave, after using a number of irritants for the purpose, gave a preference to red iodide of mercury ointment; but the greatest improvement in the treatment of this malady was the scraping with the spoon, and then rubbing the raw surface with a rough sponge. He had used this method many times, and had never been disappointed. There was a form of lupus in which, if arsenic were given at all, it should be in such doses as would produce poisonous symptoms. It produced rapid improvement; but he could not say that a permanent cure was always effected.—Dr. WALTER SMITH, in reply, said the diagnosis of superficial lupus of the ear from eczema was shown by a loss of tissue when the crust was removed. So far as he knew, the bacillus was found only in affections tuberculous or scrofulous, and not in large ulcers; and therefore it could not be introduced from without. Lupus on a single surface like the cheek seldom ulcerated deeply; but, when it attacked the nose, it acted on both surfaces, and thus caused great destruction of tissue. He could hardly lay down a specific rule as to what cases were most suitable for scraping. Spots of lupus too small to be scraped he treated by drilling with a pointed piece of wood, tipped with nitrate of mercury.

Hereditary Amaurosis.—Mr. JOHN B. STORY read a paper on hereditary amaurosis.—Mr. SWANZY made some remarks in reference to one of the cases mentioned in the paper.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, JANUARY 8TH, 1885.

T. SHADFORD WALKER, M.R.C.S., Vice-President, in the Chair.

Ophthalmia Neonatorum.—The honorary secretary, Dr. W. A. BRAILEY, read a communication which had been received from the Local Government Board. The communication stated that the code of rules drawn up by the special committee of the Society, with a view to the prevention of blindness from ophthalmia neonatorum, had been forwarded to the Registrar-General. A reply had been received from him, pointing out that the registrars of births could not be expected to perform any extra duty without adequate remuneration; supposing a fee of twopence were paid for each card read and presented, this would amount to a yearly expenditure of £7,300. Further, in many cases, it was not the mother of the child who registered the birth; and, in conclusion, the Registrar-General inquired why, if instructions were to be given with regard to purulent ophthalmia, they should not also be given with regard to all the other maladies to which infants were liable; the whole scheme was impracticable in his opinion. The Local Government Board added that the labours of the relieving officers were already sufficiently arduous.—On the motion of Dr. STEPHEN MACKENZIE, seconded by Mr. SYMPSON, the deputation which waited on the Local Government Board were appointed a special committee to consider the above communication, and to report.

Report of the Committee on Poisoning by Bisulphide of Carbon and Chloride of Sulphur.—Mr. ADAMS FROST read the report on this subject, signed by himself, Mr. Gunn, and Mr. Nettleship. The affection, they said, had long been recognised in France, and had been well described by Dr. A. Delpech, who grouped the symptoms into two stages, namely, a stage of excitement, and a stage of depression. The affection had also been described in this country by Dr. Alexander Bruce. It appeared that there were only a very few firms engaged in the manufacture of India-rubber by Parkes' process, which was admittedly the one most liable to be followed by symptoms of ill-health. The reporters referred, in some detail, to the various steps of the process, which appeared to involve the greatest amount of risk, and pointed out the methods by which they believed that, in some degree, these dangers might be obviated. Out of the thirty-three recorded cases, in twenty-four there was some affection of vision. The prognosis appeared to be tolerably favourable, if the patient were able to give up

his work at an early period after the first appearance of the symptoms. They were unable to draw any definite conclusions as to the length of time of exposure to the noxious influence necessary for the production of the symptoms; slight symptoms, however, were often noticed a few days after commencing the work. The amblyopia was never an isolated symptom, and never occurred without well marked general toxic symptoms. In most of the cases which were seen by oculists, decided changes were seen at the optic discs; in the earlier stages, haziness and other signs of chronic neuritis, in the later stages some degree of atrophy or pallor. In some, central defect of the field was found, but this had not been carefully examined, except in a very few instances. Several patients were noted as smokers, and a good many were stated to have been particularly temperate.

Cystic Tumour of Iris.—Mr. F. R Cross (Bristol) showed a woman, aged 30, who presented a tumour of the size of a pea, protruding into the anterior chamber, and pushing up the iris to which it was attached. She had first noticed something wrong with her eye two years and nine months earlier, when, she believed, a foreign body was blown into her eye; this was followed by some irritation of the eye, and a small spot was noticed. This spot enlarged, and attained the size of a pea, but after a year subsided to the size of a pin's head, and again enlarged to its present size.

Symmetrical Dislocation of Lens.—Mr. F. R. Cross (Bristol) showed a case of symmetrical dislocation of the lens, upwards and inwards. The patient was a girl, aged 8 years, and the condition was apparently congenital. The condition on the two sides was practically the same; the iris was tremulous, and the lower edge of the lens appeared just below the upper edge of the pupil. With the ophthalmoscope, a double disc-image was seen; vision was very imperfect, but was improved by atropine and by convex lenses.

Vision in Detachment of Retina.—Mr. Nettleship showed a patient with universal detachment of the retina from the edge of the optic disc forwards in all directions as far as could be seen. The greater part of the retina remained transparent; at the fovea centralis the retina was hypermetropic seven or eight dioptrics; the physiological pit of the optic disc was slightly myopic. The patient had good perception of light, and with + 8 D he could count fingers, and could see letters in 20 J. The vision and refraction of the right eye were normal. The patient was a teacher, aged 17; divergent squint of the left eye had been noticed for about eight years, and about that time he had a blow on the head; there was no evidence, beyond this, to show when the detachment occurred.

Opaque Nerve-Fibres.—Mr. Hartridge showed a case (and a water-colour drawing by Mr. Morton) of opaque nerve-fibres, completely encircling the disc, and extending for a long way over the fundus. The appearance was only seen in the right eye; the opaque nerve-fibres deviated outwards; the eye was myopic, about 16 D, and vision only amounted to hand-reflex. On the left side the vision was normal.

Hyphæma.—Dr. W. A. Brailey again showed the patient exhibited at the last meeting. She then had in the left eye hyphæma with varying tension and slight iritis, all these symptoms being of about three months' standing only. On December 15th, the iritis in the left became worse, and the anterior chamber deeper, till it became enormously deep, but quite symmetrically so. The aqueous humour was clear. There was a greyish hazy reflex from behind the pupil. On December 18th, the right eye had a slight attack of a similar nature; the anterior chamber became deeper, with ciliary injection. The existence of six marginal anterior synechiæ was revealed. In a week the right regained its former condition, but the left anterior chamber was still enormously deep. The questions arose: 1. What was the nature of the uveitis? 2. What was the cause of the increased depth of the anterior chamber and the varying tension?

Amaurosis after Blow.—Dr. W. A. Brailey showed a patient who had received a blow on the left eye with a nail five months ago. Since then, there had been diminished tension with defective vision. There were a small superficial corneal opacity, shallow anterior chamber, and a patch of slight opacity on the posterior surface of the lens; the tension was − 1; vision $\frac{6}{60}$.

The Action of Cuca on the Eye.—A long and elaborate paper, detailing the results of an investigation of the action of cuca, was read by Mr. Walter H. Jessop. He stated that an eye under the influence of a local application of cucaine presented the following symptoms: anæsthesia of the parts in intimate contact with the drug, enlargement of the palpebral fissure, mydriasis, loss of accommodation, constriction of the small peripheral vessels, flaccidity of the cornea, and slightly altered intra-ocular tension. The anæsthesia was strictly local, affecting the structures to which the drug had gained access, and could be explained by palsy of the peripheral endings of the sensory nerves. The enlargement of the palpebral fissure he considered to be due to the retraction of both upper and lower lids by irritation of the unstriped muscular fibres contained in them, probably through their nerve-supply from the sympathetic. The dilated pupil always acted to light and to the movements of accommodation; and this, coupled with the actions of atropine, pilocarpine, and eserine on the mydriasis, proved its sympathetic origin. The paralysis of accommodation occurred chiefly at the period of greatest dilatation of the pupil, and disappeared some time before the pupil regained its normal size. The small peripheral vessels were constricted, producing pallor of the conjunctiva, but this rarely occurred except in normal vessels, and did not last long, showing irritation of the vaso-constrictor filaments of the sympathetic. The flaccidity of the cornea was apparently accompanied by diminished tension in the anterior chamber, but, at the same time, a brief increase of tension might be noticed posteriorly. The circulation and sensibility of the retina were not affected by conjunctival instillation. From the above facts, and from the action of cucaine on other organs, it probably acted locally, paralysing the peripheral endings of the sensory nerves, and irritating the sympathetic. The uses to which the drug might be put in ophthalmic practice were: (1) as a local anæsthetic in certain operations in ulcers of the cornea and other similar diseases; (2) as a mydriatic for ophthalmoscopic purposes, and combined with atropine in iritis with synechiæ; (3) as a means of paralysing the accommodation in cases in which atropine or homatropine could not be used. The salt used in all experiments made by Mr. Jessop was the hydrochlorate, in 24 or 20 per cent. solution, and it had been applied by conjunctival instillation, and injection beneath the skin, or fascia, or into the anterior chamber.

Ophthalmoscopes.—Mr. Stanford Morton exhibited an improved student's ophthalmoscope, which had been constructed for him by Messrs. Pickard and Curry. It combined in one instrument the various improvements at present existing in several ophthalmoscopes. For all ordinary purposes, it had only a single series of lenses; four extra lenses, easily adjustable, were provided for special occasions. The numbers of the lenses were fully exposed on a dial-plate, so that the position of any required lens was at once manifest; and the lens at the sight-hole was always indicated at the same aperture. There were two mirrors (one fixed at an angle), either of which could be instantly turned into position. The instrument was an inch and a quarter wide, and there was only one driving wheel, which, being three inches below the sight-hole, was not impeded in its action by the face of either patient or observer. This ophthalmoscope, which balanced well in the hand, was light, and packed into a small compass.—Mr. J. Couper showed a new refraction-ophthalmoscope, designed to overcome the objections which had been made against the instrument he had shown last year. In the new pattern, the index-wheel became the driving wheel (coarse adjustment). One revolution of it brought each of the seventy-two lenses in turn to the sight-hole, and a half turn sufficed to go from the lowest to the highest lens of each series. Even with this wheel, the lenses were readily centred at the sight-hole. A fine adjustment-wheel had been added, however, to give a slower and lighter movement, which was found convenient towards the close of an examination. Only one figure at a time appeared at the aperture of the shutter, and the latter followed the movements of the mirror automatically; a false reading thus became impossible. For those who were satisfied with fewer than seventy-two lenses, a thirty-six-lens instrument had been provided.—Mr. R. Marcus Gunn showed a new ophthalmoscope, with a thumb-movement of the discs and a strong flat handle. The flat handle was utilised as a pupillometer and a measuring scale. At the end was an aperture useful in testing for central colour-scotoma. The thumb-movement gave increased steadiness and uniformity.—Mr. Wm. Lang showed a modification of Purves's original instrument, made by Messrs. Ferrier and Watson. Two discs carrying the lenses were moved by milled wheels which were conveniently placed; by a simple combination, it could produce from − 1 to − 29 and from + 1 to 29. He also showed a pupillometer consisting of a plate fixed at the back of an ordinary retinoscopy-mirror.—Mr. Couper doubted the desirability of having two mirrors attached to an ophthalmoscope, and preferred a very small sight-hole, and a mirror of long focal distance.—Mr. Stanford Morton thought the best illumination was obtained with a mirror of nine or ten inches focal length.—Mr. George Lindsay Johnson preferred a focal length of four or five inches, which gave, in his opinion, a better illumination, and a not very small sight-hole.

Ciliary Nerves in Sympathetic Disease.—Dr. W. A. Brailey exhibited microscopic specimens showing the condition of the ciliary nerves in a case of sympathetic disease. The right eye had been operated on for cataract eleven months before the eye was excised. Four months later, opaque membrane was needled. Five months later (two months

before the eye was excised), the left eye was found to be quite blind from iritis (presumably sympathetic). The long ciliary nerve and artery were perfectly normal. Specimens were also shown from an eye which had been excised on account of exciting sympathetic uveitis. The long ciliary nerve and artery were normal.

Ciliary Nerves in Uveitis.—Dr. W. A. BRAILEY also exhibited specimens showing an exceptional condition of the ciliary nerves in three cases of uveitis. There was inflammation around the internal long ciliary artery, extending into the contiguous portion of the corresponding long ciliary nerve. The eye was excised on account of iritis with recurring tension, one month after extraction of cataract from a glaucomatous eye. The other eye showed very doubtful sympathetic inflammation. Similar specimens were also shown from a case of iritis following iridectomy, but the inflammation was less severe; the other was in a condition of sympathetic irritation. A third specimen showed severe neuritis of the long internal ciliary nerve in an eye excised on account of severe irido-choroiditis of spontaneous origin.

Tubercular Disease.—Mr. W. H. JESSOP showed microscopic preparations of an eye in which tuberculosis had been artificially produced by injection of tubercular virus into the anterior chamber. Groups of the bacillus of tubercle could be seen in the preparation. He also showed a pure cultivation of tubercle-bacilli on serum.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

DECEMBER 18TH, 1884.

W. A. GARRARD, M.R.C.S., President, in the Chair.

Removal of Scapula.—Dr. KEELING introduced a patient whose scapula had been removed nearly two years before, for a tumour involving the bone and surrounding muscles. There had been no return of the disease, and the arm was a fairly useful one.

Ununited Fracture of Humerus.—Dr. KEELING also showed a youth whose left arm had been nearly torn off, and his skull fractured, by a machinery-accident. After necrosis of two inches and a half of the shaft of the humerus, the ends of the bone had been tied together with wire, and splints applied. Complete recovery had taken place, the patient being now able to work at his trade as usual.

Scalping by Machinery.—Dr. KEELING exhibited a woman in whom one-half of the scalp had been torn off, in consequence of her hair being caught by a revolving machine-band. The complete healing of the raw surface had been much aided by repeated skin-grafting.

Musical Aortic Murmur.—Dr. DYSON exhibited a patient with aortic disease. His age was 45; he was a brewer's drayman. The interest of the case consisted of a very loud, high-pitched, musical diastolic murmur, the maximum of intensity being at the lower part of the sternum; the murmur was audible all over the front of the chest and in the back, also in the large arteries. There was also a systolic aortic murmur; a thrill of the same distribution as the murmur was also present. Signs of the above commenced last Easter, but it was not until December 1st that the patient left off his work. On that day, he had a sharp anginal attack.—Remarks were made by the President, Dr. Banham, Mr. Barber, Dr. Porter, Dr. Keeling, and Mr. Baldwin.

Aortic Valvular Disease.—Dr. DYSON showed a heart from a man aged 25. There was a history of rheumatic fever many years back; but only subjective symptoms of heart-disease for four years. The heart was greatly enlarged, weighing over 2 lbs.; it showed signs of pericarditis, dilatation and hypertrophy of the left auricle and left ventricle, disease of the aorta and of the aortic valves, also well marked mitral stenosis. The prominent symptoms and physical signs during life were those of aortic incompetency. A mitral murmur was present, but not well defined. The kidney also was shown; it was large and cirrhosed. The liver and spleen were very large. Convalluria was administered in this case, and seemed to act quite as well as digitalis. The urine was albuminous.—Mr. James and Dr. Porter joined in observations.

Uniocular Nystagmus: Tumour of Brain.—Dr. BANHAM introduced this patient, a man, aged 30. There was partial hemiplegia, with some anæsthesia of the left side, slight paresis of the right side, deafness of the left ear, nystagmus of the left eye, and atrophy of both optic discs, especially of the left; headache and vertigo were occasional symptoms. The defect of sight and hearing had been progressing for the last four years; but no paralysis, beyond slight weakness of the left arm, appeared until last January. He was then one night suddenly seized with cramps and rigidity of the limbs, followed, in a few hours, by hemiplegia. The affection of the right side had since slowly developed. The history of the patient, and the results of treatment, were opposed to a syphilitic lesion as the cause of the symptoms; and Dr. Banham inclined to the opinion that there was a tumour of the pons Varolii, implicating the cerebellar peduncles, and that the sudden increase of symptoms in January last was due to hæmorrhage in connection therewith.

Urticaria and Dysphagia.—Dr. BANHAM gave particulars of this case, occurring in an intelligent woman aged 25. The urticaria had recurred almost daily for two years, and had been accompanied with dysphagia to such a degree that swallowing was often found impossible, and the attempts induced such attacks of choking as greatly to alarm her. The patient had never given any indications of hysteria. Dr. Banham first saw the patient three weeks before, and gave strict directions as to diet and the regulation of the bowels, and ordered a bismuth and nux vomica mixture. In a day or two, the attacks of urticaria subsided, as well as the dysphagia. He thought it not improbable that the difficulty of swallowing had arisen from the mucous membrane of the throat being affected in a manner similar to the skin.—Dr. Keeling and Mr. Barber made remarks.

Nævus of Orbit.—Mr. SIMEON SNELL exhibited a baby with nævus at the inner and upper angle of the orbit, under process of cure by electrolysis; and showed also Priestley Smith's model for demonstrating the horizontal movements of the eye.

Ovum and Decidua in Retroflexed Uterus.—Mr. RECKLESS exhibited the specimen of an ovum and its decidual membranes, of about eight weeks' growth, removed from a woman aged 41, the subject of old standing retroflexion of the uterus. Its peculiarity was that the ovum appeared to have been arrested at the entrance into the uterus, and developed in the corresponding corner, and that the placental portion formed a complete cast of the uterine cavity. A further point of interest was the vexed question of the possibility of pregnancy in a well marked retroflexed uterus.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

DECEMBER 5TH, 1884.

FREDERICK LAWRANCE, M.R.C.S., President, in the Chair.

Sympathetic Ophthalmia.—Mr. SPENCER WATSON read a paper on a case of sympathetic ophthalmia. The patient, a farm-labourer, injured the right eye, and went about his work, applying only a wet linen rag to it. Fourteen days afterwards, the left eye became sympathetically affected. No active treatment was used till his admission into the South London Ophthalmic Hospital, six weeks after the accident, when local applications of cold, and mercury internally, were employed to reduce the swelling of the eye and orbit. Enucleation was performed two months after the accident. The ciliary processes, iris, and capsule of the lens were found matted together, and the pupillary area occupied by a firm membrane. There were traces of neuro-retinitis. The lens was *in situ*, and the vitreous body scarcely altered. The sympathising eye retained the same amount of vision as before the operation, and tension, though at times high, was normal. The patient could read No. 16 Jäger. The main features of treatment throughout had been mercury, eserine-drops, blisters to the temple, and exclusion of light. The author remarked on the carelessness of the patient in using the eye without a shade. The ultimate result was conjectural, but probably, in one or two years, an operation for opening the pupil, and perhaps removing the lens, would be required. With the sight in its present state, expectant treatment would be followed.—Mr. J. R. LUNN recommended early enucleation of the injured eye.—Dr. ALDERSON thought the name sympathetic ophthalmia confusing, owing to its likeness to the term sympathetic irritation. Great care should be taken to observe the early symptoms, which were generally in the iris.—Mr. SPENCER WATSON, in reply, said the disease might come on months, or even years, after the injury to the other eye.

Sulphide of Calcium.—Mr. R. F. BENHAM read a paper on the uses of sulphide of calcium. The author remarked that, in his opinion, very many of the failures in the use of this drug were due to too sparing administration. Dr. Ringer drew attention to this drug in a paper in vol. i of the *Lancet* for 1874, in which he stated that sulphide of calcium arrested and prevented suppuration in such cases as boils, carbuncles, scrofulous and glandular enlargements, and in many skin-diseases. After reading many cases, treated by various practitioners, the author remarked on the number of unsuccessful cases, and said the quantity given had been too small. A dose of one-sixth of a grain might cure in one case, but not necessarily in another. He regarded the appropriate dose for an adult to be one grain in pill, three times daily; but if, after a week, no improvement occurred, he made an increase of one grain daily, or every few days, until about eight grains daily were reached. The dose which had hitherto been regarded as poisonous, he found, did not produce alarming toxic symptoms. Only a small quanity of the drug taken was decomposed in the alimentary canal to form hydrosulphuric acid; and, from the ordinary dose, he did not find anæmia produced; but, on the contrary, even when six or

eight grains daily were given, general improvement in health resulted, even when the drug failed in curing the symptoms for which it had been administered. The author preferred giving the drug in pill, as, by this means, the taste was unobserved. Mr. Benham read notes of a series of a large number of cases treated with success, and also recommended the drug in phthisis, typhoid fever, and small-pox.—The PRESIDENT had found the drug to cause intestinal derangement; he had found it useful in gum-boil.—Dr. JAMES THOMPSON found one-tenth of a grain the safest dose to begin with.—Mr. MAITLAND THOMPSON had not found it useful in strumous glandular affections.—Dr. BENNETT asked if the drug resembled turpentine in causing more irritation in small than in large doses.—Dr. HUGGARD and Mr. EDWARDS referred to failure with the drug.

Inflammation, Abscess, and New Growths of the Ethmoid Cells.—Dr. THUDICHUM read a paper with this title. Inflammation he described as acute and chronic, as simple or dyscratic. The specific diseases led to the chronic form, with acute outbursts. In the latter, the symptoms became very precise, and yielded the data by which to diagnose the milder cases. Pain between the eyes, loss of smell, excess of nasal secretion, swelling of the glabella, swelling and discoloration of the eyelids, could mostly be distinguished on both sides. Hypertrophy of the ethmoid cells led to obstruction of the upper nasal meatus. In such cases, the author had removed the hypertrophied parts, on both sides, successfully with the electro-cautery. In other cases, he had removed the middle concha on one side, and thereby cured ozæna. The author next described some severe cases of abscess of the ethmoid cavities; these opened either into the nose, or on the upper eyelid, or below the inner angle of the eye, without involving the lacrymal apparatus. He further described new growths, myxomatous as well as cancerous, proceeding from the ethmoid cells, and the manner in which they had, in several cases, produced blindness of one or both eyes. He described a new apparatus for flushing the nose in cases where the septum was perforated or destroyed, and in which, therefore, the one-current douche, originally described by him, was not applicable.—Mr. SPENCER WATSON thought loss of smell a very valuable diagnostic sign. Sulpho-carbolate of soda was an useful drug for lotions and sprays in these cases.—Dr. CAMPBELL POPE and Mr. BENHAM related cases where the disease extended to the lacrymal apparatus.

Specimens.—Mr. KEETLEY showed cases of Hernia Cerebri, Syphilis of the Nose, Macewen's Osteotome, etc.; and Mr. PERCY DUNN showed morbid specimens of the parts after Gastrostomy, etc.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, DECEMBER 5TH, 1884.

J. CARTER, F.R.C.S., President, in the Chair.

Dislocation of Hip, with Dissection of Part.—Mr. BALDING (Royston) exhibited the parts involved in a simple dislocation of the hip, death having taken place from other causes forty-eight hours after reduction. It was removed by Dr. Archer from a boy, aged 13, who was admitted to the Royston Hospital on October 3rd, 1884, having been just thrown from a cart by the horse running away. There was a contused wound over the left temple, free bleeding from the right ear, and from one nostril. The patient was unable to walk, in consequence of some injury about the right hip, and, as he lay in bed, the leg appeared much shortened, and the right thigh lay across the lower part of that of the opposite side; there was marked prominence in the right gluteal region, and it was thought that the head of the bone could be felt on the dorsum of the ilium; any attempt to move the limb produced intense pain in the hip and thigh. Under the influence of chloroform, reduction was soon effected by manipulation. The effects of the chloroform soon passed off, notwithstanding the unfavourable head-symptoms; but signs of compression, with complete insensibility and convulsions, gradually supervened, and death occurred on October 5th. At the necropsy, a fracture was found extending through the base of the skull, with effusion of blood within the cranium, sufficient to account for death. The immediate cause of the dislocation appeared to have been rather uncommon. As far as could be ascertained, the accident happened as follows. The boy was riding, contrary to his master's orders, on the back of the horse, drawing an empty cart; he lost control over the horse, and fell astride the shaft of the cart, with his right leg between the shaft and the body of the horse; when in this position, the weight of the body was no doubt carried to the left, and the upper extremity of the right thigh being then partly fixed, the head of the bone would be forcibly thrust outwards from the acetabulum, and subsequently upwards and backwards.—Dr. ANNINGSON had examined the specimen, and found much extravasated blood beneath the glutei muscles, and amongst the nerves and vessels, which rendered dissection difficult. The gemellus inferior was torn from its attachment to the tuber ischii; the obturator internus and quadratus femoris were lacerated, and the obturator externus was much bruised near its attachment to the ilium. On cutting through the quadratus, a valvular rent in the back and underpart of the capsular ligament, about an inch and a quarter long, was found. The round ligament was found torn through obliquely, the tear commencing close to the head of the femur.

Myopia Caused by an Orbital Growth.—Mr. WHERRY showed a pensioner of police, six feet four inches in height. His right eyeball protruded and rotated outwards. On deep pressure in the upper orbit, a fulness could be felt at the upper and inner aspect. There was a history of double vision, and of pain in the right temporal region for more than two years, with severe neuralgic attacks of pain in the body and limbs, habitual constipation, and bleeding piles. The pain in the head increased so much, that the patient was driven, by sleeplessness, to obtain advice at the hospital. He never had any venereal attack, was 53 years old, had been married twenty-four years, and had a large family. There was no error of refraction of the left eye, which was moderately presbyopic, S = $\frac{2}{20}$. In the right protruded eye S = $\frac{2}{200}$; with −3 D. S = $\frac{2}{30}$ nearly. The margin of the optic disc was rather blurred in this eye, as if from optic neuritis, and it presented a marked contrast to the right disc, which was clear and definite. The patient had crossed diplopia; the image belonging to the left eye was higher up and tilted. On December 5th, after a four per cent. solution of hydrochlorate of cocaine had been applied, a puncture was made into the orbital swelling with a large grooved needle; nothing came but a little blood; the patient stated that he suffered very little pain from the operation. Iodide of potassium and perchloride of mercury had been given; and although there had been no apparent change in the deformity during the four months past, yet there had been no pain whatever; the sight of the eye also had improved; but the most interesting point in the case appeared to be the myopia, which seemed to have been produced by the pressure, perhaps both extra-ocular and intra-ocular, though there had never been any tension. The best evidence that before the onset of the proptosis his refraction was about normal in the right eye, was the fact that he was a good shot, and, at long distances; he always shot off his right shoulder, closing the left eye, and never used a glass. It appeared that the eyeball had been not only protruded and rolled outwards, but also actually elongated by orbital growth.

Adenoid Growths of the Naso-Pharynx.—Mr. DEIGHTON read notes of the following case. C. L., aged 5½ years, a delicate looking little girl, born in the West Indies, of English parents, came to England three years ago, where she had measles very badly, and suffered from a profuse purulent discharge from her nose, but did not have any ear-complications; since then she had suffered more or less from stuffiness of the nose, which had increased of late, until now she was quite unable to blow her nose. She always slept with the mouth open, snored, and even in the daytime continually had her mouth open, and breathed noisily. Of late she had been getting somewhat deaf. On examination of the anterior nares, the mucous membrane of the inferior turbinated bones was not hypertrophied, or unnatural in colour. The tonsils were only slightly enlarged. Rhinoscopy was impracticable, but, on examining the vault of the pharynx, a large mass of postnasal growths, which bled very readily, was detected by the finger. These were removed by Löwenberg's forceps. In order to re-establish respiration through the nose, the mother was told to check the child whenever she was seen to be breathing with the mouth open, and a chin-rest, with tapes to tie over the head, was ordered to be worn during sleep. This treatment was entirely successful. Mr. Deighton then read notes of a similar case which had only just recently come under his notice—of a young lady of about 30, in whom all the symptoms were much more advanced, and considerable deafness had resulted—the watch being heard at a distance of only one inch with the right ear and four inches with the left. Mr. Deighton remarked on the importance of early treatment, and of the often disastrous results, as regards hearing, of neglect, and urged the importance of examining the naso-pharynx in all cases of throat-deafness and obstructed nasal breathing with enlarged tonsils.

MENISPERMUM CANADENSE, yellow parilla or Canadian moonseed, has been examined by Mr. H. L. Barber (*Am. Jour. Pharm.*), and found to contain a new alkaloid, for which Professor Maisch proposes the name *menispine*. It is white, amorphous, bitter, soluble in 75 parts of water, in 6 of commercial alcohol, and very soluble in absolute alcohol, but unsoluble in benzol, ammonia, and solution of soda. In its solubilities and other characters, it was found to differ materially from menispermine and oxyacanthine.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

MONDAY, DECEMBER 8TH, 1884.

GEORGE BUCHANAN, M.D., President, in the Chair.

Operation for Relief and Radical Cure of Strangulated Inguinal Hernia in a Child.—Professor GEORGE BUCHANAN presented the patient upon whom he had operated. Full details of the case will be found in the JOURNAL for January 3rd, 1885, page 16.

Extensive Syphilitic Ulcers of the Leg: Amputation.—Dr. JAMES DUNLOP presented the limb, and gave a full account of the history and morbid appearances. The affection was of six years' duration, and began with pain at the point of both great toes, especially the left. Immediately afterwards, ulceration commenced in the left great toe, and gradually extended up the leg. The great toe was entirely destroyed by the progressive ulceration. The skin of the limb as high as the thigh was glazed and shining, and here and there were brown-coloured tumours. The patient contracted syphilis in Tripoli; and three years after his leaving that place, the affection of the leg began. The arteries generally were atheromatous.

Idiopathic Suppurative Meningitis.—Dr. DAVID NEWMAN presented the brain in this case; and Dr. ALEXANDER ROBERTSON read notes of it. The patient was a music-teacher, aged 40, who had been removed, on December 5th, 1884, at 10 A.M., from a lodging-house to the Glasgow Royal Infirmary in a comatose condition. He had turned ill on the previous day, with sickness and vomiting. He had lived in the lodging-house for four months; had not recently been in the habit of drinking; and had not complained of any illness till the present one commenced. On admission, the pupils were normal; the urine was slightly albuminous, but there was no uræmic smell in the breath, nor any dropsy. The left fingers and forearm were occasionally slightly rigid, and the left side of the face twitched momentarily on two occasions. There was a slight amount of pus in the left aural meatus. Cold affusions to the head were tried, but the symptoms increased, and the temperature soon rose to 103.4°. At 5 P.M., Dr. Robertson and Dr. Knox saw the patient in consultation, and trephining was proceeded with. No pus was discovered, but a large quantity of dark-coloured fluid escaped. He died at 9.30 P.M. The opinion expressed by Dr. Robertson was that it was a case of simple primary meningitis of the convexity of the brain.—Discussion of the case was postponed till a future meeting.

Obscure Case of Hepatic Disease with Generalised Dropsy.—Dr. J. LINDSAY STEVEN, for Professor MCCALL ANDERSON, read notes of this case. The patient, a boy, aged 18, was admitted to Ward 2 of the Western Infirmary of Glasgow on May 2nd, 1884, on account of swelling of the whole body of ten days' duration. His family history was not satisfactory, and his illness was one of a series of similar attacks, extending over a period of seven years, each of which, except the present, terminated in complete recovery, after having extended over a period of about two months. On his admission, with the exception of a suspicion of lividity, he presented the typical appearances of a patient labouring under tubular nephritis. But there was not a trace of albumen in the urine, and there was nothing in the heart or lungs to account for the dropsy. The liver was decidedly enlarged, measuring five inches in the nipple-line. The blood was microscopically examined by Dr. Lindsay Steven; but, with the exception of a very slight diminution in the number of the corpuscles, nothing was discovered. On November 4th he was seized with an attack of acute peritonitis, which carried him off on the 7th. The case was unique in Dr. Anderson's experience, and he failed, even in the light of the *post mortem* examination, to account for the widespread anasarca and dropsy of the serous cavities.—Dr. JOSEPH COATS described the pathological appearances. The only noteworthy points in the case were the state of the liver and the presence of acute peritonitis. He regarded the case as, possibly, one of subacute parenchymatous hepatitis, followed by shrinking, and comparable with subacute parenchymatous inflammation of the kidneys. He thought that the œdema and dropsy might be due to an altered condition of the blood induced by the state of the liver, and that the peritonitis probably originated in the disease of the liver, this organ being in very intimate relationship with the peritoneal membrane.

Aneurysm of the Aorta Rupturing into the Trachea.—Dr. PERRY read clinical notes of this case, and Dr. DAVID NEWMAN described the results of the *post mortem* examination. The patient was admitted to Dr. Perry's wards, complaining of hoarseness of voice, and of pain in the left side of the chest, the former symptom having been present for about ten weeks, and the latter for a fortnight. The left vocal cord was paralysed; the pupils were unequal; the respiratory murmur and radial pulses were equal on both sides; there was dulness over the manubrium sterni; there was no murmur or pulsation, but accentuation of the second sound over the third right costal cartilages. On November 17th he was seized, after having for some days suffered from slight hæmoptysis, with profuse hæmorrhage from the lungs, and died in half an hour. Dr. David Newman described in detail the characters of the aneurysm, which had opened into the left bronchus by a small aperture, admitting a No. 1 catheter. The left vagus nerve was incorporated with the wall of the tumour, and the effused blood had been sucked into the pulmonary alveoli, so as to simulate the appearances of hæmorrhagic infarction in certain places.

Brain of a Sheep Containing a Parasitic Cyst.—Dr. JOSEPH COATS showed this specimen. The animal had been affected with "sturdy," and the cyst occupied the temporo-sphenoidal lobe of the right side. The cyst was composed of connective tissue, and inside it was the thin-walled chitinous cyst of the parasite, from the internal surface of which numerous small heads projected. The heads were shown under the microscope, and presented four sucking-discs and a circle of hooklets. The condition presented was the scolex form of the tapeworm known as Tænia cœnurus, which is met with in the dog.

REVIEWS AND NOTICES.

A MANUAL FOR THE PRACTICE OF SURGERY. By THOMAS BRYANT, F.R.C.S., Member of the Council and Court of Examiners of the Royal College of Surgeons; Senior Surgeon to, and Lecturer on Surgery at, Guy's Hospital. With seven hundred and forty-seven illustrations. Fourth edition (Twelfth Thousand). London: J. and A. Churchill. 1884.

MR. BRYANT'S *Manual* is deservedly popular amongst students and practitioners; it teems with useful information, and, without the presence of any obtrusive dogmatism, its pages are not encumbered by learned disquisitions on the merits of different lines of treatment. The chapter on tumours is a good pattern of the proper way to teach the clinical and surgical features in connection with morbid growths in a work of this kind; pathological considerations being placed in the background, though in no way neglected, since nine pages are devoted to a succinct description of the microscopical anatomy of tumours, prepared by Dr. Moxon. Another praiseworthy feature in the *Manual* is the abundance of good illustrations of instruments and surgical disorders.

The introduction, into the fourth edition, of statistical tables of the author's experience in colotomy is a somewhat questionable innovation. It is quite justifiable for a teacher to record his own experience to his pupils and readers, but statistical records represent the working of a problem which should be taught only when it is solved; their proper place is amongst the pages of periodicals and society archives, where they stand for the judgment of peers and not for the instruction of pupils.

The fourth edition contains some additions that greatly augment the value of the *Manual*. Its pages are adorned with several chromolithographs; some of those, which represent diseases of the tongue and breast, are of high artistic value, and what is better, they are likewise instructive to the student.

The recent advances in abdominal surgery are not forgotten, and the chapters on diseases of bone have been particularly well revised. A copious index and an expanded table of contents accompany each volume, and will prove grateful to all who employ the *Manual* as a work of reference.

We can fairly congratulate Mr. Bryant on the deserved success of the previous issues of his work, which has resulted in the production of an edition that cannot fail to increase its worth and its popularity.

INSANITY AND ALLIED NEUROSES: PRACTICAL AND CLINICAL. By GEORGE H. SAVAGE, M.D., M.R.C.P., Physician and Superintendent of Bethlem Royal Hospital, etc. With Nineteen Illustrations. London. 1884.

EIGHTEEN months ago "Bucknill and Tuke" was the authority for those who wished to consult a large volume on insanity; and Blandford was the text-book for those who preferred a short work. Both were good books, apparently sufficient to satisfy the wants of the medical public; but who can enjoy a quiet corner now-a-days? The summer before last new competitors entered their names. Dr. Hammond and Dr. Mann appeared in America bearing volumes of respectable size; and Dr. Spitzka, of New York, produced a smaller but still deserving work. Then, in this country, we have lately had Dr. Clouston's *Lectures on Insanity*, a second edition of Dr. Sankey's

Lectures on Mental Diseases, and a third edition of Dr. Blandford on *Insanity and its Treatment*. In this crowded state of the book-market, Dr. SAVAGE offers what is at once an apology and an explanation. To those who have been for years in the culture and teaching of any branch of science, there naturally comes a time when their knowledge seems to demand some permanent registration.

Dr. Savage now feels that he "owes it to his position as physician to a large hospital, to give the younger members of his profession the results of his more than twelve years' experience in Bethlem." We are naturally pleased to hear of so conscientious a motive for writing a book, and are a little relieved by the reflection that, after all, extreme conscientiousness is not a very common virtue at present, otherwise we might possibly have too many books coming from physicians of asylums of twelve years' standing.

The best apology for Dr. Savage's book is that it is really a well written one. It is one of the series of manuals promised by Messrs. Cassell and Co. They are to be substantially bound in blue cloth limp, with blue edges, to contain about 544 pages, and to be freely illustrated with lithographs and wood-cuts. Respecting the colour, it is, perhaps, lucky that there is no uniform standard of taste; but the wood-cuts are excellent; they are apparently taken from photographs, and illustrate the different types of insanity. Considering that some of the manuals promised deal with such comparatively simple subjects as the diseases of the tongue, of the urethra, and of the breast, it is scarcely to be wondered at that Dr. Savage has taken his full allowance of 544 pages. Nevertheless there was, and is we are confident, a demand for a short, concise, and comprehensive book on insanity, and if Dr. Savage had made his work somewhat briefer than Dr. Blandford's, he would have a decided advantage. As it is, they are much about the same length, for though Dr. Savage's book is smaller in appearance, this is owing to the thinner paper and closer type. Dr. Clouston's book is somewhat larger than either.

As Dr. Savage's knowledge of the subject is not likely to be disputed, we may go at once to consider the manner in which he has executed his work. Dr. Savage understands how to bring out the striking features of a case, and his cases are all fresh ones, mostly taken from his own experience at Bethlem. His style is clear, even though he sometimes changes the construction of his sentences in the middle, and his method of punctuation sometimes excites surprise. Then the work is, on the whole, well proportioned. He is not over diffuse at one point, to be curt at another. There is an evenness of judgment and a want of mannerism which is all the more praiseworthy as coming from a man who has worked hard at special parts of his subject. His arrangement or classification of insanity is what may be styled the clinical, first clearly formulated by Dr. Skae, and used by Dr. Clouston in his lectures.

Dr. Savage attends more to the mental symptoms than to the pathology, which is, we think, judicious, for minute disquisitions upon what is found after death in the brains of insane patients leave but a vague impression upon those who have not themselves worked out the subject, and, besides, often explain very little. As Dr. Savage is known to be a good pathologist, this moderation is certainly not owing to laziness or incapacity. One defect in most English books on insanity is, that they generally deal far too exclusively with those marked cases which are principally to be found in patients who are received into asylums. The ordinary medical practitioner is in most need of advice how to manage cases of mental perversion that have not come to this stage, or that never reach it; for there are a great many insane people who do not go into asylums, and do not require to go; and on such questions he will often derive information from this work.

Dr. Savage's remarks upon neurasthenia, hypochondriasis, and hysteria, show a thorough acquaintance with the symptoms and treatment of these initial derangements, from which he leads on the reader to the consideration of melancholia, mania, and the graver forms of insanity. The following may be taken as an example of his curious cases.

A girl in Bethlem, with alternating hysteria and insanity, had a finger eaten by the rats without her withdrawing it from the hole in which she had placed it; and at the time she told Dr. Savage that she held it there for a man to kiss, and that she was not going to withdraw it while he was kissing it.

In his chapter on general paralysis, to which he devotes seventy-four pages, we think that Dr. Savage insists too much upon the varieties. He ought to remember that his work will likely be much used by students and younger practitioners, who have to gain and hold some fixed definition of this disease. Moreover, the general practitioner needs to do little more than to recognise it. The malady is admitted on all hands to be incurable, and ought to go into an asylum, where the physicians, of course, have leisure to study it thoroughly. Dr Savage would even give us a variety of general paralysis where the patient remains sane, with the patellar reflex gone, something very like locomotor ataxy.

In the chapters on the responsibility of lunatics and the legal relationships of insanity, Dr. Savage appears to advantage. The medical reader will find his advice useful and trustworthy. Like most medical superintendents of asylums, he is very indulgent to the insane. He would even suffer that "persons of unsound mind, even though suffering from general paralysis, should be allowed to make a will during periods of sanity;" but he is willing to allow divorce in many cases of insanity.

In conclusion, we can safely recommend this book to students and medical practitioners. It might also give much useful information to those judges who wish to avoid gross errors in their charges to juries on trials connected with lunacy. If jurymen are to continue to revise the diagnosis of physicians upon patients thought to be insane, and to interpret their hidden motives, they might, by a perusal of Dr. Savage's readable volume, be better able for their responsible duties.

A MANUAL OF THE THEORY AND PRACTICE OF EQUINE MEDICINE. By JAMES BRODIE GRESSWELL, M.R.C.V.S., and ALBERT GRESSWELL, B.A.Oxon., M.R.C.S. London: Baillière, Tindall, and Cox.

THE book before us, which is about 400 pages long, is the first of a series of treatises by Messrs. GRESSWELL on Veterinary Science and Comparative Pathology and Physiology, written for veterinarians and those of the medical profession and others who wish to gain a knowledge of these subjects.

The work sets out with a review of the zoological and geological position of the equine species; it then treats shortly of the causation of disease, and then more elaborately of general pathology. A chapter follows, on vegetable parasites and the germ-theory. This, though short, is complete in itself.

Among the articles on general diseases, those on anthrax, azoturia, and purpura hæmorrhagica, are especially good. The authors speak of calcium-sulphide as of great value in the treatment of the latter disease, which, however, presents little analogy to the disease of the same name in man.

In the following chapter, on the respiratory system, the article on pulmonary congestion is of special interest. In the circulatory and digestive systems, many of the points brought forward show close and accurate observation. Many, also, of the facts mentioned in treating of the renal system are derived from the personal observation of the authors.

The article on tetanus is original, and the treatment recommended is based upon physiological research of some value.

In the chapter on entozoa, the authors have followed Dr. Cobbold's work on *Entozoa in Man and Animals*.

Arsenic is considered at length in the chapters on toxicology, and many cases of arsenical poisoning of unusual interest are recorded.

We can cordially recommend the *Manual*. It is methodically arranged, and thoroughly scientific. It is written in an easy intelligible style, and reflects great credit upon the authors.

PRÉCIS DE MÉDECINE OPÉRATOIRE. Aide-Mémoire de l'Élève et du Practicien. Par le Docteur E. LE BEC, Prosecteur de l'Amphithéâtre des Hôpitaux de Paris. Avec 410 figures. Paris: J. B. Baillière et Fils.

M. LE BEC, already known in French surgical literature, as the author of a monograph on removal of the thyroid gland, some papers on ovariotomy and hysterectomy, and a valuable essay on the anatomy and pathology of the broad ligaments of the uterus, which formed the subject of a leader in the JOURNAL a few years since, has prepared a useful little manual of operative surgery; the description of each operation is brief, concise, and exact, and the diagrams are good, especially those which illustrate certain plastic operations, such as Didot of Liège's method of separating webbed fingers. It is divided into sections on the administration of anæsthetics, dressings (including an instructive description of Guérin's *pansement ouaté*, which M. Le Bec terms the "French Antiseptic Dressing"), ligature of arteries, amputations, disarticulations, resections and special operations, including most of those which are looked upon as particularly special, such as iridectomy, artificial perforation of the tympanum, and Emmet's trachelorraphy. Abdominal section in all its branches is well represented. This work will be of use to English readers who

desire to read, in good literary French, the professional idioms used by surgeons in France. Although French is an easy language, much studied in this country, we believe that a medical dictionary, similar to the German medical lexicons of Fancourt Barnes, Waller, and Cutter, would be a desideratum. It is true that most medical terms of Greek and Latin derivation, whether classical, or composed by mediæval or modern writers, are very similar, excepting in termination, in French and English, and are more generally employed in works in those languages than vernacular terms, contrary to the German method. But it is very desirable that the English reader should learn correct accentuation; and another advantage that might be derived from a special dictionary is a precise knowledge of the nature of operations and instruments, known by the names of surgeons who have introduced them into practice. These names differ greatly on the two sides of the Channel, and the French nomenclature can readily be learnt from M. Le Bec's *Précis*.

NOTES ON BOOKS.

The Wise Physician's Attitude Towards Alcohol. By A. H. McMurtry, M.D. Belfast League Depôt.—This is a vigorous and earnest plea for the adoption of total abstinence principles by the members of the medical profession. While it cannot be denied that the author adduces arguments of some weight, there can be little doubt that the force of his appeal would have been much greater had he been less sweeping in his assertions, and less dogmatic in his statements as to the alleged harmfulness of a limited social use of alcoholic liquors. It is somewhat remarkable that, though he devotes considerable space to disparaging the claims of alcohol as a therapeutic remedy, Dr. McMurtry records a beneficial experience from an alcoholic prescription. About five years ago, he began to recover from a severe attack of inflammation of the left lung, accompanied by prostration, within an hour after taking a dose of whisky which had been ordered by two medical friends.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

KERATIN-COATED PILLS.

Dr. Unna, of Hamburg, has discovered a method of coating pills, which is likely to prove even more useful than it is ingenious. The task which he set himself was to find a coating which would resist the solvent action of the gastric juice, but would dissolve in the small intestine. This he has succeeded in doing by the use of keratin, a substance extracted from the shavings of ox or buffalo horn. The shavings are first digested by artificial gastric juice (pepsine-solution with one per cent. hydrochloric acid), and are then macerated for weeks in ammonia. When the ammonia is driven off, a gummy solution of keratin is left, from which, by drying, keratin is obtained, in the form of shining bright yellow flakes.

A pill which is to be covered with keratin requires to be prepared in a special manner. The medicine employed is first rubbed well up with cacoa-butter, or tallow, with the addition of some indifferent powder, if necessary, and pills are made. The pills are then covered with cacao-butter, so as to prevent any of the medicine from being on the surface of the pill. When the pill is hard, it receives one, or, better, two or three coatings of solution of keratin. If the substance of which the pill is made render solution in ammonia inconvenient, a solution in glacial acetic acid may be used.

Keratin-coated pills are insoluble in the gastric juice, but dissolve as soon as they enter the small intestine; and have, therefore, a special value in cases in which medicines which have an irritating effect on the mucous membrane of the stomach are to be administered for any length of time; for example, when arsenic, salicylic acid, creosote, copaiva, cubebs, tartar-emetic, and vermifuge medicines are prescribed.

The method is further useful when medicines are given which are affected by digestion in the stomach, forming insoluble precipitates with pepsin and peptones; for example, tannin, alum, acetate of lead, subnitrate of bismuth, nitrate of silver, bichloride of mercury, etc.; and, further, in the case of medicines which it is desired should enter the intestine in as concentrated a form as possible, and medicines which are given with the view of affecting favourably diseased conditions of the mucous membrane of the stomach, without exercising an irritating local action; for example, iron, quinine, arsenic in catarrh of the stomach arising from anæmia. In short, the uses to which this discovery may be put are evidently numerous, but the precise states in which their employment will be found of most value are yet to be ascertained by experience. Some of them, however, are so apparent, that they must immediately suggest themselves to every one.

We hope that some of our leading pharmaceutists will take up the idea, and that keratin-coated pills will be readily obtainable when required.

AN APPARATUS FOR REMOVING DIPHTHERITIC MEMBRANE.

The sad death of Mr. Rabbeth, caused by his attempt to remove diphtheritic membrane from the trachea after the operation of tracheotomy, has naturally led to numerous suggestions for an instrument suitable in such an emergency, without risk to the operator.

I beg to bring into notice a small instrument, which has on numerous occasions during the last two years proved of the greatest value here.

As will be seen from the accompanying diagrams (Fig. 1, closed and

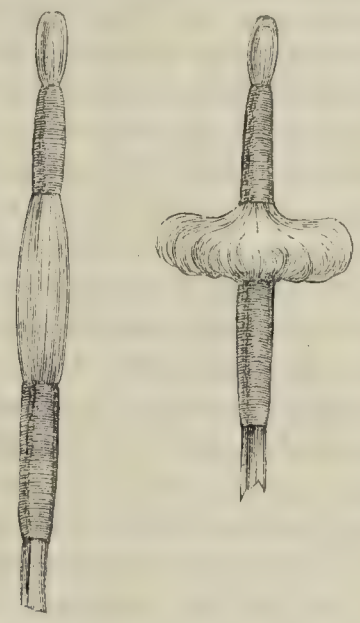


Fig. 1. Fig. 2.

ready for introduction into the trachea; Fig. 2, open) it is simply the ordinary œsophageal horschair probang in miniature, and its action is exactly the same; the shaft (which is not all shown in the diagram) being of the size of a No. 3 English catheter.

This inexpensive and most useful little instrument has been made for us by Ferris and Co., Bristol, and Salt and Co., Bull Street, Birmingham.

J. Paul Bush, Senior Resident Medical Officer and House-Surgeon, Bristol Royal Infirmary.

BARNES'S IMPERMEABLE CARRAGEEN POULTICE.

We have received from Mr. Barnes, of Trevor Terrace, Knightsbridge, specimens of the impermeable carrageen poultice, composed of carrageen, glycerine, and thymol. Experience has shown that the mucilaginous Irish moss, combined with glycerine and the antiseptic thymol, makes an excellent poultice. It is spread upon a light impermeable material, has great keeping properties, retains a moist surface, and is always ready for use. This poultice offers exceptional advantages, both in point of facility for the application of lotions, liniments, etc., the poultice simply requiring to be sprinkled with water before using, and also from its power of retaining moist heat, its adhesiveness, pliability, portability and light weight. The poultice is also prepared with the addition of 10 per cent of carbolic acid, and with 10 per cent of chrysophanic acid.

Miller Memorial Hospital.—The following gentlemen have been appointed the staff of this new hospital at Greenwich. *Surgeons:* Thomas Moore, F.R.C.S.; John Poland, F.R.C.S.; Ernest Clarke, B.S.(Lond.). *Medical Officers:* Thomas Creed, M.D.; Charles H. Hartt, L.K.Q.C.P.(Ireland); William Willes, L.R.C.P.(Edin.).

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 17th, 1885.

THE LUNACY BILL.

IN the last Saturday of the old year, the *Times* published a most important communication (from a correspondent) on The New Lunacy Bill, which has been the signal for a large number of criticising letters in its columns. The amount of knowledge, and the statesmanlike breadth of view apparent in the communication, has made men tingle with curiosity as to its author. Some inspired person, perhaps.

The scheme set forth is a great, wide, and comprehensive one, and certainly no mere consolidation of the existing law, or other tinkering of old pots. It commences with the proposal that the dual control of those having charge of lunatics, which at present exists in the two independent boards of the visitors and the commissioners, shall be brought to an end by the amalgamation and the construction of one strong Board of Lunacy, composed of eight medical members, with two barristers for president and vice-president, these last being responsible for the legal business. This alone would be a vast reform. The Board of Lunacy is to be assisted by five deputy commissioners, whose duty shall be to take charge of each county asylum during the annual absence, on leave, of the superintendent. This proposal has been more sharply criticised than any other part of the scheme, the critics naturally being the men whom it is proposed thus to overlook. The argument that the plan would not be altogether agreeable to these gentlemen, is not quite convincing that it would not afford a new and very efficient barrier against abuse. When it is considered how great and how anomalous the power and authority of the superintendent of any asylum is, and how little can be ascertained respecting its exercise by transient inspection, this proposal of thorough investigation will not be easily put aside, unless better arguments can be adduced against it than an outcry of *espionage*. There exists something of the same kind in some of the large banking establishments which have numerous branches.

There can be no manner of doubt that the great blot in the present lunacy law, and the great impediment to its reform, is the private asylum system. After describing the plan of new public asylums, the correspondent says that, in these asylums, "the charge for private patients would be low, and, as a consequence, the private asylums would, in a few years, die of inanition, or the Act might provide for their entire abolition on the 1st of January, 1900." This is the only feeble point in the scheme; for it is pretty certain that the competition of public asylums would not insure that private asylums should die of inanition, especially the worst of them. Those private asylums which competed with the new public asylums for paying patients in generous rivalry would, no doubt, be beaten in the contest; but thos which used arts to obtain and to detain patients which the publi asylums could not employ, would not be likely to die of inanitio Neither would the alternative of postponing the abolition of privat asylums to the commencement of the next century be likely to satis the present generation of living men, whether they are in asylums not. Surely, the author of this dilatory proposal must be connecte with the Court of Chancery!

The proposal for the establishment of new public asylums for pa ing patients, follows the main lines of Mr. Dillwyn's Bill of 187 but with more important points of divergence. The new asylums a to be established and ruled by the justices of the peace, and are, i deed, except in Middlesex, Yorkshire, and Lancashire, to be annex to the county asylums; moreover, the law of their establishment is be law imperative, and not law permissive, like that of Mr. Dillwy measure. The proposal is that "before January 1st, 1890, asylu committees of justices of the peace shall provide asylum accommod tion for private lunatics in their respective counties." Nothing said, as in Mr. Dillwyn's Bill, about compensations to the own of private asylums. This is a bad prospect for the owners of pate medicines, another valuable property, which is also likely to be su pressed before long. It is proposed that the hospitals for the insa which possess valuable town sites, shall be sold, and then that th trustees shall deal with the funds for the benefit of the poorer mid class insane. To some, this will seem a hard measure, but to oth it will appear but a just retribution for deserting the cause of char for which these institutions were founded. Lord Shaftesbury s that they vie now with private asylums; and so they do vie in mak profits.

The scheme of the draft Bill, if we may call it so, has some ex lent proposals for the certification of lunatics. It adopts the en gency-certificates for three days from the Scotch law; and from same law and our own pauper law, it adopts the *imprimatur* of magistrate. It proposes that one of the certifying medical men sh always be the ordinary medical attendant of the lunatic, and that other shall either be the medical officer of health, or the officer public asylum, these secondary certifiers being exempted from l responsibilities. If the magistrate were to be called upon to act the spirit of our existing law, respecting pauper lunatics, it wo seem scarcely needful to designate the certifiers, the magist being allowed to "call to his assistance" such medical men as he trust. If he be not allowed to do this, but is merely called upo countersign the document, he will scarcely be left the shadow of cretion, and his interposition will become a routine-matter o judicial nature.

Asylums are not to be allowed to charge all they can get ou patients. "When the patient can command more than £6 a w he should as a rule be kept in a private house, and the stigm asylum-restraint and restriction, should not rest upon him." conditions or limitations are mentioned as to kind of insanity or soundness of mind which shall justify reception and detention i asylum, but this, no doubt, is only a hiatus in the article, and not be neglected in the Bill. The uncertainty of the present la this regard, is one of its greatest faults. Its effect is comm demonstrated in the letter from Dr. Forbes Winslow, published i *Times* of the 5th instant, in which it is argued that if the certific of persons of unsound mind be not rendered more safe and satisfa

our streets will be filled with unmarried and uncertified persons of unsound mind, who will contract marriages possibly with each other. The corollary would seem to be that, if you wish to prevent a marriage of which you disapprove, you should send your friend to an asylum, and that the medical man who certifies him for this purpose ought to run no risk of legal proceedings.

THE ORGANISMS OF CHOLERA.

THE preliminary report of the English Cholera Commission, published in the BRITISH MEDICAL JOURNAL a fortnight ago, contained a challenge, which the friends of Dr. Koch have been, as we anticipated, not slow to take up. Dr. Klein, it would appear, found that the comma-bacilli, when grown in cultivating material, do not behave in any way differently from other putrefactive organisms. This statement contains two propositions: that the comma-bacillus is a putrefactive organism, and that it grows in the same manner as the putrefactive organisms. With regard to the first proposition, we shall make no remark, as the point is one of secondary importance, not permitting precise definition. But, on the second proposition, Dr. Heron, fresh from Dr. Koch's laboratory in Berlin, brought forward one interesting piece of evidence at the last meeting of the Medical Society; he had obtained, from what source we are not aware, a cultivation of the comma-bacillus of cholera, which Dr. Koch found to be a pure cultivation of the bacillus described by him. He had also obtained a pure cultivation of the other comma-bacillus found by Professors Finkler and Prior, of Bonn; this bacillus, which is commonly spoken of as Finkler's bacillus, very closely resembles Koch's bacillus, when seen under the microscope. A practised eye can detect only that Finkler's bacillus is a little more sturdy; its discoverers assumed that it was identical with Koch's bacillus, and, as they had found it in the stools of cases of simple cholera, or cholera nostras, they supposed that the same bacillus was present in both diseases. This was a very important deduction, since it was sure to be taken as tantamount to proving that cholera nostras and cholera Asiatica were not only clinically, but pathologically, identical.

It was soon found that the facts would not bear this serious interpretation. The stools in which Finkler's bacillus was found had been kept for a fortnight, and it would appear that the bacillus is, in reality, an organism of putrefaction; nutritive jelly inoculated with it was, at ordinary temperatures, rapidly liquefied by the growing organism; the track of the inoculating wire was, in the course of a couple of days, marked out by an opaque column of turbid liquid. With Koch's bacillus, the result was quite different; the track of the inoculating wire was marked by a thin line, along which the bacillus was slowly developing. No one who saw the cultivations which Dr. Heron had made three days before the meeting of the Society could hesitate to acknowledge that the two organisms presented such striking differences in their mode of growth under the conditions stated, as to entitle them to be regarded as distinct species. Finkler's bacillus produced changes in the cultivating material very much the same as those seen in ordinary putrefaction, while Koch's bacillus, at the same temperature, presented the marked difference shown very well in the engravings, which we reproduce at page 132. Our engraving is not made from one of Dr. Heron's specimens, but is copied from the *Fortschritte der Medicin*; it reproduces, however, so accurately the appearance of the specimens shown by Dr. Heron, that, without this explanation, those who saw the latter might suppose that our drawing had been made from one of Dr. Heron's tubes; his cultivations, therefore, had remained pure.

Other differences may be noticed during the growth of the bacillus of Koch, among others, the formation of a small air-containing hollow or dimple, well seen in the engraving we have reproduced. When the process of liquefaction is complete, when the bacillus, having exhausted its pabulum, ceases to grow, the whole of the growth sinks to the bottom of the tube, leaving the supernatant fluid clear, or nearly so, and with little or no scum; other putrefactive organisms do not behave in this way. It would, of course, be premature to form any decided opinion at the present moment, and especially before the results obtained by the English Cholera Commission are fully laid before us; but, so far as the published evidence goes, Koch would certainly appear to have established his point, so far as concerns the specific characters of the comma-bacillus.

It would appear that, in the controversy with regard to the comma-bacillus, we have arrived at this stage. The bacillus described by Koch is always present in Asiatic cholera, though in varying quantities; it is also a distinct species, although numerous other species of bacilli, having the same form, may be found under a variety of circumstances. The precise nature of the causal relation, if any, between Koch's bacillus and cholera, remains to be ascertained. Dr. Koch, as we gathered from Dr. Heron's remarks, is quite satisfied that such a connection exists, and looks upon the bacillus as the cause of cholera. Few who have studied cholera Asiatica, from the point of view afforded by epidemiology, will be prepared to accept this statement in its entirety, and many will regret that Dr. Koch should have made a statement which, in spite of its apparent precision, is in reality ambiguous.

There is one other reflection which cannot be avoided. Is it not almost a national disgrace that this country, whose responsibility with regard to cholera is so heavy, affords to investigators of this new aspect of the question so few opportunities of studying it? Is it satisfactory that a physician, who desires to acquaint himself with the present state of knowledge, should have to go to a foreign laboratory to obtain the necessary facilities? Is it creditable to us, as a nation, that living specimens of this much discussed bacillus should first be seen in this country under the conditions which we have mentioned—shown at an ordinary meeting of a society, and obtained, under a bond of secrecy, by the private enterprise of an individual physician? Such facts as these emphasise the justice of the demand for laboratories and appliances for the investigation of this and cognate subjects in England. Opportunities are required, not only for carrying out original investigations, but for acquiring the skill in manipulation requisite for understanding and applying observations made for us already in other countries. This rich and powerful nation is falling behind its manifest duties. The story of the comma-bacillus of Koch is only one out of many. Could the surplus funds of the great exhibition of last year be devoted to a better purpose than the forwarding of pathological knowledge and research in this direction? Workers, able and willing to devote time and energy to the questions, would easily be found. Classes, such as have been organised in Berlin, could be organised in this country, where the medical officers of the Army, Navy, and Indian services, as well as the medical officers of health and practitioners in general, could in a short course

acquire the skill and knowledge necessary to apply the new methods of investigation to the many problems which are continually coming under their notice. Next spring may see the cholera in this country. Before it comes, we ought to be armed with the paraphernalia necessary for its investigation.

THE ROYAL COLLEGE OF SURGEONS AND THE NORTHERN SCHOOLS OF MEDICINE.

In our uncertain climate, an unforeseen gale may blow from any quarter at any moment most unexpectedly; and amidst free British institutions, where every man has or should have a voice, it is equally uncertain whence fresh agitation may arise. Whilst the great questions of the conjoined scheme and the claims of Fellows and Members have recently become familiar items in our reports of Council meetings at the College of Surgeons, last week a new feature distinguished our summary of the January meeting of the College Council. Amongst familiar paragraphs concerning certain topics above mentioned, we had to announce that a petition was read from the northern provincial schools of medicine, praying that arrangements should be made, under the conjoint scheme, for the written part of the examinations being conducted at the schools themselves. This petition, which the Council referred to the Committee of Management for consideration, represented to the Council that, since important and fundamental changes in the method of granting the diploma of Member are about to be made under the conjoint scheme, it is desirable that the regulations for the conduct of the College examinations should undergo some modification, in so far as they affect candidates who receive their medical education at other than the metropolitan schools in England. By the present regulations, which compel the attendance of all candidates at the College buildings in Lincoln's Inn Fields both for the written and the oral parts of the examination, the real cost of the College diploma is materially increased to all students of provincial schools, especially when the schools are at a great distance from London.

This increase of cost, at present, is known to deter many north-country students from presenting themselves as candidates for the English College diploma; and the regulations of the conjoint scheme, as at present understood, would appear to increase this evil, by preventing a still larger proportion of students from provincial schools from seeking such qualifications as may be granted under the scheme. The petitioners are also of opinion that, during the few days which intervene between the written and oral examinations, "a residence in London exposes young men, many of whom are visiting the metropolis for the first time, to influences adverse to that repose of mind which is so necessary in examination-work."

For the above reasons, the petitioners suggested to the Council of the College of Surgeons that candidates from provincial schools should be permitted to answer the papers set in the various examinations for the diploma of Member of the College, at the school to which they belong, visiting London only for the oral examination. The memorialists further expressed their opinion that there need be no difficulty in making the necessary arrangements for carrying out this desirable reform, since the University of London, and many other examining boards, have for many years past conducted examinations in the provinces.

This petition of the northern schools, which, we understand, has been most energetically taken up by the teaching authorities at Manchester, Liverpool, Newcastle, and Leeds, appears to us to be most reasonable, and we cannot see how any member of the profession can take exception to it, although the hardy and self reliant young north-countryman may grudge the insinuation that he cannot take care of himself in London; besides, it must be averred by all who have any experience of the psychology of the medical student, that he is least amenable to unfavourable social influences at those anxious days in his career which lie between written and oral examinations.

Those days, on the other hand, necessitate hotel or lodging-bills, and thus impose a heavy tax on his diploma. It is certain that a large number of north-country students take Scotch degrees and diplomas, partly for reasons above made evident, and it is clear that an English college should do its utmost to encourage all men who are born south of the Tweed to qualify in the English metropolis. This can be done all the more fairly, since there is no legal restriction to prevent any medical man, with a qualification from one of the three parts of the United Kingdom, from practising in either of the two other countries officially included under that term. The English College must feel satisfied with the patriotic aims of the northern schools, which must assure it that, unlike King Richard III, it has not cold friends in the north; for, if these schools set small account on the College diploma, and on the coming conjoint qualification, they would not be so eager to beg for the removal of certain obstacles already set forth.

If discouraged, on the other hand, they cannot and will not prevent their students from seeking cheaper diplomas elsewhere; nor can it be doubted that the parents of many students, who in reality are generally the payers for diplomas, know nothing of the relative professional value of qualifications, and are guided chiefly by pecuniary considerations; so that a cheap diploma, which, with travelling expenses included, might cost less than the bare price of that which will be awarded in London under the conjoint scheme, would be much sought after if our college-authorities were unreasonable.

Should the memorial of the northern schools be favourably considered by the Council of the College, and its recommendations adopted, the northern student, if he pass the written examination at his own school, will be able to run up to London on the stated day by a morning train, and return by the same evening. As, under the new scheme, there are three examinations which may be so subdivided that the student can take it up in seven parts, it is clear that the question is one of great importance. Above all, it is a matter of the highest interest to the British Medical Association, which has ever jealously guarded the rights of provincial members of the medical profession.

THE Hunterian Oration at the Royal College of Surgeons will be delivered on Saturday, February 14th, by Mr. John Marshall, F.R.S.

THE second Cantor lecture on "Climate," to be given by Dr. Poore at the Society of Arts, on Monday next, January 19th, at 8, will deal with the floating matters in the air, and bacteriology as applied to climate.

THE librarian of St. Bartholomew's Hospital has announced that a general index to the first twenty volumes of the Hospital *Reports* is in the press, and will be ready for issue soon after the publication of the volume for the year 1884. As many valuable contributions

scattered in these *Reports*, the index will be a desirable acquisition to medical literature.

HOSPITAL SUNDAY IN LIVERPOOL.

LAST Sunday, simultaneous collections were made in the churches and chapels of Liverpool in aid of the medical charities of the city. So far as the returns have been made up, they show a considerable falling off in the results of the movement, as compared with previous years. Last year the collection reached the large sum of £7,500.

SERIOUS EPIDEMIC OF MEASLES AT CARDIFF.

AT a meeting of the Town Council of Cardiff, on the 12th instant, a report was submitted by the medical officer of health respecting the severe epidemic outbreak of measles in the borough. It was shown that, in the district of Grangetown, where there are 748 houses, and a population of 4,675, there had been 1,120 cases of measles, and 56 deaths; while, out of 748 houses, 373 had been infected. All the Sunday schools of the district have been ordered to be closed.

PRIZES OF THE ROYAL COLLEGE OF SURGEONS.

No essays for the Jacksonian Prize have been sent in to the Royal College of Surgeons. The subject was: "The Surgical Treatment of Uterine Tumours, both Innocent and Malignant." The subject for the next Jacksonian Prize is: "The Diagnosis and Treatment of such Affections of the Kidney as are amenable to Direct Surgical Interference." The essays must be sent in on or before Thursday, the 31st of December next. At the same time, essays for the collegiate triennial prize must also be sent in.

PAUPER LUNATICS.

THE Local Government Board have just issued an important order with regard to the care of pauper lunatics. A circular letter has been addressed by the Board to all boards of guardians throughout England, in which it is stated that the Board have received a communication from the Commissioners in Lunacy, in which it is suggested that an important proportion of the pauper lunatics at present housed in county asylums might be adequately and more economically provided for in workhouses. The Commissioners furnish returns of cases considered suitable for workhouses, and the Board request the various boards of guardians to carry out the necessary transfers. It is estimated that upwards of two thousand harmless lunatics will thus be transferred from asylums to workhouses and union infirmaries.

LIVERPOOL MEDICAL INSTITUTION.

AT the annual meeting, held on Thursday, January 8th, the following list of officers and council and microscopical committee was adopted. Those marked (*) did not hold the same office last year. *President:* Dr. Robert Gee. *Vice-Presidents:* Dr. J. Wallace, Dr. J. H. Wilson, Dr. J. Birkbeck Nevins, *Mr. F. T. Paul. *Treasurer:* Dr. James Barr. *General Secretary:* Dr. William Alexander. *Secretary of Ordinary Meetings:* *Dr. William Williams. *Librarian:* Mr. J. E. Burton. *Council:* Dr. J. Grimes, Dr. F. Imlach, Dr. R. F. Owen, Mr. R. N. Pughe, Mr. T. Shadford Walker, Dr. T. F. Young, *Dr. F. J. Bailey, *Dr. J. Cameron, *Mr. Reginald Harrison, *Dr. H. Harvey, Mr. H. O. Thomas, *Mr. R. Williams. *Microscopical Committee:* Dr. W. Alexander, Dr. P. M. Braidwood, Mr. H. Briggs, *Dr. Hyla Greves, *Mr. G. Hamilton, Dr. J. S. Hicks, *Dr. J. R. Logan, Mr. Rushton Parker, Mr. F. T. Paul, and Dr. W. Williams.

THE DISCUSSION ON TUBERCLE-BACILLI AT THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE debate on tuberculosis at the Royal Medical and Chirurgical Society was carried on very actively last Tuesday, January 13th, and though the meeting sat for half an hour longer than usual, it was quite impossible to find time for many who wished to speak. Drs. Coupland, Fowler, Acland, and others were put off to a special meeting, to be held on next Wednesday, January 21st, at 8.30 P.M., when it is hoped the debate may be brought to a conclusion. Dr. Wilson Fox and Dr. Moxon took a prominent part in the debate, and a moment's comparison of their present position with that which they took in 1873, at the Pathological Society, in the general discussion held then on phthisis, will suffice to show the overpowering "influence of the bacteridæ," as Dr. Wilson Fox cautiously phrased it, in the subject. The main question at the heart of the discussion is no longer of the unity of phthisis, but whether, and in what sense, that unity is due to the attacks of a single definite known parasite. Dr. Weber, Dr. Wilson Fox, and to some extent, Dr. Green, spoke cautiously, leaving the gist of the matter to skilled microscopists. Dr. Moxon felt no doubt in saying that whatever at any time contained a special bacillus was tuberculosis, and whatever did not contain it was not; the bacillus was entirely concomitant, but whether it was causative he did not discuss. We shall return to the subject when the debate is concluded.

DYSPEPSIA AND INDIGESTION.

DR. AUSTIN FLINT is arousing the prophets of common sense in relation to the management of the stomach, and the endeavour to overcome its difficulties. He is beginning to recognise that there is a physiological fallacy in the idea that what is called "weak digestion," or inability to take certain articles of food, is a malady which the sufferer ought either to accept as a dispensation of providence, or to meet by uncompromising surrender. This is how Dr. Austin Flint puts the matter. "The mind plays an important part in the etiology of the affection. The old method of treatment was to strictly regulate the diet, drink very little or no fluids, and always leave the table hungry. Such treatment is entirely wrong. Dyspepsia may be developed by the attempt to regulate the diet by rules intended to prevent the affection. I always ask a patient, Do you regulate your diet? and he always answers in the affirmative. I have never known a dyspeptic to get well who attempted to regulate his diet. Regulate by the appetite, the palate, and by common sense. A patient may ask, Am I not to be guided by personal experience, and avoid such articles as I have found to disagree with me? I answer that personal experience is very deceptive. An article that would disagree to-day would agree to-morrow. Do not adopt the rules of eating only twice or thrice a day. Be governed by the appetite. Those articles are most digestible which are most acceptable to the palate. Do not leave the table hungry. Take animal and vegetable products, and drink according to the want of instinct. The diet which, in healthy subjects, is conducive to health, is the best diet for dyspeptics. It is a fallacy to suppose that, in dyspepsia, the organs of digestion need a prolonged rest. Patients should not be afraid to rely upon their digestive powers. Perfect cures have been obtained by following the instincts of nature. Dyspepsia is most common in the better educated classes, because they endeavour to regulate their diet on scientific principles." There is much sound sense in this view; it is not new, but only the old fashioned, sensible, manly one revived. Physicians—some, at least—who have not posed either as "starving doctors," or as anti-alcohol and antitobacco practitioners, have been striving to stem the course of fanaticism in science, but vainly. Perhaps it was not worth while to struggle and toil against the stream. Those who have laid aside silently on the bank waiting until the tide turned, have had a less troubled time of it; and now it has turned, or is rapidly turning, doubtless more from natural causes than the efforts made by opponents of the "fad" of fashionable physicians. It will be amusing to see how the advanced fanatics contrive to change their policy. Already we hear it admitted that "port is a good sustaining wine." Before long, perhaps, it will be perceived that, since the days when good sound wine was recognised as an useful as well as permissible aid to digestion, and, in itself, a serviceable nutrient, the type of many maladies

has been altered, and not for the better; while bad nervous affections and weaknesses, neuralgia, throat-maladies, and a host of distressing and debilitating disorders, have been notably on the increase; while, as regards the *bête noire* of the anticonstitutionalist—another development of the fad in physic—the gout, a suppressed or undeveloped type of the disorder has replaced the genuine old fashioned "enemy," against which the weapons of art were infinitely more formidable than they are wont to prove against the bronchitic troubles, the kidney, liver, heart, brain, and nerve-disturbances, which have sprung into prominence as the type of the manifestation of "the gout" has been reduced—or, shall we say, depressed—by the withdrawal of stimulants. Dr. Austin Flint's remarks appear opportunely during the delivery and publication of Dr. Lauder Brunton's instructive lectures before the Medical Society of London.

THE PEOPLE'S CONTRIBUTION-FUND.

EUSTON Station is not far from University College Hospital, and the servants of the London and North-Western Railway Company have again shown their appreciation of the benefits daily received by some of their number at that hospital by organising a concert, which was held on January 9th. The whole of the proceeds of the concert, without any deduction, were handed over to the hospital, and the secretary stated that the servants of that railway-company alone had given £400 to the hospital during the last seven years. The attempt, first made in 1878, to enlist the interests of the class who received the advantages of treatment in the hospital in its working and maintenance, has been attended, we are glad to learn, with considerable success, over £3,000 having been already raised by the "People's Contribution Fund."

OPHTHALMIC DEMONSTRATIONS.

A SHORT course of elementary practical instruction has just been commenced at the Royal London Ophthalmic Hospital, Moorfields. Five demonstrations will be given each week, two by Mr. Gunn on the use of the ophthalmoscope, two by Mr. Lang on errors of refraction, and one by Mr. Nettleship on external diseases of the eye. The series will be complete in two months, and the course will probably be repeated several times during the year. The very large number of patients attending this hospital will afford a wide field for selection; and, if we may judge by the success of the somewhat similar courses of instruction, established some years ago in Vienna, and of the post-graduation classes in New York, we may expect that a large number will avail themselves of this unrivalled opportunity of acquiring a practical knowledge of ophthalmic surgery. Further particulars may be gathered from an advertisement in another column.

THE MEDICAL PROFESSION AND THE COLLEGE AT SANDHURST.

IT seems worth noticing that the Report for the year 1884 of the Board of Visitors appointed to inspect the Royal Military College, at Sandhurst, shows that there were only 2 sons of members of the medical profession among the 288 cadets who were studying at the college at the time of the inspectors' visit. As the cadetships at this college are obtained by open competition, with the exception of about twenty Queen's appointments, the fact of members of the medical profession not taking advantage of the opportunities afforded by this public establishment for some of their sons, is, naturally, calculated to attract attention. Of the 288 cadets under instruction, 8 were sons of peers, 8 of baronets and members of parliament, 24 of clergymen, 8 of lawyers, 92 of private gentlemen, merchants, etc., 141 of officers of the army, and 5 of naval officers, the remaining 2, as before mentioned, being sons of parents in the medical profession. That the larger proportion of the cadets should be sons of officers of the army is only what might be expected: their fathers are probably well acquainted with the ways of the establishment, and their associations naturally lead them to seek for some of their sons a career similar to their own. Is the paucity of medical men's sons at the college due to the fact of their fathers being unacquainted with the advantages offered by it, or does it result from a conviction that a combatant officer's commission is not a prize worth the competitive struggle to obtain it?

THE MUNICIPAL GOVERNMENT OF LONDON.

WE have been invited to believe that Sir William Harcourt's scheme of reform in the municipal government of London was viewed with the utmost disfavour by the existing vestries and district boards, as depriving them of their liberty and freedom of action. Yet what is this memorial which has been sent in to the Home Secretary, signed by "several hundred members of the vestries and district boards, including representatives from every vestry and district board, except that of St. Martin's-in-the-Fields?" The memorial sets forth that, in common with the large majority of the people of London, the memorialists are anxious to see a municipal government established for the whole metropolis, which shall be capable of dealing with all great measures, and of protecting the interests of the community, and also to have efficient district councils elected, which shall be responsible for the control of all local matters. The signatories express, therefore, their earnest hope that the Government will consider with them that the question of the reform of London government is of pressing and vital importance, and that they will not allow the forthcoming session of Parliament to pass without introducing and carrying into law a measure so urgently required. We are glad to find the local authorities themselves waking up to a sense of the unsatisfactory character of the present system; but are the memorialists quite wise in speaking of their case as a matter that needs to be settled without fail this year? Theoretically, no doubt, it is; but, looking to the political situation, it is impossible to expect that adequate time and energy will be available for the proper discussion and settlement of the question in the session which opens next month. For, first of all, there is the Redistribution Bill to be got through its various stages; and, considering that a quarter of the whole number of members are invited to unseat themselves, it is hardly likely that we shall escape without copious debates about details. And the Redistribution Bill once passed, the Government must unquestionably go to the country as soon as the extended electorate has got settled in its new boundaries. With what heart, then, can we expect a House, from which all the spirit has evaporated, to take up a question so complex and so troublesome as the municipal government, from one centre, of four millions of people? Local government is a subject of all others on which each particular member of parliament regards himself as a born oracle. The flood-gates of talk, which perseverance in the Bill would provoke, would infallibly damage the prospects of its passing; and, probably, in the end, an imperfect measure would have to be accepted as an alternative, to the complete sacrifice of the time spent in carving the Bill into shape. Hence, unwilling as we are to counsel delay in a matter so intimately affecting the autonomy of the metropolis of the world, we think the memorialists to the Home Secretary and the London Municipal Reform League would do wisely to hold their hand until the new House of Commons is elected, which, in all probability, will be early next year, in quite sufficient time for a complete and workable measure to be passed in the Session of 1886. London will, in the new Parliament, be represented by fifty-nine members, instead of the twenty-four which it has at present; and the plan of single member constituencies will permit the reform of its municipal government being made a test-question with candidates. It is hardly possible to doubt that the great majority of Metropolitan members elected to the new House will come thither pledged to the principle of the Home Secretary's Bill; and, with such a solid phalanx of immediately interested

members supporting it, its passing in the first session of the reformed Parliament ought not to prove a matter of serious difficulty.

THE PROPOSED PUBLIC PARK AT DULWICH.

We are concerned to find that the Vestry of St. Luke's, Middlesex, still persists in its opposition to the proposal of the governors of Dulwich College to make over to the Metropolitan Board of Works seventy-two acres of their estate at Dulwich, for the purposes of a public park. When good old Edward Alleyne made the inhabitants of St. Luke's and St. Botolph's, on the Middlesex side of the water, the joint recipients of his bounty with the inhabitants of St. Saviour's, Southwark, and St. Giles, Camberwell, he could not have foreseen the bickerings and differences which have arisen from interparochial jealousies. It may be admitted that St. Luke's wants a public park more than Dulwich; but there is all the difference in the world between making over one's own land for purposes of recreation and purchasing that of others. Besides, as it would appear, St. Luke's, with a right, at the best, to only a fourth of the benefaction, calmly proposes that the whole sum at which the area of the new park is valued—namely, £21,000—shall be laid out on the purchase of the site of the Old Street lunatic asylum as a recreation-ground for the parishioners of St. Luke's. The ethics of this matter we cannot discuss; but it will be a great calamity for the metropolis if want of concord on the part of those interested should spoil the good intentions of the Dulwich governors and the Board of Works.

THE ACTION OF CUCAINE ON THE PUPIL.

An interesting and important contribution to the study of the action and uses of cucaine was made by Mr. Walter Jessop, in his paper read before the Ophthalmological Society. His investigations point to the conclusion that the drug acts by paralysing the sensory endings of the cerebro-spinal nerves, and stimulating the sympathetic endings. Its effect appears to be remarkably local; the conjunctiva may be rendered completely insensitive for the whole or for part of its area, but the deeper parts retain sensation, and the operation of tenotomy is therefore attended by pain, unless the surgeon, after rendering the conjunctiva insensitive, injects a few drops, with a hypodermic syringe, into the neighbourhood of the tendon to be cut. Injection of a 4 per cent. solution into the anterior chamber, deadens sensibility sufficiently to render iridectomy painless. But beyond its anæsthetic effects, cucaine has other properties which may make it useful to the ophthalmic surgeon. It appears that when the pupil is fully under the influence of atropine, it is still capable of further dilatation when a strong solution of cucaine is introduced. Irritation of the sympathetic will also produce a further dilatation of a pupil already dilated by atropine, and Mr. Jessop advanced reasons for believing that cucaine stimulates the sympathetic. The modes of action of cucaine and atropine, therefore, though both produce dilatation of the pupil, are radically different; atropine produces the dilatation by paralysing the sphincter fibres, cucaine by stimulating the radiating fibres. Advantage may be taken of this action of cucaine in the treatment of iritis, for adhesions which are able to withstand the drag produced by atropine, may give way under the slight additional strain brought about by the action of the radiating fibres stimulated by cucaine. Dilatation of the pupil is quickly produced, and quickly disappears, when the drug is used alone; it seems, therefore, probable that it will be of great use to the physician in facilitating ophthalmoscopic examination, which he now often makes with a contracted pupil, under difficulties, rather than subject the patient to the prolonged discomfort produced by atropine.

RESEARCHES ON CUCAINE IN GERMANY.

We have received from Dr. L. Königstein, of Vienna, an account of his recent researches into the physiological action and therapeutic uses of cucaine. Most of his observations were made on himself, but his friends and others were also laid under contribution. On applying a one per cent. solution of the alkaloid freely to the conjunctiva of the right eye, he noticed that, in addition to the ordinary symptoms, the lids were widely separated, and the globe appeared to protrude. The eye had developed a peculiar staring aspect, which reminded him of the condition met with in Graves's disease. Another point noticed was the pallor of the palpebral and bulbar conjunctiva, the smaller vessels having disappeared, and the larger become much contracted. The symptoms produced by the one per cent. solution were, briefly, anæsthesia and analgesia of the conjunctiva and cornea; anæmia of the conjunctiva of the lids and bulb; wide separation of the lids; protrusion of the eyeball; dilatation of the pupil; and slight impairment of accommodation. The most important of these effects are clearly the anæsthesia and analgesia. The anæsthesia permits the removal of foreign bodies from the cornea, and is a help in destroying granulations, in incising tarsal cysts, and in the application of strong caustics. Dr. Königstein has availed himself of this property in the performance of tenotomy and iridectomy on rabbits. On one occasion, he enucleated the eye of a dog under its influence, the animal experiencing neither pain nor inconvenience. As regards the analgesia, cucaine has been applied in all cases of painful affections of the conjunctiva, cornea, or deeper structures. After two or three applications of the solution, the spasm of the lids at once subsides. The effect of the alkaloid was most beneficial in a case of burn of the cornea by a red hot iron; in another, of injury of the cornea and conjunctiva by mortar; and in a third, of erosion caused by a foreign body. In a case of herpes zoster, where the patient was suffering intense pain, the application of cucaine gave almost immediate relief, so that hypodermic injections of morphia, which had been given constantly, were discontinued. The alkaloid was also applied in cases of supra-orbital neuralgia, and was found equally successful, whether rubbed in with vaseline, or injected hypodermically. The anæmia of the conjunctiva was found serviceable in inflammatory affections accompanied by marked injection. Indeed, in slight cases, it so thoroughly checked the inflammation, that the eye almost immediately resumed its normal appearance. In iritis, it was employed with beneficial effects, so that it was found possible to dispense with the use of atropine. In catarrhal conjunctivitis and trachoma, it does very little good, and is not to be compared with nitrate of silver, or sulphate of copper. Ptosis may be regarded as an indication for its employment, especially if it be a sympathetic paralysis. The dilatation of the pupil with the insignificant affection of accommodation is an action of the utmost importance to the ophthalmic surgeon, for it practically enables him to dispense with atropine for the purposes of examination. The anæsthesia produced by cucaine might possibly be due to the anæmia; but it is more probable that an influence is exerted on the peripheral terminations of sensory nerves. The separation of the lids might be referred to the insensibility of the cornea, or to the loss of reflex contraction of the orbicularis; but it is far more probable that it is due to an action on the sympathetic, or probably the ciliary ganglion, in which fibres of the sympathetic and trigemenal run. Cucaine has been found in the aqueous humour; and, if that be tapped, and the fluid dropped into another eye, the characteristic anæsthesia is produced. It may be used, in combination with eserine, in cases of glaucoma, neuritis retrobulbaris, in ptosis due to sympathetic paralysis, and in clonic spasm of the orbicularis. In conclusion, Dr. Königstein point out that the action of cucaine, as an anæsthetic in eye-affections, wa well known long before the publication of Koller's results at the Ophthalmic Congress at Heidelberg in September last. In support of this statement, he refers to an exhaustive article by his colleague, Dr. Freud, in the July number of the *Centralblatt für Therapie*, and to the article on Cucaine in the *Pharmacology* of Rossbach and Nothnagel.

ALLEGED POISONING BY COLCHICIN.

Criminal ingenuity is continually finding fresh modes of taxing th skill of the analyst. Colchicum contains an alkaloid said to be allied

to veratria. It has been named colchicin, or colchicina; and there are grounds for suspecting that this alkaloid has been recently used by a man who desired to replace an old wife by a young one. The supposed criminal is a manufacturer of artificial flowers in Paris, and probably possessed sufficient knowledge of chemistry to feel sure that the recognition of colchicin after death would be an exceedingly difficult task. The symptoms of poisoning by the alkaloid appear to be the same as those produced by the plant from which it is derived; these are great prostration, wide-spread muscular twitchings, pains in the joints, intense irritation of the whole alimentary tract, and, finally, failure of the action of the heart. The symptoms with which the supposed victim in this case died appear to have excited some suspicion at the time, lately confirmed by the fact that the accused man had, shortly before his wife's death, made two efforts to obtain the alkaloid at chemists' shops. The attempt in both cases was unsuccessful, and the statement that death was in fact produced by this drug is at present no more than an assumption.

PROFESSOR LANKESTER ON BACTERIA.

At a meeting of the Medical Society of University College, London, on Wednesday, January 14th, Professor E. Ray Lankester delivered a lecture on "Bacteria, the Germs of Putrefaction and Disease." The meeting, which was attended by about 500 members of the Society and their friends, was presided over by Dr. Halliburton. The lecturer gave an interesting historical survey of the whole subject from the time of the discovery of bacteria by Leeuwenhoek in 1682. He described the various kinds of organisms included under the general term bacteria. In connection with the yeast-plant, he pointed out how, by growing that body under different conditions, a different life-history could be obtained; he also showed that, under similar varying conditions, the spores of mucus could be made to produce an ordinary mould, or, on the other hand, could be made to grow into bodies resembling torulæ in appearance, and also in their action upon saccharine solutions. The bearing of this on the theory that various bacteria change their form and functions under certain circumstances was pointed out. Professor Lankester divided bacteria into four sets: the septic, the zymogenic, the chromogenic, and the pathogenic. In connection with the latter class, he dwelt more especially on those cases where the causal relation between bacterium and disease had not been proved definitely to exist. He placed Koch's theory of the connection between the comma-bacillus and cholera on a par with Klebs' theory of the connection between his bacterium typhosum and typhoid fever; in both cases, the mere presence of the particular organism was given as proof of these theories; this Professor Lankester characterised as objectionable, and the conclusions unwarrantable. Klein's results, in addition to those of Dr. Lewis, now showed, in his opinion, that Koch had been too hasty. The lecture was abundantly illustrated by diagrams, and was followed by a demonstration of various kinds of bacteria, and of the methods of cultivation and inoculation. Some of these specimens were lent by Mr. Victor Horsley and Mr. J. J. Lister.

THE DARENTH CAMP.

At a meeting of the St. Pancras Vestry, held on Thursday, January 8th, the subject of the recent charges of mismanagement and ill-treatment of small-pox patients at Darenth Camp was again brought under consideration. Mr. N. Robinson, a member of the St. Pancras Vestry, and also of the Metropolitan Asylums Board, is reported to have said that: "The men had no change of linen for three weeks, that the food was not properly cooked, and that there were no proper bathing facilities." Sir E. H. Currie, in a letter to Mr. Robinson, utterly denies these charges, and expresses his regret that Mr. Robinson should have made, in public, such allegations of mismanagement against a board of which he himself is a member. In reply to this, Mr. Robinson states that he has been misreported, that what he said at the vestry meeting he was prepared to say anywhere; and he was of opinion that what he had said was the best possible means of easing the public mind with regard to allegations which had arisen in other quarters. Whatever may be the truth of these charges of mismanagement at Darenth, it is certain that there have been recently a large number of letters in the public prints, from late patients, complaining of their treatment while at the camps, and of the general management of the place; but it is to be hoped that, if any grounds for such complaints did exist, they have now been effectually removed. As a striking instance of the current absurdities which have been uttered, we note the following. It has been asserted that the food of the patients was handled by hands that ought not to handle it, which we found, on inquiry, to mean that the small-pox convalescents cut their own bread by means of a machine. If they may not cut their own bread with their own hands, of course, they may not eat it with their own hands, and, consequently, must be fed like helpless idiots. In all the small-pox hospitals we have known, the convalescents have been utilised in the general work of the hospital, and we fail to see the slightest objection to the practice. The Asylums Board has a very difficult task in the management of such an institution, and it is not to be wondered at if, at first, there are some hitches. The wonder is that it has gone on so well. To manage a camp containing, at times, upwards of a thousand persons, many of them practically well, and some of them certainly not easily managed, appears to us to be work for some military officer, who could enforce military discipline, rather than for a medical man; and it seems unjust to blame the medical man if, in some instances, the task has proved too much for him.

MYSTERIOUS ILLNESSES.

In a letter which appeared in the *Times* of the 10th instant, a "Londoner" gives an account, under this title, of the sufferings endured for a year and a half by a member of his family. The symptoms were drowsiness, parched mouth, nervousness, depression, loss of flesh, general debility, and fever. Absence from home always removed them, but they invariably reappeared on returning to the house. A thorough examination of the drains and plumbers' work showed nothing amiss, but when, after coming home from last summer's holiday in perfect health, the fever returned within a fortnight, the medical attendant suggested, for the first time, that it might be caused by the paper on the walls of the patient's bedroom. This was found to be highly arsenical, and since its removal she has enjoyed perfect health. A friend of the writer's, hearing of this, thought that such might be the explanation of his daughter's failing health, and of her inability to sleep without an open window. An examination of the paper showed that such was the cause, and the substitution of a non-arsenical paper confirmed it. Such cases admit of no doubt as to the true nature of the cause; and the symptoms described, though embarrassing to a medical man who seeks for any other explanation, are perfectly characteristic of chronic arsenical poisoning by this means. By this means, we say, because the gastro-intestinal irritation that attends the internal reception of the poison is mostly absent. It is also important to bear in mind that different individuals exhibit very different degrees of susceptibility. Thus, a "Londoner" himself suffered only from chronic sore-throat; and, with others, weak or inflamed eyes are the chief symptom. In Germany, the use of poisonous pigments in wall-papers, and all other fabrics and materials that can affect the health, is absolutely prohibited. An exception was, indeed, made in the case of papers, etc., intended solely for exportation, that German manufacturers might not be placed at a disadvantage in competing with French firms; but the restrictions imposed on the use of arsenic were so onerous and harassing that the manufacturers themselves have found it the most profitable course to discard arsenical colours. Most of the largest houses in this country have followed the example first set by Messrs. W. Woollams and Co., and make papers of every colour and kind perfectly free from arsenic. Indeed, at the International Health Exhibition, the only arsenical papers were those

in the collection exhibited, by way of caution, by Mr. Henry Carr, who has for years been labouring to awaken public opinion to the danger. The committee appointed two years ago by the National Health Society have in hand a Bill to regulate the use of poisonous pigments, which they hope to introduce this session, if other business do not, as it did last year, so engage the attention of Parliament as to preclude its consideration; and they trust that medical men everywhere will use their personal influence with members of both Houses in its support. In the *Times* of the 13th instant was a letter from a gentleman who wished to know if there were any method of testing which could be employed by householders when buying new papers, or wishing to satisfy themselves as to those on their walls. To this question we can give a satisfactory answer. Anyone can obtain, either direct from Messrs. Griffin, of 22, Garrick Street, W.C., or through any chemist, for the small price of 7s. 6d., a box containing the necessary apparatus and materials for the examination by Reinsch's process of fifty samples of paper. Full instructions for use, with a description of the usual symptoms of this form of arsenical poisoning, and illustrative cases, are enclosed. We have no hesitation in saying that every medical man should, for his own credit, and the good of his patients, provide himself with this little apparatus, as certainly as he would with the means of testing urines for albumen or sugar. Many cases of "mysterious illnesses" would thus be speedily explained and cured.

DEATHS IN THE PROFESSION.

We regret to have to announce the death of Dr. H. T. Lanchester, of Croydon, an account of whose life will be found in the present number of the JOURNAL. We have also received intelligence of the death from phthisis, at the early age of 33, of Mr. Amiraux Godfray, of St. Helier's. He was a young practitioner of considerable promise, and distinguished himself, when a student at St. Bartholomew's Hospital, in 1868-72, for his industry and skill as a clinical observer. Dr. E. Buchanan Baxter, Physician to King's College Hospital, and Professor of Materia Medica and Therapeutics to the Medical School, died early this week, after a long term of ill health.

THE OBSTETRICAL SOCIETY OF LONDON.

Last Wednesday night, Dr. W. A. Duncan read a communication on the subject of extirpation of the cancerous uterus, Dr. Edis and Mr. Purcell also exhibiting two specimens of diseased uteri removed by the vaginal operation. Dr. Duncan showed that the vaginal operation was attended by a far lower mortality than the operation in which the uterus is removed through an abdominal incision; but in either case the risks were great, and recurrence was generally rapid; so that he could not speak favourably of either method. An active discussion followed, in which Dr. Braxton Hicks, Sir W. Mac Cormac, Dr. John Williams, Mr. Knowsley Thornton, Mr. Alban Doran, Dr. Playfair, and Dr. Bantock took part; and, at ten o'clock, Sir Spencer Wells moved the adjournment of the discussion, the motion being seconded by Dr. Priestley, and carried unanimously.

SIR WILLIAM GULL AT THE WORKING MEN'S COLLEGE.

Last week, an interesting function was performed at the Working Men's College, Great Ormond Street, the distribution of prizes to students, by Sir William Gull, who gave them away, afterwards delivering an address in praise of knowledge. In the course of his remarks, he compared the *ratio rei* with the *conceptio Dei*, and extolled the latter as superior to the former, affirming that the animals before man "only had a view or apprehension of things themselves, but human beings had a conception of things outside the things themselves." We have nothing to say as to the comparative excellence of different branches of knowledge, but we must protest against any attempt, however skilful, to define the limits of knowledge possessed by the brute part of the creation. There is positively nothing in science to indicate the boundary-lines of intellectual development in different species of organic life. We know what we know, but nothing about the unknown. We do not even know enough of it to warrant the assertion—or assumption—that it is unknowable. Not a decade passes without some stupendous reclamation of solid earth from the great sea of ignorance; and not a few of our recent discoveries have been significant of great possibilities, while they have been revolutionary as regards the existing state of knowledge. For aught we can tell, the brutes may even enjoy a conception of something higher outside their perception of the *ratio rei*. In any case, if the great toe and the thumb have failed to serve the purpose of boundary-marks between our arbitrary divisions of the animal kingdom, it is obviously unsafe to attempt to utilise differences of intellectual development which are purely conjectural answers in their stead. There was once an impression that, when a duck elevated its head in order to throw the water back from the bill to the gullet, it was raising its head in thankfulness to Heaven for the quenching of its thirst. This poetical idea had to give way before the march of intellect. It is not to be affirmed that no such confutation does not await the well-meant, but unscientific, differentiation attempted by Sir William Gull for the benefit of the working men of Great Ormond Street. For the rest, Sir William's address was excellent, and we hold that a medical man of high professional and social repute is never better employed, outside his professional duty, than when he is actively encouraging the pursuit of knowledge.

MANCHESTER MEDICAL SOCIETY.

The following office-bearers, for 1885, were elected at the annual meeting held at the Owens College on January 14th. *President:* Walter Whitehead. *Vice-Presidents:* John A. Ball, M.B., Stockport; Charles E. Glascott, M.D.; James Hardie, M.D.; Herbert S. Renshaw, M.D., Sale. *Treasurer:* David Little, M.D. *Secretary:* Frederick A. Southam, M.B. *Other Members of Committee:* Charles J. Cullingworth, M.D.; Julius Dreschfeld, M.D.; Abraham M. Edge, M.D.; R. Dacre Fox; Thomas Jones, M.B.; Siegmund Moritz, M.D.; James Ross, M.D.; T. Starkey Smith, M.B., Warrington; Arthur E. Sutcliffe; George Thompson, M.D., Oldham; Morrison Watson, M.D., F.R.S.; William Yeats, M.D. The above, with the past presidents of the Society and two representatives of the council of the Owens College, form the committee. *Library Committee:* Abraham M. Edge, M.D.; A. Emrys-Jones, M.D.; Siegmund Moritz, M.D.; James Ross, M.D.; William Yeats, M.D. *Auditors:* William Y. Martin, M.D.; Alfred H. Young, M.B.

CLINICAL SOCIETY OF LONDON.

The annual meeting for the election of officers and transaction of other business of a similar nature, took place on Friday evening last after the conclusion of the business of the ordinary meeting. Drs. Burnet and Longhurst were appointed scrutineers of the ballot, and the President subsequently announced that the gentlemen recommended by the council for the various offices were all elected. The list of names was published in the BRITISH MEDICAL JOURNAL of January 3rd, at page 38. The out-going secretary, Dr. Coupland, read the report of the Council, which said that the Society consisted of 288 resident, and 94 non-resident, members, 34 of whom had been elected during 1884. Three members had died; Dr. Hall Davis and Dr. Barclay, both original members, and Dr. Mahomed, who was a member of Council, and was serving on two committees when he died. The Council also deplored the death of Mr. Wheatley, and had voted a sum of £25 to the Wheatley Memorial Fund. Grants of money had been made to the committees. That on myxœdema was still pursuing its labours, and had made some interesting observations. The committee on spina bifida would shortly report. Verbatim reports of the long discussion on "Charcot's joint-disease" would appear in the *Transactions;* and a committee had been appointed to investigate the whole subject. The treasurer's report stated that the receipts, during the year, had amounted to £554;

and that the balance at the bank amounted to £122, whilst the Society also possessed £600 invested in Consols. Dr. F. Taylor moved that these reports be received, adopted, and published in the *Transactions;* Dr. Finlay seconded the motion, which was carried unanimously. Dr. Moxon proposed a most cordial vote of thanks to the retiring President, Sir A. Clark, remarking that, when members of the medical profession met together for the advancement of their art and science in debates, the leaders of the profession were always found to be present with their assistance. Sir A. Clark had kept up the best traditions of the Clinical Society in the sense of its being clinical, and had paid the greatest attention to all details of the Society's work. He (Dr. Moxon) feared his own words at a previous meeting of the Society, in proposing a vote of thanks to Professor Charcot, had been interpreted in a sense he never intended, for he had extreme admiration for the great French physician; and he was glad to have this opportunity of saying it. Dr. W. H. Day seconded the vote of thanks, which was carried with much applause. The President remarked that he had been exceedingly touched by the members' generous recognition of his imperfect services. Two things, however, he would say. First, that when he accepted the chair, he determined to do his best, according to his light, to maintain the character and work of the Society; secondly, that he had determined that nothing short of sheer personal disability should ever prevent him from being present. And he might say he had never once been absent from a meeting; and, though he had made some small sacrifices in other directions, he had always been amply repaid for the same by what he had heard in that room. He had learnt many things, and had been specially impressed with the admirable way in which the working members of the Society had worked together for the common benefit. Either from the nature of professional work, or from differences of education, medical men were perhaps rather apt, not knowing one another, to eye each other askance. A society like that brought them together, and made them, as Harvey had said, "love one another." He hoped still to join in the work of the Society after his retirement. Dr. Semon and Dr. Fowler proposed a vote of thanks to other retiring officers of the Society; for which Mr. R. W. Parker returned thanks. Mr. Haward proposed a vote of thanks to Dr. S. Coupland on his retirement from the secretaryship, after three years of devoted service; laying especial stress upon the unfailing courtesy and inexhaustible patience which he had exhibited, especially in his preparation of the work to be transacted by the council. Dr. Anderson seconded the vote; and the President said that the Society had seen Dr. Coupland's labours from the one side, he from the other, and that he desired fully to endorse all that Mr. Haward had said in praise of his patience, industry, and unfailing good temper. The vote was carried amid much applause. Dr. Coupland, in response, said that he had previously had no idea he was such a paragon of all the virtues. As to the Society's work, only half of it had fallen to him, for they must not forget that his co-secretary, Mr. Godlee, had also done his full share of it.

SCOTLAND.

By the will of the late Miss Baxter, of Ellengowan, the Dundee Infirmary has benefited to the extent of £5,000.

Dr. Arthur Mitchell, Commissioner in Lunacy for Scotland, has been appointed to serve on the inquiry that is to be made into the arrangements for the custody of the persons confined in the Central Asylum for Criminal Lunatics at Dundrum, near Dublin.

NATURALIST TO THE SCOTCH FISHERY-BOARD.

The important post of Naturalist to the Scotch Fishery-Board has been filled up by the appointment of Mr. George Brook, F.L.S. His duties will consist in a study of the food-fishes, both from a practical and scientific point of view, and will continue the lines of investigation already entered on by the Board. Mr. Brook's previous work in every way fits him for his new sphere of labour. In his private laboratory at Huddersfield, he has already made some important investigations as to the structure and development of fish, and he has visited the principal laboratories of the American Fish Commission. He has also devoted considerable time to dredging, so that he comes in every way fully qualified to at once enter on his work; and the Fishery-Board are fortunate in having secured his services for the further prosecution of the necessary and important work they have undertaken.

THE EDUCATIONAL CONGRESS AT AYR.

The Educational Institute of Scotland held its recent annual congress at Ayr. The attendance was good, and several papers of general interest were read, such as on Secondary Education and the proposed Minister of Education. Dr. Allan, of Lasswade, brought forward, in a short address, the question of the medical aspect of educational reform; and he contended that the best and most healthy educational system was that founded on the principles of nature. He found fault with the present methods of classifying children, which he regarded as erroneous and misleading; and his opinion was that, under present regulations, children were asked to do too much. In these days of compulsory education, there can be no doubt that watchfulness is needed as to the effects of mental work on the growing child, and there can be no better safeguard on this point than an intelligent interest shown by the medical profession in the problem of education as far as it bears on the health and bodily vigour of the children, and Dr. Allan acted wisely in choosing such a meeting as the recent congress for bringing the subject under the notice of those specially interested in all that pertains to education.

STUDENTS' REPRESENTATIVE COUNCIL, EDINBURGH.

The elections in the various faculties of members of the Students Representative Council have taken place, and the names of those elected have been published in the local newspapers. The Council achieved great success last year by its contributions to the success of the Tercentenary, and by its influence on the two other important university public events, namely, at the Rectorial Address of Sir Stafford Northcote, and at the obsequies of the late Principal, Sir Alexander Grant.

EDINBURGH HEALTH-SOCIETY LECTURES.

Last Saturday, a lecture under the auspices of the Edinburgh Health Society was delivered by Miss Griggs and Mrs. Hall, teachers from the Edinburgh School of Cookery and Domestic Economy. The lecturers took for their subject "Marketing and Cookery," and dealt principally with that required by the working classes. The lecture was a most interesting one, and seemed greatly appreciated by the numerous audience. At the close of the lecture, several of the dishes recommended were cooked, and a tasting committee was appointed by the audience, the members of which pronounced the dishes excellent. The Chairman, Professor Chiene, proposed a vote of thanks to the ladies, which was awarded cordially.

PROSECUTION UNDER THE DENTISTS' ACT.

At the Edinburgh Sheriff Court, last week, William Robertson was charged, at the instance of Frederick Canton, Honorary Secretary of the British Dental Association (with the consent and concurrence of the Branch Council for Scotland of the General Council of Medical Education and Registration of the United Kingdom), with having, in November last, contravened the Dentists' Act of 1878. It was alleged that he, not being a person registered under the Act, and not being a legally qualified medical practitioner, unlawfully used the word "dentist" on a brass plate on the gate of his house, at 28, Rankeillor

Street, on the lamp in front of his house, and in advertisements inserted in three different newspapers. The accused, who was convicted of a similar offence in October last, when he was fined £5, pleaded guilty, and the sheriff imposed a penalty of £20, with the alternative of twenty-one days' imprisonment. The fine was paid. This was the second conviction of Robertson for the same offence.

EDINBURGH ROYAL MATERNITY AND SIMPSON MEMORIAL HOSPITAL.

PROFESSOR SIMPSON and Dr. Berry Hart, who have been, respectively, physician and assistant-physician, on duty since November 1st, will be succeeded, on February 1st, by Dr. Angus Macdonald and Dr. Underhill, in the same capacities. Mr. J. W. Ballantyne, M.B., C.M. (Buchanan Scholar for 1883), and Mr. Thomas B. Darling, M.B., C.M., the present house-surgeons, will be succeeded, on February 1st, by Mr. Dundas Helm, M.B., C.M., and Mr. Herbert C. Male, M.B., C.M.

IRELAND.

DR. HAYES, J.P., medical officer of Kill Dispensary, having resigned, has been succeeded by Dr. D. Coady.

A GOOD deal of fever exists at present in Strabane district, and, on last Monday, there were eighteen cases under treatment in Strabane workhouse.

AT a late meeting of the Newry Board of Guardians, a motion was adopted declining to pay a substitute appointed for the dispensary medical officer, to whom the dispensary committee had given a fortnight's leave of absence.

VOLUNTEER AMBULANCE CORPS.

THE students of the Trinity College Medical School (School of Physic) have resolved to form a volunteer ambulance corps, on the lines of that advocated by Surgeon-Major Evatt.

THE CARLOW UNION.

IN reference to a paragraph which appeared in our last issue, under the head of Carlow Union, we are asked by Dr. Bolton to state that the Local Government Board distinctly declined to allow any such investigation as that referred to; and that his resignation was solely the result of his unwillingness to serve under a Board, of the constitution of which, and the motives of some of its members, he greatly disapproved.—We are also informed that a resolution has been passed by the Carlow Board of Guardians that, whatever medical officer is appointed in Dr. Bolton's place, shall pay his own substitute in case of illness. This resolution, being illegal, cannot be enforced.

ACADEMY OF MEDICINE IN IRELAND.

A SPECIAL general meeting of the Academy will be held in the King and Queen's College of Physicians on this day (Saturday) at half-past four o'clock, to consider and take action upon certain resolutions adopted by the General Council. The first of these resolutions, or rather recommendations, is that the general secretary should be a salaried officer, at a fixed annual salary, "in consideration of the fact that the editing of the *Transactions* is part of his duties." At the first annual general meeting of the Academy, the general secretary was voted a sum of £100 as a honorarium. The Council proposed to present a similar sum to the same officer in recognition of his valuable services during the previous session, at the second annual meeting in October last. In consequence, however, of a feeling among several Fellows and members of the Academy that it was undesirable that any of its officers should receive honoraria of indefinite amounts for the discharge of their duties; and in view also of the fact that many fellows thought all the officers of the Academy should be honorary, a notice of motion to that effect being on the agenda for the above-mentioned meeting, the general secretary declined the proposed presentation before the report of the Council was discussed. The motion that no officer of the Academy, as such, should receive any emolument from its funds, was then lost by three votes, forty-nine members voting. The General Council now proposes "that the salary of the general secretary shall be fixed at £100 a year." The amount proposed was the subject of a warm discussion by the Council, and was strongly objected to by a minority of its members. The Council have also nominated ten distinguished men for election to the honorary Fellowship of the Academy. There is some difference of opinion, however, as to the advisability of so young an institution as the Academy now is, although it represents in descent some very distinguished and even original societies, making any honorary Fellows at present, even if all the names of those nominated were approved by the Academy.

ADMISSION OF WOMEN TO THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE special meeting of the Fellows of this College, to consider the alterations proposed to be made in the supplemental charter and by-laws of the College, was held last Saturday. Considering the important nature of these proposals, but scanty interest appeared to be taken in the proceedings, judging from the fact that the number of Fellows present was under forty; and it was remarked that several of those Fellows who were known to be strongly opposed to the admission of women to the College were conspicuous by their absence from the meeting. As has been previously stated in the JOURNAL, the proposed alterations were—first, that professors and lecturers, who have hitherto been forbidden to hold examinerships in the College, should in future be eligible, under certain limitations, for examinerships; second, that the Fellows shall in future be empowered to vote *in absentiâ* by papers at the election of the President, Council, and other officers of the College; third, that women shall be admitted to the diplomas of the College on equal terms with male candidates. All these propositions were adopted. The Vice-President of the College, Dr. C. A. Cameron, Medical Officer of Health for Dublin, in moving the adoption of the clause to admit women to the licences and fellowship of the College, pointed out that already women occupied chairs in many medical schools; and that a lady had, with distinction, filled the chairs of anatomy and surgery in the celebrated University of Bologna. Whatever prejudices there might be against women practising such an art as surgery, the College would be acting tyranically in using their monopoly in favour of one sex, no matter how competent lady-candidates might prove themselves before the Examining Board. Sir Robert Jackson, C.B., seconded the resolution, which was supported by Dr. Kidd and Dr. Corley. Dr. Edward Hamilton, Professor of Surgery in the College, moved an amendment to exclude females from the fellowship of the College. This amendment was negatived by 18 to 14; and the original recommendation, as proposed by the Council, to admit women without limitation, and on exactly the same terms with men, was carried, on a division, by 25 to 11.

OUTBREAK OF SMALL-POX.—At the Huntingdonshire Quarter Sessions, recently, the chairman, Mr. P. Tilland, brought under the notice of the Court an alarming outbreak of small-pox at the Three Counties Asylum at Arlesey. The total number of cases was fifty-four, and there had been fourteen deaths. The victims were all women. The outbreak could not be accounted for, the first victim of the disease being a woman who had been an inmate of the asylum between two and three years. The disease was said to be of a very virulent character.

THE Ross Guardians have increased the salary of Dr. Fernandez from £63 to £70 per annum, in consequence of the addition of Fawley Chapelry to his district.

THE PREVENTION OF INFECTIOUS AND CONTAGIOUS DISEASES IN SCHOOLS.

THE conferences held at the International Health Exhibition, in very many instances, resulted in making plain many duties connected with the preservation of health. The meetings at which the subject of school-hygiene was specially discussed have not been the least productive of good results. Upon one of those results we have now to comment, and to invite the attention, not only of school-authorities, but of the medical and general public, to the admirably edited and most valuable "Code of Rules for the Prevention of Infectious and Contagious Diseases in Schools," which has been prepared for the Medical Officers of Schools Association by their honorary secretary, Dr. Alder Smith.

In passing these rules in review, we would observe that they are avowedly the outcome of the paper read by Dr. Alder Smith, of Christ's Hospital School, at the conference in July 1884, which has been revised and added to by information obtained from the medical officers and authorities of other schools in the country.

The subject-matter of the rules is conveniently divided into sections. Under the heading of "General Hygiene," the sanitary arrangements are concisely dealt with, the necessity of not only effectually trapping, but also of efficiently ventilating main sewers, is dwelt upon. This need we most strongly support; the provision of a sufficient inlet of fresh air to the lower range of a sewer, and of a sufficient outlet for foul air at the higher level, are requisites too often wholly unsupplied. On page 6, paragraph 5, we read: "If a cesspool must exist, it should be placed no nearer to a dwelling-house than 50 yards, and.....emptied during vacations only." Surely there can be no necessity for these foul receptacles; the experiences at Halifax and Rochdale, and lately in Birmingham, have demonstrated the immense advantages of the daily removal of fæcal refuse, whether by earth-closets or by the bucket-system; and we cannot but believe that those public schools which are situated at a distance from a system of sewers, would not be justified in continuing the cesspit-method of retaining the source of enteric fever, of diphtheria, and cognate maladies, in their midst.

In Division 3, page 7, the placing the responsibility with regard to all the sanitary details upon the shoulders of the medical officer of the institution is urged, we think, with great force. That official, skilled to detect disease, and aware of its promoting cause, would most fitly perform this important duty.

For the reception of sick scholars in large schools, a separate building would necessarily be provided, in which all the small but important matters connected with the treatment and disinfection of the sick would be attended to. In the smaller schools, and in masters' houses, a "sick-room" only would be set apart. The difficulty, in such residences, of limiting the spread of infection, would be considerable, as the medical officer would have to contend, not only with the thoughtlessness of school-children, but with that wilful contravention of orders which too frequently characterises the domestics charged with the nursing of the sick.

In the third section, page 11, the very important question of the medical examination of scholars, board or day, is discussed, and rules are laid down which, we think, should be rigidly adhered to. The provision of a "sickness-register" in families is suggested. If such a record of the past sicknesses of children were provided, the advantages would be great in after-life; but, in school-life, the provision of such a register would be inestimable, as the question whether A or B had or had not had a given malady would be at once authoritatively settled.

Having regard to the propagation of infective diseases in schools, there is, and must, alas, always be a weak point. A new boy enters school, a lad has been away for a Sunday holiday, what evidence shall be required to show that he may not during the brief absence of the one, or during the devious wandering of the other, during the previous two or three weeks, have derived some infection of some contagious ailing. Parents may honestly say that their offspring have not been nigh any sick person, medical men may certify that they believe the lad to be free from any malady, yet in this case both may be mistaken. The measures recommended by the Association, to a certain extent, meet the want; they urge the complete disinfection of person, clothing, books, and papers; and if in addition a period of watchful observation be observed, the importation of a malady may be early observed, and the spread quickly checked, by removal and disinfection.

There are two subjects which we would consider together, the period of quarantine after exposure to possible infection, and the period when a convalescent from a contagious malady may safely return to school. The times of quarantine are stated on page 13, and correspond closely with the observations made by Dr. B. W. Richardson; so also the times when a convalescent may return, pages 18 and 19, may be accepted as safe.

But we would suggest that it cannot be expected that school authorities, or parents of scholars, would note and observe these various periods of quarantine. It will be said the rules are for medical officers of schools, true; but it will be granted that it will be expected that not only school manager, but the public generally, would come to know the periods as set out, and, in all human probability, would misquote them. In considering these paragraphs, we had the opportunity of speaking to a public schoolmaster of great experience; his opinion was: "Let me know the minimum time of quarantine for all maladies. I would prefer a hard and fast fixed time, which must expire ere I am asked to receive a new pupil, possibly infected, or readmit a convalescent scholar." Practically, we believe that the fixing of definite terms would be of the greatest possible benefit, as errors of omission to tell the whole facts would thus be rendered harmless. Our opinion is that it would be best to erase all "ifs" from the code of rules, and to say clearly:

a. No pupil, who has been exposed to the infection of any contagious malady, shall be admitted to a school until after the expiration of four weeks from the date of such exposure.

b. No pupil, who has been ill of any contagious malady, shall be admitted to a school until after the expiration of six weeks from the date of the appearance of the symptoms, and then only upon the production of a medical certificate.

In conclusion, we would say, with the Association, the dispersion of boarding-schools, on account of an outbreak of zymotic disease, need very rarely be carried into effect. The careful observation of the premonitory symptoms, the early isolation of first cases, the careful disinfection of all matters and things in and about the sick-room, all which are stated in succinct terms in the code, will rarely fail to limit the spread of the infectious malady, and render the dispersion of the scholars unnecessary.

We heartily commend the work of the Association, and earnestly hope that the plain directions so ably expressed may tend to diminish the spread of maladies whose diffusion is due more to ignorant neglect of the simple means of prevention—go not nigh a contagious disease—than to any widely spread infectiveness of disease.

THE CHOLERA.

THE CHOLERA EPIDEMIC AT NAPLES: DR. EMMERICH ON THE CHOLERA-FUNGUS.

IN the Medical Society, at Munich, there was a discussion, last October, on the cholera-bacillus, in which Dr. Frobenius defended Dr. Koch's already published views, and Dr. von Pettenkofer again vigorously attacked what he calls the contagionist theory. He was followed by Dr. Emmerich, who mentioned that there were contradictions in Koch's reports. Dr. Emmerich was sent a few days afterwards to Naples, by the Bavarian Minister of the Interior, to make pure cultivations of the bacillus of cholera Asiatica, and to bring them to Munich, that experiments might be made there. After his return from Naples, he delivered an address at the Munich Medical Society, on "the cholera in Naples, and the fungi found in cholera corpses and cholera patients." He first drew a comparison between England's relative immunity from cholera since 1854, when the towns began to introduce changes with regard to drainage and water-supply, as compared with Naples. In 1873, 2,000 persons were attacked with cholera at Naples, in 1884, 10,000. This he attributed to the fearful impregnated state of the subsoil at Naples, and said that his observations proved anew the untenability of the contagious theory. He examined nine fresh cholera-corpses, and the blood of a young woman who had cholera and died six hours afterwards. In the internal organs, and in the blood of these nine corpses, Emmerich says he found the same kind of bacterium, by making cultivations on broth, peptone, gelatine, and agar agar; this organism being different from the comma-bacillus. They were most numerous in the kidneys and liver, next in the lungs, and were found in smallest numbers in the spleen. These same specific fungi he also found in the blood from the veins of the woman above mentioned. All these experiments, he says he made with the utmost care, taking the greatest precautions. These fungi have the appearance of short cylindrical cells with rounded ends, occurring either singly or in pairs, and rarely connected together in greater numbers. They are, on an average, about 1 times as long as they are broad. According to Cohn's system, they should be characterised as bacteria. They are very similar in shap

and size to the bacteria of diphtheria, but can easily be distinguished from them under the microscope, or from their effects on animals. Dr. Emmerich concluded by saying that he had made experiments, since his return, on guinea-pigs, and that the result of his experiments was, that by introducing these newly found fungi into these animals, phenomena were produced similar to those of cholera in human beings; hence he considered it highly probable that these fungi have an essential etiological connection with cholera Asiatica.

Dr. Theodor Escherisch, who accompanied Emmerich, then spoke on his clinical therapeutic observations of the cholera-epidemic at Naples. He said that whatever opinion was held of the genetic connection of comma-bacilli with the disease, they must be regarded as a constant and certain sign of cholera Asiatica. He said he had nothing to add to what Koch had already said concerning the relation of comma-bacilli to the intestine, adding that, as far as has been hitherto investigated, no comma-bacilli have been found in the inner organs.

CARBOLIC ACID IN CHOLERA.

SIR,—Absence on the Continent and ill health have prevented my perusing the different medical periodicals for the past few weeks, and I have not been able to notice the letter of Dr. Illingworth which appeared in your issue of November 8th.

Without wishing to enter into any lengthened controversy, for which I have neither the time nor the inclination, I would just simply indicate that, some years ago, I conducted some experiments by administering to cholera-patients, in the algide state, full doses of salicylic acid, which was then being much vaunted for its germicidal properties, in view to testing the result of its elimination from the system into the form of salicyluric acid. At the same time, I administered to other patients and to healthy men salicylic acid, with the result that salicyluric acid almost invariably appeared in the urine in due course, and so it did also in cholera-patients during reaction, but never during the algide stage. This naturally led me to the inference, as maintained elsewhere, as to the utter inutility of attempting to hope for any good result by administering drugs during the algide stage of Asiatic cholera. I would, therefore, reiterate that there is then nothing else to be done on rational principles, but to carefully support the vital powers, and tide the patient over the terrible dangers which surround him.—I am, dear sir, yours faithfully,

JOHN LUCAS, M.D., F.R.C.S., London.

CANTOR LECTURES.

AT the first lecture, on Monday, January 12th, Dr. Poore dealt mainly with those facts which are a necessary preliminary to any adequate discussion of the subject. Commencing with the chemical composition of the air, he pointed out that although its uniformity is not absolute, it is very nearly so; so nearly so, that it was exceedingly improbable that any variations in chemical composition could have any effect on the health of localities. He spoke only of the "open air," and left crowded dwellings out of consideration. Thus, the normal amount of oxygen in the air was usually given at 20.96 per cent. by volume; and the extreme figures given by Angus Smith were 20.86 per cent. in the East-end of London, and 21.00, which was found in Scotland, and also on the northern heights of London. These variations were very trifling when compared with the variations in the absolute quantity of oxygen taken into the lungs under different conditions of pressure and temperature. Thus, it had been estimated that of two men, one breathing air at a temperature of 32° Fahr., and the other breathing air at a temperature of 80° Fahr., the former would get 192.6 grains of oxygen per hour more than the latter; and that of two men, the one breathing air at sea-level, and the other on a mountain 5,000 feet high, the former would get 361.88 grains per hour more than the latter, and yet it was probable that the man on the mountain would enjoy the more robust health. In the same way, the variations in the amount of carbonic acid were too trifling to affect the health of a community. If oxygen were persistently deficient, and carbonic acid persistently in excess, we had to inquire why, and the cause would be found in combustion, respiration, or putrefaction, the last being a great cause of disease.

The causes of the varying amounts of moisture in the air were next dealt with, and the causes of its deposition in the form of dew, fog, and rain. The uses of moisture in shielding us from the sun and in checking radiation, and thus preventing sudden alternations of temperature, and the warming effects of rain, were explained, and the conclusion was arrived at that, although the moisture in the air affected our sense of well-being and comfort, and more especially the comfort and well-being of invalids, yet the amount of moisture, be it great or small, had, *per se*, little or no effect on the health of a community. In so far as moisture favoured putrefaction, it had a very important indirect influence on health; and when warmth and moisture coincided, putrefaction of all kinds was apt to run riot, and zymotic disease was very prone to spread.

So with regard to temperature, it was an acknowledged fact that the power possessed by the human body of withstanding the extremes of climatic temperature was unlimited. The only trouble due to excess of temperature was sunstroke and heat-apoplexy, and even these were often as much due to errors of hygiene, dress, and diet, as to heat.

As for extremes of cold, ample food and clothing were all that was necessary to enable a healthy man to withstand them. The history of the twenty-five men belong to the *Eira*, who, after ten months spent in a hut on Franz Josef Land, were picked up in robust health, afforded ample proof that food-protection enabled a man to keep well in 65 degrees of frost; and that the mere breathing of air having a very low temperature for months together was not harmful, even when combined with deprivation of light, and a state of crowding in the hut, which in this, or still more in warmer latitudes, must have proved fatal to many of them. The wise precautions of Mr. Leigh Smith and Dr. Neale enabled these men to pass through an arctic winter unscathed.

MEDICAL NOTES FROM THE NILE EXPEDITIONARY FORCE.

[FROM A CORRESPONDENT.]

Wady Halfa, December 9th, 1884.

THERE is a marked increase of sickness in the Nile Expeditionary Force, and sickness of such a nature as to render it very doubtful whether many of those who recover will ever be fit for any military duties during the rest of the campaign; this will be understood when I say that typhoid fever and dysentery are the two diseases that are filling the hospitals. Were it not for these diseases, there would be a very small sick-list. Of cases of ophthalmia, sunstroke, continued fevers, or paroxysmal fevers, there are simply none; there are some cases of febricula, and some also of ordinary camp-diarrhœa. In point of fact, nearly all the cases of diarrhœa are the early stages of enteric fever; and, after a day or two, the characteristic abdominal symptoms and typhoid stools appear. The typhoid rash is, I believe, very seldom seen; tympanites is also rare out here; and the temperature seldom runs higher than 103.5° of an evening, or 101.5° in the morning. I believe there has not been a single case of hyperpyrexia, or one in which the bath-treatment would be called for. Cold sponging (with vinegar and water) from head to foot, and the allowing of the body subsequently to remain lightly covered with a sheet, answers all antipyretic purposes. Diarrhœa, in most of the cases, is profuse, there being from eight to ten stools in the course of the day, and the same at night, which greatly weaken the patient, and disturb his rest. Remedies have very little power to lessen or moderate this symptom; and the stench from the stools is most offensive, more so than I have ever noticed before. Most of the cases have been ill for some time before they arrive here, either from up or down the river.

The *post mortem* appearances show wide-spread ulceration, sometimes perforation of the bowel or of an arterial twig, producing violent hæmorrhage. There is no delirium, except when a fatal termination is impending, nor insomnia; the patients sleep well, except for the frequent calls to stool. Altogether, the disease is of a very severe nature, and will, it is to be feared, cause a high mortality, and much military inefficiency as the campaign goes on, and the general health and physique of the troops is reduced by hardships and exposures. The etiology of all this typhoid in our station-hospitals is very obscure; its great prevalence can only be attributed to endemic influences. There are no unsanitary cities or towns where the men might contract it. The water is all filtered, and, even if not filtered, contains nothing more harmful than Nile mud or clay. The men all have waterproof sheets, and blankets, yet the great variation of temperature, amounting sometimes to 35° in the twenty-four hours, is very trying, particularly the cold by night after the hot days, and especially when the body is perspiring profusely. Evening chills, with a very sharp cold towards morning, are very trying atmospheric conditions, conducive at all events to dysentery, even if they have no direct influence in the causation of typhoid fever.

As regards dysentery, it is just of the ordinary type met with in tropical countries; with very few exceptions, it yields readily to full doses of ipecacuanha, and shows no readiness to return.

One thing is clear enough, that the medical men have their hands pretty full of work, and are likely to have even more, should the campaign last. It is sincerely to be hoped that Lord Wolseley will make short work of the business, for the country, either as regards climate, or anything else, has nothing to recommend it; whilst there is not in the whole force any officer or man who is not heartily sick and tired of the whole affair, and of everything connected with Egypt.

Regarding the station-hospitals here and all along the river, so far as they are yet established, they are working satisfactorily and well, and no complaints whatever are made. Officers and men are all satisfied; indeed, the former are loud in their expressions regarding the attention and care they receive. Now and again, one hears the amusing complaint of a man suffering from dysentery or typhoid, that he has had "nothing to eat for several days;" for the milk, eggs, soup, arrowroot, given in their cases in suitable quantities, are not considered food by the British soldier. However, the absurdity of such complaints appears to be now getting to be understood.

MAHOMED MEMORIAL FUND.

THE following additional subscriptions have been either received or promised.

	£	s.	d.
[1]G. B. Allen, Esq.	5	0	0
Miss Beale	2	2	0
Dr. Biss	2	2	0
Dr. Brailey	3	3	0
His Honour Judge Chalmers	5	5	0
Dr. Carrington	5	5	0
The Earl of Devon	1	0	0
T. D. Galpin, Esq.	2	2	0
T. F. Gandar, Esq.	2	2	0
E. Gayler, Esq.	1	1	0
E. Gibbs, Esq.	1	1	0
Dr. Clement Godson	5	5	0
[1]C. Hilton Golding-Bird, Esq.	15	15	0
Charles Higgens, Esq.	5	0	0
E. S. Hunt, Esq.	1	1	0
N. S. Joseph, Esq.	2	2	0
T. J. Kent, Esq.	2	2	0
W. Keillar, Esq.	2	2	0
John Lane, Esq.	2	2	0
W. C. Low, Esq.	5	5	0
Edward Lund, Esq.	10	10	0
Dr. Leech	5	0	0
C. Lamb, Esq.	2	2	0
J. M. Maidlow, Esq.	10	10	0
James Matthew, Esq.	3	3	0
John Mackern, M.B.	5	5	0
Mrs. Nathaniel Montefiore	21	0	0
Edward Norman, Esq.	5	0	0
[1]W. B. Owen, Esq.	1	1	0
Dr. Edward Penny	2	2	0
Dr. Slight	2	2	0
Dr. Burdon Sanderson	10	0	0
Dr. Simon (Birmingham)	1	1	0
[1]Dr. Eustace Smith	5	5	0
Dr. Trend	1	1	0
Dr. Charlewood Turner	5	5	0
Edward Y. Western, Esq.	2	2	0
[1]Dr. W. Wood	25	0	0
G. A. Wright, Esq.	2	2	0

[1] Omitted from previous list.

ARTHUR E. DURHAM, Treasurer.
JAMES F. GOODHART, } Secretaries.
W. H. A. JACOBSON, }

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885: ELECTION OF MEMBERS.

MEETINGS of the Council will be held on April 8th, July 8th, and October 14th, 1885. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary, not later than twenty-one days before each meeting, namely, March 18th, June 17th, and September 24th, 1885, in accordance with the regulation for the election of members, passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
IV*a*. Diphtheria, sanitary.
V. Syphilis, acquired.
V*a*. ,, inherited.
VI. Acute Gout.
VII. Puerperal Pyrexia.
VIII. Paroxysmal hæmoglobinuria.
X. Habits of Aged Persons.
XI. Albuminuria in the Apparently Healthy.
XII. Sleep-walking.

An inquiry is now issued concerning the general condition, habits, and circumstances, past and present, and the family history of persons who have attained or passed the age of 80 years.

The replies to this inquiry will be most valuable when given by a medical man; but the questions have been so arranged that, with the exception of some on the last page, they may be answered by another person. *Partial information will be gladly received.*

There is also now issued an inquiry as to the occurrence of albuminuria in apparently healthy persons.

The Acute Gout card, which had been found too elaborate, has been made a great deal simpler, and is now re-issued.

Copies of these forms and memoranda are in the hands of all the local secretaries, and will be forwarded to anyone who is willing to fill up one or more of the forms, on application by post-card or otherwise to the Secretary of the Collective Investigation Committee, 161A, Strand, London, W.C., to whom all applications and correspondence should be addressed.

July, 1884.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—C. SIBTHORPE, Honorary Secretary, Madras.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held at the Hackney Town Hall, on Thursday, January 22nd, at 8 P.M.; Mr. Macnamara, President of the Branch, in the chair. Dr. Henty will propose a resolution advocating the charging of hospital and dispensary out-patients a small sum of money to cover the expense of medicine, etc.—JOSEPH W. HUNT, Honorary Secretary, 101, Queen's Road, Dalston.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of the above district will be held at Gravesend Hospital, on Tuesday, January 27th, at 3.30 P.M.; Charles Firth, M.D., F.R.C.S., in the chair. The dinner will take place at the New Falcon Hotel, Gravesend, at 6.30 P.M.; charge, 6s. 6d., exclusive of wine. Gentlemen who intend to dine are particularly requested to signify their intention to Dr. Firth, Parrock Street, Gravesend, not later than January 26th. All members of the South-Eastern Branch are entitled to attend this meeting, and to introduce friends. Papers to be read:—1. C. B. Keetley, F.R.C.S.: The Results of Treatment in Hip-disease. 2. A. Venn, M.D.: A Difficult Case in Midwifery. 3. H. L. Bernays, Esq.: Three Cases of Poisoning by Sewer-gas in Children. 4. C. J. W. Pinching, Esq.: A Case of Enucleation of the Head of Thigh-bone. 5. O. R. Richmond, Esq.: A Case of Excision of Shoulder-joint. 6. Charles Firth, M.D.: Pyæmia. 7. Mr. Robbs will exhibit some Pathological Specimens. At 3 P.M., Messrs. Krohne and Sesemann will exhibit some new surgical instruments.—H. LEWIS JONES, Honorary Secretary.

NORTH OF IRELAND BRANCH.—A general meeting of the Branch will be held in the Belfast Royal Hospital on Thursday, January 29th, at 12 o'clock.—ALEX DEMPSEY, M.D., Honorary Secretary.

DUBLIN BRANCH.—The eighth annual general meeting of the Dublin Branch will, by kind permission of the President and Fellows, be held on Thursday, January 29th, at 4 P.M., in the Hall of the King and Queen's College of Physicians, Kildare Street. The officers and Council for the ensuing year will be elected by ballot, and any other necessary business transacted. Dr. Lombe Atthill, President-elect, will deliver the annual address. The annual dinner of the Branch will be in the College Hall, at 7 P.M. on the day of the meeting. Dinner-ticket for members who purchase their tickets on or before Wednesday, the 28th instant, 17s. 6d.; for members purchasing their tickets after that date, and for guests, £1.—RICHARD A. HAYES, M.D., Honorary Secretary and Treasurer, 56, Merrion Square South, Dublin.—January 5th, 1885.

SOUTHERN BRANCH.—A meeting of the South Wilts District will be held at the Angel Hotel, Salisbury, on Wednesday, 23rd instant, at 2 o'clock. Mr. W. Martin Coates will read a paper entitled "What is Hysteria?" and will exhibit a new Inhaler, and a new Clamp. Mr. Kelland will open a discussion on Hey's Internal Derangement of the Knee-joint. Luncheon will be provided at one o'clock, at 3s. 6d. a head, wine not included. Members intending to be present to give notice to the Honorary Secretary, H. J. MANNING, Laverstock House, Salisbury.

CORRECTIONS IN THE LIST OF MEMBERS OF THE BRITISH MEDICAL ASSOCIATION, 1884-5.

BATH AND BRISTOL BRANCH.

MEMBERS UNATTACHED: OMISSION.

Dale, B. H., Esq., Craven House, Devizes, Wilts.

BORDER COUNTIES BRANCH.

CORRECTION.

For Honorary Secretaries, J. A. Macdougall, M.D., Carlisle; H. A. Lediard, M.D., Lowther Street, Carlisle; read Vice-President, J. A. Macdougall, M.D., Carlisle; Honorary Secretary, H. A. Lediard, M.D., Lowther Street, Carlisle.

EAST ANGLIAN BRANCH.

MEMBERS UNATTACHED: OMISSION.

Pickworth, Alfred J., Esq., Lakenheath, Suffolk.
Stephens, C., Esq., Haughley, Suffolk.

EDINBURGH BRANCH.

MEMBERS UNATTACHED: CORRECTION.

For Macarthur, Alex., M.D., Anstruther, read Macarthur, Alex. J., M.D., Beaucroft, Trinity Road, Edinburgh.

GLASGOW AND WEST OF SCOTLAND BRANCH.

MEMBERS UNATTACHED: CORRECTION.

For Pollock, C. F., M.D., 8, Albion Crescent, Dowanhill, Glasgow, read Pollock, C. F., M.D., 15, Kerrsland Terrace, Hillhead, Glasgow.

LANCASHIRE AND CHESHIRE BRANCH.

MEMBERS UNATTACHED: OMISSION.

Vickerstaff, W. H., Esq., Brook Cottage, Bollington, Macclesfield.

METROPOLITAN COUNTIES BRANCH.

MEMBERS UNATTACHED: OMISSIONS.

Cook, John, M.D., 1, Nottingham Terrace, York Gate, N.W.
Mackintosh, M., M.B., Mortlake, S.W.
Nicholls, F. L., Esq., St. Osyth, Essex.
Pook, W. J., Esq., 123, Copenhagen Street, N.
Wise, C. H., M.D., Church End, Walthamstow.

CORRECTION.

For Hollings, E., Esq., 4, Gordon Square, W.C., read Hollings, E., M.D., 4, Gordon Street, W.C.

SOUTH-EASTERN BRANCH.

MEMBERS UNATTACHED: OMISSIONS.

Nicholson, W., M.D., 2, Kent Villas, E. Greenwich, S.E.
Ryan, M., M.D., 5, St. George's Place, Brighton.

YORKSHIRE BRANCH.

MEMBERS: CORRECTION.

For Hobson, L. J., M.D., 10, Museum Street, York, read Hobson, L. J., M.D., Scarborough Lodge, Victoria Park, Harrogate.

MEMBERS UNATTACHED: OMISSION.

Colby, Geo., Esq., Malton.

ARMY AND NAVY.

OMISSIONS.

Beattie, J. H., Esq., Surg. R.N., H.M.S. "Bittern," Suez.
McMorris, R. J., Esq., Fleet-Surg. R.N., Burndennet, Strabane.
Thomas, J. Lloyd, Esq., Surg. R.N., H.M.S. "Temeraire," Mediterranean.

CORRECTION.

For Kendal, H. Esq., Surg.-Gen., M.S., Bexley Heath, read Kendall, H., Esq., Surg.-Gen., M.S., Bexley Heath.

SPECIAL CORRESPONDENCE.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

The Berlin University Institute.—Death of Dr. Grimm, Physician in Ordinary to H.I.M. the Emperor of Germany.—University Intelligence.

PROFESSOR BUSCH, the head of the new Dental Institute attached to the University of Berlin (of which mention was made, in July and November last, in the BRITISH MEDICAL JOURNAL), has published a short article, in the *Deutsche Medicinishe Wochenschrift*, on the Study of Dentistry at the University of Berlin. I take from it the following notes, referring to the conditions on which foreigners are admitted to lectures at the institute. As the institute forms a part of the university, those who are desirous of studying dentistry at the institute must be matriculated at the university. Foreigners are matriculated at the university, in any faculty they choose, on showing their passport, or certificate of having already matriculated at another German university. If they wish to pass the State examination in dentistry, they must send in a petition, to that effect, to the Minister of Education, who will fix the conditions to be complied with. Whether students should be advised to go direct from school to the dental institute, or first work for a year in a dentist's laboratory, cannot be answered off-hand. By going straight to the university, the student can attend the scientific lectures; and, as the Dental Institute affords plenty of opportunity for learning the technical part of the profession, the disadvantage of not having previously worked in a dentist's laboratory disappears. Vacation-courses of lectures held in the institute are open to students of the university, and practising medical men and dentists, without a special ticket from the university. The Dental Institute is much frequented by the public. It is in the Dorotheenstrasse.

The day before Christmas-day, Dr. Grimm, one of the physicians in ordinary to the Emperor, and retired staff-surgeon of the general staff of the army, succumbed, in his eighty-first year, to an attack of bronchitis. In 1858, he was made first general staff-surgeon of the army and chief of the military medical department. It was he who reformed the military medical department of the Prussian and German armies. He retired in 1879 from his military duties, when he was made physician in ordinary to the Emperor. His reforms were carried out with considerable ability; the excellence of his arrangements was first practically witnessed in the campaigns of 1864 and 1866. Dr. Grimm was not a relative of the physiologist of the same name.

At the University of Berlin, 5,066 students are inscribed in the books for this term, of whom 1,133 are students of medicine; of these, 128 are non-European, 112 being American, 15 coming from Asia, and one from Africa. In Leipsic, out of 3,281 students, 695 are medical students; at Königsberg, there are 247 medical students, out of a total of 897; at Würzburg, 740, out of 1,280; at Breslau, 378, out of 1,389; at Halle, 298, out of 1,631; at Tübingen, 185, out of 1,237.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Dispute between the Corporation and the Royal Infirmary Board.—Conference on Health and Education.—Vacancy for Pathologist at the Infirmary.—Water-Supply.

A CURIOUS dispute has arisen between the Corporation of this city and the Board of Management of the Royal Infirmary, with reference to the time which fever-patients (more especially scarlet fever) are retained at the Monsal Fever Hospital, which belongs to the latter, and to which infectious cases are sent from the city. The Corporation pays the Infirmary Board a fixed sum *per annum* to maintain the hospital, and, in addition, 14s. to 21s. per week per patient, according to the number in the wards, to cover the cost of the maintenance of the patients. During the last two quarters of 1884, the Corporation have refused to pay their accounts in full, deducting £540, on the ground that the time during which the convalescents were detained in hospital was excessive and unnecessary. They allege that some cases have been in hospital fourteen weeks, and all have been kept much longer than formerly. The Infirmary Board have, by a resolution, called on the Corporation to pay their account in full, and have declined to receive fever-patients except on the distinct understanding that the medical staff of the Infirmary are to be the sole judges as to the period during which it is necessary to detain infectious cases in hospital. For the present, at least, the Infirmary Board are masters of the situation, as no adequate accommodation for fever-patients exists in this district, except at Monsal, though twenty-eight or thirty beds are set apart for scarlet fever at the Children's Hospital. The whole question turns on the answer to the query, How long do scarlet fever patients remain infectious? The Health Committee of the Corporation—who have been rather roughly used in the press on account of their alleged extravagance—protest, by the advice of the medical officer of health, against a longer detention of their patients in hospital than the end of the sixth week for cases of average severity. The medical officers at Monsal prefer to adopt a somewhat longer detention, in order to secure absolute safety. Surely it is the truest economy, in the long run, to be well on the safe side. Perhaps the best thing, by way of a compromise, would be the establishment of a convalescent fever hospital.

A conference on how best to secure "education under healthy conditions is to be held in this city in the spring, under the presidency of Lord Aberdare. Among the subjects to be discussed are the following: "Overpressure in Schools, both Higher and Elementary;" "Physical Training and Gymnastics:" "Kindergarten Exercises;" "Science and Art in Schools;" "Penny Dinners for Poor Children." The conference promises to be well supported, and it is to be hoped that a maximum of light and a minimum of heat will be evolved from the discussion of subjects hitherto distinguished for a somewhat opposite result. The honorary secretary is Mr. T. C. Horsfall, of Alderley Edge.

The office of Pathologist to the Royal Infirmary, and Assistant-Professor of Pathology at Owens College, is now vacant by the resignation of Dr. Maguire, who has recently been appointed Assistant-Physician to St. Mary's Hospital, London. The post is an exceedingly valuable one, not only for the prospect of further advancement which it offers, but also for the rich opportunities for research presented in the *post mortem* room of the Infirmary and the newly equipped laboratories at Owens College. Several candidates are already in the field. The appointment practically rests with the Medical Board, who recommend a candidate to the General Board.

By a recent resolution of the Corporation, the works in connection with the projected water-supply of this district from Thirlmere are to be commenced forthwith.

VACCINATION.—Mr. R. L. Shone, Public Vaccinator for the Mortlake District of the Richmond Union, has recently received the Government grant for successful vaccination.

CORRESPONDENCE.

THE UXBRIDGE TRAGEDY.

SIR,—The clear and able letter of Mr. Bowlby, which appears in the BRITISH MEDICAL JOURNAL of to-day, effectually disposes of the objections raised to his evidence in the Uxbridge tragedy case. Whatever doubts were, and are yet, entertained (for not every one has been convinced by Mr. Bowlby's reasoning) as to the guilt of Elizabeth Gibbons, no one can doubt the care bestowed by the medical witnesses in making the necropsy, and in making all reasonable endeavours to arrive at a sound conclusion.

Mr. Bowlby has, further, made a very important contribution to medical jurisprudence. It is to be regretted that he has been subjected to an unwarrantable attack, based upon the very imperfect reports of the case which had been published. It is a matter of congratulation that the BRITISH MEDICAL JOURNAL wisely took a more judicial course, and declined to make comments upon the trial till supplied with sufficient data for forming an opinion.—Yours, etc.,

London, January 10th, 1885. THOMAS STEVENSON.

A NEW SYMPTOM AND A NEW THEORY OF LOCOMOTOR ATAXY.

SIR,—Dr. Althaus is in error in thinking that I was annoyed because he had quoted from a private letter of mine. What annoyed me was, that he should have quoted from my letter a sentence which might lead the profession to believe that I was taking sides with him in this controversy, when, in reality, I was privately preferring against him essentially the same charges as were publicly brought against him by Dr. de Watteville. My vexation arose from the fact that I was thus forced to take part in a controversy from which I should otherwise have abstained. But I fully believe Dr. Althaus when he says that he had no intention of annoying me, and I cordially accept his apology. But why he should single me out as his chief opponent, in his letter in your issue of the 10th instant, I cannot understand. Possibly, he has discovered that Dr. de Watteville's weapon is a keen one, and that it is wielded by a too skilful hand. But, if I must give an opinion of Dr. Althaus's last letter, I would say that the first half of it is logically a very good example of an *ignoratio elenchi*. In other words, he argues upon false issues. I asserted that Dr. Althaus' theory of locomotor ataxia was "a mere modification of my own," and he replies by endeavouring to prove that the two theories are not "identical." Dr. de Watteville maintained that the trenchant distinction which Dr. Althaus makes between cerebral equilibration and locomotor localisation is an unfounded one. I believe he went the length of calling it it a "fantastic" distinction; and Dr. Althaus replies by endeavouring to prove his claim to be the author of this distinction. He takes very good care, however, not to give any reply to the two very pertinent questions which Dr. de Watteville asked him with regard to the part which disease of the subconscious afferent paths plays in his own and in my theories. I call the theory in dispute my theory in the meantime, but I think it quite possible that others have advanced essentially the same theory before me; if this should prove to be the case, I will then give up any claim to it without hesitation and without a pang.

In addition to Dr. de Watteville's questions, I will now ask Dr. Althaus two more. In his original paper, he only mentioned two theories of locomotor ataxia as being in the field—namely, Erb's sensory, and Leyden's motor theories. I find no fault with him for this, but I would now ask him, Is there, or is there not, a third in the field, which is neither a modification of the theory of Erb, nor of that of Leyden? If he answer this question in the affirmative, I would then ask, Has this third theory anything in common with his own, and especially so far as relates to the part played by lesion of the subconscious tracts in both is concerned? If Dr. Althaus do not give a straightforward reply to the questions asked by Dr. de Watteville and myself for the sake of his own reputation, he has no need to do it for the sake of mine.

In conclusion, I will just show how much foundation there is for Dr. Althaus' claims to originality for the observation, "that the degree to which locomotion and equilibration are impaired in tabes is not by any means proportional." I expressly state myself that "the swaying movements and the ataxia are not always present in proportionate degree;" but I neither ask, nor deserve, any credit for it, because the same observation was made by other authors long before me; and if Dr. Althaus doubt this statement, I will take the trouble of looking up authorities, and will give him definite references. I will not for a moment entertain the idea that Dr. Althaus had read the passage which I have quoted from my own work, when he penned the passage quoted from his letter, but the alternative is not a comfortable one.

In his letter he quotes a passage from my vol. I, p. 183, where I discuss the theory of locomotor ataxy; and the passage which I have just quoted appears on p. 184, where I discuss the theory of what I call the Brauch-Romberg symptoms—that is, the swaying movements on closing the eyes, or what Dr. Althaus and others call static ataxia. Dr. Althaus finds himself in a position to state authoritatively that my theory is in no way the same as his, and that I nowhere draw a distinction between "the swaying movements on closing the eyes and the ataxia." And yet we find that he takes so little trouble to understand my views, that, although he reads what I have to say on ataxia on one side of a page, he does not turn over the leaf to see what I have to say with reference to the swaying movements on closing the eyes on the other side. His competence to decide the delicate questions, which are sure to arise, when claims to originality of authorship are advanced, whether by himself or by others, may now be left to the judgment of your readers.—I am, etc., JAMES ROSS, M.D.

Manchester.

SIR,—So far from being the first in attempting to frame a distinction between locomotor and what many years ago Friedreich described as "static" ataxy, Dr. Althaus has been preceded by Erb, for instance, who attributed loss of equilibration to interruptions in the afferent tract (muscular sense), whilst he explained inco-ordination by a disturbance in centres of efferent impulses. But this is a small matter. The object of my writing again is to point out the reckless nature of the charges brought against Dr. Ross by Dr. Althaus, and the astounding coolness with which he claims originality on another point. I quote passages of his last letter in which these charges and claims are made, and place them by the side of extracts from Erb (*Rückenmarkskrankheiten*, vol. ii, p. 174, 1876) and Ross (*Diseases of the Nervous System*, vol. i, p. 184).

ALTHAUS (1884).	ROSS (1883) AND ERB (1876).
"A patient recently under my care was still able to walk three or four miles at a time, and without showing the peculiar ataxic gait, but was utterly unable to stand, even for a few seconds, with his eyes closed, without staggering like a drunken man."	"In a case under my care," says Dr. Ross, "the swaying movements, on closing the eyes, were extremely well marked, being out of proportion to the degree of ataxia."
"Dr. Ross does not, by as much as a single word, draw a distinction between different centres and paths in the brain and spinal cord, as I have done.....The pith of my theory is that there are certain definite centres and paths in the brain and spinal cord which, when brought under the influence of sclerotic degeneration at certain points, etc....."	"I think that these swaying movements are of the same nature of the ataxia, and that the former are caused by disease of the same kind of fibres, although it is probable that the individual fibres implicated in both instances may not be the same."
"Clinical observation has shown me, what does not appear to have been noticed by previous observers, that the degree to which locomotion and equilibration are impaired in tabes is not by any means proportional.....I claim to have ascertained clinically that there is no constant relation between ataxy of movement and of equilibration."	"The swaying movements and ataxia are not always present in proportionate degree."
	"There are numerous cases," says Professor Erb, "in which swaying exists long before ataxy; and others with marked ataxy in which closing of the eyes produces no increase of the swaying."

It is due to Dr. Althaus to state that he guards his allegation concerning Dr. Ross by the words "in the passage quoted." But it is due to the reader to state that the passages just adduced by me occur in the very next page to that from which Dr. Althaus has, with characteristic care, culled his excerpt.

In conclusion, I still hold that this author has not adduced one single tittle or iota of evidence in support of the only original part of his theory. I allude to the precise mesocephalic and cerebellar localisations invented by him. So far from my having "made attacks" upon Dr. Ross's views, my sole contention has been, and is still, that what in the "new theory" is new is not true, and what is true is not new.—I am, etc., A. DE WATTEVILLE.

A NEW ANTIPYRETIC.

SIR,—In connection with the above, as brought to the notice of the readers of the BRITISH MEDICAL JOURNAL by Dr. Lauchlan Aitken, perhaps the following may be interesting.

During my sojourn in Africa, I suffered frequently from repeated attacks of remittent fever, accompanied by severe and prolonged bilious vomiting which produced great prostration. On one occasion, in 1878, whilst amongst the Portuguese at Quillimane, I had a strong attack of fever. A gentleman, not a medical man, advised me to drink a large cup of tea with a fresh sliced lemon in it, during the cold stage. I did this, and was much gratified to find that the hot stage was rapidly cut short, and free and copious perspiration ensued, with great relief to all the usual symptoms, such as headache and pain in the bones and muscles, etc. I have used this frequently since, both for myself and others, and always with the same result. But it never occurred to me, till reading Dr. Aitken's paper, that the lemon had any specific antipyretic properties. My idea has always been that, by hastening on the sweating stage in some way, it had, of course, the effect of cutting short the febrile stage, and so bringing about the much to be desired remission. On the occasion referred to, I recollect that, during the five days the attack lasted, I was able to be up for a few hours every morning, though the fever was not entirely gone. Let me add this very curious note, that the Portuguese, who have been in East Africa for two centuries or more, as a matter of experience, forbid the eating or sucking of oranges to a fever-patient, though they are refreshing, and seem to be suitable in the circumstances. —I am, sir, yours faithfully, T. THORNTON MACKLIN,

Surgeon East India Railway, Sutria, Central India.

THE DISCUSSION ON TUBERCLE-BACILLI.

SIR,—As I was prevented by the rules of debate from speaking again in the discussion on tubercle-bacilli at the Royal Medical and Chirurgical Society on Tuesday evening last, perhaps you will kindly allow me a few lines of your space to say that I heard nothing from Mr. Watson Cheyne which directly met my statements and inquiries made at the previous meeting. We are still left in doubt as much as ever whether Dr. Koch strictly adheres to the fractional principle in his cultivations. In one passage of his report to the Association for the Advancement of Medicine by Research, Mr. Cheyne would have us believe that the fractional principle was adhered to by Dr. Koch throughout a long succession of cultivations, although Dr. Koch himself withholds the detailed information on that point, not only in his first paper, but equally in his final report of eighteen months' later date. In another passage, Mr. Cheyne implies that the whole of the first cultivation was transferred to the second test-tube, "and so on." In his remarks on Tuesday evening, he seemed to treat the quantity of scales or crusts carried forward as a matter of indifference, and even of uncertainty. But everyone knows that the very principle of the method of pure cultivation of fungi, which was introduced by Brefeld (and which I saw applied to disease-producing fungi by Dr. Grawitz at Berlin eight years ago), is to make each successive crop of organisms grow from the smallest possible fraction of the former crop. It is needless for me to meet Mr. Cheyne's round assertion that I am from first to last in error. My printed statements as to matters of fact are all authenticated by references, and they are not to be overthrown by a display of virtuous indignation. As to my interposition in this business, I do no more than exercise the right and duty of every member of the profession to hold and express an intelligent opinion on a disease which confronts us every day.—I am, sir, your obedient servant, C. CREIGHTON, M.D.

11, New Cavendish Street, London, W.

MEDICO-LEGAL AND MEDICO-ETHICAL.

TWO MEMBERS B.M.A.—It is not in accordance with the canon of professional propriety for a medical man to circulate testimonials by way of making himself known, or in extension of his practice.

CLUB-SURGEONS: NOTICES OF DISMISSAL.

SIR,—Will you be good enough to say whether the surgeon to a club is not entitled to six months' notice on dismissal from his office, and *vice versâ*, assuming that there is no special agreement to the contrary, and on the ground that his salary is paid half-yearly?—I am, sir, yours faithfully, HENRY W. J. ELLIS.

The Manor House, Crowle.

*** In the absence of any express or implied agreement, or of an established custom, the periodical payment of salary would determine the notice. If, however, the society have a registered rule on the matter, the medical officer would probably be held bound by it, the assumption being that it is his duty to make himself acquainted with the rules. Again, if a surgeon become an honorary member of a club he is acting for, and such club have a rule for the settlement of disputes by arbitration, such membership would enable the society to settle any dispute by arbitration, which settlement would be final, and not removable in a court of law. Of course, any charge of neglect or inattention, if substantiated, nullifies the claim to notice, even where there is an express agreement.

MILITARY AND NAVAL MEDICAL SERVICES.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month :—

	From.	To.
Deputy Surgeon-General C. G. Irwin, M.B.	London	Bermuda.
Brigade Surgeon W. Collis	Bengal	London.
Surgeon-Major S. Archer	Sheerness	Egypt.
,, W. A. Gardiner	Devonport	Bengal.
,, W. J. Wilson, M.D.	—	Sheerness.
,, W. Ffolliott	Brighton	Aldershot.
,, J. A. Shaw, M.D.	Penally	Aldershot.
,, H. C. Collier	Gibraltar	—
,, J. W. Maxham, M.D.	—	Woolwich.
,, F. Johnson, M.B.	Newport, Mon.	Bengal.
,, R. Hyde	Aldershot	—
,, R Collins, M.B.	Portsmouth	Gibraltar.
,, W. O. White	Cork	Tralee.
,, J. Riddick	—	Shorncliffe.
,, A. Anderson	Dover	Bengal.
,, E. M. D. FitzGerald, M.D.	Shorncliffe	Canterbury.
,, F. A. Davy, M.D.	Woolwich	Madras.
,, J. A. Clery, M.B.	Coventry	Egypt.
,, E. C. R. Ward	Dublin	Bombay.
,, E. H. Joynt, M.D.	Guernsey	Egypt.
Surgeon W. E. Webb, M.B.	Woolwich	Egypt.
,, W. L. Gubbins, M.B.	Trowbridge	Aldershot.
,, R. G. Thomsett	Gosport	Portsmouth.
,, N. M'Creery	Piershill	Egypt.
,, R. H. Gardner, M.B.	Dover	Bengal.
,, S. H. Carter, M.B.	Devonport	Bengal.
,, G. D. Bourke	York	Egypt.
,, E. O. Reynolds	Landguard Fort	C. of Good Hope.
,, I. Boulger	Salford	Egypt.
,, P. H. Johnston, M.D.	—	Cork.
,, G. M. Russell, M.B.	Devonport	Egypt.
,, J. P. Hunt, M.D.	Bromley	Egypt.
,, A. C. J. R. Lundy, M.B.	Alderney	Egypt.
,, J. I. Routh	Edinburgh	Glasgow.
,, W. L. Lane, M.B.	—	Jersey.
,, R. W. Ford	Fort Brockhurst	Bengal.
,, E. H. L. Bell, M.B.	Dublin	Bengal.
,, G. Nelis	Cork	Bengal.
,, R. J. Geddes, M.B.	Jersey	Madras.
,, J. M. Reid	Aldershot	Bombay.
,, J. R. Barefoot	Newcastle	Egypt.
,, R. H. Clement	Dublin	Egypt.
,, G. D. Hunter	Aldershot	Egypt.
,, W. C. Beevor	York	Egypt.
,, L. E. Anderson	Aldershot	Egypt.
,, G. B. Russell, M.B.	Dublin	Egypt.
,, A. E. C. Spence, M.B.	Gosport	Egypt.
,, J. R. Mallins	Hounslow	Egypt.
,, J. I. P. Doyle	Dover	Shorncliffe.
,, C. Birt	Portsmouth	Gosport.
,, C. J. Holmes, M.D.	Cork	Limerick.
,, C. G. D. Mosse	—	Sierra Leone.
Quarter-Master D. Lackey	Malta	Egypt.

ARMY MEDICAL SERVICE.

DEPUTY SURGEON-GENERAL F. HOLTON, M.B., who but recently retired on half-pay, has been placed on retired pay with the honorary rank of Surgeon-General. Mr. Holton entered the service May 23rd, 1851; became Surgeon, August 24th, 1858; Surgeon-Major, May 14th, 1871; and Deputy Surgeon-General, August 21st, 1879. During the Russian war of 1854-56, he served in Bulgaria, at Scutari, and in the Crimea.

Deputy Surgeon-General J. O'Nial, C.B., is to have the local rank of Surgeon-General while employed as Principal Medical Officer with the Nile Expeditionary Force.

Brigade-Surgeon E. H. Roberts, Surgeon-Major J. Hector, M.B., and Surgeon-Major S. E. Maunsell have been appointed by Earl Dufferin, Viceroy and Governor-General of India, to be Honorary Surgeons to His Excellency.

Surgeon-Major T. J. Orton passed the lower standard in Hindustani on the 27th October last.

Mr. F. C. Mears, M.B., has been appointed Acting Surgeon to the Tynemouth Artillery Volunteers.

Acting-Surgeon J. H. Hay, M.D., has been appointed Surgeon to the 1st Clackmannan and Kinross Volunteers.

Mr. R. B. Lorraine, M.B., has been appointed Acting-Surgeon to the Galloway Volunteers.

Acting-Surgeon C. W. Thorp has been appointed Surgeon to the 2nd Volunteer Battalion of the Lancashire Fusileers (late the 12th Lancashire Volunteers).

Surgeon A. R. Mackenzie, M.D., of the 1st Ross-shire (Ross Highland) Volunteers, has been granted the honorary rank of Surgeon-Major.

The death is reported from Malta of Surgeon G. W. H. Cook, which took place at the Military Hospital, Zabbah, where the deceased gentleman had been under treatment for some time past, suffering from consumption. Mr. Cook entered the service on February 5th, 1881, and was not quite 27 years of age.

INDIAN MEDICAL SERVICE.

Deputy-Surgeon General Colvin Smith, M.D., of the Madras Establishment, has retired from the service, which he entered on November 3rd, 1851. He attained the rank of Deputy Surgeon-General August 5th, 1879.

Surgeon-Major R. Pringle, M.D., of the Bengal Establishment, has retired from the service, which he entered on October 4th, 1854. He became Surgeon-Major October 4th, 1866.

Deputy Surgeon-General J. A. C. Hutchinson, M.D., of the Bengal Establishment, who retired from the service on September 28th last, has been granted a step of honorary rank.

Surgeon-General W. R. Cornish, C.I.E., Madras Establishment, Deputy Surgeon-General A. J. Payne, M.D., Bengal Establishment; Deputy Surgeon-General W. J. Moore, C.I.E., Bombay Establishment; Brigade-Surgeon G. Farrell, Bengal Establishment; Surgeon-Major G. C. Chesnaye, Bengal Establishment; and Surgeon-Major R. Harvey, M.B., Bengal Establishment, have been appointed by Earl Dufferin, Viceroy and Governor-General of India, to be Honorary Surgeons to His Excellency.

Surgeon-Major O. T. Duke, Bengal Establishment, in joint medical charge of Simla, is appointed to the medical charge of headquarters, staff, and establishments, remaining at the station, in addition to his other duties, *vice* Surgeon-Major Power, proceeding on furlough.

Surgeon D. G. Crawford, M.B., Bengal Establishment, officiating Resident Surgeon of the Medical College Hospital, has been appointed to act, in addition to his own duties, as Professor of Surgical and Descriptive Anatomy of the Medical College at Calcutta, during the absence of Surgeon-Major J. O'Brien, M.D.

Surgeon R. N. Stoker, Bengal Establishment, resumed charge of the civil medical duties at Attock on November 15th last.

Surgeon M. Gaisford, Bengal Establishment, on his return from deputation in the Gaol Department, is appointed to the civil medical charge of the Moozuffurnuggur District.

Surgeon-Major J. Ellis, M.B., Bengal Establishment, who has returned from leave, is appointed to the civil medical charge of the Minpoorie District.

Deputy Surgeon-General M. C. Furnell, M.D., Madras Establishment, Sanitary Commissioner at Madras, has been directed to act as Surgeon-General with the Government of Madras during the absence of Surgeon-General W. R. Cornish, C.I.E., on leave.

Deputy Surgeon-General G. Bidie, M.B., C.I.E., Madras Establishment, has been directed to act as Sanitary Commissioner at Madras during the employment of Deputy Surgeon-General Furnell on other duty.

Surgeon-Major T. J. McGann, Madras Establishment, Civil Surgeon in charge of the Gaol, and Chemical Examiner at Mysore, has returned from furlough out of India.

Surgeons H. E. Banatvala and W. G. P. Alpin have been transferred from the Bombay to the Bengal Establishment.

Surgeon-Major J. Arnott, M.D., Bombay Establishment, Professor of Midwifery at the Grant Medical College, and Obstetric Physician, Jamsetjee Jejeebhoy Hospital, has been permitted, by the Secretary of State for India, to return to duty from furlough.

The undermentioned gentlemen have been granted furlough for the periods specified:—Surgeon-Major J. Duke, Bengal Establishment, of the Malwah Bheel Corps, leave in India on private affairs for 121 days; Surgeon-Major J. Kelly, M.D., Bengal Establishment, of the 15th Native Infantry, in extension for six months on medical certificate; Surgeon M. O'Dwyer, of the Bengal Establishment, Superintendent of the Chenawan Central Gaol, for one year on medical certificate.

The leave granted to Surgeon S. Hassan, of the Bengal Establishment, has been cancelled.

OBITUARY.

H. T. LANCHESTER, M.D., F.R.C.S.

It is with feelings of painful regret that we record the death, on the 8th instant, from acute pneumonia, of Dr. Lanchester, of Croydon, at the age of 46. Although comparatively young, he had attained a position that it is given to but few to reach, even at the end of a long career; and his premature decease is justly regarded in Croydon and its neighbourhood as a public calamity.

Born at Yoxford, in Suffolk, where his father, who survives him, was in practice as a surgeon, he was educated at the North Walsham Grammar School, and afterwards apprenticed to a leading practitioner at Banbury. In 1858, he entered as a student at St. Bartholomew's Hospital, and had for his senior teachers, Sir George Burrows, Sir William Lawrence, Sir James Paget, Dr. Baly, and Dr. Kirkes. Regarded as one of the best men of his year, he was much noticed by the different members of the staff, especially by Burrows and Baly. In the wards of these physicians he worked assiduously, and in intimate association with, as fellow students, several members of the present staff of the hospital, besides many others, of whom may be mentioned particularly Dr. Horace Jeaffreson, of Wandsworth, and Mr. Edwin M James, of Melbourne. On leaving St. Bartholomew's he was appointed resident medical officer at the Victoria Park Hospital, where he remained for nearly three years. While he was working here with the late Dr. Peacock, and with Sir Risdon Bennett, his mind was strongly directed towards the study of diseases of the heart and lungs, in which, in after years, he gained so wide a reputation. Having taken the degree of Doctor of Medicine at the University of London, and the Fellowship of the Royal College of Surgeons, he went, on the special recommendation of Sir James Paget, to Croydon, as assistant to Dr. Carpenter and Mr. Whitling. Though still very young, and holding a subordinate position, he quickly made his mark; for he was able, shrewd, clear-headed, active, full of tact and sound judgment, and of indomitable perseverance. Socially, he became very popular, and widely known as a man of large views and general culture; while many were attracted by his knowledge of, and taste for, literature and art, by the charm of his manner, his absolute integrity of thought and act, his keen sense of humour, and his power of turning an argument by some story or anecdote, well chosen and admirably told. It was soon found that his services were indispensable, and he joined Dr. Carpenter and Mr. Whitling as their junior partner. In 1872, he married the only daughter of Mr. Page of Lincoln; she is now left with five children to mourn his loss. As time went on, Dr. Lanchester's position grew, year by year, more prominent. He was elected Surgeon to the Croydon Hospital, and became connected with many charitable and other institutions of that town; and Surgeon to the 2nd Surrey Volunteer Corps. He took a leading part in the affairs of the South-Eastern Branch of the British Medical Association, and for several years acted as Honorary Secretary, the duties of which he performed with such ability that, on his retirement, he was presented, at Reigate, with a very handsome timepiece. Many will remember the happily turned speech which Sir George Burrows delivered on this occasion. In 1878, he was elected President of the Branch, and amply justified the anticipations which had been formed on all sides of his fitness for the appointment. It is to services such as his that the Association owes the remarkable progress it has made in the last few years. Dr. Lanchester was also a member of Council of the Medical Benevolent College at Epsom, and Chairman of the New Alfred Wing Committee of the Croydon Hospital.

While never assuming or accepting the position of a public man, he yet found time to take part in a variety of good public works. A Liberal in politics, he became Vice-President of the Croydon Liberal Association; and in 1874 he was elected to a seat on the School Board, of which, with a temporary break in 1877, he had ever since been a member. At the last election, in 1883, he was returned at the head of the poll, and was soon afterwards made Vice-Chairman of the Board, and Chairman of the Financial Committee. In this latter office, he rapidly gained a high reputation as a financial authority. His fatal illness appeared to take its origin in a chill caught at a meeting of the Committee of the Whitgift Foundation, of which he was a governor.

It will be seen, from this rapid and imperfect sketch, how great an amount of work Dr. Lanchester contrived to accomplish. Never robust in health, it was a matter of surprise to all who knew him that, surrounded on every side by constant claims upon his time, he was able not only to discharge the duties of a busy practitioner, who always made his patients, whether rich or poor, his first care, and

to keep himself well abreast with the progress of medicine, but also to perform punctually, and without confusion, or omission, the duties of a variety of public appointments. Yet he did so; and that with a steadiness of purpose which made everyone respect and value his opinion, and with a spontaneous courtesy, and light-hearted, and humorous good nature which won the regard and affection of all with whom he was brought into contact. Probably no man ever left behind him a more unanimous opinion of his worth. With intellectual endowments that placed him on an equality with the ablest minds in the wide circle in which he moved; with a kindness and warmth of heart, in the presence of which jealousy and rivalry were disarmed and forgotten; with an unchallenged reputation for honorable feeling, and the most absolute rectitude and candour; and with a plainly indicated aversion, not to say impatient contempt for all that was unfair or disingenuous, it is no mere posthumous flattery to say that his was a rare and lofty character. It was not in his nature to do a questionable act, or to follow a questionable course. His name is one that will long be held in honour.

During his last illness, which was of less than a week's duration, Dr. Lanchester was attended by Dr. Andrew of St. Bartholomew's Hospital, Mr. Whitling, Dr. Horace Jeaffreson, Dr. Duncan, Dr. Richardson, and Dr. Oscar Clark. He was interred at Croydon on Tuesday last, his funeral being attended by a large concourse of the public, including a detachment of the Croydon Volunteer Corps, by his late partner, Mr. Whitling, and by numerous professional and other friends, many of whom had come from a long distance in order to be present.

JOHN MANN, M.R.C.S., L.S.A.

On Sunday, January 11th, Mr. John Mann died at Hornsey Rise, N., at the age of 82. Mr. Mann was born in November 1802, at Moreton-in-Marsh, Gloucestershire. He served his apprenticeship with Mr. Wells, of the neighbouring village of Bourton-on-the-Water, where he gained much valuable practical knowledge of his profession. He afterwards studied in London at St. Thomas's and Guy's Hospitals, under Sir Astley Cooper, Dr. Conquest, Mr. Joseph Henry Green, and Dr. Elliotson. In 1828-29, he studied in Paris, under Baron Larrey (Bonaparte's army-surgeon) and Dupuytren, and took advantage of the ample supply of subjects for dissection for the study of human anatomy.

From 1829 to 1869, he practised in London, in Aldersgate Street, in Bartholomew Close, and in Charterhouse Square; and retired from active practice on his removal to Hornsey Rise in 1869.

He was for many years surgeon to the British Empire Assurance Company, which gave him opportunity for study of the family-history of disease. He had long suffered more or less from asthma and gout; and the influenza now prevalent finally exhausted his remaining strength.

He was kindly in disposition, courteous in manner, happy in diagnosis, and gifted with a remarkably quick and retentive memory.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

TOXTETH PARK WORKHOUSE: CORONER'S INQUEST.

The *Liverpool Courier* of the 7th instant reports the proceedings at an adjourned inquest, held the preceding day, on one Joseph Emerton, aged 33, an inmate of the Toxteth Park Workhouse, who died in that institution on the evening of Christmas Day. It would appear, from the evidence, that Emerton, at half-past four on that day, fell down in a fit. The circumstance having been reported to the master, he directed that the man should be removed to the infirmary, where he was seen and attended to by two of the nurses, and visited thrice by the master, Mr. Cartwright, but no medical assistance was applied for, nor any given, until shortly before his death, when he was seen by the resident medical officer, Dr. Smart, on his evening round, who found that he was dying. The master having been called upon for an explanation of his conduct in not sending for the resident medical officer, or, in his absence, for the visiting medical gentleman attached to this institution, made reply "that the doctor was out, and it was not usual to send specially for a doctor when people were in fits. If he did, he should be sending for a doctor every five minutes in the day. He had expected Dr. Smart to come in every five minutes."

The *post mortem* examination revealed the presence of a very considerable effusion of blood at the base of the brain, from the effects of which the man died; and the jury returned a verdict that the death was from natural causes, at the same time appending as a rider "that, as the master of the workhouse was acquainted with the dangerous condition of the deceased immediately after he was seized with the fit, there was great neglect on his part in carrying out the duties imposed upon him through not having obtained medical aid, and they therefore considered the facts of the case should be placed before the Local Government Board."

We entirely concur in the decision of the jury. It was an unaccountable procedure that the master should have neglected to send for the visiting medical officer, seeing that the resident, Dr. Smart, was out, and, moreover, that he remained out for several hours after the seizure; and we agree with the observations of the coroner, who directed the jury that, if it could have been shown that the man's life would have been prolonged if medical aid had been procured immediately it was required, then he should have put it to the jury that if they were satisfied on that point, it would have been their duty to have sent the master of the workhouse for trial, for being criminally responsible for the death; for, although there was no criminal responsibility, he was certain no one could say that the conduct of the master ought to be passed over without severe censure.

Unfortunately, the consequences that follow on such conduct as has been exhibited by the master of this workhouse, whether more from an error of judgment or absolute indifference to human suffering, ultimately fall disastrously on the medical gentlemen attached to such institutions; for many a long day to come, perhaps for years, the occurrence of a fit, however trivial it may be, in this house, and whether it assumes the aspect of hysteria, epilepsy, or apoplexy, the medical officer or officers will be immediately sent for, and very frequently unnecessarily, and therefore to their great annoyance. Nor will it end with the Toxteth Workhouse. Every master or matron who may chance to read this report will not fail to take the hint, and send for the medical officer under the most trifling circumstances. We write from a full knowledge of what has happened elsewhere. Even Dr. Smart may yet live to regret that, having seen the man whilst alive, he did not give a certificate that it was a case of hopeless apoplexy, and as such beyond medical aid.

THE LEIGH BOARD OF GUARDIANS AND THEIR RELIEVING OFFICER.

We learn from the *Leigh Chronicle* of the 9th instant that, at a meeting of the Board of Guardians of that Union, recently, a complaint (*inter alia*) was made by a poor woman, by name Elizabeth Thompson, through a young woman whom she had adopted and brought up, that application having been made to the medical officer of the district, Dr. Jones, he had visited her; and, finding that she was in a very debilitated condition from heart-disease, etc., he had given an order (recommendation, it should have been, for so the Local Government Board officials phrased it) to the relieving officer, that she should be supplied with two pounds of beef. This order had been given early on the Monday morning, and it was taken, so it was alleged, at once to the relieving officer, who simply ignored it. When called upon by this board to explain his refusal, he contented himself with denying that he had got the order before the preceding night; but he was compelled to admit that no beef had been furnished. After several members of the board had expressed themselves more or less strongly on the subject, it was moved by Mr. T. T. Hayes: "That the relieving officer, Mr. Haddock, be discharged; that he thought he was a totally unsuitable person for the position of relieving officer." This resolution, on being put to the vote, was carried—nine voting for it, and none to the contrary; thereupon Mr. Haddock, who was present, gave in his resignation, verbally giving a month's notice.

Though we gather from the report that other charges were pending against this official, it is very satisfactory to find, from the remarks of the guardians, and the decision come to, that the refusal of the relieving officer to obey the request of the medical officer in the supply of what, in the exercise of his discretion, he thought to be necessary, has been dealt with by the Leigh Board in this exemplary manner.

We commend this case to the serious attention of all boards of guardians, to their relieving officers, not forgetting those officials of the central department who always support guardians and others who set the legitimate authority of the medical officer at defiance, when he feels it his duty to order extras for the sick poor.

WATER-SUPPLY OF BAKEHOUSES.

Sir,—1. Will you permit me to call attention to what seems to me a serious defect in the sanitary law? Having reason to suspect that the water-supply to a certain bakehouse is impure, I requested the inspector of nuisances to procure a

sample for analysis; but the owner of the bakehouse refuses to allow it to be taken; and, so far as I can see, the sanitary authority has no power to compel him to do so. Even if proceedings were taken (which could hardly be done without proof of the impurity of the water), the magistrates could order the water to be analysed, but the baker might still refuse to supply the means for this to be done, without, so far as appears, incurring any penalty.

2. The Bakehouse Act is in other respects very inefficient. For instance, any bakehouse which was in use before 1883, may be in communication with an ash-pit or privy, may be supplied by a cistern which also supplies a closet, and may contain the opening of a drain in direct communication with the sewers.

3. Moreover, the functions of the inspector of bakehouses, being practically almost limited to seeing that the place is kept clean, cannot be delegated to the inspector of nuisances, but must be performed by the medical officer of health himself.—I am, etc.,

E. C.

*** 1. See Section 79 of the Public Health Act, 1875. If the representation therein contemplated were made by a responsible official, the court would, no doubt, be willing, upon sufficient cause shown, to make an order for the water to be analysed. Disobedience to an order of the court would be punishable under the general statute law.

2. See Section 16 of the Factory and Workshop Act, 1883, which provides that, where the court is satisfied that any bakehouse is in such a state as to be, on sanitary grounds, unfit for use or occupation as a bakehouse, the occupier shall be liable to a penalty of forty shillings.

3. An inspector of nuisances cannot exercise the powers given to a factory inspector by the Factory and Workshops Act, 1878. Such powers are conferred by Section 17 of the Act of 1883 upon medical officers of health only.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 8th instant, and, when eligible, will be admitted to the pass examination.

Messrs. J. F. Blurton, C. H. Harris, and F. Hughes, Birmingham; E. A. Field, W. E. Porter, and W. W. Chamberlain, Edinburgh; F. W. Burnett, L. Demetriadi, H. N. Pullan, and B. Wainman, Leeds; J. Garth, Liverpool; J. Blacklock, J. A. Jenkinson, and R. Bilsborrow, Manchester; H. L. Harrison, and M. H. Spencer, Cambridge; W. G. Rockwood, Madras; W. D. Arnison, Newcastle-upon-Tyne; D. A. D'Monte, Bombay; B. H. Scott, Toronto; and D. Roxburgh, Glasgow.

The following passed in Anatomy only.

Messrs. N. Davis, Newcastle-upon-Tyne; H. H. Sales, Leeds; H. F. Cartmel, Manchester; and J. G. Modlin, Newcastle-upon-Tyne.

The following passed in Physiology only.

Messrs. T. W. Scott, Cambridge; J. E. Brown, Toronto; and J. J. Garmang, New York.

The following passed the second examination, under the combined Examining Board for England.

Mr. G. B. Flux, King's College.

The following gentlemen passed in Anatomy and Physiology on the 9th instant.

Messrs. H. E. Gough, P. de C. Potter, E. de M. Jong, and G. W. Dowling, of the Manchester School of Medicine; C. J. Acton, G. L. Travis, and T. M. Draper, of the Liverpool School of Medicine; A. S. Alexander, and L. Williams, of Glasgow; O. Morris, F. P. R. James, and W. H. Helm, of Leeds; E. B. Hill, P. King, A. H. Williams, and E. M. Light, of Cambridge; G. R. S. Banbury, and F. F. Jones, of Bristol; and A. O. Davis, of Edinburgh.

The following candidates passed their examination in Anatomy only.

Messrs. A. S. Taylor, of Newcastle; J. E. Finnie, of Liverpool; S. H. H. Dowse, of Dublin; P. A. Linnell, of Manchester; and H. Clapham, of Sheffield.

The following candidate passed in Physiology only.

Mr. W. M. Branson, of Sheffield.

The following passed his second examination, under the combined Examining Board for England.

Mr. H. Shipton, of King's College.

The following gentlemen passed on the 12th instant.

Messrs. F. M. Davis, Madras; F. A. Le Mesurier, and J. B. Close, of St. Bartholomew's Hospital; U. K. Dutt, of St. Mary's Hospital; J. K. Reeves, of Guy's Hospital; C. E. Dawson, and W. B. Pettett, Leeds; C. T. Samman, J. K. Warry, and M. J. Rees, of London Hospital; A. K. Ludlam, Manchester; A. H. Benson, and S. B. Day, Bristol; E. P. Habbigam, E. H. Lingwood, and W. H. Compton, of Charing Cross Hospital; J. L. Henstock, and J. C. Williams, Liverpool; H. W. Maclure, Cambridge; W. C. Brown, Newcastle-on-Tyne; F. W. Hildyard, of St. George's Hospital.

The following passed in Anatomy only.

Messrs. C. H. Smale, Manchester; A. Norman, of Guy's Hospital: G. Dunn, Bristol; P. J. Le Riche, of University College; and W. H. Hillyer, of St. George's Hospital.

The following passed in Physiology only.

Messrs. J. H. Lister, Leeds; and E. Cantley, Cambridge.

The following gentlemen passed in Anatomy and Physiology on the 13th instant.

Messrs. W. H. Blake, of University College; W. H. Savory, H. P. Daniell; F. A. Watkins, and B. S. G. Nightingall, of St. Bartholomew's Hospital; E. H. Blake, J. J. Lewington, G. H. Francis, and A. H. Moxon, of London Hospital; H. Saunders; J. Hewan, and W. L. Mathias, of St. Thomas's Hospital; A. Z. C. Cressy, and W. A. Slater, of Guy's Hospital; W. G. Reily, of Middlesex Hospital: T. A. Grieves, of St. Mary's Hospital; E. Cooper, of Charing Cross Hospital; W. A. Griffiths, of Westminster Hospital.

The following gentlemen passed in Anatomy only.

Messrs. F. J. Wadham, of St. George's Hospital; S. E. Rossiter, P. V. Dodd, G. R. Saunders, and E. Loveday, of St. Bartholomew's Hospital; H. T. Knyvett, W. E. Kelbe, C. J. Fuller, and A. R. F. Evershed, of Guy's Hospital; L. N. Hoysted, of Charing Cross Hospital.

The following gentlemen passed in Physiology only.

Messrs. H. W. Rogers, of the London Hospital; A. Bowles, of University College.

The following gentlemen passed in Anatomy and Physiology on the 14th instant.

Messrs. H. A. Edmonds, G. J. Padbury, F. H. A. Bryden, of Guy's Hospital; J. Hill, W. F. Read, J. A. Feeney, C. H. Lewis, S. Low, J. E. A. G. Becker, A. J. Cromwell, of St. Bartholomew's Hospital; E. Cooke, R. T. H. Bodilly, A. George, E. J. Neville, of King's College; E. H. Crisp, of St. Thomas's Hospital; A. C. Domford, of the London Hospital; G. H. Biden, E. J. Day, of the Charing Cross Hospital; E. L. Williams, of University College; W. Challenor, of Middlesex Hospital.

The following gentlemen passed in Anatomy only.

Messrs. G. C. Peachy, M. E. H. Wale, G. W. B. Daniel, of St. George's Hospital; F. Gilpin, A. F. Tyrrell, of Middlesex Hospital; J. Bampfylde, of Guy's Hospital.

The following gentlemen passed in Physiology only.

Messrs. A. C. Roberts, of Guy's Hospital; J. Bate of the London Hospital.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 8th, 1885.

Ashley, Sydney Dukes, London Hospital.
Copeman, Sydney Arthur Monckton, St. Thomas's Hospital.
Fox, Jno. Alfred, Guy's Hospital.
Fryer, Charles, Guy's Hospital.
Maudsley, Henry Sydney, St. Mary's Hospital.
Melson, George Hyde, Queen's College, Birmingham.
Pitchall, Jno. Maynard, Westminster Hospital.
Thirkill, Henry, Leeds School of Medicine.
Watts, Alfred Thomas Guy, Cambridge University.

The following gentleman also on the same day passed the Primary Professional Examination.

Cree, Gerald, Middlesex Hospital.

MEDICAL VACANCIES.

The following vacancies are announced.

BOROUGH OF CHELTENHAM.—Medical Officer of Health. Salary, £300 per annum. Applications by January 26th.

CITY OF DUBLIN HOSPITAL.—House-Surgeon. Salary, £100 per annum Applications by January 22nd.

DONCASTER GENERAL INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £100 per annum. Applications by January 31st.

GATESHEAD DISPENSARY.—Assistant-Surgeon. Salary, £120 per annum. Applications to Mr. Joseph Jordan, Honorary Secretary, 2, Side, Newcastle, by January 24th.

GENERAL HOSPITAL, Birmingham.—Honorary Physician. Applications by January 24th.

GENERAL INFIRMARY AT GLOUCESTER, AND THE GLOUCESTERSHIRE EYE INSTITUTION.—Physician. Applications by February 18th.

GENERAL INFIRMARY, Hertford.—House-Surgeon and Secretary. Salary, £100 per annum. Applications by January 22nd.

INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Senior House-Surgeon. Salary, £70 per annum. Applications by January 26th.

JESSOP HOSPITAL FOR WOMEN, Sheffield.—House-Surgeon. Salary, £50 per annum. Applications by January 31st.

KENT AND CANTERBURY HOSPITAL.—House-Surgeon. Salary, £80 per annum. Applications by January 23rd.

MANCHESTER ROYAL INFIRMARY.—Pathological Registrar. Salary, £80 per annum. Applications by January 22nd.

MOTHERS' LYING-IN HOME, Juniper Street, Shadwell, E.—Medical Officer. Applications to Mrs. Ashton Warner, by February 2nd.

NAAS UNION.—Medical Officer, Newbridge Dispensary. Salary, £140 per annum and fees. Applications to Michel Flood, Honorary Secretary, Newbridge, to February 5th.

NORTHERN INFIRMARY, Inverness.—House-Surgeon and Apothecary. Salary £50 per annum. Applications to Kenneth MacDonald, Esq., Town Clerk, by January 17th.

QUEEN'S HOSPITAL, Birmingham.—Casualty Surgeon. Applications by January 24th.

QUEEN'S HOSPITAL, Birmingham.—Resident Physician. Salary, £50 per annum. Applications by January 24th.

ROTHERHAM HOSPITAL AND DISPENSARY.—Resident House-Surgeon Salary, £100 per annum. Applications by February 1st.

ROYAL INFIRMARY AND GENERAL DISPENSARY, Aberdeen.—Dispenser. Salary, £100 per annum. Applications to Mr. W. Carnie, 27, Exchange Street, by February 1st.

SOLWAY LODGE OF ODDFELLOWS, Whitehaven.—Medical Practitioner. Applications by January 17th.

SUSSEX COUNTY HOSPITAL, Brighton.—Physician and Assistant-Physician. Applications by February 11th.

SUSSEX COUNTY LUNATIC ASYLUM, Hayward's Heath.—Junior Assistant Medical Officer. Salary, £100 per annum. Applications to Dr. Williams.

UNIVERSITY OF OXFORD.—Lecturer in Human Anatomy. Salary, £300. Applications to the Secretary of the Common University Fund, New College, Oxford, not later than February 1st.

WESTERN OPHTHALMIC HOSPITAL, Marylebone Road.—Assistant Surgeon. Applications by January 17th.

WEST LONDON HOSPITAL, Hammersmith, W.—Physician for Diseases of Women. Applications by January 29th.

MEDICAL APPOINTMENTS.

BRIGGS, Henry, M.B., F.R.C.S.Eng., appointed Honorary Medical Officer to the Ladies Charity and Lying-in Hospital, Liverpool.

BROATCH, George T., M.B., C.M., appointed Assistant Medical Officer in the East Riding Asylum, *vice* A. C. Suffern, M.D., resigned.

CLARKE, Ernest, B.S.Lond., appointed Surgeon to the Miller Memorial Hospital, Greenwich.

CLERK, John, M.B., C.M. Glas., appointed Resident Physician and Superintendent of Knightswood Hospital, Maryhill, Glasgow.

COLMAN, W. P., appointed Civil Acting Surgeon to the 4th Dragoon Guards, Preston Barracks, *vice* Surgeon-Major Ffölliott.

CROCKER, J. Hedley, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond., appointed Medical Officer to the Eccles and District Medical Association, Hampden Grove, Patricroft, near Manchester.

DODDS, W. J., M.D., D.Sc., appointed Assistant Medical Superintendent to the Montrose Royal Lunatic Asylum.

DUNN, H. Percy, F.R.C.S., appointed Assistant Ophthalmic Surgeon to the West London Hospital.

KIDDLE, W., appointed House-Surgeon to Sir Patrick Dun's Hospital, Dublin, *vice* G. D. Cowen, M.B., B.Ch.T.C.D., L.M.K.Q.C.P.I., resigned.

KING, Francis J. T., B.A., M.B., B.Ch.T.C.D., appointed Resident Medical Officer to the Monkstown Hospital, County Dublin.

LEIGH, W. W., M.R.C.S., L.R.C.P., appointed Medical Officer and Public Vaccinator for the Gelligaer "Lower" District of the Merthyr Tydfil Union, *vice* John Leigh, F.R.C.S.Eng., deceased.

LEVINGE, E. G., A.B., M.B.(Univ.Dub.), L.M., L.R.C.S.I., appointed Medical Superintendent of the Mount View Asylum, Wellington, New Zealand.

MAGUIRE, Robert, M.D.Lond., M.R.C.P., appointed Physician to Out-Patients, St. Mary's Hospital, Paddington.

MOXON, Henry James, L.D.S., appointed Dental Surgeon to the North Surrey District Schools, Anerley.

THORBURN, William, M.B., B.S., B.Sc.Lond., appointed House-Surgeon to the Clinical Hospital, Manchester.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

DEATHS.

ADAMS.—On January 11th, at 109, Chesterton Road, Kensington, W., Priscilla, the wife of George Norris Adams, M.D., aged 33 years.

BAXTER.—At 28, Weymouth Street, Portland Place, W., on the 14th instant, Evan Buchanan Baxter, M.D., lately Professor of Materia Medica in King's College, London.

LANCHESTER.—On the 8th instant, at his residence, Park House, Croydon, of congestion of the lungs, Henry Thomas Lanchester, M.D., F.R.C.S., aged 46 years.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. The Lettsomian Lectures will be delivered by Dr. T. Lauder Brunton. Subject—Digestive Disorders: their Consequences, and Treatment. Lecture II.—Consequences of Indigestion: Flatulence, Acidity, Weight, Pain; Affections of the Liver: Glycosuria; Affections of the Respiratory Passages: Cough, Shortness of Breath, Asthma; Affections of the Heart: Intermittent Pulse, Faintness; Affections of the Kidneys: Transitory Albuminuria, Renal Degeneration, Oxaluria.

TUESDAY.—Pathological Society of London, 8.30 P.M. President's Address. Mr. Pepper: Malignant Disease of the Spermatic Cord. Dr. Norman Moore: Congenital Disease of the Heart; Disease of Sacro-iliac Joint (card); Drawing of a Renal Tumour consisting of Cholesterine (card); Rupture of the Heart (card); Perforated Aortic Valve (card); Dr. Charlewood Turner: Horseshoe Kidney: Sarcoma of both Adrenals (card); Mr. Davies-Colley: Synostosis of Dorsal Spines. Dr. Samuel West: Cases of Mediastinal Tumours. Mr. John Poland: Suppurating Bronchial Gland opening into Œsophagus and Left Bronchus (card). Mr. Sheild: Rectal Polypus (card).

WEDNESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Special meeting: adjourned discussion on Dr. Percy Kidd's paper on the Distribution of the Tubercle-Bacilli in the Lesions of Phthisis.—The Hospitals Association, 8 P.M. Mr. C. J. Radley: On the Relation of the Provident Dispensary to the Hospital.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Althaus: A Case of Hemianæsthesia from Congenital Brain-Disease. Mr. Treves: A Case of Scrofulous Gland-Disease with Phthisis. Mr. C. J. Symonds: A Case of Stricture of the Œsophagus illustrating a New Method of employing the Œsophageal Catheter. Dr. Hale White: A Case of Myxœdema, with a *Post Mortem* Examination.—Quekett Microscopical Club, 8 P.M. Ordinary meeting. Papers by Dr. W. B. Carpenter and Mr. F. Parsons.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M. —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

Instruction in Lock Hospitals.

A correspondent writes:—1. Do you think that the female examination-room of a voluntary lock hospital ought to be open to the clinical instruction of students?

2. If you do, do you think that the number of students should be restricted to a few, and that they should be advanced in their studies? An early answer will greatly oblige.

*** 1. Yes. There are few points on which students, and, as a rule, practitioners, are less well informed than the diagnosis and treatment of venereal diseases in women. The opportunities of seeing such cases in the general hospitals are rare, and, for purposes of instruction, a thoroughly skilled examiner is necessary.

2. We think that students should not be admitted until they are so far advanced as to have passed their primary examination, and that a fee should be charged for the instruction given during a definite period of two or three months. A fee is necessary, in order to prevent students attending out of mere curiosity. The number of students should be limited to about six or eight at most, and the patient should be prepared for examination by a nurse behind a screen, or in a separate compartment of the examining room. A larger number of students would probably be objectionable. The strictest propriety and quiet should be insisted on.

The Uxbridge Tragedy.

Sir,—I have read with great interest and care the lucid account of the conclusions arrived at on the examination of the wounds, etc., at the *post mortem* examination of the deceased Gibbons, conducted by Messrs. Anthony Bowlby and Parrott. On perusal of Mr. Bowlby's article, one cannot help remarking: 1, the strange coincidence that all the wounds were on the left side of the middle line; 2, that a woman on such slight provocation should use such violent measures towards her husband; 3, that she should be so persistently set upon his murder as to fire five shots (perhaps six, if the other cartridge had not been blank), one after the other; 4, that there were two scalp-wounds, one of which only is accounted for. The deceased could only have received one in his fall to the floor; certainly this might have been either the one near the occiput, or the one on the forehead, for he might have fallen either on his back or face, and then rolled over.

In considering the bullet-wound described first by Mr. Bowlby, namely, that on the left side of the cheek, the murderess must have stood in front and to the right of her victim to have inflicted the wound, which was directed from before backwards, and from right to left.

The face being blackened with powder, the revolver could not have been fired many inches away from the wound; in fact, the deceased might have effected the wound himself with either hand, at a distance of two or three feet, provided he used the thumb of his left hand to pull the trigger.

The possibility of his having inflicted the wound himself, below the clavicle, almost amounts to a probability, by the fact that the bullet, meeting no obstacle (the first rib not being described as being injured), is directed downwards.

Had the deceased's wife fired this shot, it would have been necessary for him either to have been sitting down, or for her to have had her arm very much raised for the bullet to take the course it did. She would still have been standing in front of her husband.

I find, on experiment with a revolver similar to the one described, that by raising my left arm, with the weapon in the left hand, using the thumb as the lever for the trigger, it is quite possible to fire the pistol, the muzzle being several inches from the shirt, so as to inflict the wound described in the left side. If the woman had been the cause of this wound, she would have had to have been on a higher level than her husband, and to his left side, or behind him.

The learned counsel's suggestion that the deceased might have fallen upon the pistol to have inflicted the wound in the back is, of course, highly improbable, but I do not see that the possibility is allowed for the deceased to have fired; the shot to have passed over his left shoulder, to have struck some hard object (such as the wall or knob of the bedstead), and then, with the velocity and energy of recoil, to have caused the wound. Had the pistol been fired by the prisoner condemned, would not the bullet, encountering only soft structures, have had sufficient energy to have made its exit from the front of the body?

Could you inform me whether this last possibility was brought forward at the time of the trial? I should lay especial stress upon it, as the jury's verdict seemed to hinge in a great measure on this particular wound.

It is quite possible that, if this last wound were caused by the last shot fired (if suicidal), the effect of the former shots would account for his missing his mark. The fifth bullet which was picked up in the room was, perhaps, another example of the condition he was in when the fourth ball was fired.

Mr. Bowlby remarks that it is extraordinarily rarely we find such a determined case of suicide; on the other hand, do we often hear of such a determined case of murder, perpetrated, moreover, by a woman, and that woman the wife of the unfortunate victim?

I should like to know whether inquiries have been instituted relative to any history of hereditary insanity in the family; for, with such a predisposing cause, an exciting cause might easily be found in the quarrel the deceased evidently had with his wife ere the shocking tragedy was enacted.

Apologising for trespassing on your valuable space, I am, sir, yours truly,

H. L. de C.

A Case of Hepatic and Intestinal Disorder.

Sir,—I shall be glad if any of your readers could assist me in treating the following case. My patient, a man aged about 52, suffered from jaundice some years ago, for which he was treated and cured by an eminent physician. Since then, he has been suffering from an obstinate attack of diarrhœa, accompanied by a fixed pain over the site of the liver, which, however, is only developed on pressure. He has lost all taste for food, and at the end of every eight or ten days suffers from a great sense of fulness over the region of the stomach, with nausea and a bitter taste in the throat. He then vomits up a quantity of bilious matter, after which he feels comparatively well for another period of ten days. He has already been under the care of several physicians, who seem to have exhausted the *British Pharmacopœia*, as well as blistering and leeching him, but without affording the least benefit. If any gentleman with experience of such a case can give me a hint as to treatment, I shall feel greatly indebted.—I am, etc.,

J. C. H.

Royal College of Surgeons of England.

The following were the questions submitted to the candidates (206 in number) at the primary examination for the membership of the College on January 6th. Four questions were required to be answered in each subject. A. *Anatomy.* 1. Describe the ligaments of the hip-joint; enumerate the muscles in contact with its capsule. 2. Describe the dissection required to expose the entire course of the anterior tibial nerve and its branches. 3. Contrast the body and articular processes of a typical cervical vertebra with the corresponding parts of a dorsal and lumbar vertebra. 4. Give the course and relations of the large intestine, from its commencement to the end of the sigmoid flexure. 5. What are the arteries and nerves supplying the tongue? Indicate where they may be best exposed when the organ is separated from the body. 6. Describe the dissection necessary to expose the superficial aspect of the masseter muscle.—B. *Physiology.* 1. Describe the series of phenomena that occur in the process of the coagulation of blood. State what is known in regard to the formation of fibrin. 2. How is the secretion of the submaxillary gland influenced by nerve-stimulation? Prove that the effect produced is not wholly due to vaso-motor influence. 3. Describe the mode of action of the auriculo-ventricular and semilunar valves respectively. 4. Give an account of the structure of the mucous membrane of the large intestine. What are the functions of this portion of the alimentary canal? 5. Contrast the volume of tidal air with the quantity of air usually present in the lungs. Explain the mode in which the interchange of gases between these two quantities is effected. 6. Describe the phenomena that accompany the contraction of muscle.

Sunshine in the Isle of Wight.

Sir,—May I request the favour of your inserting the enclosed record of bright sunshine at the Undercliff, Isle of Wight, and at Kew, in an early number of the British Medical Journal, as you have kindly done before.—I am, your obedient servant,

J. B. Martin, M.R.C.S.

Belgrave House, Ventnor.

1884.—*Summary of Months.*

	St. Lawrence. Hs.	Ms.		Kew. Hs.	Ms.
January	30	55	.....	28	30
February	62	25	.....	54	
March	135	25	.....	106	
April	173	5	.....	101	30
May	204		.....	196	
June	147	10	.....	122	30
July	195	53	.....	193	
August	239	10	.....	220	
September	155	20	.....	126	30
October	145	23	.....	91	30
November	55	47	.....	47	
December	16	35	.....	25	
	1561	8		1311	30

Note.—It should be borne in mind that the foregoing tables contain the record only of bright sunshine, and do not include days which might otherwise come under the head of bright and sunny days—haze or mist, or the passing of a light cloud, arresting the power of the recording instruments.

With regard to St. Lawrence, some allowance must also be made in consequence of the Undercliff falling into shade between six and seven in the evening during the summer months, depriving the instrument of a considerable amount of sunshine, which would otherwise be recorded in fine weather. There is also the same loss from the sun rising in the morning behind the high ground of Dunnose.

The months given are not regular calendar months; the record of one month running occasionally into that of another, which arises from the necessity of making them correspond with the record published in the *Times* from week to week.

Fine as the summer proved, there would appear to have been less bright sunshine recorded both at St. Lawrence and Kew than in the two former years.

	St. Lawrence.			Kew.	
1882	1709	18	.....	1444	
1883	1694	24	.....	1476	
1884	1561	8	.....	1311	30

Complete Aspiration.

Sir,—For some years past, there has been much written regarding the use of the aspirator in cases of pleuritic effusion, and the talent displayed on this subject is creditable to the medical profession; but, in using the aspirator, there has been one thing omitted that mars or nearly destroys its utility; I have waited more than two years for some one to find it out, but, strange to say, in vain. The thing is as simple as making an egg stand on its end, when you know it, and the only mystery about it is that no one seems to have thought of it. I have tried partial aspiration as it is usually performed, and find that the pleural cavity refills in a short time; after complete aspiration, it does not. The way it is managed is very safe and simple. I put a broad bandage round the chest that can be laced behind like a corset; then, as I pump the fluid out, I press the ribs in by tightening the bandage. I think, when I do so, it is unnecessary for me to explain that I prevent any internal organ from being displaced (at the same time, keeping them at a proper pressure), and the ribs, by their elasticity, from acting as a suction-pump to cause a reaccumulation of fluid. I allow the bandage to remain on for some days. Anyone who understands the action of a pump and a siphon requires no further explanation. After a certain amount of fluid has escaped, dragging pains set in; tightening the bandage instantly gives relief—alternate aspirating and lacing should be conducted until is removed; then there is likely to be a fit of spasmodic coughing; the patient may spit some frothy mucus tinged with blood, but all such symptoms pass off in a few minntes, and do not return; at least, that has been my experience.

I may add that the needle should be put in at such an angle that, after piercing the costal pleura, the point can be made to touch it again; so that when the pleuræ approach each other, the lung may not be wounded; and when necessary, the pleural cavity should be made antiseptically clean.—I am, etc.,

David Christie, L.R.C.P.Ed., L.F.P.S.Glas., Medical Officer of Rossguill Dispensary.

Carrigart, Co. Donegal.

Percy Downes.—We have no means of forming a judgment.

Small Fees for Hospital Out-Patients.

SIR,—I am not a member of your Association, but I do not think that that fact will prevent your giving me a hearing. Thanks to the kindness of my friend Dr. Henty, I received a circular bearing on the above subject; and although I have no doubt I could have attended the meeting mentioned in the circular, I should have felt some hesitation in speaking at that meeting, as my position would only have been that of a visitor. I therefore venture to address the following letter to you as indicating my feelings on this subject, and the feeling of others who are in the same position as myself, that is, general practitioners.

In the place of the queries at the end of the circular to which I allude, I would propose the following. 1. Will not the extortion of a small sum of money from hospital out-patients tend to deprive the deserving of the benefits now obtainable? 2. Will it not draw away those people who can pay from the general practitioner? 3. Will it not, by rendering the hospital aid unattainable, throw an eleemosynary burden on the general practitioner, which is at present shared by the public in general? 4. Is there not some *tertium quid*, preferable either to the existing state of affairs or to that proposed?

The position at present existing, and of which there are good grounds of complaint, namely, the indiscriminate gratuitous relief afforded at the hospitals, is proposed to be obviated by making all applicants for such relief pay a small sum. Is not this rather going to the opposite extreme?

The out-patient relief may be of comparatively modern growth, but the vigour of that growth indicates that the surrounding circumstances were, and still are, favourable. These surrounding circumstances really are, the existence of a class of people who cannot afford to pay anything for medical relief, and who may be and are far from the condition requisite for obtaining relief from the Poor-law provision. As long as this is administered in England in the manner at present pursued, so long will there be a numerous class of people who would rather die than accept the benefits, so-called, which it offers. They may be improvident, and therefore to a certain extent to blame. But the facts with which we have to deal are that they do exist, that they have been led to expect, and have for a long time obtained, relief from the hospitals. Doubtless this assistance has been abused, that is, claimed gratuitously by those who could afford to pay for it. But charging a small fee will not prevent these people from coming, but will rather tempt more to come; whereas it will drive those who really cannot afford to pay, to seek assistance from the general practitioner either directly, with some *ad misericordiam* plea, in itself almost, if not quite, irresistible; or indirectly, through the introduction of charitable ladies and clergymen, thus throwing on the profession the burden at present borne by the community in general; whilst those patients who can pay, and do at present bring their money to the private practitioners, will be tempted by the grander names on the hospital-staffs, and the fact that they can now obtain the whole benefit of a large hospital by a small payment, to carry their money to the treasuries of these institutions, that is, to diminish *totidem ratione* the income of the general practitioner.

It is not by such means as this that the evil, admitted on all hands, of the present hospital-system can be met. There is no doubt that the system, as originally intended, was good, and that it is still good to a certain extent; but the growth has in some directions become rank, and the pruning scissors are required. This pruning process must be applied by the hospitals themselves; but it must be a pruning, a genuine cutting away of the rank growth. It is not an alteration of the soil that is required, such as is suggested in the proposed scheme. The soil is right enough, but it is the absolute removal of the rank parasitical growth, without the destruction of the genuine growth which underlies it, and whose appearance it mimics. This can only be done by rigidly excluding from the hospitals those who can afford to pay.

In the circular sent round introducing this subject, a means is indicated which seems, at first sight, to show how this can be done, that is, the appointment at each hospital of one or more officers whose duty it shall be to investigate the position and eleemosynary worthiness of each applicant. No patient should be at once turned away from a hospital, but the minimum of relief should be given until they had been found by these officers to be worthy objects of the charity. They should then be entered on the hospital-register, or, on the other hand, told that they would not be allowed to receive assistance from the hospital, according to the report brought in by the officers.

The tendency which is now-a-days showing itself to open hospitals in all ways to paying patients cannot, for the reasons above given, but be regarded with some anxiety by the general practitioner. It seems to him that his day is pretty well extinct. For years past, his hunting grounds have been encroached upon by prescribing druggists on the one hand, and by generally practising consultants on the other; and now he is called upon to drive one more nail into his rapidly finishing coffin, and to consent, not only to see what few patients he may have tempted away by the grand names and the superior advantages of a hospital, but to take upon himself the burden of a charity-tax which has hitherto been fairly divided by other members of the community.

It is easy to raise the cry of the necessity to inculcate providential habits. By all means, let this be done; but, be it done never so well, there will always be the poor with us; and, from one point of view, it is doubtless very pleasant to be able to shift the burden of their support on to somebody else's shoulders; and, although it is hinted, in the circular above alluded to, that the medical members of the hospital-staffs are getting tired of doing their work for nothing, still it is difficult to believe that men such as are found on these staffs are anxious to benefit their own pockets at the expense of their poorer brethren, more particularly when we remember that this work of theirs has always been the noblest boast of a noble profession. Moreover, the eagerness with which applicants for each vacancy on the staffs spring up, shows that the fact of their being unpaid officers is not considered to be so great a hardship.—Yours, etc.,

W. H. KESTEVEN, General Practitioner.

Competition among "Medical Colleges."

Atlanta (Georgia) there is an "Eclectic" College of American Medicine and Surgery, which started in 1839 as the "Southern Botanico-Medical College," and became subsequently the "Reform Medical College." Its professional requirements are reasonable enough; but the dean "cannot vouch for any of the graduates previous to 1882-83, the earlier records having been destroyed by fire, and the late records stolen." The following announcement in the *Eclectic Star*, the organ of the college, is amusing. "The janitor will meet all the day-trains from the first of October, and will have a badge on his hat. He will bring you direct to the college, and will attend to your baggage; will furnish free ride to those who matriculate at this college. Do not be misled. Come, and do not listen to a single drummer until you visit us." There are three other "Medical Colleges" in Georgia.

Lancing the Gums.

SIR,—Having read much correspondence in your valuable paper concerning the use of the above remedy in teething, which has necessarily followed the very excellent and able paper of Mr. Edmund Owen, I should like to add a few words of my own to all that has been said on the matter. I must say that, after reading all the different arguments, I entirely concur in all that Mr. Boyd Joll brings forward regarding dentition; in that it is a purely physiological process, and that there is no need to be always flying for assistance to the gum-lancet. Teething is a natural process; and, if the child be healthy and properly fed, and the sanitary surroundings be good from every point of view, it is free from danger. I quite agree that, during this period, the vascular system of the child is in a more or less excited condition, and that the little patient is more liable to take cold, or to contract a diarrhœa. There is not the slightest doubt that the use of the lancet is, in many cases, a cloak for ignorance and laziness, as has been stated. An infant is brought to a medical man during its dentition-period, and, no matter what ails it, the cause is put down to those dreadful teeth; the gums are lanced, more or less hæmorrhage sets in, and the poor little child shrieks aloud in agony; the parents are more than satisfied, and perhaps the patient dies next day with a mass of indigestible food in its intestines.

During a fairly long hospital-course, I have seen almost every kind of complaint put down by various medical men to teething; namely, syphilis, in all forms; pneumonia, bronchitis, tuberculosis, and skin-eruptions of all kinds. The following case occurred in private only lately.

I was summoned to see a child, aged 14 months (with four teeth), who was said to be dying. He had been ailing off and on for the previous three months, and had been under the care of two other medical men. One said the baby was suffering from his teeth, and lanced the gums, whilst the other thought it was a case of consumption. I carefully examined the chest, and found unmistakable evidence of fluid in the left pleural cavity. Taking a hypodermic syringe, I inserted the nozzle into the chest, near the angle of the scapula, and drew off a syringe-full of pus.

Again, the child of a friend of mind, aged 5 years, was suffering from well marked impetigo about the chest. On inquiry, I heard that their medical man had given it as his opinion that it was simply a "tooth-rash." Being the son of a medical man, I was brought up with a great idea of the importance and necessity of lancing the gums freely in children; but, on attaining my proper use of reason, I soon began to perceive its fallacy.

Three or four years ago, I took the trouble to fill up three books for Dr. Ballard, in his inquiry into the causes of infantile diarrhœa, and, in every report of mine, diarrhœa and convulsions were due to either improper feeding or ignorance in nursing.

Dr. Paramore cites an example of a child constantly crying, refusing its milk, being then seized with convulsions, the latter ceasing on the gums being freely lanced. He does not mention the age of the child, nor whether it had been fed on other food or not. Granted that the child took its maternal milk, possibly the mother may have been out of health, or have had a capricious temper (these states would be quite sufficient to cause convulsions); the child refused the milk (probably this showed good sense on the child's part); convulsions ensued; perhaps, after a short time, the bowels were freely moved, the offending material, if present, being expelled, and the patient recovered. Of course, this is merely supposition on my part. It is sufficient to say that when some medical men have a certain hobby, they stick to it, and nothing will convince them to the contrary.

I may conclude with the statement that I generally keep a gum-lancet in my waistcoat-pocket, and there, I daresay, it will remain, for the only use I make of it, is to cut the end of an occasional cigar.—I am, yours faithfully,

Gravesend. R. J. BRYDEN, M.R.C.S.Eng.

Contrexéville Water.

SIR,—Our attention has been called to an inquiry, page 1219, in the JOURNAL of December 13th, relative to above; and, in reply, we have much pleasure in enclosing a slip from our pamphlet, besides which a short account of it will be found on page 148 of Dr. Tichborne's *Mineral Waters of Europe*, published by Baillière, Tindall, and Cox.—Yours faithfully, INGRAM AND ROYLE.

52 Farringdon Street, E.C.

"Contrexéville (Vosges, France), altitude 1000 feet, is situated a few leagues distant from Epinal, and in the course of next year will be connected by railway with Nancy and Langers, thus being rendered easy of access. The water is useful in diseases of the liver, kidneys, and bladder, gravel, gout, obstructions of the bowels, chlorosis, gastralgia, etc., and for strengthening the digestive organs. It is considered advisable to precede the use of this water by that of a free purgative water, such as Pullna, Friedrichshall, Hunyadi-János, or Birmensdorf, so as to prepare the system for the mineral constituents of this water.

"DOSE.—About a bottle daily, commencing with half a glass to a glassful early in the morning.

"*Analysis according to Debray (1864) of the 'Pavilion,' Spring.*

"1. SOLIDS.	Bicarbonate of lime	0.402	Gr.
	Bicarbonate of magnesia	0.035	,,
	Bicarbonate of iron	0.007	,,
	Bicarbonate of lithia	0.004	,,
	Sulphate of lime	1.163	,,
	Sulphate of soda	0.236	,,
	Sulphate of magnesia	0.030	,,
	Silica	0.015	,,
	Chloride of potassium	0.006[1]	,,
	Chloride of sodium	0.004	,,
	Fluoride of calcium	Traces.	
	Arsenic	Traces.	
		2.304	Gr.
"2. GASES.	Free carbonic acid	0.080	

"[1] The analysis by Dr. Debout D'Estrées (Medical Director, Contrexéville), in December, 1878, agrees with the above, excepting only the proportions of chloride of potassium, which in his analysis showed 0.0163."

Pruritus Ani.

SIR,—In the prescriptions given for this irritating affection, I do not notice one I have found of great service. It is a mixture of the acetate of lead and nitric oxide of mercury ointments, in the proportion of three parts to one.—I am yours truly,

C. R. ILLINGWORTH, M.D.

Vivisection Literature.

To the list of published literature on the subject of Vivisection, at page 109 of last week's JOURNAL, may be added *The Influence of Vivisecton on Human Surgery*, by Mr. Sampson Gamgee; a second edition of which was published by Messrs. J. and A. Churchill in 1882.

The Value of Phosphates.

SIR,—I observe that Mr. Laws has published a letter on the value of phosphates, etc., sent by the rivers into the sea from the large towns.

You will find that Dr. William Budd, in the Address on Medicine delivered at the annual meeting of the British (then Provincial) Medical Association at Northampton in 1844, anticipated Mr. Laws. I heard his remarks. Dr. Budd's address was printed in the *Transactions* of the Association. It seems to me that it would be desirable, in the interests of the profession, to claim this priority.—Yours faithfully,

SAMUEL CROMPTON.

Cranleigh, Guildford.

Coleridge and Opium.

SIR,—I am much obliged to Mr. Image for noticing my query, but his reply, in the JOURNAL of December 27th, does not meet it. I asked (December 13th) for information from those who "had seen large doses administered." Mr. Image's remembrance is of what he heard in his boyhood. Did his father personally ascertain the truth of the old woman's story? She may have told lies about her laudanum. It is an expensive drug, and a gallon a week is more than a pint a day; a costly indulgence for an old gin-drinker.—Your obedient servant,

D.

Himrod's Asthma-cure.

SIR,—If H. E. T. will refer to Martindale's *Extra Pharmacopœia*, page 223, he will find a formula resembling that for Himrod's cure. In the JOURNAL, for last September, page 465, I published a formula for a powder which I have found very efficacious in asthma.—I remain, yours, etc.,

W. H. BEVERLEY, L.R.C.P.Lond.

Scarborough.

Varicose Vfins.

SIR,—I have under my care a robust young man, aged about 30, who, after walking a short distance, complains of a tired feeling, from the knees down, hardly amounting to pain. On examination, I find, apparently, a varicose condition of the veins under the integument, and little hard pellets seemingly in these veins. The hardness is in some instances about half an inch in length. Treatment has been unsuccessful, so I will feel much obliged for any hints I may receive: and am, yours truly,

POTASH.

DR. ATKINSON (Pontefract).—We should need to see the apparatus, and have it tested, before passing an opinion on its value.

School for Adult Blind.

SIR,—Will some of your correspondents kindly inform me if there is any school for the blind to which young adults may be admitted without subscribers' votes, and at no very great expense? It is not at all uncommon for me to meet blind people, healthy in all respects except as to their eyes, condemned to lifelong pauperism because of their blindness; and I am anxious to learn the best means of obtaining for them tuition, by which they may earn a living.—I am, sir, yours faithfully,

JAMES RYLEY, M.D.

Great Yarmouth.

JUNIOR PRACTITIONER.—It is not safe to pass from attending a case of scarlatina to the lying-in room. Before undertaking a case of labour, the practitioner should have his clothes disinfected by heat, or change them entirely, and expose himself freely to the open air. Much may also be done to limit the source of infection, by care in the room and house occupied by the scarlatina patient.

Errata.

IN Dr. H. T. Wharton's letter in the JOURNAL of December 27th, p. 1320, *for* "partitior genitior," *read* "partitive genitive." In the same number, at page 1286, col. ii, line 9, *for* "Lund," *read* "Lunn;" and at page 1292, col. i, lines 4 and 5, *for* "Woolridge," *read* "Wooldridge."

Nævus on Lip and Gums.

DR. L. W. MARSHALL (Nottingham) writes:—Mr. Wilkins would probably find electrolysis the most suitable means for treating his case. I have found large nævi on the eyelids do admirably when treated in this way; as also have several on the lips when affecting both surfaces.

A Remedy for Street-noises.

SIR,—Owing to illness and long residence in tropical climates, I, some years ago, became morbidly sensitive to noises of every kind, and procured complete relief in the following way.

I placed some spermaceti-ointment in the centre of a little square of thin limp cotton, brought the corners together, tied them with thread, and inserted one of the little plugs well into each ear, and found—after a little kneading and gentle pressure—that I was absolutely deaf to all ordinary noises, such as the loud barking of dogs, and the rumbling of heavy carriages in the streets.

A couple of points must be carefully attended to. The ointment must not be too soft, the quantity about the size of a small pea, and the little bag must be somewhat larger than its contents, to allow the plug to take the shape of the auditory canal. If the bag be too small, or its contents too large, it cannot be inserted into the ear, and if applied only to the orifice, it entirely fails in its object.

This little experiment is easily tried, and a daily experience of over twelve months warrants me in saying that it will be found invaluable in the sick-room.—Your obedient servant,

M.D.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. D. Powell, London; Mr. W. R. Clark, London; Mr. W. P. Colman, Brighton; The Secretary of the Royal Medical and Chirurgical Society, London; The Secretary of the Pathological Society, London; The Secretary of the Clinical Society, London; Mr. G. C. Karop, London; The Secretaries of the Mahomed Fund, London; Dr. Styrap, Shrewsbury; Our Dublin Correspondent; Our Edinburgh Correspondent; Mr. J. Clerk, Maryhill; Mr. R. E. A. Bolton, London; Dr. F. W. Barry, London; Dr. W. Kidd, Dublin; Dr. James Allan, Leeds; Mr. G. T. Broatch, Beverley; Our Glasgow Correspondent; Mr. F. Dodgson, Cockermouth; Mr. H. Lewis Jones, Chatham; Mr. W. Hardin, West Drayton; Dr. Matthews, Waterloo; Dr. Markham Skerritt, Bristol; Sir Edmund Lechmere, London; Dr. B. H. Allen, Hastings; Mr. A. Jackson, Sheffield; Dr. Eames, Kearsley; Mr. Shirley Murphy, London; Mr. James Wilson, Govan; Mr. William Fearnley, London; Our Manchester Correspondent; Dr. Joseph Rogers, London; Our Birmingham Correspondent; Mr. A. A. Bowlby, London; Dr. J. W. Moore, Dublin; Mr. T. F. Tannahill, Wakefield; Mr. R. D. Mothersole, London; Mr. H. M. Baylis, Southport; Surgeon H. L. Donovan, Newbridge, Kildare; Mr. J. Hussey M. Williams, Southport; Mr. E. Thomson, Kegworth; Surgeon-Major Boileau, Allahabad; Mr. Price Jones, Llangollen; Dr. Edwin Hollings, London; Mr. Timothy Holmes, London; Mr. James Startin, London; Dr. Tayler, Anerley; Mr. S. C. Dean, London; Mr. E. Lee, London; Mr. W. H. Platt, London; The Honorary Secretary of the Liverpool Medical Institution; Mr. T. J. Dyke, Merthyr Tydfil; Mr. W. B. Wall, Pembroke; Mr. F. S. Goulder, Dudley; Dr. Thomas Savage, Birmingham; Dr. Willoughby, London; Dr. Stevenson, London; Mr. E. J. Knott, Southsea; Mr. J. Fox, London; Dr. Browne, Belfast; Dr. C. R. Illingworth, Clayton-le-Moors; Mr. Bernard Dyer, London; Dr. J. H. Parkinson, Sacramento, California; Dr. Frank, Cannes; Mr. F. C. Carr-Gomm, London; Mr. W. Dunnett Spanton, Hanley; Dr. T. M. Dolan, Halifax; Mr. C. G. Wheelhouse, Leeds; Mr. G. Stillingfleet Johnson, London; Dr. E. Firth, Norwich; Dr. G. W. Balfour, Edinburgh; Dr. Danford Thomas, London; Mr. R. Carter, Bath; Dr. Dingley, Wolverhampton; Mr. Nunn, London; Mr. Lawson Tait, Birmingham; Mr. C. H. Keep, Isleworth; Mr. J. F. Briscoe, London; Mr. James Kelland, Salisbury: Dr. Dabbs, Shanklin, Isle of Wight; Mr. Malcolm Morris, London; Mr. D. Macleod, Ramsbottom; Dr. Walter Gripper, Wallington; Mr. A. G. Jeans, Liverpool; Mr. Howard J. Chaldecott, Dorking; Mr. W. E. Green, Sandown; Dr. Neale, London; Mr. A. E. Ferns, Stockport; A. H., Jersey; The Honorary Secretary of the Society of Cyclists; Dr. Mac Munn, Wolverhampton; Dr. A. T. Brett, Watford; Dr. Atkinson, Surbiton; Mr. W. E. Williams, Abertillery; Mr. H. L. de Caux, Upper Gornal; Mr. E. A. Wright, Huddersfield; Mr. S. Best, Cheltenham; Dr. Imlach, Liverpool; Dr. Braidwood, Birkenhead; Mr. James Dixon, Dorking; Dr. Fancourt Barnes, London; Mr. W. L. Henwood, Hayward's Heath; Messrs. Oppenheimer Brothers and Company, London; City Engineer, Liverpool; The Secretary of the Society of Arts; Messrs. H. E. and P. Mason, Great Grimsby; Mr. Makuna, Ystrad, Rhondda; Dr. Schofield, London; Mr. G. A. D. Mahon, Woburn; Dr. T. J. Hudson, Leeds; Dr. T. Robinson, London; Mr. R. E. Power, Portsea; Dr. Balthazar Foster, Birmingham, Dr. Collie, Homerton; Dr. James Hudson, Nelson, New Zealand; X. Y. Z.; Mr. Thomas Jones, Manchester; Mr. Hugh R. Ker, Halesowen; Messrs. Atkinson and Philipson, Newcastle-on-Tyne; Quero; Mr. Cecil C. Westropp, Belturbet; Mr. W. Young, London; Messrs. Houghton, Meffler, and Co., Boston, United States; Mr. A. E. Grant, Corstorphine; Dr. C. Creighton, London; Mr. G. Eastes, London; Mr. H. A. Wickers, London; Dr. Sinclair, Dundee; A Member; Mr. J. Spear, Grahamstown; Mr. F. A. Southam, Manchester, etc.

BOOKS, ETC., RECEIVED.

A Dictionary of Medicine by Various Writers. Edited by R. Quain, M.D., F.R.S. London: Longmans, Green, and Co. 1885.

The Retrospect of Medicine. Edited by W. Braithwaite, M.D., and James Braithwaite, M.D. Vol. xc, July to December 1884. London: Simpkin, Marshall, and Co. 1884.

Manual of Chemistry. By R. A. Witthaus. London: Sampson Low and Co.

How to Prolong Life. By C. W. De L. Evans, M.R.C.S.E. London: Baillière, Tindall, and Cox. 1885.

Health-Exhibition Literature; Conference of Education. Vols. xiii, xiv, xv. London: W. Clowes and Son. 1885.

In War-Time. By S. W. Mitchell. Boston: Houghton and Co.

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LETTSOMIAN LECTURES
ON
DISORDERS OF DIGESTION: THEIR CONSEQUENCES AND TREATMENT.

Delivered before the Medical Society of London.

By T. LAUDER BRUNTON, M.D., F.R.C.P., F.R.S.,
Assistant-Physician to St. Bartholomew's Hospital.

Lecture II.

Biliousness and indigestion are terms which we use so frequently together, and which are so intimately connected, that we do not always sufficiently distinguish between them. Yet it may be worth our while to inquire where the one begins and the other ends, and to ascertain, if we can, what the nature of their connection is.

The condition which we term biliousness is, in all probability, of complex origin. Its name points to the liver as its source, while its close connection with disturbances of the stomach might lead us to ascribe a gastric origin to it. The difficulty we have in ascertaining the exact causation of biliousness is no doubt largely due to the fact that disturbance of the liver affects the stomach and intestines, and disturbance of the stomach and intestines affects the liver. Indigestion and biliousness are, therefore, so closely associated in many cases, that we can hardly say where the mischief began unless we can trace it from the commencement, although in other cases we get a clue to the primary origin of the disease by noticing whether the disturbance of function is greater in the stomach or in the liver.

The close connection between the liver, on the one hand, and the stomach and intestines, on the other, is rendered inevitable by the arrangement of the blood-vessels in them. In regard to the liver, on the one hand we see that, with the exception of a small quantity which passes through collateral branches, all the venous blood returning from the stomach and intestines must pass through the liver before it reaches the general circulation. Thus, any products of imperfect digestion are likely to affect the hepatic functions, and not improbably to derange them. On the other hand, any hindrance to the flow of the portal blood through the liver will tend to cause venous congestion in the stomach and intestines. On looking at the liver in a *post mortem* examination, it seems so hard and firm that we are apt to think that it is not capable of much dilatation and contraction in the living body. But this notion is perfectly erroneous. I have made a number of experiments on the artificial circulation of blood through the livers of rabbits, and have been quite astonished to find what an elastic organ the liver is. When the bottle containing the blood was raised two or three feet above the liver, so as to increase the pressure

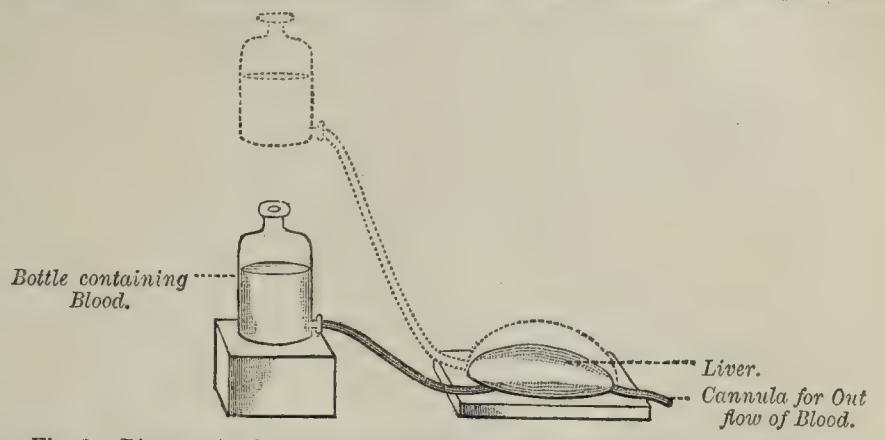


Fig. 2.—Diagram to show the effect of artificial circulation of blood through the liver under different pressures. The continuous lines indicate the size of the liver, and the arrangement of the apparatus during circulation, under a low pressure. The dotted lines indicate the increased size of the liver, and the arrangement of the apparatus, with a high pressure.

under which the blood flowed through it, the organ expanded almost like a sponge, and again contracted when the pressure was diminished. We do not usually notice any very great differences of size in healthy livers; but the reason of this, no doubt, is that the pressure of blood in the portal vein is very low, and not liable to great fluctuations. But there was another point which struck me greatly in my experiments. Sometimes the blood would flow very easily through the liver, would, indeed, pour out from the hepatic vein in a full stream, as if no obstacle whatever had been presented to its flow through the hepatic capillaries. At other times, however, the flow would be slow and scanty, the blood evidently meeting with great resistance in the capillaries. These two conditions were sometimes found in the same liver at different periods of the experiment, and they appeared to depend to a considerable extent upon the quality of the blood which was circulating. Bearing in mind this power of the liver to obstruct the circulation through it, we can readily see how a vicious circle may be formed: indiscretion in eating or drinking disturbs the digestive processes in the stomach and intestines; the products of imperfect digestion or of decomposition in the intestine being absorbed into the veins pass to the liver; they may there induce an obstructed flow through the hepatic capillaries; the venous blood returning from the stomach and intestines will no longer be able to find an easy passage into the general circulation, and venous congestion of the stomach and intestines will be the result. Such venous engorgement as this will interfere with gastric and intestinal digestion, and this again will react upon the liver. Here, then, is a vicious circle which it is necessary to break. It may be broken in two ways: (1) by fasting, so as to allow time for matters to right themselves; or (2) by the use of medicines, as we shall afterwards see.

In order to form a clearer idea, however, of what is actually going on in biliousness, it may be well to take advantage of that fortunate accident by which Dr. Beaumont was enabled to examine the interior of Alexis St. Martin's stomach, and discover what was going on there. Although some authorities have denied that the state of the tongue is any index of the condition of the stomach, this is not borne out by Dr. Beaumont's observations, for he found that the state of the two corresponded pretty closely. A healthy tongue is of a pink colour, it is very slightly rough, and its surface is moist. The mucous membrane of a healthy stomach is of a pale pink colour, it has a slightly rough velvety appearance, and its surface is merely lubricated by a thin layer of mucus. When it is stimulated by the ingestion of food, the vessels dilate, the colour becomes heightened, and the gastric follicles secrete a clear transparent juice, which goes on accumulating, and trickles down the sides of the stomach. From experiments upon

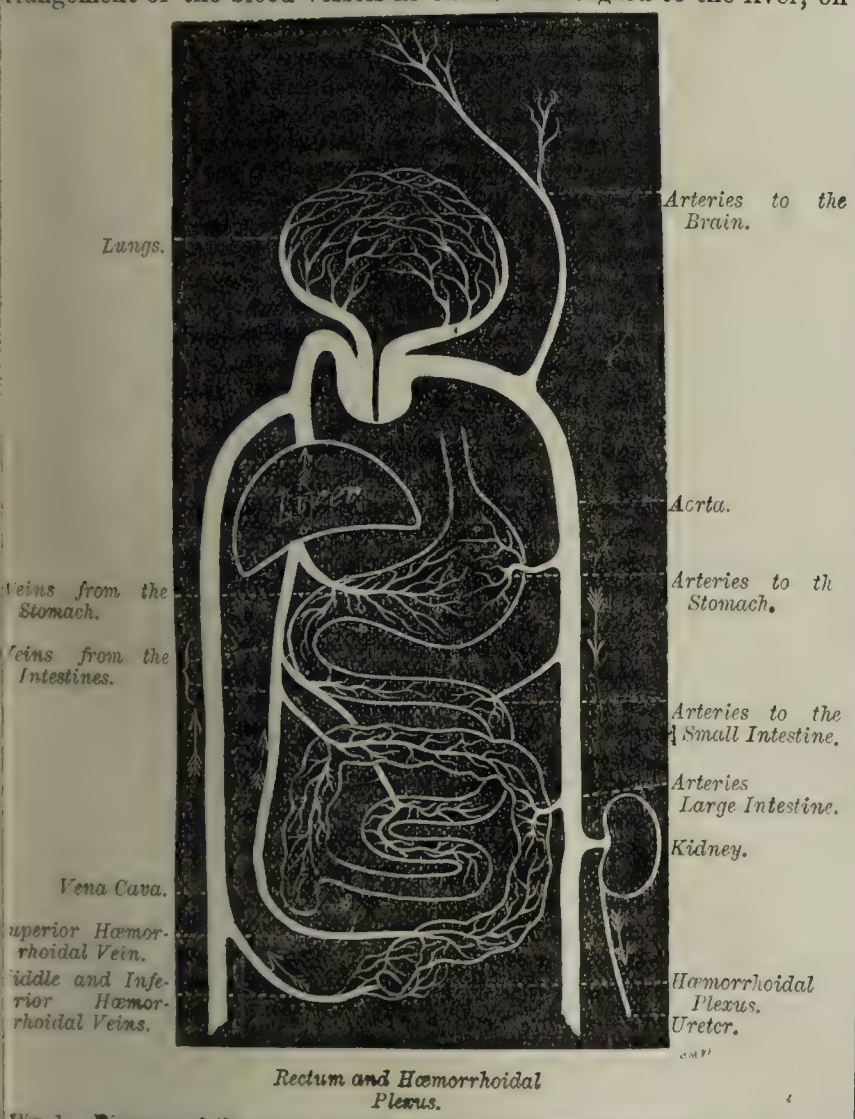


Fig. 1.—Diagram of the veins forming part of the portal circulation. The pancreatic and splenic veins, although most important, have been omitted for the sake of clearness.

animals, we know what changes irritation of the gastric mucous membrane will produce. A slight stimulus, as already mentioned, causes the circulation in the mucous membrane to become increased, and gastric juice to be abundantly secreted. This effect may be produced not only by the ingestion of food, but also, though to a slighter and more limited extent, by gentle rubbing with a glass rod or feather; but if the rod be rubbed roughly instead of gently over the mucous surface, an entirely different result occurs; the vessels, instead of dilating, contract, the stomach becomes paler, and a quantity of mucus is secreted. If irritation be carried still further, the animal shows signs of nausea, and may actually vomit.

In the condition known as biliousness, we find several stages upon which the experiments just mentioned throw considerable light. In the first, the appetite is increased rather than diminished; in the next stage, the appetite fails; and in the further stage, nausea or vomiting occur. Even in the first stage, however, it not unfrequently happens that, though the appetite is craving at first, a few mouthfuls of food are sufficient to satisfy it, and sometimes the appetite disappears merely at the sight of food, and is succeeded by nausea. In this case, it is evident that the increased circulation in the stomach due to the introduction into it of food, or perhaps of the saliva excited by the expectation of food, has caused the condition of the mucous membrane to pass from the first to the second stage.

Let us now see what conditions of the stomach correspond to these symptoms. Dr. Beaumont mentions that on one occasion St. Martin's tongue had a thin whitish fur, and the appetite was craving. On examining the stomach, several red spots and patches abraded of the mucous coat, tender and irritable, appeared spread over the surface. The digestion, too, was slower than usual, and seven hours were required for the gastric digestion of his dinner, instead of four and a half or five hours as usual. In this condition, we cannot say that the liver is involved. The stomach is the only organ affected, and the disturbances of its functions are as yet but slight. Here we may say there is indigestion, but not biliousness.

Two days afterwards, the indigestion had advanced to the second stage. His usual appetite was gone, the tongue was covered with a thin coat, no longer whitish but yellowish, the countenance was sallow, and on the interior of the stomach there were several deep red patches. A muslin bag, which had been introduced with some food in order to test the rapidity of digestion, when drawn out, was covered with a coat of mucus and yellow bile. The sallowness of the face, which had now appeared, may be taken as an indication that the liver had become affected, and that biliousness as well as indigestion was now present.

On the succeeding day, the coats of the stomach were still unhealthy and of deeper red than naturally, with patches of a still deeper colour, and the mucous covering abraded in places. This deep colour indicates venous congestion and stagnation of blood, and is as different from the increased rosiness consequent upon arterial dilatation and rapid circulation in healthy digestion, as the dusky hue in mitral disease is from the rosy flush of healthy exercise. This venous congestion indicates, I think, that the liver is already becoming affected, and that the impeded circulation through it is beginning to tell on the venous radicles of the portal system. At this time the secretion of gastric juice was very scanty, and the digestion slower, as well as less perfect than usual.

In this instance, the indigestion seems to begin in the stomach, and to involve the liver secondarily; but I am inclined to think, although it is difficult to prove, that there are some instances in which the indigestion may begin in the liver, and involve the stomach secondarily. Such cases, I think, are met with amongst persons who suffer from malaria. The malarial poison, whether it be a bacillus or not, appears to have a particular power to affect the liver, spleen, and vaso-motor centres. Under its action, the liver may sometimes swell up enormously, and I am inclined to think that it frequently causes an obstruction to the portal circulation, even when the general circulation is unaffected. In such cases, we may expect to find such symptoms of indigestion as would be likely to occur from venous congestion; and this, I think, is actually the case.

The usual symptoms of indigestion are flatulence, weight in the epigastrium, acidity, and pain; and it may be worth while to try to ascertain the conditions to which each of those symptoms is due.

First of all, let us take flatulence. Flatulence is due to the presence of gas in the stomach and intestines, which sometimes rolls about, producing borborygmi, or escapes upwards or downwards, producing eructations or crepitations. If the pyloric orifice be closed, the gas from the intestine will not escape into the stomach, nor gas from the stomach into the intestine; but if the pylorus be open, gas may pass freely from the stomach into the intestine, and *vice versâ*. An analysis of gas from the stomach shows that it consists to a great extent of nitrogen and carbonic acid, in much the same proportion as the nitrogen and oxygen of air. It is therefore probable that most of the gas in the stomach consists simply of air which has been swallowed, but from which the oxygen has been absorbed into the blood, and has been replaced by a corresponding quantity of carbonic acid. We are very apt to forget that, although the mucous membranes in man are much specialised, so as to perform a particular function most efficiently, yet their power is not entirely limited to the one function. The diffusion of oxygen and carbonic acid just mentioned through the walls of the stomach, shows us that the gastric mucous membrane has, though to a very slight extent, a respiratory action; and it is possible that other gases may be absorbed, though to a slight extent, by the gastro-intestinal mucous membrane. Indeed, I need not say it is probable, because we know for a fact that sulphuretted hydrogen may be absorbed in this manner. Some authors consider that the gastro-intestinal mucous membrane may secrete gas in large quantities. However this may be—and I think that it does not occur very frequently—it is probable that an interference with the absorption of gases may be a not unfrequent cause of flatulence.

In patients who suffer from malaria, attacks of indigestion are sometimes preceded, for two or three days, by a tendency to flatulence, without any other symptom. This may simply be due to disturbance of the stomach and intestines alone; but still I am inclined to think that, in these cases, the disorder begins in the liver, and not in the stomach; the portal circulation becoming obstructed first, and the gastric mucous membrane becoming congested secondarily. After violent exertion, such as quickly running up stairs or trying to catch a train, one may observe that, at the same time that the heart is palpitating rapidly, and the breathing becoming short and difficult, there is a great tendency to flatulence. A similar condition is also found in patients with cardiac disease, and my friend Dr. Mitchell Bruce has called my attention to the frequency with which such patients complain of "heart-wind."

Another source of flatulence is the gas given off from the food in abnormal processes of decomposition. The secretion of gastric juice in the stomach is deficient; the food will not be rapidly digested; the secretion, instead of being acid, is nearly neutral, or perhaps even alkaline; and fermentation may occur with evolution of gas. It is evident, however, that a considerable time is required to allow gas to be formed in any large quantity in the stomach: and flatulence from this cause will not occur until some time after food has been taken. Gas, however, may pass into the stomach from the intestines, and distend it, if the pylorus be open; and such distension may occur at any time of the day or night, and is not necesarily dependent on the decomposition of food in the stomach.

I am inclined to think, however, that the most frequent cause of flatulence in the stomach is excessive swallowing of air. There is little doubt that boluses of food may be swallowed without air; but some fluids, especially those of a tenacious character, such as pea-soup and saliva, appear to carry down a good deal. Moreover, it appears to me that, when a small quantity of saliva is swallowed at a time, it does not completely fill the pharyngeal cavity; and that air is actually swallowed along with it. This does not matter—probably it is even beneficial—if it be not carried on to too great an extent. But we can easily see that, if a person go on swallowing air after a meal is over, or in the intervals between meals, flatulent distension of the stomach may readily be produced. The conditions which give rise to frequent swallowing of air, so far as my observation goes, are—(1) a continued flow of saliva into the mouth; (2) a sense of irritation or tickling at the back of the throat; (3) a feeling of acidity in the stomach; and (4) a feeling of weight or oppression at the epigastrium or across the chest. I mentioned before that stimulation of the stomach produced reflex secretion of saliva; and, if the mucous membrane be irritable, the secretion of saliva may go on long after it ought to cease, and give rise to frequent swallowing and accumulation of air.

Acidity in the stomach causes frequent swallowing, perhaps because the feeling is momentarily relieved by the alkaline saliva as it passes from the œsophagus into the stomach. A feeling of oppression or constriction across the chest, like a huge iron hand clutching it, is due to irritation of the vagus, as we know from Czermak's experiments. He had an exostosis on one of his cervical vertebræ, and, by compressing the vagus nerve between his finger and this exostosis, he could stimulate it so strongly as to stop his heart. Such stimulation produced also a feeling of constriction, or, as it is well called by the Germans, of *Beklemmung*. But irritation of the vagus can be produced in other ways than by compressing its trunk. Depressing emotions, such as sorrow, appear to act on the nerve-centre in the medulla, from which

the vagus springs, and it may be stimulated reflexly from many parts of the body, and notably from the stomach. As Kronecker has shown that its action over the heart is temporarily abolished by the act of swallowing, we would naturally expect that any one suffering from the feeling of thoracic oppression or constriction due to irritation of the vagus would swallow frequently, in order to obtain relief. This appears to take place when the irritation of the vagus, and consequent oppression, are caused by grief, so that it has come to be popularly expressed in the phrase "swallowed his grief." So far as my observation goes, frequent swallowing also occurs in cases where thoracic oppression seemed to me to be due to reflex irritation of the vagus from the stomach.

Flatulent distension of the intestines may also be produced by excessive swallowing of air, and provided the pylorus be open, so that the air can pass through it, either temporarily, as when the contents of the stomach are passing out, or permanently, as in pyloric dilatation or paralysis. The enormous distension of the bowels in hysterical cases, and the rapidity with which it occurs, has often been a puzzle to medical men, and has led some to think that the only possible explanation is a rapid evolution of gas from the blood. From the observations of Ebstein and Zeckendorf (*Pathogenese der Bauchtympanie*, Inaug. Diss.; Gottingen, 1883), however, it seems more probable that the true cause of this enormous dilatation is to be sought in a paralysis of the pylorus, which allows the air to pass freely from the stomach into the intestines.

But whilst the air which has been swallowed is probably the chief agent in the production of gastric flatulence, the gases formed by decomposition in the intestine constitute the chief factor in cases of intestinal flatulence. They are found, on chemical examination, to consist of nitrogen, but in smaller proportion than in the gas of the stomach, of hydrogen, of marsh-gas, and of carbonic acid; sometimes, also, there is a certain quantity of sulphuretted hydrogen. Some kinds of food are extremely apt to give rise to flatulence, and an analysis by Kolbe and Ruge[1] of the gases passed *per anum* by a man after different kinds of food, seems to show that it is the formation of marsh-gas which chiefly gives rise to the flatulence. The proportion of marsh-gas in their analyses amounted to a mere trace only, on milk-diet; to 27.5 per cent. on a flesh-diet; but it rose to no less than 55.9 when peas had been used as food. Marsh-gas can only be formed in the absence of air, and so it is not produced in the stomach.

It is sometimes, however, passed in eructations. C. Anton Ewald Reichert und Du Bois-Reymond's *Archiv*, 1874, p. 217) had a curious case under his care, in which the patient was astounded to find, on trying to light a cigar, that inflammable gas was issuing from his mouth. Here, however, there can be little doubt that the marsh gas was formed in the intestines, and passed through the open pyloric and cardiac orifices into the mouth.

Sulphuretted hydrogen is a product of the decomposition of albumen, and its odour is well known as that of rotten eggs. It is usually found in mere traces, if at all, in the intestine, and sometimes may occur in such quantity as to make the eructations very unpleasant, not only to the patient himself, but to his friends. When such eructations occur persistently, they are generally indicative of serious organic disease.

Another symptom of indigestion is acidity, and this is not unfrequently combined with flatulence. In some cases, as in that curious one of Ewald which I have mentioned, it may alternate with flatulence. As his patient expressed it, "sometimes he had within him a vinegar-manufactory, and at other times a gas-work." The difference between these two conditions probably depended on the nature of the fermentation which was going on. As I have said, however, they are frequently associated, and I am inclined to think that a feeling of acidity frequently gives rise to flatulence, because the irritation which it causes in the stomach leads to frequent swallowing of saliva and air. I have said purposely "a feeling" of acidity, because all cases of acidity do not depend, as is often imagined, on an increased proportion of acid in the contents of the stomach, but upon increased sensitiveness of the stomach or œsophagus, or upon some abnormal condition of the cardiac orifice, which allows the contents of the stomach to come more persistently into contact with the œsophageal mucous membrane than they ought to do. The œsophagus is much more sensitive than the stomach, as anyone of you can easily discover for himself. If you will only swallow a bit of hot potato, you will be able to trace its progress right down the œsophagus to the pit of the stomach, and you will be able to ascertain precisely where your cardiac orifice is situated, because at that point the burning heat of the potato ceases to be felt as it drops into the stomach. Now this very point where the hot potato ceases to be felt, is the point where the feeling of acidity and heartburn are felt most strongly. A feeling of acidity coming on immediately, or very shortly, after a meal, is usually ascribed to increased proportion of acid in the gastric juice secreted by the stomach; while acidity coming on an hour or more after meals, is usually attributed to the formation of acid from the food by decomposition or fermentation.

There is no doubt that sometimes the contents of the stomach do become strongly acid from fermentation; and the matters vomited will not only burn the throat, but will set the teeth completely on edge, just as drinking a mineral acid would do. The secretion of gastric juice containing an excessive proportion of acid is, however, by no means proven.

It is quite possible that the stomach might secrete an excessively acid juice, but Dr. McNaught (*Medical Chronicle*, January, 1885, p. 330) has shown in a recent paper that, although heartburn and acidity were present to an extreme degree in his patients suffering from irritative dyspepsia, in no case was the acidity above the normal. The same thing has been observed by Professor Talma of Utrecht (*Zeitschrift für Klin. Med.*, Band viii, p. 414), who has shown that the feeling of acidity may be a feeling, and nothing more, by putting into the stomach of persons who suffer from it an artificial gastric juice containing only the normal proportion of hydrochloric acid, a proportion so small that, as is well known, it hardly gives an acid taste to the healthy tongue, much less excites any feeling of pain. In these persons, however, this dilute acid caused a feeling of acidity and pain. It is evident, then, that the feeling of acidity in cases of nervous or irritable dyspepsia, which is often great and very painful, which is usually associated with a clean tongue, and often occurs in gouty patients, is dependent upon hyperæsthetic conditions of the mucous membranes, and not upon excessive secretion of acid by the stomach. At the same time, we must bear in mind that there are other cases in which acidity is due, not to hyperæsthesia of the mucous membranes, but to increased formation of acid by the decomposition of food.

The stomach is much less sensitive than the œsophagus, and usually irritation of the mucous membrane in the body of the viscus gives rise to a feeling of weight rather than of pain. This fact seems to indicate that the pain of heartburn is due to irritation of the cardiat end of the œsophagus, rather than of the stomach itself. It not only occurs just at the spot where a hot potato ceases to cause discomfort on its way downwards, but occasionally heartburn may be brought on by certain positions, and relieved by others. Thus, it sometimes happens, that the contents of the stomach cause an acrid burning feeling in the epigastrium when the person is lying down, and especially lying on the back, but the feeling disappears when the upright position is assumed. It sometimes happens, also, that a little escape of flatulence from the stomach will cause the burning feeling to travel up the œsophagus.

Frequently, however, an escape of wind gives relief. It is difficult to determine, with certainty, the cause of this relief; but I am inclined to think that distension of the stomach by flatulence may tend to pull the edges of the cardiac end of the œsophagus apart, and thus expose the sensitive mucous membrane to the action of the acid contents of the stomach. When the distension is relieved, the cardiac end of the œsophagus will close more completely, and thus protect the sensitive surface of the œsophageal mucous membrane.

The stomach itself rarely contracts with such violence as to give rise to pain like that of colic, but it appears sometimes to do so, and then the pain is excessive. The intestines are much more liable to spasmodic contraction, giving rise to the pain of colic.

Another consequence of indigestion, or, perhaps, rather I ought to say, of biliousness, is the occurrence of piles, which consist, to a great extent, of dilated hæmorrhoidal veins; and here, again, it is of great importance to remember that the blood from the intestines, as well as from the stomach, has to pass through the liver on its way to the general circulation. No doubt some of the blood may return from the rectum by the middle and inferior hæmorrhoidal veins, without passing through the liver; yet so much is returned through the portal vein, that any interference with the circulation through the liver will tell upon the veins of the rectum, as well as those of the other abdominal viscera. In the fact, however, that part of the blood returns from the rectum, without passing through the liver, we see a new proof of the important function which the liver exercises in preventing the entrance of poisons into the general circulation. I have already mentioned that the liver has the power of excreting with the bile the poisons which have been absorbed by the portal blood, and also of destroying, to a certain extent, vegetable or animal poisons which are circulating through it. We would, therefore, expect that some of the

[1] Quoted by Landois. *Text-book of Human Physiology*. Translated by Stirling, p. 372.

vegetable alkaloids injected into the rectum would prove more fatal than when taken by the mouth, as they would be able to pass by the lower hæmorrhoidal veins into the general circulation without passing through the liver. This actually appears to be the case, for Mr. Savory has shown that strychnine is more poisonous when administered by the rectum than when given by the mouth.

While a retarded circulation through the liver may give rise to discomfort, and even pain, by causing congestion of the stomach and intestines, or by giving rise to piles, it is not without its advantages to the organism; for it is in the portal blood and in the liver itself that the process of building up the smaller molecules of peptones and of sugar into the larger ones of globulines and glycogen takes place. If these products of digestion be absorbed in large quantity, and pass too rapidly through the liver, so that they reach the general circulation without undergoing sufficient elaboration, they will either prove injurious to the organism or be excreted as waste products, or both. Indeed, we find this to be the case, for we frequently meet with affections of the respiration, circulation, and nervous system, which actually seem to be due to a kind of poisoning by products formed, either in the intestinal canal itself, or in the blood; and we also meet with cases in which sugar, peptones, and albumen are excreted by the kidneys, instead of being applied to the repair of the tissues. I have elsewhere insisted strongly on the distinction which is to be drawn between glycosuria from the mere presence of sugar in the urine and the disease diabetes. (Article on Diabetes, Reynolds' *System of Medicine*, vol. v.) Simple glycosuria may occur in perfectly healthy persons, and, indeed, is much more frequent than people generally believe. If you will examine the urine of several healthy persons a couple of hours after breakfast, it is highly probable that you will find distinct evidence of sugar; for breakfast is a meal at which a much larger proportion of bread is eaten than at other meals, and at which, not unfrequently, a good deal of sugar is taken along with tea or coffee. But glycosuria depending on digestion is a transitory condition, whereas the glycosuria of diabetes is permanent. That glycosuria occurring during the process of digestion and absorption, is due either to some alteration in the circulation in the liver, or else to the absence from the portal blood of bodies which will build up the sugar into larger molecules, appears to be shown by an observation of Lehmann. He found that sugar, injected into the mesenteric veins of a rabbit, during digestion, did not appear in the urine, although the same quantity, injected in the same way into a fasting animal, would produce glycosuria. (Lehmann, *Akadem. Proefschr.*, Amsterdam, 1873.)

Within the last few years, the occurrence of temporary albuminuria has been shown to be much more frequent than was previously suspected. In some statistics of life-insurance drawn up in New York,[2] one out of every eleven healthy persons who applied for life-assurance was found to present traces of albumen in the urine. Some experiments made by Leube (Salkowski und Leube, *Lehre vom Harn*, p. 369) on 119 soldiers showed that in 4 per cent. the morning urine contained albumen, and albuminuria occurred in no less than 16 per cent. after a severe march. The proportion found by the American insurance-office is intermediate between the two values found by Leube. It is, I think, considerably higher than what one is accustomed to find in examination of persons proposing for life-assurance in London, but nearly corresponds to the proportion of cases of temporary albuminuria (12 per cent.) found by Parkes (*On Urine*, p. 187) in hospital-patients.

The prognostic importance of albuminuria is very great, not only in regard to the question of life-assurance, but in regard also to the dietetic and hygienic treatment of the individual. If we were to assume that because albumen is present in the urine the individual is suffering from serious disease, we should fall into as grave an error as if we were to suppose that every patient whose urine contained sugar was necessarily suffering from diabetes.

As Dr. Warburton Begbie says, "it is surely a satisfactory consideration that a condition of excessive albuminuria—the urine becoming nearly solid on the application of heat and nitric acid—may, after all, not indicate the existence of any structural change in the kidney."[3]

In my first lecture, I insisted, at some length, upon the probable difference in the size of molecules, and mentioned that, whilst small ones diffuse through animal membranes, large ones will not. In the process of digestion, large albuminous molecules are split up into smaller ones, which become absorbed and then undergo reconstruction, being built up again in the portal blood, in the liver, and in the tissues, into larger molecules. The albuminous substances of the blood appear to consist of such large molecules that they will not diffuse through the glomeruli of a healthy kidney, but the products of digestion—peptones and hæmialbumose—will diffuse through the glomeruli, and pass into the urine, producing peptonuria or hemialbuminosuria. It would appear also that white of egg has a smaller molecule than serum-albumen; for white of egg, injected under the skin, appears again in the urine, giving rise to pseudo-albuminuria, while serum of blood, or a solution of serum-albumen, injected in a similar way, causes no albuminuria. White of egg, when swallowed, does not usually pass into the urine as it does when injected subcutaneously, because it undergoes digestion in the intestinal canal, and is again built up after absorption into larger molecules. If taken in large quantity, however, a sufficient quantity of it will be absorbed unchanged to pass out through the kidneys and appear in the urine. I have tried the experiment by swallowing six eggs in succession. This quantity was insufficient to produce albuminuria, but it brought on such a violent headache and sickness, that I was deterred from ever making the attempt again. My friend, Dr. D'Arcy Power, who was making the experiment at the same time, succeeded in taking a sufficient number to produce albuminuria. Coagulated albuminous bodies, such as boiled eggs or cooked meat, cannot be absorbed without being previously digested, and so are much less likely than raw eggs to produce albuminuria, even when taken in very large quantities. But, as I have already mentioned, the products of imperfect digestion, such as hemialbumose, behave in much the same way as egg-albumen, and may give rise to a form of albuminuria. Both egg-albumen and serum-albumen, when present in the urine, will cause a cloud on boiling, or on the addition of nitric acid; and yet it is obvious that the prognostic importance of the cloud, due to a dozen eggs swallowed one after the other, will be very different from that of one due to degeneration of the kidney. It is, therefore, of great importance that we should distinguish between the different kinds of albumen present in the urine. This can be done, to a certain extent, by noting the point of coagulation, which is usually lower in the case of serum-albumen than it is in that of other albuminous substances.

Time, however, will not allow me to enter further on this subject at present, and I have already discussed it elsewhere.[4] But while the mere occurrence of a little albumen once or twice in the urine is not to be regarded as of necessarily fatal import, it is not to be lightly passed over as a thing of no importance, even although the albumen should prove not to be serum-albumen, but only hemialbumose. Clinical experience had indicated a connection between long continued digestive disturbance and organic disease of the kidneys, and this was experimentally demonstrated by Stokvis, who found that hemialbumose injected under the skin once or twice will pass out through the kidneys without doing them any apparent injury, but if the injections be frequently repeated, the hemialbumose, in passing through the kidneys, appears to excite in them organic disease.

Another disturbance of the urine connected with digestion is oxaluria. When we find oxalate of lime crystals in the urine, we must not at once conclude that the patient is suffering from oxaluria, any more than we must conclude that he is suffering from diabetes, or Bright's disease, because we find sugar or albumen in the urine. It is not the occasional occurrence, but the more or less persistent presence of crystals of oxalate of lime in the urine, that is associated with a peculiar group of symptoms, of which the most prominent perhaps is mental depression. Oxalate of lime present in the food will be absorbed from the intestine, and a considerable proportion of it, at least, will be excreted again in the urine. We may thus expect that oxalate of lime would occur in the urine after stewed rhubarb had been taken for dinner; but there are other kinds of food which do not contain oxalate of lime, or only contain it in very small quantity, and yet give rise to crystals of oxalic acid in the urine. When I was house-physician to the late Dr. Hughes Bennett, a glass containing the patient's urine was invariably placed at the bedside; and, in going round the ward in the morning, I used frequently to notice in the urine the hummocky mucous cloud, with its sharply defined white top, resembling the woolly clouds in a summer sky, which is characteristic of oxaluria. On inquiry, I found that this appearance next morning almost always resulted from the patient's having had cabbage for dinner. Now, according to Esbach, cabbage is really singularly free from oxalic acid, and the oxaluria which it produced must be ascribed to some other cause than simple excretion of oxalate of lime taken in the food. The true cause, I have little doubt, is digestive disturbance; cabbage being one of those articles of diet which is exceedingly apt also to produce flatulence. We do not know exactly how oxalic acid is formed, either in the intestine or in the body, and any obser-

[2] *Medical Investigations in Life-Insurance*, United States Life-Insurance Company, 261, Broadway, New York.

[3] Albuminuria in Cases of Bronchocele and Exophthalmos, *Edin. Med. Journ.*, April 1874; and Begbie's *Works*, Syd. Soc. Ed., p. 355.

[4] Lauder Brunton and D'Arcy Power, *St. Bartholomew's Hospital Reports*, vol. xiii. 1877, p. 283.

vations regarding oxaluria must be to a considerable extent speculative. Thus, according to some, it is said to be due to the oxidation of uric acid, whilst others say that imperfectly oxidised uric acid splits into oxalic acid and urea. Othere attribute it to incomplete oxidation of sugar, starch, and fat, in the food, or non-nitrogenous fatty acids formed within the body ; while others again say that it is entirely due to the re-excretion of oxalic acid taken in the food, and that no formation of oxalic acid in the body occurs at all. In the midst of these conflicting opinions, it is somewhat difficult to come to any conclusion, but it is worth while for us to note two facts, and see if there be any connection between them. Esbach (*Journal des Connaissances Méd.*, 1883, p. 155), who denies the formation of oxalic acid in the body, points out that if a reducing agent, such as sulphuretted hydrogen, be added to a strong solution of urates, crystals of oxalate of lime are at once produced. The other fact which we have noted is the tendency of cabbage to produce oxaluria, and also to give rise to flatulence, which probably depends, as it does in the case of other vegetables, on the production of hydrogen or marsh-gas. Most plants of the order *Cruciferæ*, to which cabbage belongs, contain sulphur in unusual quantity, and it is possible that this may give rise to sulphuretted hydrogen or sulphides, which will act as a reducing agent, and tend to reproduce in the body the experiment which Esbach performed in a test-tube.

In cases of imperfect digestion, not only are substances that ought to be used for the nutrition of the body excreted as waste, but products of the digestive process may act as poisons to various parts of the organism, and produce serious symptoms.

A common symptom of dyspepsia is shortness of breath, but in many instances this is merely of physical origin, the distended stomach pressing the diaphragm upwards, and interfering with the expansion of the lungs. There may be shortness of breath, also, which is of cardiac origin, the circulation being affected by the digestion in a manner which we will presently discuss. In addition to these different kinds of shortness of breath, however, we meet with actual asthmatic conditions, in which the entrance of air into the lungs appears to be prevented by contraction of the involuntary muscular fibres surrounding the bronchi. The pathology of asthma is too little understood to enable us to decide whether the bronchial muscles are made to contract by abnormal substances circulating in the blood, and irritating either the muscular fibres or their nerves, or whether the contraction is reflex, and is excited by a congested condition of the mucous membrane lining the respiratory passages.

Cough is another condition frequently associated with indigestion—so frequently, indeed, that a kind of cough has come to be known as "stomach-cough." This popular name, though perhaps not scientifically correct, yet conveys a true impression. Reflex acts are generally adopted for a purpose. Cough is fitted to expel irritating substances from the respiratory, and vomiting from the digestive, passages. Irritation of the stomach will not of itself produce reflex coughing ; the act corresponding to it is vomiting. Irritation of the respiratory passages, on the other hand, produces reflex coughing, and not vomiting. Nevertheless, it so happens that the action of an irritant, either in the digestive or in the pulmonary tract, may be aided by irritation elsewhere ; and thus it happens that, when there is congestion of the pharynx and the other parts of the trachea, which is not in itself sufficient to produce coughing, the presence of any irritant in the stomach will assist this irritation in the respiratory passages, and coughing will occur. Thus I have observed a paroxysm of coughing coincident with acidity in the stomach, in a case where the fauces were much congested ; and possibly also (although I did not make a laryngoscopic examination) the larynx and trachea may also have participated. This irritation was not in itself sufficient to cause coughing, but the additional irritation of the acidity in the stomach at once excited cough ; and when the irritation was removed from the stomach by a dose of bicarbonate of soda, which neutralised the acid, the cough at once ceased. Now it is just at the pharynx—at the place where the respiratory and digestive tracts cross one another—that irritation is most likely to give rise both to coughing and to vomiting ; and this point, as we might readily expect, is one which is very readily affected by digestive disorders. I saw a very instructive case of cough some time ago. A gentleman suffered from cough, which gave him a good deal of trouble ; the back of his pharynx was congested, and I ordered him a gargle. He used this for some time without benefit, and then, for some reason or another, somebody gave him several blue pills, and the cough disappeared.

The heart is very liable to be affected by digestive disturbance, and, like the lungs, it may be affected mechanically ; for there is nothing between the heart and the stomach but the diaphragm ; and when the stomach becomes distended with gas, it may interfere with the action of the heart, and give rise to functional disturbance. This may evidence itself in faintness, the shortness of breath which I have already mentioned, and intermittent pulse. The intermittent pulse, however, as well as the faintness, may be produced reflexly through the nervous system, instead of merely mechanically. Sensory nerves run from the stomach to the medulla oblongata, and, through these fibres, the heart may be reflexly affected. The resulting effects may differ according to the kind and amount of irritation ; sometimes palpitation being produced from an affection of the acceleratory fibres, and sometimes slow or intermittent pulse by an affection of the inhibitory nerves. It is quite possible that, in addition to the effect produced upon the heart directly and reflexly by the stomach, both the heart itself and the vessels may be influenced by substances absorbed from the intestine into the general circulation, and carried, not only to the heart itself, but to the nerve-centres which regulate both it and the vessels.

We have not as yet, so far as I know, any distinct evidence of alkaloids which have an action on the heart like that of digitalis or other cardiac poisons, being formed in the intestine, and passing from it into the circulation. We know, however, that alkaloids, having an action like muscarine, and having, like it, a powerful action on the heart and vessels, as well as on the intestinal canal, are formed by the decomposition of albuminous substances outside the body ; and, in all probability, similar substances may be occasionally formed in the intestinal canal. It is probable that a microbe is the cause of cholera, but the symptoms occurring in the disease are probably due to the action on the tissues of a poison generated by the microbe, and not of the microbe itself, just as intoxication is due to the alcohol produced by the yeast-plant, and not to the action of the plant itself, on the nervous system and blood.[5]

An interesting question, on which the formation of alkaloids in the intestine may throw some light, is, "What is the cause of sudden death in some gouty patients?" Such a case as the following is by no means rare. A hale old man, of a gouty family, has seemed unusually well, strong, and in good spirits. He eats an unusually hearty dinner, goes to bed, and is found dead next morning. In such a case, *post mortem* examination reveals nothing. The kidneys may be contracted, but the change in them has been of a chronic nature, and gives no clue to the cause of the patient's sudden death, unless it be that contracted kidneys will not excrete so quickly as healthy ones, and if a substance should be absorbed from the intestinal canal capable of acting as a cardiac poison, it will be more likely to cause death in a patient with contracted than in one with healthy kidneys.

But whether alkaloids which affect the heart are formed in the intestine or not, we have evidence that other alkaloids are formed which affect the nervous system very powerfully. In a paper which I wrote some years ago, I pointed out the great resemblance between the symptoms met with in indigestion, and in those in poisoning by curare. When an animal is poisoned with this substance, and the motor nerves begin to be paralysed, the increasing languor and difficulty of movement appear to strike the animal as strange, and it frequently looks at itself as if it were itself puzzling over its unwonted condition. The very same thing may not unfrequently be noted in cases of dyspepsia ; an unwonted languor comes over the patient generally about two hours after a meal, and the patient wonders why his limbs feel heavy, like lead, and why he should have such a disinclination to exercise, either bodily or mental. I may, perhaps, here be allowed to quote from the paper to which I have just referred (Lauder Brunton, Indigestion as a Cause of Nervous Depression, *Practitioner*, October and November, 1880), as the analogy which I then pointed out between the langour occurring in dyspepsia and curare poisoning has since received such a remarkable confirmation, and, indeed, it would appear, from recent researches, to be due in both cases to alkaloidal poisoning.

"The feeling of muscular weakness and lassitude, which I have already had occasion to mention as frequently coming on about two hours after meals, is not uncommonly met with in persons belonging to the upper classes, who are well fed, and have little exercise. It is, perhaps, seen in its most marked form in young women, or girls who have left school, and who, having no definite occupation in life, are indisposed to any exercise, either bodily or mental. I am led to look upon this condition as one of poisoning, both on account of the time of its occurrence, during the absorption of digestive products, and by reason of the peculiar symptoms, namely, a curious weight in the legs and arms, the patient describing them as feeling like lumps of lead. These symptoms so much resemble the effect which would be produced

[5] For a fuller discussion of this subject, *vide* Researches relating to the Pathology and Treatment of Cholera, by Lauder Brunton and Pye-Smith, *Practitioner*, November 1884, *et seq.*

by a poison like curare, that one could hardly help attributing them to the action of a depressant, or paralyser, of motor nerves or centres. The recent researches of Ludwig and Schmidt-Mühlheim render it extremely probable that peptones are the poisonous agents in these cases, and an observation which I have made seems to confirm this conclusion, for I found that the weakness and languor were apparently less after meals consisting of farinaceous food only. My observations, however, are not sufficiently extensive to absolutely convince me that they are entirely absent after meals of this sort, so that, possibly, the poisoning by peptones, although one cause of the languor, is not to be looked upon as the only cause."

At the time when I wrote this (October 1880), alkaloids had not been shown to be formed in the body, and I was inclined to attribute the languor to the poisonous action of peptones ; but now the evidence which we have to prove the presence in the circulation of alkaloids formed in the intestine is just the same as that which we have to show their presence when injected subcutaneously. When curare is injected under the skin of a frog, we know that it has been circulating in the blood, not only because of the effects it has produced upon the motor nerves, but because, if we take a little of the frog's urine, we find that the poison has been excreted by the kidneys, and that the urine will produce symptoms of paralysis when injected under the skin of another frog. Now, Bocci (*Arch. per le Scienze Med.*, vol. vi, No. 22, 1883) has found that, from human urine, an alkaloid can be extracted which has got exactly the same action as curare. This alkaloid has not been shown as yet to be identical with the alkaloid obtained by Brieger (*Bericht der Deutsch Chem. Gesell.*, Band xvi, pp. 1186 and 1405, 1883) from the peptones formed by digestion of fibrin with gastric juice, to which he has given the name of peptotoxin. But, whether these alkaloids be absolutely identical or not in their chemical consitution, they appear to be identical in their action, both acting, like curare, in paralysing the peripheral terminations of motor nerves.

I have already insisted more than once on the function of the liver in arresting and destroying poisons which have been absorbed from the alimentary canal ; and I have already pointed out that excessive bitterness is of the common characteristics of organic alkaloids. Now, there is a curious point about the bile which has, I think, not obtained the attention it deserves. "As bitter as gall" has come to be a household phrase, and we frequently notice that the bile vomited in cases of indigestion is very bitter indeed, so bitter as to be nauseous. But bile is not always bitter, as I once found to my astonishment when making some experiments with digitalis. I had taken nearly half a grain of pure digitalin on each of two consecutive days, and the poison began to produce, as one of its effects, very violent vomiting. During this, I brought up a quantity of matter resembling both in appearance and taste the yolk of a fresh egg, and perfectly destitute of bitterness.[6] Not having eaten any eggs, I could not see what it could be but bile; but I was so strongly impressed with the notion that bile was always bitter, that I did not put it down in my notes definitely as being bile, but only as yellow and liquid, somewhat like the yolk of an egg. The absence of bitterness from freshly secreted bile has also been observed by Mr. W. E. Green, of Sandown, in the case of a biliary fistula ; and I am inclined to think that the bitterness which is supposed to be characteristic of bile does not really depend upon biliary constituents, but upon admixture with some alkaloidal substance derived from digestion. Some years ago, Dr. Bence Jones and Dr. Dupré showed that, in the liver and in other animal organs, an alkaloid was present resembling quinine in many of its reactions; but, for some years past, their observation has fallen out of notice.

It is very curious to observe how views of all sorts seem to turn round and round again, though not quite in a circle, for at each turn they generally have advanced a little. For a long time the liver was regarded as a most important organ, and well it might be, for it is the largest gland in the body ; and yet, for a while, it has sunk into comparative unimportance, its chief function being considered to be the secretion of bile. But to regard the liver in this light, is just about as rational as to think that an Atlantic steamer has been built for the express purpose of throwing out from its sides the two jets which are formed by the waste water from the engines. The condensed steam may be utilised, and so may the bile ; but the condensation of steam is not the main object of an Atlantic steamer, nor is the secretion of bile the chief function of the liver. If we look at the liver, not as a mere secreter of bile, but as the organ in which probably the most important synthetical processes in the body go on, and the small molecules resulting from the digestion of food are built up into the more complex ones required to supply the waste of the various tissues in the body, we shall at once see a good reason for its enormous size, and for the important position which it occupies. If we recollect also its function as a porter to watch over the entrance into the circulation, and prevent the passage of noxious substances from the stomach or intestine, we shall readily understand how a slight disturbance of its function should give rise to such important functional alterations in other organs.

The Greeks showed their wisdom when they placed the seat of Hypochondriasis under the ribs, and when they connected depression of spirits with disorder of liver by giving to it the name of Melancholy. In her *Histoire de ma Vie*, George Sand says on this subject :

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Sydney Smith describes in a very humorous way the connection between dyspepsia and low spirits. He says :[7] "Happiness is not impossible without health, but it is of very difficult attainment. I do not mean by health merely an absence of dangerous complaints, but that the body should be in perfect tune, full of vigour and alacrity. The longer I live the more I am convinced that the apothecary is of more importance than Seneca ; and that half the unhappiness in the world proceeds from little stoppages, from a duct choked up, from food pressing in the wrong place, from a vexed duodenum, or an agitated pylorus. The deception as practised upon human creatures is curious and entertaining. My friend sups late ; he eats some strong soup, then a lobster, then some tart, and he dilutes these esculent varieties with wine. The next day I call upon him. He is going to sell his house in London, and to retire into the country. He is alarmed for his eldest daughter's health. His expenses are hourly increasing, and nothing but a timely retreat can save him from ruin. All this is the lobster ; and when overexcited nature has had time to manage this testaceous incumbrance, the daughter recovers, the finances are in good order, and every rural idea effectually excluded from the mind. In the same manner, old friendships are destroyed by toasted cheese, and hard salted meat has led to suicide. Unpleasant feelings of the body produce corresponding sensations in the mind, and a great scene of wretchedness is sketched out by a morsel of indigestible and misguided food. Of such infinite consequence to happiness is it to study the body." (*A Memoir of the Reverend Sydney Smith*, by Lady Holland, vol. i, p. 125. London. 1855.)

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THE BACILLUS OF TUBERCLE.

A Speech made during the discussion on Dr. Kidd's paper at the Royal Medical and Chirurgical Society, London, on January 13th, 1885.[1]

BY W. WATSON CHEYNE, M.B., F.R.C.S.,
Assistant-Surgeon to King's College Hospital.

I DO not know, Mr. President, that, as regards the distribution of tubercle-bacilli in tubercular lesions, I have much to add to what I have already published, or to what Dr. Kidd has brought forward; but I have brought specimens to show a point as to the exact relation of the bacillus to the tubercular lesion, which, I think, is of consider-able importance. The epithelioid cells of tubercle are now well known, and are always present in the centre of young tubercles. They are readily recognised in specimens stained more especially with methy-lene-blue, by their large, often oval, nuclei, which present a granular appearance, and are more faintly stained with the blue than the nuclei of the inflammatory cells which surround them. Now, I have always found that the bacilli are more intimately connected with these cells than with any other part of the tubercle, lying among them, and very often in them, and generally nowhere else. Further, I have been able to trace development of these cells into giant-cells in a number of instances. This is, perhaps, best seen in the lung, where these epi-thelioid cells are, as far as I can judge, developed in most instances directly from the epithelium of the alveoli, as shown in a specimen under the microscope. Certainly this is the case in phthisis. And there, also, the development of giant-cells from these epithelioid cells is often distinctly traceable, and is further evidenced by the fact that the giant-cells often contain a considerable quantity of carbon. Now, this fact of the relation of the bacilli to these cells is, I think, of great importance in searching for bacilli in the lesions of phthisis. Before looking for bacilli in a section of phthisical tissue, I always search with a low power for a collection of epithelioid cells, or of caseating cells, and then look at that place with a high power. This is of especial importance where fibroid changes are marked, for I have never yet found bacilli among this fibrous tissue, nor would I now expect to find them, on the view which I take of the pathology of phthisis. I believe that one reason why we have difference of opinion as to the presence of bacilli in the so-called fibroid phthisis is that search has been made among the fibrous tissue, and not in the real seat of the disease.

One word about the caseation of tubercles. I must confess that, since I have begun to think of the matter, I have become very sceptical about the view that the centre of a tubercle caseates on account of deficient supply of blood; for, among other reasons, degenerative pro-cesses are often evident even in the very early stage of a tubercle. Now, the elements which first undergo degeneration, are these epithe-lioid cells to which I have just referred. These, again, are the especial seat of the tubercle-bacilli. May not the bacilli have something to do with the degeneration? How do the bacilli act in producing a tubercle? It cannot be merely a mechanical action; I consider it most probably a chemical one. I have here photographs of preparations to which I made reference in my recent paper in the BRITISH MEDICAL JOURNAL on micrococci. Here you see a dark central mass—a mass of micrococci—a clear ring around, and then, beyond, an inflammatory ring. The course of events is clear; the micrococci, growing in mass, have produced a poison which has killed the tissue around, but further away has been more dilute, and has there set up inflammation. I need not enter into the details given in that paper, nor need I refer to several other known instances, where poisonous substances are pro-duced by micro-organisms. Now, I conceive the state of matters in phthisis to be the following; and, of course, the view as to caseation applies to tubercles anywhere. Bacilli are inhaled into the air-cells of a lung which is in a fit state, whether by predisposition, or otherwise for their growth. They at once attack the epithelial cells, and, in the first instance, cause their hypertrophy and multiplication. The bacilli growing in these cells produce poisonous chemical substances and the cell, which, in the first instance, was stimulated to increased growth by a small quantity of the poison, soon succumbs to the in-

[1] As the accounts of my speech in the reports of the meeting are necessarily very short, and are in several points inaccurate, and as Dr. Creighton's criticism is published, I have thought it well to publish my remarks. The present paper may not be absolutely word for word, but it is as nearly as possible what I said.

by a poison like curare, that one could hardly help attributing them to the action of a depressant, or paralyser, of motor nerves or centres. The recent researches of Ludwig and Schmidt-Mühlheim render it extremely probable that peptones are the poisonous agents in these cases, and an observation which I have made seems to confirm this conclusion, for I found that the weakness and languor were apparently less after meals consisting of farinaceous food only. My observations, however, are not sufficiently extensive to absolutely convince me that they are entirely absent after meals of this sort, so that, possibly, the poisoning by peptones, although one cause of the languor, is not to be looked upon as the only cause."

At the time when I wrote this (October 1880), alkaloids had not been shown to be formed in the body, and I was inclined to attribute the languor to the poisonous action of peptones; but now the evidence which we have to prove the presence in the circulation of alkaloids formed in the intestine is just the same as that which we have to show their presence when injected subcutaneously. When curare is injected under the skin of a frog, we know that it has been circulating in the blood, not only because of the effects it has produced upon the motor nerves, but because, if we take a little of the frog's urine, we find that the poison has been excreted by the kidneys, and that the urine will produce symptoms of paralysis when injected under the skin of another frog. Now, Bocci (*Arch. per le Scienze Med.*, vol. vi, No. 22, 1883) has found that, from human urine, an alkaloid can be extracted which has got exactly the same action as curare. This alkaloid has not been shown as yet to be identical with the alkaloid obtained by Brieger (*Bericht der Deutsch Chem. Gesell.*, Band xvi, pp. 1186 and 1405, 1883) from the peptones formed by digestion of fibrin with gastric juice, to which he has given the name of peptotoxin. But, whether these alkaloids be absolutely identical or not in their chemical consitution, they appear to be identical in their action, both acting, like curare, in paralysing the peripheral terminations of motor nerves.

I have already insisted more than once on the function of the liver in arresting and destroying poisons which have been absorbed from the alimentary canal; and I have already pointed out that excessive bitterness is of the common characteristics of organic alkaloids. Now, there is a curious point about the bile which has, I think, not obtained the attention it deserves. "As bitter as gall" has come to be a household phrase, and we frequently notice that the bile vomited in cases of indigestion is very bitter indeed, so bitter as to be nauseous. But bile is not always bitter, as I once found to my astonishment when making some experiments with digitalis. I had taken nearly half a grain of pure digitalin on each of two consecutive days, and the poison began to produce, as one of its effects, very violent vomiting. During this, I brought up a quantity of matter resembling both in appearance and taste the yolk of a fresh egg, and perfectly destitute of bitterness.[6] Not having eaten any eggs, I could not see what it could be but bile; but I was so strongly impressed with the notion that bile was always bitter, that I did not put it down in my notes definitely as being bile, but only as yellow and liquid, somewhat like the yolk of an egg. The absence of bitterness from freshly secreted bile has also been observed by Mr. W. E. Green, of Sandown, in the case of a biliary fistula; and I am inclined to think that the bitterness which is supposed to be characteristic of bile does not really depend upon biliary constituents, but upon admixture with some alkaloidal substance derived from digestion. Some years ago, Dr. Bence Jones and Dr. Dupré showed that, in the liver and in other animal organs, an alkaloid was present resembling quinine in many of its reactions; but, for some years past, their observation has fallen out of notice.

It is very curious to observe how views of all sorts seem to turn round and round again, though not quite in a circle, for at each turn they generally have advanced a little. For a long time the liver was regarded as a most important organ, and well it might be, for it is the largest gland in the body; and yet, for a while, it has sunk into comparative unimportance, its chief function being considered to be the secretion of bile. But to regard the liver in this light, is just about as rational as to think that an Atlantic steamer has been built for the express purpose of throwing out from its sides the two jets which are formed by the waste water from the engines. The condensed steam may be utilised, and so may the bile; but the condensation of steam is not the main object of an Atlantic steamer, nor is the secretion of bile the chief function of the liver. If we look at the liver, not as a mere secreter of bile, but as the organ in which probably the most important synthetical processes in the body go on, and the small molecules resulting from the digestion of food are built up into the more complex ones required to supply the waste of the various tissues in the body, we shall at once see a good reason for its enormous size, and for the important position which it occupies. If we recollect also its function as a porter to watch over the entrance into the circulation, and prevent the passage of noxious substances from the stomach or intestine, we shall readily understand how a slight disturbance of its function should give rise to such important functional alterations in other organs.

The Greeks showed their wisdom when they placed the seat of Hypochondriasis under the ribs, and when they connected depression of spirits with disorder of liver by giving to it the name of Melancholy. In her *Histoire de ma Vie*, George Sand says on this subject:

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Assistant-Surgeon to King's College Hospital.

I do not know, Mr. President, that, as regards the distribution of tubercle-bacilli in tubercular lesions, I have much to add to what I have already published, or to what Dr. Kidd has brought forward; but I have brought specimens to show a point as to the exact relation of the bacillus to the tubercular lesion, which, I think, is of considerable importance. The epithelioid cells of tubercle are now well known, and are always present in the centre of young tubercles. They are readily recognised in specimens stained more especially with methylene-blue, by their large, often oval, nuclei, which present a granular appearance, and are more faintly stained with the blue than the nuclei of the inflammatory cells which surround them. Now, I have always found that the bacilli are more intimately connected with these cells than with any other part of the tubercle, lying among them, and very often in them, and generally nowhere else. Further, I have been able to trace development of these cells into giant-cells in a number of instances. This is, perhaps, best seen in the lung, where these epithelioid cells are, as far as I can judge, developed in most instances directly from the epithelium of the alveoli, as shown in a specimen under the microscope. Certainly this is the case in phthisis. And there, also, the development of giant-cells from these epithelioid cells is often distinctly traceable, and is further evidenced by the fact that the giant-cells often contain a considerable quantity of carbon. Now, this fact of the relation of the bacilli to these cells is, I think, of great importance in searching for bacilli in the lesions of phthisis. Before looking for bacilli in a section of phthisical tissue, I always search with a low power for a collection of epithelioid cells, or of caseating cells, and then look at that place with a high power. This is of especial importance where fibroid changes are marked, for I have never yet found bacilli among this fibrous tissue, nor would I now expect to find them, on the view which I take of the pathology of phthisis. I believe that one reason why we have difference of opinion as to the presence of bacilli in the so-called fibroid phthisis is that search has been made among the fibrous tissue, and not in the real seat of the disease.

One word about the caseation of tubercles. I must confess that, since I have begun to think of the matter, I have become very sceptical about the view that the centre of a tubercle caseates on account of deficient supply of blood; for, among other reasons, degenerative processes are often evident even in the very early stage of a tubercle. Now, the elements which first undergo degeneration, are these epithelioid cells to which I have just referred. These, again, are the especial seat of the tubercle-bacilli. May not the bacilli have something to do with the degeneration? How do the bacilli act in producing a tubercle? It cannot be merely a mechanical action; I consider it most probably a chemical one. I have here photographs of preparations to which I made reference in my recent paper in the British Medical Journal on micrococci. Here you see a dark central mass—a mass of micrococci—a clear ring around, and then, beyond, an inflammatory ring. The course of events is clear; the micrococci, growing in mass, have produced a poison which has killed the tissue around, but further away has been more dilute, and has there set up inflammation. I need not enter into the details given in that paper, nor need I refer to several other known instances, where poisonous substances are produced by micro-organisms. Now, I conceive the state of matters in phthisis to be the following; and, of course, the view as to caseation applies to tubercles anywhere. Bacilli are inhaled into the air-cells of a lung which is in a fit state, whether by predisposition, or otherwise for their growth. They at once attack the epithelial cells, and, in the first instance, cause their hypertrophy and multiplication. The bacilli growing in these cells produce poisonous chemical substances and the cell, which, in the first instance, was stimulated to increased growth by a small quantity of the poison, soon succumbs to the in-

[1] As the accounts of my speech in the reports of the meeting are necessarily very short, and are in several points inaccurate, and as Dr. Creighton's criticism is published, I have thought it well to publish my remarks. The present paper may not be absolutely word for word, but it is as nearly as possible what I said.

creasing amount, and undergoes caseation. Some cells, or groups of cells, are, however, stronger than the others, and go on growing, so as to form giant-cells. These, generally, also ultimately succumb, though in some instances they may get the upper hand, and the bacilli may disappear. While this is going on, inflammation occurs around, and the process creeps from air-cell to air-cell. I believe, also, that this view of the production of a poisonous substance by the bacilli, may explain the fever and wasting of phthisis.[2]

I must now turn to another matter, namely, the speech made by Dr. Creighton at the last meeting of the Society. I regret that I was not present at the meeting, but I have received this printed pamphlet,[3] which, I understand, contains the essence of that speech.

I will not follow Dr. Creighton in the personal mode of argument which he adopts, for I do not think that the elucidation of scientific facts is aided in that way; and as regards the charge of bad faith brought against Dr. Koch, I think Dr. Koch's character for accuracy is sufficiently well established already to require no defence from me. But it will be convenient if I take the most important statements made by Dr. Creighton, as texts for what I have to say. He states that Dr. Koch has departed from the original principle of the method of cultivation on solid media; that the method employed was not calculated to separate the bacilli from the tubercular material, and that, in fact, they were not separated from it; that cultivations in fluid media would have been better for this purpose; and that, if fluids had been used, the organisms would have grown rapidly, and been no longer motionless rod-shaped bacteria.

Now, in the first place, Dr. Koch has not departed in the cultivation of the tubercle-bacillus from the principle of the method of cultivation on solid substrata. The original principle of solid cultivations is this. Given a material containing only one kind of bacterium, the question is, how to cultivate that bacterium pure, and how to continue the cultivations through any number of generations; for, with whatever care the transference from one cultivating material to another is effected, one is always liable to accidental contamination from the air and from surrounding objects. If one be working with fluids, and another bacterium fall in, the two grow together, and the pure cultivation is spoilt. On the contrary, if a solid substratum be used, the bacteria inoculated only grow where they are planted, and the accidental contamination only grows where it falls, and it is perfectly easy to ascertain which of the growths originated from the material introduced, and to inoculate fresh material from a pure part. [Here various cultivations on potatoes and gelatinised meat-infusion were shown.] Now tubercle is just such a case. By the aid of the microscope, one sees that there is only one sort of bacterium generally present in a tubercle. Here it is not a question of separating one bacterium from another, but of getting and carrying on a pure cultivation of a particular kind of bacteria which we know to be present. The original purpose of the solid method was, as I have shown, to get and keep a cultivation pure, and it is for this purpose that it is employed in the cultivation of the tubercle-bacillus; there is no departure whatever from the original principle.

Everyone now knows that the tubercle-bacillus can be distinguished from all other bacilli as yet known by its peculiar reactions with aniline dyes. The object in making cultivations from tubercle, is, in the first instance, to grow organisms from tubercle which will still present the same staining reactions as the bacilli seen in the tissue, and also to see whether any other organisms will develop. For the purpose of cultivating these bacilli, it was soon found necessary to use a material which would remain solid at the body-temperature, and for this reason coagulated blood-serum was introduced. The simplest way of getting pure cultivations of these bacilli is the following. Inoculate a rabbit or guinea-pig, in the back, with tubercular material, and after some weeks (six or eight weeks), when the animal has became tuberculous, kill it, say with chloroform, as I have always done. Have ready a large number of tubes, containing coagulated blood-serum, perhaps twenty which have been kept in an incubator for a sufficient length of time to see that they are sterile. A large number of knives, scissors, and forceps are also at hand. When the animal is dead, tie it out on its back, clip off the hair of the abdomen, and give the surface a thorough soaking with a watery solution of bichloride of mercury (1-1,000). Heat all the instruments in the flame and let them cool. Divide the skin of the abdomen with a pure knife, the muscles and peritoneum with another, pull aside the wound with pure hooks, draw forward say the spleen with heated forceps, clip out a tubercle, or part of a tubercle, with pure scissors, pick it up with a pure platinum needle, pass it rapidly into the tube of coagulated blood-serum, and squeeze it out as much as possible over the surface. This process is repeated with tubercles from other places (one of the best is a tuberculous gland) in the other tubes, and then they are all put in an incubator kept at the temperature of the body. Taken in this way from the abdominal cavity of an animal just killed, there are only tubercle-bacilli in the tubercles, and, supposing the constancy of the organisms, only bacilli presenting the peculiar staining reactions of tubercle-bacilli ought to develop; and this is what actually occurs. In about ten days various spots are seen on the surface of the serum; these gradually increase in size, till in about three weeks there is a quantity of whitish crust-like growths at various parts of the serum. Of course, one or two out of the twenty tubes may show other growths, but it is evident that what occurs in the great majority of tubes is the correct result, and that the others are only the unavoidable errors of the experiments, as indeed is further evident by watching where these growths begin, which in the latter case is not necessarily in connection with the tubercle at all.

Now, in inoculating the second tube, one avoids the tubercle which is still evident on the surface of the serum, and takes the outlying growth. A needle is introduced, and an attempt made to pick up a small piece of the growth. The growth is generally somewhat brittle, and when touched by the needle breaks up into a number of little bits, some of which adhere to the needle, are withdrawn with it, and then thoroughly broken up on the surface of the second tube. Here, of course, the bacilli are more thoroughly distributed over the surface of the serum, and thus a much more luxuriant growth is obtained. In future cultivations, one always touches the growing edge of the crusts, and thus gets the most recently developed bacilli, free undoubtedly, after a tube or two, as I shall immediately point out, from the remains of the tubercular material. [Here various tubes of cultivations of tubercle-bacilli were shown, and also cultivations in flat glasses which were placed under the microscope, and also a tube inoculated in the afternoon, to give an idea of the amount of growth commonly used. Further, a stained specimen, obtained by pressing a cover-glass on the surface of the growth; a number of colonies adhered to the surface of the cover-glass, and were stained by Ehrlich's method.] Now under these microscopes, you can see what has happened. Spreading out from the place of inoculation, you see a series of small curved or S-shaped masses, which consist of tubercle-bacilli lying side by side and closely matted together. A mass of these S-shaped growths closely matted together, forms the crusts which are visible to the naked eye. You will also see that they extend to a considerable distance from the point of inoculation; but I would especially direct your attention to the stained specimen. [Here a cover-glass was pressed down on the surface of the growths, removed, some of the growth adhering to it, and stained by Ehrlich's method.] There you see that all these S-shaped growths are stained red; and you can also see that they are composed of bacilli. But further, you know that, when sputum or tissue are stained in this way, only tubercle-bacilli remain red; everything else comes out blue, but here you see only red stained bacilli; these growths consist only of tubercle-bacilli and of nothing else.

This method of growing in the form of crusts and S-shaped growths is a peculiarity of this bacillus, and is not due to the conditions under which it has been grown. These other tubes will prove this. [Tubes of blood-serum inoculated with the butyric acid bacillus, the typhoid bacillus, the comma-bacillus, and micrococcus tetragenus were also taken to the meeting, and their characteristics pointed out afterwards.][4]

I will now say a few words on the result of attempted cultivation of these organisms in fluids. An attempt is being made in this country to bring forward cultivations in fluids as better than cultivations in solids. Now, for years before Koch published his methods, I had worked with fluid-cultivations, and I had succeeded in devising modes of avoiding error, which seemed to me to render cultivation in fluids more certain than it had ever been before. One may therefore readily conceive my first feeling of disappointment when Koch's methods were published, which, if his statements were correct, rendered my labour almost entirely futile. And one may readily imagine that it was only after very careful and thorough investigation of the respective merits of the two methods, that I became a supporter of the

[2] I have seen it remarked that, in tubercles in which caseation had not occurred, although they had apparently existed for some time, bacilli are comparatively few in number, and I have certainly observed this in several instances. The explanation here probably is, that a sufficient number of bacilli are present to cause the formation of the tubercle, but that the cells are stronger, and prevent luxuriant growth of the bacilli, with the result that too small an amount of the poison is produced to cause the caseation of these cells.

[3] *Dr. Koch's Method of Cultivating the Micro-organisms in Tubercle*, by Charles Creighton, M.D.

[4] With regard to this paragraph, want of time prevented me from alluding this and various other points of interest; but as I showed the tubes after the meeting, I have introduced the paragraph here.

ethod of cultivating on solid media, though, in my paper on abs-sses, I still maintain that fluids have advantages in certain cases. hus, when I came to work at tubercle, one of the first things I did as to work with fluids, thinking that perhaps Dr. Koch had limited mself to cultivating on solids. Indeed, before Koch published on bercle at all, I had already planned out a series of experiments on bercle, in repetition of Schüller's, which would have been begun in rnest in the spring or summer of 1882. But, during the winter of 881, I had made several preliminary experiments by cultivation in uids; I had introduced portions of tubercles from tubercular guinea-gs into various infusions, and kept them at the body-temperature, thout in any case getting any development, thus at once disproving hüller's resnlts. Indeed, anyone who has worked practically at ese matters will see at once where Schüller's errors lie. Since the blication of Koch's paper, I have often inoculated tubercles directly to cultivating fluids, but always with the same negative results; though in some instances, where portions of broken-down cheesy ands were introduced, there was slight development at the bottom the flask; and I have also got slight development where broken-up usts of growth on blood-serum have been introduced into infusions. no case, however, was there any turbidity of the fluid, nor any owth of which use could be made. It is a great pity that Dr. eighton's criticism comes at a time when one is no longer working this subject, and when, for my own part, I had come to regard e causal relation between the bacilli and tuberculosis as settled; had come earlier, I could have shown flasks in support of my statements. But with the fact that these bacilli do not grow in fluids, Dr. eighton's whole argument falls to the ground. It was not possible separate the bacilli from the tubercular material in any other ay than was done, and the question is, was that method sufficiently tisfactory? I maintain that it was. You have seen, in these little ssels, how the bacilli spread away from the tubercular material, nich cannot follow them. When, then, the marginal growths are cked up, it is clear at once that we have got the bacilli free from the bercular material; and if this process be continued through a num-r of successive generations, there can be no possible doubt that the bercular material has been got rid of; and much more certainly got l of than could be the case by the method of fractional cultivation described by Dr. Creighton. Thus, let a flask of meat-infusion be oculated with a crushed tubercle, and let us suppose for one moment at the tubercle-bacilli could develop freely in the fluid. You re-ove a drop of this fluid for inoculation, but in the fluid are floating cilli, and also the *débris* of the tubercular material. Who is to say at you do not take a considerable quantity of tubercular *débris?* id who is to say that, in every successive inoculation, you do not ke *débris?* In the fluid, the bacteria and the tubercular matter ould be floating about together. On the solid, the tubercular matter fixed, while the bacilli spread away from it, and may be removed thout touching the tubercular matter at all. And further, the ained specimens of the growth, to which I have previously alluded, d to which I would earnestly beg your attention, show absolutely at all the tubercular material has been got rid of, and that the owth consists only of tubercle-bacilli; for if any remains of tuber-lar material were present, I know from practical experience that ey would, with this method of staining, have come out blue.[5] And e experiments on animals with these bacilli show definitely that ey are the real virus. Introduce a piece of tubercle and a mass of cilli of equal size into two animals, and the latter will be far ad-nced in tuberculosis before the earliest symptoms are evident in the rmer.

I think, Mr. President, I have said enough to show that the state-ents which I took as texts are each and all erroneous; that Dr. ch, in cultivating the tubercle-bacillus, has not departed from the iginal principle of cultivation on solid media; that the method em-oyed does actually separate the tubercle-bacilli from the tubercular aterial, and is the best mode which can be employed; that fluid edia are unsuitable, because the micro-organisms do not grow, or ow only with difficulty, in it; and that it is not correct to say that, portions of tubercle be introduced into cultivating fluids, bacteria ow rapidly, and are no longer motionless rod-shaped bacilli. All e assertions I have made can be supported by facts, and to-night I ve brought facts before the meeting in support of most of them. should like to see some facts brought forward by those who take the posite view; surely they might show us something in support of eir statements.

I hope it will not be supposed by the way in which I have spoken, that I object to fair criticism; far from it. But a purely literary criticism of experiments ought not, I think, to be dogmatic, for dogmatic statements as to what would have occurred if certain things had been done are, in my opinion, only warranted when the critic knows from personal experience that he is correct, or when he quotes from researches about the accuracy of which there can be no possible doubt.

[5] It was remarked after the meeting that, if the virus were gaseous or fluid, it uld not stain blue. It is, however, generally admitted, and has been proved a large number of instances, that contagia are particulate.

EXCISION OF THE CÆCUM FOR EPITHELIOMA: DEATH ON THE THIRTEENTH DAY.

By WALTER WHITEHEAD, F.R.C.S.E., F.R.S.Edin.,
Surgeon to the Manchester Royal Infirmary, etc.

I am not aware that the cæcum has hitherto been removed during life. Mr. John Marshall (*Lancet*, 1882, May 6th and 13th) collected seven cases of colectomy, including one of his own, and he also mentions other attempts which were unsuccessful. With one exception, the descending colon was the site of the operation. Mr. Treves (British Medical Journal, December 16th, p. 1208) has also recorded an instance of resection of two inches of the descending colon for epitheliomatous stricture through an incision in the middle line; the patient died in twelve hours.

In placing on record what I believe to be the first instance of excision of the cæcum, I have felt it my duty to enter more fully into details than a case of more ordinary occurrence would warrant.

The patient was J. W., aged 38, tramcar-driver, married. His father was killed at the age of 62; his mother died when 64 years of age; his nine brothers and sisters are alive and healthy. He had always been healthy himself previously to his present illness; for ten years he was a free drinker, generally taking spirits.

His present disease manifested itself eighteen weeks before admission, with diarrhœa accompanied by pain in the right lumbar region. The pain was paroxysmal, and extended towards the umbilicus, and appeared to be aggravated by a distended bladder or loaded rectum. These symptoms persisted, with only a few consecutive hours of intermission, supposed to be due to remedies taken. At the end of ten weeks, a small tumour, of the size of a walnut, was discovered in the right lumbar region. It felt hard, was freely movable, and free from pain on pressure. The patient at this time was troubled with a constant desire to pass urine, and had to urinate seven or eight times during the night. The urine he described as clear and free from smell. The action of the bowels was irregular; sometimes they would act three or four times in the day, and on other days not at all. The motions were generally pale in colour, and clay-like in consistency. He had no pain on defæcation, and the evacuations never contained either blood, pus, or mucus. The tumour rapidly increased in size, and the paroxysms of pain in frequency and intensity. In eighteen weeks, he lost forty pounds in weight, although his appetite and digestive powers remained fairly good.

He was admitted into the Manchester Royal Infirmary on October 24th, 1884. His complexion was sallow, and he wore an anxious pinched expression. In the right lumbar region there was a mass, about four and a half inches long by three inches broad, and apparently about the same in thickness. The long axis was in the transverse direction. The tumour was free, movable over the whole of the right half of the abdomen, and moved in harmony with respiration. It felt hard and lobulated, was dull on percussion, and slightly tender on pressure. No other enlargement could be felt in the vicinity of the growth. The liver was normal in size. The patient complained of periodic attacks of colicky pains, sometimes of a mild, and at other times of an intense, character. During these attacks, the tumour became much more prominent, and the left half was then found to be tympanitic. There was frequency of micturition; without, however, anything abnormal being detected in the urine. The motions were natural.

The clinical features of the case undoubtedly pointed to a tumour of the colon in the vicinity of the cæcum; and most probably a rapidly growing epithelial new formation. The tumour being movable, it appeared reasonable and justifiable to attempt the excision of the whole disease. It was decided beforehand to make the incision along the outer border of the rectus muscle in preference to that for lumbar colotomy, as it was believed that it would allow greater facilities for dealing with any enlarged mesenteric glands which might be present, and to be better adapted than a median incision for the establishment of an artificial anus. The prudence of this decision was confirmed during the operation, and in the subsequent progress of the case.

Operation.—Chloroform was administered. The surface of the abdomen was thoroughly cleansed and dried; a large mackintosh, with an aperture five by eight inches cut out of the centre, and the under-surface of the circumference of the aperture made adhesive with plaster, was fixed to the skin, so that the opening corresponded to parts that would be involved in the operation. The abdomen was opened in the ordinary manner, in the situation previously decided upon, and the tumour exposed. It was examined, and found to be situated in the ascending colon, rather than in the cæcum, although practically it involved the latter. It was deemed advisable to detach the tumour above the valve. A double catgut-ligature was first passed through the mesentery, and round the upper part of the ascending colon, well above the tumour. The ligatures were firmly tied, and the bowel divided between them. The cut surfaces of the bowel were freely washed with carbolic lotion, until they were free from any trace of fæces. A second double ligature was then passed round the ileum in the same manner, and the gut divided with similar precautions. A small aperture was then made in the upper layer of the mesentery, through which the fingers were passed, and the two layers of the mesentery separated. The superior layer was cautiously divided close to the bowel by the use of scissors. An indurated mesenteric gland, of the size of a split walnut, was then discovered some distance from the growth, whilst others somewhat smaller were found inseparable from the gut. Up to this stage of the operation, no difficulties whatever had been met with. The removal of the gland being deemed essential to the ultimate success of the operation, a careful dissection was commenced. The gland had almost been cleared from its surroundings, when a sudden gush of dark blood took place, the origin of which it was impossible to determine at the moment. That it was from an unusually large vein there could be no doubt, and for a time the vena cava was suspected. Whilst pressure was maintained over the bleeding aperture, the tissues above and below were separated, and finally the superior mesenteric vein was fully exposed, and found distended to the size of a first finger. A catgut-ligature was placed above and below the gland round the vein, and the intermediate part of the vein and the gland removed together. The other layer of the mesentery was then cut across without any bleeding, and the mass removed. The abdominal cavity was cleared of all the blood, which had amounted to very little throughout the operation, notwithstanding the accident to the vein. The ligature was then removed from the small bowel, and the gut stitched to the skin at the lower end of the incision, and, after removing the other ligature, the colon was secured to the skin at the upper portion of the wound. A very large number of silver sutures were employed for this purpose, and great pains were taken to leave no opening for the penetration of fæcal matter into the deeper tissues. The remaining portion of the wound was next brought together by strong silver wire passed through skin, muscle, and peritoneum. The surface was dressed with iodoform.

During the operation, which lasted upwards of two hours, I had the valuable assistance of Mr. Southam. The patient appeared to suffer very little from either the chloroform or the operation. Great care was taken—and upon this great stress ought always to be laid in such operations—that the patient was kept thoroughly warm with hot water bags placed in every convenient position under the blankets surrounding his body.

The following details are extracted from the note-book of my house-surgeon, Mr. Gough.

First Twenty-four Hours after the Operation.—He recovered very quickly from the effects of the chloroform, and expressed himself feeling very comfortable. Fæces passed from the small bowel. Urine passed without assistance. Enemata of peptonised beef-jelly, egg, and brandy were administered every three hours. He took from ten to fifteen drops of Battley's solution every four hours. The wound was dressed with iodoform-gauze and wood-wool, which was changed about every six hours. He slept well. Highest temperature, 98.4°; pulse, 100; respiration, 22.

Second Day.—He slept well during the night; had no pain. He had taken half a pint of milk. There was no tenderness over the abdomen. Highest temperature, 99°; pulse, 112; respiration, 32.

Third Day.—Non-bilious fæces passed from the small bowel. He had a capital night. Tongue clean and moist. He had no pain. Highest temperature, 99.4°; pulse, 112; respiration, 20.

Fourth Day.—He had a good night. The wound was looking healthy. The abdomen was slightly distended; no pain. Light coloured fæces passed freely from the small bowel. He was taking milk and having enemata regularly. Highest temperature, 98.2°; pulse, 110; respiration, 20. During the evening, he complained of slight pain in the right iliac fossa, which was immediately relieved after passing flatus from the small bowel.

Fifth Day.—He passed a fair night. The abdomen was more dis tended, but without pain or tenderness on pressure. He passed som dark offensive fæces from the orifice of the transverse colon. Highes temperature, 101°.

Sixth Day.—Early in the morning, he complained of intense pai across the abdomen, and more particularly in the right hypochondria region. Large quantities of fæces escaped from both openings. Th opium was increased, and repeated frequently. At 9 A.M., he wa much better—pulse, 135; respiration, 22; temperature, 99.4°; n pain. He passed flatus freely by the rectum. The urine was alka line, and deposited a large quantity of phosphates. The wound wa healthy. At 11 P.M., he was comfortable. Temperature, 100.6 pulse, 118; respiration, 22.

Seventh Day.—He had a fair night. He had talked a little in coherently at times, and made attempts to get out of bed. He di not complain of pain. The fæces from the small bowel appeared t contain bile for the first time. The discharge from the large bow was of a light green colour, and very offensive. At 5 P.M., he ha been sick for the first time. There was no pain; the tongue wa clean. He was restless; was again sick, and was purged by th rectum; the fæces were very offensive, and light in colour. He wa perspiring freely. Highest temperature, 99.6°; pulse, 120; respir tion, 22.

Eighth Day.—He had a good night; no pain. The patient wa noticed to be much thinner, and to have a pinched look and anxio expression. There were fæcal evacuations from the small and the lar bowel, and also by the rectum. At 5 P.M., the stomach was di tended, and the patient complained of colic. He was ordered fi grains of the oxychloride of bismuth, and ten grains of compou rhubarb powder. This was followed in two hours by several copio stools by the rectum, and simultaneously by profuse discharge fro the small bowel. The tongue was clear. Highest temperature, 99 pulse, 110; respiration, 18.

Ninth Day.—He was very much better; slept well; and had pain. He expressed himself as better than he had ever felt since t operation. The sutures were removed. Highest temperature, 98.6 pulse, 110; respiration, 22.

Tenth Day.—He passed a capital night. He had no pain; l appetite was good. The skin-wound was gaping. A slough ca from the wound, evidently of cellular tissue. The deep wound a peared quite healed. Highest temperature, 98.6°; pulse, 110; respi tion, 22.

Eleventh Day.—He had a restless night, and complained of pa across the abdomen. The stomach and abdomen were distende Highest temperature 99°; respiration, 20; pulse, 120.

Twelfth Day.—He slept only one hour during the night, notwit standing his having taken twenty drops of Battley's solution eve four hours. The surface of the wound was granulating, but the gran lations were of a feeble character. The abdomen was more distende The stomach was washed with iced water by a siphon, and a quant of bilious mucus was removed. Immediately this had been done, t temperature was taken twice in the axilla, and found to have fal from normal to 97°. Washing out the stomach appeared to give t patient great comfort, and he expressed himself as feeling very hung afterwards. At 5 P.M., he complained of severe pain across t abdomen. He had profuse diarrhœa, to check which a chalk and b muth mixture was ordered. At 9 P.M., he was much worse. He h griping pains in the abdomen, and was restless and rambling. Hig est temperature, 99.2°; respiration, 20.

Thirteenth Day.—During the night the pain increased, and la doses of morphia failed to produce any marked effect. The tong became dry and brown, and at 7.45 A.M. the patient died exhausted

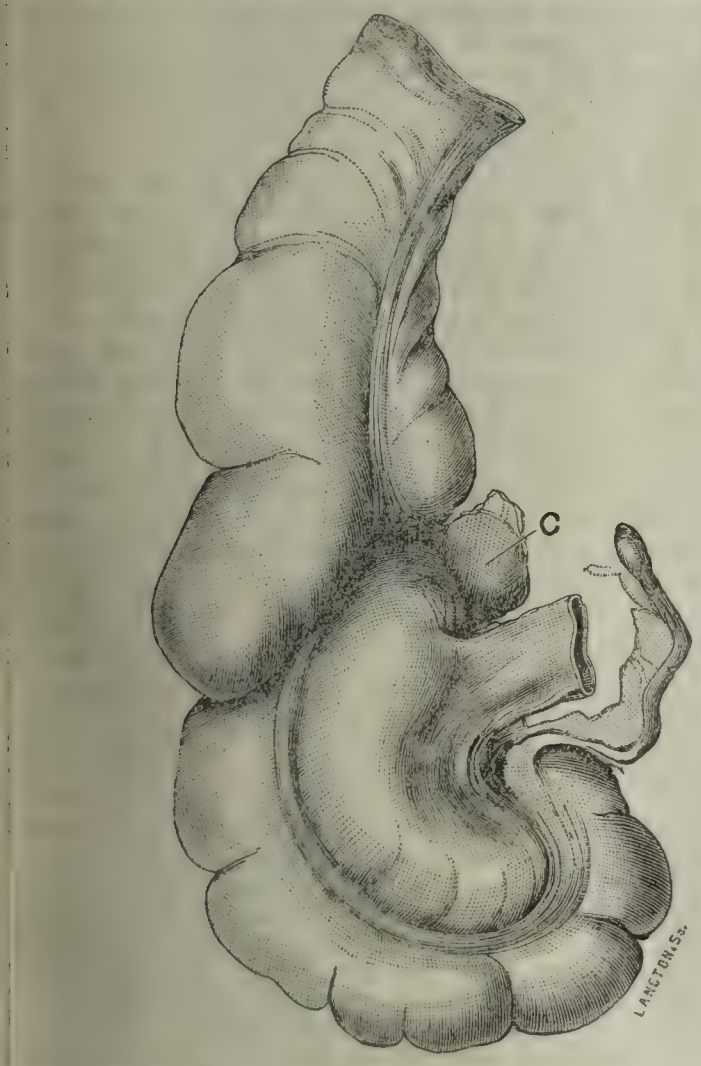
The *post mortem* examination was made by Dr. Robert Maguire; a the following is an abstract of his report.

External Appearances.—The body was that of a man below mid age, emaciated; rigor mortis was absent in the jaw, present in arms and legs. There was dorsal *post mortem* staining; on the ri side of the abdomen there was an incision, about four inches in leng running from near the last rib to the crest of the ilium. At the up end of the incision, the colon opened externally; at the lower end, small intestine. The skin-edges of the incision were not united, a between them was seen a mass of granulation-tissue covered by io form. There was no opening into the peritoneal cavity.—*Abdomen* On opening the abdomen, extensive peritonitis was found. Th was no fluid in the peritoneal cavity, but the coils of the small testine were covered and matted together by recent lymph. The p tonitis was most intense, and of oldest date, in the neighbourhoo the incision mentioned, as shown by the firmness of the adhesions this part. Proceeding hence, the peritonitis decreased in intensi

nd extended upwards and to the left, reaching nearly as high as the tomach. The cæcum, and part of the ascending colon, were wanting. The small intestines were greatly distended with air and yelowish fluid of a fæcal smell. The lower four feet or so of the small ntestine were greatly congested. The colon, in the whole of its exent, was collapsed and empty. Behind the spot where the small inestine opened externally, there was a considerable collection of reenish putrid pus, lying mainly in the right iliac fossa, and altoether outside the peritoneum. The pus was tightly bound down by he coils of the intestine, matted together by peritonitic adhesions. It xtended upwards along the large abdominal vessels, and between the ayers of the mesentery, reaching nearly as high as the origin of the uperior mesenteric artery. The stomach and pancreas were normal; he spleen was enlarged, and, on section, soft and pulpy; the liver as of normal size, but somewhat pale and fatty. The kidneys were f normal size; on section, the cortex was increased in extent, somehat pale and mottled; the capsules peeled off easily, and left on reoval a smooth surface.—*Heart, etc.*—The heart was of normal size, ut the ventricles were relaxed. The cavities of the right side contained quantity of non-adherent *ante mortem* and *post mortem* clot; the triuspid orifice admitted three fingers. The cavities of the left side conined a little *post mortem* clot, the mitral orifice also admitting hree fingers. The walls of the ventricles were of normal thickness, olour, and consistence. The blood-vessels were not stained by the lood-pigment. The lungs were emphysematous and slightly conested. No secondary deposits were discovered.

Through the kindness of Mr. A. Young, I am enabled to supply a ketch of the parts removed, and the following report of the general nd microscopic character of the growth.

The portion of intestine removed included the last two inches of the eum, the cæcum with the vermiform appendage, and the greater part f the ascending colon. When moderately distended, it presented the ppearance shown in the accompanying sketch. Its total length from



ie lower part of the cæcum to the cut end of the colon measured urteen inches, whilst from the ileo-cæcal aperture to the cut end of ie colon it measured nine and a half inches. About two inches beond the junction of the ileum with the cæcum, an appearance of tussusception was observed, and in this region an enlarged and indu.ted lymphatic gland (c) was firmly united to the intestinal wall. Corsponding in position to this attachment, the internal surface of the bowel presented a fairly defined circular area, about three inches in circumference, occupied by an irregular fungoid and ulcerated mass, which projected into the lumen of the gut. This involved only the inner part of the intestinal wall; the remaining part, as well as the rest of the intestine, presented a healthy looking unbroken mucous lining, nor was there any other evidence of invasion of the wall with new growth beyond the area mentioned.

Sections of the new growth showed it to consist of epithelial cells in large numbers, enclosed in the alveoli of a somewhat scanty connective tissue stroma. It thus presented the characteristic appearance of a carcinomatous growth of the medullary type. For the most part, the cells were of irregular shape and of comparatively small size, presenting only occasionally a columnar appearance. Of the lymphatic glands, those removed with the growth, as well as that removed separately, showed secondary infiltration by epithelial cells resembling those of the primary tumour.

REMARKS.—In reviewing this case, there are several points of interest which appear worthy of brief comment.

The diagnosis was made without difficulty, which is unusual in cases of malignant disease originating in the colon, especially when, as most frequently occurs, the disease attacks the descending portion of the bowel. The protracted diarrhœa, the local character of the pain in the right lumbar region, the rapid growth of the tumour, the freedom with which it moved and always returned to the situation of the cæcum, and the quick emaciation of the patient, pointed with marked precision to the locality and nature of the growth.

Confident of the diagnosis, the steps of the operation could be deliberately designed, a rare advantage in operations involving the intestines. The first point to determine was the most suitable situation to open the abdomen. The reasons which influenced the choice in this instance may with equal force, it would appear, be applied to all cases of malignant disease connected with any portion of the colon not extending beyond the sigmoid flexure.

The median incision affords more room for general exploratory purposes than any other, but it is ill adapted for the establishment of an artificial anus, and necessitates a second incision in the loin for that purpose. The lumbar opening is, undoubtedly, the one best adapted for an artificial anus; but, unfortunately, it gives no room for the removal of infiltrated mesenteric glands, should they exist. Mr. Bryant's preference for the lumbar incision, and his assertion that five or six inches of the gut can, with ease, be reached and examined, does not affect this all-important question in suspected malignant disease. An intermediate incision, made three inches from the linea alba, combines the double advantage—not so completely perhaps as could be desired, but, nevertheless, sufficiently to be accepted as a practical compromise between the two. In this case, at least, it confirmed the judgment which was exercised.

The second point to decide was whether or not, after removal of the growth, it was desirable to unite the divided ends of the bowel together. The desire to attempt the latter course was naturally great; but, the main object being kept strictly in view, it was not considered warrantable to subject the patient to such additional risk, especially in an operation which only holds a tentative position in surgery. Whilst admitting the wonderful success that has attended the operation of enteroraphy, it cannot at present be regarded as an established precedent free from objections and disadvantages. The danger of non-union, and the contingency, possibly remote, of future stricture, are risks which do not admit of being lightly passed over. Further, by bringing the two ends of the bowel outside, there always remained the opportunity, should it ever be considered desirable, of uniting them by a subsequent operation.[1]

There is no object in subjecting a patient to an operation attended with the greatest risk, unless it be accompanied with a firm determination to remove the whole of the disease, if it be practicable and within the range of surgical art. If the object be simply to temporise and relieve pressing symptoms, such as those resulting from obstruction, colotomy will accomplish all that is desired, and with considerably less risk to life.

It is evident from the *post mortem* examination that the man died from peritonitis, and that the peritonitis was of traumatic and not of septic origin, as the inflammatory indications were less intense as it receded from the incision. Each detail of the operation was practically successful. All the parts, with the exception of the skin, had completely united, and there had been no leakage of fæces into the abdominal cavity.

[1] Sir Spencer Wells, in his Inaugural Address on the Revival of Ovariotomy (BRITISH MEDICAL JOURNAL, 1884, November 15th, p. 950), states that, in a recent paper by Ruchel, 121 cases of resection of intestine have been collected, the conclusion being that the two ends of the bowel should not be united at the time of resection, but that an artificial anus should be established.

In looking for satisfacton, after the fatal termination of the case, one has to be content with the reflection that the patient did not die from the immediate effects of the operation, and to be consoled with the knowledge which the *post mortem* examination affords—namely, that the whole of the disease had been removed, and the certainty that the patient must very soon have succumbed to a painful death had no attempt been made to cure him.

The operation was conducted upon strict antiseptic principles, and the abdominal cavity remained aseptic to the end. There was complete union of the peritoneum, and between the muscular walls of the abdomen. There had been no secondary hæmorrhage, nor had there been any violent sickness. The temperature was even remarkable for its uniformity at or about the normal range.

Taking all the facts of the case into consideration, it is reasonable to suppose that, had the man possessed a less dilapidated constitution, and been more temperate in his habits, complete recovery might fairly have been anticipated.

THE PLACE WHICH ALCOHOLIC DRINKS SHOULD OCCUPY IN THE TREATMENT OF DISEASE.

Read at the Hunterian Society.

By ALFRED CARPENTER, M.D., M.R.C.P.Lond.

(Concluded from page 117.)

I NOW come to the principal difficulty in dealing with this subject. It is said that no one differs with me as to the evils which follow from the abuse of liquor. But it is said by Sir Andrew Clark, and others, "that a small quantity of alcoholic liquor, taken, say, twice a-day with meals, is not injurious." It is also said that a physiological quantity is needed to produce certain appreciable effects in the living body. We have had as yet, say they, no reliable evidence of the harm or benefit of any dose under this physiological quantity; and, therefore, say the antagonists to the total abstainer, "that total abstinence principles would advance much more rapidly if these facts were fully recognised." (BRITISH MEDICAL JOURNAL of November 29th, 1884.) Sir Andrew Clark may be right in the fact that a small quantity, taken twice daily with meals, may be harmless. No doubt, it may act immediately on the food in the stomach with which it may enter into combination, and thus it may be deprived of its venomous character. But what is the good of this? It can only help to make the food more difficult of digestion. It coagulates albumen, it hardens fibrine, it precipitates ptyaline from the saliva, sugar is nearly insoluble in it, and emulsine or synaptase is rendered inert by it. But it is said that, when exceedingly diluted, its action may be different. It is not proved that it is not so. It is hard, indeed, to prove a negative, and it is useless to try; but I ask whether any one supposes for one moment that the effect is so neutralised in the stomach? If it be, why should people desire it? Is not the very object of the drinker to be made to feel its effect on the stomach itself, to increase the flow of gastric juice from the glands in the stomach, and so increase for the moment its digestive power? That is the acknowledged object for which it is taken; and Sir Andrew says it makes life happier, and renders the invalid able to do that which he could not do if he had not taken it.

Now, let me go back to the articles which appeared in the *Contemporary Review* in 1879. Dr. Samuel Wilks wrote: "I believe alcohol soothes a worried nervous system, and, by preventing wear and tear, actually supports the frame;" but, discarding the notion of its stimulating properties, he writes: "I denounce its use in delicate children, and women who feel 'low'." Then Sir William Gull says, in the same series of articles, that "the constant use of alcohol, even in moderate measure, may injure the nerve-tissue, and be injurious to health; and one of the commonest things in society is, that people are injured by drink without being drunkards." But, says Sir William, "cases of feeble digestion you may deal with by light and varied food; but still I think wine is useful, a little wine, and with strict limit, as a medicine for temporary use." Sir William, however, is of opinion that "good food will supply all the wants of the system up to the middle period of life." He does not point out how a little wine, within strict limit, is beneficial. All the writers of those articles (twelve in number) denounce excess; one writes that his desire should be to reduce "the limit of physiological saturation." But, he says also, in many cases of dyspepsia, a palpable improvement follows the use of light wine at dinner. With many, the simplest food causes a degree of oppression until a mild stimulant sets digestion to work by the slight flush of blood it excites in the mucous membrane of the stomach. But the same writer says: "It is our duty to give a clear reason for moderation, and to define its limits." Here Dr. Kidd states a duty which no one has ever yet succeeded in doing.

Another writer, namely, Sir James Risdon Bennett, would "leave this to a man's instincts." Sir James is guided by his own, and he has, no doubt, a good guide; but, with the majority of men and women, the guide would lead to disastrous results; the 60,000 drunkards convicted every year in our police-courts, and the same number who die a drunkard's death every year, are led away by instinct. Sir James is of opinion that "there are no trustworthy statistics available to prove to what extent disease may be safely and satisfactorily treated without the aid of alcohol." He is unwilling, with Mr. R. B. Carter, to allow theory to take the place of well tested experience. Indeed, he would do all that he possibly could to prevent any trustworthy statistics from being available for the purpose; because he expresses himself as entirely opposed to total abstinence views, "except for the intemperate."

Dr. C. B. Radcliffe does not hesitate to state that it is unfortunate that alcohol is not recognised as a tonic, and that it may be taken habitually; he is of opinion that it keeps up animal heat by supplying easily kindled fuel to the respiratory fire, partly in producing nerve-power by furnishing easily assimilable food to nerve-tissue, and partly in lessening the necessity for ordinary food, by diminishing the waste of the system which has to be repaired by food. I must say that physiology does not support these views; there are no facts in science which tell us that it is an easily kindled fuel, so that it may develop heat. Experiment and examination in the police-cell tell quite a different story. Still, Dr. Radcliffe may affirm that his remarks apply to its use by those who are not already "physiologically saturated," and that, when the stage of saturation is reached, the conditions change.

Dr. Radcliffe prefers to be near to the point of saturation, provided he is on the right side; and, with Sir James Risdon Bennett, he probably believes that "men do their work better, and with more comfort to themselves, if they take three or four glasses of sherry as a part of their daily food;" and he will not believe "that such an one is a worse, but a better, life for an assurance-office than a pledged abstainer." I may say that the assurance-offices will in time fully settle this point, even if they have not done it already, in an opposite sense to Sir J. R. Bennett's views.

I have tried, in these extracts, to put forward the views of representative men upon this question. "A physiological saturation" is acknowledged, beyond which it is dangerous to go. This is agreed to by all parties. Before that stage of saturation is reached, alcohol acts differently from what it does when that stage is passed by. In the opinion of some physicians, it is a tonic, an easily kindled fuel; it helps digestion, and enables a man to do his work with greater pleasure to himself. I am unable now to find any sufficient authority from physiology upon which these opinions are based, though they were the views of physiologists fifty years ago. No well known physiologist now supports them. It is proved very fully that alcohol does not keep up animal heat, and it is as little assimilable as any food can be. I take it that Sir J. R. Bennett's and Dr. Radcliffe's opinions are derived from the feelings which alone guided physiologists before instruments of precision were invented. There is a feeling of warmth, and a heat is transferred to the surface of the body, which is very marked; but if with this heat there is no rise of temperature, and if there is also a decrease of carbonic acid excreted by the lung-tissue, we can understand the reason why radiation produces, after a time, a decreased temperature, such as is found in the dead-drunk man in the police-cell, when that man is not suffering from manifest organic disease, which is ordinarily raising his temperature above normal. The feelings are deceived, the blood being collected in the periphery of the body, and the sense is deceived as much as sight is imposed upon, as to their movements, when we look at the heavenly bodies.

There seems just now, however, to be a consensus of opinion among our fashionable physicians that digestion is improved by small doses of alcohol twice daily; the only proof is personal feeling, and also that no injury is traced to it for the time being. But chemistry is against the fact. Physiology will not support it, except so far as that there is an increase of gastric juice by the exhibition of a dose sufficient to act upon the blood-vessels for the moment. But then pathology tells us very clearly that the continuous effect is to produce a permanent change in those vessels and glands. I contend that anything which assists to perpetuate a change is not a wise or truly judicious treatment, but is an unconscious pandering to custom, to fashion, and to the wishes of the patient. It may be very well to help a lame dog over a stile; to use the whip and the spur to the tired horse may be pleasant for the time being, but to my mind the medical man who prescribes it persistently is only staving off a downfall,

which will be really the greater when it does come. The person who does it is hastening the production of organic disease. I see no objection to the prescription of a little wine for a special purpose to the total abstainer, which is to be left off as soon as the object is gained. I see great objection to the continuance of the remedy as a daily diet, feeling sure that it will ultimately lead to the damage of that man's digestive power, and, in the end, to much discomfort, or a shorter life.

Wine is sometimes given as a remedy for neuralgia and other kinds of pain. Undoubtedly it may give present ease, if the diseas be due to a temporary cause, which is certain to pass over and not to recur, as after an operation in an anæmic patient, in whom it will be an advantage to have much blood on the surface, and less in the centres for a time. Or, in some cases, in which the pain is the sequence of noncontinuing shock, time is gained, and the patient is relieved. Like to the use of opium, in similar cases, it may be a sheet-anchor. But when pain is a continuing process, as in cancer, in those who have a gouty diathesis, or in hysteria, or when there is growing disease, such as in dental caries, and especially in all those who have been accustomed to the use of wine or spirits, in my opinion it is injurious. Alcohol may relieve pain for the time being; but the pain will recur with greater force when its paralysing effect has passed away. This recurrence takes place for the following reasons. Pain is the manifestation of interference with the nerve-battery, by the aid of which nutrition and the removal of the consequences of life are regulated. The pain is proof that action in the nerve-cell, or current through nerve-tissue, is interfered with. There can be no pain if nerves of sensation be destroyed. There will be no pain if the current of blood be arrested, so that vital action ceases in the cell for the moment. It follows, therefore, that there are cases in which arrest of circulation, by diminishing an onward blood-current, giving rise to a general languor, arrests the chemical changes which are taking place in the nerve-cell, and ease results. There is no agonising nerve-force produced; arrest of action means arrest of change. Action in a nerve-cell is produced by an oxidation of some of the contents of the cell. If those contents be not in perfect accord with the requirements, pain is felt until the oxidation is completed, and the result of the action taken away by the proper vessels. These actions cannot be complete in every cell whilst the patient is under the influence of alcohol. There is arrest of oxidation; there is arrest of the cleansing process which the venous and absorbent systems have to perform, and, as a consequence, waste material is kept *in situ*—that is, in the nerve-cell, or in the capillary supplying it. As soon as the narcotising effect of the alcohol is exhausted, there is recurrence of the pain by a renewal of oxidation, the matter to be oxidised being abnormal; the longer the interval before the pain recurs, the more severe it will become, because the waste matter must be oxidised before it can be removed; and length of interval corresponds with greater activity when it arises. The arrest is only attended by an increase in the quantity of oxidisable matter in the peccant nerve-cell. If pain do not recur, it is because the faculty of that cell is destroyed, and there is a commencement of disease in that organ. The use of alcohol for the relief of pain is perfectly certain (if it be continued for any time) to set up disease in the nerve-battery which regulates the vital actions of the part in which the pain is felt. The use of alcohol for such purposes intensifies the succeeding pain first, and then sets up an irremovable disease. It may bring renown to the physician to relieve pain by destroying the particular nerve-cell which gives rise to it; but it is not a right proceeding to lay down the first stones as a basis for disease which has a natural tendency to increase. I have now, for thirty years, made close observations upon this point; and, looking back into the history of my neuralgic cases, and other painful diseases, I see this set out as a broad fact, that those who have taken alcohol as a narcotic have suffered a hundred times more intensely than those who have not touched it, or have had their end hastened by its use, because a kind of euthanasia has been set up, which is promoted by some among us. I have now, for many years, warned those who have consulted me as to the danger of subcutaneous injection for the relief of pain. It may be pecuniarily profitable to inject morphia five hundred times in one patient, but I am sure it is immoral. I have urged upon those suffering to have patience; to prefer another class of remedies, namely, those which assist oxidation; to bear with the pain until the process which causes it is completed, when it will cease, and not recur. I have had reason to point out the result of this advice in many cases of cancer, which, after a time, have become comparatively painless by the adoption of this line of advice.

Take another class. There is no possible chance of relief to those who are inclined to the lithic acid diathesis if they arrest oxidation by the use of stimulants or narcotics of any kind. Have patience with the pain, and it will cease as soon as the oxidation in the nerve-cell is complete, and the nerve-cell has recovered its healthy state. Arrest that oxidation by the use of alcohol, and you add to the quantity of unhealthy waste which has to be removed, and hasten the rise of degenerative disease in that particular organ, or in the nerve-battery which regulates its functions. Patience with pain, in this class of case, is the right doctrine to preach to our patients. Gain time, let the oxidation be perfected, and healthy nerve-tissue results; or, in the case of cancer, the nerve-current is cut off; in either case, the total quantity of pain is not a tithe of that which the habitual indulger in alcohol or opium will really cause. I need not urge this line of action in the treatment of those hysterically inclined, because I hope none here present will ever support the notion that a hysterical patient ought to be treated in any way by alcohol or narcotics, even if they be anæmic. An empty house is better than a bad tenant. Any form of lithic acid deposit in any tissue is a bad tenant. It can only be removed by oxidation. Yet, for the purpose of temporary relief, if we use alcoholic drinks, we advise the use of remedies which only add to the quantity of morbid matter in the blood. Let us help to remove the waste matter from the system; but do not let us be inconsistent to our duty. We shall be so if we advise the use of that which may render it dormant for the time being, but which only keeps it in the system.

I will now go to another class of cases, in which the brandy-bottle is supposed to be absolutely necessary, namely, syncope. A violent, or long continued, hæmorrhage has placed the patient's life in danger; The great effort of the bystanders and, too often, of the medical man also, is to prevent fainting. It is sometimes the same in cases of *post partum* hæmorrhage. "Oh, she is fainting; give her some wine," is the cry; and the medical man sometimes administers the glass of strong brandy and water. If he do, he is interfering with the very process which nature has set up for the purpose of saving the patient's life. The passive tension in the smaller vessels prevents the injection of blood into the nerve-battery which regulates consciousness as well as other functions. Syncope results, and nature takes the opportunity of allowing a plugging of the bleeding vessel by stopping the *vis-a-fronte*. The heart is only able to carry on circulation sufficient for organic, but not functional, life. If we give so-called stimulants, we dilate the capillaries so as to allow the heart to go on sending blood into the bleeding organ, and we assist to send our patient out of the world instead of allowing syncope to have its sway; we may bring back the patient by supplying cold water so as to fill up the comparatively empty vessels, and thus allow of a more satisfactory circulation to be renewed. Our duty is to fill the vessels by harmless materials such as water, which is rapidly taken up as the patient comes out of the syncope; we ought not to prevent that faintness which is laying the first stone for the arrest of hæmorrhage.

There is another class of cases closely allied with these in the lying-in room, in which sudden syncope, with rapidity of breathing, collapse, and a cærulean aspect, brings a sudden end to the patient's life. I have always found that there has been a free administration of stimulant before this kind of syncope has developed itself. The cause of the end is recognised as thrombosis, or embolism. A clot has formed in the heart, and has hampered, or brought an end to, its movements. These clots are generally allied with a lithic or lactic acid (a gouty or rheumatic) diathesis. Persons who have been "low" are kept up by stimulants. They lose some blood in their confinement; the vessels are not well filled; the blood is loaded with fatty matter, with an excess of fibrine. The two combine to form a clot, and the more alcoholic stimulant you give, the more certain will be the ultimate result.

Dr. Harley's observations clearly show that this is the result of excess of alcohol, and half a pint of brandy in twenty-four hours must surely be excess to any pregnant or parturient female, especially the class of hysterical and low spirited cases in which the catastrophe usually happens.

Sometimes life appears to be kept in the body by its administration. I take it that, in such cases, the brandy is actually acting upon the clot by absorbing some of its constituent parts, and diminishing its size, so as to allow a more easy passage of blood between the clot and the side of the vessel. This is so in some cases of embolism of the pulmonary artery; but the cases have ultimately died all the same, or disease has been set up which has rendered the patient a miserable invalid for the rest of her short life. I would rather give solvents for fat and fibrine instead of those remedies, which certainly add to the quantity of peccant matter in the serum of the blood; and the more empty the vessels may be, the greater the danger, because the alcohol is more quickly diffused.

There are two kinds of embolism—one connected with the lithic or lactic acid diathesis, the other more distinctly associated with micro-

gant estimate of the remedy, it may fairly be put on record that, in one case of a malady usually most difficult to relieve, signal benefit has attended the use of this new and valuable local anæsthetic.

MALCOLM MORRIS, F.R.C.S.Ed.

GLYCERINUM ALUMINIS.

I VENTURE to suggest a new preparation of alum, which I can strongly recommend after a prolonged trial. It is made by dissolving one ounce of alum in five ounces of glycerine, by means of a gentle heat. This is about four times as strong as a saturated watery solution. It is indicated in all cases where a powerful local astringent is required; and has the advantage over tannin of being far less disagreeable, equally astringent, and quite compatible with an administration of iron. In cases of chronic pharyngitis—so common in children—it is very efficacious; diluted with water, it forms an useful gargle, injection, or lotion. ROBERT WILLIAM PARKER,

Surgeon to the East London Children's Hospital.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

EVELINA HOSPITAL FOR CHILDREN.

TWO CASES OF LARGE STONE IN THE BLADDER: LITHOTOMY: CURE.

(Under the care of Mr. R. CLEMENT LUCAS.)

[For the reports of these cases we are indebted to Mr. MILLIGAN and Mr. H. WRIGHT, the Registrars.]

CASE I.—J. S., aged 10, was admitted on March 9th, 1884. He had been ill for two years, and his principal symptoms were pain at the end of the penis, and incontinence of urine. When admitted, he was found to have a long prepuce, and some enlarged glands in the groin. There was no prolapsus ani. The urine, which ran away without control, was of specific gravity 1020, alkaline in reaction, and containing about one-twelfth albumen. Examined under chloroform, he was found to have a large stone in the bladder.

March 12th. The boy being placed under the influence of chloroform, a sound was passed, and immediately impinged on the stone. The calculus could also be felt with great ease from the rectum, as a tumour of considerable size. Four ounces of dilute carbolic lotion (1 in 40) were injected into the bladder, and, Aston Key's straight staff having been introduced into the bladder, lateral lithotomy was performed in the manner usually adopted at Guy's Hospital. The stone was found to be so large as to be with difficulty included in the forceps, and, when grasped, it was impossible to extract it through the opening. The opening through the prostate was next enlarged by incising the right side, but without avail, it being clear that, if sufficient traction to extract so large a stone were continued, the bladder would be severely lacerated. It was now thought advisable to break up the stone through the wound, and this was done with forceps, the *débris* being frequently washed out with dilute carbolic lotion through a large catheter, and the larger fragments extracted with forceps. The outer layers of the calculus proved to be phosphatic, and shelled off in concavo-convex pieces. Finally, the central nucleus of uric acid was reached, extracted with forceps, and all the *débris* washed out of the bladder. The walls of the bladder were found much thickened, and there was a well marked nest in which the calculus had rested. The operation was prolonged by the time expended in breaking up the stone, and, towards the end, ether was substituted for chloroform. The fragments of calculus were collected, and found to weigh 382 grains.

March 13th. There had been no rise of temperature. The boy was sick once after the operation. All the urine was passing through the incision.

March 14th. He passed a little urine *per urethram*. The temperature was 99.4° F.

March 17th. His bowels were confined, and the temperature rose to 101.4° F. After a dose of castor-oil, it fell to 99° F. There was a free discharge from the wound, which was syringed out with carbolic lotion.

March 26th. The urine, which was passing both ways, was pale in colour, acid, and contained a good deal of mucus, and a trace of albumen.

March 31st. There was more albumen in the urine, which was, for the most part, passed naturally. There was still discharge from the wound; the temperature was 98° F.

April 5th. The wound was nearly healed, only a very small quantity of urine passing through it. He sat up for the first time.

April 15th. As the child's temperature rose to-day to 100°, he was kept in bed. The wound was almost closed.

April 20th. The child was well. The wound was perfectly healed, and the micturition normal.

April 21st. The child was discharged cured.

CASE II.—H. M., aged six years and a half, was one of a family of nine, all of whom were healthy. Both parents were living, but the father suffered from bronchitis. The boy had measles and whooping cough some years earlier.

The symptoms of the present illness commenced about twelve months before admission, when the child began to complain of pain about the anus, perinæum, and the end of the penis. The mother thought he was suffering from worms, and treated him accordingly. About four months before admission, the boy could not pass his urine and was taken to a medical man, who sounded him, but failed to detect the presence of a calculus. During the last few weeks, he had complained of increasing pain at the end of the penis, and had gradually lost the power of retaining his urine. The urine had also become very offensive and ropy. The day before he was brought to the hospital, blood was noticed in the urine for the first time. He was brought to the hospital on the morning of July 2nd, when Mr. Lucas sounded him, and detected a stone. He was at once admitted into the hospital, and, his rectum having been cleared by an enema, Mr. Lucas operated the same afternoon.

The patient was put under the influence of chloroform, and a lateral lithotomy was performed upon Key's straight staff. The forceps being introduced, the stone was at once grasped, but some difficulty was experienced in removing it, owing to its large size. The forceps was reapplied, and, the stone being caught in its shorter diameter, it was slowly withdrawn, and the bladder afterwards washed out with carbolic lotion (1 in 40). There was no hæmorrhage after the operation. The calculus was oval in shape, and somewhat rough on the surface. It was composed of a thick coating of phosphates, enclosing the nucleus of uric acid. It weighed 250 grains.

July 3rd. He was sick twice after the chloroform, and his temperature, which was 99.4° before the operation, rose in the morning to 100.2°. The urine was passed through the wound.

July 4th. The temperature had fallen to normal, and he took his food well.

July 5th. His bowels acted after taking two drachms of castor-oil. The temperature was 98.4° Fahr. He complained of some smarting about the wound, and was thirsty.

During the next ten days, he made an uninterrupted progress towards recovery, the discharge from the wound gradually lessening and his temperature remaining normal.

No discharge was noticed from the wound on July 15th; and, on July 17th, the wound was quite healed. The patient was allowed to get up for the first time. He passed his urine frequently, and often involuntarily.

July 22nd. He had now regained control over his bladder, and passed his urine at regular intervals. He left the hospital quite well.

CLEANLINESS AMONG OUT-PATIENTS. — An American physician writes: The pubic and pudendal hairs are found to be a prolific source of disease among the poor, retaining secretions and filth. At every opportunity the patients are urged to wash themselves more freely, and to use as much care, and take as much pride, in being clean in and about the privates as they do with the teeth and hair of the head. In many cases it is advisable to snip off all extra hair about a chancroid or in those very unclean and negligent. In my experience, both sexes are too negligent of cleanliness of the sexual organs. Men with long foreskins often fail to draw back the skin to wash away the sebaceous matter collecting about the glans, while bathing, the result of which is a most sickening odour when it is discovered, and often causing irritation, eczema, and even a discharge, misleading one to believe it to be gonorrhœa. All ladies should wash the vulva daily; the vagina, even in health, should get its bi-weekly wash, and most certainly after menstruation. One medical man affirms that the lack of cleanliness is one grand cause of uterine disease. Small clots and films of blood may remain for days in the vagina after the menses, and, putrefying, act as irritable centres.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

WEDNESDAY, JANUARY 21ST, 1885.

GEORGE JOHNSON, M.D., F.R.S., President, in the Chair.

Distribution of the "Tubercle-Bacilli" in the Lesions of Phthisis.—ıe adjourned discussion on Dr. Percy Kidd's paper, on the Distri-ıtion of the Tubercle-Bacilli in Phthisis, was resumed by Dr. J. ıNGSTON FOWLER, who pointed out that there was evidence in the ıstribution of the lesions of phthisis in favour of the presence of ıe septic process. Naked eye inspection showed clearly that the ıions of phthisis progressed in a definite course, not by continuity tissue, but by reason of some infective property. It was difficult to ıd cases in which the primary lesion was in an early stage, but ere was good reason to believe that the lesions in the upper lobes d not differ essentially from those in the lower, which might be ob-rved in their early stages. In cases of arrested tuberculosis of the ex, some fibrosis, caseation, perhaps calcification, would be found; d very often in the lower lobe, a little below its posterior apex, at e termination of the posterior horizontal bronchus, some tubercular filtration was commonly present, even when the lesion at the apex ıs arrested at a very early stage; this condition might be seen even th a cavity at the apex; it seemed to show that from the earliest ıge the process was specific and infective. The lesion of the lower be was not always situated on the same side; in all the cases where ı had observed it on the opposite side, the patient was compelled, r one reason or another, to sleep on the sound side; a fact which ıinted to auto-infection by retained secretions, probably by inhala-ın along the main bronchi. If it were admitted that the bacillus was e cause of the tubercular process, it would be necessary to examine e possible modes of entrance, and the evidence was in favour of the ew that the specific poison was taken in by the respiratory passages. xperience, however, showed that there was little danger for a person, ıt of phthisical family, in associating with phthisical patients, while e opposite was probably the case with persons who did belong to ch a family. There would seem to be three factors in the produc-ın of the disease, namely, the seed of the disease, which was prob-ly the bacillus discovered by Koch, a suitable soil hereditary or quired, and the condition of the patient as to susceptibility, a con-tion which varied with the age and other circumstances.

Dr. COUPLAND referred to the great revolution which had taken ace in the popular views held with regard to the nature of tubercu-sis. In the discussion held at the Pathological Society about ten ars ago, Dr. Wilson Fox stood almost alone in refusing to accept the ews then popular in Germany, which were opposed to the specific ture of tubercle. It was now admitted that it was impossible to scriminate tuberculosis by histological tests alone; but the test inoculation-experiments, originally supposed to be fallacious, had ıw been shown to involve no fallacy. Few now denied the unity of ıthisis, and the application of the new test afforded by Koch's discovery ıowed that the field of tuberculosis was much wider than had been once ıpposed. Dr. Koch enumerated the following situations in which he had ınd bacilli: ulcer of the tongue, renal pyelitis, ulceration of bladder ıd rectum, caseated suprarenal bodies, tubercular ulceration of the terus, tubercular testicle, and solitary tubercular tumour of the brain; e had also found it in every one of twenty-one cases of strumous seating glands, in the granulation-tissue in cases of chronic disease joints, in caries of the carpus, tarsus, and spinal column, and antily in lupus. All the teaching of experimental research before is discovery was in this direction, namely, that tuberculosis might ımmence in any organ or tissue, and might remain localised there, ıt tended to become generalised, and Koch's discovery fitted in very ell with this view. There was good evidence that the tubercular ocess could terminate spontaneously, and this, as previous speakers ıd observed, was a most important clinical fact. The relation of e bacilli to the softening process, their scarcity in the fibroid, and eir abundance in the caseous parts, might be due to the action of e products of their metabolism being the cause of caseation; this planation was quite as tenable as the other suggestion, that they ere most numerous there because they were concerned only with struction.

Dr. T. D. ACLAND said that, in conjunction with Dr. Walter dmunds, he had examined the sputum and tissues in a number cases. In all cases in which tubercular lesions were discovered after death, tubercle-bacilli were at one time or other found in the sputum. In some cases in which innumerable bacilli were found in the sputum, none were found in the tissue; in other cases, in which bacilli were present at one time in the sputum, but subsequently disappeared, innumerable bacilli were found in the tissues. In some cases of undoubted tuberculosis, he had been unable to find any bacilli in the tissues; although the same manipulations showed large masses of bacilli in specimens from *perlsucht*. He thought the methods of staining were not satisfactory; apparently the bacilli of leprosy and of glanders stained in the same way. There seemed to be no direct correspondence between the number of bacilli and the amount of the lesion. Where the lesions had been exposed to the air, the bacilli were invariably found in the tissues, but in cases not exposed to the air, this was not the case. Dr. Mules had failed to find tubercle-bacilli in tubercular choroiditis. He did not desire to attach too much importance to these failures, and was quite ready to admit that they might be due to some fault in the method of preparation.

A letter which Dr. CREIGHTON had addressed to the President was read by the Honorary Secretary, Dr. DOUGLAS POWELL. It ran as follows.

"The interpretation put by Mr. Watson Cheyne in his speech at the last meeting upon a printed sentence of mine, relating to Dr. Koch's procedure, is one that I certainly did not intend it to bear, did not even suspect it could be made to bear. I wish most explicitly to disclaim any charge of personal bad faith against Dr. Koch, and to express my regret that the words, 'his omission might be taken in good faith,' which I inadvertently let pass, should have given the slightest colour to that charge. What I do mean is, that, for my own part, I cannot consent to overlook or make light of the omission in question, merely on the faith of Dr. Koch's high repute and general accuracy."

Dr. HERON said that Sir Andrew Clark's experience in his search for tubercle-bacilli was unusual; his statement that the bacillus was not found in fibroid phthisis was contrary to his (Dr. Heron's) experience, as in the sputum, sooner or later, a careful and systematic search would discover the bacillus. The failure to find the bacillus in cases of acute tuberculosis must be put against the strong evidence on the other side. The objections raised by Dr. Creighton must be supported, he contended, not by argument, but by experiment; and this Dr. Creighton had failed to do. The occurrence of the organism in the sputum was of use as an aid to prognosis; the fewer the bacilli, the better the prognosis; when clumps of bacilli were a prominent feature of the specimens of the sputum, then the case generally ran a rapid course.

Dr. BERNARD O'CONNOR referred to the alleged discovery of bacilli morphologically similar in syphilitic chancres and gummata. He thought it difficult for physicians, who were not experimenters, to arrive at any definite conclusions with regard to the importance of the bacillus.

Dr. DRYSDALE believed that Dr. Koch's discovery afforded clinching evidence of the specific nature of tuberculosis; pathology had been pointing towards this for a generation. He looked upon the organism as pathognomonic of the disease and causative of it, while fully recognising that other factors, such as hereditary predisposition, played an important part.

Mr. MACNAMARA, in the earlier stages of disease of bone, had failed to find the bacillus of tubercle. He referred to cases of patients suffering from tubercular disease of the hip, or other bones; patients who were sometimes carried off by meningitis; in such cases, miliary tubercles were found in the bone at the junction of the diaphysis and epiphysis, without any local reaction. In cases which had gone on to suppuration, the bacillus might generally be found, especially when there was a sinus communicating with the external air. He was, therefore, inclined to say that tuberculosis of bone could originate without the presence of tubercle-bacilli, which, however, subsequently appeared in a later stage. That the admission of air, however, was not essential, was shown by a case which he quoted at length, a case in which the formation of abscesses, in connection with the femur, necessitated amputation; the pus in the medulla of the bone was crammed with bacilli, although there was no sinus or other connection with the air. The case was further remarkable in that the patient had made an excellent recovery. He believed that it was true that bacilli were not found in strumous disease of bone; but this was not evidence on the point in question, as struma and tuberculosis presented other points of difference.

Dr. PERCY KIDD, in reply, observed that Dr. Creighton's objections would be most serious if they could be sustained, but he thought that Mr. Watson Cheyne had very fairly met these objections. With reference to some remarks which had fallen

from Dr. Wilson Fox, who had pointed out the danger of placing much reliance on colour-reactions, he observed that Dr. Koch based his theory, not on the colour-reactions, but on the result of his cultivations and inoculations. There were undoubtedly, as Dr. Wilson Fox had contended, many fallacies to guard against in the examination of the sputum. The bacillus of leprosy was admitted to have the same staining properties. He was prepared to endorse the views expressed by Dr. Green, but would propose to add to his definition of phthisis the further proposition that the consolidation had a tendency to undergo a fibro-caseous change. In reply to Dr. Herman Weber, he said that it was true that, as a rule, the bacilli were found between the cells ; but occasionally they might be seen within the cells, and in giant-cells they were commonly present. Epithelioid cells were always found in the early stage of the lesion. Giant-cells were probably not possessed of any high vitality, and probably had not any protective power. In certain instances of tuberculosis, he had failed to find bacilli ; and, as a general rule, he had observed that where the nodules were small, crowded, and uniformly distributed, the number of bacilli was small ; but where the nodules were larger, and where there was more tendency to the production of catarrhal pneumonia, the bacilli were very numerous. Success or failure in finding the bacilli depended, probably, to a great extent, on the stage of growth. So soon as the fibroid changes commenced, the bacilli became less numerous ; when the tissues broke down, they again became very numerous. In acute tuberculosis, sufficiently prolonged search, almost invariably resulted in the discovery of some bacilli. In staining his preparations, he had followed the process described by Mr. Watson Cheyne in his report. The tissue was hardened in absolute alcohol, which was changed several times during a week. The sections were stained in Weigert-Ehrlich's solution of fuchsin. He found it an advantage to have this solution made frequently, and did not use it after it had been made for a fortnight. He kept his specimens in the staining fluid for twelve hours. Staining could be effected in two hours, if the solution were warmed and the fluid changed. After staining, the sections were transferred to nitric acid, then washed in weak methylate spirit, and stained again in saturated solution of methylene-blue ; they were then cleared in oil of cedar, and mounted in Canada-balsam dissolved in benzole. He was at first inclined to take the same view as had been expressed by several speakers, which was, that the tubercles were only found when the lesions were exposed to the atmosphere. He was now convinced that this was a mistake, for he had found them in tubercular meningitis, in all the six cases he had examined, and in caseous disease of the vesiculæ seminales. It was easy to overlook the bacilli, and at certain stages they became very scanty, or were not to be found. If it could be believed that, as Mr. Watson Cheyne suggested, the bacilli produced some chemical product, that might account for its action at a distance. Probably, the spread by continuity was very limited, and dissemination took took place through the air-passages and lymphatics of the lung. Generalisation must be brought about through the blood-vessels ; he showed a specimen in which a tubercular nodule containing many bacilli projected into a vessel. Though caseous pneumonia differed from tubercular phthisis clinically in many respects, it resembled it in others ; it was infective, and its secondary lesions were histologically identical with tubercle ; he could not, therefore, accept Sir Andrew Clark's argument as of valid force. He believed the bacillus was necessary to the development of tuberculosis, but that other factors must be present. The views expressed by Dr. Andrew in his Lumleian Lectures (see BRITISH MEDICAL JOURNAL, vol. i, 1884) commended themselves to him as most logical and rational.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, JANUARY 20TH, 1885.

J. S. BRISTOWE, M.D., F.R.S., President, in the Chair.

President's Address.—Dr. BRISTOWE, in taking his seat as President, delivered an address, in which he glanced at certain points in the history of the Society, and recalled certain reminiscences of some of the Presidents of the Society in its earlier years—of Dr. Latham, Mr. Cæsar Hawkins, Dr. Babington, and Dr. Copland. The Society had only been in existence a few years when Dr. Bristowe joined it. It grew rapidly in size and importance, and attained success more quickly than any other medical society ; it became and continued a success because it satisfied a real want. It was emphatically the society of the young and ardent seekers after truth in that branch of knowledge which is the foundation of all scientific medicine. The Society could only encourage original investigation of the first order, indirectly, by inducing workers to display specimens which presented points of novelty or of special interest. Its special duty was the collection and record of material ; discussion of the specimens shown could never be prolonged, for it was impossible for any one to discuss an abstruse pathological subject on the spur of the moment. He fully agreed with the view expressed by his predecessor in the presidential chair, that the formal debates which had been held on several occasions lacked spontaneity, and were in reality but a series of monologues. —A vote of thanks to the President for his address, of which a very brief outline has been given, was moved by Dr. PYE-SMITH, seconded by Dr. CAYLEY, and carried by acclamation.

Tumours of Spermatic Cord.—Mr. A. J. PEPPER read notes of a case of myxoma of the left spermatic cord, removed from a patient aged 75. The tumour had been growing for ten months. It weighed, when fresh, rather more than one pound. It was completely encapsuled, and was readily shelled out of its bed of areolar tissue. Two or three cysts projected from the growth, and its anterior surface was deeply grooved by the spermatic cord. Neither the testicle nor the vas deferens was implicated. There were no secondary deposits. The sectional surface presented generally a gelatinous quivering appearance. Under the microscope, there was seen a clear ground substance, threaded by fibres of connective tissue, and strewn with round, oval, angular, and branched cells. Mr. Pepper had used the term malignant on account of the rate of growth of the tumour, and its structural affinity to sarcoma. He then alluded to several recorded cases of connective tissue growths springing from the spermatic cord, and remarked on the impropriety of classing them with the carcinomata, since, in the first instance, they attacked neither the skin nor the spermatic epithelial tract.—Mr. Pepper also showed a specimen of colloid cancer of the spermatic cord, which had been preserved in the museum of St. Mary's Hospital. The tumour had been in existence for seven years, when the patient began to suffer from symptoms of malignant disease of the œsophagus, and quickly died. After death, a similar, but smaller growth was found in the spermatic cord of the opposite side ; the disease of the œsophagus was also colloid. The primary colloid growth was not connected with epithelial structures, and apparently began in connection with some embryonic remnant, and was therefore of sarcomatous nature.—In reply to Mr. ALBAN DORAN, Mr. Pepper said that there were no secondary growths in the cysts in the first case.—Mr. BUTLIN observed that a few years ago Mr. Walsham had shown a spindle-celled sarcoma, which had probably, but not certainly, sprung from the spermatic cord. Mr. Butlin had seen a second case of sarcoma which must have sprung either from the spermatic cord or the tunica vaginalis.

Congenital Malformation of Heart.—Dr. NORMAN MOORE showed the heart of a cyanotic boy, aged 3 years, a drawing of the boy showing the rash of measles, modified by cyanosis, and a microscopic section of one of the clubbed fingers. The heart showed great hypertrophy of the right ventricle ; the left ventricle being of normal size. The tricuspid and mitral valves were natural. The pulmonary artery was given off at the normal situation. At its root, its external measurement was barely a quarter of an inch. Internally, its valves were represented by a small cone projecting into the artery, with a perforation at its apex no larger than a medium-sized pin. The aorta was larger than natural, and measured three-quarters of an inch across (external measurement) at its origin. The valves were normal, and its orifice communicated freely with both ventricles, being exactly over a circular orifice at the top of the ventricular septum, about three-quarters of an inch in diameter. The foramen ovale was widely open. During life, the child was deeply cyanosed when it had measles ; the rash had the appearance of general purpura. The child was under observation from April till its death, in November, 1884. When the heart's action was irregular, no murmur was heard, but when it was acting quietly, a systolic murmur was audible, and was most distinct between the left nipple and the sternum. There was deep general cyanosis, with dilatation of all the superficial veins, those of the eyelids being especially sinuous and distended. The child sank rapidly with necrosis of all the tissues of the right cheek, including a small piece of the superior maxilla. The fingers and toes were clubbed. On cutting into them, after death, the clubbed ends could be reduced by pressure to the normal shape. Microscopic sections of one of the terminal phalanges of the second right toe showed that the clubbing, while chiefly due to mere engorgement, was associated with some thickening of the walls of the blood-vessels. The mother had had another child cyanotic at birth. The child, whose heart was shown, did not, the mother said, become cyanotic till some months after birth. The earliest English description Dr. Moore had met with of a heart of this kind, in which there was a minute pulmonary artery, with free interauricular, as well as intraventricular, communication, was by Dr. William Hunter, in 1783. The present case showed that children

h this defect might get over measles without much more trouble n healthy children. It was further interesting in the fact that death s ultimately due to a necrosis, attributable to the defective condi- n of circulation.

Synostosis of Dorsal Vertebræ.—Mr. DAVIES-COLLEY related the his- y of a patient—a man aged 32—who had previously been shown to Society. He had been subject to rheumatic pains from early th, and gradually began to find great difficulty in rising into the t posture. Projection of the back was first noticed eight years , and the pain and discomfort became so considerable that he was iged to adopt a sedentary employment. The patient was a muscu- man, but was only 5 feet 2 inches high. The curvature of the k was quite regular, and there was no deviation to the right or the . At the junction of the first rib-cartilages with the sternum was ony mass. Expansion of the chest was very limited; pressure on vertex caused pain in the back, and sudden movements were also nful. Dr. Fagge, Dr. Allen Sturge, and Mr. Clutton had shown ilar cases, and all the patients were about the same age. The ure of the disease was not very clear; but it seemed probable that re was some chronic inflammatory change in the periosteum, with a dency to ossification of the ligaments. The cause of the affection s very obscure. In this case, it had no connection with gonorrhœa. father had had two attacks of acute rheumatism, and the patient had n much exposed to great alternations of heat and damp.—Dr. WILKS erved that the subject raised by Mr. Davies-Colley had received nderfully little attention. The case recorded was an extreme ex- ple; but slighter degrees of this condition were not uncommon, and ght account for many of the pains which old people experienced in back. The changes most commonly affected the articular sur- s, and bony plates and processes formed. The stiff bowed k of old age was probably due to changes of this kind.—Mr. NORMAN MOORE recalled that changes of this kind had n seen in vertebræ found in a Roman grave, opened in digging ndations at St. Bartholomew's Hospital.—Dr. GOODHART observed t there was some evidence that injury could produce the condition. Dr. BARLOW had had three cases of spondylitis deformans under his e. One was a young man in whom severe backache followed ex- ure; his height was diminished by five inches, and the pain was severe that he eventually committed suicide. In another patient, d 36, the symptoms of spondylitis deformans were accompanied by eo-arthritis, and dated from an attack of gonorrhœa, followed by umatism. In two other cases, there was a distinct history of umatism, and the patients had cardiac murmurs. But, in other es, the onset of the disease was very insidious, and there was no dence of osteo-arthritis.—Mr. J. BLAND SUTTON observed that he d seen a similar curvature in a camel; and that the antiquity of disease was proved by specimens of the Irisk elk, now extinct, hich were preserved in the museum in Dublin; the vertebræ pre- ted these changes in an unmistakable way.—Mr. DAVIES-COLLEY fly replied, and said that he looked upon the disease of which he l shown a specimen as quite distinct from the bowed back of old e.

Tubular Epithelioma of the Upper Jaw.—Mr. BILTON POLLARD showed imens of a tumour removed from a man aged 60. The growth upied the upper jaw, but the teeth were sound and the alveolus lthy; the growth had a greyish white surface on section; the ient made a good recovery, and no recurrence was noticed when he t the hospital. Microscopic examination showed that the greater rt of the tumour consisted of tubes or columns of small cells rami- ng through a hyaline and finely fibrillated stroma, which in reality sisted of spindle-cells; the tubes were without lumen, and com- tely filled with cells; the stroma, where abundant, showed a few nd cells scattered through it. In parts, there was some colloid de- eration; clinically, the tumour presented some resemblance to ing epithelioma, and possessed, in all respects except the absence ell-nests, the typical characters of squamous epithelioma; the sec- ns, however, exactly resembled the tubular epithelioma of Cornil l Ranvier.

Suppurative Arthritis in Syphilis.—Dr. CARRINGTON showed, for . ARBUTHNOT LANE, specimens from a child eight weeks old, who s the subject of congenital syphilis. The hip, knee, and shoulder one side and both elbows were distended with pus; the epiphysal was healthy in all these cases, and the synovial membrane did appear to be affected. In the upper lobe of one lung was a gum- tous tumour; in the lower end of the left humerus was a small area softening. The ribs were ricketty.

Card-specimens.—Dr. NORMAN MOORE: 1, Disease of Sacro-iliac nt, following parturition; 2, Renal Tumour larger than a Man's ad, and consisting of cholesterin; 3, An Aneurysm of the Anterior Aortic Valve. Dr. F. C. TURNER: Horseshoe-kidney, with Sarcoma of Adrenal Bodies. Mr. J. POLAND: Suppurating Caseous Bronchial Gland, opening into œsophagus and left bronchus. Mr. MARMADUKE SHIELD: 1, Growth, probably Gummatous, of the Liver; 2, Polypus of the Rectum. Mr. W. H. BATTLE: Cyst of Wall of Small Intestine, containing creamy fluid; removed by Mr. Sydney Jones, from a woman aged 25, by abdominal section. A swelling had been noticed for eight years. (This was a recent specimen.)

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, DECEMBER 19TH, 1884.

T. ORME DUDFIELD, M.D., President, in the Chair.

The Status of the Medical Officer of Health as a Criterion of Sanitary Progress.—Mr. HENRY E. ARMSTRONG, Medical Officer of Health of Newcastle-on-Tyne, read a paper on this subject. He said that a correct idea of the public desire for sanitary progress was to be formed by the position accorded to health-officers. In the present state of opinion, the post of a health-officer was one of devotion and self-sacrifice, without adequate return. He was doing good work, and his action was approved at head-quarters; but the feeling among health-officers in general was one of disappointment with their position. The causes of dissatisfaction were external and internal to the body of officers of health. The former included the anomalies of sanitary districts as regarded area and population; the amount of attention to be bestowed on his district by the officer; the terms of appointment; irregularities of remuneration in different districts, and smallness of salary, as compared with other public professional officers; want of proper consideration for the office and officer on the part of local authorities, as shown by their treatment of his advice (reports, etc.), and the amount of authority given him; opposition between the health-officer and the inspector of nuisances. The remuneration of the health-officer was generally inadequate, and he was sometimes tempted to take other, and even unprofessional duties, to eke out a slender income. His salary in many instances was liable to reduction; generally, owing to the short period for which he was engaged, he was exposed to frequently recurring risk of loss of office. He had no prospect of pension with advancing age. His relations to the public were difficult. Duty brought him into conflict with private interests. He did not receive sufficient support from those in authority. Internally, the causes of dissatisfaction were, among others, that medical men accepted appointments at unfairly low rates of remuneration, and without due regard to the responsibilities of the duty they undertook. The foregoing circumstances reacted on each other, with the result that, both on the part of the public and of the practitioner, the cause of sanitation, and, *pari passu*, the status of the officer practising it, suffered. The status might be improved (1) by equalising the health-appointments through compulsory combination of small districts, and by appointing superintendent medical officers of health over entire counties or groups of counties; (2) by the Local Government Board exercising more control over the appointments and duties of officers; (3) by the local sanitary authorities being deprived of the option of ignoring the sound advice of their health-officers; (4) by extending the authority of health-officers; (5) by making his recompense and prospects equal to those of other professional men on his own level; (6) by giving the officer satisfactory tenure of his appointment. The holding of health-appointments by private general or consulting practitioners was not desirable. The salaries of the appointments should be sufficient to render such a mode of increasing the income unattractive. The officer might with advantage hold certain other public appointments relating to hygiene—as, for example, those of medical superintendent to a hospital for infectious diseases, coroner, public vaccinator, superintendent registrar of births and deaths, lecturer on hygiene at a medical school, examiner for university degrees in sanitary science. He might also, under certain circumstances, act as public analyst, if he had received proper and sufficient training for that office, and if he had assistance, so as to prevent the work from interfering with his other duties. He should not accept such offices as superintendent of scavenging, inspector of nuisances, veterinary inspector, etc. The intending medical officer of health of the future should undergo a term of pupilage and assistancy with a health-officer; and, before applying for full appointment, should be able to produce a distinctive sanitary diploma or degree, such as that of doctor or bachelor in hygiene, by examination, after completion of a recognised curriculum. The paper concluded by recommending that the questions raised be referred to the Council for their report, with the view of practical action being taken by the Society.—In the discussion which followed, the President, Drs. Saunders, Seaton, Gibbon, Bate, Walford, and Messrs. Hartt, Furnivall, Blyth, and Jacobs, took part.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

JANUARY 9TH, 1885.

J. H. BELL, M.D., President, in the Chair.

Specimens.—Dr. JAMES ALLAN showed the following Pathological Specimens. 1. Abdominal Viscera, from a child 2 days old, showing evidence of old peritonitis, also complete closure of the bowel towards the cæcal end of the ileum. The infant had symptoms of intestinal obstruction for twenty-four hours before death. 2. A Growth, apparently Osseous, weighing over half an ounce, removed from the pelvis of a kidney in a patient dying from anæmia. 3. Intestine from a case of Nitric Acid Poisoning.—Dr. F. M. GRIFFITH showed a series of Hearts, illustrative of various pathological conditions. Two of these, with left sided hypertrophy from granular kidney, and dilated right side of the heart from bronchitis respectively, had loud systolic *bruits* at the apex, so-called mitral regurgitant, with no valvular lesion.—Dr. GRIFFITH also showed microscopic sections of the Suprarenal Capsules, from a case of Addison's Disease. The capsules were large and fibroid in texture, each weighing an ounce. The sections showed a small-celled infiltration of the gland, with numerous giant-cells, and finely granular matter. Many of the smaller vessels showed advanced obliterative arteritis. Tubercle-bacilli had been searched for, with a negative result.—Dr. EDDISON showed a specimen of the Comma-bacillus, prepared by Mr. Watson Cheyne from a case of cholera.—Mr. WHEELHOUSE showed a micro-photograph of Koch's Comma-bacillus, taken by Mr. FOWKE with a one-fifteenth of an inch water-immersion objective.

Fibroid Tumour of Uterus—Dr. JAMES BRAITHWAITE related a case of fibroid tumour, sessile on the anterior wall of the uterus. This was removed from the peritoneal surface of the uterus by enucleation, and a large abscess was opened into the capsule of the tumour. The abdominal wound was closed, but free drainage was provided for by the capsule being stitched to the lower angle of the wound. The patient was in very bad condition at the time, having been tapped for ascites repeatedly, and she died, after twelve hours, from cardiac thrombosis.—Mr. JESSOP said that his experience of the removal of uterine myoma by abdominal section was limited to three cases, In 1865, he performed hysterectomy, by the extraperitoneal method, in a case of very large multiple myoma ; and the patient died, after the removal of the clamp, on the sixth day. A few years later, he operated on a similar case in like manner, and the patient died in a few hours. A few weeks ago, he operated, by enucleation, in a case in which the tumour weighed between four and five pounds. He found some difficulty in stripping the tumour of its cyst, but there was not much hæmorrhage. In dealing with the cyst, he everted its edges, so as to bring the serous surfaces into contact to the extent of about the upper five-sixths, and stitched the margins at the lower end to the abdominal wall for drainage. The patient was now convalescent.—Mr. C. G. WHEELHOUSE mentioned two cases of abscesses in the uterine walls, one of which opened primarily into the bladder, the other directly into the uterine cavity, both of which were reached through the cervix, and satisfactorily treated.

Hysterical Ischuria.—Dr. HELLIER read notes of a case of hysterical ischuria in a young lady, aged 15. There was for nearly seven weeks scanty urine, with periods of complete suppression. On two occasions there was no secretion for forty-eight hours, and once it was asserted that no urine was passed for five days. There were also severe attacks of gastralgia, obstinate constipation, and menstrual irregularity, but no great vomiting, and no anæmic symptoms. After considering the possibility of fraud, Dr. Hellier discussed the use of the word "hysterical" as applied to this case, pointing out its applicability to such a case in reference to diagnosis, prognosis, and treatment, with special reference to the employment of moral means of cure.

Laceration of the Arm.—Mr. MAYO ROBSON showed a patient who had sustained an extensive laceration of the arm, which left a large gap, seven by three inches, in front and above and below the right elbow-joint, exposing the brachial artery. After a sharp attack of secondary hæmorrhage on the fifth day, from ulceration into the brachial artery, which necessitated its ligation, healthy granulations covered the wound. On the sixteenth day after the accident, a large flap of skin, with its base below, was reflected from the thorax, and placed directly on the granulating surface ; the attached pedicle, one inch and a half wide, being separated on the twelfth day. The flap had become united to nearly its whole extent, and the patient had now a sound right arm, with every movement perfect. The points of interest in the case were, 1, the transplanting of the flap directly on to a granulating surface ; 2, the question as to whether the exposed brachial should have been ligatured at first. Bearing on this, Mr. Robson had seen a case, in which the carotid artery was not only exposed but notched, heal without hæmorrhage.—Dr. BARRS pointed out the little tendency blood-vessels had to participate in pathologic changes going on in their vicinity so long as the blood-stream throug them was uninterrupted.—Mr. JESSOP related several cases where h had successfully transplanted flaps on to granulating surfaces.—M Wheelhouse and Mr. Ward spoke.

Tender Stump.—Mr. W. H. BROWN related a case of tender stum following amputation of a stiff index-finger after two months. Th stump was removed ; and, on examination, two small fibrous nodul were found situated in depressions at the end of the bone, consistin of nerve-fibres imbedded in fibrous tissue, or false neuromata.—M Jessop related a case in many respects similar, where amputation o the finger failed to relieve ; but, after years of suffering, the neuralgi spontaneously disappeared.

Syphilitic Paralysis.—Dr. CHURTON showed a patient sufferin from syphilitic paralysis affecting equilibration. The symptoms we mainly ataxic, and the patient had considerably improved under ant syphilitic treatment.

Spina Bifida.—Mr. MAYO ROBSON showed a girl, aged 16, fro whom he had removed, on December 10th, the sac of a spina bifida the size of a fœtal head. There had been severe brain-symptom apparently due to inflammation of the sac, with great increase of t fluid and pressure on the nervous centres. The patient was in goo health, and the site of the tumour presented only a cicatrix. H drew attention to the following points : 1, the rise of temperature d to simple pressure ; 2, the suppuration set up by tension, and n necessarily septic ; 3, the new departure in the treatment of suc cases ; 4, the excellent result of the operation, which undoubtedl saved the life of the patient.—Dr. Eddison, Mr. McGill, and M Jessop took part in the discussion.

BATH PATHOLOGICAL AND CLINICAL SOCIETY.

TUESDAY, DECEMBER 9TH, 1884.

S. CRADDOCK, M.R.C.S.Eng., President, in the Chair.

Tabes Dorsalis simulating Myelitis.—Dr. FOX read notes of a ca of tabes dorsalis simulating, in its early stages, myelitis. The patie was a syphilitic woman, aged 25, who had been subjected to mu ill-treatment. When in apparently good health, she was sudden seized with paraplegia and pains in the legs, together with girdl pain ; the reflexes, both superficial and deep, were absent. There w no history of alcohol. At this time, Dr. Fox was inclined to class t disease as one of myelitis; but subsequently all the reflexes, exce patellar, returned, and the power of progression re-established itse though with ataxic gait. The pupils throughout were contracte neither responding to accommodation nor to light.

Rupture of Uterus.—Mr. H. W. FREEMAN showed a specimen of ruptured uterus, which occurred during labour in a woman, the moth of eight children, who had been attended by a midwife. Although was an arm-presentation, labour was permitted to proceed for fort eight hours, help only being sent for when the mischief was do Mr. Freeman performed abdominal section. The head of the chi was found protruding through a rupture in the anterior wall of t cervix, the neck being tightly grasped by the contracted uterus. hæmorrhage occurred during the operation. Death took place twel hours later. At the necropsy, no contraction of the pelvis was foun There was a second rupture in the upper and posterior part of the vagi

Cancer of Pylorus.—Mr. R. DAVIS produced a specimen of cancer the pylorus causing complete obstruction. The patient, a male, ag 60, came under medical treatment three months prior to death, wi symptoms of dyspepsia. The stomach was contracted.

Cancer of Breast.—Mr. H. G. TERRY exhibited microscopic sectio of a spheroidal-celled carcinoma of the breast undergoing cystic generation. The sections showed cysts in early formation. T transformation Mr. Terry considered rare.

DONATIONS.—The Norfolk and Norwich Hospital has received o hundred guineas "in memory of Emily Charlotte Bears."—Ma Ernest Thurlow has (from funds at his disposal for charitable purpos given £100 to the National Hospital for Consumption at Ventnor. The Grocer's Company have given £100 to the Hospital for Women. Messrs. George Nelson, Dale, and Co., have given £100 to the Wan ford Hospital, Leamington.—The Wolverhampton and Staffordsh General Hospital has received £100 from Mr. Thomas Vincent Jacks one of the honorary surgeons, collected by him towards the cost of t new building for the treatment of the diseases of women.—T Mercers' Company have given fifty guineas, additional, to the Ro Hospital for Children and Women

REVIEWS AND NOTICES.

Epitome of the Reports of the Medical Officers of the Chinese Imperial Maritime Customs Service, from 1871 to 882. With Chapters on the History of Medicine in China; Materia Medica; Epidemics; Famine; Ethnology; and Chronology in relation to Medicine and Public Health. Compiled and arranged by Surgeon-General C. A. Gordon, M.D., C.B. London: Baillière, Tindall, and Cox. 1884.

e Reports of the medical officers of the Chinese Imperial Maritime stoms Service reflect great credit on everyone connected with ir publication, and on Sir Robert Hart and Dr. Jamieson re particularly; and it is satisfactory to observe that the honourable ne which the Reports have won for themselves amongst medical ials, is such as to repay these gentlemen, to some extent, for the olic spirit, and, in the case of the latter, for the great expenditure time, which editorial duties have entailed.

o Sir Robert Hart, the Inspector-General of the Chinese Imperial stoms Service, the thanks of all who are interested in the progress medicine are especially due, for having undertaken the publication he Reports. Indeed, their publication is a testimony to the conince which the Chinese place in him, as well as to the generous it which actuates the Chinese governing clssses, when they are sfied that they can further the public good.

ince 1871, the Reports have been regularly issued at the expense he Chinese Government; and the contributions from the medical n of the Customs staff of the various ports during these years con- a great amount of valuable information. Dr. Jamieson, of nghai, at whose suggestion Sir Robert Hart directed the prepara- n of the Reports, has continued, from the first, to act as editor, many important papers by himself have found a place in them. undoubtedly the greatest part of all this valuable information ld have been lost, had it not been abstracted and arranged by Dr. DON; and only those who have been in the habit of reading the orts as they were published, can appreciate the useful labour ch Dr. Gordon has happily concluded. Dr. Gordon is admirably lified for the task he undertook. He is himself a somewhat voluous author of books, which treat of subjects with which the orts are largely occupied; and it is now a considerable number of rs since he published a work entitled *China from a Medical Point View*, in which many valuable facts are recorded. Nothing but otion to the subject and the habit of indefatigable industry could e induced him to undertake the compilation of such a work as that before us.

he Reports, condensed and arranged by Dr. Gordon, are written by lical men practising in nineteen treaty-ports, and in Peking, and prise, therefore, information regarding climate, habits and customs, prevalent diseases, in parts embracing the great extent of territory uded between Newchwang in the extreme north, and Kiung Chow, he island of Hainan, in the extreme south. Dr. Gordon has, in first chapter, brought together, under the heading of Local Conons in Relation to Public Health, much interesting information rding the habits of the Chinese people as observed at the different ts; and this chapter contains materials for the sociologist and itical economist, as well as for medical men, and affords much resting general reading. Besides reference to disease, we find in chapter remarks on scavengers, beggars, filth, manure, drains typhoid fever, topography, sanitation, water, food, social condition he people, climate, cultivation, prisons, the physical condition of Chinese, etc.

he second chapter treats of Historical Notices of Medicine in China, of certain epidemics, etc., followed by an epitome of all that Dr. don has been able to cull from the Reports regarding the diseases valent in China. This chapter, which contains an immense amount nformation, must be regarded as an important storehouse of facts, ch writers on epidemiology for a long time to come will not be able eglect.

he third part of the volume gives information regarding Therapics and Drugs; and in it Dr. Gordon has not only collected the ces of the effects of drugs with which we are familiar in the treatt of disease in a malarial country like China, but has given a good of most interesting information regarding the treatment of dis- by the Chinese.

the appendix will be found, amongst other matters, a list of the emics which have ravaged the province of Chehkiang from the latter of the first century of our era, compiled from authentic official documents by Dr. Macgowan, supplemented by a register of epidemics in China, taken from an Imperial Encyclopædia published in Peking in 1726, the register embracing the period from B.C. 224 to A.D. 1644. The chronological order of the combined records affords a standard whereby to compare them with some at least of the pestilences in other parts of the world mentioned in medical or other history. Dr. Gordon has interlineated in the chronology references to epidemics which have ravaged western countries, and believes that it is possible to trace a certain connection between them and those that occurred in China.

These remarks can give but a faint idea of the labour which Dr. Gordon has imposed upon himself in compiling this important work; and we hope he will have the only reward to which he can have looked—namely, that of seeing it become useful in the hands of writers on epidemiology, climatic disease, and the history of medicine as a science. The volume is one that should certainly at once find its place in all libraries consulted by medical men, whilst those who follow the progress of medicine with a liberal spirit will find their advantage in having it as a permanent addition to their own libraries.

Text-book of Medical Jurisprudence and Toxicology. By John J. Reese, M.D. Philadelphia: 1884.

The author, who is Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania, and is favourably known on the American continent for his *Manual of Toxicology*, has here produced a handy octavo manual of 606 pages, written more particularly to meet the wants of students. In a work undertaken with this limited view, it is not to be expected that much new matter will be found, and that the various chapters of the book should treat in any very elaborate manner the problems of forensic medicine. Rather one looks for sound elementary teaching, and a careful exposition of what is accepted as well established doctrine. Viewed in this light, Professor Reese's text-book will be found fairly satisfactory, and will prove an useful manual for transatlantic medical students and practitioners.

The author follows too closely the well known works of Taylor, and Tidy and Woodman, to permit of its supplanting these to any appreciable degree in this country. Indeed, Taylor's works are too slavishly followed. The late Dr. Swaine Taylor was accustomed to say that Professor Reese, in his *Manual of Toxicology*, had rather too freely made use of his (Taylor's) books, without due acknowledgment. We are glad, however, to find that, in the manual of forensic medicine and toxicology now under review, the author very creditably acknowledges the sources whence he draws his facts and conclusions. On the whole, the work is very fairly done. In the section devoted to the coroner's court, however, we observe no notice of the great and salutary revolution which some years ago took place in the State of Massachusetts, when the old coroner's court, with its bribery and corruption, was swept away, and a better system of medical inspection introduced; a change which resulted from a base and unsuccessful attempt of some quacks to suppress an excellent Scotch gynæcologist practising in the capital of Massachusetts.

The Twentieth Annual Report of the Sanitary Commissioner for Madras, 1883.

There is no health-factor more anxiously looked for in India than a good rainfall. Mr. Pogson, the Madras astronomer, foretold in 1878 that Southern India "is passing through a cycle of equable rainfall, which is not likely to be disturbed before 1887 or 1889." The year 1883 was one of fair average in this respect. As a consequence, the price of food-grains was low. In other words, the people were well fed. It is satisfactory to see that efforts are continually in progress in India to improve the registration of vital statistics. The civil medical officers of districts are, by recent orders, made sanitary officers, and have authority to supervise the returns of births and deaths. In time, this will secure greater accuracy than has hitherto been attained. The population of the Madras Presidency is 30,835,771. In 1883, 791,774 births were registered; this was a birth-rate of 27.7 per 1,000, the highest yet reached. The deaths amounted to 541,930, in returns received from a population of 28,503,100, a death-ratio per 1,000 of 19.0, against 16.2 of the previous year.

Madras, towards the end of 1881, was invaded by cholera, which continued in the southern provinces during 1882 and throughout 1883. The northern district almost entirely escaped, as in the previous year. Towards the end of the year, it reached Nellore, and was reported to be extending to the Northern Circars, along the line of the canal. The deaths from this disease were 36,284, being a death-rate of 1.2 per

1,000 of the population; the average of the previous five years was 0.6. From a table given, the mortality from cholera was higher in 1883 than in any year since 1878. Small-pox was very fatal, causing 37,975 deaths, representing a death-rate of 1.3 per 1,000 of the population; also a higher mortality than in any year since 1878. We have our vaccination difficulties at home, but they are as nothing compared with those of India. The goddess Mariamma takes the place there of Mr. Peter Taylor in England, and far surpasses that legislator. Worshippers appear to look on a visitation of the disease as a mark of her favour. An epidemic excites no surprise, and awakens no desire in the minds of the people to grapple with it. It cannot then be wondered at that the efforts of the vaccinators meet with but little success. In the district of the town of Madras, vaccination will henceforth be compulsory. It will be interesting to watch the effect of this bold measure against the loathsome goddess. Fevers, as is almost invariably the case in cholera and small-pox years, were very fatal; 203,786 deaths were registered under this head, a death-rate of 7.1 per 1,000, thus verifying an old observation of Dr. Cornish's, that fevers destroy more of the people of India than cholera and all other diseases put together. Bowel-complaints, as is usual in cholera-years, were very numerous. Snake-bites and wild beasts account for 2,318 deaths.

The strength of European troops on January 1st, 1883, was 11,528, increased during the year to 13,458. By invaliding, discharge, and expiry of time, the force was reduced to 10,774. The admissions into hospital amounted to 9,910, the smallest number since 1880. The deaths were only 10.0 per 1,000, also the lowest figure on record since 1880. Although cholera prevailed during the year, the Europeans escaped well. There were only 19 cases, of which 10 proved fatal, a fact which speaks well for the sanitation of the various stations and barracks in the Presidency. Small-pox gave 9 admissions and 1 death. When we remember that 1883 was a small-pox year, this fact should furnish cause for serious reflection to Mr. Peter Taylor, and other fanatical worshippers of the great goddess Mariamma. Typhoid fever gave 94 admissions, with 29 deaths, being thirty per cent. of deaths to admissions. It is noted that Bangalore, the most popular station in India, "as usual," had 41 cases and 11 deaths. For many long years the water-supply for the troops there has had an evil reputation. Is this so now? The above figures indicate that improvement is still needed. It is a satisfactory thing to note that only two deaths from remittent fever are recorded out of a large number of admissions, which is good evidence of successful treatment. There was not a single death from intermittent fever. Most gratifying, also, is the small mortality from bowel-complaints. Out of 513 cases of dysentery, there were only 3 deaths. This is signal evidence of the enormous improvement in the treatment of this once most deadly disease. We accept the above figures as the best possible testimony to the fact that the medical officers of the present day go to India well instructed in the treatment of the most formidable diseases of that country.

We have exhausted our space, but cannot conclude without congratulating Deputy Surgeon-General Furnell, the Sanitary Commissioner, on the admirable manner in which he has presented the highly interesting facts on the health of the Presidency under his supervision.

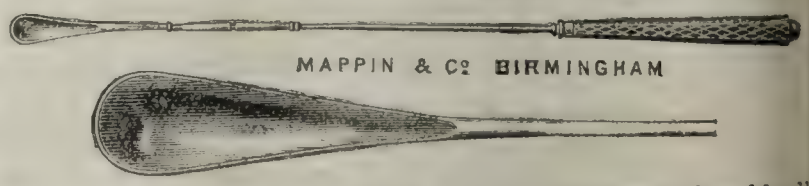
NOTES ON BOOKS.

Hygiene: its Principles as Applied to Public Health. Adapted to the requirements of the elementary and advanced stages of the Science and Art Department, the Sanitary Examinations at the Universities, etc., etc. By EDWARD F. WILLOUGHBY, M.B., Cert. Pub. Health (Lond.), Cert. S.Sc.Cantab. With 30 illustrations. London and Glasgow: William Collins, Sons, and Co., Limited.—This handbook is, as stated in the preface, primarily and ostensibly designed to meet the requirements of students preparing for the examination in hygiene recently instituted by the Science and Art Department; but the author is probably right in saying that it will be useful also to those who are preparing for the examinations for the certificates in sanitary science granted by the universities. The student is assisted in discriminating the relative importance of various subjects by the use of different type. The illustrations, though few in number, are well chosen, and are really explanatory of statements made in the text. The book begins with a short summary of dietetic principles, and then the quantity of each class of food which is required, and the qualities and composition of various articles of food, are dealt with at some length. The subject of adulteration is very thoroughly gone into, beverages, and all the ordinary articles of food, being separately taken up. Water, and water-supply, are systematically treated, and the great advantages which are offered by the constant supply a well brought out; but many will think that the central fact, the e fect of impure water, is passed over too hurriedly. Further, t statement that enteric fever is more often caused by the entrance sewer-gas into a house than by contamination of the drinking-wat (p. 122), probably does not express the general opinion. Ventilatio and heating are well and thoroughly discussed. In this section, as the section on sewerage and drainage, the value of the book is muc enhanced by the care with which the laws which govern these pr cesses are explained, and by the introduction of mathematic formulæ used in calculating rates of ventilation, and the motion a discharge of water in conduits and sewers. House-drainage and t general sanitary arrangements of a house receive their proper share attention, and the so-called flush-out and wash-out water-closets ar as is now customary, strongly recommended. Experience will, ho ever, probably show that they require a great deal more care and a tention than their advocates are at present inclined to admit. T concluding sections of the book are occupied with such subjects meteorology, personal hygience, injuries and accidents, and p ventable diseases; under the latter heading, vaccination is discussed considerable length, but some confusion seems to have crept into c tain of the statistics which are quoted. We find in the appendices short account of the methods of sewage-disposal, a disquisition on t most common fallacies into which the student of vital statistics liable to fall, a list of the Acts which make up the body of sanita law tables, showing the percentage composition of a large number articles of food, and a collection of memoranda and formulæ used engineers. These appendices add very materially to the value of t book, which seems, on the whole, very well calculated to fulfil t purpose with which it was written. It is systematically arrang clearly written, and highly trustworthy.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A NEW UTERINE SCOOP.

BUT little originality of design is claimed for this instrument; it merely a spoon (larger and somewhat more incurved than that an ordinary director), taking the place of the distal two and a l inches of Professor Simpson's uterine sound; and like it, having stem graduated up to four and a half inches. The spoon-end is virgin silver, to allow its being bent to any required angle, wh the stem is nickel-plated; and the side of the handle looking towa the convexity of the scoop is roughened, to indicate to the opera when the instrument is *in utero*, the direction of the edges, wh are adapted for scraping the uterine walls. The possible object that the width of the spoon may render dilatation of the os and cer uteri necessary prior to the passage of the instrument, is met by the that the rounded end and incurved edges allow its being used, w



safety, as a dilator *per se*; and that, in such conditions as would call its use, these parts will be found sufficiently patulous to allow its passage. It is designed to be of service in cases of incomplete a tion; of retained and adherent fragments of placenta; but n especially in endometritis fungacea. The author has himself used instrument with satisfactory results; and, from the reception it already met with at the hands of certain distinguished membe the profession, he is encouraged in the hope that it may prove a viceable addition to the armamentarium of the obstetrician gynæcologist. The scoop was exhibited at the meeting of the Mid Medical Society on December 3rd. The makers are Messrs. Ma and Co., 121, New Street, Birmingham.

J. HEADLEY NEALE, M.B., C.M., L.R.C.P.Lond

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 24th, 1885.

THE DISCUSSION ON TUBERCULOSIS.

THE prolonged discussion on tuberculosis at the Royal Medical and Chirurgical Society, which was brought to an end on Wednesday evening, discovered, as might have been anticipated, the widest divergence of opinion. The debate inevitably wandered off from the comparatively narrow issue, raised in the paper by Dr. Percy Kidd, "The Distribution of Tubercle-bacilli in the Lesions of Phthisis," and ran on to the wide subject of the etiological significance of the bacillus.

One fact which was brought out very strongly in the course of the discussion was the strong evidence that phthisis, even when distinctly tubercular, might in its early stage become cured. Dr. Hermann Weber and Dr. Green had arrived at this opinion from the study of clinical events, and Dr. Kingston Fowler supported it by certain peculiarities in the distribution of the lesions of phthisis observed after death; undoubtedly, if we reason by analogy, we shall see in the discovery of the bacillus tuberculosis a reason for hope, and not for despair; that is to say, if we look upon all phthisis, with the exception of a few rare forms, as tuberculous. The revolution in opinion, especially in Germany, has been extraordinary, and reflects more credit upon the frankness than upon the acuteness of those who, a decade ago, formed so large a majority, even in this country, that, during the discussion held at the Pathological Society in the year 1873, Dr. Wilson Fox and Dr. Moxon were almost alone in maintaining the doctrine of the unity of phthisis. The mere fact that two physicians of this calibre have all along held to the opinion reduces very much the importance of the objection raised by Sir Andrew Clark, who contended that the occurrence of the bacillus in two diseases so essentially different in their clinical phenomena, as are, in his opinion, caseous pneumonia and tubercular phthisis, proved that the bacillus was of but little importance. Other physicians, looking not to one class of phenomena only, but to the whole pathology of the two varieties of disease, have been impressed by the resemblance. The truth is, as was pointed out by more than one speaker, that Koch's discovery is not an isolated fact; the general tendency of pathological observation and experiment since the days of Louis and Laennec has been in this direction; even those who believed that tubercle could be produced by the inoculation of other than tubercular material, were yet strongly of opinion that tuberculosis was an infective disease; Dr. Wilson Fox, for instance, wrote in 1868 that, "for the production of the disease, septic matters in a certain state, introduced into or produced within the economy, are necessary." Koch's discovery is the crowning fact of the theory that tuberculosis is a distinct infective disease. Experiment and observation having brought us to this point, analogy suggested to many workers that an organism would be present; and, when tha organism was discovered, analogy would further, as we have said, lead us to look more hopefully on tuberculosis than formerly.

Analogy, however, is not always a safe guide, and the absurd results to which it leads, if pushed too far, were well illustrated by Dr. Moxon's sarcastic suggestion for an experiment. A sheep which has been inoculated for anthrax cannot die of anthrax, because the bacillus anthracis does not find in its tissues a suitable pabulum; take, therefore, a sheep thus protected, cut it up and boil it down, and then, if our theories are true, the bacillus anthracis will not be able to grow in the broth. Dr. Moxon could afford to joke on the subject, for he fully recognises that Dr. Koch's discovery is not an isolated fact, but stands in direct succession to a vast number of observations made by Louis, Laennec, Buhl, Villemin, Wilson Fox, Cohnheim, and many others. Not so, however, Dr. Creighton, who at the first meeting made a deadly onslaught on Dr. Koch, charging him with having in this research departed from the original principle of cultivation in solid media, by employing a method which failed to separat the bacilli from the tubercular matter, and by neglecting to use cultivations in fluid media, which Dr. Creighton considered to be a superior method; finally, he said that, if fluids had been used, the organisms would have grown rapidly, and been no longer motionless rod-shaped bacteria. Dr. Creighton's arguments and assertions were met in as deadly earnest by Mr. Watson Cheyne, whose statements were founded on personal knowledge and experiment. He met Dr. Creighton with the direct negative on every point. Dr. Koch had not departed from the original principle of the cultivation in solid media; the method employed was well calculated to separate the bacilli from the tubercular matter, for, as growth occurred, the bacilli spread away from the piece of tubercle first introduced, and a remote part of the film could be used for inoculating later tubes; and as to cultivations in fluid media, the bacillus of tubercle, as he had himself ascertained, would not grow in fluids. Some unnecessary bitterness was introduced into the discussion by the use of certain phrases which led some people to think that Dr. Creighton intended to charge Dr. Koch with bad faith. Dr. Creighton, in a letter to the President of the Society, formally repudiated any such intention, and here the matter may well drop.

A very high estimate of the accuracy, the care, and the scientific precision of Dr. Koch's work has been formed by all those who have given special attention to the subject in this country, and the importance of his discovery has been fully recognised. It is characteristic, however, of the thoroughly practical, clinical bent of English medicine, that the theories inevitably springing from the discovery should be subjected to the closest scrutiny before they were allowed to influence practice.

Is there not some reason to fear that we have, in recent years, fallen rather into the rear; and that, if we do not bestir ourselves, the laurels to be gathered in the future from the essentially English science of preventive medicine will not be gathered in England? True that, in this country, experimental pathology lies under the cold shade of legislative repression; but much can still be done. It is not less criticism, but more work, which is needed. Science would not advance in the right path without the restraining and directing force of criticism; but, without the original workers, she would not advance

at all. Dr. Kidd's careful and laborious investigation is a good example of the kind of work which is wanted. The recent report of Drs. Klein and Gibbes on the tubercle-bacilli, published in the last eport of the Medical Officer of the Local Government Board, shows that much remains to be done to elucidate the histology of the disease.

Mr. Macnamara raised a subject of great importance, and indicated many questions which urgently needed answering. The relation of tuberculosis to chronic disease of bones and joints has always presented great difficulty. Mr. Macnamara clearly showed that the discovery of the bacillus, so far from removing this difficulty, has rather increased the complexity of the question. Perhaps the most important outcome of the debate will be the proof it afforded—if proof, indeed, were necessary—that tuberculosis still needs much further study; and that it will, in the future, yield many important facts to careful and methodical workers.

CRUELTY TO CHILDREN.

"A NEW and terrible crime has grown up recently amongst us out of a pious and charitable principle—the murder of children by parents for the sake of the wretched profits on their funerals from the burial-societies. The extent to which this has gone is frightful." These words were addressed to Lord Palmerston by Mr. Croker in 1853, and an Act was suggested to restrict these societies from paying to any subscriber a greater sum than had actually been expended for the burial of the infant. "Your suggestion about burial-funds," was Lord Palmerston's reply, "seems to be well adapted to cure the evil, and I will see what can be done about it." But difficulties, real and imaginary, prevented any step from being taken; and now, just thirty-two years later, this hideous temptation to drunken and dissolute parents remains.

Infanticide is, of course, murder, and the laws of the land are sufficient if only they be set in action; but the difficulty in obtaining evidence, the infinite grades and variety of neglect and cruelty, the doubt as to the influence of hereditary disease, perhaps even the dreadfulness of the penalty in case of conviction, have made the law of no effect. The Societies for the Prevention of Cruelty to Children which have recently been established in London, Liverpool, Edinburgh, and Glasgow, do not contemplate reform of the law. They say there is law enough for almost every case of neglect or cruelty brought before their notice by the public and by their own inspectors and visitors, but that hitherto it has been a dead letter. They complain that provisions for carrying out the law are defective, and maintain that, until every large town has such a society, vagrancy, begging, neglect, and immorality and cruelty, will never be checked. They show that a large amount of good has been done by numerous similar societies in the United States, France, Italy, Spain, and elsewhere, and that their efforts in our own towns have met both with sympathy and support.

There can be no doubt that, so far, their efforts have been in the right direction. We have only to turn over the pages of the annual report of the first of them, the Liverpool Society, to see what numbers of wretched, starved, and beaten children have been rescued from their ill fate, and how many brutal and degraded parents have been called to account for their cruelty and neglect. But it seems that a crusade on a much larger scale is contemplated. Complaint has been made in a Liverpool newspaper that, although inquests have been held on 151 suffocated children during 1883, in not a single instance has a committal followed. At the request of the Society, Dr. Hope, the Assistant Medical Officer of Health, has prepared a map of the city, showing the localities where 421 infants, under one year old, have been suffocated during the past three years. In proportion to the death-rate from other causes, the deaths from suffocation are three times as numerous in the courts as they are in the street-houses and cellars of Liverpool. The ratio of illegitimacy is large, but not so large as perhaps might have been supposed. Of course, no one believes that there has been foul play in all of these cases, or even in any large number of them; but still there is a suspicion that there is a disposition to make things too pleasant, to chide occasionally but never to commit, to have a mind to make an example, but never to fix upon one. Now it is more difficult for the coroner to direct a jury to commit than at first appears. It is not the newly born that are suffocated, but infants more than a month old. Three-fourths of all suffocated children are less than a year old, but more than a month. There is, therefore, no one at hand. The mother has returned to her ordinary work. Her story is, that she was in deep sleep from toil, perhaps from drink, and that when she awoke her babe was cold. It is strange, and even culpable, that medical evidence is frequently ignored in such instances; and, if coroners were more willing to have recourse to it in dubious cases, the public would soon be satisfied that the difficulty was not avoided, but was sifted, with the utmost exactitude of science.

No doubt, neglect is an important factor in the heavy mortality of infantile diseases, and it would be useful to invoke a lively sense of the responsibility which attaches to such neglect. In the Registrar-General's Reports for 1879-81, there are 34,250 cases of fatal diarrhœa in children under one year old, and, throughout the whole of England, a single death only is reported to have occurred from "neglected diarrhœa." In the same years, 47,337 infants under one year old died of bronchitis, while only 67 are reported to have died from "gelatio, or exposure to cold," at the same age. Excluding all cases of tabes mesenterical phthisis, and premature birth, 38,673 infants under one year old died in 1879 and 1880 of atrophy and debility; yet, in the same two years, only seven are reported to have died of starvation. Certainly, it is obvious from these anomalous figures that inquiries into the causes of death amongst infants have been conducted with the utmost gentleness—in some instances, perhaps, with even too much consideration for the parents. That wilful neglect, which is little short of downright cruelty, has played a far more important part in many of these cases than our coroners would have us believe, is more than probable; and the object of the Lancashire crusade, to which we have alluded, is to introduce a stricter method of inquest when starvation, improper feeding, or wilful exposure is suspected.

Although we believe more good will be done amongst even "the residuum," by district visiting, and other methods of imparting information (for it may be charitably supposed that much of the neglect of children, and some of the cruelty to them, is due to simple ignorance), yet the appalling cases that have been brought forward, and that have originated the crusade, call for a stern appeal to the law. Mercy must not always be dealt out to the parents, and the helpless children require defence. The diagnosis, however, of starvation, is far from easy. Starvation may be acute or chronic, and the child may have previously been sound, or may have been diseased or weakened from diathetic inheritance. It is often complicated with improper

feeding, and with insufficient clothing. The condition generally induced by it among the children of the poor of our large towns is more analogous to that of typhus without eruption, than to any other disease; and, after death, the stomach and intestines have been found absolutely empty. And although starvation may induce both disease and death, it ought to be remembered that disease may also induce starvation, and that an apparently starved child may have always had a sufficicient supply of proper food. The social problem on which the various societies for the prevention of cruelty to children are entering, is, indeed, a vast and difficult one. It involves issues infinitely wider than those with which Lord Palmerston wished to cope; and, so long as the societies act with tact and discrimination, they will assuredly have the assistance and sympathy of the members of the medical profession.

FLOGGING IN NAVAL SCHOOLS.

THROUGH the representations of the daily press, the Admiralty has, we understand, ordered an inquiry into the alleged cruelties perpetrated on board H.M.S. *Northumberland* and at the Greenwich Royal Naval School, under the guise of discipline; and, if the newspaper-accounts be true, an investigation is urgently needed. It is said that, on board the *Northumberland*, amongst a boys' crew of 140, there are daily floggings, batches of from five to eighteen being brought up for punishment every morning. Both birch and cane are used, chiefly the latter, and to such an extent that the lads, after screaming for mercy in vain, are carried off in various stages of unconsciousness; the presiding officer meanwhile urging the executioner to a more vigorous application of the instrument of torture. The same system is said to prevail at the Greenwich school, where the lads are tied up to a grating, and flogged by a strong man until their backs are bruised and bleeding.

These reports may be sensational; and, if so, we have only to say that it is a pity that those who are responsible for them were not more careful to ascertain the facts before rushing into print; but, if true, the sooner such objectionable practices are put a stop to, the better.

There is a strong tendency amongst naval officers to confound discipline with punishment, and to ignore all ideas of training except under the influence of terror. Moreover, having had no experience of corporal punishment, except perhaps the occasional and moderate discipline of the schoolmaster, they have no fellow-feeling; indeed, with some of the old school, it would seem to be a positive pleasure to look on at the application of the lash.

Without being in the least namby pamby, we assert that this is all very wrong. Corporal punishment is no doubt at times necessary, but it should be a last resource, and then not carried to a degree to cause possible injury to health.

We cannot conceive that, amongst a crew of 140 boys, there are so many bad characters that it should be a daily necessity; and that a batch of eighteen should be had up in one day, could only be reasonably accounted for by a mutiny, or some crime of equal gravity.

No doubt those in command, both on board the *Northumberland*, and at Greenwich School, conceive that such excessive discipline will be reckoned to them for smartness; just as, in days gone by, would-be smart captains ordered the cat to the last man down from aloft. "Mais nous avons changé tout cela," and we have learned to incite men and boys to work by instilling into them a healthy professional spirit, and by substituting hope of reward for fear of punishment; and, instead of measuring administrative ability by amount of punishment, we have come to take quite an opposite view, and to consider the terms "martinet" and "incompetency" as nearly synonymous.

It seems to us anomalous that, whilst the boys of the board-schools are protected from excessive punishment by law, and those in higher class schools by public opinion, as well as by the masters themselves, whose education, experience, and innate feeling render them averse to the lash, except as an extraordinary punishment; while our soldiers and sailors are protected from such degradation by law; and while even convicts (men and boys) cannot be thus punished, except for certain well defined misdemeanours, and then only after trial on oath; it seems, we say, anomalous, that lads who are to be the future strength of our country, should be subject to such a discipline at the caprice of any one individual.

Looking at it from a medical standpoint, excessive punishment, and the fear of it, must affect the health injuriously.

Martinets, old naval and military officers, laugh at this, and refer us to times past, when men were sentenced to a thousand lashes, and more. Just so; and how many were thereby rendered permanent invalids, and how many deaths were caused directly by injuries received, under the authority of the law, none can tell. As we grow more civilised, the value of human health and life becomes more fully recognised.

We repeat that, if the newspaper-accounts of the treatment of the boys on board the *Northumberland*, and at the Royal Naval School at Greenwich, be true, the sooner a change is effected in the administration the better.

WE regret to see the name of Surgeon Magill in the list of those wounded at the engagement fought by General Stewart's forces on January 17th at the Abu Klea wells.

QUAIN'S *Medical Dictionary* appears destined to enjoy an enduring and most extensive popularity. After going through numerous editions very rapidly, a new issue is now being made by Messrs. Longmans, in six monthly divisions.

MRS. GARRETT ANDERSON is, we learn, starting in a few days, in the steamship *Orient*, for Australia, in the hope that the change of the sea-voyage, and an escape from our English spring, may have a beneficial effect upon the health of her little girl, who was found in October to be suffering from an affection requiring a sea-voyage and change of climate.

CLINICAL SOCIETY OF LONDON.

MR. BRYANT, the newly elected President of the Clinical Society, requests us to state that he will be detained at the examinations at the Royal College of Surgeons this (Friday) evening, and will, consequently, be unable to be present at the meeting of the Society. He hopes, however, to take the chair, and deliver his presidential address, at the next meeting, which will be held on Friday, February 13th.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

THE following members were elected as officers and councillors for the year 1885, on the 12th instant. *President:* C. Spence Bate, F.R.S., Plymouth. *Vice-Presidents* (resident): T. Charters White, George Gregson, Henry Sewill; (non-resident) J. T. Browne-Mason, Exeter; Richard White, Norwich; Andrew Wilson, Edinburgh. *Treasurer:* James Parkinson. *Librarian:* Felix Weiss. *Curator:* S. J. Hutch-

inson. *Editor of the Transactions:* J. Oakley Coles. *Honorary Secretaries:* David Hepburn (Council); Robert Woodhouse (Society); Storer Bennett (for Foreign Correspondence). *Councillors* (resident): F. Canton, Alex. Cartwright, Chas. S. Tomes, Wm. St. George Elliott, Augustus Winterbottom, Samuel Cartwright, A. Morton Smale, J. Howard Mummery, Arthur S. Underwood; (non-resident) J. F. Cole, Ipswich; G. C. McAdam, Hereford; W. E. Harding, Shrewsbury; Robert Reid, Edinburgh; J. R. Brownlie, Glasgow; J. H. Whatford, Eastbourne.

DRINKING-TROUGHS AND DISEASE.

It is impossible to say how many horses, suffering from glanders, are at the present time worked in the streets of London. A few years ago it was stated, at one of the medical societies of London, that in some cab-yards a special set of horses were kept for night-work, and that most of these horses were glandered; an unscrupulous, and illegal, but not altogether improbable practice; for a horse suffering from the disease is not immediately incapacitated. The drinking-troughs, now so numerous, owe their existence to a just and kindly understanding of our duty towards the beasts of burden, but it is just a question whether the principle might not be better applied; the droves of cattle which formerly dragged their weary course through our thoroughfares, on their way to Smithfield Market, have disappeared, and the troughs are now used only by horses. For watering horses, a standpipe and bucket afford the best arrangement. It is more comfortable for the horse, who has not to strain his neck against the collar to reach the water, the water is fresher and more palatable, and there is far less danger of its being contaminated with dust, dirt, and the germs of disease. Many such standpipes are already in use, and the policeman of the beat, who has the tap under his immediate control, appears often to take an immense interest in this part of his duties.

THE USE OF PRESERVED FOOD IN AN ARMY.

Some interesting experiments are being made at Munich as to the real value of preserved meats, etc., as a good nutritive substitute for fresh meat, etc., especially how far they can be utilised for the army in time of war. A special company of non-commissioned officers and men from all twelve companies of the 13th Bavarian Infantry has been told off to march daily for a fortnight, with the exception of an occasional rest-day, for six hours, and to go through field-exercises, fully equipped, as in time of war. During this time, they receive no fresh food of any kind, only preserved meats, a kind of biscuit composed of flour, bacon, and chopped-up meat, with salt and spices, etc. While off duty, they are watched, to prevent them from eating or drinking anything else, and they are continually weighed. The object of these experiments is to see how far soldiers can remain healthy and fit for fighting when only living on preserved food, which they can carry themselves. So far, the results have been satisfactory.

VEGETARIANISM.

There will be no "-isms" in the future of scientific enlightenment—no teetotalism, no vegetarianism, no antitobaccoism—in short, nothing of specialism in the ordering of a moderate life on natural principles. Obviously, man was made to eat a mixed diet, including both animal and vegetable food. Food is more a matter of climate than anything else. Climate determines development, both as regards demand and supply. Ruskin is right when he makes even the moral character of man depend directly upon his surroundings. We have no sort of sympathy with the "fads" of the day. Our standpoint is the simply and severely rational. Nothing would be gained by rehearsing the stock and familiar arguments of the vegetarians. They one and all contain much of truth, but they one and all err in mistaking the particular for the general. There are, probably, some persons who do nourish their organisms as well with vegetable materials as with animal food; but this we take to be a peculiarity in the individual apparatus and function, not an excellence of quality to glory in and be proud of. It would be better if we could learn to look on the eccentricities of appetite as abnormal, instead of emulating the fox who, having lost his own tail, went about trying to persuade other creatures of his species to get rid of theirs also.

IMITATION BUTTER.

Many tons of "butterine," which is a cheap imitation of butter, sent to us chiefly from Holland, are consumed by the poorer inhabitants of the United Kingdom every week. Butterine wants the aroma of true butter, but it is otherwise a close imitation of the original in taste, appearance, and probably also in nutritive value. It is an unobjectionable article of commerce when sold under its proper name, and when wholesome materials only are used in its manufacture. The basis of butterine is the fatty product chemically known as oleo-margarine, and this latter is a clarified oil usually obtained from beef-suet. The fat of a well nourished ox forms about 5 per cent. of the entire weight of the animal. This is more than can be used in the ordinary way as food, and much of it has hitherto been converted into tallow-candles. The fat of oxen is now finding a profitable employment as the source of oleo-margarine in the manufacture of butterine. In the butterine-factories of Holland, a mixture of oleo-margarine with a small proportion of genuine butter, milk, and vegetable-oil, is well blended by churning; and the product, cooled by ice, coloured, and made into rolls, is the butterine of the shops.

CYSTICERCUS OF THE MAMMARY GLAND.

Dr. Guermonprez has recently described, in the *Archives de Tocologie*, a case of cysticercus in the breast. A married woman, aged 29, observed in July 1881, when she was pregnant, a lump on her left breast, which caused her no pain, but that breast secreted no milk after parturition in the following September. In November, the swelling had increased in size, it was carefully and regularly painted with iodine, and remained stationary for a year. In November 1882, it began to grow larger, and became painful; the skin that covered it appeared to be slightly inflamed. Iodine was then given internally as well as externally, until March 1883, when, without any special cause, the swelling greatly increased and inflamed, causing severe pain that radiated along the neck, arm, and thorax, and prevented the patient from pursuing her vocation. Her health became much impaired, and her sleep disturbed. The tumour formed an irregular tuberous, hard mass, adherent to the integuments; fluctuation was detected in the centre. An operation was performed, and a cysticercus cyst, four centimètres in diameter, was removed. The patient made a good recovery.

DEATH FROM NITROUS OXIDE GAS.

The occurrence of a death under nitrous oxide has lately caused a good deal of excitement in Paris. A retired magistrate, named Lejeune went to a M. Duchesne, a well known advertising dentist of Paris, to have a tooth extracted. Gas was administered, and the operation performed; it was then discovered that the patient was dead. From the fact that there was no appearance of hæmorrhage when the extraction took place, it is inferred that death must have occurred just prior to the operation. An examination of the body was made by M. Brouardel, but, so far as we can learn, his report has not yet been made public. Judging, however, from the statements which appear in the French journals, death would seem to have been quite sudden and to have been due to syncope, or failure of the heart's action caused by the fear or the shock of the operation. One result of this unfortunate occurrence has been, that a discussion has arisen in the French papers as to the right of dental practitioners to administer anæsthetics. It appears that, as a matter of strict law, only legally qualified practitioners of medicine are allowed to administer anæsthetics in France, but that this law has seldom been put in force

against dental practitioners, even with reference to the use of chloroform and ether. The use of nitrous oxide is not expressly forbidden; and, owing to the general impression that it was free from danger, no question has hitherto arisen as to its use. Whether any attempt will now be made to impose restrictions remains to be seen. Another point referred to in this correspondence is one of which we have repeatedly pointed out the importance, namely, the necessity for the presence of a third party, whenever an anæsthetic is administered, to give assistance in case of accidents, and also as a witness. Cases illustrating this point have so frequently come under our notice, and we have referred to the subject so often, that we hope it is unnecessary to say more.

BRITISH MEDICAL BENEVOLENT FUND.

THE annual general meeting of subscribers to the British Medical Benevolent Fund was held on January 15th, at 34, Seymour Street, the house of the treasurer, Dr. Broadbent, when Dr. G. C. Jonson, the chairman of committee, occupied the chair, in the unavoidable absence of the president, Sir George Burrows, who was prevented from attending. The financial statement was submitted, and the annual report of the committee for the past year was read by the treasurer, from which it appeared that the donations during 1884, had amounted to £722 18s. 6d.; subscriptions, £1,307 3s. 9d.; a total of £2,030 2s. 3d.; the increase in the amount of subscriptions being a noticeable fact, and one giving great pleasure to the committee, as evidence of a growing appreciation of the fund amongst medical men. The disbursements during the year had been—in grants, £1,892 10s; in annuities, £1,107 10s.; in all, £3,000; and the entire expense of collecting and distributing this large sum—over £5,000—has been £152, about 3 per cent., including stationery, collector's commission, the printing and postage of the report, a copy being sent to each subscriber; the postage and other expenses of the honorary secretaries, for finance and cases, and the postage and expenses connected with the distribution of £3,000 in weekly and monthly instalments, a peculiar characteristic of this fund. This duty has hitherto been undertaken by Dr. Jonson, the chairman of committee, but, owing to his failing sight, is now carried out by the Cheque Bank. The number of cases relieved during 1884, in the grant department, has been 168; and the committee often feel that the amounts given by them to really needy and deserving applicants are sadly less than the merits of the cases deserve, the reason being a want of sufficient funds to adequately cope with the painful and distressing cases that come before them. In the annuity department, as vacancies fell in, seven fresh annuitants were elected; but the committee grieve to say that there remain upon the list of eligible candidates no fewer than 38 persons, all over 60 years of age, not one enjoying an income of £10, and mostly past work, and practically penniless. Mr. Thomas Smith joined the committee; and Mr. France, an old member of the committee, and Professor Macleod, of Glasgow, an honorary local secretary and warm friend of the fund, were elected vice-presidents.

THE COMMA-BACILLUS IN FOOD.

M. BABÈS has made some observations, in M. Cornil's laboratory, on the mode in which the comma-bacillus, found in cases of cholera, grows, and the circumstances which favour or retard its multiplication. He finds, that when grown at the temperature of the body (upon agar-agar) the development is very much more rapid, but less characteristic, than when grown at 68° Fahr.; one part of corrosive sublimate in ninety thousand retards the development of the bacillus so much that, at the end of four days, the cultivations are no further advanced than at the end of fifteen hours, when no corrosive sublimate has been added. He finds that the bacillus will grow in milk, coffee, meat, carrots, leguminous vegetables, eggs, broth, and potatoes; but he adds the striking, and, if confirmed, most important fact, that the bacillus does not grow in fresh fruits, cooked or dried, in acid liquids, in beer or wine, in conserves which contain little fluid, in salted or smoked meat, nor in cheese.

RETRO-UTERINE HÆMATOCELE.

DR. P. ZWEIFEL has discussed, in a recent number of the *Archiv für Gynäkologie*, the much disputed question of the treatment of retro-uterine hæmatocele. Many well known gynæcologists are in favour of abdominal section for removal of the effused blood and clot; others favour the practice of making an opening through the vagina, and letting out the blood through that canal. Dr. Martin is entirely in favour of the first method, believing that clots can more thoroughly be removed when an opening is made in the abdominal wall, and the peritoneum deliberately cleaned out, as is constantly done in the course of a hysterectomy or an ovariotomy. This practice would certainly be preferred by our well known bold British operators, but it does not find favour with Dr. Zweifel, an advocate of the vaginal operation. He shows that, excepting in one solitary case, the tearing or scraping away of the wall or outermost part of the blood-tumour has been followed by high fever and other signs of reaction. He has found that excellent results follow an incision of about three fingers' breadth in the vagina, as the sac can be sufficiently removed in that way by careful scraping with a blunt curette, which causes but little hæmorrhage. In abdominal section, some of the fluid-contents cannot be prevented from escaping into the peritoneal cavity; and this operation, according to Dr. Zweifel, is more difficult than vaginal section. Dr. Zweifel's opinion is, however, not strongly supported by statistics.

WARMING RAILWAY-CARRIAGES.

It seems that only, or chiefly, where there is competition between railway-companies working lines to the same place, do the managers provide such necessaries as foot-warmers. This does not speak well for the humanity of railway-directors generally. Only when they think it will increase their popularity and augment their dividends do they bestow any care on the comfort of their passengers. It would be worth while to enact a measure compelling the supply of hot water apparatus of some sort to heat carriages in cold weather. For the majority of those who travel by railway, artificial heat is as much a necessity as light, and railway-companies ought not to be permitted to economise in the paltry way indicated by the refusal to supply foot-warmers while they enjoy a monopoly. It is most regrettable and humiliating to reflect that, except under the compulsory influence of commercial competition, nothing can be wrung from the managers of our great locomotive systems. We have no patience to comment on the petty parsimony and ungracious indifference displayed by companies that grow rich on a cheeseparing policy which is hurtful to the many and offensive to all.

CRUELTY IN THE PUNISHMENT OF CHILDREN.

CHILDREN must be punished, and we are not of those who would spare the rod and spoil the child; but it is impossible to avoid the inference from facts patent to all observers, that much dire cruelty is practised in the name, and with the plausible excuse, of punishment. It is not a little remarkable that, for years past, the most notable instances of ill-usage, of one sort or another, to which children have been subject, should have occurred in connection with institutions claiming to be conducted on principles of pure philanthropy, and conducted by persons professedly animated by the most exemplary and humane of motives. We begin to fear the "unco guid" are not, as a rule, the most trustworthy in respect to temper and prudence in the training of the young. We incline to think there is something in the charge brought, years ago, against the so-called "religious charity" of the century, that it was too over-bearing and severe to be practical and salutary in its effects as a fostering agent in the culture of young minds. Children can no more be whipped to conformity with moral principles, or have virtue driven into their natures with the ferule, than they can be educated to a healthy and good life without food. We should be heartily glad to find that this reproach was wiped away,

but it will not be, nor will the discipline of religious instructors and communities be appreciated by the common sense of the public, until those who avow the loftiest motives are content to be guided in their conduct and policy by the common principles of prudence and self-respect.

MYSTERIOUS ILLNESSES.

ATTENTION was called last week in our columns to the correspondence appearing in the *Times* on the subject of poisoning by arsenical wall-papers and fabrics, and to the ready and simple means existing for detecting the presence of the poison. Miss F. Lankester, the Secretary of the National Health Society, writes most opportunely a letter this week, in which she points out that a number of letters have appeared lately on the subject of arsenic in domestic fabrics; but these letters, although they evidence public interest in the question, at the same time show that the public are not well informed as to what has been done and what is now doing with regard to these poisonous fabrics. The injurious effects have been sufficiently indicated. Miss Lankester gives a brief history of the present movement. In the first instance, letters and pamphlets drew public attention to the subject, but for a length of time without any concerted action being taken. The first official step was the appointment of a committee of the Medical Society of London, Mr. Malcolm Morris, being the Honorary Secretary, from whom further information might be obtained, if desired, by medical men. The next step was a paper read at the Society of Arts, more especially "in relation to trade and art," the chair being taken and the action supported by Mr. John Simon, late Medical Officer to the Privy Council. A committee of the National Health Society was also appointed which took up more especially the tests to be used and the standard of purity to be required. These points having been determined, the question was taken in hand by the Society, with a view to legislation. A request was made to the Government that information might be obtained from other countries as to the laws relating to arsenic in domestic fabrics. The Foreign Office at once gave the requisite instructions, and a valuable Blue-book is the result, showing that stringent laws excluding arsenic from domestic fabrics are generally in force on the Continent. This Blue-book may be obtained for 7d., under the title, "Commercial No. 40, 1883." A Bill, as we stated last week, is now in preparation, which it is proposed to introduce next session, regulating the use of arsenic, and excluding arsenical colours from all domestic fabrics, especially from wall-papers. It is most satisfactory to be able to report that a vast diminution has already taken place in the use of arsenical colours, in answer to the public demand for non-poisonous decorations. Further details and instructions as to testing will be found in a pamphlet, *Our Domestic Poisons* (Ridgway, 3rd edition), or in the lecture delivered at the International Health Exhibition, and published by the Executive Committee, price 9d. Information as to testing for arsenic, or on any other point connected with this subject, will be gladly given.

PENNY DINNERS.

IT will be in the recollection of our readers that, a few years ago, Charles Street, Lisson Grove, was the hotbed of typhus fever. The fever-stricken houses were taken down by the order of the Marylebone Vestry, and handsome tenements, with commodious and airy rooms, were erected on the sites. The habits of the people have also much improved, considerably through the influence of temperance-work conducted in the Perseverance Hall, erected by an old resident, who, at the urgent request of his medical attendant, took the pledge in 1879. This hall was filled by 250 of the poor in the neighbourhood, gathered, at the invitation of Dr. and Mrs. Norman Kerr, to partake of a penny supper, with a view of illustrating cheap and wholesome fare. The main dish was a haricot stew, without meat, which was evidently keenly relished by the guests, who each brought a basin and spoon. The materials, their cost, food-value, and preparation, were explained by Dr. Kerr, and printed directions for cooking a similar mess for four persons were presented to the company. Such practical demonstrations of economical and nutritious food cannot but exert a valuable influence from the point of view of medicine and public health, as well as prove a useful lesson in simple and domestic cookery.

THE TAX ON CARRIAGES.

WE have, on several occasions, called attention to the iniquitous nature of the tax on carriages as it affects the medical man. The only shadow of a reason remaining in favour of the impost, is that it is a tax on luxury; but this, as is pointed out in an article on the subject in a contemporary, is indeed only the shadow of a reason, of which the substance in fact is ridiculously small. The grievous pressure complained of is not that which is felt by wealthy "carriage-folk," who use the heavily taxed vehicles for purposes of pleasure and luxurious ease. Besides these favourites of fortune, and forming the great majority of owners, are the medical men and others, to whom their carriages are a part of their stock in trade, and as much articles of necessity as his shop-fixtures and "plant" are to the tradesman, or his set of tools to the artisan. If a complete repeal of the tax be too much to expect, we may at least venture to hope that the present agitation will be followed by a mitigation of the burden, and that a distinction may be drawn between the cases of those who use vehicles for purposes of pleasure and luxurious ease and the medical man, whose carriage is a veritable part of his "stock in trade," without which he would find it difficult to accomplish much of his professional work, which, more often than not, extends over great distances.

PROFESSOR TYNDALL ON LIVING CONTAGIA.

THERE are few men outside the ranks of the profession better able than Professor Tyndall to form a just estimate of the present tendencies of medicine, and of the progress of our knowledge, and the increase in the efficiency of our weapons against disease. In the peroration of an eloquent lecture on Living Contagia, delivered recently at the Royal Institution, he told his audience that never, in its whole past history, had so bright a future dawned for medicine. The greater part of the lecture was taken up by a sketch of the life-work of Pasteur, his study of the yeast-plant, of the organism which determines the acetic fermentation, his demonstration that the injurious changes in wine and beer, which are liable to destroy their qualities as beverages, were due to various micro-organisms; his study of the silkworm-disease, so brilliant in its conception, and so practically useful in its result; and his splendid discovery that the virus of fowl-cholera, of anthrax, and of hydrophobia, might be attenuated, so as to act as a protection against the disease, just as vaccine acts as a protection against small-pox. Were these researches cruel? It might seem cruel to infect a silkworm with a disease which must cut short its career; but by knowledge thus gained, for units of worms sacrificed, millions of worms were saved, and the ruin of a great industry was averted. A tender-hearted man entering the laboratory of Pasteur, while the research on the attenuation of anthrax was in progress, might well have been shocked by the apparent cruelty which would deliberately communicate so dire a disease to innocent animals happy in their health; and such a man, were he possessed of the power of arresting such a research, might feel himself justified in so doing; but to arrest that research would have been to fix the brand of cruelty on himself, for it would have been to prevent a discovery which has already preserved myriads of animals from a painful and fatal disease. Professor Tyndall also referred to the grand practical results which Sir Joseph Lister, with the prescience of genius, had years before our knowledge had reached its present definite state foreseen, striven for, and finally completely attained. The large audience, which included many distinguished and representative men, listened to the lecture with attention, and warmly applaude

the manly and straightforward manner in which Professor Tyndall dealt with the subject of vivisection, so-called. The lecture was illustrated by photographs and specimens lent by Dr. Heron, Mr. Victor Horsley, and Mrs. Priestley.

THE HABITUAL DRUNKARDS' ACT.

Mr. Paget, the stipendiary magistrate at Hammersmith, in some observations on a recent application for admission to a home for female inebriates under the provisions of the Habitual Drunkards' Act, exhibited an extraordinary unacquaintance with the terms of this legal enactment. Accompanied by two resident clergymen, a confirmed drunkard, described as a respectably dressed woman, made the application in due form, with the clerical gentlemen as witnesses to make the necessary statutory declaration. The presiding magistrate declined to grant the order, on two grounds; first, because he had no evidence that the Home at Halesowen, to which the applicant wished to be consigned was licensed; second, because application ought to have been made to justices in the county of Worcester, where the Home in question is situated. Considering that there are only four licensed homes for inebriates in the Kingdom, there ought to have been little difficulty in procuring evidence that he could legally transfer the applicant to Halesowen. The production of the prospectus might have settled that point. On the second point, Mr. Paget was clearly mistaken. The Act distinctly lays down that the application for admission to a retreat shall be attested by two justices, but there is nothing in the Act limiting their residence, except to the United Kingdom. Notwithstanding his magisterial rebuff, and the non-success of the application at Hammersmith, we are glad to learn that this female inebriate has been duly admitted to Colman Hill House. The Act is imperfect and incomplete in many ways, and the having to declare oneself an habitual drunkard before two justices is so deterrent, especially to females, that it is to be deeply regretted that any further difficulty should have been raised from the magisterial bench. Every endeavour ought to be made to secure a more compulsory measure, with a relaxation of the stringency of admission to a retreat; but, in the meantime, every facility ought to be given to applications to be admitted to an inebriate home, in the hope of reformation and cure.

CANTOR LECTURES.

Dr. Poore's third and final lecture, to be given at the Society of Arts on Monday, 26th instant, at 8 P.M., will be on "Soil as a Climatic factor; the Peculiarities of Mountain Climates; the Application of Modern Views to some Old Facts, and the Practical Use to be made of them in lessening some of the Dangers of Tropical Climates."

THE EXPENDITURE OF THE METROPOLITAN ASYLUMS BOARD.

At the ordinary meeting of the Westminster Union last week, a letter was read from Mr. Elliott, one of the Islington representatives on the Metropolitan Asylums Board, acknowledging the receipt of the letter of the guardians thanking him for his action in reference to certain contracts of the Metropolitan Asylums Board. He thanked them for their appreciation of his services, and spoke of the necessity of the metropolitan guardians being united if any good impression was to be made to induce more moderate expenditure. The necessity for this, he thought, was made apparent by returns he had before him of expenditure at Homerton Hospital for drink, for the officers only, for the six months ended September 29th, 1884. These returns showed an expenditure of £1,766. The daily cost per head of patients at this hospital is 13s. 9d., as compared with 8s. 1d. per head per day at Stockwell Hospital, and 47s. 10d. per head per day at the Plaistow Hospital, being £16 14s. 10d. per head per week for each inmate at the latter place. On the suggestion of the Chairman, a resolution thanking Mr. Elliott, and ordering a copy of the communication to be sent to the Asylums Board, with a request to institute an inquiry into the matter, was unanimously adopted.

THE DARENTH CAMP FOR SMALL-POX.

The management of this camp for convalescing small-pox patients came under review at the Metropolitan Asylums Board on Saturday, in an examination of the statements and misstatements which have been made in various quarters regarding the alleged neglect of the patients who have come under the charge of the officers of this camp. The first allegations had appeared in a penny weekly paper, and were signed by "A Late Patient." Then Mr. Nathan Robinson, one of the members of the Board, made a surprise-visit to Darenth, and was alleged to have given his vestry a sensational account of the "horrors" of the camp-life, two daily papers reporting what purported to be a report of his speech on the occasion, the speech giving rise to numerous reflections, in "leaders" and "leaderettes," upon the managers and officers of the Board. The General Purposes Committee, in the interval between the last two meetings of the Board, instructed the solicitor to make a surprise-visit to Darenth Camp, and to investigate all the work of camp-life, as told by the lips of the patients. The report of the solicitor will make good reading when presented, for the gentleman who made the investigation went thoroughly into the whole of the questions involved, as to the administration of food, the cooking, the attention given by the medical men and nurses, the changing of clothing, the bathing, and the changing of linen. From the evidence of about eight hundred persons, it was shown that small matters had been magnified into complaints by the first correspondent, who was identified as "The Draper's Lady," she being the wife of a linen-draper, who had found her way first to the small-pox asylum and then to the camp, where she wanted to have special attention above the poor creatures who were her fellow patients. Mr. Robinson, for his part, denied having made the sensational statements attributed to him in the reports of his alleged speech, and said the reporter of that speech was as "deaf as a post," a statement which created roars of laughter. Mr. Galsworthy, the chairman of the Board, and Sir Edmund Currie dwelt upon the hardship of the men who took so much trouble and incurred social exile in combatting this loathsome disease, being held up to the odium of their fellow-citizens as men who had neglected their duty; and Sir Edmund warned the managers that some other hands than his should take up the management of the camp when this epidemic had ceased. The fullest sympathy was accorded to Sir Edmund by his fellow-members, and the report of the solicitor was referred to the General Purposes Committee to see if any steps should be taken to vindicate the Board's character.

PAYING PATIENTS TO THE FEVER AND SMALL-POX ASYLUMS.

The Metropolitan Asylums Board have it in contemplation to make engagements with parishes and districts outside the metropolis, such as at West Ham, and in the Orsett Union, near to Long Reach, to take patients into the managers' asylums at a cost of four guineas each, the sum not to include clothing; and the managers also propose to contract with the "sanitary authorities" of the metropolis, who are responsible for the non-pauper patients afflicted with infectious diseases, to take the non-pauper class into the asylums at the same rate. There will be no change of wards if the proposal should be accepted and acted upon.

FEVER AND SMALL-POX IN LONDON.

The usual returns of fever and small-pox in the asylums of the metropolis was made to the managers of those institutions on Saturday last. The returns, which were read by Mr. Jebb, the chief clerk, were for the fortnight ending the previous night; and, while the returns of the fever asylums showed a decline in the number remaining under treatment, as compared to the end of the previous fortnight, yet the number of fresh acute cases admitted showed an increase over the number admitted in the previous period. The whole number admitted, in the fortnight, to the five suburban fever asylums was 73, against 69 the fortnight before; 10 had died, and 97 had been

discharged (against 91 in the previous period), and there remained under treatment, on Saturday, 75 cases of enteric fever, 3 cases of typhus, and 304 cases of scarlet fever, in all 382 cases, against 414 a fortnight ago. Of the whole number, 189 were in the Eastern asylum. The returns of the small-pox asylums showed that 448 fresh cases had been received in the fortnight, against 341 in the previous period, the disease having lighted up again in South London. In the period under review, 85 had died, and 370 had been discharged, leaving 1,046 under treatment, an increase upon the last returns of 29. Of the whole number in the hands of the managers, 683 were in the camp at Darenth, 244 on the hospital ships, 29 in the Eastern asylum, 28 in the South-Western asylum, 20 in the Plaistow asylum, 8 in the North-Western asylum, 13 in the Western asylum, and 21 in the South-Eastern asylum.

THE EXAMINATIONS OF THE UNIVERSITY OF LONDON.

We recently called attention to the very serious inconveniences experienced by candidates for the degree of the University of London, owing to the peculiar severity of the examination in logic, and to the number of rejections at the recent examination of candidates, who failed to pass in that subject. We are glad to hear that this matter has been taken into serious consideration in the senate, and that it is probable that candidates for the medical degree of the University will no longer be required to pass these examinations.

PAYMENTS OF EXAMINERS.

The proposed examiners' fees to be paid for the conjoint examinations will be based upon a liberal scale. It is intended that they shall be paid by capitation-fee ; and the proposed scale of fees is as follows : *First Examination.*—Chemistry: Capitation, £1 for each candidate ; Average annual emolument for each examiner, £200. Materia Medica: Capitation, £1 ; Average emolument, £200. Elementary Anatomy: Capitation, 15s. ; Average emolument, £150. Elementary Physiology: Capitation, 15s. ; Average emolument, £150. *Second Examination.*—Anatomy: Capitation, £1 10s. ; Average emolument, £250. Physiology: Capitation, £1 10s. ; Average emolument, £250. *Final Examination.*—Medicine: Capitation, £4 5s. ; Average emolument, £340. Surgery, Capitation, £4 5s. ; Average emolument, £340. Midwifery: Capitation, £2 ; Average emolument, £200.

HARVEIAN SOCIETY OF LONDON.

On Thursday, January 15th, the annual meeting and *conversazione* of the Harveian Society took place in the Stafford Rooms, Tichborne Street. The report of the Council showed that the Society was in a flourishing condition, and had accomplished during the past year much useful work. Although five of its members had been removed by death, and five names had been withdrawn, these losses were outweighed numerically by the influx of new members. The financial position of the Society had greatly improved, thanks to the energy of the treasurer. A new list of members had been published, and many valuable contributions had been promised for the remainder of the session. A vote of thanks to the Council was proposed by Mr. W. Adams, and seconded by Mr. Cripps Lawrence ; and to this Mr. Vasey responded. Dr. Meadows proposed a vote of thanks to the treasurer, which was seconded by Dr. Silcock ; and a vote of thanks to Mr. Field, the retiring President, was proposed by Dr. Symes Thompson, and seconded by Dr. Davson. The President selected for the subject of his valedictory address, the Progress of Science during the period which had elapsed since the foundation of the Society in 1831. A review of the giant steps taken by medical knowledge since that date, supplied the matter for valuable remarks on the instability of medical opinion as contrasted with medical facts. The germ-theory of disease, now once more in the ascendant, was as old as Hippocrates, but had, in the interval, suffered sweeping condemnations from authorities of the highest order. Medical literature, medical legislation, and the status of the medical profession, were included in the survey of recent advances. Social distinctions were shown to be still sparingly measured out to the profession, at the rate of one title and a half in the year ; and while the healing art was not represented in the House of Lords, "poetry and porter have equally secured peerages ;" on the other hand, the kind-heartedness prevalent within our profession was most satisfactorily proved by the result of the general appeal recently made in behalf of the widow and orphans of one of its most distinguished and promising members, the lamented Dr. Mahomed, the amount hitherto collected having reached the sum of £2,277. The address concluded with remarks on the desirability and the practicability of founding a teaching university in London. The thanks of the meeting for Mr. Field's valuable address were carried by acclamation ; and the President, having received the report of the scrutineers, announced that the officers proposed by the Council were duly elected. A list of their names was published in the British Medical Journal for January 3rd, at page 38. The new President, Dr. T. Morton, then took the chair, and declared the *conversazione* open. It was enlivened by the musical performances of distinguished artists—Herr Francesco Berger, Herr Kummer, and M. Albert. The rooms were tastefully decorated, and contained numerous objects of scientific, artistic, and historical interest. Mr. George Eastes exhibited Dr. Squibb's apparatus for the approximate estimation of urea. Microscopical specimens were shown by Dr. Waller, Dr. Silcock, Mr. A. W. Rowe, and Mr. G. Callendar. Ancient Japanese bronzes, and some rare examples of the finest works of the great Japanese workers in lac and porcelain, and of the art of the fifteenth and sixteenth centuries, were lent by Mr. Ernest Hart ; specimens of modern oriental manufacture by Mr. C. B. Pare; a collection of autotype pictures by the Autotype Company; photographs and reminiscences from the *Eira* Expedition, by Dr. W. H. Neale ; curiosities from the Caribbean Islands, by Dr. Davson; paintings, etchings, engravings, photographs, and curiosities, by Sir Reginald Macdonald, Drs. Clement Godson and Ewart, Messrs. G. Callendar, Kasson, Haiké, Howard Hayward, Kiallmark, MacNab, W. Pye, Raymond Tucker, A. W. Rowe, and R. S. Sutton. Messrs. Krohne and Sesemann, Messrs. Weiss and Son, and Mr. Pillischer, exhibited surgical and scientific appliances ; and a piano was lent by Messrs. Steinway.

SCOTLAND.

A new Institution for the Blind, which has been erected at a cost of £10,000, was formally opened in Dundee last week. It was presented to the city by the late Mrs. Mollison.

The weather throughout Scotland has recently been cold and dry, there being some days of continuous frost. Very little snow has fallen in the lower districts, but the hills still retain their white coating. About January 10th, one of the most marked barometrical depressions on record was observed, the barometer being as low as 28.4 over the greater part of Scotland. It was unaccompanied by very stormy weather, owing probably to the depression being widely spread.

ABERDEEN UNIVERSITY.

At the last meeting of the Senatus of this University, the most important matter under consideration was the question of enlarging the University buildings, especially in connection with the medical school, so as to adapt it to the growing demands that are being made on it, and which the present accommodation is quite insufficient to meet.

THE EPIDEMIC OF MEASLES IN DUNDEE.

The epidemic of measles which we have, before this, drawn attention to as prevailing in Dundee, has continued to spread, and recently with such extraordinary virulence, that the Sanitary Committee of the town have felt that some special means should be taken to check the outbreak. With this view, they have appealed to the Board of Supervision, for powers to declare measles to be an infectious disease within

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the meaning of the Local Police Act, whereby medical practitioners and householders will be bound to report every case. It seems doubtful if the sanction of the Board will be obtained for this resolution, on the ground of expense, but it seems to offer the best means for checking and stamping out the disease.

THOMSON LECTURES IN ABERDEEN.

PROFESSOR R. S. BALL, Astronomer Royal of Ireland, is this year the lecturer chosen by the Thomson Trustees. Professor Ball's lectures deal with astronomy, and in the lectures already delivered, he has treated of the sun, moon, solar system, Mercury and Venus, Mars and the minor planets, Jupeter and Saturn. The attendance has been very large. The lectures are illustrated by slides thrown on a screen by the lime light.

THE EPIDEMIC OF MEASLES IN DUNDEE.

THE epidemic of measles which has for some time prevailed in Dundee is showing some signs of abatement; and steps which were about to be taken by the Police Commission for obtaining the approval of the Board of Supervision of a resolution declaring measles an infectious disease under the Dundee Police Act of 1872, have been delayed till the next meeting of the Commission. The resolution would have entailed considerable expense in its carrying out, by the increased sanitary staff it would require, and by the amount of fees to be paid to practitioners for notifying cases of measles to the police-authorities.

ELECTION OF PRINCIPAL OF UNIVERSITY OF EDINBURGH.

ON Tuesday, January 20th, a final meeting of the Curators of Edinburgh University, for the election of a Principal in place of the late Sir Alexander Grant, was held in the University Court Room; various names had been put forward; of these, a short list of three was considered by the curators. The result of the meeting was the unanimous election to the office of Sir William Muir, K.C.S.I., LL.D. and D.C.L. Edinburgh University is to be congratulated on the choice of the curators, as the new Principal is well known as a gentleman, a scholar, and an administrator. In the words of Sir Alexander Christison, "he has many of the qualities of a Principal of Edinburgh University, health, strength, activity of mind and body, a scholarly mind, a high sense of duty, great powers of application to business, firmness of purpose, unfailing courtesy of manner, and the power of leading men."

REWARD FOR MERITORIOUS ATTENDANCE ON THE INSANE.

A REWARD (for the maintenance of which funds were provided by the bequest of the Morison Lectures) for meritorious performance of duties in the insane, consisting of the sum of £3 each, has been awarded to Mr. Thomas Lindors, for many years head attendant in the West Lodge Royal Edinburgh Asylum, Morningside; and to Miss Annie A. Cross, formerly of Montrose Asylum, and now in Stafford. These awards, which were well deserved, were awarded on the recommendation of Dr. Keiller, Morison Lecturer for 1884 and 1885, by Dr. Peel Ritchie, Treasurer of the Royal College of Physicians, Edinburgh.

EDINBURGH UNIVERSITY STUDENTS.

THE death of Principal Sir Alexander Grant, Bart., which threw a gloom over academic life in Edinburgh, led to the postponement of the annual ball and "social" of the University Students' Club. The former, however, took place on Friday, January 16th, and was well attended by students, as well as by various of the professors and teachers. The "social" was postponed till Friday, January 23rd. The annual *conversazione* and meeting of the University of Edinburgh Medical Abstinence Society was held in the Masonic Hall, George Street, on Thursday, January 22nd, when, in addition to songs and recitations, there were addresses by Professors Calderwood and Charteris and Dr. G. Sims Woodhead.

CONVALESCENT HOME, GLASGOW.

AT the twentieth annual meeting of the subscribers to the Glasgow Convalescent Home at Lenzil, held in the Christian Institute, Glasgow, the report submitted by the directors showed that, during the year, 1,409 patients were treated during the year, at a total cost per head of £1 6s. 4d. The directors were glad to state that, notwithstanding the depressed condition of trade, the income of £1,220 had been sufficient to meet the expenditure and leave a small balance in hand.

GLASGOW ROYAL ASYLUM.

AT the annual meeting of the contributors to and directors of the Glasgow Royal Asylum, held last week, the seventy-first annual report submitted showed that, during the year, there had been 233 admissions to the asylums, 170 discharges (of which 93 were recoveries), and 42 deaths. The present number of inmates is 483, of whom 202 are charity patients, and 281 are private paying patients. The death-rate for the year has been satisfactorily low, and there has been no serious accident. The report of the Lunacy Commissioners on the condition and conduct of the asylum was most satisfactory. The financial report was also satisfactory, and the meeting awarded votes of thanks to the medical staff, directors, etc.

EDINBURGH ROYAL INFIRMARY.

AT the annual meeting of the Court of Contributors to the Edinburgh Royal Infirmary, held on Monday to receive the report drawn up by a Committee of their own body, several points of interest were brought forward; but one of special importance was strongly referred to by Lord Shand, and that was the way in which the Royal Infirmary, Edinburgh, is saddled with the care and expense of cases of fever and epidemic contagious diseases. His Lordship held that these were properly police-charges, and ought not to be treated at the expense of the charitable supporters of the infirmary, but by the municipal authorities of the city in which they occurred. As the cost to the infirmary of maintaining a separate fever-hospital was, for last year, £3,000, it will be seen that there is justice in Lord Shand's contention.

THE TYPHOID FEVER EPIDEMIC IN ABERDEEN.

WE have from time to time brought forward numerous instances of fever epidemics arising from contaminated milk, and in all of which the circumstances have indicated the necessity for some legislation which would give more control over the milk-supply of large towns, and thus prevent these outbreaks of disease. We are again led to refer to the subject by the recent report of Dr. Simpson, medical officer of health for Aberdeen, on the epidemic of typhoid fever which took place in that city last December. No less than 56 families were attacked, and 7 deaths have already taken place. Of the 65 persons actually ill with the disease, the report states that 43 of these cases are due to contaminated milk; and, as was the case with the last Glasgow epidemic, the surroundings of some of the supplying farms are mentioned as showing likely sources of contamination. It is to be hoped that these different instances of preventible disease and death will not be lost on the authorities, and that they will not allow matters to remain much longer as they are, but will give some heed to the recommendations of the medical officers of health, and introduce some legislation in the matter.

RESTRICTIVE TEMPERANCE LEGISLATION.

THE question how far legislation should go in the prohibition of the sale of intoxicating liquors is, as yet, an undecided one, and there is much that favours the avoidance of too rigid restrictions, which are, in their turn, apt to develop forms of surreptitious drinking, with all their consequent evils. The recent returns of Sunday drunkenness, published for England and Wales, and separately for Scotland, have some bearing on the matter, as the former relates to countries where there is not the Sunday Closing Act which exists in the case of the latter. So much stress has been laid by some on the

benefits of such legislation, that we would have expected a marked difference in favour of Scotland ; but a perusal of these returns seems to disclose an opposite result. Scotland, with its Sunday closing, does not come out so favourably as England without it. The figures show that there were 15,545 arrests in the latter out of a population of 24,613,926, while those in the former numbered 2,496, out of a population of 3,735,573, which gives a percentage of arrests to population of .0668 for Scotland and .0631 for England. We have drawn attention to these returns as there can be no doubt of their value as bearing on a subject of pressing importance to the community.

IRELAND.

Professor Rawdon Macnamara, Dr. Kidd, ex-Master of the Coombe Lying-in Hospital, and Dr. J. Magee Finny, King's Professor of Medicine in the School of Physic, have been appointed by the President of the General Medical Council to inspect the examinations of the licensing bodies.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS.

The Right Hon. the Chief Secretary for Ireland, Mr. Campbell-Bannerman, M.P., received last week a deputation consisting of the President, the Vice-President, and Registrar of the College, with the immediate ex-President, Dr. Moore, and Dr. Lyons, M.P., who waited upon him with the object of asking the Government to introduce a Bill enabling the membership of the College to be scheduled, according to the Medical Act, as a registrable qualification. The Chief Secretary, having heard the arguments of the members of the deputation in favour of this proposal, acquiesced in their justice, and stated that he would communicate his decision to the College at an early date.

ULSTER EYE, EAR, AND THROAT HOSPITAL.

This hospital contains two large and four small wards for the reception of patients; but, the accommodation having proved insufficient, the question of an extension was recently under the consideration of the committee. It appears that the whole of the present internal accomodation is required for ophthalmic cases, and, with few exceptions, the ear and throat patients are treated at the extern department of the hospital. There are also no day-rooms, and, though many of the patients are not obliged to remain in bed at all, and some only for a few days, they all remain in the same wards, both day and night, a condition of things manifestly objectionable. Dr. McKeown, surgeon to the institution, has advised the addition of two day-rooms, two small wards for ear and throat cases, two small wards for contagious cases, a dormitory for an additional nurse, an open air exercise-ground, and a dark room for the oxyhydrogen light. The committee, having carefully considered the matter, unanimously approved of Dr. McKeown's recommendations, and have appealed to the public to assist them in carrying out the extension of the hospital as proposed.

BALLINASLOE DISTRICT LUNATIC ASYLUM.

At a recent meeting of the governors, Dr. Fletcher, resident medical superintendent, reported that there were nearly fifty males in the asylum for whom there was not sufficient accommodation. The total number of inmates was 567, and of late the admissions had been so numerous, that he considered that it would be necessary to erect a male wing to accommodate 100 patients, at an estimated cost of £6,000. Even if the governors ordered the erection of the proposed wing at once, it would not be ready for the reception of cases for nearly two years ; and provision should be made in the meantime to accommodate the extra number in the asylum. It is stated that, owing to its overcrowded condition, fever has broken out, and that lately there have been thirteen cases under treatment. After considerable discussion, it was finally determined that the Board of Guardians should be communicated with, in order to find out at what rate per head they would lodge and clothe a certain number of the harmless patients.

ACADEMY OF MEDICINE IN IRELAND.

The special general meeting of the Academy referred to in last week's Journal, was held in the hall of the King and Queen's College of Physicians, on the 17th instant. Over fifty Fellows were present. The first resolution, "That it is expedient that a fixed salary shall be paid yearly to the general secretary of the Academy, in consideration of the fact that the editing of the *Transactions* is part of his duties," was proposed by the general treasurer, Dr. Robert McDonnell, and seconded by Dr. E. H. Bennett, President of the Royal College of Surgeons in Ireland, and, after a short debate, was carried by a large majority. Dr. McDonnell then proposed, and Dr. J. W. Moore seconded, a resolution, "That the salary of the general secretary shall be £100 a-year." The President of the Academy, Dr. Banks, having, however, stated "that he had sworn in court that doctor's fees were guineas, not pounds," his suggestion was adopted, and the resolution altered, fixing the salary at guineas. Mr. Stokes then proposed, and Dr. Duffey seconded, the resolution, that the following having been nominated by the General Council, should be elected Honorary Fellows of the Academy:—Sir James Paget, Professor Billroth, Professor Virchow, Professor Pasteur, Professor Charcot, Dr. Austin Flint, Dr. Keith, Professor Schroeder, Professor Kölliker, and Sir Joseph Lister. After some discussion, the resolution was adopted. A resolution, recommending that the Academy should apply to the Government for accommodation in the new Science and Art buildings, was negatived by one vote.

THE IRISH COLLEGE OF SURGEONS AND THE GENERAL MEDICAL COUNCIL.

The annual election of a representative of this College on the General Medical Council was held last week. As our readers may be aware, the electors are the Council of the College, a body composed of twenty-one members. Until last year, the election was a mere matter of form. One member proposed that the representative of the College should be re-elected, and another member seconded the resolution. Instead of the above method, by which any opposition to the re-election of an individual having a tenure of the office would be looked upon as invidious, a much better plan is now in force. The names of any candidates are handed in writing to the President, and these names are then submitted to the ballot. At the election on Thursday week, the names of Professor Rawdon Macnamara and Dr. Barton were thus forwarded to the President, and, after a ballot, Professor Macnamara was elected by eleven votes to eight. This was a very significant expression of opinion. When it is remembered that Professor Macnamara lost his seat on the Council of the College at the annual general election in June last, and only gained it again at a by-election which was not contested, it becomes, therefore, a matter for consideration whether his views, as expressed in the General Medical Council, have been in harmony with those of the body he represents, or whether they are not altogether satisfied with his action as their representative. When, also, it is remembered that, on the Council which chose him by such a narrow majority, are several strong personal friends, it makes the question still more important. It is commonly rumoured that at least two of his supporters admitted that they voted more on personal than on collegiate grounds. It must be plain, too, that the significance of such an election is in no wise diminished by presidential or other testimonials as to Professor Macnamara's particular services or fitness for the post. Has not the General Medical Council already *vis inertiæ* enough without addin

urther to its capacity for "how not to do it," by making the corpo-ation representation a permanent office? "New blood" in new nembers who represent the current opinion, will do more to stir up hat august body than any number of newspaper philosophers.

ILLEGAL BURIALS.

AN undertaker, in Dublin, was summoned at the instance of the Registrar-General, before one of the police magistrates, last week, for non-compliance with the Act of Parliament setting forth that, "where here is a coffin prepared for any deceased person brought for burial, he undertaker in charge of the funeral shall, if any other person be laced in this coffin, give notice in writing to the registrar, with par-iculars as to the name, place of abode, etc., of the deceased person or ersons." It seems that there is a prevalent custom in Dublin, and erhaps elsewhere, for undertakers to place stillborn children, or hildren who died after birth, in the same coffin with the remains f the mother, if she died at the time of confinement. This was what ook place in the present instance. A lady died, and her newly born hild died the next day. Both bodies were placed in one coffin, but nterment fees were paid on one body only. The fact of the two odies having been buried together, subsequently came to the notice f the officials of the cemetery by a communication referring to an nscription on the tombstone. The present proceedings were then in-ituted for the prevention of such breaches of the law, and to give he general public notice that they were liable to a penalty of £10 for ich an infringement of the Act of Parliament. The undertaker leaded ignorance of the law affecting the business he carried on. As his was the first case of the kind which had come before the magis-rate, the defendant was let off with a fine of £1, and £1 costs.

CANTOR LECTURES.

T the second lecture, on Monday, Dr. POORE began by calling atten-on to the rude health enjoyed by the crew of the *Eira* in the arctic gions, under conditions of which overcrowding and dirt were the ief characteristics. In answer to the question, why conditions were rmless at the pole which would certainly be harmful, or even fatal, the tropics, he offered the explanation that, at the pole, putrefac-ve and allied processes were impossible, owing to the fact that, in e cold dry arctic regions, it was impossible for the bacteria upon hich putrefaction depends to manifest any vitality. Although he d ventured to assert that the extremes of heat and cold were not cessarily great producers of disease, a glance at one of the diagrams the wall offered an apparent contradiction to the assertion; for om it they would learn that the deaths from respiratory diseases in-eased in cold weather, and the deaths from diarrhœa steadily in-eased in hot weather. There was a distinction to be drawn between cause of death and a cause of disease. Cold weather often brought ng-disease to a fatal termination, although the originating cause of he disease was to be found in the overcrowding, intemperance, arvation, or filthy surroundings. The starved and the aged were ry prone to die from congestive pneumonia; and, during cold eather, it must be remembered, overcrowding in close dwellings ached its height. Cold, in many ways, was very prejudicial to per-ns with lung-disease; but it could only be considered as an indirect d secondary cause of those diseases. Again, the heat was not a ect cause of the diarrhœa, but only an indirect cause, which acted rough sour milk, putrid meat, rotten fruit, and emanations from trefying sewers or cesspools.

A glance at the chief tropical diseases would show them how many re connected with the putrefaction and decay of organic matter. laria, yellow fever, and cholera were all instances of this.

Putrefactive and allied changes having been shown to be dependent micro-organisms in the air, soil, or water, the study of these robes had become of prime importance, and more especially because a few of the zymotic and infective diseases had been shown to be pendent upon them. The systematic study of the floating matter he air was being prosecuted with great vigour in Berlin and Paris, many of the facts submitted this evening emanated from the ervatory of Mont Souris, where Dr. Miquel had charge of this de-tment of meteorology. That solid matter could be transported t distances through the air was well known. Sand, for instance, had been blown 600 or 800 miles from African deserts, and had fallen on ships at sea. The labours of Ehrenberg, Blackley, and Maddox had taught us much concerning the pollen, fungoid spores, and other organic forms to be found in the air. Miquel's experiments show that, in the years 1879-82, there were from twelve to fifteen spores of fungi in each litre of air examined at Mont Souris. In addition to spores and pollen, the other matters found in the air, and readily distinguishable by the microscope, are mineral particles, particles of clothing, starch-grains, and occasionally unicellular plants and ova of infusoria.

Bacteria cannot be detected with any certainty by the microscope alone, but need to be estimated by methods of cultivation. Miquel's method consists in drawing a measured quantity of air through each of a large number of tubes of a special pattern, and partially filled with sterilised *bouillon*. These tubes are then kept for several days at a suitable temperature; and the amount of bacterial growth which has taken place is then easily seen. Thus, if 100 litres of air be distributed through 50 tubes, and if, after due lapse of time, 10 of these tubes show bacterial growth, Miquel estimates that the 100 litres of air contain at least 10 bacteria. This work has been done every day, and often many times a day, for some years; and we cannot too highly appreciate the enthusiasm and devotion of Miquel and his fellow-workers. Among the results obtained were the following. In 1880, there were on an average 560 bacteria in each cubic mètre of air examined at Mont Souris. In 1881, the average was 590, while in 1882 it was only 320. The highest numbers were often recorded when the wind was north-east, and when, before reaching Mont Souris, it had swept over a great part of the city of Paris. Ozone had no effect on the numbers of bacteria.

The number is always small during rain, increases as the dryness of the soil progresses, and decreases again if the dryness be prolonged beyond a week. They are more plentiful in hot weather than in cold.

In the centre of Paris (Rue de Rivoli), the number of bacteria averaged (in 1882-83) 2,490 per cubic mètre, or very nearly five times as many as at Mont Souris, which is in the extreme south of the city. Miquel's experiments in the Alps, and his comparison with similar experiments conducted at the same time in Paris (July 1883), give the following results.

	Bacteria per Cubic Mètre
At 2,000 to 4,000 mètres above sea-level	0.00
On the Lake of Thun (560 mètres)	0.80
Near the Hotel Bellevue, Thun	2.50
In a room of the hotel	60.00
In the park at Mont Souris	760.00
In the Rue de Rivoli	5,500.00

The scarcity of microbes in the mountain-air is attributed to (1) the lessening of pressure, and consequent expansion and dilution, as it were, of the air; (2) the lessened density decreasing the power of the air to suspend solids; (3) the progressive disappearance of productive foci of bacteria.

Researches carried out at the Hôtel-Dieu and Notre Dame de la Pitié gave an average for the year of 11,100 bacteria in each cubic mètre of air in the wards of these hospitals. "Taking the whole year through, it was found that the increase and decrease of bacteria in the air of hospital-wards obeyed laws very different from those observed in the open air. The hospital-bacteria, in fact, reached their minimum at a time when the windows could be kept open (in June, July, and August), when the average fell to 5,500. The maximum (28,000) was reached during the cold weather in January, when the number in the air of the street had fallen to 160. "If," says M. Miquel, "hospitals be built in the middle of cities, the surrounding quarters must receive microbes which are, possibly, not always harmless."

Assuming, as we certainly may assume, that microbes are the actual cause of some zymotic diseases, and that these microbes may be wafted to us through the air as readily as they may travel by other channels, we must still remember that, happily, something more than the microbe is necessary for the production of the disease. This something is found in the conditions necessary for growth. Moisture and a certain amount of warmth is necessary, and also a suitable soil. That all plants do not flourish equally well in all soils is well known, and it is also well known that the presence or absence of certain mineral ingredients in the soil make an enormous difference in the resulting crop. This fact is being strikingly shown in Raulins's experiments on the growth of the *Aspergillus Niger*, the mould which grows so luxuriantly on lemons and other acid fruits. Raulin grew this fungus in a fluid devised by himself, containing sugar, tartaric acid, and other ingredients, including $\frac{1}{50000}$ part of the metal zinc. Raulin found that when the fungus was grown in the complete fluid, in a dish

of definite area, that his crop (when collected and dried) weighed invariably about 25 grammes. By omitting the zinc, his crop fell to 2.5 grammes, or only $\frac{1}{10}$, and if $\frac{1}{10000}$ part of nitrate of silver were added, he got no crop at all. So sensitive is the fungus to the action of silver, that it will not even begin to grow in a silver bowl. These experiments are most instructive, as showing what apparently insignificant trifles may cause the growth of an organism to languish or flourish. They make it less difficult for us to frame an hypothesis to explain why certain zymotics seldom occur, and never flourish twice, in the same body; why certain families are more smitten by certain zymotics (such as tubercle and scarlet fever) than others; why, in times of epidemics, some persons escape; and why, in the old days of inoculation for the small-pox, the inoculated disease was seldom so virulent as the disease "caught" in the ordinary course.

LIVING CONTAGIA.

PROFESSOR TYNDALL delivered a lecture on this subject before a large audience, at the Royal Institution, on Friday, January 16th. He said that he had recently looked over the proof-sheets of a small book, shortly to be published, entitled *Louis Pasteur; his Life and Labours;* by his Son-in-law. From this it would appear that Pasteur had been led by some extremely curious observations to study the general question of fermentation; and rapidly closed with the idea that what we call ferments are all living things, and that what was previously considered to be a ferment, was in reality the food of the ferment. As far back as 1837, Latour and Schwann had independently discovered the nature of the alcholic ferment. In the case of wine, this alcoholic ferment lived on the sugar of the grape.

Pasteur had proved also that the sourness of sour milk was due to the lactic acid ferment. This consisted of little "rods" which grew and multiplied in the milk, and the decomposition which it there produced had the effect of sourness. Having broken ground in this way, Pasteur went on to consider the general question of fermentation and the maladies and diseases to which both beer and wine were subject. Over and over again, years ago, disastrous losses had been incurred by the brewers of London, when five minutes' examination of the yeast would have shown them the disease from which it was suffering, and would have prevented them from using that yeast. The microscope, however, was now used everywhere in the breweries of England. The experiments of Schwann and Pasteur had led to the researches of Lister. With unrivalled keenness of vision, he saw in our hospitals these germs of putrefaction, and he said to himself, "Those germs must be destroyed if you are to secure the proper result of your operation." He saw that the treatment subsequent to the operation was quite as important as the operation itself, and he devised means to destroy those organisms. The result was his system of antiseptic surgery, which is one of the most beneficent achievements of the age in which we live. Pasteur, in 1865, investigated the plague of the silkworm in France, an epidemic that was devastating a vast industry. He discovered, in the smitten worms, certain corpuscles, the cause of the epidemic. Finally, he solved the problem of restoring to France her silk indusery, simply by separating the healthy from the unhealthy moths, destroying the latter, and preserving the eggs of the healthy alone. The germ theory of infectious disease had, in his time, been growing like a mustard tree, but he remembered when it was looked down upon as an absurdity. Now, hardly a scientific physician in Europe did not, more or less, accept the germ theory of contagious disease. In fact, this power of self-multiplication which Pasteur noticed in the ferment bore every resemblance to the propagation of living things.

To Dr. Koch was due the credit of having investigated the wool-sorters' disease, known also as splenic fever, malignant pustule, and Siberian plague, one of the most deadly organisms that ever invaded the system of man or brute. Pasteur attacked the consideration of this splenic fever, separately from Koch; and he would here give an instance of the penetration of Pasteur. Koch had proved that while mice and guinea-pigs were invariably killed by this inoculation, birds could defy it. Pasteur asked himself "why;" and his first step was to ascertain the temperature at which this bacillus ceased to multiply. He found that the temperature was about 44° Centigrade (or 111° Fahr.), and reasoning that the blood of a fowl was of very high temperature, he reduced the temperature of a fowl's blood some degrees and then inoculated it. The result was that the fowl, which in its normal temperature was proof against this organism, was killed in twenty-four hours. Not satisfied with this, Pasteur next inoculated a fowl when in a low state of temperature, and then transferring it to a very warm temperature, the bacillus was killed. When he (Professor Tyndall) visited the *Ecole Normale*, in Paris, he saw a cage in which some guinea-pigs and rabbits (those which had been inoculated) were running about, munching their food in perfect health; others looked drowsy and languid, others were in the last agony, and others were in the rigor of death. It looked a very sad scene indeed. He could imagine a tender-hearted bishop—with whose tender-heartedness he had the strongest sympathy—entering the laboratory of Pasteur. If such bishop had the power, would he not have invoked the arm of the law to stop this "cruelty," as he would have called it? But in doing so he would assuredly have fixed the brand of cruelty upon himself, for in lieu of the units which had been subjected to the operation of the scientific man he would have delivered over tens of thousands of these self-same animals to the ravages of splenic fever.

So they must look beyond the momentary suffering to the incalculable issues that arose from these experiments. It behoved them to look at all sides of the question. As far as he was personally concerned he knew nothing about cruelty to animals, and would not tolerate it for an instant. But let them look at the cases where the bacillus ate the life away, and say, "Is it not worth while to try and combat those things?" Never, in the history of medicine, had such a bright day dawned upon them as the present one, and he said, in conclusion, "Do not let us be deterred by mischievous legislation."

COLLECTIVE INVESTIGATION.

A MEETING of the General Collective Investigation Committee was held at the Criterion Restaurant on the evening of Wednesday, the 14th instant. The members dined together before the commencement of business. There were present: Professor Humphry, in the chair; Dr. Anningson, of Cambridge; Dr. Atkinson, of Surbiton; Dr. Bowles, of Folkestone; Mr. Butlin; Dr. Cheadle; Dr. Coupland; Dr. Ward Cousins, of Southsea; Mr. Davies-Colley; Dr. Duckworth; Mr. Eastes; Dr. Herringham; Mr. Vincent Jackson; Dr. Longstaffe; Mr. Murphy; Dr. Ransome, of Bowdon; Dr. Sharkey; Dr. Sturges; Dr. Frederick Taylor; Dr. Tyson, of Folkestone; and Dr. Isambard Owen, Secretary.

Professor HUMPHRY said that the loss of Dr. Mahomed, great as it was, must not be a discouragement to them, but rather give an impulse to fresh exertion; and he was glad that Dr. Herringham had consented to act as honorary secretary, and so give the benefit of his experience and ability to their excellent secretary, Dr. Isambard Owen, and his active assistance to the Committee. Some objections and hostility to their work had been shown. This should prove a wholesome stimulus to them; for a certain measure of hostility was common and necessary for success in any undertaking. It showed the errors and defects, and inspired those who were at work with the energy to go on. One thing was quite certain: they must not expect great and startling discoveries. They must be content with slow, quiet, steady progress, and with the accumulation of material which would serve for reference and for guidance when the collectors of it had long passed away. It was no small thing to induce the scattered and isolated members of our profession to combine in any great work, especially a work of this kind, in which each contributor claimed the benefit of that close attention to, and interest in, his case which was requisite for the purpose of contributing the reports of them to a common centre where they would be analysed, scrutinised, and digested. There could be no doubt that the first and most assured advantage would be to the collectors themselves. No person could have carefully read and studied the memoranda and forms which had been circulated, and taken the trouble so to observe a case as to fill up any one of the forms, without deriving much instruction; and whatever might be said in disparagement of the value of their returns, there was the testimony of Dr. Herringham, and none could be so good, derived from the internal evidence of these returns, that in by far the great majority of instances they were good, careful, and reliable; and thus, in addition to the information already given in the reports, a large amount of material had been collected which would serve for future investigators. Professor Humphry felt that one just cause of complaint among the members of the Association was the information obtained had not been communicated to them with sufficient fulness and frequency. He hoped that arrangements would be made by which this defect would be remedied, and that every member of the Association might have the opportunity of learning, from time to time, what was being done and what was being learned. The international extension, inaugurated at Copenhagen by the able address of Sir William Gull, and forwarded by Sir J. Paget, Sir Henry Acland, Drs. Mahomed, Owen, and others, had been favourably received; and they were in communication with committees formed with reference to it in several of the continental states, in India and in America. Simple questions relating, in the first instance, chiefly to the geographical distribution of certain dis-

ad been agreed upon, and would shortly be in circulation; and, hatever other results might be obtained, it would be something achieved the several nations of the earth were thus induced to combine gether, through the members of the medical profession, in the com- on effort thus to promote one another's welfare.

Propositions for new inquiries were presented by several members, id, after discussion, referred for further consideration.

Upon the proposition of Dr. ATKINSON, of Surbiton, the following solution was carried:

"That the subjects for inquiry be decided upon a year prior to the sue of the cards; that the various Branches be requested to discuss ese subjects during the year; and that the points raised, together th the conclusions arrived at, be forwarded to the Secretary, in order at they may be laid before the Subcommittee appointed to draw up e cards."

Dr. OWEN announced the subjects and lines of inquiry which have en agreed upon by the International Collective Investigation Com- ittee.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885: ELECTION OF MEMBERS.

ETINGS of the Council will be held on April 8th, July 8th, and tober 14th, 1885. Gentlemen desirous of becoming members of Association must send in their forms of application for election the General Secretary, not later than twenty-one days before each eting, namely, March 18th, June 17th, and September 24th, 1885, accordance with the regulation for the election of members, passed the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

RDS for recording individual cases of the following diseases have n prepared by the Committee; they may be had on application he Honorary Secretaries of the Local Committees in each Branch, n application to the Secretary of the Collective Investigation Com- tee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
va. Diphtheria, sanitary.
VI. Acute Gout.
VII. Puerperal Pyrexia.
VIII. Paroxysmal hæmoglobinuria.
X. Habits of Aged Persons.
XI. Albuminuria in the Apparently Healthy.
XII. Sleep-walking.
XIII. Cancer of the Breast.

n inquiry is now issued concerning the general condition, habits, circumstances, past and present, and the family history of sons who have attained or passed the age of 80 years.

he replies to this inquiry will be most valuable when given by a lical man; but the questions have been so arranged that, with the eption of some on the last page, they may be answered by another son. *Partial information will be gladly received.*

here is also now issued an inquiry as to the occurrence of albu- uria in apparently healthy persons.

he Acute Gout card, which had been found too elaborate, has been le a great deal simpler, and is now re-issued.

opies of these forms and memoranda are in the hands of all the l secretaries, and will be forwarded to anyone who is willing to up one or more of the forms, on application by post-card or other- to the Secretary of the Collective Investigation Committee, , Strand, London, W.C., to whom all applications and corres- dence should be addressed.

ly, 1884.

BRANCH MEETINGS TO BE HELD.

RTH OF IRELAND BRANCH.—A general meeting of the Branch will be held in Belfast Royal Hospital on Thursday, January 29th, at 12 o'clock.—ALEX. SEY, M.D., Honorary Secretary.

BLIN BRANCH.—The eighth annual general meeting of the Dublin Branch by kind permission of the President and Fellows, be held on Thursday, ry 29th, at 4 P.M., in the Hall of the King and Queen's College of Physi- Kildare Street. The officers and Council for the ensuing year will be d by ballot, and any other necessary business transacted. Dr. Lombe Atthill, ent-elect, will deliver the annual address. The annual dinner of the Branch e in the College Hall, at 7 P.M. on the day of the meeting. Dinner-tickets mbers who purchase their tickets on or before Wednesday, the 28th instant, il.; for members purchasing their tickets after that date, and for guests, £1.—RICHARD A. HAYES, M.D., Honorary Secretary and Treasurer, 56, Merrion Square South, Dublin.—January 5th, 1885.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of the above district will be held at Gravesend Hospital, on Tuesday, January 27th, at 3.30 P.M.; Charles Firth, M.D., F.R.C.S., in the chair. The dinner will take place at the New Falcon Hotel, Gravesend, at 6.30 P.M.; charge, 6s. 6d., exclusive of wine. Gentlemen who intend to dine are particularly requested to signify their intention to Dr. Firth, Parrock Street, Gravesend, not later than January 26th. All members of the South-Eastern Branch are entitled to attend this meeting, and to introduce friends. Papers to be read:—1. C. B. Keetley, F.R.C.S.: The Results of Treatment of Hip-disease. 2. A. Venn, M.D.: A Difficult Case in Midwifery. 3. H. L. Bernays, Esq.: Three Cases of Poisoning by Sewer-gas in Children. 4. C. J. W. Pinching, Esq.: A Case of Enucleation of the Head of Thigh-bone. 5. O. R. Richmond, Esq.: A Case of Excision of Shoulder-joint. 6. Charles Firth, M.D.: Pyæmia. 7. C. E. Robbs, Esq., will exhibit some Pathological Specimens. At 3 P.M., Messrs. Krohne and Sesemann will exhibit some new surgical instruments.—H. LEWIS JONES, Honorary Secretary, St. Bartholomew's Hospital, Chatham.—January 15th, 1885.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.—The next ordinary meeting will be held at the Fountain Hotel, West Cowes, on Thursday, January 29th, at 4.30 P.M.; Joseph Groves, Esq., M.B., President, in the chair.—Agenda: 1. T. A. Buck, Esq.: Two cases of Lymphadenoma. 2. W. E. Green, Esq.: Case of Scurvy (?) in a Baby. 3. W. E. Green, Esq.: Microscopical Specimens. Tea will be provided; charge, 3s. Trains leave Cowes at 7 15 P.M. Gentlemen who are desirous of introducing patients, exhibiting pathological specimens, or making communications, are requested to signify their intention at once to the Honorary Secretary.—W. E. GREEN, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The next meeting will be held at the Royal Naval School, Greenwich, on Wednesday, January 28th, at 8.30 P.M., Mr. Macnamara, President of the Branch, in the chair. Dr. C. H. Hartt will read a paper on Scarlet Fever, with Especial Reference to Sanitation. Mr. J. H. Poland will read a paper on The Treatment of the Sac in Strangulated Hernia. Resignation of Secretary.—R. E. CARRINGTON, Honorary Secretary, 15, St. Thomas's Street, S.E.

EAST ANGLIAN BRANCH: ESSEX DISTRICT.—A meeting will be held at the Saracen's Head, Chelmsford, Wednesday, January 28th, at 3.30 P.M., to consider the places of meetings for the year, and the rules of the new district. Mr. Howard Marsh will read a paper on Strangulated Hernia, and Mr. Thomas Simpson, of Coggeshall, Notes on a Case of Colotomy. Members wishing to be present or to exhibit cases, are requested to communicate with the Honorary Secretary by Tuesday, January 27th. Dinner tickets, 5s., exclusive of wine.—WM. THOS. JACKMAN, Honorary Secretary, Coggeshall, Essex.

YORKSHIRE BRANCH.—The intermediate meeting of the Yorkshire Branch will be held at the Station Hotel, Batley, on Wednesday, January 28th, at 3 P.M., when the following papers will be read:—1. Mr. T. R. Jessop: Treatment of Cancer of the Rectum. 2. Mr. A. W. Mayo Robson: Two Cases of Fracture of the Astragalus, and a Case of Separation of the Upper Epiphysis of the Radius. The members will dine together at the Station Hotel, Batley, at 5.30 P.M. Tickets (exclusive of wine) 7s. each.—ARTHUR JACKSON, Secretary, Wilkinson Street, Sheffield.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The Annual General Meeting of this Branch will be held at the Western Infirmary, Glasgow, on Saturday, January 31st, at 2.30 P.M.—A. NAPIER, M.D., Honorary Secretary, Crosshill, Glasgow.

PROCEEDINGS OF COUNCIL.

AT a meeting of the Council, held in the Small Hall of Exeter Hall, Strand, London, on Wednesday, January 14th, 1885, present:

Dr. BALTHAZAR FOSTER, Birmingham, President of the Council, in the Chair,

Mr. Macnamara, London, Treasurer
Dr. B. Anningson, Cambridge
Dr. H. Barnes, Carlisle
Dr. M. M. De Bartolomé, Sheffield
Dr. T. Bridgwater, Harrow
Dr. A. Carpenter, Croydon
Dr. A. H. Carter, Birmingham
Dr. C. Chadwick, Tunbridge Wells
Dr. J. Ward Cousins, Southsea
Dr. G. W. Crowe, Worcester
Mr. J. Dix, Hull
Dr. D. Drummond, Newcastle-on-Tyne
Dr. W. A. Elliston, Ipswich
Dr. C. E. Glascott, Manchester
Dr. W. C. Grigg, London
Dr. C. Holman, Reigate
Professor G. M. Humphry, F.R.S., Cambridge
Mr. T. R. Jessop, Leeds
Dr. D. J. Leech, Manchester
Dr. W. G. V. Lush, Weymouth
Mr. F. Mason, Bath
Dr. W. Withers Moore, Brighton
Dr. C. Parsons, Dover
Dr. G. H. Philipson, Newcastle-on-Tyne
Dr. A. Sheen, Cardiff
Mr. Septimus W. Sibley, London
Dr. E. M. Skerritt, Bristol
Dr. A. Strange, Shrewsbury
Dr. W. Strange, Worcester
Mr. T. Sympson, Lincoln
Dr. T. W. Trend, Southampton
Dr. E. Waters, Chester
Mr. C. G. Wheelhouse, Leeds

The President of the Council having asked if there were any objections to the minutes of the last meeting, as printed and circulated, and there being none, they were signed as correct.

Read letters of apology for non-attendance from Mr. Husband, Mr. Vincent Jackson, Mr. Alfred Baker, Mr. Wright Baker, Dr. Bruce Goff, Mr. Cross, Dr. Duffey, and Mr. Taylor.

Read report of the Committee appointed to consider the position of the Committees appointed at the annual meeting, of which the following is a copy :

1. That, in the opinion of the legal adviser of the Association, the present mode of electing Committees by the members of the Association at the annual general meeting is illegal. 2. That it be recommended that the appointment of the Committees by the Belfast meeting be confirmed by the Council, and it is suggested as desirable that reports should be sent from each Committee to the Council at its quarterly meetings.

Resolved: That the report be received and entered on the minutes.

Resolved: That the report be adopted by the Council.

Resolved: That the Committee be requested to continue its labours with a view to recommending alterations, if necessary, in the by-laws or the articles.

Resolved: That a Committee be appointed to report on the alteration of the by-laws relating to Branch organisation, namely, the President of the Council, Dr. Ward Cousins, Dr. Glascott, Dr. Grigg, Mr. Husband, Mr. Arthur Jackson, Mr. Vincent Jackson, Dr. Vawdrey Lush, Dr. Parsons, Mr. Wheelhouse, Dr. Langdon Down.

Resolved: That the 106 gentlemen whose names appear on the circular convening the meeting be, and they are hereby, elected members of the Association.

Resolved: That the notice issued weekly in the JOURNAL with respect to the election of members be so modified as to make it clear that election may be effected either through the Council or through the Branches.

Resolved: That the minutes of the Journal and Finance Committee of to-day's date be approved, and the recommendations carried into effect.

The minutes of the Journal and Finance Committee contain the report upon the examination of the accounts for the quarter ending 31st December last, amounting to £4,727 3s. 7d., and a recommendation that a further investment be made of £2,000.

Resolved: that the thanks of the Council be given to the General Manager for the great care and trouble that he has taken in the service of the Association during the past year.

Resolved: That the minutes of the Premises Subcommittee of the 10th December last be approved, and that the recommendations be carried into effect.

The minutes of the Premises Subcommittee contains a report to the effect that great saving has been effected in the present mode of printing and issuing the JOURNAL, and it therefore is recommended that no change be made.

The President of Council then called upon Mr. Dix for report upon the election and retention of homœopaths as members.

Mr. Dix reported that the report was waiting the return from the Birmingham and Midland Branch.

Resolved: That Dr. Dix be requested to bring up the report at the next annual meeting of the Council, and, if possible, let the General Secretary have it printed, and circulated among the members prior to the meeting.

Resolved: That the Scientific Grants Committee be appointed as follows, viz.: Sir Joseph Lister, Bart., F.R.S., *Chairman;* the President and the President-elect *ex-officio;* the President of Council and the Treasurer; Dr. T. C. Allbutt, F.R.S.; Mr. Alfred Baker; Dr. C. Chadwick; Dr. Ferrier, F.R.S.; Professor Michael Foster, F.R.S.; Professor A. Gamgee, F.R.S.; Professor Humphry, F.R.S.; Mr. W. D. Husband; Dr. Klein, F.R.S.; Sir Jas. Paget, Bart., F.R.S.; Professor Rutherford; Professor Burdon Sanderson, F.R.S.; Professor Edward A. Schäfer, F.R.S.; Dr. Edward Waters; Dr. S. Wilks, F.R.S.; Mr. C. G. Wheelhouse; Mr. Ernest Hart, *Honorary Secretary.*

Resolved: That the Medical Reform Committee be appointed, consisting of the members whose names are as follows: Dr. Edward Waters, *Chairman and Convener;* The President and President-elect, *ex officio;* Dr. Balthazar Foster, *President of Council;* Mr. C. Macnamara, *Treasurer;* Dr. Alfred Carpenter; Dr. M. M. de Bartolomé; Dr. C. Chadwick; Dr. Bernard O'Connor; Mr. Ernest Hart; Rev. J. Haughton, F.R.S.; Mr. W. D. Husband; Mr. W. H. Michael, Q.C.; Dr. W. F. Wade; Mr. C. G. Wheelhouse; Dr. Heron Watson.

Resolved: That the Parliamentary Bills Committee be appointed, to consist of the members whose names are as follows: Mr. Ernest Hart, *Chairman and Convener*; The President and President-elect, *ex officio;* Mr. J. S. Bartrum, Dr. B. Foster, Dr. T. W. Thursfield, Dr. Robert Tiffen, Dr. H. Barnes, Dr. G. F. Duffey, Mr. T. W. Crosse, Dr. John Wight, Mr. Henry Stear, Dr. Macmillan, Mr. G. A. Gibson, Dr. B. Goff, Dr. E. Whittle, Dr. Harrison, Dr. G. H. Philipson, Mr. O. E. Owen, Dr. Phillips, Dr. Orange, Mr. J. R. Humphreys, Mr. R. W. Watkins, Dr. A. Sheen, Dr. A. Davies, Mr. P. M. Deas, Dr. D. Nicholson, Dr. C. Orton, Mr. W. D. Spanton, Mr. J. Prankerd, Dr. Strange, Dr. G. W. Crowe, Mr. A. Jackson, Dr. A. Henry, Dr. W. C. Grigg, Mr. Sibley.

Resolved: That the Committee on Habitual Drunkards be appointed, and to consist of the members whose names are as follows: Dr. Norman S. Kerr, *Chairman;* the President and President-elect *ex-officio;* Dr. Balding; Dr. R. W. Batten; Dr. G. F. Blandford; Mr. Harrison Braithwaite; Mr. William Cadge; Dr. C. Cameron, M.P.; Dr. Alfred Carpenter; Dr. W. Carter; Dr. C. R. Drysdale; Dr. J. W. Eastwood; Surgeon-Major G. J. H. Evatt, A.M.D.; Dr. R. Farquharson, M.P.; Dr. B. Foster; Mr. W. C. Garman; Dr. J. Hill Gibson; Dr. Alexander Grant; Dr. C. J. Hare; Mr. Carsten Holthouse; Dr. H. Monro; Mr. G. W. Mould; Mr. R. H. B. Nicholson; Surgeon-Major G. K. Poole, M.D.; Mr. J. Prankerd; Dr. Valentine Rees; Dr. George Robertson; Fleet-Surgeon G. Robertson, R.N.; Dr. Joseph Rogers; Dr. J. P. Scatliff; Dr. A. B. Squire; Dr. G. D. P. Thomas; Mr. F. Vacher; Dr. A. Walker; Dr. H. W. Williams; Surgeon-General C. R. Francis, *Honorary Secretary;* Dr. E. H. Vinen, *Honorary Secretary.*

Resolved: That it be an instruction to the Parliamentary Bills Committee to consider the question of the present unsatisfactory state of the public health administration, and to present a report thereon at the next annual meeting of the Association.

Resolved: That, in consequence of the much regretted death of Dr. Mahomed, minutes 1013 and 1015 be discharged.

Resolved: That the sincere sympathy of this Council be conveyed by the President to Mrs. Mahomed in the irreparable loss she has sustained by the lamented death of her husband, the late Dr. Mahomed.

CORRECTIONS IN THE LIST OF MEMBERS OF THE BRITISH MEDICAL ASSOCIATION, 1884-5.

BORDER COUNTIES BRANCH.

MEMBERS UNATTACHED: OMISSION.

Paget, Chas. E., Esq., Kendal, Westmorland.

DORSET AND WEST HANTS BRANCH.

MEMBERS: CORRECTION.

For Gardner, S. F., Esq., Bournemouth, read Gardner, T. F., Esq., Bournemouth.

DUBLIN BRANCH.

MEMBERS UNATTACHED: OMISSION.

O'Carroll, J. F., M.B., 77, Harcourt Street, Dublin.

LANCASHIRE AND CHESHIRE BRANCH.

COUNCIL: CORRECTION.

For Farrar, J., Esq., Morecambe, read Farrar, J., M.D., Morecambe.

MEMBERS UNATTACHED: OMISSION.

Craven, R. M., Esq., 28, Hoghton Street, Southport.

METROPOLITAN COUNTIES BRANCH.

MEMBERS: CORRECTION.

For Phillips, C. T. D., M.D., Church Street, Upper Norwood, read Phillips, C. F., M.D., 10, Henrietta Street, Cavendish Street, W.

MEMBERS UNATTACHED: OMISSION.

Spence, J. S., M.D., Oxford House, 329, Goldhawk Road, Shepherd's Bush, W.

CORRECTION.

For Reid, James, Junr., M.D., Buckingham Palace, S.W., read Reid, James, M.D., Buckingham Palace, S.W.

NORTHERN COUNTIES OF SCOTLAND.

MEMBERS UNATTACHED: OMISSION.

Sinclair, G., Esq., Kirkwall, N.B.

SOUTH OF IRELAND BRANCH.

MEMBERS UNATTACHED: OMISSION.

Graham, P. F., M.D., Cahirdavin, Limerick.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

MEMBERS: CORRECTION.

For Thomas J. Raglan, Esq., Llanelly, read Thomas J. Raglan, M.B., Llanelly.

SOUTH-WESTERN BRANCH.

MEMBERS UNATTACHED: OMISSION.

Fenwick, Chas., Esq., Dunsford, Exeter.

ARMY AND NAVY.

CORRECTION.

For Coates, Matthew, Esq., Dep. Insp.-Gen. Hospls. and Fleets, Vancouver Lodge, Victoria Road, Southsea, read Coates, Matthew, M.D., Dep. Insp.-Gen. Hospls. and Fleets, Kempshott House, Kempshott Road, Streatham, S.W.

FOREIGN MEMBERS.

CORRECTION.

For Dey, Baboo Kanny Loll, Calcutta, read Dey, Rai Kanny Lall, Bahadur, C.I.E., 4, Beadon Street, Calcutta.

SPECIAL CORRESPONDENCE.

PARIS.

[From our Special Correspondent.]

Bizzozero's Cells found in the Liver of Mammals.—Intermittent Fever treated by Hypodermic Injections of Carbolic Acid.—Decoction of Valerian as a Sedative.—A New Dressing.—Vaccination-Service.—The Adulteration of Milk.—Municipal Laboratories.

M. Laulanié, in a communication to the Biological Society, describes the presence of cells in the hepatic tissue resembling Bizzozero's cells of red marrow. The cells are of the same dimensions, have the same behaviour when submitted to the influence of certain staining agents, and the nuclei present the same characteristics. The presence of a considerable number of small cells, in which the nuclei occupy so much space that the remaining portion of the cell is represented by a film of protoplasm, renders the analogy still more striking. It is also impossible to detect any difference between medullary cells and dissociated hepatic cells. The capillaries of the fœtal liver of mammals, at a certain period of its development, contain Bizzozero's cells and medullary cells. These facts apparently warrant a belief that there is a strict analogy between the hæmatopoietic function attributed to the fœtal liver and that of the red medullary tissue.

M. Dieulafoy, in his wards at the St. Antoine Hospital, treats intermittent fever by giving hypodermic injections of carbolic acid. At a recent meeting of the Société Médicale des Hôpitaux, he read some notes of an interesting case thus treated. The patient was a coachman, aged 36, who had had three previous attacks in 1877, 1882, and 1883, all of which were cured by sulphate of quinine. In 1884, M. Dieulafoy took him in as a patient. The liver and spleen were normal, but there was almost continuous cephalalgia. Hypodermic injections of carbolic acid were given night and morning: on the first day, one centigramme of 1 per cent. solution; on the second, two in the morning, and two in the evening, each of five centigrammes. This treatment was continued for a fortnight. The number and the hour of the injections varied according to the symptoms. The total amount of carbolic acid thus administered amounted to eighty-four centigrammes. There was neither general nor local disturbance. The patient was seen three months after he left the hospital, and was in perfect health. M. Dieulafoy suggested that the treatment of intermittent fever by carbolic acid should be more widely practised, especially in military hospitals. M. Saverau said that a new method, not proved to be a certain one, ought not to be used in the military hospitals of Algeria, where the cases were of the most serious kind. M. Duchard had lately treated intermittent fever. From four to five grammes of bromide of potassium, continued during eight days, removed all symptoms of fever. This treatment was recommended by M. Vallin twelve years ago.

M. Martel, the principal surgeon at the hospital at Saint Malo, furnishes Dr. Arragon with some facts concerning the use of the decoction of valerian as a sedative. A patient was brought in with both hands and a part of the forearm crushed by a threshing-machine. Fever was absent, but the agony was great. The wounded region was dressed with an antiseptic dressing of carbolic acid. As soon as it was deemed prudent, the following decoction was used in the dressing to replace water; forty grammes of the root of valerian to a litre of water, boiled for half an hour; then strained, and ten per cent. of carbolic acid added to it. After its application, all pain disappeared. The wound became clean and healthy; all the symptoms were most satisfactory. Dr. Arragon adds that country people in Normandy often use the decoction of valerian to calm pain in the case of wounds and fractures.

M. Marc Sée has invented a fresh dressing. He has tested it three times after excision of the breast, and speaks confidently of its success. When the operation is finished, the surface of the wound is powdered with bismuth, which arrests all oozing, and favours cicatrisation, it is then covered with layers of cellulose impregnated with carbolic acid, upon which is placed a thick layer of cotton-wool. A tarlatan-bandage is then placed upon it, and an India-rubber one is superposed. Before the dressing is completed, M. Sée places sutures, both deep and superficial, and drainage-tubes, which are easily removed by means of a thread which is attached to them.

M. Blot, in his official report on vaccination and revaccination throughout France in 1883, states that an epidemic of small-pox visited more than twenty departments, and has caused 1,650 deaths, or 17.7 per cent. of the cases. The mortality was three times greater among the patients who had not been vaccinated than among the vaccinated. M. Blot comments on the danger resulting from the negligence in the country districts with reference to vaccination. The sufferers, who pay the penalty of their indifference, create centres of infection which imperil a large area. He advocates the enactment of a law which would render vaccination and revaccination compulsory.

M. Ch. Girard, Principal of the Municipal Laboratory where the analyses in order to discover fraud and falsification are made, states that 250,000 litres of milk are consumed daily in Paris, and that it is falsified in various ways. To prevent it from undergoing the change which is popularly known as turning, it is submitted to the influence of heat; this process might be tolerated if the receptacles containing the milk were placed in a *bain-marie*, kept at a temperature of 85° Cent. (185° Fahr.), but this precaution is not observed. To every litre of milk, five grammes of bicarbonate of soda are added, which may prove dangerous. Skimming and watering milk are dishonest practices, which, according to M. Girard, are observed by all, from the farmer to the middle-men, into whose hands the milk passes, until it is delivered to the consumer. The farmer, in the first instance, removes the cream, then adds water. The milk-vendors who collect the produce of farms are not satisfied by adding bicarbonate of soda; they also increase their stock by the addition of water. The men employed to receive the milk on its arrival at the Paris stations add water to it for their own personal profit; finally, the retail milk sellers add their quantum. Thus the milk supplied to private customers is an article that has undergone every known means of falsification. This form of adulteration is practised in Paris to twice the extent it is in London. The municipal laboratory analyses have demonstrated that, in forty-five times out of a hundred, milk is watered to the extent of ten per cent. and above.

The Consulting Committee of the municipal and departmental laboratories, which was instituted by a decree issued September 27th, 1883, is now abolished. Its functions are vested in the Conseil Consultatif of public health, which has also to report on the quality of the food, drinks, spices, and drugs offered for sale to the public; to judge the reports sent in from the municipal and departmental laboratories, or from the lay officials; to decide on the methods adopted in the laboratories for analysing and examining specimens, and the limit admitted in adulteration; finally, to give advice on all the technical questions connected with these laboratories, whether municipal, departmental, or communal.

GLASGOW.

[From our own correspondent.]

Glasgow Rainfall.—The High Death-Rate.—The Annual Mortality.—Egress from Public Buildings.—Case of Double Sex.—Nephrotomy.

Professor Grant, of our Glasgow University Observatory, has just issued some details of last year's weather, which enable us to realise more fully the climatic conditions under which we live, and to form some comparison on this point with neighbouring towns. Glasgow has always had the character of being a wet place, and this is, to a large extent, borne out by Professor Grant's facts, the aggregate rainfall during the year being 43.96 inches, while 224 days out of the 366 were wet. This state of things is not so bad as in Greenock, where the rainfall was 75.37 inches; but it bears an unfavourable comparison with Edinburgh, whose rainfall was 27.25 inches, with only 186 wet days. Our hours of sunshine in the year only numbered 880, while Edinburgh is credited with 1,338, which is about 50 hours less than recorded at Kew. In the matter of temperature, there is not such a great difference between the two towns, the mean average being about 47°.

Dr. Russell's fortnightly report throws some light on the causes of the high mortality at present prevalent in Glasgow, and to which I alluded last week. The explanation of the matter seems to lie in what he calls the "enormous child-mortality," arising from a marked increase in measles, whooping-cough, and scarlet fever. He points out, too, that these are all diseases the dangers of which are greatly aggravated by cold, want, and carelessness. This being so, there can be no doubt that the want and destitution which at present undoubtedly exist in Glasgow through the depression of trade must have some influence in causing our high death-rate, and must be credited with some of the deaths.

While, however, our weekly death-rate is so alarmingly high, a perusal of Dr. Russell's abstract, showing the mortality in the city in during the year closed, is more satisfactory. Altogether the deaths numbered 13,929, or a rate of 27 per 1,000 of the population, which is a decrease of 1 per 1,000 as compared with the preceding year, while it is exactly the same as the average of the decade 1874-1883, and 4 per 1,000 below that for the ten years 1864-1873. It appears, too, that only in four years out of the twenty-nine during which the Registration Act has been in operation has the rate been lower than 27.

It is only, however, fair to say, that the Registrar-General bases his calculations on a population which is much below the reality, and that, if the actual numbers were taken, our death-rate for last year would be about 25½, a condition of things showing a marked improvement over previous years.

Bearing in mind the lamentable disaster at Sunderland, and the more recent one in our own city, when a number of people were trampled to death and suffocated in the rush that took place from one of our places of public amusement, on a false alarm of fire being raised, our local authorities have decided to take some action in the matter. They have framed a series of regulations, which it is proposed to enforce, regarding the modes of egress from public buildings; and there can be no doubt that, if carried out, they should minimise to the utmost any danger in this direction, and the very knowledge of their existence should tend to prevent the occurrence of any panic. The broad principle on which they are drawn up is, that every floor of a public hall or building shall have a separate egress or egresses with one foot of breadth for every seventy persons accommodated in that part of the building.

At the last meeting of our Medico-Chirurgical Society, Professor George Buchanan showed an interesting case of double sex. The patient was nine years of age, and had been under his care in the Western Infirmary, where recently an operation had been performed for the removal of two bodies from what were regarded as the labia majora. An examination of these bodies revealed the fact that they were testicles, thus clearly demonstrating the sex of the patient. At the same time, from incomplete atrophy of the Müllerian ducts there was evidence of the presence of a vagina situated between the rectum and the bladder, and altogether the case was an excellent illustration of the possibility arising of an individual being produced, possessing in a more or less strongly marked degree the characters of the two sexes. Professor George Buchanan's remarks on the case were supplemented by some from Professor Cleland, who specially dwelt on the anatomical aspect of the case and its bearing on the development of the organs of generation.

The operation of nephrotomy was performed, last week, by Dr. Patterson, at the Western Infirmary, for a renal abscess. The patient was a woman, who had been transferred from the medical wards, where she had been under observation for some weeks. A large amount of pus was evacuated by the incision, and a drainage-tube was inserted into the wound. No calculus was detected in the kidney. The after progress of the case has been most satisfactory, and the operation (which was done with antiseptic precautions) has been followed by the almost complete disappearance of pus from the urine.

CORRESPONDENCE.

PROPOSED NEW ARRANGEMENTS AT THE COLLEGE OF PHYSICIANS.

SIR,—In the notice of the approaching meeting of the College of Physicians, it is announced that the Registrar will propose the following as regulations of the College.

"1. That every member of an English university, who shall have passed such an examination or examinations at his university as shall comprise the subjects of the First and Second Examinations of the Examining Board in England, and who shall have completed not less than four years of medical study according to the regulations required by his university, be eligible for admission to the Third or Final Examination of the Board, two years after his having passed all the other required examinations; that every candidate so admitted to examination be required to pay a fee of five guineas; and that every such candidate who shall have passed such Third or Final Examination shall, on further payment of not less than twenty-five guineas, and subject to the by-laws of each College, be entitled to receive the licence of the Royal College of Physicians of London, and the diploma of Member of the Royal College of Surgeons of England."

The enigmatical wording of this resolution is well worthy of notice, and it is difficult to guess what it really means. If I read it aright, it means that the breach between the College and the universities will be still more widened, inasmuch as it is now proposed, in virtue of a family arrangement between the College of Physicians and the College of Surgeons, to charge the graduates of the English universities thirty guineas for the licence of the College. Now, it is not at all likely that the medical graduates of a British university would require a licence of the College of Physicians; and so I suppose what this really means is, that this costly provision is intended as a kind of left-handed favour to graduates of an English university who should require a surgical licence, for whom this side-door is thus provided.

What can be the meaning of No. 2, it is still more difficult to guess.

"2. That any candidate for the licence of this College only, examined after October 1st, 1884, may avail himself of the regulations relating to the examinations of the Examining Board in England."

Sir William Gull will propose the following resolutions.

"That the conditions under which Members of the College are nominated to the fellowship, and their respective claims set forth, are satisfactory.

"That the College, at a future meeting, resolve itself into a committee for the consideration of the whole subject, and to take steps thereon."—I am, yours, etc.,

A PHYSICIAN.

THE ORGANISMS OF CHOLERA.

SIR,—It is with great reluctance that I address you on the subject of the comma-bacilli of Koch, as in a short time I hope to have an opportunity of demonstrating and describing the results obtained by the English Cholera Commission. But in your last issue there is an article, headed "The Organisms of Cholera," in which various statements are made, which, if allowed to pass uncontradicted, are apt to seriously prejudice the medical public against what the English Cholera Commission have to say on the behaviour of the comma-bacilli in artificial cultivations. You appear to be under the impression—and I see Dr. Heron, in his address to the Medical Society of London, January 12th, seems to be under the like impression—that I have questioned the accuracy of Koch's statements with regard to the peculiar behaviour of the choleraic comma-bacilli in gelatine-cultures. Anybody who has the opportunity and skill to make pure cultivations of these organisms in gelatine, cannot fail to find that Koch's description of the peculiar behaviour of the comma-bacilli under these conditions is, in all its details, absolutely correct.

But to conclude from this peculiar behaviour of Koch's comma-bacilli in gelatine, and from the manifest differences existing in this respect between them and Finkler's comma-bacilli, that the comma-bacilli of Koch are not putrefactive, but specific, organisms, is a proposition which is as unsound in logic as it is incorrect in fact.

Any one sufficiently familiar with cultivations of the various species of putrefactive bacteria in solid media, knows that almost every species—and even one and the same species cultivated in different media—exhibits peculiarities of its own, which, in many instances, are so marked that an expert is able to distinguish them even with the unaided eye (compare, in this respect, Koch, *Mittheil. des Kais. Gesundheitsamt*, i, 1881). The same applies with equal force to the peculiarities exhibited in gelatine cultures by the comma-bacilli of Koch and of Finkler.

There is one other statement in your article which I cannot pass unnoticed. You say, "When the process of liquefaction (of the gelatine) is complete, when the (comma) bacillus, having exhausted its pabulum, ceases to grow, the whole of the growth sinks to the bottom of the tube, leaving the supernatant fluid clear, or nearly so, and with little or no scum; other putrefactive organisms do not behave in this way." The first part of this statement is easily verified; the second part—that is, "other putrefactive organisms do not behave in this way," is absolutely and unconditionally opposed to the facts, as must be within the knowledge of every one who has made cultivations of putrefactive bacteria in gelatine. There exist not a few species of undoubtedly putrefactive bacteria, which, in this respect, behave exactly in the way that you, with Koch, consider as specific for the comma-bacilli.—I am, sir, your obedient servant,

E. KLEIN.

NON-PENETRATION OF THE LINING FALSE MEMBRANE IN TRACHEOTOMY.

SIR,—In the JOURNAL for January 17th, Mr. Ashby G. Osborn has done good service by directing attention to the fact that occasionally in tracheotomy, the false membrane lining the trachea is pushed forward by the point of the scalpel, and so escapes division, with the effect that, when the cannula is introduced, the air-passage is not fairly opened, and the patient is in danger of dying from apnœa.

Having twice seen the membrane thus displaced, I can confirm Mr. Osborn's experience, although in the cases observed by me the result were not fatal. I may, perhaps, be allowed to transcribe an allusion to the subject from some notes on tracheotomy recorded by me in the *St. Bartholomew's Hospital Reports* for 1867.

"Directly the trachea is opened, the child is seized with violent coughing; and the mucus which has collected in the trachea during

his inability to expectorate escapes, mixed with air, and perhaps with shreds of false membrane, into the bottom of the wound, with a loud hissing sound. The boisterous outrush of this mucus and air is a sure sign that the canal of the trachea is opened; and, unless it take place, it may be certainly known that the canal of the trachea is not opened. In the majority of cases, if air do not escape, the rings will not have been divided; but it should be mentioned that there are two conditions in which, although the operator may be able to see distinctly that three or four of the rings are completely cut, the canal of the trachea will not be laid open. In the first of these, the mucous membrane, being inflamed and thickened, is stretched over and driven before the point of the scalpel, and so escapes a sufficient division. In the second, the false membrane with which the trachea is lined, and which is perhaps already loose, is detached and carried before the scalpel in the same manner. These accidents are, no doubt, rare, but they have both occurred. If they are recognised, they are easily corrected. The mucous membrane may be caught and divided, while the edges of the cut rings are held asunder; the false membrane may be seized, and either cut or drawn out."

I have heard Sir James Paget mention this accident, and I know other surgeons in whose experience it has occurred.—Yours, etc.,

36, Bruton Street, Berkeley Square, W. HOWARD MARSH.

PNEUMONOTOMY.

SIR,—Shortly after reading Sir Spencer Wells's letter in the JOURNAL of June 7th, 1884, I witnessed, at the Newcastle-upon-Tyne Infirmary, a *post mortem* examination on a case of tuberculosis. The patient had been under the care of Professor Philipson, to whom I am much indebted for permission to publish the following brief account of the necropsy.

The right lung was attached to the chest-wall by old and recent pleuritic adhesions. One or two spaces were filled with purulent looking material, and opposite to them there had been rupture of the lung. Almost one half of the lung was destroyed, large cavities taking its place. The vomicæ had solid fibrous bands hanging into and running across them. One of the cavities was filled with coagulated blood. Very thin walls lay between the pleura and the cavities. The remainder of the lung was partly consolidated, and partly broken down. On the left side of the chest there were a few old pleuritic adhesions. The left lung was congested and studded with tubercles; the heart was normal; the kidneys were large and pale; their capsules could be torn off readily. There was no waxy degeneraton of these organs. The spleen was firm and large. There was fatty degeneration of the liver. The peritoneal glands were enlarged and hard. There was ulceration of, and deposit around, the vocal cords.

This necropsy—in no way very remarkable—suggested, first, that the case would have been suitable for drainage of the lung; and, secondly, on the strong presumption that the primary lesion occurred in the right lung, that removal of the whole or part of the organ, if the operation had been undertaken sufficiently early in the course of the disease, might have prevented dissemination of the *materies morbi*.

With regard to the operation of pneumonectomy, I have, following the suggestion made in Sir Spencer Wells's letter, removed the lungs in the dead body of an adult male.

The root of the lung can readily be reached from behind, through a triangular aperture in the chest-wall, made in front of the scapula. The subject having been placed in a suitable position, with the scapula drawn upwards and outwards, an incision, four and a half inches long, was made parallel to, and two inches from, the median line of the body, commencing opposite to the third dorsal spine. The skin, fascia, rhomboidei minor and major, and some fibres of the trapezius and latissimus dorsi, were divided. From the lower extremity of this incision, another, of similar length, was made obliquely, downwards and outwards, along the upper margin of the eighth rib. The vessels divided by these incisions were of inconsiderable size.

The flap, which consisted of skin, scapula, and soft parts, was now drawn outwards and upwards, so that an interval on the chest-wall was cleared, which corresponded to the fifth, sixth, and seventh ribs, with their intercostal spaces. These ribs were divided transversely in the line of the first incision, and again rather obliquely along the line of reflection of the flap. A triangular aperture was made in the thoracic parietes, which afforded ready access to the root of the lung. By such an operation, abundance of space can be gained for the extirpation of the lung; subsequently, efficient drainage would be provided for, and the aperture in the chest-wall would be well protected by the scapula.

Another operation was performed on the front of the chest. An incision, four inches in length, was commenced parallel to the lower border of the first rib, and carried outwards towards the coracoid process. The skin, fascia, and pectoralis major were divided. A vertical incision was made from the third costo-chondral junction below, to the inner extremity of the horizontal incision above. The upper border of the pectoralis minor having been depressed, the second rib was divided, first close to the outer extremity of the horizontal incision, and again through its chondral attachment. The intercostal muscles having been carefully divided in the lines of the cutaneous incisions, a flap, consisting of skin, fascia, pectoralis major, part of the second rib and intercostals, was thrown down, and the parietal layer of the pleura was divided. Free access was thus gained to the lung, and the aperture in the chest-wall was quite large enough to permit the removal of a large part of the organ.

In conclusion, so far as can be stated from these operations on the dead body, it does not appear that pneumonectomy, in actual practice, would be an extraordinarily difficult operation; and the entire lung could readily be removed by the first, or the upper portion of it by the second, procedure.

It is not often that pneumonectomy becomes the subject of consultation, though—in consideration of the large number of times a lung has been removed in the lower animals with impunity—the operation would, under certain circumstances, be indicated; and pneumonotomy, as Sir Spencer Wells said in his letter, might be performed more frequently than it is, with hopes of advantage, in cases of pulmonary cavities and gangrenous lung.—I am, etc.

CHAS. E. JENNINGS, M.S., F.R.C.S.Eng.

Park Street, Grosvenor Square, W.

THE PERFORMANCE OF OVARIOTOMY.

SIR,—In answer to the paper by my friend Mr. William Thompson, allow me to say that so serious a question cannot possibly be decided by little groups of three and four cases; and when my friend, Professor Stokes, gravely brings forward a group of eight, with a mortality of 25 per cent., as an argument for the performance of ovariotomy by surgeons engaged in general hospital practice, I can scarcely admit the soundness of his logic.

The answer which is given by the profession to this question is that, when one of them, especially a hospital surgeon, has a wife, or a sister, or a mother, afflicted with ovarian disease, he takes her, so far as I have ever heard, without exception, to the specialist for the performance of the operation.—I am, etc., LAWSON TAIT.

7, The Crescent, Birmingham.

PORRO'S OPERATION.

SIR,—In the table of cases of Porro's operation, collected by Dr. Godson and published in the BRITISH MEDICAL JOURNAL of January 17th, my case is said to be "not yet published;" and in Dr. Fancourt Barnes's communication relative to his case of that operation performed on September 11th, 1884, it is stated that the only cases of Porro's operation, in Great Britain, which have been published, are Professor Simpson's and Dr. Godson's.

My case was published in full in the *Medical Times* for August 16th, 1884. Will you kindly give this correction the same publicity as the erroneous statements above referred to?—I am, yours etc.,

7, West Street, Finsbury Circus, E.C. G. ERNEST HERMAN.

THE TITLE OF DOCTOR.

SIR,—I can quite endorse what Dr. W. I. Keir says respecting the "Title of Doctor" in the JOURNAL of January 10th.

About a quarter of a century since, I went in for the licence of the Royal College of Physicians, Edinburgh. After the examination, each of the examiners congratulated me, shook hands, and addressed me as "Doctor." Any communications I received afterwards from the College—such as the College list, etc.—were invariably directed "Dr." till the last two or three years, when it was changed to "Esq." I enclose my card.—Yours truly,

L.R.C.P.ED. AND M.R.C.S. FOR FORTY YEARS.

THE STUDY OF DISEASE-GERMS.

SIR,—As one means of removing the cause for the just reflections contained in the leader in the JOURNAL of January 17th, on "The Organisms of Cholera," as to the paucity of opportunities for studying the etiology of cholera in this country, I venture to throw out a suggestion, which I feel sure will meet with the hearty support, not only of medical officers of health, but of other members of the profession, who

are members of our Association. It is, that the Association take the initiative, by inviting those gentlemen who have distinguished themselves by their researches, under the auspices of the "Scientific Grants' Committee," to form a biological laboratory on the lines of the one which formed so interesting a feature of the "Healtheries," and that it have a practical outcome in the shape of demonstrations at our annual meetings (commencing with the one at Cardiff).

1st. On the development of the most readily demonstrable of the germ class in nutritive solutions, and, if possible, of the all-important cholera germs.

2nd. Display of all the known germs which it is possible to show under the microscope, in their various stages of development.

3rd. Action of all known disinfectants on germs, according to most approved test methods.

4th. A six days' practical course for medical officers of health, similar to that given by Dr. Koch.

I would also suggest, in connection with the same subject, that the temporary library contain all the best monographs on this all-important subject, and that the makers of microscopes be invited to display the powers of their pathological microscopes in the examination of disease-germs, so as to thus employ those interested in the matter with a ready means of satisfying themselves as to the form most suitable to them, both from an economical and an efficient point of view.

Should funds be necessary for the undertaking, they would doubtless be forthcoming when appealed for.—I am, dear sir, yours truly,

JOHN W. DAVIES, Medical Officer of Health.

Hillside House, Ebbw Vale, Monmouth.

PORTRAITS IN THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

SIR,—At the request of the Council of the Royal Medical and Chirurgical Society, Dr. G. T. Blandford has kindly undertaken to edit a catalogue of the Society's large collection of engraved portraits of members of the medical profession. The value of the collection would be much enhanced if members of the profession would present any engraved or lithographed portraits (not photographs) of themselves, or others, which are not now in it.

The resident librarian would have much pleasure in informing intending donors whether any portrait they may desire to present is already in the possession of the society.—I am, sir, etc.,

BERKELEY HILL, Honorary Secretary.

Royal Medical and Chirurgical Society,
53, Berners Street, Oxford Street, W.

MEDICO-LEGAL AND MEDICO-ETHICAL.

AN IMPORTANT WATER QUESTION.

A CASE of importance to owners of house property and consumers of water came before the Enfield justices on January 12th. Mr. W. Gilbert, of Nottingham House, Enfield Highway, appeared to two summonses obtained against him by the Enfield Local Board of Health, to show cause why orders should not be made upon him to close two wells supplying certain houses, the water from both of which was alleged to be so polluted as to be injurious to health. Dr. Ridge, medical officer of the Local Board, gave evidence to the effect that samples of water taken from the two wells were brought to him, and that on examination he found them to be contaminated with organic matter to such an extent as not to be suitable for drinking or other domestic purposes. Cross-examined by the defendant, who is a chemist and a member of the Council of the Pharmaceutical Society of England, witness admitted that he had not analysed the samples of water, but merely tested them. The defence was a total denial that the water was in the slightest degree impure, much less injurious to health. The defendant deposed that on August 1st last he received a notice from the Local Board, that the houses in question were not receiving a good supply of water. He had not any complaints from his tenants, but he had the wells cleaned out and deepened, and the drains examined. He also carefully tested the water, and was unable to detect any impurities that were likely to be injurious to health. He afterwards received a second notice that he must have the Board's water, but he refused to take it because the water from the wells was exceedingly good. On January 5th, he heard that summonses had been obtained against him, and he then had samples taken from the two wells, and conveyed the samples himself to Dr. Tidy, at the London Hospital, whose report was as follows:—"I send you herewith the results of my analysis of the water left by you at the laboratory in a wine bottle, corked, with seal upon it (unbroken) of red wax. I consider it a water of good quality, excellently well suited for drinking and domestic purposes. It is free from all poisonous metals, is wholesome, and contains nothing whatsoever likely to occasion injury to health." The summonses were then dismissed, and the Bench awarded £5 5s. costs.

A QUESTION OF RESPONSIBILITY.

SIR,—On September 15th last, A. and B. were thrown from a van opposite my house. The van was owned by C., an omnibus-proprietor, father of B., and employer of A. A. died from compression of the brain, in my house, in three quarters of an hour; and for an hour and a half B. was requiring aid, as he kept fainting. B. was driving the horse when the accident took place, and he requested me to attend to A. and himself. B. is a minor, and on sending my account, 10s. 6d., to C. for attendance on the two, he declines to pay, saying he is not responsible for his son or servant. Will you kindly say in the JOURNAL whether I have any claim on C. or not.—I am, yours faithfully, V. G. W.

*** There cannot, we think, be a doubt that C. is legally responsible for the attendance upon his son B., a minor, and morally liable (if not legally, under the special circumstances related by "V. G. W.") for the servant, A.

Although much averse, as a rule, to county court litigation on the part of the faculty, there are occasions when it becomes more or less a necessity; and, in consequence of C.'s unjust evasion of a plain duty, we should, individually, feel disposed to enforce (under legal advice) the claim; and, bearing in mind the hint thrown out by the Deputy Registrar in the recent case of May *v.* Ross, namely, to "sue for a little more rather than a little less," for a larger fee than the very moderate one specified in our correspondent's note. Moreover, in making out his professional statement of account for the information of the court, he will do well to set forth fully and distinctly the nature and duration of the attendance; and, while charging each case separately, to include them in one and the same account.

MEDICAL CHARGES TO COMBATANT OFFICERS.

SIR,—Kindly inform me if it is customary to charge officers in the army for attendance upon their wives and children.—Yours truly, J. M.

*** If the question refer to military medical practitioners, it is not customary; and, if a charge were made, it would not be sanctioned by higher authority. If the question refer to civil medical practitioners, they are, of course, entitled to compensation for their services, and it could hardly be expected that they should give them without charge.

HOUSE-SURGEONS AND FEES AT INQUESTS.

F. W. H. writes to ask if the house-surgeons of hospitals are entitled to fees for giving evidence before the coroner. We have often answered this question, and must now refer our correspondent to the Act of Parliament regulating the payment of medical witnesses.

The Medical Witness Act, 6 and 7 Will. IV, whilst providing for the payment of medical witnesses generally, by the 5th section exempts, by the operation of the Act, "inquests holden on the bodies of persons dying in any public hospital or infirmary, or in any building or place belonging thereto, or used for the reception of the patients thereof, or dying in any county or other lunatic asylum, or in any public infirmary or other public medical institution, whether supported by endowments or by voluntary subscriptions; and declares that, in such case, the medical officer whose duty it may have been to attend the deceased person as medical officer of such institution as aforesaid, shall not be entitled to the fees or remuneration therein provided. (See Jarvis *On the Office and Duties of Coroners.*)

PAYMENT IN A RAILWAY-CASE.

SIR,—Will you or any of your readers kindly inform me what the tariff should be for a patient injured in a railway-collision for which the company admits responsibility? I may say the patient lives about half a mile from my residence if that makes any difference.—I am, sir, yours respectfully, M.R.C.S.

P.S.—The patient is a working man.

*** The entire absence of details of attendance, etc., on the case respecting which "M.R.C.S." solicits "tariff" information, renders us unable to assist him otherwise than indirectly by referring him to the *Medico-Chirurgical Tariff* issued by the late Shropshire Ethical Branch, and published by Mr. W. Wardle Shrewsbury, from which, we think, he will be able to glean all that is necessary to guide him in the matter.

PAYMENT FOR ASSISTANCE AT AN OPERATION.

SIR,—Some months ago I was asked by Dr. H. to assist him in an operation. I afterwards visited the patient thrice in company with Dr. H., and, by his desire visited him four times alone, subsequently. I sent my bill to the patient, and upon rendering it for the third time, he replied that he did not engage me, and will not pay. I should be pleased if you would inform me who should pay me the patient or the doctor?—Yours, etc., M.Ch.

*** "M.Ch." clearly has no direct personal claim on the patient for the attendance alluded to, which should have been included in Dr. H.'s professional charges, inasmuch as it was rendered at his request, as were also the subsequent visits, which latter, therefore, should be regarded as made on behalf of the ordinary medical attendant. How far, moreover, a claim could rightly be made for assisting at the operation must, in our opinion, depend on the question whether "M.Ch." attended as an essentially necessary assistant in the case, or merely to oblige Dr. H. as a friend; for, if such professional help were not really needed, the patient cannot justly be called upon to pay the extra fee.

MEDICAL ETIQUETTE.

SIR,—I am medical attendant to A. B. and his family. A relative of his, C. D., is staying with him at present, and is suffering from joint-disease, for which she is under the care of a neighbouring practitioner. I was asked by A. B. to attend the case; but, on my refusal, she was brought to another practitioner, who took her under his treatment. On Friday last, I was sent for in haste to see C. D. I found her suffering from pleuritis. I continued my attendance, but refused to interfere with the joint. Kindly inform me am I right, and also as to the conduct of the third practitioner.—Yours, etc., M. G. H.

*** An answer to our correspondent's questions will be found in the following rule, extracted from the *Code of Medical Ethics*, a rule by which we consider that "M. G. H." should himself have been governed in the case of pleuritis. "When a practitioner is called in to, or consulted by, a patient who has recently been, or still may be, under the care of another for the same illness, he should on no account interfere, except in an emergency; having provided for which, he should request a consultation with the gentleman in previous attendance, and decline further direction of the case except in consultation with him. If, however, the latter refuse this, or have relinquished the case; or if the patient insist on dispensing with his services, and a communication to that effect be made to him, the practitioner last consulted will be justified in taking charge of the case."

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SERVICE.

BRIGADE-SURGEON W. C. BOYD has been granted retired pay, with the honorary rank of Deputy Surgeon-General. Mr. Boyd entered the service January 22nd, 1858; became Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1873; and Brigade-Surgeon, September 8th, 1883. He served in the Indian Mutiny campaign in 1858, and has the medal therefor; he also served in the Afghan war in 1879-80 with the Kuram Division, and was Principal Medical Officer with the Zaimusht Expedition, and was at the assault of Zawa, for which he was mentioned in despatches (medal).

Surgeon-Major R. W. Forsayeth has been granted retired pay, with the honorary rank of Brigade-Surgeon. He entered the service September 30th, 1863; became Surgeon, March 1st, 1873; and Surgeon-Major, April 28th, 1876. He does not appear to have been in any campaign.

Surgeon-Major R. Hyde has also been granted retired pay, with a step of honorary rank. He entered the service March 31st, 1864; became Surgeon, March 1st, 1873; and Surgeon-Major, April 28th, 1876; Mr. Hyde also is not credited with any war-service in the Army Lists.

Dr. James Stephen has been appointed Acting Surgeon to the 3rd (the Buchan) Volunteer Battalion of the Gordon Highlanders (late the 3rd Aberdeenshire Volunteers).

Surgeon J. Watson, M.D., is directed to hold civil medical charge of Nynee Tal, in addition to his own duties, till further orders.

Surgeon C. E. Nichol, M.B., has passed the lower standard in Hindustani.

Surgeon-Major W. J. Fawcett, M.B., having completed a tour of foreign service, has been directed to proceed to England by the troopship leaving Bombay on January 6th, 1885, and report his arrival to the Director-General, Medical Staff.

Surgeon-Major C. F. Churchill, M.B., having completed a tour of foreign service, has been directed to proceed to England by the troopship leaving Bombay on or about February 6th, 1885, and report his arrival to the Director-General, Medical Staff.

Surgeon James Magill, M.D., 1st Battalion Coldstream Guards is reported as being among the wounded in the engagement at Abu Klea, near Metamneh, on the 17th instant. Dr. Magill entered the service as Assistant-Surgeon to the 33rd Foot, March 30th, 1872, and was appointed Surgeon to the Coldstream Guards, May 3rd, 1876. He was born on September 6th, 1850. He has not served in any previous campaign.

INDIAN MEDICAL SERVICE.

MESSRS. J. H. T. WALSH, H. Hendley, G. H. Fink, H. E. Barratt-ala, and W. G. P. Alpin have been admitted as Surgeons on the Bengal Establishment, from the 1st of April, 1884.

Surgeon-Major W. S. Fox, Madras Establishment, has been appointed Examiner of Medical and Fund Accounts, Madras, *vice* Surgeon-Major W. Macrae, whose services have been replaced at the disposal of the Government of Madras.

Surgeon S. Hassan, Bengal Establishment, has been appointed to be officiating medical charge of the 26th Native Infantry, at Peshawur, *vice* Surgeon-Major J. M. Fleming, M.D., on sick leave.

Surgeon A. W. D. Leahy, Bengal Establishment, has been temporarily appointed by Earl Dufferin, Viceroy and Governor-General of India, to be Surgeon on His Excellency's personal staff.

Surgeon-Major J. O. M'Donnell, M.D., Bengal Establishment, has been transferred from the 45th Native Infantry, to the medical charge of the 14th Native Infantry, at Agra; and Surgeon-Major H. Boyd, Bengal Establishment, goes from the 14th Native Infantry to the medical charge of the 45th Native Infantry, at Quettah.

Surgeon F. D. C. Hawkins, Bengal Establishment, is appointed Officiating Medical Officer to the 13th Bengal Lancers, at Meerut, *vice* Surgeon W. Conroy, on furlough.

Surgeon-Major A. Cameron, M.D., Bengal Establishment, is directed to take charge of the Camp of the Lieutenant-Governor of the North-West Provinces, till further orders.

Surgeon A. P. Adams, Madras Establishment, is appointed to the medical charge of the wing of the 23rd Madras Native Infantry, at Hoshungabad.

Surgeon W. A. Quayle, M.D., Madras Establishment, has been appointed Medical Officer of the 29th Madras Native Infantry, but is to remain in medical charge of the wing of the 9th Native Infantry and of the Station Hospital, at Port Blair, till further orders.

Surgeon D. P. Warliker, Madras Establishment, is appointed to the medical charge of the 33rd Native Infantry, at Mangalore, in the place of Surgeon W. A. Lee, who has been transferred to civil employ.

Surgeon P. J. Damania, Bombay Establishment, who has been officially in medical charge of the 19th Native Infantry at Deesa, is appointed Medical Officer of the 22nd Native Infantry at Sattara, *vice* Surgeon-Major H. A. Lewis, who resigns the appointment at his own request.

Surgeon K. H. Mistri, Bombay Establishment, having been relieved of the official medical charge of the 29th Native Infantry, is placed on general duty in the Sind Circle.

Surgeon W. G. P. Alpin, Bengal Establishment, has passed the lower standard in Hindustani.

The undermentioned gentlemen have been granted furlough for the periods specified:—Surgeon C. Adams, M.B., Madras Establishment, for one year on medical certificate; Surgeon-Major H. A. Lewis, Bombay Establishment, to sea and the Straits Settlements on private affairs for three months; Surgeon R. Cobb, Bengal Establishment, for 1 year and 242 days.

Mr. St. Georga Wade Tucker, M.D., of the Bengal Etablishment, died at Bournemouth on January 13th, aged 65. He entered the service March 11th, 1845, attained the rank of Surgeon-Major March 14th, 1865, and retired on a pension November 16th, 1870.

Mr. G. R. Nuttall, M.R.C.S., late of the Bombay Establishment, died at Ayr on the 26th ultimo, in his 64th year.

NAVY.

THE following appointments have been made.

J. Dowson, Surgeon, to the *Briton*; E. St. M. Nepean, Surgeon, to the *Revenge*.

Fleet-Surgeon Charles John Fennell, R.N., died on December 8th, at Park Road, New Wandsworth, S.W., in his 48th year. The deceased officer entered the Navy as Surgeon in September, 1859, was Staff-Surgeon in August, 1871, Fleet-Surgeon in March, 1881, and retired in May, 1881. He served in the Royal Naval Hospital, Stonehouse, in 1868, and afterwards in the yacht *Psyche*, training-ship for cadets, the *Bristol*, and the *Duke of Wellington*.

INDIA AND THE COLONIES.

INDIA.

DEATH OF DR. R. B. STUART.—News reaches us of the death of Dr. R. B. Stuart, at Calcutta, where he has resided for many years, and where he was much respected. Dr. Stuart studied at St. Andrew's, Edinburgh, and London, and was recently made a Fellow of the University of Calcutta.

AFRICA.

BLACKWATER FEVER.—Observations upon the nature, causes, and treatment of special diseases peculiar to certain localities are most important; the more so, because the opportunities for making useful observations are less frequent than in the case of diseases of universal distribution. Dr. J. Farrell Easmon, Acting Colonial Surgeon of the Gold Coast Colony, has published a valuable treatise on several cases of "Blackwater Fever,"—the *Fièvre Bilieuse Mélanique*, or *Hématurique*, of French writers. Dr. Easmon clearly shows that this malady is due to malarial causes, the greatest number of cases that came under his notice occurring in the Quittah district, in 1881, when,

in consequence of the drought, the extensive lagoon, which had remained full for twelve years previously, suddenly dried up, exposing its banks to an overpowering sun, and giving rise to malarial exhalations. The conclusions of most general interest at which Dr. Easmon has arrived in regard to the malady are, that the disease only attacks those whose healths have become deteriorated, and especially those who have been subject to fever, and that it is not contagious. Its attacks are sudden, and frequently fatal, though not invariably so.

OBITUARY.

EVAN BUCHANAN BAXTER, M.D., F.R.C.P., Physician to King's College Hospital.

By the death of Dr. E. Buchanan Baxter, the profession of medicine has lost a most distinguished representative—one who was not only a learned physician and painstaking student of the manifestation of disease, but also an accomplished scholar. His reserved, almost retiring disposition, and somewhat dry manner, had made him less widely known in the profession than his knowledge and achievements deserved; but he was in an eminent degree a man whose attainments were of such an order that his reputation would assuredly have grown with time until he became known to the world, as he was known to his friends, as a great physician, by reason of his accurate and extensive clinical knowledge.

He was born in 1844, in St. Petersburg, where his father, Mr. James Baxter, a Scotchman, held an official position in the Education Department. His mother was the daughter of Mr. Ross, a Scotch merchant also resident in St. Petersburg. While Buchanan Baxter was still young, his father was appointed Government Inspector of Schools in Russian Poland, and the family took up its residence in the town of Podolsk. Here young Baxter received his education from his father and an old French tutor; and, under these favouring circumstances, he rapidly gained a practical acquaintance with the principal European languages. Russian and German were the languages of the people among whom his youth was cast; French he learnt from his tutor, Latin from his father, and English was the language of his home. These advantages appear, however, merely to have given scope for the development of a great natural aptitude. When he entered the department of General Literature and Science at King's College, London, he knew nothing of Greek; but within a year he attained a sufficient mastery over the language to gain an open scholarship at Lincoln College, Oxford. Soon after going into residence in Oxford, he was summoned to his father, who was dangerously ill in Russia. For a year, until his father's death, he remained in that country. His Oxford scholarship had now lapsed. He therefore matriculated at the University of London, and entered the medical department at King's College in 1864, in the same year with the late Professor A. H. Garrod. He passed through the ordinary course of study, but without obtaining any special distinctions until he began the study of practical medicine; then it very soon became apparent that he had found his true vocation in life. In 1868, he became house-physician to King's College Hospital; and in 1869 he graduated as M.B. in the University of London, taking the University Scholarship in Medicine and the Gold Medal in Obstetric Medicine. In 1870, he took the degree of M.D. in the University. He had also become, in 1869, a Member of the Royal College of Surgeons of England.

The first appointment held by Dr. Baxter was that of Medical Registrar of King's College Hospital. The duties of this post he filled for two years with the utmost care and regularity, earning the gratitude alike of students and of physicians; the records kept of the cases were models of accuracy and method; the instruction he gave by conversation in the wards is vividly and thankfully remembered by the students of that day. In 1871 he became medical tutor to King's College, and did the onerous and exhausting work which the post entailed with conscientious care and patience. In 1874 he was appointed Professor of Materia Medica in King's College, and Assistant-Physician to the hospital. He had already undertaken some investigations in therapeutics, and had prepared the fourth edition of Garrod's *Materia Medica*. He had also become Physician to the Evelina Hospital for Sick Children, and had translated Rindfleisch's *Pathological Histology* for the New Sydenham Society. It was to practical clinical medicine that he, above all things, directed his attention; and he was not only Physician to King's College and the Evelina Hospitals, but also to the Hospital for Skin-Diseases, Blackfriars.

Though devoting much time to his work at these institutions, where his duties were performed with the most conspicuous care, regularity, and thoroughness, he yet found time to undertake a research of great practical importance for the Local Government Board. A long and admirably clear report of his researches was published in 1875 under the title "Report on Experimental Study of Certain Disinfectants;" this excellent essay has been, unfortunately, buried in a blue book, and was chiefly known to the comparatively small number of persons whose studies led them to hunt it out of its inaccessible repository, but by them it was held in high estimation. It is much to be desired that the numerous valuable reports presented to the medical officer of the Local Government Board, and by him presented to the President of that Board, and finally issued in a series of blue books, which appear at most irregular and uncertain intervals, could be made more extensively available for general use. The recent alteration in the mode of issuing such reports, and the increase in the number of firms who have the privilege of selling them, will probably, in the future, tend to make them more widely known and read. Before the publication of this report, he had already put forth the result of his study of the action of the cinchona alkaloids, in a paper entitled "The Action of Cinchona Alkaloids and their Congeners on Bacteria and Colourless Blood-Corpuscles." His work for the Local Government Board was, to a certain extent, therefore, an extension and continuation of his earlier research.

Dr. Baxter entertained strong opinions with regard to the education of women; and when the Medical School for Women was opened in connection with the Royal Free Hospital, he resigned his appointment at the Evelina Hospital, in order to undertake the work of teaching clinical medicine in the women's school; he threw himself with enthusiasm into the work, and was conspicuously successful.

Dr. Baxter was at one time Examiner in Materia Medica and Pharmaceutical Chemistry at the University of London, and held a similar position at the Royal College of Physicians. He had become a Fellow of that College in 1877, and his last public duty was his attendance as examiner there so recently as December last.

He was Professor of Materia Medica in King's College for ten years, and delivered his course of lectures as usual last summer. Long before then, he had, however, begun to suffer from the fatal malady against which he so long and bravely struggled. Never of a robust constitution, his studious habits, and hard daily work in out-patient rooms, doubtless favoured the development of tubercular phthisis, the disease to which he succumbed.

He died on January 14th, 1885. His last published work was, we believe, a paper written in conjunction with Dr. Willcocks, on Clinical Hæmometry; it contained the result of a prolonged clinical investigation. He had for several years contributed a series of "Physiological Notes" to the *Academy*. Dr. Buchanan Baxter was, up to the last, a member of the staff of this JOURNAL, and a frequent contributor of editorial articles and reviews. He was also for many years a valuable contributor of signed articles and abstracts to the *London Medical Record*.

The Editor of the *Academy*, in a short appreciative notice, has said that Dr. Baxter "always retained a keen interest in literature, in speculation, and in practical affairs. What he was as a man is known to a large circle of friends, who were drawn to him by the combined strength and tenderness of his character, more than by his intellectual attainments."

He was in the true sense of the word a philosopher, a lover of wisdom, a seeker after truth; and in that pursuit he spared no pain, grudged no labour; precision and accuracy were his constant aim. A barrister, who knew him well, has recently written to a common friend, and has affirmed that, though trained to a profession where accuracy is a necessity, and accustomed to the precision of forensic minds, he had never known a man more entirely accurate and trustworthy than Dr. Baxter.

He found recreation in literature, but in its study rather than its production. Widely read, and knowing the best of every country, he was an avowed enemy of shams, and loved to demolish a flimsy theory or a loosely worded generalisation; but the demolition was always accomplished with a kindliness of manner and a simple directness which attracted rather than repelled.

The profession can ill spare the loss of such a man, who was at once a skilled pathologist and a practical physician, who was accomplished without being superficial, and learned without pedantry.

A NUMBER of scientific men in Paris, having founded a club called "La Science," for the purpose of dining together at stated times, recently entertained M. Chevreul. M. Pasteur has been nominated chairman of the next dinner.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

COMPULSORY NOTIFICATION BY MEDICAL MEN.

AT a meeting of the medical men resident in Hastings and St. Leonard's, held at the Infirmary on January 16th, to consider certain clauses relating to the compulsory notification of infectious diseases in the proposed new local Act, the following resolutions were carried.

First resolution, proposed by Dr. Bagshawe, seconded by Mr. Hoadley Gabb, and carried unanimously:

"That this meeting of medical men resident in Hastings hereby records its unanimous and decided objection to the compulsory notification of infectious disease by the medical attendant, as proposed to be enacted in the Hastings Corporation Bill. This meeting considers that Clause 4 of Section 274 violates the sanctity of the professional relationship which subsists between doctor and patient, by placing the doctor in the position of an informer."

Second resolution, proposed by Dr. Penhall, seconded by Dr. Allen, and carried with one dissentient:

"That this meeting considers that the Clauses 1 and 2 of Section 274 (householder notification) have been shown, by the experience of other towns, to be not only useless, but also mischievous, as leading to the actual concealment of disease, by preventing the early calling in of medical aid."

A deputation was appointed at the same meeting to confer with the Committee of the Town Council on Tuesday, January 20th.

HEALTH OF ENGLISH TOWNS.—During the week ending the 3rd instant, 6,887 births and 4,195 deaths were registered in the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,762,354 persons. The annual rate of mortality per 1,000 persons living in these towns, which had declined in the four preceding weeks from 24.4 to 20.2, rose to 25.0. The rates in the several towns, ranged in order from the lowest, were as follow:—Huddersfield, 20.0; Plymouth, 20.0; Portsmouth, 21.2; Derby, 21.4; Bristol, 21.8; Halifax, 21.8; Sunderland, 22.0; Bolton, 22.0; Hull, 22.2; Sheffield, 22.4; Birmingham, 22.8; Bradford, 22.9; Leeds, 23.9; Leicester, 24.8; London, 24.9; Brighton, 24.9; Nottingham, 25.2; Oldham, 25.5; Manchester, 26.4; Blackburn, 26.4; Birkenhead, 26.4; Wolverhampton, 26.6; Liverpool, 28.1; Salford, 28.8; Newcastle-upon-Tyne, 29.3; Preston, 32.5; Norwich, 32.9; and Cardiff, 34.6. The average death-rate for the week in the twenty-seven provincial towns was 25.0 per 1,000, and almost corresponded with the rate recorded in London. The 4,195 deaths registered during the week in the twenty-eight towns included 375 which were referred to the principal zymotic diseases, against 398 and 311 in the two previous weeks; of these, 95 resulted from whooping-cough, 78 from measles, 65 from scarlet fever, 36 from diphtheria, 5 from "fever" (principally enteric), 33 from diarrhœal diseases, and 33 from small-pox. These 375 deaths were equal to an annual rate of 2.2 per 1,000. The zymotic death-rate in London was equal to 2.2 per 1,000; while in the twenty-seven provincial towns it averaged 2.3, and ranged from 0.4 and 0.5 per 1,000 in Portsmouth and Brighton, to 3.9 in Leicester, 4.1 in Newcastle-upon-Tyne, and 11.2 in Cardiff. The deaths referred to whooping-cough, which had been 91 and 69 in the two preceding weeks, rose again to 95, and showed the largest proportional fatality in Birmingham and Preston. The 78 fatal cases of measles exceeded by 1 the number in the previous week; this disease caused the highest death-rates in Leicester and Cardiff. The 65 deaths from scarlet fever also showed an increase, and caused the largest proportional fatality in Sunderland, Halifax, and Newcastle-upon-Tyne. The fatal cases of "fever," which had declined from 60 to 34 in the three previous weeks, were 35 last week; this disease caused the highest rates in Sheffield and Norwich. The 36 deaths from diphtheria in the twenty-eight towns included 28 in London, and 2 in Liverpool. All the 33 fatal cases of small-pox in the twenty-eight towns were recorded in London; these were, however, exclusive of 23 deaths of London residents from this disease which were registered in the Metropolitan Asylum Hospitals situated outside Registration London. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 1,026 and 1,079 at the end of the two preceding weeks, declined to 1,013 on Saturday the 3rd; the admissions, which in the two previous weeks had been 244 and 161, were 171. The death-rate from diseases of the respiratory organs in London was equal to 7.0 per 1,000, and was slightly below the average. The causes of 120, or 2.9 per cent., of the 4,195 deaths registered during the week in these twenty-eight towns were not certified, either by registered medical practitioners or by coroners.—In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 6,376 births and 4,255 deaths were registered during the week ending the 10th instant. The annual rate of mortality, which had been 20.2 and 25.0 per 1,000 in the two preceding weeks, declined again to 24.9. The rates in the several towns, ranged in order from the lowest, were as follow: Bolton, 19.0; Brighton, 19.1; Sheffield, 19.6; Bradford, 20.4; Derby, 20.4; Leeds, 20.5; Portsmouth, 21.3; Sunderland, 22.1; Salford, 22.2; Halifax, 22.3.; Nottingham, 22.7; Huddersfield, 22.7; Blackburn, 23.2; Birmingham, 23.7; Oldham, 23.9; London, 25.0; Bristol, 25.6; Birkenhead, 26.3; Liverpool, 27.5; Hull, 27.5; Newcastle-upon-Tyne, 27.6; Norwich, 28.0; Plymouth, 30.2; Wolverhampton, 30.3; Manchester, 30.9; Leicester, 31.0; Preston, 34.8; and Cardiff, 36.0. In the twenty-seven provincial towns, the death-rate for the week averaged 24.9 per 1,000, and was slightly below the rate recorded in London. The 4,255 deaths registered in the twenty-eight towns included 91 which resulted from whooping-cough, 88 from measles, 51 from scarlet fever, 42 from diphtheria, 37 from "fever" (principally enteric), 36 from small-pox, and 27 from diarrhœa—in all, 372 deaths were referred to these principal zymotic diseases, against 311 and 375 in the two preceding weeks. The zymotic deaths were equal to an annual rate of 2.2 per 1,000. In London the zymotic rate was 2.0; while it averaged 2.4 in the twenty-seven provincial towns, among which the zymotic rates ranged from 0.0 in Birkenhead and 0.4 in Portsmouth, to 5.1 in Newcastle-upon-Tyne, 5.4 in Leicester, 5.9 in Wolverhampton, and 15.1 in Cardiff. The deaths referred to whooping-cough, which had been 69 and 95 in the two preceding weeks, declined to 91, and caused the largest proportional fatality in Cardiff, Sheffield, and Wolverhampton. The 88 fatal cases of measles showed a further increase upon the numbers returned in the two previous weeks, and caused the highest rates in Leicester, Newcastle-upon-Tyne, and Cardiff. In the last-mentioned town no fewer than 24 deaths were referred to measles during the week ending Jan. 10. The 51 fatal cases of scarlet fever showed a decline of 14 from the number in the previous week; this disease was proportionally most fatal in Leeds and Halifax. The deaths referred to "fever" showed a further slight increase upon recent weekly numbers, and caused the highest rate in Newcastle-upon-Tyne. Of the 42 deaths from diphtheria in the twenty-eight towns, 26 occurred in London, 4 in Bristol, and 3 in Liverpool. Of the 36 fatal cases of small-pox, 34 occurred in London (exclusive of 8 deaths of London residents, from this disease, in the Metropolitan Asylum Hospitals situated outside Registration London), one in Liverpool, and one in Newcastle-upon-Tyne. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 1,079 and 1,013 at the end of the two preceding weeks, further declined to 1,000 on Saturday, the 10th instant; 224 new cases were admitted to these hospitals during the week, against 161 and 171 in the two preceding weeks. The death-rate from diseases of the respiratory organs in London was equal to 7.8 per 1,000, and exceeded the average. The causes of 113, or 2.7 per cent., of the 4,255 deaths registered in these twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.—In the eight principal Scotch towns, having an estimated population of 1,254,607 persons, 768 births and 741 deaths were registered during the week ending the 3rd inst. The annual rate of mortality, which had been 26.9 and 29.6 per 1,000 in the two preceding weeks, further rose to 30.7, and exceeded by 5.7 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns the rate was equal to 18.8 in Edinburgh, 22.7 in Leith, 24.6 in Dundee, 26.6 in Aberdeen, 30.3 in Perth, 34.4 in Greenock, 36.6 in Paisley, and 39.0 in Glasgow. The 741 deaths registered in these towns included 110 which were referred to the principal zymotic diseases, against 108 and 110 in the two previous weeks; of these, 38 resulted from measles, 27 from whooping-cough, 14 from scarlet fever, 14 from diphtheria, 10 from "fever" (principally enteric), 7 from diarrhœa, and not one from small-pox. These 110 deaths were equal to an annual rate of 4.6 per 1,000, which was more than double the average zymotic death-rate in the large English towns. The zymotic death-rates in the Scotch towns ranged from 1.5 and 3.3 in Edinburgh and Aberdeen, to 6.2 in Leith and 6.4 in Glasgow.

The deaths from measles, which had been 36 and 34 in the two preceding weeks, rose to 38, and included 30 in Glasgow, and 5 in Dundee. The 27 fatal cases of whooping-cough showed a slight further increase upon recent weekly numbers; 13 occurred in Glasgow, and 4 in Leith. The 14 deaths from scarlet-fever were 2 less than in the previous week, and included 9 in Glasgow. The fatal cases of diphtheria, which had declined in the four preceding weeks from 25 to 9, rose again to 14, of which 6 were returned in Glasgow. The 10 deaths from "fever" were 4 less than in the previous week; 5 occurred in Glasgow, 3 in Edinburgh, and 2 in Aberdeen. The mortality from diseases of the respiratory organs in these Scotch towns was nearly double that recorded in the corresponding week of last year, and was equal to 8.4 per 1,000, against 7.0 in London. As many as 125, or nearly 17 per cent., of the 741 deaths registered in these Scotch towns were uncertified. — During the week ending the 10th instant, 984 births and 744 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had been 26.9, 29.6, and 30.7 per 1,000 in the three preceding weeks, was 30.5, and exceeded by as much as 5.6 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns the rate was equal to 20.2 in Paisley, 20.5 in Leith, 20.7 in Aberdeen, 26.8 in Greenock, 29.7 in Edinburgh, 31.3 in Dundee, 34.9 in Perth, and 35.5 in Glasgow. The 744 deaths registered during the week, in these towns, included 94 which were referred to the principal zymotic diseases, against 110 in each of the two preceding weeks; of these, 30 resulted from whooping-cough, 26 from measles, 16 from diarrhœa, 12 from scarlet fever, 5 from diphtheria, 5 from "fever," and not one from small-pox. These 94 deaths were equal to an annual rate of 3.9 per 1,000, which exceeded by 1.7 the average zymotic death-rate in the twenty-eight large English towns. The zymotic death-rates in the Scotch towns ranged from 1.8 to 1.9 in Paisley and Edinburgh, to 5.3 in Glasgow, and 8.3 in Perth. The deaths from whooping-cough showed a further increase upon recent weekly numbers, and included 16 in Glasgow, and 5 in Perth. The 26 fatal cases of measles showed a decline of 12 from the number in the preceding week; 19 occurred in Glasgow, and 5 in Dundee. The deaths from scarlet fever, which had been 16 and 14 in the two previous weeks, further declined to 12, of which 8 were returned in Glasgow, and 2 in Edinburgh. The fatal cases of "fever" showed a marked decline from those recorded in any recent week; and of the 5 deaths referred to diphtheria, 4 occurred in Glasgow. The mortality from diseases to the respiratory organs, in these Scotch towns, was equal to 81 per 1,000, against 7.8 in London. As many as 92, or 12.4 per cent. of the 744 deaths in these Scotch towns, were uncertified.

HEALTH OF TOWNS IN IRELAND.—During the week ending January 3rd the total number of deaths registered in the sixteen principal town districts of Ireland was 595. The average annual death-rate, represented by the deaths registered, was 36.0 per 1,000 of the population, the respective rates for the several districts being as follow, ranging in order from the lowest to the highest:—Kilkenny, 12.7; Dundalk, 13.1; Wexford, 21.4; Sligo, 24.1; Waterford, 30.1; Lurgan, 30.8; Belfast, 31.4; Londonderry, 32.1; Drogheda, 33.8; Newry, 35.1; Dublin, 37.6; Armagh, 41.3; Cork, 45.4; Galway, 47.1; Limerick, 47.2; Lisburn, 58.0. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 3.8 per 1,000, the rates varying from 0.0 in Galway, Kilkenny, Wexford, Dundalk, and Sligo, to 15.4 in Lurgan; the six deaths from all causes registered in the last-named district comprising 3 from whooping-cough. In the Dublin Registration District the deaths registered during the week amounted to 259. Twenty-six deaths from zymotic diseases were registered, being 7 over the number for the preceding week, but 6 under the average for the last week of the ten years, 1874-83. They comprise 3 from measles, 11 from scarlet-fever, 7 from enteric fever, 3 from diarrhœa, etc. Seventy-one deaths from diseases of the respiratory system were registered, being 7 over the average for the last week of the ten years 1874-83, and 19 over the number for the week ended 27th ultimo: they comprised 48 from bronchitis, and 14 from pneumonia. The deaths of 20 children under five years of age (including 18 infants under one year old), were ascribed to convulsions. Eight deaths were caused by apoplexy, 16 by other diseases of the brain and nervous system (exclusive of convulsions), and 12 by diseases of the circulatory system. Phthisis, or pulmonary consumption, caused 22 deaths; mesenteric disease, 5; cancer, 2; and gout, 1. Ten accidental deaths were registered. In 38 instances there was "no medical attendant" during the last illness. — During the week ending January 10th, the average annual death-rate represented by the deaths registered was 28.7 per 1,000 of the population. The deaths registered in each of the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000:—Armagh, 15.5; Belfast, 25.9; Cork, 36.3; Drogheda, 16.9; Dublin, 30.0; Dundalk, 26.2; Galway, 13.4; Kilkenny, 29.6; Limerick, 37.8; Lisburn, 24.2; Londonderry, 16.0; Lurgan, 30.8; Newry, 28.1; Sligo, 14.4; Waterford, 46.3; Wexford, 21.4. The deaths from the principal zymotic diseases registered in the sixteen districts were equal to an annual rate of 2.2 per 1,000, the rates varying from 0.0 in Limerick, Galway, Drogheda, Wexford, Dundalk, Lisburn, and Armagh, to 7.0 in Newry. In the Dublin Registration District the deaths registered during the week amounted to 211. Twenty-two deaths from zymotic diseases were registered in Dublin, being 12 below the average for the first week of the last ten years, and 4 under the number for the week ended 3rd instant; they comprised 3 from measles, 6 from scarlet fever, 2 from whooping-cough, 2 from diphtheria, 4 from enteric fever, etc. Fifty-three deaths from diseases of the respiratory system were registered, being 11 under the average for the corresponding week of the last ten years, and 18 under the number for the week ended 3rd instant; they comprised 37 from bronchitis, and 5 from pneumonia. The deaths of 24 children under five years of age (including 16 infants under one year old), were ascribed to convulsions. Two deaths were caused by apoplexy, 3 by epilepsy, 11 by other diseases of the brain and nervous system (exclusive of convulsions), and 19 by diseases of the circulatory system. Phthisis or pulmonary consumption caused 20 deaths. Four accidental deaths and 1 case of suicide were registered. In two instances the cause of death was "uncertified," and in 27 other cases there was "no medical attendant."

HEALTH OF FOREIGN CITIES.—It appears, from statistics published in the Registrar-General's return for the week ending the 3rd inst., that the annual death-rate was recently equal to 27.4 per 1,000 in Calcutta; the 218 deaths included 17 from cholera, and 71 from "fever." According to the most recently received weekly returns, the annual rate per 1,000 in twenty of the largest European cities averaged 25.6, and was 0.6 above the mean rate during last week in twenty-eight of the largest English towns. The death-rate in St. Petersburg was 27.8, showing a further increase upon the rates in previous weeks; the deaths included 12 from diphtheria, 6 from small-pox, and 8 from "fever." In three other northern cities—Copenhagen, Christiania, and Stockholm—the death-rate averaged 26.1, and ranged from 15.5 in Christiania to 30.7 in Copenhagen; measles caused 22 deaths in Copenhagen, and scarlet fever and diphtheria showed somewhat fatal prevalence both in Stockholm and Christiania. In Paris, the death-rate was 23.5, showing a further decline from the rates in recent weeks; diphtheria and croup caused 38, measles 28, and typhoid fever 11 deaths. No return appears to have been received from Brussels. The 40 deaths in Geneva, including 2 from small-pox, were equal to a rate of 29.5. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 23.5, and the rate ranged from 18.5 in Rotterdam to 26.1 in Amsterdam, where 23 deaths resulted from scarlet fever, 11 from measles, and 7 from diphtheria; scarlet fever caused 5 of the 59 deaths in Rotterdam. The Registrar-General's table includes seven German and Austrian cities, in which the death-rate averaged 25.1, and ranged from 21.4 and 23.6 in Dresden and Vienna to 28.3 and 29.2 in Prague and Breslau. Measles caused 45 deaths in Berlin, 1[illegible] in Hamburg, and 7 in Dresden; 4 fatal cases of small-pox were returned in Vienna. The death-rate averaged 30.8 in three of the principal Italian cities, being 26.9 in Rome, 31.6 in Turin, and 37.8 in Venice. Small-pox caused 19 deaths in Turin, 12 in Venice, and 1[illegible] in Rome; the deaths from typhoid fever were 12 in Turin and 4 in Rome. The 114 deaths in Lisbon included 14 from small-pox, and were equal to a rate of 29.2. In four of the largest American cities the recorded death-rate did not average more than 23.1; while the rate ranged from 17.6 in Baltimore to 27.6 in New York; diphtheria showed considerable fatal prevalence in each of these American cities.

FEES FOR ANÆSTHESIA.

SIR, — Will you kindly say if it be legal to charge a guinea for the anæsthetist, addition to the usual £5 fee for amputation of the thigh in a pauper? and oblig

yours faithfully, DISTRICT MEDICAL OFFICER.

*** We do not think that the Local Government Board has ever decided th a district medical officer would be authorised to send in a claim of £1 1s. for t services of an anæsthetist in any capital operation performed by him; but have no doubt that the department would immediately sanction such a grant the Board of guardians gave it. We advise that our correspondent should app for the same, and state the grounds for such application. It should be membered that, when the scale of extra fees was drawn up, the value of ana thetics in diminishing human suffering had not been discovered.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gen-
en passed their primary examinations in Anatomy and Physiology
meeting of the Board of Examiners on the 15th instant, and, when
ble, will be admitted to the pass examination.
srs. J. Nixon, and W. G. Heasman, students of St. Bartholomew's Hospital;
T. J. Head, G. W. Sequeira, B. H. E. McCrea, and A. G. B. Lory, of the
London Hospital; P. D. Addis, A. P. de Carvalho, and L. H. Liston, of
University College; B. Badcock, of Charing Cross Hospital; J. H. Prall,
and R. H. J. Browne, of Guy's Hospital.

e following passed in Anatomy only.

srs. S. G. Pender, of Guy's Hospital; C. R. Harper, and J. D. Cree, of
Middlesex Hospital; F. Elias, of University College; L. Franklin, of St.
George's Hospital; and T. W. Sargent, of the London Hospital.

e following passed in Physiology only.

srs. R. Wright, of St. Bartholomew's Hospital; J. P. Westrup, of King's
College; R. C. Fraser, of Guy's Hospital; D. C. Dunstan, of the London
Hospital; and A. Purvis, of Charing Cross Hospital.

e following passed the second examination, under the combined
ining Board for England.

C. H. Pilliner, of King's College.

e following passed on the 16th instant.

srs. C. E. Thomas, and H. Baldwin, of Middlesex Hospital; H. J. Marston,
and F. H. Bence, of the London Hospital; G. S. Green, of St. Bartholo-
mew's Hospital; A. Shillitoe, C. H. Sharpe, T. A. B. Cooke, and J. W.
Roberts, of Guy's Hospital; H. C. Phillips, of St. Mary' Hospital; F. W.
Davidson, F. W. Croft, and E. O. Cox, of Westminster Hospital; I. Mac
Carthy, of St. George's Hospital; C. M. Lewis, P. H. Whiston, and T. A. B.
Plowman, of St. Thomas's Hospital; H. H. Roe, and W. Case, of King's
College; H. F. Cleveland, and G. H. Janffret, of University College; and
S. G. E. Harris, of Charing Cross Hospital.

e following passed in Anatomy only.

srs. G. J. MacMunn, of Westminster Hospital; E. Gregson, of St. Bartholo-
new's Hospital; G. H. Metcalfe, and G. A. Slack, of Guy's Hospital; F. C.
Augear, of Charing Cross Hospital; and W. Jones, of University College.

e following passed in Physiology only.

A. R. Nicholls, of Middlesex Hospital.

OTHECARIES' HALL.—The following gentlemen passed their
ination in the Science and Practice of Medicine, and received
cates to practise, on Thursday, January 15th, 1885.

sby, Robert, Newcastle-on-Tyne College of Medicine.
nmock, Augustus Frederick, King's College.
les, Frederick George, St. Bartholomew's Hospital.
nn, Cornelius Frederic, St. George's Hospital.
tton, John Stuart, St. Thomas's Hospital.
rnon, John James Dean, Guy's Hospital.

following gentleman also on the same day passed the Primary
sional Examination.

ie, Alexander James, Charing Cross Hospital.

LIMINARY EXAMINATION IN ARTS.—The following candidates
this Examination on January 8th, 9th, and 10th, 1885.

d Division.—*Edmund Balding, Rosa Elizabeth Bale, John William Bowd,
Herbert Ernest Dalby, Charles William Daly, Arthur Robert Green, Edward
). H. Hawke, Tomas Heywood, Normand Ireland-Smith, John Jackson,
John Morris James, *Edwin Jobbins, Brodnax Knight, Ernest R. Litch-
eld, Everitt Edward Norton, *Stuart C. W. Nourse, Carroll O'Sullivan,
idney Herbert Raynes, Arthur Leonard Roper, Alfred Smith, *Stanley
ohn Smith, Francis Hands Spilsbury, *Richard A. Walter, *Luther Wat-
on, Frank Webb, *John Bayley Williams, Hugh Begbie Wilmot, *Ernest
Wells Witham.
e marked * passed also in Elementary Mechanics.

following candidates passed in Elementary Mechanics alone.

n Newington, Thomas Jason Wood.

following candidate passed in Greek alone.

hard Searle Wright.

MEDICAL VACANCIES.

following vacancies are announced.

TT HOSPITAL AND DISPENSARY, Barnsley.—House-Surgeon.
ry, £130 per annum. Applications by January 30th.

GH OF CHELTENHAM.—Medical Officer of Health. Salary, £300 per
um. Applications by January 26th.

STER GENERAL INFIRMARY AND DISPENSARY.—House-Surgeon.
ry, £100 per annum. Applications by January 31st.

NGDON GENERAL DISPENSARY AND LYING-IN CHARITY.—
orary Physician. Applications to Mr. J. Lewis, 17, Bartlett's Buildings,
horn Circus, by February 9th.

HEAD DISPENSARY.—Assistant-Surgeon. Salary, £120 per annum.
lications to Mr. Joseph Jordan, Honorary Secretary, 2, Side, Newcastle, by
ary 24th.

AL HOSPITAL, Birmingham.—Honorary Physician. Applications by
ary 24th.

AL INFIRMARY AT GLOUCESTER, AND THE GLOUCESTER-
RE EYE INSTITUTION.—Physician. Applications by February 18th.

L INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPEN-
Y.—Senior House-Surgeon. Salary, £70 per annum. Applications by
ary 26th.

JESSOP HOSPITAL FOR WOMEN, Sheffield.—House-Surgeon. Salary, £50 per annum. Applications by January 31st.

MANCHESTER SOUTHERN HOSPITAL FOR DISEASES OF WOMEN AND CHILDREN, Clifford Street. House-Surgeon. Salary £50 per annum. Applications by January 29th.

MIDDLESEX HOSPITAL, W.—Medical Registrar. Applications by January 31st.

MOTHERS' LYING-IN HOME, Juniper Street, Shadwell, E.—Medical Officer. Applications to Mrs. Ashton Warner, by February 2nd.

NAAS UNION.—Medical Officer, Newbridge Dispensary. Salary, £140 per annum and fees. Applications to Michel Flood, Honorary Secretary, Newbridge, to February 5th.

PARISH OF BIRMINGHAM.—Resident Second Assistant Workhouse Medical Officer. Salary, £130 per annum. Applications by January 31st.

QUEEN'S HOSPITAL, Birmingham.—Casualty Surgeon. Applications by January 24th.

QUEEN'S HOSPITAL, Birmingham.—Resident Physician. Salary, £50 per annum. Applications by January 24th.

ROTHERHAM HOSPITAL AND DISPENSARY.—Resident House-Surgeon. Salary, £100 per annum. Applications by February 1st.

ROYAL INFIRMARY AND GENERAL DISPENSARY, Aberdeen.—Dispenser. Salary, £100 per annum. Applications to Mr. W. Carnie, 27, Exchange Street, by February 1st.

SALFORD AND PENDLETON ROYAL HOSPITAL.—District Surgeon. Salary £80 per annum. Applications by February 1st.

SUSSEX COUNTY HOSPITAL, Brighton.—Physician and Assistant-Physician. Applications by February 11th.

SUSSEX COUNTY LUNATIC ASYLUM, Hayward's Heath.—Junior Assistant Medical Officer. Salary, £100 per annum. Applications to Dr. Williams.

UNIVERSITY OF OXFORD.—Lecturer in Human Anatomy. Salary, £300. Applications to the Secretary of the Common University Fund, New College, Oxford, not later than February 1st.

WEST LONDON HOSPITAL, Hammersmith, W.—Physician for Diseases of Women. Applications by January 29th.

MEDICAL APPOINTMENTS.

ADAM, William John, M.B., C.M., appointed a Physician to Anderson's College Dispensary, Glasgow.

ANDERSON, Joseph, M.B., C.M. Aberdeen, appointed Junior House-Surgeon to the Preston and County of Lancaster Royal Infirmary, *vice* F. D. Irvin, M.B. Lond., M.R.C.S., resigned.

GRAVES, Charles H. P. D., M.D., M.Ch.R.U.I., L.&L.M.K.&Q.C.P.I., L.R.C.S.I., appointed Medical Officer of the Cookstown Dispensary District, *vice* Henry Graves, M.B., F.R.C.S.I., resigned.

JONES, Price, F.R.C.S. and L.R.C.P.E., appointed Public Vaccinator for the Eastern District of the Corwen Union, *vice* E. R. Williams, L.R.C.P., M.R.C.S., resigned.

KELLAND, James, M.B., C.M., L.R.C.P. and S. Edin., appointed Medical Officer of Health to the Rural Sanitary District of the Alderbury Union, Wilts.

PRINGLE, J. J., M.B. Edin., M.R.C.P., appointed Assistant-Physician to the Middlesex Hospital.

POLLARD, Frederick, M.D. Lond., appointed Medical Officer and Public Vaccinator for the Chulmleigh District of the South Molton Union, *vice* T. Daly, Esq., resigned.

WALFORD, Walter G., M.D., M.R.C.S. Eng., L.R.C.P., appointed Surgeon to the St. John's Wood and Portland Town Provident Dispensary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

MARRIAGES.

CHAVASSE—RYLAND.—On January 22nd, at St. Saviour's Church, Camberwell, by the Rev. F. J. Chavasse, M.A., Rector of St. Peter-le-Bailey, Oxford, and the Rev. L. T. Chavasse, M.A., Vicar of the parish, brothers of the bridegroom, assisted by the Rev. Percival E. Wilson, M.A., Rector of All Saints, Birmingham, Thomas Frederick Chavasse, M.D., of Birmingham, and Barnt Green, Worcestershire, to Frances Hannah, only daughter of the late Arthur Ryland, Esq., J.P., of The Linthurst Hill, near Bromsgrove.

ROSSER—CRICKMAY.—On Thursday, January 15th, at St. Jude's Church, South Kensington, by the Rev. R. W. Forrest, D.D., vicar, Walter Rosser, M.D., of Wellesley Villas, Croydon, to Edith Maud, youngest daughter of George R. Crickmay, F.R.I.B.A., 62, Nevern Square, South Kensington.

DEATHS.

MANTLE.—On January 12th, suddenly, at her residence, Cromarty House, Stanley, Durham, Annie Copson, the wife of Alfred Mantle, M.D., aged 33.

NOBLE.—On January 12th, at his residence, 258, Oxford Road, Manchester, Daniel Noble, M.D., F.R.C.P., aged 75 years.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Bowreman Jessett: On Cancer of the Tongue; its Etiology, and an Inquiry into the Different Methods for its Removal. Mr. William Rose: A Case of Simple Depressed Fracture of the Skull; Trephining; Recovery. Dr. Beevor will show a Case of Paralysis Agitans without Shaking.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. W. B. Dalby: Cases in which Perforation of the Mastoid Cells is Necessary. Mr. Barwell: Case of Simultaneous Distal Ligature of the Carotid and Subclavian Arteries for High Innominate Aneurysm.

WEDNESDAY.—Hunterian Society, 7.15 P.M. Council. 8 P.M. Dr. Robert J. Lee: The Clinical Study of Infantile Syphilis.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.— Samaritan Free Hospital for Women and Children, 2.30 P.M.— Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.— Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.— Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M. —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE LATE MR. CHARLES PALMER AND COLLECTIVE INVESTIGATION.

SIR,—I had the privilege of serving for two years under the late Mr. Charles Palmer, as house-surgeon to the Yarmouth Hospital, of which he was the senior visiting surgeon; and, knowing the position he had held in our Association, I could not but be struck with the silence with which the news of his death was received. His old friend Dr. Hack Tuke has taken that reproach from us, but there are two points to which, with your kind permission, I should like to draw closer attention.

The paper to which Dr. Tuke refers never seemed to me to attract the attention which, alike from its intrinsic merits and the importance of its subject, it deserved; this was, perhaps, in some measure due to the accompanying tables having been—I suppose of necessity—omitted. The paper presented the first fruits of many years of accurate observation and careful note-taking, and was a model of what may be accomplished in the way of original research by a busy general practitioner. I well remember the enthusiasm with which it was spoken of, in a letter that I had the privilege of seeing, by the late Dr. Mahomed, who was then secretary of the Collective Investigation Committee. Apart, however, from its own merits, the paper raised a question which cannot but be regarded as of the highest importance, whether we look at it from a sociological or an etiological point of view; and it was, I believe, the manner in which Mr. Palmer put the problem of the effect of syphilis on our civil population that induced the Committee for Collective Investigation to issue cards on this point. *Pace* Dr. Dolan, it seems to me that such collections of clinical facts as Mr. Palmer had accumulated on this point are emphatically worthy of record, and would go far towards the solution of many a scientific difficulty; such, for instance, as the influence of syphilis in the production of locomotor ataxy, rachitis, and more than one other disease, which, rightly or wrongly, has been connected with it.

The other point is this same one of the collective investigation of disease. Dr. Tuke is, to my knowledge, right in saying that Mr. Palmer had himself devised a scheme for the collective investigation of disease; but his scheme differed materially from our present one, in that he laid the greatest possible stress on the importance of taking notes of a case at the time; this was, indeed, the keynote of his whole plan, and in our omission of this important factor we have, to my mind, made ourselves amenable to the objections which Dr. Dolan has urged. I believe in the Baconian system thoroughly; indeed, I cannot see how any science is to be either founded, or built upon, by the deductive system of logic pure and simple; but, on the other hand, I am quite willing to admit that the substratum of facts must be not only abundant, but reliable, and I know of nothing so likely to make us accurate observers and recorders of facts as a methodical system of note-taking. So clearly did Mr. Palmer see all this, that he devised for his own use a system of note-taking, which served also for prescription to his dispenser, year-book, and day-book, all being included in one piece of paper. To further the object he had at heart, Mr. Palmer also attended the Branch meeting at Lynn in 1883, and the general meeting of the Association at Worcester in 1882, and I well remember the disappointment he expressed to me at not having been allowed at the latter meeting to demonstrate to the members in general the system he prized so highly. He seemed to have expected that an opportunity would have been given him in one of the Sections, but found that he had gone so far only to explain it to the Committee, which, he said, he could far more easily have done in London.

Why, I know not; but neither his scheme nor any other was ever officially commended to the notice of the Association; and herein, in my poor opinion, lies a weakness which, if not speedily remedied, must entail the eventual failure of the whole scheme.—I have the honour to be, sir, your most obedient servant,

PHILIP H. KIDD, M.B.

71, Nunthorpe Road, York.

THERAPEUTIC DELUSIONS.

A CORRESPONDENT of the *New York Medical Record* has recently published a list of "Therapeutical Delusions" of a pretty sweeping character, among which many practitioners will recognise some of their own pet prescriptions. The journal says—"We have carefully examined the 'delusions' set forth by our correspondent, and find that in the main they agree with the results of the most conservative clinicians and of pharmacological experiments." They are as follows—"It is a delusion that veratrum viride or aconite will abort croupous pneumonia or essentially modify its course; that chlorate of potash is of service in catarrhal angina; that nitrate of potash is an antipyretic, antirheumatic, or (to any appreciable extent) a diuretic; that lime-water will dissolve a diphtheritic or croupous membrane; that nitrate of silver is of any value in epilepsy; that the excessive and continuous use of iron induces plethora with dizziness, flushings, and palpitations; that iron should be given in phthisis; that mercury is antiplastic and antiphlogistic; that arsenic has any value in diabetes; that iodide of potassium promotes absorption of serous exudations and of non-specific connective tissue in hyperplasia; that sulphur and sulphur in baths are of any value in rheumatism; that charcoal when moist in the stomach and intestines has any absorptive power, or is of any use in flatulence by virtue of that power; that dilute acids are 'cooling,' that is, lower temperature and lessen heart-action in the non-febrile; that colchicum is beneficial in rheumatism; that drinking sulphuric acid prevents chronic lead-poisoning; that iodoform given internally is anything but a poor substitute for iodide of potassium; that croton-chloral has a specific effect on the fifth cranial nerve; that tannic acid (or the plants containing it) is of any value given internally for hæmorrhage, except, perhaps, those of the stomach and bowels, or that it is of any value as a gargle in chronic pharyngitis, or that it is an astringent to mucous surfaces or blood-vessels; that turpentine is a stimulant to the heart and nervous system; that musk is a nerve or heart stimulant (it belongs with turpentine to neither depressants); that ox-gall is of the slightest therapeutical utility; that hydrocyanic acid in ordinary medicinal doses is either a local or general sedative (it is rather an irritant); that quinine in either large or small doses is a stomachic except in convalescence from malarial attacks; that hydriodic acid has specific effects other than those possessed by the iodides."

TREATMENT OF COUGH BY ERGOT.

SIR,—In answer to your correspondent "J. C. H.," I have to state that the preparation of ergot used was Bonjean's ergotin, given either hypodermically two-grain doses, or the same preparation given as a draught in water, in doses of four to six or eight grains. There are many preparations of ergot, such as the liquid extract, that may be quite inert. Ergotin may be tried for cough under almost any circumstances; I have used it extensively, and in very many cases, without bad effect in any.—I am, yours, etc.,

JAMES ALLAN, M.D.

Leeds.

Professional Remuneration.

...—Whatever views may be held by different members of our profession as to he method by which medical services should be remunerated, it is universally dmitted that, in the present day, and in London at least, gratuitous medical id is dispensed to a degree demoralising to those who take advantage of it, and rejudicial to the interests of the medical profession. While in every other orm of charitable relief the necessity of inquiry into the circumstances of the ecipient is fully recognised, in medical relief in many cases such necessity is ntirely overlooked, some hospitals making a special merit of the fact that, at heir out-patient rooms, no letters of recommendation are required, and prac-ically "no questions asked."

If the matter concerned the general public alone, it might be left to it to find remedy; but, unfortunately, by far the most injury falls upon the medical rofession. It is now a commonplace to talk of the profession as being over-orked and underpaid. How can it possibly be otherwise than underpaid, when very medical man practising among the lower classes has to compete on most nfair terms with a system of gratuitous relief, subsidised not only by the sub-criptions of the charitable, but also by the active and laborious aid of the igher ranks of his own profession? Is it surprising that, in the unequal truggle, well qualified practitioners should condescend to accept fees of one hilling or sixpence for advice and medicine? One requires to be somewhat of a asuist to distinguish clearly between the degraded position of such men and the onourable distinction of the physicians of the out-patient department at Guy's ospital, where the patients receive the benefit of their advice and medicine for he small sum of threepence.

It seems hopeless to look for any assistance in the reformation of this abuse the lay managers or the public. The public not unnaturally accept without uch question services which are not only liberally offered it, but which there a constant struggle among a large section of the medical world to be allowed afford.

Yet reform of hospitals and out-patient departments would be a work of no fficulty, and of rapid progress, if the medical profession would only act as a dy in demanding fair pay for fair work. Reform, if it is to come at all, must me from the profession itself, and must begin in its higher ranks. The pro-ssion, through its recognised associations and journals, ought to dictate, and is ite strong enough, if united, to dictate, to the public the terms on which one it will render any charitable relief. The subscribing public should be ught that the hospitals, nurses, medicines, and other adjuncts for which they e willing to contribute, are valueless in the absence of medical and surgical vice; and that such advice is only available on certain definite terms.

By such united action, the medical profession would not only improve con-derably the pecuniary position of its members, but would undoubtedly add to social position and influence. United action commencing in this way would o be able to influence otherwise beneficially the relations of the profession d the public. It is, I think, almost universally admitted that the consulting s of leading consultants are too small; and that, in consequence, a rather worthy competition exists between the older and more distinguished con-ltants and their younger brethren. It would be for the benefit of both if a inimum fee for consultations could be arrived at, dependent on hospital or llege distinctions. That, however, is a minor matter.

The main point on which I wish to insist is, that the degradingly low fees hich the younger members of the profession and those practising among the wer classes are obliged to accept, are directly due to the manner in which the gher ranks deluge an unappreciative public with gratuitous assistance.

Surely, in some early day, the profession as a whole will recognise that the esent system, demoralising as it is to the general public, and injurious to its n interests, must be brought to a termination.—I am, yours, etc.,

Belsize Park, N.W. Albert Westland.

Apothecaries' Hall.

...—Would any of your readers who have gone through the ordeal kindly give some information regarding the examination for the L.S.A., on the ques-ns in the various subjects, such as one who has already a surgeon's di-ma might readily be expected to answer? Is the examination in chemistry d botany extensive, and what are the best books to read?

Any further information will be gratefully received by,—yours truly,

A Surgeon.

Treatment of Snake-bite.

...—It gives me much pleasure to bear my testimony to the good effects of the rticular treatment of snake-bite mentioned in the Journal for January 3rd, ge 56, as far as it applies to the poisonous snakes of St. Lucia, the dreaded *-de-lance*, or *craspidocephalus lanceolatus*.

Mr. Cropper, the protector of emigrants in that colony, is in a good position knowing the subject on which he writes, and has done good service in mak-g what was formerly a quack nostrum public property under official sanction. ring three years in which I held a surgeoncy in the civil service of that ony, I had many opportunities of witnessing the good effects of the treatment recommends; and, where that treatment was begun in time, I never saw it ... I must say, however, that the claret and the *theriaque* are merely adju-nts; the real remedies are the preliminary grog, and the ammonia. In fact, I ver could find out of what *theriaque* was composed, except it were either asses or burnt sugar, and I fail to see what therapeutic effect that could have. he poison of the *fer-de-lance* acts principally as a cardiac and general ressant, very similar to hydrocyanic acid, and it will easily be understood of much value stimulants are in the treatment.

n conclusion, I must defend Mr. Cropper from the charge of being a "claim-to the honour of the discovery," etc. The real claimant is my old friend, Joseph de Laberique, of the Malgretont estate, in St. Lucia, who, I believe, erited it from his father; and Mr. Cropper, in his report, gives the honour hom the honour is due.

r. Cropper's report elicited a great number of other reports at the time on same subject, which, if I remember aright, were sent to the Colonial Office. s a great pity that they should there be consigned to the oblivion of an al pigeon-hole.—I am, yours faithfully,

Wm. Duncan, L.R.C.S., late Resident Surgeon to the Colonial Hospital, St. Lucia.

Value of Cucaine in Excision of the Uvula.

I was much gratified to-day by the relief afforded, to a sensitive girl, by the of cucaine to the painful stump after excision of the uvula. Two minutes the use of a two per cent. solution, she exclaimed: "I feel not the slightest ."—Obediently yours,

Richard Neale, M.D.Lond.

Boundary Road, South Hampstead, N.W.

The Treatment of Ringworm of the Scalp.

Sir,—With reference to communications from Messrs. Alder Smith and Malcolm Morris, in recent numbers of the Journal (November 1st and 15th), on the treatment of ringworm with solutions of chrysophanic acid in chloroform, may I be permitted to state that, since May or June 1881 (when I was officiating civil surgeon of Backengunge, Eastern Bengal), I have been in the habit of treating cases of Indian ringworm with a solution of Goa powder in pure chloroform, painted over the patches daily. I have found this method very efficacious in curing the ringworm, though at first causing a sensation of intense burning pain (especially when applied to parts where the skin is tender, as the inner sides of the thighs, scrotum, arm-pits, etc.; yet as this pain was very transient, it did not deter me from using it, and my patients did not complain. Probably a solution of pure chloroform alone would cause just as much pain if applied to tender parts. Goa powder is very imperfectly soluble in chloroform, and it is as well to shake the bottle containing the chloroform-solution well before using. I generally use a supersaturated solution. The Goa powder, or araroba, contains, according to Martindale and Wescott, 80 per cent. of its weight of chrysarobin or chrysophanic acid (also see an analysis of Goa powder in the *Pharmaceutical Journal* for 1875). Since the earliest part of 1882 I have frequently used the chloroform-solutions of Goa powder for patients in the European General Hospital, and always keep a supply ready.

I think that the impalpable yellow precipitate of chrysarobin left after the evaporation of the chloroform, and which adheres pretty firmly to the skin, is infinitely preferable to the ointments and pomades containing Goa powder, which are sold in this country.—I am, yours, etc.,

Geo. F. A. Harris, M.R.C.S., L.R.C.P.Lond.,
Bengal Medical Service, 2nd Resident Surgeon General Hospital, Calcutta.
Officers' Quarters, General Hospital.

The Administration of Anæsthetics.

Sir,—Having read Mr. Woodhouse Braine's admirable paper in the Journal of November 29th, I wish to add a few words of explanation on some points. Mr. Braine uses Ormsby's inhaler; and, as I also prefer that apparatus, we are on common ground.

He mentions that, if the bag become fully distended, any ether that is in it runs at once through the sponge into the patient's eyes and mouth. After some years' experience with the inhaler, during which time I have, on several occasions, taken ether myself, I cannot remember this having ever occurred. I think the contingency alluded to will not arise, if the quantity of ether poured on the sponge be definitely measured; and this, as I was taught by Ormsby, should be an absolute rule.

When preparing the apparatus for use, I take out the sponge, soak it in water, and squeeze it dry, using a towel to remove all moisture possible before replacing. Everything being ready, I pour one ounce of ether on the sponge, invert the inhaler to see that none will escape, and then place it on the patient's face. During the operation, as required, I renew the ether in quantities of four drachms. If it be necessary to prolong the anæsthesia for more than twenty-five or thirty minutes, the sponge should be removed, and the fluid which has accumulated in it wrung out; otherwise, the accident Mr. Braine apprehends would certainly occur. I agree with him that the administration of nitrous oxide gas first, and ether afterwards, is, for prolonged operations, particularly in nervous subjects, the best method, and leaves little to be desired. When it is given as he describes, there are none of the dangers which may arise when a complicated apparatus like Clover's is employed. The face-piece made by Codman and Shurtleff, of Boston, for inhalation of gas, renders the presence or absence of a beard, etc., quite immaterial.

When first using the anæsthetics in combination, I produced complete insensibility with the gas, and then gave the ether in its concentrated form; on several occasions this caused unpleasant symptoms. I now use it to partial unconsciousness, and then place the Dublin inhaler in position, with the air-slot wide open, closing it partially after two inspirations, and completely when five or six have been taken. Where gas is not procurable, and ether must be used alone, the administrator who uses Ormsby's apparatus will do well to observe the following rules. Previously to pouring the ether on the sponge, place the inhaler on the face, open the air-slot, and make the patient respire several times, while you tell him what the sensation he will next experience is like, assuring him that there is no danger; order the mouth to be kept firmly closed, and respiration to be conducted by the nose, slowly, care being taken not to completely fill the lungs. This I found, from personal experience, to prevent the distressing cough, with its frequent accompanying spasm. Leave the air-slot wide open at first, and close it gradually in about thirty seconds. As inhalation proceeds the breathing becomes deeper; and, when the bag is fully distended on expiration, the signs of complete anæsthesia may be looked for. In this manner ether can generally be given quietly, even with nervous subjects; and any struggling which occurs will be after the stage of oblivion has been reached. It is, however, well always to have the patient's hands under control, otherwise the net or bag may suffer.

I admit the justice of Mr. Braine's strictures on the administration of ether in this country; but trust that, ere long, the cone and "clouded" ether will be relegated to obscurity.—I am, sir, yours truly, James H. Parkinson.

Sacramento, California.

Oatmeal for Constipation in Children.

Sir,—Some time ago a recipe was given, in one of the medical papers, for preparing oatmeal for children who are habitually constipated; if you or any of your readers can tell me where I shall find it, I shall be grateful, as well as for any suggestions for treating a child, aged 15 months, suffering in this way. The cause, or rather causes, appear to be, a deficient secretion of the natural aperient (bile), and want of tone in the muscular coat of the intestine. The child is apparently healthy in other respects, but its parents both suffer slightly from constipation. I have tried numerous remedies, which mostly act well at first in moderate doses, but soon lose their effect unless given in doses out of all proportion to the age of the child.—Yours, etc., Dunelm.

Diseases of the West Coast of Africa.

In reply to "Medicus," Dr. S. Warren (Rathmines) writes that he thinks he will find a book written by Mr. Charles Scovell Grant, L.R.C.S.I., the most recent one on the subject. He thinks it is published by the Colonial legislature.

Americanus recommends *The Practice of Medicine*, by Professor Palmer, of Michigan University, as being the work most likely to give the desired information.

INFECTION OF SMALL-POX.

SIR,—Could any of your numerous readers inform me, through the medium of your JOURNAL, at what period, after contracting small-pox, a patient may be considered free of infection?—I am, sir, yours, etc., W. E. W.

*** In mild cases the patient will be free of infection in three weeks from the appearance of the eruption, in severe cases often not before two months. There is no fixed time, but, as soon as all the scabs and the dried up vesicles and pustules have come off the skin, the patient is free of infection. The dried-up pustules remain longest under the thick skin of the hands and feet.

COLERIDGE AND DE QUINCEY.

SIR,—I had already read the passage in Mr. Payn's *Reminiscences*, quoted in an unsigned letter in the JOURNAL of January 10th. Of course, it proves nothing as to the quantity of laudanum which De Quincey was in the habit of taking. It is not even stated whether he helped himself from his own decanter as freely as he would have helped himself to wine. And, again, Mr. Payn did not ascertain whether the decanter contained pure laudanum. Probably it was wine with some laudanum added to it. The statements of Mr. Nicholson, who knew both Coleridge and De Quincey, are very interesting.—Your obedient servant, D.

A SIMPLE AND EFFECTIVE METHOD OF CLEARING THE TRACHEOTOMY-TUBE AFTER OPERATION.

SIR,—There are unfortunately too many modern instances of medical men who, like the late Mr. Samuel Rabbeth, have run the risk of death, in their endeavour to clear the tracheotomy-tube, "by the application of the mouth, and sucking" of that exceedingly tenacious mucus always present in diphtheritic cases. In order to obviate, if possible, the necessity for such a proceeding, I venture to suggest that one or two of the long or primary feathers from the wing of the ordinary barn-door fowl should always be laid in readiness on the table, among the instruments considered indispensable for this operation. By the insertion of this simple instrument through the tube into the trachea, and gently twirling it once or twice between the thumb and forefinger, the glutinous secretion becomes inveigled in the barbs and barbules of the feather, and may be drawn forth more effectively, I believe, than by any form of suction that can be brought to bear on the tracheotomy-tube.

During the summer of 1866, I assisted Dr. Bruce, of Dingwall—then of Crimond, Aberdeenshire—in performing tracheotomy on a child about 5 years of age, suffering from a severe form of diphtheritic croup. The child was evidently on the point of suffocation, and a brother or sister had died under similar conditions only a day or two before. Dr. Bruce, however, determined on giving the little sufferer the only chance in his power. The operation was performed at once in the usual way, but the tube was continually becoming blocked with viscid mucus, so that, had not the feather or some such simple instrument been resorted to, the child must certainly have perished. I remained several hours with the case purposely to clear the cannula, and had the great satisfaction, in the course of a few weeks, of seeing the patient restored to health.—I am, etc., W. MUIR, M.D.

LACTATE OF LEAD.

SIR,—I believe you will find liquor plumbi lactatis to be almost identical with cremor lithargyri, given in Squire's *Companion to the British Pharmacopœia* (liquor plumbi 1, cream 8). There is, perhaps, a little salicylic acid added to preserve it.

The preparation is best used fresh, as, if sour, it irritates. I only know of its being used to inflamed surfaces, erysipelas and eczema. It may be either painted over with a brush, or applied with lint like a compress.—Yours truly,

1, Esplanade, Waterloo, Liverpool. JOSEPH MATTHEWS.

ON THE RESULTS OF EXTENSION AFTER TENOTOMY.

SIR,—May I ask those of your readers interested in orthopædic surgery, whether it is an established fact (as generally stated) that, after tenotomy, the extension made use of in the after-treatment actually stretches the newly formed tendon between the cut ends, like a piece of India-rubber?

I have recently operated on two cases of wry-neck, one a severe case with two and a half inches shortening on the affected side. My after-treatment in these cases was first by elastic extension, with a Martin's bandage. Finding this rather irksome, I commenced manual extension, with a very good result. One thing struck me, that, on forcibly extending the divided tendon, a distinct "give," accompanied by a snap, was the result. I found that the upper end of the new tendon and the lower end of the old were separated abruply for about one-eighth of an inch; the nail and part of the tip of the index-finger could be inserted into the hollow; there was evidently no new material between the old and the new tendon.

After a lapse of twenty-four hours or so, this hollow was filled up with inflammatory lymph (tendon-callus, if we may so term it), which projected lump-like above the level of the old tendon; this, after a time, was smoothed down to the ordinary level of the tendon.

Does not this show that, whether mechanical and slow, or manual and quick, extension be used, the newly formed tendon is not stretched, but rather that the extension used opens up a fresh area of sheath from which the new tendon is regenerated?

If this separation be great, non-union is the result, the blood-supply being unequal to the demand of tendon-formative material.—Your obedient servant,

Snodland, Rochester. T. HENDERSON POUNDS, F.R.C.S.

LANCING THE GUMS.

SIR,—Will you allow me to send you the following remarks by John Hunter, in reference to the effects of dentition, and his experience of lancing the gums?

"Teething is productive of local and constitutional complaints, with local sympathy. The local symptoms are inflammation, heat, and swelling of the gums, and an increased flow of saliva. The constitutional, or general consequential symptoms, are fever and universal convulsion, attended by diarrhœa, costiveness, loss of appetite, eruptions on the skin, especially on the face and scalp; cough, shortness of breath, with a kind of convulsed respiration; spasms of particular parts; an increased secretion of urine, and sometimes a diminution of that secretion with a discharge of matter."

He goes on to say: "As far as my experience has taught me, to cut the gums down to the teeth appears to be the only method of cure. I have performed this operation above ten times upon the same teeth, where the disease had recurred so often, and every time with absolute removal of the symptoms."—Yours faithfully, WILLIAM J. V. HARLE.

BANNOCKBURN.—Information on the subject of the preliminary examinations can be obtained on application to the Officer of the Royal College of Surgeons, Edinburgh.

L.R.C.S.—We do not know anything of the merits of the University of Vermont, United States.

DR. SHEPHERD.—The information required is not in our possession.

COMMUNICATIONS, LETTERS, etc., have been received from:

Our Dublin Correspondent; Mr. J. Vesey Fitzgerald, Birmingham; Our Edinburgh Correspondent; Mr. T. M. Stone, London; Our Birmingham Correspondent; Dr. Norman Kerr, London; Dr. W. J. Adam, Glasgow; Dr. MacCombie, London; Dr. J. W. Langmore, London; Dr. Orwin, London; Mr. S. Snell, Sheffield; Dr. William Graham, Middleton; Mr. Thomas Edwards, Harrold; Mr. A. McArthur, Glasgow; Mr. De Vere Hunt, Bolton; Mr. Charles Williams, Port Isaac, Cornwall; Mr. Henry Morris, London; Mr. Edward East, London; Mr. V. Horsley, London; Mr. John W. Davies, Ebbw Vale, Monmouthshire; Mr. F. A. Knight, Weston-super-Mare; Mr. Berkeley Hill, London; Mr. S. A. Bennett, Denmark Hill; Our Berlin Correspondent; Mr. W. Nicholson, Greenwich; Mr. Arthur Davies, London; Mr. John O. Andrews, Manchester; Dr. William A. Fitzgerald, Montpellier, France; Mr. F. Pierce, Birkenhead; Mr. Eassie, London; Dr. G. A. D. Mackay, Greenock; Mr. C. Roberts, London; Mr. Jackson, Sheffield; The Secretary of the General Medical Council; Dr. John T. Shepherd, New York; Mr. G. P. Atkinson, Pontefract; Mr. J. P. Mann, London; Dr. J, Wigmore, Bath; Dr. J. Lucas, Brighton; Mr. John Bridger, Cottenham; Mr. J. D. Price, Dudley; Dr. Alder Smith, London; Our Aberdeen Correspondent; Mr. J. Lietch, Silloth; The Secretary of the Westminster Sanitary Aid Association; Mr. Charles Glassington, London; Mr. G. P. Best, Cheltenham; Mr. Macartney, Dorchester; Dr. Carter, Birmingham; Dr. Octavius Sturges, London; Mr. Henry F. White, Caxton; Dr. J. Macpherson, London; Dr Imlach, Liverpool; Mr. J. A. McMunn, Alderney; Mr. G. L. Crickmay, London; Dr. Althaus, London; Mr. G. C. Kingsbury, Blackpool; Dr. Walter G. Walford, London; Dr. Styrap, Shrewsbury; Dr. Vivian Poore, London; Dr. W. P. Watson, Jersey City; Mr. Robert Gray, Armagh; Mr. R. H. Woodhouse, London; Mr. D. G. Bennet, Edinburgh; Mr. M. A. B. Corbin, Guernsey; Messrs. Harrison and Spooner, London; Dr. G. Ernest Herman, London; Dr. R. W. Leftwich, London; Dr. David Newman, Glasgow; Dr. W. S. Paget, Liverpool; Mr. I. Law, London; Mr. Thomas Keith, Edinburgh; Mr. Timothy Holmes, London; The Honorary Secretaries of the Hospitals Association; Mr. A. W. B. Fadyen, Lochinver; Mr. W. Hamilton Allen, Bardney; Mr. H. Charlesworth, York; I. T. B.; Mr. Alexander Towne, London; Mr. Sidney Barwise, Birmingham; Dr. J. D. Hayward, Liverpool; Mr. W. Thomson, Dublin; Mr. Shirley F. Murphy, London; Mr. H. Lewis Jones, London; De Vrij's Cinchona Liquida Company, London; Mr. Henry Humphreys, St. Leonard's; Dr. Atthill, Dublin; Dr. J. J. Charles, Cork; Dr. Hime, Buncrana, co. Donegal; Mr. Charl Arnison, Stanhope; Mr. J. F. Briscoe, London; Mr. J. W. T. Moore, Birkenhead; Mr. W. W. Fenton, Tallon; Dr. Bond, Gloucester; Dr. Fancourt Barnes, London; Our Liverpool Correspondent; Our Manchester Correspondent; I. Neale, London; Dr. Simpson, Aberdeen; Messrs. Bonny and Small, London; Dr. Cullimore, London; Mr. A. E. Ferns, Stockport; Mr. F. W. Lownd, Liverpool; Mr. Bernard Roth, London; Mr. Lawson Tait, Birmingham; Mr. F. A. Southam, Manchester; Mr. Wheelhouse, Leeds; Our Belfast Correspondent, etc.

BOOKS, ETC., RECEIVED.

The Student's Guide to Diseases of Children. By J. F. Goodhart, M.D. London: J. and A. Churchill. 1885.

Practical Anatomy; A Manual of Dissections. By C. Heath, F.R.C.S. 8 Edition. London: J. and A. Churchill. 1885.

The Year-Book of Treatment for 1884. London: Cassell and Co. 1885.

The International Encyclopædia of Surgery. Vol. V. London: Macmillan Co. 1885.

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THE BROWN LECTURES
ON
PATHOLOGY.

Delivered at the University of London, December, 1884.

By VICTOR HORSLEY, B.S., M.B., F.R.C.S.,
Brown Professor of Pathology to the University.

ECTURE II.—THE THYROID GLAND: ITS RELATION TO THE PATHOLOGY OF MYXŒDEMA AND CRETINISM, TO THE QUESTION OF THE SURGICAL TREATMENT OF GOÎTRE, AND TO THE GENERAL NUTRITION OF THE BODY (*continued*).

my first lecture, I gave a picture of the clinical appearances oduced simply and solely by the operation of thyroidectomy. I ist now briefly describe the *post mortem* changes, as they are found er death, whether natural, or accelerated a few hours by bleeding. id, in so doing, permit me to draw your attention to the striking emblance between them and those first described by Dr. Ord.

Rigor mortis appears at about the usual time, and persists normally. On turning back the skin in an animal that has lived more than one nth after the operation, the subcutaneous connective tissue is found be notably altered. It is swollen, jelly-like, bright and shining, and essively sticky; the latter quality is most unmistakable. I have de many hundred *post mortem* examinations in man and the lower mals, and do not remember having met with this condition before.

The increase of the connective tissue is most marked in the triangles the neck, and over the hypochondria. In one case it was continued o the muscles, so as to be obvious to the naked eye, and in this tance (the only one) the muscle contained a trace of mucin. In ning the cavities of the body, the same thing is observed in the se tissue of the mediastinum and in the omentum; also especially ng the coronary arteries and auriculo-ventricular groove. With ard to the distribution of fat in the increased tissue, it is, as a rule, ophic; in some cases it has completely disappeared from the grooves he heart, producing exactly the same appearance as may be seen in ldren who have suffered from a prolonged wasting disease. In one e, in which it was not all gone, it was of a deep orange-colour, and ler the microscope it could be seen that the oil-droplet in almost ry vesicle (every one in the bone-marrow) was breaking up into eral major portions and innumerable small droplets crowding the toplasm of the fat-cell. Clearly these were atrophic changes.

n the fat which normally should occupy the auriculo-ventricular oves and accompany the coronary arteries, the appearances of phy are most striking, as seen in the microscopic specimens before ; namely, removal of the fat and wasting and disappearance of the cell; and the result is that we have left merely the connective tissue leton of each lobule, with its wonderfully rich network of capillary sels, forming a convoluted mass.

The changes in the connective tissues may, therefore, be summed up hypertrophy of the fibrous elements, coupled with mucoid trans-nation of the ground-substance, and, at the same time, atrophy of fat.

The *serous membranes* have been incidentally referred to.

have never observed any change in the *bursæ*, but, in two cases, e found congestion of the synovial membrane in the *larger joints*, no effusion into the same.

The *bones and cartilages* appeared unaltered to the naked eye, as the marrow, which, as a rule, showed numerous leucocytes, con-ing hæmoglobin; but in one case these were rare, and in the tinous marrow, from a dorsal vertebra of the same animal, there corpuscles of a distinctly myxomatous or mucoid appearance.

lthough the *muscles* were the seat of the active tremors described, et nothing more than increase of connective tissue has been ob-ed in them.

he organs of the *circulatory system* partake of the general changes bvious in the connective tissues and in the sections of the heart bited; the changes in the connective tissue surrounding it, re-d to above, are well seen.

he *respiratory organs* appeared perfectly normal, except in one where there was distinct œdema of the middle lobes of the lung.

he *alimentary canal*, naturally the large mucin-secreting surface he body, as has already been shown, undergoes extensive change, the parotid and submaxillary glands are found, *post mortem*, to nsiderably increased—three to four times the normal size; the ing consisting of a semitranslucent pale enlargement of all the lobules of the gland. From the cut surface a sticky glairy fluid exudes, quite the reverse of the healthy secretion. This is, of course, most striking in the parotid gland, which normally secretes a watery serous saliva, but in this case has, as it were, been pressed into the service of excreting mucin. In the instance of the submaxillary gland, we have rather an exaggeration of a more or less normal state of things. Microscopically, this is definitely proved. The parotid cells are swollen by mucinogen, or a substance closely resembling it, and, in extreme cases, are destroyed, in a way similar to the destruction (temporary, it may be) of the intestinal goblet-cell.

This extraordinary, and, so far as I know, novel state of things, is fully borne out by Dr. Halliburton's chemical analysis of the organs in question. You will see from this table that, whereas from the normal parotid no mucin could be obtained, in the myxœdematous gland an average quantity of 1.21 per 1000 was found; and, for the submaxillary, the numbers are, .01 per 1000 for the normal, and 4.6 per 1000 for the diseased condition. So you see there is an enormous increase of mucin in these organs, as the result of extirpation of the thyroid gland. To put it more clearly, perhaps it would be better to say that the increase of mucin in the connective tissue generally over the body is three to four times the normal amount, but in the parotid it is one hundred and seventy times at least.

Table of Analysis of the Tissues showing the Amount of Mucin before and after Thyroidectomy.—By W. D. HALLIBURTON, M.D.

——	Skin. Subcut. Tissues.	Tendon.	Muscle.	Parotid Gland.	Submaxillary Gland.	Blood.
I. Normal.						
Monkey No. 1*a*	.89	.39	0	—	—	0
,, ,, 9	.9	.5	0	0	.01	0
II. *Abnormal after Thyroidectomy.*						
No. 1 lived 55 days	3.12	2.55	0	.72	6.0	.35
,, 3 ,, 32 ,,	—	—	—	—	—	Trace
,, 5 ,, 49 ,,	2.3	2.4	Trace.	1.7	3.3	0.8
,, 10 ,, 7 ,,	.45	.904	0	Trace	.16	Very small trace.

The mucous membrane of the whole intestinal tract appeared swollen in three cases, and in all it had a semitranslucent appearance; but there was observed four times an exaggerated secretion of mucus in the excreta from the bowel, in one case the mucus forming tenacious strings.

So much has been made of the swelling of the tongue in human myxœdema, that I must briefly notice its condition in the artificial affection. In the monkey, this organ is normally of large size, and occupies the greater part of the mouth-cavity. It is, therefore, difficult to say whether it is swollen or not; but I am inclined to think it is, since its outline is much rounder and fuller than in a healthy animal.

Perhaps the most interesting change in the abdominal organs is the swelling of the spleen. This, *post mortem*, is found to be hypertrophy of the whole organ, which is simply increased in size, and of a perfectly normal appearance.

The remaining abdominal viscera show little change beyond pallor.

Considering the profound nature of the nerve-symptoms, it might be expected that considerable changes would be found in the *central nervous system*; but, as a matter of fact, the naked-eye appearances of such change are simply those of anæmia and atrophy. The brain and spinal cord are very pale, and the sulci of the cortex cerebri are deeply marked, the meshes of the pia mater being distended with fluid. In short, there is some wasting of the convolutions.

Owing to the short interval of time that has elapsed since the death of those animals which showed most marked symptoms, it has not been possible to prepare sections of the tissues; consequently, I must leave this point undecided as regards the nerve-centres. But you will see that in one case, in which the symptoms were extremely marked, the animal dying in a week, there are no very obvious changes.

The *peripheral nervous system* shows no change to the naked eye; and, microscopically, both the cervical sympathetic and musculo-spiral nerves are evidently quite normal, as you may see in the specimens exhibited.

The importance of these elementary facts will be obvious directly.

We may sum up, then, this somewhat tedious list of tissue-change

in the following way. Ablation of the thyroid causes atrophic changes in the central nervous system, and in the fat generally. It causes an increase in the general connective tissue, and a mucoid conversion of the ground-substance. This increase of mucin in the connective tissue is accompanied by an extraordinary secretion of the same stuff by means of the salivary glands, and also those of the alimentary canal.

While these changes are being wrought in the skeletal and alimentary structures, the hæmapoietic tissues are found to have undergone an obvious compensatory hypertrophy.

We are now able to review the theories which have been put forward to explain the symptoms of myxœdema, cachexia strumipriva, and cretinism; and first let us show you how, in these diseases, the chief symptoms are exactly like one another, as set forth in this table.

Comparison of Symptoms.

	Cretinism.	Myxœdema (Ord).	Cachexia Strumipriva, (Kocher).	Cachexia after Thyroidectomy
Central Nervous System: Intellect: Ideation (1) abstract	Diminished	Diminished	Diminished	
Intellect: Ideation (2) concrete	Tardy cognition	Tardy cognition	Tardy cognition	Tardy cognition
Emotions	Diminished	Diminished	Diminished	Diminished
Motion	Paretic	Paretic	Paretic	Paretic
,,	Epileptic	Tremors	Tremors and tetany	Tremors
Sensation	Tardy appreciation	Tardy appreciation	Tardy appreciation	Tardy appreciation
Face	Immobile	Immobile	Immobile	Immobile
,,	Broad and thick	Broad and thick	Broad and thick	Broad and thick
Hands and feet	Broad and thick	Broad and thick	Broad and thick	—
,,	Cold	Cold	Cold	Cold
Skin and hair	Dry and atrophic	Dry and atrophic	Dry and atrophic	Atrophic
,,	Puffy	Puffy	Puffy	Puffy
Blood	—	Oligæmia	Oligæmia	Olgæmia
Urine	Normal	Normal	Normal	Normal
Temperature	Low	Low	Low	Low
Mode of death	—	Coma	Coma	Coma

Cretinism, as is well known, has been attributed to every cause except destruction of the thyroid. Chalky water, damp close air, miasma, insufficient food, etc., and hereditary influence, have all been credited with the power of causing the imbecile condition which is so familiar to everyone. So strongly prevalent was this idea, that the Commission (*Rapport*) instituted in 1845 by the Piedmontese Government came to the conclusion that cretinism and goître were "essentially distinct," and that "their frequent coexistence in the same locality is due to a simple coincidence." First, it was ably urged by Fodéré (*Traité du Goître et Crétinisme*, Paris, an. iii) that cretinism owes its origin to the same remote cause as goître; and both Tourdes (*Gazette Hebdomad.*, tome i, p. 784—a review of his work) and himself saw in the heredity of cretinism and goître a strong proof of this position.

I think it will be scarcely necessary for me to go at greater length into this question, having pointed out the identity of the symptoms; but I must add the conclusions of Baillarger (Enquête sur le Goître et le Crétinisme, *Recueil des Travaux du Comité Consultatif d'Hygiène Publique*, tome ii, 1873) that three-fourths of cretins were goîtrous, while the endemic character of the one condition varied with the endemic intensity of the other. Baillarger's facts show most clearly that we have every degree between the two conditions, seeming to indicate that the gradual destruction of the thyroid gland by disease determines the cretinous condition.

It is not necessary for me to quote Dr. Ord's lucid description of myxœdema; but, for comparison, let me show you, on the screen, photographs of a myxœdematous patient, for which I am greatly indebted to Dr. Lunn. It is impossible to adduce stronger evidence on this point than that derived from the study of congenital cretinism, as we find it occurring sporadically in England. Through the great kindness of Dr. Fletcher Beach, of Darenth Asylum, I here show you a photograph of one variety of the affection; namely, that described by by Dr. Hilton Fagge, in which condition the thyroid gland is almost invariably absent, or, as in one case, the seat of a new growth. These are the cases in which, although, no doubt, there is a congenital predisposition to the change, the symptoms often appear or are only noticed after birth, and in which general hypertrophy of the connective tissues in the posterior triangle gives rise to the so-called fatty tumours in the ne

I cannot refer to congenital cretinism without showing you this photograph of a specimen in the Royal College of Surgeons (for leave to exhibit which I am indebted to Mr. Stewart); namely, the truly congenital form which has been described by Dr. Barlow and Mr. Bowlby. So far as I know, none of these infants have been born alive; and in this one, at any rate, there was a well marked thyroid gland; so, whether this be quite of the same nature as those I have been describing, must be left undecided; but I show it here to make the series of possible varieties complete.

Whether the endemic disease of the gland is primarily produced by unwholesome water, food, or air, still remains a mystery, and does not immediately concern us; my only object in giving these details being to show you the strong probability in favour of the cretinous state being dependent upon destruction of the thyroid gland.

From cretinism we will now turn to the remaining conditions in which we know the fact in common to be the total disappearance of the thyroid gland. But, although I lay stress on this point, and hope I have shown evidence in support of its being the true causative influence determining the diseased condition, I shall now proceed to show you that the causation of myxœdema has been attributed to utterly different influences; and the distinguished discoverer of the cachexia strumipriva has published a view of the mechanism of the condition which leaves out of sight the function of the thyroid gland. We will examine these theories in the light of my experiments; for, as I have shown you in full detail, all the pathognomonic signs which I have observed follow directly as the consequence of simple excision of the thyroid gland.

To take the cachexia strumipriva first, Kocher shows that, after total excision of the diseased thyroid, there follow invariably the symptoms of myxœdema, precisely the same as I have described in the first lecture, even including tetany and fibrillations in the muscles; but he argues, with apparent force, that these are the physiological symptoms of chronic asphyxia, due to narrowing of the trachea, consequent on softening and atrophy, produced by ligature of the arteries supplying it, the ligaturing of the vessels being performed at the time of operation; for he has shown by injection, what has really been known many years, that the thyroid arteries supply the trachea and part of the gullet also. A little consideration will make it obvious at once, that this view is completely untenable in the light of innumerable cases in which there exists marked stenosis of the larynx and trachea, but not a symptom of myxœdema. A final proof lies in the fact that I have always found the larynx and trachea absolutely normal and patent; we will, therefore, not consider this further, but pass on at once to the next theory, which originated with Dr. Hadden (*Brain*, vol. v, p. 188, 1882), namely, that the myxœdematous state and malnutrition was brought about by a primary general spasm of the arterioles and capillaries, the spasm being maintained by central disturbance in the sympathetic ganglia, and possibly in the medulla oblongata. This view regards the atrophy of the thyroid body as due to the constriction of the blood-vessels, and, therefore, of secondary importance. Accepting this view as probably the correct one, Kocher and other authors have assumed that, in the operation of thyroidectomy, the sympathetic nerves are injured and irritated by being included in the ligatures placed on the vessels. But Schiff (*loc. cit.*) found that, if he exposed the gland and divided the nerves going to it, the symptoms did not follow; although, from his method there must have been considerable irritation of the nerves. Further, by my method, I fail to see that there was any more than a momentary irritation, as the nerve was divided, and, microscopically, the sympathetic trunk and ganglia appear to be absolutely normal.

I show specimens of sympathetic ganglia from cases of myxœdema which I owe to the kindness of Dr. Hale White, which certainly indicate an increase of connective tissue; but that may be part of the general increase throughout the body.

As to the medulla oblongata, I can find, microscopically, no change in it as yet, but my observations are not complete on this point.

There remains, then, the theory that these varieties of a general state of malnutrition are due to the loss of function of the thyroid gland.

I have placed this last, as, to my mind, the explanation *par excellence*. And it is gratifying to find that Dr. Ord in his, the first accurate, description of this condition, drew attention to the diminution, indeed destruction, of the thyroid gland.

This very point has been called in question quite lately; and it seems to me that the possibility of our having to deal with various degrees of this peculiar malnutrition has been entirely overlooked. Further, although a thyroid body may be discovered *post mortem*, it will require a great deal more research before we can admit that it is in full normal function. Here is such a specimen, lately remo

om the patient of whom I just now showed you a photograph. The nalysis of his tissues is not complete, but he presented many of the lassical symptoms; and a full report of the case will subsequently e given by Dr. Larder.

No one could be prepared to formulate a theory of the full patho-gy of the conditions I have been describing in the present state of ie subject, but certain facts are so striking, that it will, perhaps, aid t further investigation if they are enumerated in a tabular form—rst the anatomical, and then the physiological.

1. The thyroid gland appears to consist of two distinct portions; (*a*) andular, consisting of highly vascular acini, which excrete into their terior a mucoid substance, this substance, or something closely milar, being found in the lymph-vessels of the gland: mucin-exeting function? (*b*) highly vascular lymphoid nodules: hæmatoinous function.

2. Excision of the gland is followed, according to my experiments, r an increase in the amount of mucin in the tissues which normally ssess it, by a retrograde histological change, by an increase in the tivity of the glands which normally secrete it, and (what is still ore striking) by the assumption of the muciparous function by a nd which normally produces none, or very little, mucin—by the rotid gland.

3. Excision of the gland is followed by profound changes in the ood, namely, a diminution in the number of corpuscles, preceded, as gards the white elements, by a temporary increase in their number, an alteration in the coagulability and albumins, and by an abrmal presence of mucin. (The latter facts were discovered in my ecimens by Dr. W. D. Halliburton.)

4. Excision of the gland is followed by nerve-symptoms, indicating anges in the lowest motor centres, these changes causing tremors, th rigidity and paresis; it is also followed by changes in the higher ycho-cortical centres, such producing imbecility, and, ultimately, ath in the comatose state.

It would obviously be absurd to assert at present any more than at the primary lesion is thus proved to be the loss of the thyroid nd, and that the symptoms are probably directly due to that, even through the intervention of the nervous system, for I am far from shing to exclude the possibility of a vaso-motor or trophic change ng the immediate cause of the alteration in the connective tissues; t the evidence here collected seems to clearly show that disturbance the nerve-centres, which leads to such vaso-motor or trophic change, irectly caused by the loss of the thyroid body.

Moreover, in using the expression "loss of the thyroid body," I an loss of its functional activity; and personally, I believe, in se cases of well marked myxœdema where a thyroid body is found, ether anatomically altered or not, that it is not acting normally. t it is impossible to put out of sight without further reference the nation of a mucinoid body, namely, the acini of the thyroid on the hand, and the increase of mucin in the tissues after thylectomy; and if we find at the same time that the muciparous ids have much increased their action, the question arises whether have not to do with the simple case of total removal of an exory organ, with the usual result of death.

his view receives the strongest support from further experiment. me lobe be excised, the other hypertrophies. If this enlarged half ow removed, the animal presents many of the symptoms described; Schiff (*loc. cit.*) states that, provided an interval of about three ks elapses between the operations, the symptoms do not appear, or ny rate are not fatal. It is doubtful whether we can trust this rvation, but at any rate we can understand the symptoms being h mitigated, as time will have allowed the spleen to provide for hæmopoietic function of the gland.

eyond this, it would be unscientific to speculate further; and, having red that the thyroid gland is one of the most important structures e body, I shall conclude the subject by discussing the original object y research, namely, the proper surgical treatment of goître.

utting aside the rare condition of inflammation of the gland, h must be treated on general principles, we find that there are tically three groups of conditions which call for treatment, ely, (1) hypertrophy, or more correctly adenoma, with or without amount of cystic degeneration and fibroid overgrowth; (2) cystic se; (3) malignant new growth. As to the last condition, it may isposed of at once by saying that, whether only palliative or not, excision is the only treatment.

ypertrophy or adenoma must necessarily be considered under the headings of exophthalmic goître and ordinary goître. Excision e tumour, or of part of the tumour, is said to have cured one of the former, and partial excision is perhaps the only treatment h holds out a possibility of cure.

The operative treatment of ordinary goître, whether cystic or adenomatous hypertrophy, is summed up most briefly under the headings injection and excision; one or the other of which is rendered imperative by the failure of general treatment, with iodine internally and externally.[1]

Injection may be simple, or combined with laceration of the tumour-substance by the point of the needle, as practised first by Billroth; this, however, is so dangerous, by reason of secondary inflammatory consequences, that it should be abandoned.

The danger of simple injection is only one, it is true, but extremely serious, namely, sudden death. This has been usually attributed to the fact of the cannula piercing a large vein, and then the injection of air into it. But it seems to me that practically this can rarely happen, for there are few surgeons who would ever inject fluid into a cavity without, as a matter of routine, expelling the air from the syringe; and, even if this were not done, the available air would be under a cubic inch, considerably less than what Mr. Erichsen's experiments on dogs showed to be necessary to cause death. I believe the real cause of death is the injection of the iodine or ferric chloride-solution into one of the enormously large veins, with instant thrombosis of the right side of the heart as a consequence. I here show you the heart of a dog, into the external jugular vein of which (while it was under ether) I injected fifteen cubic centimètres of tincture of iodine. The death from cardiac paralysis was instantaneous, and the reason was obvious on the immediate *post mortem* examination; namely, complete plugging of the right cavities with hard clot, which looked as if it were weeks old, instead of a few seconds. It might be supposed that death followed irritation of the medulla oblongata by the circulation in it of the iodine, but a previous injection of five cubic centimètres had no immediate effect on the respiratory centre, the most delicate in the bulb.

Avoidance of this awful accident would seem to be perfectly easy by following the rule of Demme (Gerhardt's *Handbuch der Kinderkrankheiten*, Art. Krankheiten der Schilddrüse, 1878); namely, to test the possibility of having wounded a vein by waiting after the puncture for a flow of blood to indicate the same before injecting the fluid.

The treatment by excision of the tumour is thus the last and the most important part of the whole subject, as having really aroused a sense of the importance of the thyroid gland.

It will be perfectly obvious from what has been said before, that, under no circumstances, is it justifiable to excise the whole gland for the ordinary adenomatous or firm cystic goître.

Portions of one lobe, or the whole of one lobe, may be removed, as has often been done with perfect relief to the patient; but there is an operation, introduced into English practice by Mr. Sydney Jones, which appears to combine all possible advantages. I mean excision of the isthmus of the gland itself. In a letter which Mr. Jones kindly wrote me, he states that this simple operation is performed by removing the isthmus between silk-ligatures; and that it is followed invariably by shrinking of the goître, and no myxœdematous symptoms. This is what might have been expected from *a priori* reasons; and seeing that the operation mechanically liberates the trachea, relieving simply the symptoms of dyspnœa, it appears to me to be so obviously the least objectionable in the view of recent discoveries, as to claim a first trial before the part or whole of one of the lobes is removed.

As regards excision of cysts, there can, of course, be no objection to such treatment, as at the most it only corresponds to the excision of part of a lobe.

Considering the attention now given to the subject of the thyroid body generally, we may hope ere long to find many of the doubtful points solved; but I trust that I have brought before you fair evidence to show that cretinism, true myxœdema, cachexia strumipriva, and the cachexia after thyroidectomy in animals, are simply the symptoms following the loss of the function of the thyroid gland.

[1] In passing, I would note the existence of primary symptoms of myxœdema in patients the subjects of ordinary goître. In a lady under my care, I have found all the characteristic symptoms enumerated above, which are disappearing as the goître is diminishing.

SUPERANNUATION.—Mr. George Bland, late medical officer and public vaccinator for the Eastchurch district, and the workhouse of the Sheppey Union, has obtained a superannuation allowance of £50 a year.

BEQUESTS.—Miss Elizabeth Roe has left £500 to the Adelaide Hospital; £200 to the Hospital for Incurables; £200 to the Convalescent Hospital, Stillorgan; £200 to Rathdown Hospital; and £200 to the Stewart Institution for Imbecile Children.

THIRTEEN CASES OF HYSTERECTOMY, WITH REMARKS ON CARBOLIC ACID SPRAY IN ABDOMINAL SURGERY.

By THOMAS KEITH, M.D.Edin.,
Surgeon for Ovarian Diseases, Royal Infirmary, Edinburgh.

In the British Medical Journal of December 8th, 1883, notes are given of all my cases of supravaginal hysterectomy, twenty-five in number.

During the past year, other thirteen cases have been operated on, bringing the number up to thirty-eight hysterectomies, with three deaths. Besides these, both ovaries were removed twelve times to check the growth of bleeding fibroids. These were successful operations, more or less benefit having in every case already resulted. In only one has menstruation continued. In that case, a fragment of ovarian structure was left closely adherent to the tumour, and over that part there is still pain at intervals. The tumour is, however, much smaller, and the patient's general condition is better than before. In every case one menstrual period came on, generally beginning on the third day. In upwards of sixty operations of double ovariotomy that I have performed for disease, in only a single instance, to the best of my knowledge, has menstruation recurred regularly, and in that case, also, part of one adherent ovary was left behind.

Thirteen Cases of Hysterectomy.

		Date of Operatn.	Age.	Weight.	Description of Tumours, Adhesions, etc.	Result.
				lb.		
26	Infirmary	Dec. 1883	38	7	Ovaries could not be removed; broad ligaments opened up	Recovered
27	Infirmary	Feb. 1884	43	10½	Bleeding fibroid; adhesions; much enucleation	,,
28	Dr. Woolston	Feb. ,,	39	1	Bleeding fibroid; ovaries could not be removed	,,
29	Infirmary	Feb. ,,	43	4	Subperitoneal; very extensive enucleation; ovaries could not be removed	Died
30	Infirmary	May ,,	58	13	Solid fibroid; entire growth since menstruation ceased; whole uterus removed	Recovered
31	Dr. Parker	July ,,	29	19½	Broad ligament opened up; much enucleation; adhesion to colon	,,
32	Dr. Somerville	July ,,	34	12	Omental and intestinal adhesions; much enucleation; broad ligament opened up	,,
33	Infirmary	Aug. ,,	46	9¼	Solid tumour	,,
34	Infirmary	Oct. ,,	44	9	Solid bleeding fibroid	,,
35	Dr. Rodger	Oct. ,,	29	17	Omental adhesions; solid fibroid	,,
36	Dr. Miller	Oct. ,,	28	13	Fibrous-cystic tumour; entirely subperitoneal	,,
37	Infirmary	Nov. ,,	34	16	Firm and extensive adhesions to wall, omentum, stomach, and diaphragm	,,
38	Infirmary	Nov. ,,	31	2½	Bleeding fibroid; ovaries could not be removed	,,

In the cases of the small tumours—that is, tumours under nine pounds—the operation was begun with the intention of doing no more than removing the ovaries. In nine of the whole number, I failed to find one or both, or, having found them, was unable to remove them, or felt that there was so much risk in the attempt, that it seemed safer to go on and remove the uterine tumour altogether. In those cases where the removal of the ovaries was successfully accomplished, an incision just large enough to admit two fingers was, with some patience, all that was necessary. When that failed the wound was enlarged, and even after introducing the hand, and sometimes turning out the tumour, the satisfactory removal of the ovaries could not be accomplished.

In case 28, on applying a ligature to one ovary which was close on the tumour, the silk thread went right through the tissues, cutting the ovary clean off, and leaving a hole in the side of the uterus, the hæmorrhage from which could only be arrested by the removal of the tumour. Indeed, I know of no operation that may be liable to so many accidents as the removal of an uterine fibroid, or the interfering with it in any way. In this case, the parts were strangely soft and friable, tearing on the least handling, so that, in fixing the cervix, I was afraid to screw up as tightly as usual, for the wires threatened to cut through. The consequence was that free bleeding soon came from the stump, and, when I was sent for five or six hours after operation, there was a pile of blood-clot between the thighs; all the dressing had to be removed, and a few turns of the screw stopped the oozing.

We have thus to do with the results of fifty operations for the cure of fibrous tumour. The list contains every case of uterine fibroid that I have ever in any way interfered with by abdominal section. So far as I am aware, the results of these supravaginal hysterectomies are the best that have yet been obtained; and, as these are my first cases of this operation, it is only reasonable to suppose that the mortality will become lower by a longer experience. It seems to me that the reason of this comparative success lies in the fact that no operation was done unless there appeared to be some strong necessity for the doing of it. The tumours were generally large, the patients had suffered, and were more or less broken down, by pain and hæmorrhages. No one was operated on in good health or in good condition. No case of pedunculated tumour was ever meddled with, simply because I do not consider that operations are necessary for such cases. Almost all were done on account of repeated hæmorrhages and ruined health. The time chosen for operation in the feeble ones—and most of them were feeble—was a day or two before menstruation was expected. The tumour might perhaps be then at its largest, but the patient had regained more or less force from the losses of the previous period.

The fatal case in this series is a typical one of the way in which, with one or two exceptions, my fatal cases after abdominal operations have died for some years past. Death seems to begin from the hour of the operation, or rather during it, before even the patients are placed in bed. There is a cold surface, a rapid feeble pulse—150 to 180, and this never comes down till they die. This patient was a soft, pallid, unhealthy woman from Shetland, never strong, and always ill fed. She had many scars of old strumous sores in her neck, hands, legs, and arms, whence pieces of dead bone were removed in her youth. When she first came to the Infirmary, she was so feeble, from long drenching hæmorrhages, that the menstrual periods were a succession of fainting attacks, and she often looked as if she would die. After some time, she was sent to the country, and was well fed and cared for She improved, but the pulse remained feeble, sometimes scarcely perceptible. She was 43 years of age, and at first was advised, if possible to fight on without interference till the menopause. She was unwilling to return home after having come so far. She was long about the Infirmary, and had seen many come, and go away well. So it was agreed to remove the ovaries. There was no encouragement to remove the tumour, which came down into the pelvis without any cervix. It was scarcely movable, and both broad ligaments were opened up. As she went under the ether, she begged me to take away everything, if at all possible, for she would rather not live as she had been for long. Unfortunately, neither ovary could be found. The wound was enlarged, to admit the hand; the left was then felt very low down and adherent. It could not be got at so as to apply a ligature round it. The tumour itself was enveloped by the broad ligaments, and was entirely subperitoneal. The bladder covered its anterior surface, and it could only be partly pushed into the wound by strong pressure from the vagina. After much trouble, the tumour was enucleated out, and wires placed as low as possible. The base could not be properly fixed outside, and, while trying to arrange this, a very large uterine artery below the wire was injured, and could only be secured by retaining on it a pair of locking forceps. She was cold and pulseless when put to bed. By evening the pulse was 160, but scarcely to be felt. This continued all next day, the temperature not rising above 99°. With stimulation, she lived into the next day.

I have no one way in dealing with the attachments of uterine tumour. At present, each case must be a law unto itself, and of the part of the operation there is much to be learned. A few of the simpler cases may be treated entirely extraperitoneally. General the broad ligaments must be left inside; and sometimes the whole attachment, when there is much enucleation, must be so treated. Sometimes the treatment may be entirely intraperitoneal by means of Kœberlé's *serre-nœud*, or it may be half intra- and half extra-peritoneal. These cases require much care in the after-dressing, though the convalescence is much shorter than when the whole is left outside. I am hopeful that the cautery will yet be the best and safest of all the methods of dealing with some of these tumours. The more I use it in ovariotomy, the more I like it. It is simply perfect, and its employment seems to me to be "a higher exercise of our art" than the ligature, which, apart from the chances of hæmorrhage, embraces many times the amount of tissue that is really necessary. That a more perfect way will soon be found I have little doubt. This will do as much for uterine tumours as Baker Brown's intraperitoneal method has done for ovariotomy ever since 1864.

In two of these operations, and both were amongst the early ones

done many years ago, there was a mistake of diagnosis. The tumours were supposed to be ovarian, and were not recognised to be uterine till the abdomen was opened. Both patients recovered. In all the rest, a careful and correct diagnosis was made.

I often ask myself the question, Does a mortality of 8 per cent. justify an operation for a disease that, as a rule, has only a limited active life, that torments simply, and that only for a time, though of itself it rarely kills? The mortality of an ordinary uterine fibroid, if left alone, is nothing approaching a death-rate of 8 per cent. Most of the cases on which I have operated were known to me for years before; only the extreme cases were done; in nearly all, the lives were useless, and the risk of operation was clearly understood. Considering the nature of the cases, it seems to me that these operations were, perhaps, justifiable; and, if these were barely justifiable, what can be said of those ghastly lists of hysterectomy where the mortality is one death in every two, one death in every three, or even one death in four or five. Dr. Bigelow, of Washington, has lately collected all the cases placed on record up to March 1884. At best, this must be an imperfect list, and can only show the least bad side of the operation. Of 359 operations done by 16 of the most successful operators, there were only 227 recoveries and 132 deaths, or a greater mortality than one of every three operated on.

As in ovariotomy, I have long ago given up the use of carbolic spray during these operations. In only 6 of these 38 was it employed; one of these died. There was blood in her urine the next day; the day after, albumen, and then came an attack of acute mania, from which she died. Of 32 done without spray, there were two fatal cases, and both died from exhaustion. In truth, there is nothing in all my work that has so thoroughly broken down with me, as the carrying out of the so-called "perfect Listerism" in the surgery of the abdomen, by means of the carbolic spray. I expected much, but have got nothing, after years of vexation and disappointment; and I am now very much where I was before I ever heard of it. My results in ovariotomy were 1 in 26 just before I began the spray. They are almost the same now, since it has been given up. It is true that there was a long series of success, and, at the time, I thought that this was due to the use of the spray, and not to the steady use of the cautery, as I now think that it was. There were 80 consecutive cases of recovery—that means 2 deaths in 82, or 1 in 41. But of the whole number of 120 spray-cases, there were 7 deaths, or 1 in 17. In the Infirmary, the results were disastrous, 1 out of every 7 died. Fortunately, there were only 21 operations in all done under the spray; and my impression is—I may be wrong—that these would have lived had the spray not been used. Since the spray was abandoned, there have been done in the infirmary 88 ovariotomies up to this date, December 8th, 1884. These include cases done by the assistant as well as by myself. The number of deaths is 2, or 1 in every 44 operated on; neither of these died of septicæmia. In one—a very difficult case of large, very solid, tumour, opening up the broad ligament—the patient died a week afterwards of uræmic poisoning, the kidneys having secreted nothing for two days. The right ureter was found to be included in one of the many ligatures. This is the only disaster that has happened to me during the operation in fully 550 times that I have opened the abdomen for the removal of uterine or ovarian tumours. The other fatal case was that of a feeble woman coming out of a severe operation, with a pulse at 170; and it never fell.

In the BRITISH MEDICAL JOURNAL of the 28th October last, Mr. Thornton made the general statement that his results in ovariotomy establish the valuable protection afforded by the spray; and that, practically, septicæmia is removed from the causes of mortality in abdominal surgery; and he quoted certain experiments made by Professor Chiene on the atmosphere of his own wards in the Infirmary here, as also supporting the principle of the protection afforded by the spray. Mr. Thornton's operations were performed in the Samaritan Hospital, which is practically a private house, with every comfort. He had done 100 cases of ovariotomy with 3 deaths; that is, he had done 101 cases with 4 deaths. The results I have already given are even more favourable without the spray. Not that I think one or two per cent., on one side or another, is of much consequence in proving anything; for, when the percentage is so low, we get within the range of accidental circumstances. But, if septicæmia be banished in all abdominal surgery, what are the results, and what the cause of death, in the numerous operations for the removal of uterine fibroids that Mr. Thornton has performed? On this subject he gives no information; but Dr. Bigelow's tables tell what the mortality was. A death-rate of one in every three of fibroids of all kinds spoiled his protection-spray theory, and generally did not suit his purpose, though the readers of the JOURNAL were, all the same, left under the impression that the spray, etc., had banished septicæmia from all abdominal operations. It is said somewhere, as an excuse for bad results, that the antiseptic principle cannot be properly carried out in hysterectomy. Then what is the use of it? I have also read somewhere, as another excuse for fatal results, that, in cases of ovariotomy where the cyst has been previously tapped, the spray does not answer; and that the tapping—done, perhaps, long before—is to be blamed for the death. It is difficult to see why; for, in my hospital-cases, nearly one-half were previously tapped, once or oftener, before operation. Hysterectomy is a much more dangerous operation than ovariotomy; and an ovarian tumour, often tapped, generally presents greater local difficulties, and its removal is accompanied by a greater risk. Be this as it may, the fact is that we must look for greater success in hysterectomy in the developing of the technical methods of operating, just as Mr. Baker Brown did twenty years ago, when, by a simple change in his way of treating the pedicle of an ovarian tumour, he at once lowered the mortality of ovariotomy by two-thirds; only in this case the London surgeons would have none of it, but worked away on the old lines, losing one patient out of every three or four, while this great improvement really seemed to be wilfully neglected; and now, when the real discoverer of a perfect intraperitoneal method is long lying in his grave, they begin to wonder what Mr. Baker Brown really had to do with the advancement of abdominal surgery.

Those who teach that the carbolic spray in abdominal surgery is anything else than an useless ceremony can make of these results what they may. One thing is, however, certain; both ways cannot be the right way. If a "single germ," getting into the abdomen during an operation, play the mischief it is said to do, then few cases done in the old way ought to recover at all; whereas, in the heart of the very surgical hospital, and almost next door to where Professor Chiene tells us that the atmosphere is laden with death-carrying germs, less than one only out of every forty have died after ovariotomy. What is one to make of all these things? If Mr. Thornton gets a fatal result in every third case where he removes a uterine fibroid, with his complete and perfect Listerism, spray, and all the rest of it, am I to go back to these ways, when I get one out of sixteen without them? By no means. The antiseptic principle, which I believe in as much as anyone, can be carried out by simpler means than these; and, for myself, I have almost gone back to the boiled water and soda of twenty years ago. It is, unfortunately, a sad fact that, ever since surgery began, the great evil was done by the surgeon himself. It was the willing and tender, though unclean hand, that carried most of the poison into the wounds. It is to this that Lister has put a stop. With a proper antiseptic, a surgeon is now made to be clean in spite of himself, is compelled to have safe sponges, safe ligatures, clean instruments, and, above all, clean fingers. If one be careful enough—and few are careful enough—one may do all this, as Mr. Lawson Tait does, with boiled water and soda. Some such precautions are essential; beyond these, with ordinary care, we need not disturb ourselves much as to what is in the air. Yet it was a pleasant doctrine to believe in, to put the whole blame of a bad result that should not have been a bad result, upon some indefinite unknown something in the air—something beyond ourselves. It was no fault of ours; it could not have been helped. Everything was done that could have been done. I fear we are all apt to blame place, persons, things, accidents, circumstances—anything you like under the sun—rather than ourselves.

CLINICAL REMARKS ON A CASE OF PAROVARIAN DROPSY.

BY THOMAS OLIVER, M.D., M.R.C.P.Lond.,

Physician to the Infirmary, Newcastle-upon-Tyne, and Lecturer on Practical Physiology in the University of Durham College of Medicine.

THE possibility that a cyst occupying the position of an ovarian cystoma may be other than ovarian, is not, I think, sufficiently borne in mind by most of us. A short time ago, I was present at an operation for the removal of a cyst which was considered ovarian. The abdomen was enormously distended, the distension giving to the abdomen a peculiar square appearance. The patient, who had reached the period of middle life, had noticed the tumour seventeen years previously, after the birth of her last child. The abdominal wall was so very thin that the operator, with one or two scratches of the scalpel, went immediately through skin, an extremely attenuated layer of muscular fibre, peritoneum, and what afterwards appeared to be adherent cyst-wall. Forthwith there escaped perfectly clear thin fluid, clear as water. At first it was thought to be ascitic, but it was, in reality, the contents of the cyst; and, in all, fifty pints of fluid escaped. It

had a specific gravity of 1007, was neutral, contained a small quantity of albumen, leucocytes, and granular corpuscles. The wall of the cyst, which was extremely thin and transparent, was, with no great difficulty, peeled off from the parietal peritoneum. A careful examination by those who were engaged in the operation failed to detect a decided ovarian origin for the cyst; the pedicle could not be distinctly traced. Here the operation of abdominal section was performed for what might have been more easily and successfully treated.

On looking back upon that case, and with the knowledge gained from the similar treatment of others, I am convinced that the cyst was not ovarian but parovarian.

Dr. Matthews Duncan has, in his *Clinical Lectures*, furnished us with an admirable description of the disease in question, a disease which, as it is not very frequently met with, and when met with not always recognised, is worthy of our attention, seeing that we have a good illustration of it in the ward upstairs. I confess that I was a little puzzled with it at first, from its resemblance, in many points, to ovarian cystoma.

According to Quain, the parovarium, or organ of Rosenmüller, is composed of a group of scattered tubules lying transversely between the Fallopian tube and ovary, lined with epithelium, but having no external opening. It can be brought plainly into view by holding against the light the fold of peritoneum between these two structures. It is said to correspond to the epididymis of the male. Parovarian dropsy, then, is an accumulation of fluid within those tubules, remnants of a fœtal structure.

The history of our case is briefly this.

Mary McV., aged 24, was admitted into the Newcastle-on-Tyne Infirmary for an abdominal swelling. Though thin and pinched, she stated that she had always been a very healthy woman; that she was delivered of a male child at full time three weeks ago; and that, since then, her abdomen had become quickly, but painlessly, distended. During the latter months of pregnancy, her feet were swollen, a condition no longer present. It appears that a degree of swelling existed in the abdomen before she became pregnant. It was not localised, however, nor was its presence associated with pain. After the birth of her last child, the medical man who attended told her that there was fluid in the abdomen. Since then, it steadily increased, until, on measuring her the other day, we found that she was 39½ inches round the widest part of the abdomen—an enormous measurement for such a short spare woman.

Although the abdomen was greatly distended, there was neither complaint of pain nor of discomfort. The presence of such a large quantity of fluid in the abdomen caused her no discomfort whatever, other than from its weight. The symptoms were entirely objective. The abdominal walls, the skin of which exhibited a peculiar marbled appearance, vibrated with every pulsation of the aorta. The abdomen was absolutely dull on percussion in front, and also well back into each flank. On the patient being asked to sit up in bed, it was noticed that the dulness on percussion began at the xiphoid cartilage, and extended to the pubes. The area of hepatic dulness was inseparable from it. Over the whole of the abdomen, fluctuation was well marked; the slightest tap gave rise to waves of fluid, easily appreciated by the hand. There was no pain on pressure. On vaginal examination, the uterus was found to be perfectly healthy, and normal in position. Nothing could be felt behind or in front of the uterus, which was freely movable. Urine was passed rather sparingly; it had a specific gravity of 1030, and was not albuminous. Her appetite was fairly good. She could not understand why, with all this fluid in the abdomen, her general health was not disturbed. There was no vomiting. There had never been hæmoptysis nor melæna.

Although, at first sight, from the situation of the dulness, many points of resemblance to a case of ovarian tumour were presented, it was evident, on closer examination, that this suspicion could not be entertained; for the growth of the tumour was rapid; it was unaccompanied by symptoms, and an examination *per vaginam* failed to reveal the existence of anything positive. On the other hand, it was clearly not a case of ascites. It was an encysted dropsy of some description, for it did not alter, to any extent, on changing the position of the patient. The temperature was normal. Guided by the experience of Dr. Matthews Duncan, I asked the house-surgeon to tap the abdomen. Nineteen pints and three ounces of a pale greenish fluid, like ordinary serum, of low specific gravity, were removed. It contained a few red blood-discs, a few indefinite cells extremely granular and irregular in outline, and, in addition, numerous small pale crystals; some rod-shaped, others prismatic, and not unlike crystals of phosphate of lime. Numerous other crystals were noticed, greenish in colour and hexagonal in shape. These six-sided flat tablets resembled cystine—only they were thicker, were of a more decided tint, and were insoluble in strong ammonia.

From the very first, the patient expressed herself as relieved by the tapping. After all the fluid had been drained away, nothing could be felt in the abdomen. The patient made an uninterrupted recovery, and left the Infirmary a few weeks after. There was neither pain nor tenderness over any part of the abdomen.

As at first sight there seems to be a very close resemblance between the physical signs of ovarian cystoma and parovarian dropsy, it is well perhaps that the two should be contrasted; for while one is frequently cured by a very simple surgical procedure—tapping—the other is only cured by ovariotomy. In both, the dulness occupies, when the cyst is large, the anterior part of the abdomen; and in both there may be well marked fluctuation if the cyst be unilocular. It is seldom, however, that there is in ovarian cyst such well marked and general fluctuation as is found in parovarian dropsy. In the latter, the wave is very distinct; it is felt on the slightest tap, just as if immediately under the finger. Regarding the part of the abdomen where the tumour first appears, there is a good deal in common. If anything, pain, as an early symptom, is more likely to be present in ovarian cystoma than in parovarian dropsy. In their subsequent growth, however, an ovarian tumour will not only impress certain characters upon the facial expression of the patient—namely, a face pinched and expressive of suffering and anxiety, eyes sunken, brow wrinkled, and lips compressed, all this constituting the *facies ovariana*—but will give rise to a degree of abdominal uneasiness, if not of actual pain. Not so with parovarian dropsy. Its presence, from first to last, is unattended by pain, discomfort after eating, feverishness, or anything that can be called a complaint. Then, too, there is the fact that, while tapping as a rule cures a parovarian dropsy, it never cures that of the ovary.

Mr. Lawson Tait is inclined to think that too much stress is laid upon this last point. In most of his cases thus treated the operation had to be frequently repeated. He regards parovarian dropsies, however, as rarely giving rise to symptoms of any kind, especially symptoms of urgency. They are, comparatively speaking, harmless. They have been known to rupture during pregnancy, and their contents to be absorbed, without any bad symptoms following. The cyst is easily separated from its peritoneal investment. By this means there is revealed an extremely attenuated envelope, which is transparent compared to the dense white fibrous investment of an ovarian cyst. There is also a difference in the contents of the two cysts. Almost like pure water is the fluid taken from a parovarian cyst, of low specific gravity, 1005 to 1007, and containing just a trace of albumen—in my own cases not precipitated by heat alone—whereas the fluid of an ovarian cyst has a specific gravity of 1010 to 1025, is more or less ropy in consistence, and contains a large quantity of albumen. Although the limpid nature of the fluid and the other characters already mentioned are, by Matthews Duncan, Barnes, Edis, Galabin, and others, regarded as points of some value in the differential diagnosis of the two diseases we have been considering, yet Tait says he has met with fluid in parovarian dropsy just as gelatinous and grumous as any removed from an ovarian cystoma.

Given a case in which there was fluid encysted in the abdomen, with a history of its having been detected immediately after, or associated with, pregnancy, with an entire absence of symptoms when the localisation of the tumour is that of an ovarian cystoma, and also with negative result of a vaginal examination, the patient being young and otherwise in good health, then I should hesitate to give an opinion; and although it is a proceeding not to be recommended in ovarian cysts about which there is no doubt, one would be justified in inserting a hypodermic or exploratory needle into the cyst, and in this way, from the character of the fluid removed, some aid might be got towards a diagnosis. The three or four cases of parovarian dropsy which I have seen, have all been treated by abdominal section and removal, with the exception of the case now recorded; and, while most of them have been successfully treated by the major operation, a mode of treatment insisted on by Lawson Tait as the only method of cure, I am yet inclined strongly to believe, partly as the result of the milder treatment adopted in my own case, and the all but unanimous experience of most writers, that we have not as yet sufficient data before us to show that, in the treatment of parovarian dropsy tapping is useless, as some maintain, and abdominal section always called for. Their ease of removal as a rule, by abdominal section diminishes very greatly, it is true, the risks attendant upon such an operation; but we have still to learn to what extent tapping has failed in the treatment of parovarian dropsy.

At the Annual Meeting of the Bath Eye Infirmary held on the 23rd instant, an honorarium of £50 was unanimously voted to Mr. Mason the surgeon, for his valuable services, with an expression of thanks.

ON ONE HUNDRED AND FOUR ABDOMINAL SECTIONS PERFORMED DURING 1884.

Read before the Birmingham and Midland Counties Branch.

By THOMAS SAVAGE, M.D., M.R.C.P., F.R.C.S.,
Surgeon to the Birmingham and Midland Hospital for Women; Consulting Obstetric Physician to the Kidderminster Infirmary.

THE work in abdominal section undertaken by me during last year embraces a series of 104 operations, and these comprise all the cases which came under my immediate notice which I had the opportunity of operating upon. There has not been in the series the slightest attempt at selection of cases, such as choosing the most suitable, and rejecting those which did not seem to promise to be successful. Had there been such attempt, I should have had four deaths less to record, being deaths in patients upon whom I operated with the idea of giving them the slight chance of life which the operation afforded, knowing well beforehand how slight that chance was.

The following Analysis will show the Nature of the Cases.

	Recovered.	Died.
For cystoma of ovary:		
,, ,, one ovary	17	2
,, ,, both ovaries	3	—
,, myoma of ovary	1	—
,, parovarian tumour	4	—
,, dermoid tumour	2	—
Appendages removed:		
For chronic ovaritis	16	—
,, uterine myoma	11	—
,, metrorrhagia	4	1
,, hydrosalpinx	2	1
,, pyosalpinx	4	—
Supravaginal hysterectomy	7	2
For extra-uterine fœtation	2	—
,, ,, ,, acute peritonitis	1	1
Cholecystotomy for gall-stones	1	—
For tumour of kidney	1	—
Laparo-enterotomy for obstruction	1	1
For papilloma of peritoneum	1	—
,, retroperitoneal abscess	1	1
,, pelvic peritonitis	6	—
,, hæmatocele (opened and drained)	2	—
,, pelvic abscess ,, ,,	4	—
,, cyst of omentum ,, ,,	1	—
,, strangulated umbilical hernia	2	—
,, radical cure of ,, ,,	1	—
Exploratory operations:		
For uterine myoma	5	—
,, malignant tumour	3	—
,, neuralgia	1	—
Total	104	9

The Nine Deaths may be Analysed as follows:—

Nature of Case.	Cause of Death.
1. Cystoma (large)	Septicæmia
2. Hydrosalpinx	,,
3. Supravaginal hysterectomy	,,
4. Cystoma (large)	Asthenia
5. Acute peritonitis	,,
6. Intestinal obstruction	,,
7. Retroperitoneal abscess	,,
8. Metrorrhagia	Tetanus
9. Supravaginal hysterectomy	Granular kidneys.

Two of the above deaths followed removal of cystoma. In one, the operation was performed as a last resource. It was scarcely thought possible for the patient to recover; she was bringing up nearly black vomit at the time of admission into hospital, and her tongue was quite dry and brown. She died on the eleventh day. Her abdominal symptoms appeared to be quite normal throughout the time from operation to death. As she appeared to be dying from asthenia, I tried, at the suggestion of Dr. Taylor, the application of Franklinic electricity, in the form of a bath, by insulating the bed in which she lay, but I am not prepared to say that it did her any good. Had the operation been done months before, I am certain she would have recovered.

The other case, done at a private house, I drained, and the patient was quite well forty-eight hours after. The next day vomiting came on, and she died of septicæmia. Here I have a strong impression that if she had been operated upon in the women's, or my own private hospital, where she would have been constantly under observation, and have had the drainage-tube frequently seen to, the result might have been different. The tube not unfrequently becomes stopped up, and septic symptoms will soon develop, which will as rapidly subside if the tube be promptly and properly attended to.

In the case of hydrosalpinx, death occurred from septicæmia on the fifth day; the appendages were very adherent, and drainage was used. In the case of metrorrhagia, the appendages were removed, and the patient ate some fowl on the sixth day, soon after which tetanus set in, which ended fatally in less than forty-eight hours. In the two cases of hysterectomy, death occurred in one of them from granular kidney; she had a very large myoma. In the other patient, also with a large tumour, septicæmia was the cause. I regret I did not drain here. The case of acute peritonitis was an urgent one, with a perfect history of ruptured tubal gestation. The tube was found ruptured; it was easily tied, and the abdomen cleaned out; but death occurred about thirty-six hours after operation. In the enterotomy, obstruction of the bowels had existed for nearly a week. The first piece of distended gut was opened and stitched to the wound, but death followed in a little over twenty-four hours afterwards, the vomiting never having ceased. The patient with retroperitoneal abscess was in the last stage of hectic at the time of operation, and lived only about four hours after I opened the sac and inserted a drainage-tube.

Another year's work strongly confirms me in the view I have long held, in common with many others, namely, the great importance of operating early, rather than waiting until the case becomes urgent. I can see that, even now, although so much has been said on the subject, some practitioners seem to act on the principle of not advising their patients to submit to operation until the case has become very urgent, and the prospects of recovery, therefore, the more remote.

A wave of so-called good or bad luck will seriously influence the percentage of fatal cases in a given year; and one hundred is much too small a number from which to deduce very much valuable information. Much less can be gained from a smaller series, for I find that, in August and September, I had twenty-six consecutive operations which recovered, and these included some of the worst and most difficult cases of the whole. Other operators have had the same experience; hence the fallacy of relying too much on figures, which, as has been well said, can be made to prove anything; and this, especially with such a variety of conditions, good or bad, as are to be met with in 104 operations taken as they come. It seems to me that mortality after abdominal operations will always be a more or less variable quantity, ranging within the limits of 3 per cent. as a minimum, and 10 per cent., or a little more, as a maximum. This range will be influenced by the skill or experience of the operator on the one hand, and by a wave of good or bad cases, in a given period or a given number, on the other.

I have been using drainage with greater frequency of late than formerly. Why? I can only answer that I do so to make a good result more probable. I say to myself, "Drainage will do no harm; it may make the difference between recovery and death." I do not think that the alleged after-weakness of the cicatrix need be taken as a factor in the consideration. I myself cannot say that I have observed this special weakness. I am more and more convinced of the necessity of skilled and intelligent attention to the drainage-tube. One of the cases of pyosalpinx was very ill two or three days after operation, with vomiting and some amount of distension, and the fluid in the tube had almost ceased; but, after a little manipulation, a clot came up, the fluid increased in quantity, and, coincidently, the symptoms subsided. The same was observed in one of the ovarian tumour cases.

As mentioned above, I thought that a different result might have been obtained in one of the cases of cystoma, if a longer tube had been used, and skilled attention had been paid to it. By "skilled," of course I mean only that management of the tube which frequent use of it alone can give.

I think the glass tubes usually sold are too short for the generality of cases; and especially is this so in patients with a deep pelvis, or a fat abdominal wall. Some of the tubes I use are eight inches in length. If I am in any doubt about the abdomen being kept "clean and dry," I have not hesitated to use two tubes on several occasions, applied as follows: one into the pelvis, and another into the sac or cyst, if it required to be drained; or, one tube into the pelvis, deep down, and the other into the abdomen, higher up, where I thought oozing might occur, and not be able to reach the lower tube.

Besides the presence of a blood-clot blocking up the tube and preventing the outlet of serum from the pelvis, I have met with three instances where a small piece of omentum has been sucked by the syringe through the holes in the tube, and made it rather a difficult matter to extract the tube for cleansing purposes.

Increasing experience in cases of pyosalpinx seems to confirm the following conclusions. 1. It may be often diagnosed with accuracy beforehand. 2. One of its most frequent antecedents, as a cause, is gonorrhœa. 3. Operation by abdominal section is the best treatment.

4. Failing operation, the termination will be one of the following: (*a*) fatal rupture into the abdominal cavity; of this, I know of at least two instances; (*b*) escape of the pus *per vaginam;* (*c*) inspissation of the pus in the tubes, with some relief, but not complete cessation of the pain, and subsequent chronic invalidism. A few years ago, there were practitioners who threw some doubts upon the existence of this condition as occurring with anything like frequency, and also upon the propriety of operation as suitable treatment. With the mass of evidence which has been, and is being, brought before the profession, I imagine such doubts are now quite dispelled.

During the last two years, I have had two cases in which, after removal of the appendages on each side, a large hæmatocele has formed, giving rise to very serious symptoms, with every reason to expect a fatal issue. Here I have not hesitated to make a second abdominal section in the third week, let out the blood and pus, and insert a drainage-tube. Such cases illustrate the advantages that accrue to both patient and doctor, in the former being immediately under the constant observation of the latter, as in either a public or a private hospital. In each case, the necessity for opening the abdomen a second time would not have been apparent to me a few years ago.

In one of the extra-uterine fœtations, the patient had gone two months past the estimated time for her confinement, and was daily becoming very seriously ill. She had had a spurious labour, with milk, etc. She had ceased to feel the movements of the child, and she was smaller in size. The cyst, when opened, was found to be non-adherent to the abdominal wall, and the rent in it was made very close to the uterus. Here I deemed it prudent to insert a drainage-tube into the pelvis, by the side of the uterus. In the other case, there was a perfect history of early pregnancy; sudden pain after a fright, followed by acute symptoms; and the presence, when I first saw her a few weeks afterwards, of a tumour outside the uterus, with pain and metrorrhagia. At the operation, an universally adherent cyst was found springing from the left Fallopian tube, full of black clots. The ovum could not be found. In the third case, which was fatal, there was also a very clear history of early pregnancy. After great exertion on a Friday, sudden pain came on at noon, with subsequent symptoms of peritonitis. I saw her at 6 P.M. on Sunday, and it was decided at once to operate. The abdomen was full of blood, and the right Fallopian tube was torn. This was tied, and as complete a *toilette du péritoine* was made as possible. She, however, sank, as before stated, in about thirty-six hours.

For hysterectomy, with my present views and experience, I would advise a drainage-tube being placed above the clamp, if there be the least reason to expect oozing downwards into the pelvis. Recently I had two cases on two successive days; one was removal of very adherent appendages, which had to be picked out bit by bit; the other was a hysterectomy, which was very simple, with a good stump, which was easily clamped with a *serre-nœud.* In the first, there was necessarily a considerable amount of blood during the operation, and much sponging was required. Drainage was used, and, in forty-eight hours afterwards, very little fluid having been drawn up, the tube was removed. In the hysterectomy, the pelvis, at the operation, was perfectly dry, and no abrasion or raw surface was made in the abdominal cavity; and yet, for the first forty-eight hours after operation, nearly pure blood continued to be drawn up. But for the drainage, this woman would probably have died. The blood may have occurred from exudation into the pelvis, the result of excessive blood-pressure in consequence of the removal of a large tumour, similar to the metrostaxis after ovariotomy; or, it is just possible, the wire of the clamp may not have been entirely free outside the peritoneal portion of the wound, and so have allowed some blood to drain downwards into the pelvis. Before finally tightening up the clamp, it may, in some cases, be a good thing to partially enucleate some portions of a myoma, which would otherwise contribute to form a largish stump. This proceeding would lessen tension and make a smaller stump, and, therefore, a less wound to heal afterwards. But it might, on the other hand, give rise to bleeding subsequently, and also to a too early separation of the clamp in consequence of compressing a smaller amount of tissue. In two cases of this series, the wire separated on the third and fourth days respectively. Both did well, but it seemed to be dreadful to contemplate that a very thin layer of lymph, and that necessarily of a slender nature, intervened between the patient and almost certain death, in the event of a strain, as during vomiting, coughing, laughing, or defæcation causing it to give way.

In referring again to the fatal cases, I think we ought to get into our minds, as a prominent idea, the view that, after an abdominal section, a death should be considered, to a very large extent, as preventable; and that, when one does occur, we should hold with ourselves a sort of moral inquest as to the cause: how it might have been prevented, and whether, in any way, it was associated with aught relating to ourselves. As time goes on, I am the more persuaded that, in the question of success or failure, less and less depends upon the patient, her condition and surroundings; and more and more upon ourselves, and the attention to certain details which have been found to be essential.

Of the deaths, the three from septicæmia are those which gave me the greatest pain; because I ask myself, "Could they have been prevented?" Three of those put down to asthenia are to be regretted, because it seemed most likely that the result would have been different if it had been possible for the operation to have been done earlier. I would respectfully urge my colleagues in general practice, who so often see tumours and abdominal and pelvic diseases first of all, to advise their patients to submit to operation early, and before difficulties, and therefore dangers, arise, as they assuredly tend to do by delay.

We are learning, if we have not already learnt, to look on acute peritonitis as a symptom of some organic change, and not as a disease in itself. And this is well for our patients, because operative measures can do much for it. We shall, ere long, regard so-called "idiopathic peritonitis" almost as a curiosity.

To obtain success in abdominal section, the conclusion of another year's work impresses upon me more and more forcibly the importance of ensuring that the peritoneum shall be kept "clean and dry." There must be in many cases a certain amount of oozing, which will become absorbed; and I always feel happier when I think there will be little or none. But much more dangerous than this are the small escapes, during the operation, of fluid or blood, if allowed to be left behind. I think I am more particular than formerly in my sponging. A sponge deep down in Douglas's space before adhesions are separated, and blood escapes, will catch some fluid which might escape extraction afterwards. I also endeavour to press, as I proceed, a sponge or sponges into the bed out of which I have picked adherent tumours. The sponge soaks up what is effused, and, by its pressure, tends to restrain further effusion. One principal advantage from washing out the pelvis with warm water, arises from the property that the water has of floating the small clots from the deep recesses up to the surface.

I am never afraid of my sponges; I attend to them myself, and so I know the life-history, as it were, of every one of them, from the moment they leave the shop where I purchase them, until they do service in an abdominal cavity.

In the interesting and able address of our esteemed President last year, reference was made to the desirability of following up our cases after their return home, and so being able to summarise the results after a more or less long period of time has elapsed. This appears to me to be greatly to be desired; but, at the same time, it is very difficult to accomplish. Patients, both hospital and private, go away, and in very many instances it is impossible to trace them.

ABSTRACT OF AN ADDRESS ON ONE THOUSAND ABDOMINAL SECTIONS.

Delivered before the Midland Medical Society.

By LAWSON TAIT, F.R.C.S. Eng. and Edin.,

Surgeon to the Birmingham and Midland Hospital for Women.

Mr. Lawson Tait has recently communicated to the Midland Medical Society a record of one thousand operations of the class generally known as abdominal section. He excludes, in accordance with a common definition, a few operations on the kidney, and two cases of removal of extraperitoneal cysts, and includes herniotomy for umbilical rupture so that, in all the cases in his series, the peritoneum was opened. He objects to ether as an anæsthetic, believing it to be unsafe for patients with diseased kidneys, and a frequent cause of severe bronchitis which in one case proved fatal. He prefers to employ a mixture of two parts of ether and one part of chloroform, given by means of Clover's apparatus; this mixture is now administered by his anæsthetist, Dr. Annie Clarke, with excellent results.

The following statistics show the nature of the operations included in the series of 1,000 abdominal sections, and the relative mortality: Exploratory incisions, 94, 2 deaths. Removal of: parovarian cyst 65, 2 deaths; cysts of one ovary, 239, 26 deaths; cysts of both ovaries, 101, 5 deaths; appendages, for myoma, 99, 7 deaths; ditto for inflammatory disease, 201, 10 deaths; ditto, for epilepsy, 6, deaths; ditto, for deformity, 1, no death. Hysterectomy, 54, deaths. Opening for draining pelvic abscesses, 30, no deaths; ditto

in incomplete operations, 30, 15 deaths; ditto, for cholecystotomy, 13, no deaths; ditto, for nephrectomy, 3, no deaths; and for nephrotomy, 9, no deaths. (In these kidney-operations, the peritoneum was opened.) Extra-uterine pregnancy, 11, 2 deaths. Hepatotomy for abscess and hydatids, 10, no deaths. Hydatids of peritoneum, 2, no deaths. Tumours of omentum and mesentery, 5, no deaths. Enterotomy, 8, 1 death. Adhesion of intestines relieved, 2, no death. Peritoneum opened and drained for chronic peritonitis, 7, 1 death. Acute peritonitis, similar operation, 2, 1 death. Umbilical hernia, 4, no death. Cæsarian section, 1, fatal. Scirrhous tumour of abdominal wall, 1, no death. Suprapubic lithotomy, 1, no death. Enucleation of myoma, 1, fatal. Total, 1,000, with 93 deaths, or a mortality of 9.3 per cent.

Mr. Tait admits that this mortality is high, since the series includes early work, where the want of experience told heavily, and where incomplete operations preponderated. He feels certain that, if he live to complete another such series, the mortality will be much lower, not only through greater experience, but also because he has abandoned for ever the clamp in ovariotomy, and the ligature in hysterectomy. He has always advocated an exploratory incision in preference to tapping, and continues on that principle; hence the large number (94) of such incisions. The first fatal case was a woman, aged 60, who died of prolonged sickness after the anæsthetic. In the second, a trocar was passed into an irremovable tumour, so that the operation was not strictly limited to mere exploration. In about 50 of the 94 explorations, the operation was a mere tapping. In 4 of these cases, removal of the spleen was meditated, but not carried out; and, in two of the four, the enlargement of the organ completely disappeared, and the patients are now in perfect health. In one case, Mr. Tait discovered a large tumour of the liver, which appeared to be certainly malignant; the ascitic fluid has not collected again, and the tumour now, nearly a year after the operation, is certainly less than half its original size, and the patient is rapidly getting well. In five cases where there was a large effusion due to papilloma, mere exploration has completely cured the patients. This non-malignant form of papilloma has already been described by Mr. Tait, and also by Mr. Doran. In other cases, pelvic pain has been relieved in a most inexplicable way by mere exploration. Mr. Tait admits that he once inadvertently stated that he had never lost a case of removal of a "parovarian" cyst. In searching his earlier lists, he has found that he lost two such cases. The explanation of the fatalities is, according to Mr. Tait, that he employed the clamp.

Mr. Tait, turning to his ovariotomies and parovariotomies (as they may be termed), classes them thus:—"Clamp cases, Listerian, 36, 9 deaths; clamp cases, non-Listerian, 26, 7 deaths; ligature, Listerian, 30, 2 deaths; ligature, non-Listerian, 313, 15 deaths. Total 405, with 33 deaths, or 8.15 per cent. mortality." He believes that the diminution of mortality, about 2 per cent., in the 313 non-Listerian ligature cases compared with the 30 Listerian ligature cases is, in all probability, due to increased personal experience.

He believes, agreeing, as he admits, in this respect with Mr. Knowsley Thornton, that removal of the uterine appendages for the arrest of the growth of uterine myoma should be performed as soon as symptoms draw attention to the disease. The mortality would then be hardly appreciable, and it would restrict the necessity of the terrible operation of hysterectomy to a very small group of cases. He promises a detailed paper on the subject when a sufficient time has elapsed to enable him to obtain fair conclusions.

After recapitulating his well known views on the relation of the ovaries and Fallopian tubes to menstruation, Mr. Tait speaks of hysterectomy as an operation attended with a fearful mortality. In his own experience, it has amounted to 35.7 per cent., owing chiefly, he believes, to deaths from hæmorrhage which resulted from trying intraperitoneal methods. All the eight cases where this was done died, with shrinking of the pedicle from serous oozing and subsequent hæmorrhage. Four deaths occurred in seven cases where he used Wells' clamp; in two he used the cautery, with one success. Mr. Tait lost 6 out of 37 cases where he employed his own modification of Kœberlé's clamp. He is of opinion that the details and methods of operation after this method, as elaborated by Dr. Bantock, are, on the whole, the best he has seen; but there is something wanting yet to complete success, and every case of hysterectomy causes him intense anxiety.

Mr. Tait tabulates his "Incomplete Operations" thus: Ovarian cystoma, 6, 3 deaths; uterine sarcoma, 7, 4 deaths; removal of appendages for myoma, 3 cases, 1 death; ditto for inflammation, 7 cases, 3 deaths; tumours of various or uncertain origin, 7 cases, 4 deaths; total, 30 cases, 15 deaths. He believes that, in some of these incomplete cases, he might have finished the operation, but he always had a horror of a patient dying on the operating table; and from that distressing incident he has hitherto been entirely free. He now believes, however, that it would have been better to have had such a disaster, and to have finished a larger number of these operations. Concerning the remaining groups, Mr. Tait points out that they amount to 97 operations, performed for mortal diseases with 5 deaths, and every one of these operations, ten years ago, were either undreamt of, or but faintly indicated.

Mr. Tait repudiates the idea that ovaries are removed capriciously because they are believed to be the source of all womanly ills; but he deprecates the principles of some other surgeons who, he states, are unable to recognise the necessity for removing the uterine appendages "when they are the morbid cause of intense uterine agony." He has grouped all his cases of pyosalpinx, hydro- and hæmatosalpinx, and chronic ovaritis, into a group of cases headed, in the above statistics, "Removal of Appendages for Inflammatory Disease;" for the clinical symptoms are similar, whilst a hard-and-fast nomenclature cannot be established. From the large, soft, and broken down ovary, affected by acute inflammation, to the small cirrhotic mass firmly glued to the pelvic wall or to the back of the uterus, there are infinite gradations through which no line can be drawn. Diseases of the Fallopian tube are equally hard to classify with precision; and Mr. Tait intends in future to attempt no such distinctions. The group includes 201 cases, with a mortality of 5 per cent.; 7 out of the 10 deaths, and 5 out of 7 incomplete operations for disease of the uterine appendages, occurring in the first hundred. The operator does not think that, for the future, the mortality will be more than 3 per cent., though he is of opinion that even 5 per cent., as a primary result, abundantly justifies these operations. Mr. Tait does not think that he is justified in speaking precisely of the ultimate results in all his cases, because a great many of them were operated upon too recently to enable him to judge of the absolute effects of the operation; but, in the majority, relief was immediate and complete. In some, the relief was complete for a few months, and then they seemed to go back to some of their old sufferings. In a few, there seemed to be no relief whatever for a very long time after the operation, and Mr. Tait has now seen a sufficient number of these cases to be able to arrive at an explanation of this. In thirteen cases, for a time varying from six months to two years, little or no relief was obtained by the removal of the uterine appendages. In seven of these cases, sufficient time had elapsed for the establishment of complete success, but all the others were just as ill, or nearly so, as they were before the operation was performed, with this exception, that, in five out of the six, menstruation had been completely arrested. In the sixth case, it was going on still with perfect regularity, though with less pain than there was before the operation was performed, fifteen months ago.

In every one of these thirteen cases, an accident occurred in the effusion of a large quantity of blood into the circumuterine tissues some time after the operation, generally within a week; in some of the cases, it was clearly localised on one side, whilst in others it seemed to be a uniform circumuterine effusion. The result in every case was the same; the pulse and temperature went up, the patient suffered a great deal of pain, and the condition of invalidism remained after the operation for various periods. In one patient, having been perfectly satisfied that the effusion had suppurated, Mr. Tait reopened the abdomen, about four months after the original operation, and cleared out a small quantity of pus, with the result that the patient was at once and completely relieved of all distress. There were at least two other patients out of the six, who still remained unrelieved, in whom this proceeding would also have to be resorted to; but as for the other three, Mr. Tait believed that time would bring them right without it. The occurrence of these hæmatoceles is a great puzzle, but there can be no doubt that it exercises a most pernicious influence in delaying the satisfactory results of the operation.

Whilst stating briefly the facts of these qualified failures, Mr. Tait declares that he might fill a large volume with descriptions of cases which show the most satisfactory results, concluding with the following case.

Regarding it he observes: "Only one illustration need be given in addition to the number I have already published, and I give it mainly because it has a certain dramatic and personal interest attached to it, combined with a certain amount of absurdity in that the patient should actually have been in my own house for nearly eighteen months without my being aware of her state."

"M. J., aged 28, entered my service as a domestic in August 1878. She had been married for some years to a soldier who had not obtained an official permission to marry, and who therefore could not take her with him. She remained in my service till the beginning of 1880, and during that time I became aware incidentally that she

suffered very intensely during her menstrual periods, and had profuse floodings. She did not express any desire for my professional assistance, but, unfortunately for herself, spent the whole of her earnings in wandering about from one practitioner to another, without any benefit from the numerous pessaries with which she was treated, until she was obliged to give up her work and enter a hospital. After she left my service, I heard something more about the details of her case, and that, combined with the information which I subsequently got from herself, was to the effect that she had received a gonorrhœal infection very soon after marriage, and had never been well since that time. After she had been treated, without any good effect, in various institutions, she came to me as an out-patient in March of this year, when I obtained from her a complete statement of her history, and, on making an examination, was easily able to diagnose chronic inflammation of the tubes. I operated on April 2nd, 1884, and removed both tubes occluded and distended with pus. The ovaries did not come out with the tubes, and I did not think it necessary to remove them. The patient was immediately relieved from distress, has not menstruated since, and has remained for now eight months perfectly free from pain, and is earning her living with perfect satisfaction as a domestic servant."

"If I had exercised a little more curiosity about the ailment of this poor woman whilst she was in my own service, I would have rendered her a distinct benefit in shortening her sufferings by at least three and a half years, and I regret very much that I allowed her to waste her money and continue her sufferings for the want of a little judicious inquiry. The operations themselves in these cases are far more difficult than any operations for the removal of cystomata; indeed, one distinguished author has gone so far as to say that they are so difficult that the performance of them is quite unjustifiable, an opinion in which, of course, I do not coincide. It is to me extremely satisfactory to learn that, after a discussion of this subject for the comparatively short period of eight years, every fact that I have stated, and every conclusion that I have made, has been already completely confirmed by independent observations; and that, no matter what be the vigour of the denunciations levelled against this advance in abdominal surgery by one or two of the passing generation, the result is that we have a conclusive professional verdict in favour of relieving the enormous amount of suffering endured by women from chronic inflammatory disease of the uterine appendages."

A CASE OF CHOLECYSTOTOMY: WITH REMARKS.

By JOHN W. TAYLOR, F.R.C.S.,

Out-Patient Surgeon to the Birmingham and Midland Hospital for Women.

THE operation of cholecystotomy is one of the latest additions to the art of surgery. Although mentioned as having been formerly performed, and in one instance successfully, so far back as 1825, in Good's *Study of Medicine*, advised in suitable cases by Dr. Thudichum in 1859, and actually performed with success by Dr. Bobbs in America in the year 1867, it was not until the year 1878 that it became a practical matter, seriously engaging the attention of surgeons, when, under the name of cholecystotomy, Dr. Marion Sims published his case of partial excision of the gall-bladder. This was followed, the next year, by the inauguration of an unbroken series of successful cases by Mr. Lawson Tait, and cholecystotomy became a recognised operation of surgery.

As it evidently has a wider future in store—a more satisfactory could hardly be wished for, in the light of our local experience—and as several questions of general interest in physiology and medicine, as well as in surgery, are involved, and are likely to find their solution in a careful study of cases of distension of the gall-bladder which have been submitted to operation, but little apology is needed for bringing forward any case which may serve to show points for investigation or discussion.

The case I have to report, which came under my care during Mr. Tait's absence in America, is briefly as follows.

A woman, aged 43, of dark complexion, thin, pale, and careworn in appearance, was sent to the hospital from Shropshire, suffering from an abdominal tumour on the right side, which she had noticed for about nine weeks. It was tender to touch, and caused a sense of weight and "dragging," more especially when she was lying on her left side. For twelve months she had been suffering from abdominal uneasiness, with occasional spasmodic attacks of indigestion; pain in her back, about the junction of the dorsal and lumbar spine; and had been steadily becoming thinner. She had nine children. Menstruation had already ceased for nearly two years.

On examination, a hard, rounded, very movable tumour was found to the right of the umbilicus. No connection could be traced from it to either the liver or kidney. All round it, and, indeed, over the tumour itself, there was resonance on percussion. No fluctuation could be detected in the tumour.

The patient's bowels were regular; her urine was normal; her appetite fairly good; her sleep was much disturbed by indigestion and the dragging pains already mentioned. There was no history of jaundice.

I thought that the tumour was solid, and diagnosed it to be a solid tumour (probably cancerous) of the omentum, or a small hydatid tumour, in which no fluid had as yet formed.

On September 5th, I opened the abdomen, in the middle line, close to the umbilicus, and found at once that the tumour was a distended gall-bladder. Having placed some small sponges around it, to keep back the intestines and soak up any discharge that might escape, I punctured the cyst with a curved trocar and cannula, evacuating about eight ounces of thin muco-purulent fluid, seven ounces of which were collected and measured. I enlarged the opening in the gall-bladder to admit the passage of a finger, and found its mucous membrane thick and uneven, giving to the finger an exactly similar sensation to that experienced during digital exploration of the urinary bladder in a case of chronic cystitis. I could not find any gall-stone. Dr. Savage, who was present, kindly verified the examination. I sewed the opening in the gall-bladder to the sides of the incision in the abdominal walls, and closed the rest of the abdominal wound with sutures in the usual way, passing a short glass drainage-tube into the gall-bladder.

The patient made a good and uneventful recovery from the operation. Her temperature was never much above normal, nor her pulse above 86. There was considerable sanguineous discharge from the drainage-tube for the first two or three days, as is usual in these cases; and on the second day some flatulent distension, which was relieved by a turpentine enema.

The patient left the hospital about four weeks after admission, thoroughly relieved of all pain and distress, very satisfied with the result of the operation, but with a fistula from the gall-bladder, which was still discharging a little thin muco-purulent fluid. No bile had passed from the gall-bladder since the operation.

I had hoped, on failing to discover any gall-stone, that the condition of cholecystitis, which evidently existed, might be rather a cause than a consequence of obstruction, and that, with rest to the inflamed mucous membrane, ensured by free drainage of the contents of the gall-bladder, the swelling might subside, the cystic duct again become pervious, and bile appear at the external wound.

It is just possible, I suppose, that this may yet take place; at the same time, examination of all that I can find bearing on the subject has made me rather doubtful whether catarrh of the mucous membrane is sufficient of itself to produce so-called dropsy of the gall-bladder, without some more potent coexisting cause of obstruction.

REMARKS.—Several cases have been reported of abscess in or around the gall-bladder, followed by spontaneous opening through the abdominal parietes, and, in some instances, by discharge of biliary calculi; two of such cases, one under the care of Mr. Bryant, and the other under the care of Mr. George Brown of Islington, being assisted in their course by some operative measures nearly approaching the operation of cholecystotomy itself.

All of these cases of spontaneous evacuation that have been reported have, I believe, without exception, had a successful issue. The operation of cholecystotomy, as advised by Dr. Marion Sims, closely imitating the natural process, and meeting with happy results in the practice of Mr. Tait and Dr. Savage, is so full of satisfactory promise, that it has been a matter of surprise to me to find that the reported cases from the practice of other surgeons are few in number, and, with but few exceptions, confined to American and German sources.

The best synopsis of the literature on the subject is to be found in an article on Cholecystotomy by Drs. Messer and Keen, in the *American Journal of the Medical Sciences* for October, 1884, which contains a carefully compiled tabular statement of all reported operations, whether complete or incomplete, to the date of its publication. From this, and from the *Philadelphia Medical News* for December 20th, 1884, and the BRITISH MEDICAL JOURNAL for December 6th, 1884, in which still later cases are referred to, and from direct information kindly supplied by Mr. Lawson Tait and Dr. Savage from their operation-books, I find that the operation of cholecystotomy has been performed twenty-eight times since its introduction or revival by Dr.

Sims, in 1878; by Mr. Lawson Tait, thirteen times; by Dr. Savage, twice; by Dr. Keen, twice; and by Drs. Sims, Kocher, Ransohoff, Gardner, Eddowes, Courvoisier, Trendelenburg, König, Boeckel, and McGill, each in one case. At least twenty-one recovered; a fatal issue has been reported in four cases.

In each of these fatal cases, it is worthy of notice that jaundice existed at the time of operation, and that the operation was delayed until it was probably too late to hope for a successful issue; and, in each case, the tumour was previously aspirated or tapped; the condition found on opening the gall-bladder, in Dr. Keen's first case, being probably largely due to hæmorrhage from the aspiration-puncture. In two of the four fatal cases, no gall-stone was found.

Arguing from the data before the profession, when only the first of Mr. Tait's cases was published, the writer of the article on cholecystotomy, in the supplement to Ziemssen's *Encyclopedia*, not unnaturally concludes that the operation is scarcely justifiable; but the position has wonderfully altered since this was written. By the kindness of Dr. Savage and Mr. Tait, I am able to add to this paper a list of sixteen consecutively successful cases, which have occurred in the practice of the surgeons attached to the Birmingham and Midland Hospital for Women, a large number of these cases having come under my own personal observation. In all of the cases, I believe, but little or no jaundice was present at the time of operation. In three cases, no gall-stone was found. In one of these, the obstruction was found to be due to cancer, from which eventually the patient died. In all the remaining cases, thirteen in number, gall-stones were both found and removed. In one case, cholelithotrity, from without the duct, was performed, in addition to the operation of cholecystotomy.

The importance, when no gall-stone has been found, of determining, if possible, whether the search for stone has been insufficient, or whether another obstruction is likely to exist, and of what nature, is sufficiently obvious, as further experience is needed to guide the surgeon as to the best course of action when no calculus can be felt. I believe I have read once of the cystic duct being stopped by a "lumbricus," but cannot recall the case sufficiently.

Perhaps, before closing this portion of the subject, some reference should be made to those cases of operation on the gall-bladder which, going beyond the limits recommended by Dr. Sims, cannot strictly be considered as falling under the title of cholecystotomy. To this class belong the case of Von Winiwarter in Dr. Musser's list, and several cases of extirpation of the gall-bladder performed by Langenbuch.

The mortality of the cases of extirpation has been stated to be very high, but I have not been able to meet with any authoritative account of them.

A curious example of confusion of ideas is afforded by a medical periodical, which, commenting on these cases so lately as the spring of 1884, I believe, refers to a case in which Sir D. Corrigan gradually established a fistula from the gall-bladder by means of a caustic issue, as the nearest approach which British surgery can offer to the daring of "this great surgical operation" of Langenbuch. Unconsciously the paragraph is sarcastic, for the operation of cholecystotomy, as directed by Dr. Marion Sims, in its reasonableness of design, facility of execution, and brilliancy of result, is nearly as far removed from extirpation of the gall-bladder, on the one hand, as it is from caustic perforation on the other.

At the commencement of this paper, I mentioned how much of general interest was bound up with the operation of cholecystotomy.

The question of the uses of bile may become harder than ever to understand, but easier to estimate correctly, when we see the whole of the bile daily discharged from the abdominal wound with but little effect for good or evil, as in the very interesting case of Mr. Tait's, in which the common duct remained obstructed by a gall-stone after cholecystotomy and removal of calculi from the gall-bladder.

The cure of this condition by lithotrity from without the duct is one of the latest developments of surgical art and ingenuity.

The gain in clearness and precision of diagnosis likely to result from the more radical treatment of obstruction of the bile-ducts will, however, be perhaps the most widely appreciated by the profession.

In many cases of distension of the gall-bladder there is no difficulty. The history of biliary colic and passage of calculi, together with physical signs, make the diagnosis easy; but, in some cases, especially those in which the obstruction is due to a single calculus, or some other cause, there is evidently very great difficulty. An important aid to diagnosis will, I think, then be found in recognition of the diagonal line, in the direction of which the gall-bladder enlarges. This is to be traced from the normal position of the larger end of the gall-bladder (near the tip of the cartilage of the tenth rib on the right side) to the opposite side of the abdomen, crossing the middle line slightly below the umbilicus. In the direction of this line a distended gall-bladder will, I believe, naturally lie.

As the gall-bladder enlarges, and its distance from the liver increases, so will its mobility increase, until, at or about the level of the umbilicus, it becomes remarkable. If to these signs we add the rounded character of the tumour, its condition of fluctuation, resiliency, or stony hardness, according to the degree of its distension, and the almost cachectic appearance of its possessor when worn with pain and anxiety, we get a collection of symptoms, which has often been only a source of mystery to the surgeon in the past, but which, in the future, will not unfrequently lead to ready recognition of the disease and direction for its cure.

Cases of Cholecystotomy.

No.	Date.	Operator.	Age.	Sex.	Single or Married.	Result and Remarks
	1879.					
1	Aug. 23	Mr. Tait	40	F	M	Recovery
	1881.					
2	Oct. 9	,,	55	F	S	,,
	1882.					
3	Jan. 15	,,	24	F	M	,,
4	Oct. 13	,,	39	F	M	,,
	1883.					
5	Jan. 5	,,	28	F	S	,, No all-stone found
6	May 6	,,	35	F	M	,, No gall-stone found;
7	May 10	,,	42	F	M	,, obstruction probably due to
8	May 28	,,	66	M	—	,, cancer; death some
9	Oct. 6	Dr. Savage	50	M	M	,, time after operation
						from this cause.
10	Nov. 14	Mr. Tait	44	F	M	,,
11	Dec. 20	,,	44	F	M	,,
	1884.					
12	May 8	,,	62	F	M	,,
13	May 17	Dr. Savage	39	F	M	,,
14	June 26	Mr. Tait	45	F	—	,,
15	Aug. 6	,,	63	M	—	,,
16	Sept. 5	Mr. Taylor	43	F	M	,, No gall-stone found

A CASE OF PORRO'S OPERATION.

By FRANCIS IMLACH, M.D.,
Surgeon to the Hospital for Women, Liverpool.

On January 8th, 1884, A. B., aged 32, was admitted to the Hospital for Women, suffering from extensive epithelioma of the cervix. She was pregnant with her fourth child, and her last menstrual period had ceased on May 16th. I first saw her, together with an almost precisely similar case (in a woman aged 34), in August 1883, and advised both to enter hospital for immediate treatment. The woman aged 34 came in, and abortion at the second month was induced on September 3rd, a portion of the epitheliomatous mass being scraped away at the same time. On the 17th she left us, materially relieved, though not cured. In the case of A. B., I proposed to remove the whole uterus, but the patient, dreading operation, delayed coming in. From August to the date of admission, there had been continuous, though not profuse, menorrhagia. In consultation, fears were expressed that cancerous infiltration of the pelvic glands had occurred, and that complete removal of the disease was impossible. It was determined to allow the pregnancy to continue, and only to interfere during parturition if the safety of the child were endangered. Labour commenced in the night of January 17th, and the membranes ruptured next morning. During the afternoon of the 18th, three hypodermic injections of ten minims of ergotine were given, as the pains had entirely subsided; at 8 o'clock, an attempt was made to dilate the cervix with Barnes's bags, but this only resulted in laceration of the tissues, and an increase of hæmorrhage. At 2 o'clock on the morning of the 19th, Porro's operation was performed, with the assistance of my colleague, Dr. Lupton, under carbolic spray. It occupied only twenty-five minutes. After the abdominal wall had been incised from the umbilicus to the pubes, an incision five inches in length was made into the anterior wall of the uterus. A strong uterine contraction closed this incision for one or two minutes, but on relaxation the foot was seized, the child extracted, and the cord clamped with forceps and severed. The uterus was then drawn out of the abdomen, and sponges were plunged into the abdominal cavity. As it was desirable to exclude cancerous tissue, the uterus was clamped pretty high, but both ovaries and tubes were included. The placenta was next removed, the uterus cut away, the sponges removed, and the abdominal wall closed with seven silk sutures. The patient died towards the end of the seventh day.

On *post mortem* examination, there was no sign of peritonitis; and until an hour or so before death, the temperature never rose above

98.8°, and the pulse was seldom as high as 100, and never above it. The child is now a sturdy little boy over twelve months old.

I fear Dr. Godson must add this case as an unsuccessful one to his list. Yet I think the death would be more fairly credited to the disease that remained than to the operation, though at the time it was ascribed, in part at least, to carbolic acid poisoning. It was, of course, unsatisfactory to be obliged to leave the epitheliomatous cervix, but the patient was in such an exhausted condition, that to have removed it would have been immediately fatal. Even Porro's operation had to be performed with a rapidity which, without efficient assistance, would have been impossible.

EXTROVERSION OF BLADDER.

By A. W. MAYO ROBSON, F.R.C.S.,
Surgeon to the Leeds General Infirmary; Lecturer on Operative Surgery at the Yorkshire College.

The following notes and drawings have been kindly furnished me by my house-surgeon, Mr. Herbert Child.

L. S., female, aged 8, was admitted on February 8th, 1884, suffering from complete ectropion vesicæ. The abdominal wall was wanting from the umbilicus to the pubes, while the orifices of the ureters were to be seen at the lower part of the triangular patch of vesical mucous membrane. On March 3rd was performed Wood's plastic operation for the deformity. Mr. Robson took a large square flap from the abdominal wall above the umbilicus, and turned it downwards, so that the cutaneous surface come into contact with exposed vesical mucous membrane. Pyriform flaps, one on each side, were taken



Fig. 1.—Original Condition.

from the lateral aspects of the abdomen, and twisted inwards on their attachments, so that the raw surface came into contact with the raw surface of the first mentioned square flap. When secured in position, the flaps entirely covered the vesical surface. The edges of the exposed surfaces on the abdomen were drawn together, and secured by hare-lip pins and sutures.

The temperature reached 103° on the evening of the day following operation, but was not afterwards noteworthy. The flaps united by primary union; but the surfaces from which they were taken became exposed by retraction of their margins (the tension was great), and had to heal by granulation. During the process of healing, retraction of the flaps, especially of the side-flaps, drew upward the lower margin of the square flap, exposing its cutaneous surface, and bringing into view a corresponding portion of vesical surface. Therefore, on May 15th, Mr. Robson decided to perform a second plastic operation. The prominent folds of integument forming the labia majora were incised for three inches vertically; and from the upper end of these cuts, incisions were carried outwards, so as to allow two triangular flaps of skin to be slid upwards. The square flap of skin made in Wood's operation was loosened at its attachment to the pyriform lateral flaps, and turned downward, so that the cutaneous surface again covered the bladder mucous membrane. The newly made groin-flaps were approximated toward the middle line, covering the raw surface, and

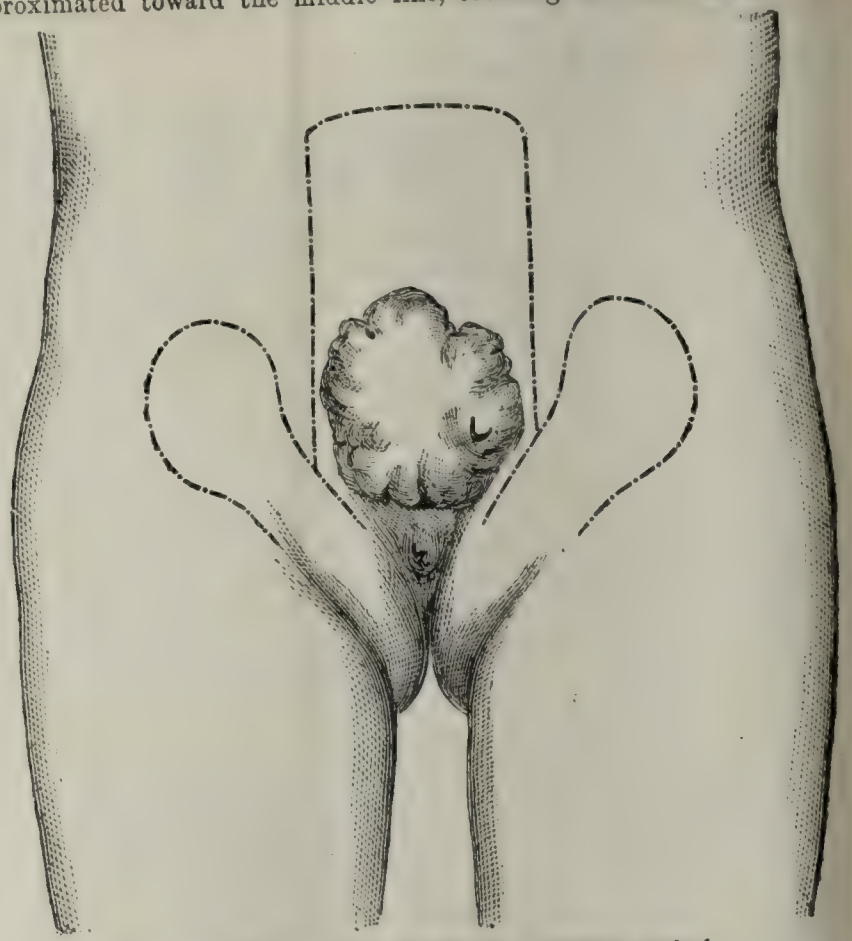


Fig. 2.—First Operation, March 1st. Incisions marked.

secured for an inch and a half in apposition; while the upper margins were sutured to the newly refreshed lower margins of the pyriform flaps of Wood's operation. Hare-lip pins and sutures secured the parts; dressings of carbolic oil were used. Union took place by first

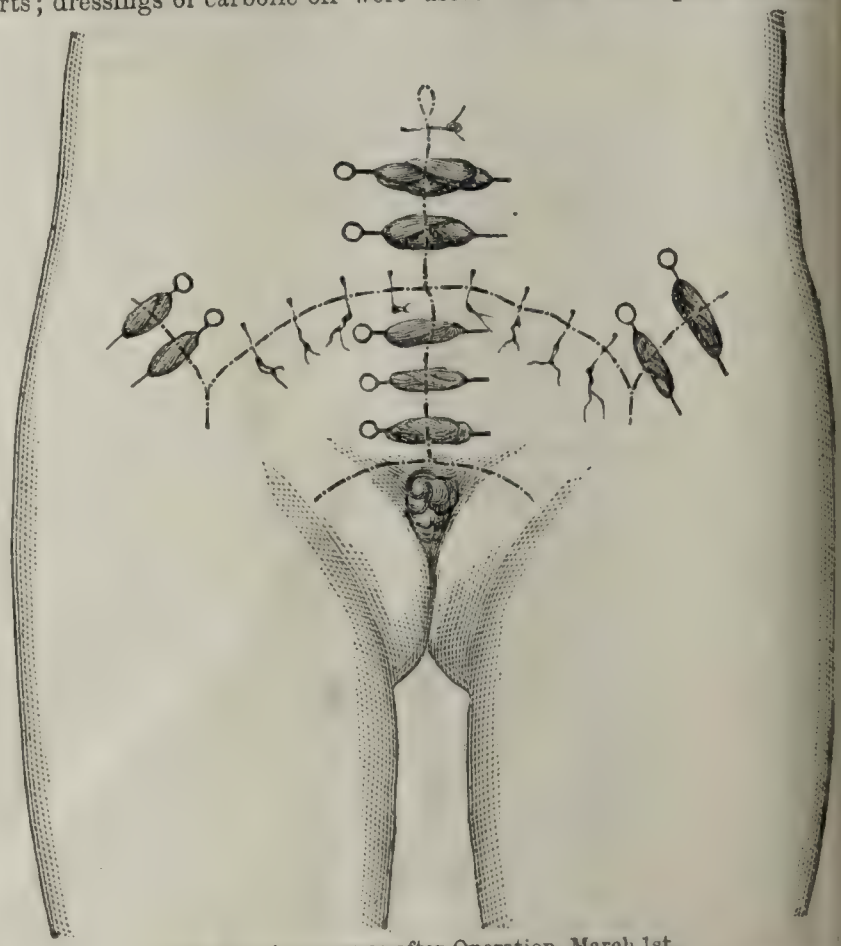
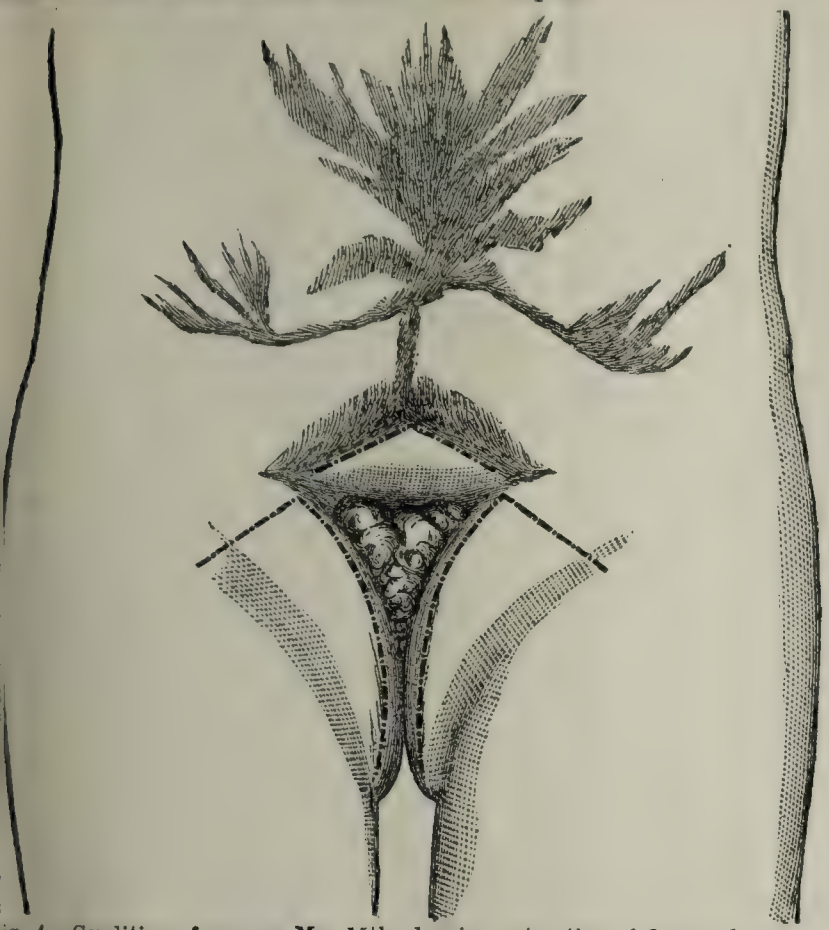


Fig. 3.—Appearance after Operation, March 1st.

intention. Some excoriation of the lower part, due to urine passing over it, was allayed by a weak alkaline lotion. The child's knees and hips were kept flexed for some time after the operation, to relieve th

ension on the integuments of the groin. When all had healed, no ladder-surface was visible; a slit between two surfaces of skin, in the sual situation of the labia, formed the exit for urine. A portable rinal was fitted before the child left the hospital.



ig. 4.—Condition of case on May 15th, showing retraction of flaps and exposure of vesical surface. The diagram also shows the lines of incision in the second operation May 15th.



Fig. 5.—June 25th. Present Condition.

Remarks by Mr. Robson.—The accompanying drawings, skilfully executed by Mr. Child, very accurately represent the different stages of the case. As shown in Fig. 4, the patient would have left the hospital very little relieved by Wood's operation alone; but the additional plastic operation, by which flaps were obtained from the vulva and slid upwards, without detachment below, gave the good result shown in Fig. 5, which condition must be permanent, as no amount of retraction can expose the bladder, the attachment of the flaps being opposite the direction of the retracting force.

A CASE OF CHOLERA, ILLUSTRATING THE SUCCESSFUL EFFECT OF PRECAUTIONARY MEASURES IN PREVENTING THE SPREAD OF THE DISEASE.

By C. DAVID, M.D., of Geneva.[1]

Mrs. X., 30 years of age, very much affected by her coachman's sudden death from cholera, left Marseilles on July 25th last, with all her family, in order to escape from the epidemic. She had been troubled with some slight diarrhœa, and her medical attendant had advised her not to remain at Marseilles.

She arrived at Geneva on July 27th, and proceeded, at once, with her husband, to try to find an empty house. Thus she came to Versoix (a village at the lake-side, on the west shore, about five miles from Geneva), exhibiting at the time no external signs of disease. After visiting an empty villa in that place, she took it, and went back to Geneva for the night.

On July 28th, in the afternoon, she returned to Versoix with her family, consisting of eleven persons; and the owner of the villa, finding her looks much altered since the previous day, advised her to send for me.

I saw Mrs. X. half an hour after her arrival. She was still wearing her travelling-dress, and had gone upstairs into a bedroom she was destined never to leave. During my visit she had several rice-water evacuations, was seized with vomiting, and complained of abdominal pains and cramps in the legs; temperature of the body 36.4° C.; there was much emaciation; she had a small and rapid pulse. This had every appearance of a case of cholera. As soon as I had quieted the patient with reference to police-measures, with which she was afraid to be troubled, and I had assured her she would not be taken by force to the hospital, she acknowledged she had been ill the whole of the night and previous day; the fear of the police had prevented her, so far, from calling in medical aid.

Drs. Girod and Prevost were called in consultation, but the disease terminated fatally. The diarrhœa and vomiting ceased during the night of the 29th-30th; the temperature rose in succession to 38° and 39° C.; she was unable to overcome her state of emaciation and weakness, and she died on the 30th at 2 P.M. Her intellect had remained unimpaired until the last few hours, when she fell into a state of stupor. There had been no passage of urine since the 27th, in the evening.

This is, to my knowledge, the only uncontested case which has occurred in Switzerland. It might have become, according to the views generally entertained at present, the origin of an epidemic focus; fortunately this did not happen. The following were the measures adopted by myself and my colleagues to prevent such an occurrence, which, thanks to local circumstances, were easily carried out. The villa, situated between the two villages of Versoix, is limited on one side by the high road from Geneva to Lausanne, and on the opposite side by the lake. It is at a distance of at least twenty-five mètres from any other dwelling, and is screened off from the neighbouring houses and high road by a number of trees. In front of it is a meadow, reaching as far as the lake. The place is entirely surrounded by hedges and walls, which enclose it without a break. An avenue through a shrubbery for a distance of 100 mètres leads to the house, and there is a gatekeeper's lodge where the avenue branches off from the high road.

The patient's room was on the first floor, had no access into other rooms, and communicated with the stair through a narrow passage.

Under such conditions, the precautions to be taken were obvious, and easy to carry out. It was necessary, as far as possible, to protect the members of the family and the servants, and prevent absolutely any contact between the people in the villa and the inhabitants of the village. As soon as the nature of the case had been ascertained, I had all the useless objects and furniture removed from the room; next, at my request, the head of the family selected the persons who would

[1] Communicated and commented upon by Dr. Marcet.

have the care of the patient. These were Mr. X., a male servant, a lady companion, and myself. The others were strictly ordered not to enter the sick-room. The dirty linen found in the lady's trunk was immediately immersed in a solution of two per thousand of corrosive sublimate, and left there for several days. The fæcal evacuations and vomited matters were received in vessels containing some of this same solution. They were afterwards transferred to another vessel, where they remained till the evening, when they were buried at a distance of two hundred steps from the house, in the meadow adjoining the lake. A certain amount of a five per cent. carbolic acid solution, and two per thousand corrosive sublimate solution, was at the disposal of those persons who were engaged with the patient, and they used them abundantly.

With reference to the intercourse with the village, the inhabitants of the villa were ordered not to go out of the grounds. The tradesmen delivered their goods at the gatekeeper's lodge, who transmitted them to the servants. The dwellers at the lodge were not allowed to enter the villa, and the tradespeople never passed the lodge.

Nobody but the physicians and a priest went in and out of the villa, and these persons never left without having washed themselves with a solution of corrosive sublimate, and being subjected to powerful chlorine-fumigations from chloride of lime, mixed with sulphuric acid. In order to be absolutely correct, it should be stated that a young girl, with less discipline than wisdom, who had been engaged on the first day by Mr. X., made her escape from the villa during the night to sleep at her mother's, who lived in an isolated house; she returned the next morning, and did not go out again.

A sick-nurse, engaged on the 29th, and the mother and brother of the patient, arrrived from Paris on the 30th; and were admitted into the house, after having been warned that they would not be allowed to go out.

Death having taken place on the 30th, at two o'clock, the physician at the head of the sanitary department of the Geneva Government, Dr. Vincent, was informed of the occurrence by telegraph, and ordered the body to be buried at once; this was done at seven o'clock in the evening, allowing barely time to procure a coffin and dig out a pit.

The body, enveloped in the clothes and portions of the bedding which had been in contact with it, was watered with disinfectants, placed in an oak coffin, and carried to the cemetery in a funeral carriage. All the other objects which had been used during the patient's illness—bedding, crockery, curtains, linen—were watered with disinfectants, buried in a second pit, and covered with quicklime. All this was done under direct medical supervision.

After the body had been taken away, the room which the patient had occupied was thoroughly fumigated with chlorine. Moreover, several litres of carbolic acid were thrown into the privies. The next day, Dr. Vincent proceeded to disinfect minutely the furniture with several "siphons" of liquid sulphurous acid, according to Raoul Pictet's process; and, somewhat later, the walls were washed with a five per cent. solution of carbolic acid. All the dirty clothes of the family were immersed for several hours in a bath of carbolic acid before being sent to the wash.

In accordance with an order from Dr. Castella, sent by the Federal Council, the family were not allowed out of the villa until August 9th, or ten days after the lady's death. As, by that time, no other case of cholera had occurred, either in or outside the house, the inmates were at last set at liberty.

Such were the measures taken to prevent the extension of the disease. I have no more to do than to wish for my brethren cases where precautionary measures are so obvious as to their nature, and so easy to carry out.

Remarks by Dr. Marcet.—I happened to be staying close to the village of Versoix this summer, when the case, so well managed by Dr. David, took place. This village consists of two rows of houses, with the high road between them. It is a singular fact that Napoleon the 1st had intended to make Versoix into a large town, and had constructed a spacious harbour for it, but his views in this respect were never carried out. The village remains divided into two portions along the lake, which were clearly intended to have been joined, and form the nucleus of the town. It is certainly not a clean village, and there are abundance of smells in the houses and shops; no doubt, the pabulum was there for an epidemic of cholera, if an opportunity offered. It cannot, therefore, be said that external circumstances were unfavourable to the disease spreading; and most probably, but for Dr. David's prompt and energetic measures, the disease would have broken out in the village.

I have a case in point, illustrating the effect of the neglect of precautionary measures towards checking the spread of cholera.

In October 1866, I happened to be staying near the village of Nirnier, of perhaps five or six hundred inhabitants, situated on the Savoy coast of the lake of Geneva. One evening I remained some time in conversation with a man I was employing, and who appeared to me then in perfect health. This man, after leaving me, went to sleep at Nirnier. Next morning, I was informed that he was very ill, and I went to Nirnier to see him. I found him in a state of collapse, and it was at once clear to me that he had cholera; he died that same day about five o'clock. The story told at the time, and in which I believe, although I cannot find confirmation now, was that the man had eaten supper that same evening in company with a person who had left Marseilles on account of the cholera, and that this person had gone away early the following morning, without leaving any trace of his whereabouts.

I warned the mayor of the village at the time, and tried to convince him of the importance of removing the dunghills in the streets, whitewashing the houses, and using chloride of lime abundantly, but my warning was of no avail. There spread at once a report that the man had died poisoned of an overdose of certain pills he was then taking, and not of cholera. Two or three days later, an epidemic of cholera broke out in the village, and within about three weeks there were eleven fatal cases. The epidemic then suddenly ceased.

I made inquiries this last summer at Nirnier with reference to the cholera of 1866. Many have a very distinct recollection of it, and I obtained minute details from some women, such as the names of those who had died. The history of the epidemic having been imported from Marseilles is, however, ignored or disbelieved; and, unfortunately, the people who kept the publichouse where my man had had supper after leaving me, are either dead or have disappeared. It is believed to this very day at Nirnier that the person stated as suffering from cholera died of poison, and nobody knows, or seems to care to know, how the cholera had been introduced.

DOES THE POSITION OF THE SECTION IN CATARACT-OPERATIONS INFLUENCE SUPPURATION OF THE CORNEA; AND, IF SO, WHAT PART IS PLAYED BY SEPTIC INFECTION?

Introduction to a Discussion in the Section of Ophthalmology at the Fifty-Second Annual Meeting of the British Medical Association.

By J. R. WOLFE, M.D., Glasgow.

I have selected this subject on which to initiate a discussion because my views, which I shall thus have an opportunity of stating, differ in many respects from those generally adopted, and because it will be a satisfaction to me to ascertain how far my experience coincides with that of other members of the Section.

In the first place, then, there is the question, how far the position of the corneal section in cataract-operations contributes towards suppuration of the flap.

This is a subject which I have carefully studied for upwards of twenty years, watching the results of not only my own operations for cataract, but also those of reputed surgeons in this and other countries. During this period, the number of my operations in which corneal section has been made, is, as far as I have been able to collect, idiopathic, 545, traumatic, 430, total 975. As in all these I have had only four cases of primary suppuration of the cornea, I infer that the position of the corneal section cannot be regarded as a factor in the suppurating process.

At the very commencement of my career, I was impressed with the conviction, which I recorded at the time, that in the cornea we have a membrane almost resembling cartilage in respect of its slight tendency to proliferation. The case then referred to was that of an old lady upwards of 80 years of age, upon whom I successfully operated for cataract by flap-extraction; although, during the treatment, her foot began to show symptoms of gangrene, to which she ultimately succumbed, the corneal wound healed by first intention. The conviction just mentioned has since then been confirmed in the course of my labours at transplantation of the cornea, in which corneal and conjunctival bands are removed from the eye of one person to that of another. We see this also in our daily experience in removing iron splinters from deep layers of the cornea, we notice how, if the splinters be clean and free from rust, the cornea heals without cicatrisation. When, for opening the lens capsule, or for evacuating the aqueous humour, you pierce the cornea with a needle or with a lance, no trace of the entrance of the instrument remains visible after the lapse of a few minutes. Indeed we shall best be able to repair lesions, whether produced by tra

atism or by pathological processes, if we carefully watch how nature fects her remedies.

I have recently had two cases which illustrate this point. In the st, a young man, aged 19, was admitted to the Glasgow Ophthalmic stitution, his eye having been lacerated by a piece of iron through the eater part of the cornea, nearly at its horizontal meridian. The eye covered, with an adhesion of the iris, and leucoma involving more an the lower half of the cornea, but is otherwise reparable.

Another young man, employed in a ship-building yard at Newcastle, as brought, in June 1884, to the Institution. A piece of iron had ruck the centre of the cornea and penetrated partly into the lens. he foreign body had been extracted immediately on occurrence of the cident, but suppuration had set in, and the eye had to be removed.

These cases illustrate a general principle that the cornea may ndergo a great deal of injury and yet easily recover, but that injury the cornea, when complicated with that of other structures, proves sastrous.

These facts all seem to point to the conclusion that we must seek sewhere the cause of suppuration of the cornea in extraction of cataract an in the cornea itself; namely, in the deeper structures. Suppuration kes place when, during the removal of the lens, violence has been done the iris and ciliary body. So, also, when fragments of the lens have en left in the interior of the eye, these, acting like foreign bodies, ve rise to inflammation, which, beginning in the iris, ciliary circle, d vitreous body, proceeds to suppuration, and then the cornea par-ipates in the suppurative process.

I remember when we used to operate by Daviel's method, and were customed to boast of the charming results produced by it. There is no talk then of corneal suppuration. In the years 1859 and 1860 I tended the clinique of M. Desmarres, a man of great originality and xterity, who revolutionised ophthalmic science, and to whom we are debted for a great many modern improvements. In his *clinique* of at period, we had about 200 extractions of cataract, and I cannot member a single case of primary suppuration of the cornea. It is ly since the scooping out of the lens and the squeezing with instru-ents have been adopted, that we have begun to hear of suppuration the cornea.

Von Gräfe, a man of genius, an illustrious pupil of M. Desmarres, ose teaching he utilised, enriched ophthalmology by his own in-rent ingenuity also; but his operation for cataract, I regret to say, s not been an advance. When he first published his operation in 65, it was somewhat rudely criticised by Professor Hasner, of Prague. hen disapproved of the attack, but, on looking back now to subsequent ents, I think Hasner's criticism by no means too severe. Everybody s been practising Gräfe's operation for cataract. A linear incision is ade at the extreme periphery of the cornea, and the lens is violently ueezed out with a gutta-percha spoon. What can you expect but at, in many cases, the nucleus passes through, leaving behind large rtical masses, which set up mischief by the third or fourth day after e operation, not to mention loss of vitreous humour and other mis-ps to which the procedure is liable?

Then we make the cornea the scapegoat. I am sure that, if von äfe had been spared a few years longer, he would have withdrawn modified the operation which bears his name. As a rule, it is tter to terminate the corneal section at the conjunctival limbus, for en the lens can slide out without a hitch; but when the vitreous body soft, the incision should terminate within the cornea. The corneal dge is, in such cases, more conveniently divided with a pair of ssors, without any dragging upon the wound.

It will not be out of place here to refer to another point connected with traction of cataract. I refer, namely, to the preparatory iridectomy, rformed a fortnight or so before the extraction of the lens. This was st suggested by Mooren as an adjuvant to Daviel's method. I have own, however, that, with preliminary iridectomy, we can limit the rneal incision to a curve extending little more than the third part of e corneal circumference, thus avoiding many of the risks to which aviel's method is exposed, and so making it applicable to cases, even which the flap-operation is contraindicated. My views have been fore the profession for the last sixteen years; they have also recently en brought forward at the meeting at Cork, and published in my rk on *Diseases and Injuries of the Eye*, 1882, and I have the great isfaction of finding that some men of standing in our profession have w adopted my method.

The late Mr. Critchett, whose death is a great loss to our circle of nest workers, told me that, in difficult cases in which he was very xious to ensure success, he resorted to my method; and I know that carried it out successfully in cases in which one eye had already en lost under a different operative plan. Professor Hirschberg, who oke in high terms of my operation, which he has seen practised at my clinic, has lately applied it successfully in a case of diabetic cataract. And so, after the lapse of sixteen years, some members of the profession have come round to my views.

Now, after dealing at such great length with what I consider to be the real cause of corneal suppuration, you will be prepared to hear my views on septic agencies.

Antisepticism, when applied to operations of the eye, I consider altogether out of place, another scapegoat for defective methods. When the lids are closed, the eye is placed within a shut cavity, which is inaccessible to septic agents. Irritating appliances during an operation can only do harm; and, when I see ophthalmic surgeons taking their instruments for operation out of carbolised solution, I look upon it as an artistic mistake. In short, I think it more in conformity with scientific principles if, instead of going in search of causes of corneal suppuration, we try to eliminate the failures which are staring us in the face.

In confirmation of the safety of my operative procedure to the most critical cases of local and constitutional complications, I will show you a patient, far advanced and emaciated from diabetes, on whom I operated for cataract a fortnight ago. I have terminated the section in the cornea, owing to the extreme softening of all the ocular tissues, and you will satisfy yourselves of the satisfactory result of the operation.

Dr. EMRYS-JONES (Manchester) said that, while he must speak deferentially of Dr. Wolfe's experience, he could not accept his conclusion that his particular method of operation was a panacea against all ills. His experience, from what he observed in his own and the extensive practice of his colleagues at the Manchester Eye Hospital, was that the modified Gräfian extraction was followed by as good results as he had ever noticed. He thought Dr. Wolfe appeared as an advocate of a particular operation, and exaggerated the defects of every other; and he (Dr. Emrys-Jones) was surprised to hear antiseptic precautions spoken of disparagingly, as he believed, thoroughly, that suppuration of the cornea was always caused by septic mischief.

Dr. EDWYN ANDREW (Shrewsbury) said that suppuration of the cornea in cataract-operations was more due to the general condition of the patient, than to the position of the section. In his country practice, suppuration had generally been the result of bad feeding in persons such as labourers' wives, who lived chiefly on a little bacon, tea, and bread. By feeding up such persons, a second operation would often succeed, where the first at once failed.

Mr. J. B. STORY (Dublin) stated that, in his opinion, the position of the corneal section had no influence whatsoever in the occurrence of suppuration after cataract-operations. A clean cut, whether in the cornea or in the sclerotic, healed up without suppuration, provided no septic infection took place at the time of operation, or afterwards, before the wound healed. It was only when a flap was made so large, and with so narrow a base, that the nutrition of its apex became defective, that the position of the section could be said to produce suppuration. But no one now made this kind of flap. Of course, such bad practice as bruising the ocular tissues, which Dr. Wolfe seemed to consider the ordinary custom of the operators who adopted von Gräfe's linear extraction, would produce suppuration, or sloughing, at all events, of the edges of the wound, whether corneal or scleral; but it was obvious that the position of the section had nothing to do with this disaster.

Mr. G. E. WALKER (Liverpool) said there were causes which influenced suppuration of the globe other than mere local causes, such as squeezing out the lens, or rough usage by scoops, etc. He described cases in which the entrance of sewer-gas into hospital-wards was indisputably the cause of the suppuration; for its prevention was followed by an immediate cessation of the fatality; and, in some cases, treated in a general hospital, the sending home of the patients was at once followed by cessation of the suppuration of the cornea; the remainder of the cornea remaining clear, although, of course, all useful sight was destroyed.

Dr. WOLFE, in reply, said that he was very much gratified that his remarks had given rise to an interesting discussion. If a linear section were made at the extreme corneal periphery, the depression of the lens could not be effected without violent pressure. In most cases of loss, it would be found that the inflammation began in the iris, and that it had been caused by fragments of lens left behind. If this important fact were impressed upon labourers in ophthalmic surgery, the discussion would have served an important purpose.

THE Middlesborough Town Council have, on the recommendation of the Watch Committee, increased the salary of Dr. McCuaig, as Medical Officer to the Police Force, to £80 *per annum*.

SURGICAL MEMORANDA.

THE TREATMENT OF PHIMOSIS WITHOUT OPERATION.

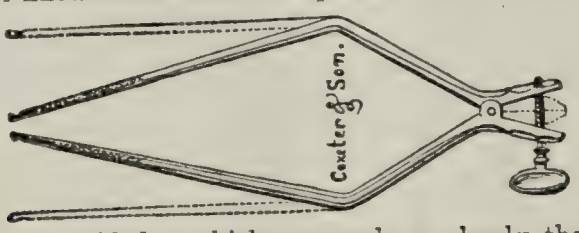
In the British Medical Journal for November 8th, 1884, is printed a description of a method of dilating the narrow free border of the prepuce in phimosis of adults, to enable it to slip back easily and without constriction.

I quite agree with the writer of the article in question that circumcision is seldom really necessary for simple phimosis; and that, with a little patience, the free border may be expanded painlessly, as much as is necessary, to allow it to go behind the corona glandis, during erection, without the least tightness or interference with the dilatation of the erectile tissue; but I think that the writer assumes too hastily that surgeons overlook the facility with which expansion of the free border may be obtained. For the last twenty years, I have shown this to the students of University College Hospital as a well known fact.

The writer describes a very ingenious instrument for expanding the foreskin, which, nevertheless, has the drawback of being somewhat complicated, and, consequently, expensive.

I find the prepuce-dilator, invented, I believe, by Mr. Carver of Cambridge, which is sold by Coxeter, to answer perfectly well. My custom is to apply the dilator myself for the first time, in order to teach the patient how to manage it himself in the subsequent applications. Few cases require more than six or eight applications to widen the narrow free border to the necessary extent. If the two blades of the dilator are screwed slowly asunder, and never so fast as to split the tender skin, the operation is painless and readily repeated by the patient himself.

The dilator known as Carver's is depicted in the accompanying cut,



and consists of two blades, which approach so closely that they can be passed through a very small orifice. They are roughened on the outer surfaces to prevent the foreskin from slipping off when it gets tight; a small screw behind the joint separates the blades for two or more inches if needed. The instrument is oiled before using, and washed in hot water after its employment. The simplicity of its construction allows it to be easily cleaned, and to be sold for twelve shillings, a point worth considering in an instrument that is seldom used more than a dozen times.

Berkeley Hill.

A CASE OF HYDROCELE OF THE LABIUM.

A. S., aged 28, was admitted into the Nottingham General Hospital on December 13th, 1882, with the following history. For several years she had noticed a swelling in the groin, over the situation of the external abdominal ring, of which she had taken but little notice, as it caused her no inconvenience. It slowly increased in size up to the time of her applying at the hospital, when, thinking she was ruptured, she came to the out-patient room for a truss.

On examination, a swelling of considerable size, oval, and elongated in shape, was seen occupying the right labium, and reaching up into the corresponding inguinal canal. It was quite smooth, tense, elastic, and dull on percussion, with a distinct impulse on coughing visible to the eye as well as to the touch. On further examination, it became apparent that the impulse was communicated and delusive, as moderately firm pressure over the upper part of the inguinal canal stopped it altogether, and, at the same time, the upper limit of the swelling could be made out with some difficulty, and it could be pushed down into the labium, so as to make the latter project in a striking manner. Fluid was diagnosed, and this was verified by the introduction of a fine needle. The opening was then enlarged, and about five ounces of a deep yellow-coloured fluid removed, and the sac injected with tincture of iodine. It did not refill, and in a week she was discharged cured, and had remained so when last seen, about three months afterwards.

Remarks.—I have no doubt that this was a genuine case of hydrocele of the labium, understanding by that a distension with fluid of the process of peritoneum which normally accompanies the round ligament into the inguinal canal, and which is known as the canal of Nuck. This process is usually obliterated in early life, but is said to be sometimes found patent even in old persons.

Be this as it may, such a case as the above is of so great rarity, as to make me think it worthy of publication. Dr. Thomas, of New York, in his work on *Diseases of Women*, refers to a solitary instance of it, but in most of our text-books the disease is unnoticed.

The differences which distinguish this form of swelling from an inguinal hernia were fairly well marked in this instance. 1. The tumour never varied in size, or disappeared on lying down. 2. It had been coming for years, and gradually growing larger. 3. It had created no derangement of the general health or intestinal disturbance. 4. Its upper limit could with care be defined, and it could be pushed down into the labium. It simulated hernia in its situation, and shape, and in the very distinct impulse on coughing.

A. R. Anderson, F.R.C.S., Nottingham.

CLINICAL MEMORANDA.

DIABETIC CATARACT: SPONTANEOUS RESOLUTION.

The subject of the following sketch was admitted to prison for fourteen days. On examination, it was found that he suffered from diabetes mellitus of eleven months' duration. He complained of blindness; this was due to the presence of symmetrical nuclear cataract; both lenses were opaque throughout, the left more opaque than the right. He was put on the ordinary diabetic treatment, with the addition of two grains of opium daily. His visual power was almost lost, persons and articles appearing to him as black-looking objects; ordinary letterpress could not be seen either with or without spectacles. While under treatment, his sight began to improve; the opaque lenses gradually cleared; and, on inspection for discharge, it was noted that no trace of cataract remained. I am not aware of any statement as to the occurrence of fugitive cataract in diabetes. Dr. Warburton Begbie stated that, the sight once affected, no improvement ever took place. Turning to Juler's *Text-Book*, we find diabetic cataracts amenable to ordinary treatment, but no reference to the possibility of spontaneous cure. As to the pathology of diabetic cataract, such natural recovery, to my mind, favours the idea of infiltration, rather than degeneration, of the fibres of the lens. Having regard to the production of large quantities of sugar in such patients, and the fact that sugar in the body is converted into fat, I should be inclined to recognise the product of such conversion as the efficient cause of the changes in the lens. I believe it is stated in some text-books that a large supply of hydrocarbon lessens the activity of respiration. Respiration is always less active in diabetics; the low temperature observed in such cases seems to be an expression of this fact. In my patient, the average morning temperature was 96.8°; the evening 97.4°.

The dryness of the skin and the crops of boils find explanation in the facts of development; the fibres of the lens, and the elongated cell of the deepest stratum of the cuticle, being elements of the same series probably both are alike affected.

T. F. Tannahill, H.M. Prison, Wakefield.

IS PNEUMONIA, (OR "PNEUMONIC FEVER,") AN INFLAMMATION?

Sir Andrew Clark, in his "Remarks on a Case of Relapsing or Intermittent Pneumonia occurring in an Aged Man," in the British Medical Journal of December 20th, makes the following observation. "Everyone appears to have asked if pneumonia is not a fever but scarcely anyone has asked if pneumonia is really an inflammation."

I was surprised to find that no reference was made to Professor Austin Flint's views on the subject, as fully detailed in his valuable work on medicine, although Sir Andrew Clark refers to a lecture of his own, delivered at the College of Physicians in 1866. Professor Flint's arguments, that pneumonia is the local manifestation of a fever, and should be called "pneumonic fever," may be summarised as follows.

A. In the first place, as to the local processes, the facts which argue against inflammation are these. 1. The amount of exudation is enormous; it may be from one to four pounds in weight. 2. The exudation is derived from the pulmonary artery, therefore from carbonised, and not from oxygenated, blood. 3. It is ultimately completely absorbed, *the air-cells remaining intact.* 4. It extends over a lobe by degrees, often slowly. 5. It occasionally invades a second

obe. 6. It occurs far more frequently in the lower lobes than in the pper.

B. Again, etiologically considered; Jürgensen is quoted thus: 'Croupous pneumonia can no more be produced by the excitants of nflammation than can the diagnostic intestinal lesions of typhoid ever." Pneumonia is never caused by the extension of any local process, such as abscess, gangrene, etc. (pyæmic or otherwise). Nor can njury cause it.

C. Finally, from the clinical point of view, we have: the one pronounced rigor; the rapid rise of temperature after a day or two, in dvance of the local changes; the enlargement of the spleen; the hanges in the urine; the absence of chlorides; and the occasional lbuminuria and jaundice; the spontaneous termination of the fever y crisis, often long before the local processes have healed; the absence any relapsing tendency, or of persistence in a chronic form, the sult being always early recovery or death. Lastly, the influence of ugs is little or none.

E. J. EDWARDES, M.D.

THERAPEUTIC MEMORANDA.

HAZELINE IN HÆMORRHAGE FROM THE BOWEL.

HE following case illustrates the value of *Hamamelis virginica* in the eatment of hæmorrhage.

A cabinet-maker, aged 44, had been subject for eight years to bleedg from the rectum. In 1877, he suffered from an attack of pleurisy the right side, and, during convalescence, noticed that he was passg blood in his motions in considerable quantities. The hæmorage was periodic, coming on in alternate months, lasting four weeks a time. The blood was passed in the morning, immediately after e bowels had been relieved. It was bright red in colour, usually uid, but sometimes coagulated, and amounted to about two ounces. he patient's general health suffering considerably, he was reduced to a ndition of great debility, and was forced to seek advice at St. Barolomew's Hospital. He was found, on examination, to be free m piles, fistulæ, etc., and was treated with little or no benefit as out-patient. In November, he was admitted as an in-patient at e Royal Hospital for Thoracic Disease, and was found to have taken most every drug in the *Pharmacopœia;* but the hæmorrhage still ntinued. Knowing the value of hamamelis in these cases, it curred to me that the aqueous distillate of the fresh bark known as zeline might be of use, and I accordingly injected an ounce, diluted th a small quantity of water, into his rectum, giving at the same ne half a drachm by mouth every three hours. The bleeding was at ce arrested, and, although the patient remained for some weeks der observation, there was no return of his old trouble.

This case, I venture to think, affords conclusive proof that we have, *Hamamelis virginica*, a drug which may be relied on for the treatnt of a very obstinate class of cases. I may mention that equally od results have in my hands attended its use in cases of pulmonary morrhage.

RICHARD HALPIN, M.R.C.S.,
House-Physician, Royal Chest Hospital, E.C.

CUCAINE AS A LOCAL ANÆSTHETIC IN OPERATION ON HÆMORRHOIDS.

A WOMAN, aged 50, suffering with hæmorrhoids, was sent to me, at e West London Hospital, by Dr. Campbell Pope. As she was the bject of both aortic and mitral disease, it was a question whether e ought to undergo any operation, ether and chloroform being inadssible. I determined to try the effect of cucaine as a local anæsetic, having recently assisted at an operation where, after the injecn of a solution of cucaine into the urethra and bladder, rapid hotrity was performed painlessly.

On Tuesday last, January 27th, I injected one minim of a four per nt. solution into each pile, of which there were six large ones, at the action of the skin and mucous membrane. Each pile was then refully painted over, four or five times, with the same solution. ithout any delay, the piles were ligatured *seriatim*, Salmon's scissors ing used to separate the hæmorrhoids from the anal margin. The eration, which lasted twelve minutes, was painless, the patient feelg only the last cut. This was as bad a case of hæmorrhoids as any ave seen, and, as such, was a severe test for cucaine, of which the mount used was five-and-twenty minims.

It seems to me that cucaine, which, by-the-by, should not be kept too long in solution before using it, must take the place of ether-inhalation in many operations on the urethra and rectum.

F. SWINFORD EDWARDS, F.R.C.S.Eng.,
93, Wimpole Street, W.

CUCAINE AS A LOCAL ANÆSTHETIC.

THE following evidence may help to bring a valuable drug into general use. A few days ago, I had to open a mammary abscess. The organ was exquisitely painful. I injected twenty minims of a 2 per cent. solution of hydrochlorate of cucaine. In ten minutes, the whole gland was anæsthetic, and I was able to make a free incision without causing any pain.

F. PEIRCE, Hoylake, Birkenhead.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

NORTH STAFFORDSHIRE INFIRMARY.

LARGE CALCULI, WEIGHING EIGHT AND A HALF OUNCES, REMOVED BY BILATERAL LITHOTOMY: RECOVERY.

(Under the care of Mr. SPANTON.)

[Reported by Mr. G. H. DODD, Assistant House-Surgeon.]

JOHN MYCOCK, aged 37, was admitted November 20th, 1884. For the last six years, the patient had suffered from symptoms of stone in the bladder, with much pain over the hypogastric region, and, to a less extent, at the end of the penis. Micturition had been frequent, and had obliged the patient to rise several times during the night. The passage of blood with the urine had also been of frequent occurrence. His general health had suffered greatly, and of late he had kept his bed.

On admission, the patient was in a very low and emaciated condition. On passing a sound, a calculus, which was presumed to be of large size, was readily detected. The urine was alkaline, mucopurulent, and highly albuminous.

November 22nd. The operation was commenced with the usual lateral incision for lithotomy. The forceps being introduced, the stone was grasped; but the incision was found to be too small to allow extraction. The incision was then enlarged to the greatest possible extent, and the stone was again grasped, but without success. Another incision was then made on the right side, converting the previous incision into a bilateral one; but, as this did not admit of the extraction of the stone in its entirety, a pair of bone-forceps was introduced into the bladder, the stone cleft, and the pieces severally removed, when it was seen that two stones had united firmly together to form a very large mass. The amount of hæmorrhage was very slight. One calculus weighed four ounces, the other four and a half ounces—altogether, eight and a half ounces; and they consisted of mixed phosphate and uric acid.

After the operation, the patient rallied well; the temperature rose the night after the operation to 100.4° Fahr., but fell again on the following day, November 24th. The wound granulated rapidly, and no urine passed through the wound after January 6th, 1885. The patient regained flesh and health, and was overjoyed at his deliverance. The wound was entirely healed on January 14th. He left the infirmary on January 19th. His urine then contained a small quantity of albumen; otherwise he appeared to be in perfect health.

Subsequent Treatment.—The triangular flap was first supported, and held in position by a pad in the perinæum with a T-bandage, and subsequently by one silver wire suture. The parts were daily syringed out with iodised water.

REMARKS BY MR. SPANTON.—Cases of very large calculi, such as these, are sufficiently rare to be worth record. In this instance, the difficulty of extraction was increased by an unusually narrow pelvic outlet; but, as soon as one stone was crushed, the second was extracted, without difficulty, entire. It is a singular circumstance, worthy of remark, that, after such bruising of the soft parts as this operation necessitated, not a single untoward symptom followed.

THE GENERAL HOSPITAL, BIRMINGHAM: OUT-PATIENT DEPARTMENT.

(Cases under the care of Dr. SAUNDBY.)

DIABETES.

SIX cases of diabetes have been under treatment during the last year, five males and one female. The average age was 46, the youngest 33, and the eldest 60. Of these, one ultimately died of coma. His case was somewhat peculiar, as he distinctly attributed the onset of his symptoms to a blow on the abdomen caused by falling across the strap of the fly-wheel of his engine. The course of the disease was rapid, and unaffected by remedies. He died eight months after the injury, and seven months after coming under observation. Of the remaining cases, two improved decidedly under treatment; and it is noteworthy that they were the two whose ages were most advanced, one being 56, the other 60, illustrating the important clinical fact that diabetes diminishes in prognostic gravity as age advances.

Taking the cases in order of seniority, the same fact manifests itself. The next in that order, a man aged 48, has remained *in statu quo*. He has much impaired vision from diabetic retinitis, but maintains his body-weight, and a low level of general health. The next case, aged 41, is the man who died. Following him is one aged 39, who had amblyopia without obvious change in the eyes. He suffered much from severe sweating, which was checked by a Dover's powder, after atropine had been tried and failed. This patient made little progress. His urine often gave a marked reaction with ferric chloride, but no coma followed, and after a time he was lost sight of. The youngest patient was a married woman aged 33, whose urine also gave a marked ferric chloride reaction almost constantly. She was afterwards treated as an in-patient, with little benefit.

The method of treatment pursued in these cases has been to place them on a modified diet, from which sugar and starch were excluded; but a small quantity of brown bread was allowed in most cases. Alcoholic drinks of all kinds were forbidden; water, tea without sugar, soda-water, butter-milk or skimmed milk, and the following lemonade were permitted: ℞ Acidi lactici, glycerini, āā ℥ss; tincturæ limonis ℥j; aquæ ℥vj. This lemonade was taken at the rate of about a pint daily. Patients were always told that they might indulge their thirst freely if they kept to the prescribed liquids. No bad effects have ever been noticed to follow the use of glycerine. Cod-liver oil was always given when there was loss of flesh, and means were taken to keep up a free action of the bowels, as it is held that constipation constitutes a source of real danger to the diabetic.

Various drugs were used, including the salicyl compounds, codeia, opium, bromide of potassium, arsenic, iron, and alkalies. It may be confidently affirmed that no drug employed has shown itself capable of exerting a constant influence on this disease. The most useful are opium, bromide of potassium, and arsenic. In many cases, especially in persons over 50, the tincture of the perchloride of iron has given better results than any specific remedy.

The occurrence of a well marked ferric chloride reaction in two cases, when it was not followed by coma, illustrates the truth of recent observations, which have shown that this association is not by any means constant. It is, however, worth stating that, in the case of the patient who died, this reaction appeared for the first time in the urine passed during the premonitory stage preceding the fatal coma.

HYSTERIA.

In the out-patient room, we constantly meet with the varied and curious phenomena of hysteria; and, owing to want of previous knowledge of the individuals, and the difficulty of obtaining information about them, especially if, as often happens, they come alone, it is often not easy to make a correct diagnosis. Not long ago, a young girl was brought by her mother with a letter from a medical man in the town, who expressed his belief that the case was not one of hysteria. There was paraplegia, with rigidity of the lower limbs, increase of the deep reflexes, ankle-clonus, and a history of squinting and double vision. The last point made the diagnosis doubtful; she was, therefore, admitted into the hospital, but isolated in a small ward. On further inquiry, it turned out that a round worm had been passed soon after the attack commenced, and that the squinting had not recurred. Under cold baths and discipline, she made a rapid recovery. The importance of isolating such cases absolutely, and forbidding all visits from friends and relatives during the course of the treatment, cannot be too strongly insisted upon. The resemblance of such cases to organic spastic paraplegia is very striking. At the same time, a patient in the next ward presented the same symptoms, but they were evidently due to syphilis affecting the nervous centres.

About a year earlier, a young woman was brought by her mother, who gave the following history. Five days previously, as her daughter was travelling between Brettell Lane and Dudley, a distance of about three miles, she felt a numbness down her right side, affecting her right arm and leg; and at the same time she lost her power of speech. This was about 4 or 5 o'clock in the afternoon. There was no loss of consciousness. The next morning, she rose as usual; but, in the course of the day, had another attack, which her mother saw. "The left side of the face was drawn, and the right arm felt dead." She was evidently anæmic. There was no cardiac murmur. She presented no loss of motion or sensation in the right arm or hand, and she was not lame. There was no evidence of syphilis in her own person or in the family-history, and there was no otorrhœa. She could speak, but complained of difficulty in articulating. No diagnosis was made; but the case was regarded as, in all probability, of functional origin. A fortnight later, she had recovered her speech; and in a month appeared quite well. A few weeks ago, the same girl made her appearance with a well marked hysterical contraction of the left arm, and a history of having had a cataleptic seizure a fortnight previously. This left little doubt that the former attack was also hysterical, though at the time it was not possible to form a positive opinion.

Several cases of hysteria have been treated as in-patients. The plan adopted has been to isolate them in a small ward from other patients, and to forbid all visitors; to treat anæmia or irregularities of menstruation by appropriate means; to ensure a sufficient, but not excessive, supply of nutritious food being taken; and to give a bath at 60° every morning for twenty minutes. In cases of paraplegia, the patients have been dressed, and gradually encouraged to walk with a nurse. Fits ceased on isolation.

The results of this treatment have been most satisfactory. Nothing is worse for a hysterical patient than to be admitted into a general ward and made the subject of clinical lectures and note-taking.

EXOPHTHALMIC GOÎTRE.

Three cases of exophthalmic goître have been recently under observation. They were married women, aged 27, 34, and 41 respectively. In one case, the proptosis affected the right eye mainly, and the thyroid body was enlarged on the left side. The treatment of this disease is most unsatisfactory. The constant current has never succeeded in doing any real good, though patients have, as usual, thought themselves better. Small doses of bromide of potassium, with a mild iron tonic, such as the citrate of iron and ammonia, seem to be the best treatment. The prognosis as to recovery is very bad, but is good, as far as life is concerned, so long as the general health is maintained.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

(Cases under the care of Dr. SUCKLING.)

HYSTERICAL PARAPLEGIA.

H. J., aged 20, a domestic servant, was admitted on June 6th 1884. Her family-history was good, and she had never had any previous illness except small-pox when quite young. Her present complaint (weakness in the legs and difficulty in walking) dated back three years. At that time, she had a wart on her knee, which was treated by a chemist; and whilst under treatment, the leg became stiff one night, and the next morning the patient could not use it. The left leg remained well until four or five months before admission, when it became weak and useless.

The patient had been in St. Thomas's Hospital, where the paralysis was treated by the battery, and she almost completely recovered. She remained well for about eighteen months, and then the condition returned.

HYSTERICAL PARALYSIS.

The patient was somewhat anæmic, unable to walk without support and when supported, with marked tremor. The toes were dragged along the ground (talipes equinus). The gait was not typical of spastic paraplegia, the pelvis was not elevated on each side alternately nor were the feet projected forwards by circumduction of the thigh, but she projected her feet forwards by flexion at the hip and knee. The right leg was much more tremulous than the left, and the talipes was more marked.

The patient gave contradictory statements as to her perception of contact-sensations, and also as to those of pain. But she evidently suffered pain when pricked with a pin, and strong faradic currents occasioned great pain. The organic reflexes were normal; the plantar reflexes were increased; the abdominal, epigastric, and interscapular reflexes were diminished; ankle-clonus and front tap contraction were well marked on both sides; the patellar tendon-reflex was exaggerated on both sides. The cerebral and mental functions were normal; the

limbs were not wasted, and not œdematous. She complained of no interference with micturition or defæcation. There was no spinal curvature or spinal tenderness, and no girdle-pain or zone of hyperæsthesia, and she had never had any bed-sores. Menstruation was regular, but insufficient. She had the *facies hysterica*, the upper eyelids drooped, and the upper lip was deep and pendulous. She watched intently all movements. A peculiar odour emanated from the patient; an odour similar to that recently observed in a case of hysterical contracture of the hand and forearm.

REMARKS BY DR. SUCKLING.—The condition of the patient then is spastic paraplegia. Is this due to (1) primary lateral sclerosis; or (2) descending sclerosis, secondary to some lesion in the cord, as a myelitis; or (3) is it functional? Primary lateral sclerosis is very gradual in its onset; is never sudden; is rare (very rare in women); there are no sensory disturbances, but urinary and rectal disturbances from loss of cerebral control. As to the second alternative, there has been no myelitis, for there is no true loss of sensation; there has been no girdle-pain or hyperæsthetic zone; no bed-sores or cystitis; and the girl says her legs were stiff from the first. The paraplegia was, I think, functional, for the sudden onset was characteristic of hysteria, as was also the gait. When the patient was placed with her back to the wall, and made to stand on her toes, no spasm of the calf-muscles was observed, and the toes were not fixed to the ground. The contradictory statements as to sensation and the *facies hysterica*, also support this view. Under chloroform, it was found that the rigidity disappeared, that the ankle-clonus and front tap contraction were done away with on the left side, but that slight clonus remained on the right side (the side most affected). The anæsthetic was not given to the full extent. The history of recovery and second attack, and, lastly, the age and sex, were in favour of hysteria. The muscles responded normally to electricity, but the response was slightly diminished (from disease). Charcot has pointed out the frequency with which hysterical attacks, and especially hysterical paralysis, follow on traumatic causes. In this case, the treatment of a "wart" seems to have been the exciting cause.

July 29th, 1884.—The subsequent progress of the case confirmed the diagnosis of hysterical paralysis. The patient had incontinence of urine and fæces for a day or two, but after a stern admonition immediately recovered control. Her condition also varied from day to day; one day being unable to walk at all, the next day being improved. The patient has been faradised daily, and has been made to walk up and down the ward by the house-physician and clinical clerk each taking an arm. The effect of the latter treatment has been marked, the patient now being able to walk without assistance, though not well.

FALMOUTH COTTAGE HOSPITAL.

HYSTERICAL PARAPLEGIA.

(Under the care of Mr. MASON POOLEY.)

H., aged 45, was admitted on March 19th, 1884. She was married, a mother of a large family. She had been unable to stand for six years, or sit in a chair for over eleven years. She was in an infirmary some months, and discharged incurable; the case being diagnosed as "nervous prostration." She was placed under Dr. Weir Mitchell's treatment on March 24th, full massage being in use by April 3rd; on that day the galvanic battery was also used, at first for few minutes at a time, gradually increasing to forty minutes. All the external muscles were exercised in turn. At the close of each exercise, one pole was placed over the last lumbar vertebra, the other over the heel of the foot for fifteen minutes; the lower pole being changed from the right to the left foot. Massage was first applied for half an hour in the morning, and for the same period in the afternoon; the period gradually increased to one hour each time. Neatsfoot oil was used in applying the massage. When the patient came into the hospital she had little or no appetite for food, great constipation of the bowels, was subject to fainting fits and to nervous depression, and almost constant headache. All these gradually ceased under the above treatment; and in about three weeks from the date of her admission, she enjoyed three good meals a day, had a regular action of the bowels, and made no complaint of headache or faintness. A mixture of the perchloride of iron in doses of ten to fifteen minims, with five minims of liquor strychniæ, was given three times a day.

During the treatment was carried out, she suffered more or less from weakness and pain in the muscles. She stood alone for the first time on May 16th, seven weeks and four days from the time massage was commenced. On May 28th, she walked from one room to another without any assistance but her stick. She rose from bed and dressed regularly at 10 A.M., going to bed at 8 P.M., lying down for an hour and a half in the early part of each afternoon.

She continued to gain power and use in her limbs daily; on several occasions she walked over five hundred yards without her stick, and was discharged cured on June 30th.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

JANUARY 27TH, 1885.

GEORGE JOHNSON, M.D., F.R.S., President, in the Chair.

Cases in which Perforation of the Mastoid Cells is Necessary. By W. B. DALBY, F.R.C.S., M.B.—The paper did not deal with the ordinary cases, where, after inflammation of the middle ear, the usual signs of abscess in the mastoid process, with softening of the external plate of bone, were present; such cases were often met with, especially in children, and were to be treated by a free opening. In some of the cases recorded in the paper, the external plate of bone was healthy, and yet there was pus in the mastoid cells. In others, although the external plate of bone was diseased, the matter took a circuitous route under the scalp, at one time into the temporal region, at another into the occipital region, and down the muscles of the neck. Although in some cases the indications for perforating the mastoid cells included continuous pain in the mastoid region, œdema on deep and continued pressure, pain increased by the recumbent position, a high temperature and severe rigors, as already detailed in the contribution on Diseases of the Mastoid Bone (*Transactions*, vol. lxii), cases of pus in the mastoid cells while the external plate of bone was healthy were related, from which one or more of these symptoms were absent. Although the external osseous plate be found healthy, the perforation should still be made, if the constitutional symptoms pointed to the presence of pus within the bone. Perforation of the mastoid cells was performed with a drill, provided with a stop to enable the precise depth of the perforation to be determined. Thus all risk of penetrating too deeply was avoided, and the operation was free from danger. Six cases were selected, each of which illustrated some point of importance. In one case, the patient was comatose, but afterwards recovered. In two others, the inflammatory process was prolonged for many months before the evidence of the presence of pus was conclusive. In another, symptoms of infantile paralysis were present, and disappeared after perforation of the cells had given exit to pus. In another, the pus not only passed forward under the temporal muscle, but towards the occiput under the splenius capitis and complexus muscles, and down the neck to a level with the thyroid cartilage. In conclusion, the author expressed his belief that perforation of the mastoid cells was more urgently and frequently required than the literature of the subject would lead the reader to infer.—The PRESIDENT had met with a considerable number of cases of fatal disease of the brain as a result of extension of inflammation from the auditory apparatus, and the operation suggested by Mr. Dalby appeared to be comparatively simple, and most satisfactory in its results.—Dr. U. PRITCHARD observed that there were a large number of cases of pus within the mastoid cells where symptoms were very few, and where pain could only be elicited by percussion. The operation was simple, the only danger being wound of the lateral sinus; perforation of the mastoid cells was sometimes followed by great relief of symptoms, even when no pus was found at the operation.—Mr. WARRINGTON HAWARD referred to the extreme frequency with which pus was found in the ears after death; death was not unfrequently brought about by secondary inflammation of the meninges, suppurating pleurisy, pyæmic pneumonia, or other pyæmic conditions. Discharge of matter through the ear did not prove that there was free exit for pus from the mastoid cells, which formed a complicated system, and communicated with the tympanum by a very small opening, easily occluded by swelling of the mucous membrane or by pus. Beyond this, there was the fact that pus might find its way to distant parts, cause much pain, and even endanger life. The operation was extremely simple, and quite free from danger if the drill recommended by Mr. Dalby were used; while the condition in which the operation was recommended was one of great gravity.—Mr. HOWARD MARSH thought that many patients perished who would, by using Mr. Dalby's method, be saved. He had performed the operation twice on children; it was undoubtedly necessary to use care, especially in children; but the operation was comparatively simple, and very useful. The danger of trephining over a sinus had been greatly exaggerated. He had himself been compelled to trephine twice over a sinus in cases of compound fracture—once over the longi-

tudinal, and once over the lateral; in both cases, without untoward results.—Mr. DALBY, in reply, confirmed the importance of Mr. Haward's observation with regard to the narrowness of the communication between the mastoid cells and the tympanum, and the slight communications between the several cells. Though no pus was found at the time of operating, it might be noticed a few hours later. He attached much importance to the use of the drill, which rendered the operation far safer and less severe than the use of a hammer and chisel, as had been recommended in America.

Case of Simultaneous Double Distal Ligature of the Carotid and Subclavian Arteries for High Innominate Aneurysm. By RICHARD BARWELL, F.R.C.S.—Laura H., aged 48, was admitted into Charing Cross Hospital, February 16th, 1884. She was thin, pale, and anæmic. Her health had been uninterruptedly good until eighteen months ago, when she had a fall, without immediate ill effects. A year ago she noticed a sense of throbbing at the upper part of the right side of the chest, and very soon afterwards neurotic pains and loss of power in the right arm. On admission, there was, in the outer half of the episternal notch, and behind the inner head of the right sterno-mastoid muscle, a pulsatile tumour, which involved the carotid artery. The voice was very low and toneless. Very little air entered the lungs. The apex-beat of the heart was not displaced. The right radial pulse was very small, and ceased altogether four days after admission, when no pulse could be felt throughout the arm, nor at the third part of the subclavian artery. During the next twelve days, the patient became more feeble, less air entered the chest, and the line of dulness rose higher. On February 28th, Mr. Barwell tied the carotid; and as the immediate effect of ligaturing this vessel was an increased pulsation of the sac, he tied the third part of the subclavian also, lest the obstruction should yield, and the aneurysm again increase outward. The patient, though weak, and disturbed by some intestinal troubles, went on until March 28th, when recurrence of pulsation in the cervical part of the tumour took place; this continued for seventeen days, when it diminished, and soon ceased altogether, and definitive consolidation followed. On May 6th, she left the hospital. On June 4th, she showed herself at the institution; there was no enlargement at the upper part of the chest nor any tumour to be felt in the neck. Over the site of the late aneurysm, percussion was clear, and the respiratory murmur distinct. No pulse could be felt in any branch of the right carotid and subclavian arteries. In the author's opinion, the symptoms clearly indicated a high innominate aneurysm, involving both the artery and its bifurcation, especially because pain in the right arm was a very early symptom. It was probable that the disease first began in the subclavian branch, and that the subsequent affection of the inner side of the innominate compressed the subclavian and that portion of the sac arising from the subclavian artery. Anatomical reasons were given for this view, and attention was directed to the absence of a tumour at the clavicular part of the sterno-mastoid muscle. Explanations of the mode of origin of the several symptoms were suggested. The author also dwelt upon the spontaneous cessation of all pulse in the right arm, and stated the means he had taken to ascertain whether cerebral injury would follow the ligature of the carotid artery in a case where probably no blood passed to the brain along the right vertebral artery. He also drew attention to the clearing of the lungs and re-entry of air into them. The mode by which soft clots in aneurysmal sacs were disposed of when recurrence of pulsation occurred was discussed. This case was the sixth instance of double distal deligation that Mr. Barwell had brought before the Society. Of these, five had been successful, the one narrated, to the date of writing this communication (July, 1884), perfectly so.—The PRESIDENT congratulated Mr. Barwell on the remarkably successful result of the operation of ligature in his hands. The aphonia in the cases recorded was apparently due to direct pressure by the sac on the trachea.—Mr. MITCHELL BANKS, of Liverpool, said that he had only had occasion to perform the operation of double distal ligature for innominate aneurysm once, and the carotid artery was already occluded in that case. Kangaroo-tendon was used for the ligature. The wound was closed on the eighth day, and pulsation had then greatly decreased; subsequently an extensive effusion of blood occurred, and formed a pulsating tumour. The patient died, and at the necropsy it was found that the aneurysm had been partially cured by the operation, but the subclavian artery had been destroyed on the cardiac side of the ligature, apparently by ulceration, which had probably started from the seat of the ligature. The choice of the material for ligature was a point of great importance; the kangaroo-tendon yielded too soon; and he was inclined to suggest the use of two or three round ligatures. He showed a specimen which, though not of the same class as Mr. Barwell's case, threw some light on the questions raised. The patient had an aneurysm of the third part of the subclavian; for this, Mr. Banks ligatured the innominate and carotid arteries at the same time. The patient, an excitable man, insisted on leaving the hospital ten days later; he returned with the aneurysm again large and painful. The first part of the subclavian was now ligatured close to the scalenus anticus muscle. The aneurysm of the third part of the subclavian was practically cured, but the patient died from secondary hæmorrhage proceeding from the seat of the ligature, where a small sinus had remained.—Mr. TIMOTHY HOLMES thought there was at present no evidence that simultaneous ligature was necessary. He preferred to ligature the carotid artery first; ligature of the subclavian might subsequently be unneeded. The most successful case of ligature for aneurysm of the innominate was the old one recorded by Evans; the patient lived for nearly forty years, in spite of a drunken disorderly life. The carotid artery only was ligatured in this case; but, not long after the operation, the subclavian became occluded. Occasionally a similar result followed ligature of the left carotid artery for aneurysm lower down; in one such case of aneurysm of the transverse part of the arch, in which he had operated six years ago, the patient, a young woman, was still in good health. He thought that, in the cases published by Mr. Barry, great benefit followed ligature of the carotid before the subclavian was ligatured. The ligature of the subclavian added greatly to the danger of the operation. Where the stress of the aneurysm fell chiefly on the subclavian part of the sac, it might be proper to ligature that vessel first; but, as a rule, ligature of the carotid artery produced more effect, for it gives off no such considerable branches as does the subclavian in the first two parts of its course. Ligature of the carotid, therefore, completely arrested the current of blood. He considered the ox-aorta ligature a very much better ligature than catgut prepared in any way. The kangaroo-tendon also formed an admirable ligature, and the failure with it were probably owing to not pulling it sufficiently tight.—Mr HOWARD MARSH pointed out that, in Mr. Barwell's case, pulsation in the subclavian artery had ceased before the operation; and full agreed with Mr. Holmes in considering the ligature of the carotid th more important and influential. Analysis of the published cases c double ligature showed that the occlusion of the sac was not alway brought about in the same way; and that, in fact, in many cases, onl one vessel remained pervious. Kangaroo-tendon had been much use at St. Bartholomew's Hospital, with general success; but it had occ sionally broken in tying.—Mr. SPENCER WATSON had used both t kangaroo-tendon and the ox-aorta ligatures, and did not think necessary to cut through the inner and middle coats of the artery, b merely to bring the sides into apposition.—Mr. BARWELL, in repl said that he preferred to ligature the two arteries at once, because t ligature of the subclavian artery did not greatly complicate the oper tion. If ligature of the subclavian in the first part of its course we not a most precarious operation, he would prefer it to ligature of t third part.

CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 23RD, 1885.

A. E. DURHAM, F.R.C.S., Vice-President, in the Chair.

Case of Hemianæsthesia from Congenital Brain-Disease.—I ALTHAUS read the particulars of this case. The patient was a gi aged 11, who was admitted into hospital for epileptiform seizures, a what had been called paralysis of the left side. There was no inheri neurotic tendency, but she had been delivered with instruments. examining the side which had been believed to be paralysed, Althaus found that there was no paralysis of motion anywhere, complete hemianæsthesia from the vertex down to the toes. Sen bility was unduly keen on the right side, and the line of demarcat between the sensitive and anæsthetic zone was sharply defined. order to show that she felt nothing in the left hand, the patient h self bit and scratched it, ran a pin right into the flesh of the h and forearm, and said she had never felt anything there as long as could remember. All the various forms of sensation, namely, of tact, pain, temperature, and pressure, were completely lost; and anæsthesia affected likewise the mucous membranes of the eyes, n and mouth. The superficial reflexes were lost, while the deep tendon-reflexes could be elicited. The left pupil was insensible to influence of light. There was also hemianæsthesia of all the nerv special sense; ophthalmoscopic examination of the fundus of the showed the optic disc to be of a pearly white lustre, and the calib the vessels small. The patient was blind, deaf, and deprived of smell taste on the left side. There was also ischæmia, as punctures did bleed, and some ataxy of movement in the left hand. Dr. Alt diagnosed hæmorrhage in the posterior third of the posterior segm of the white internal capsule in the right hemisphere, affecting

the paths of sensation, but not the pyramidal strands which conduct the power of motion, and are situated more anteriorly in the capsule. He thought the hæmorrhage to be due to delayed birth and instrumental delivery. It would be an absurdity to assume the existence of hysterical hemianæsthesia in a newly born infant; nor could the idea of a tumour be entertained, as the degree of the affection had never varied throughout life. The hemianæsthesia in this case yielded completely to a single application of electricity, by the proceeding known as faradisation of the skin; and Dr. Althaus explained this surprisingly rapid result by assuming that the clot of blood, which was the primary cause of the affection, had been absorbed soon after birth, but had left a condition of functional paralysis in the part originally affected. The suitable stimulus of electricity then overcame the impediment which had so long existed in the conduction of sensitive impressions to those cortical centres by which they were appreciated.—Dr. ANGEL MONEY asked how Dr. Althaus explained the atrophic condition of the left optic nerve, the injury described affecting the posterior segment of the capsule only. In all the cases he had himself seen after death, the cortical lesions were much more pronounced. He thought Dr. Althaus' patient's condition might be associated with the epileptic seizures displayed by the child.—Dr. ADENEY inquired whether electricity restored the sight of the blind eye.—Dr. DAVID LEES wished to know on what evidence Dr. Althaus arrived at the conclusion that the girl had been anæsthetic from birth.—Dr. ALTHAUS said the optic nerve was not actually atrophied, but presented the appearance of having been long unused. Subsequent examination was prevented by the sudden removal of the patient from the hospital. The father of the child was the informant as to her condition from birth. After full consideration of all the circumstances of the case, he—Dr. Althaus—had rejected the explanation of it as a result of cortical injury. Original pressure on the cortex by forceps during labour might, however, account for the epileptic fits.

A Case of Scrofulous Gland-Disease with Phthisis.—Mr. FREDERICK TREVES described the case. A female patient, aged 17, presented a number of scrofulous glands in the neck and axillæ. These swellings had appeared two years previously, and were advancing in spite of all treatment. The lungs were sound. The more prominent glands were evacuated by means of thermo-cautery and scraping, and might be considered to have been cured. In six months, the remaining glands were treated in the same way, and did well. Two months after the second operation, the patient was attacked with pleurisy, internal evidences of phthisis appeared, and she died six months after the last surgical procedure. The case raised the very important questions as to how far surgical interference was justifiable in scrofulous gland-disease, and to what extent such interference might be conducive to phthisis. In spite of the issue in the present case, Mr. Treves argued in favour of operation in properly selected cases. The cases must be carefully chosen. In many instances, judicious operations had entirely cured cases that had resisted treatment for years. He quoted the statistics of the hospital at Berck-sur-Mer, where all scrofulous gland-affections were treated by surgical means, and where the results had been most encouraging. Mr. Treves, in conclusion, reviewed the various operative measures adopted in the treatment of these cases.—Dr. BURNEY YEO asked whether bacilli had been discovered in the gland-tissue removed. He considered that, if all glands so affected were bacillous, their being opened would involve serious risk by admitting air to germs needing only such stimulus to be abundantly aroused to activity. In France, recently, considerable discussion had taken place on the relation between tubercle and scrofula, and there a distinction was drawn between tuberculous and non-tuberculous strumous glands.—Mr. GODLEE said that his experience at the Brompton Hospital enabled him to affirm that numerous instances of strumous joints, scrofulous gland-affections, and allied diseases, presented themselves concurrently with evidences of phthisis among the patients under treatment at that institution, and he thought the association by no means uncommon. Had Mr. Treves made trial of blistering over the glands? He (Mr. Godlee) had found this plan successful. The knife, he considered, ought only to be applied to those cases in which marked adhesions were absent; and, in his opinion, the thermo-cautery was unnecessary when Volckmann's sharp spoon was employed, the latter being especially applicable to cheesy conditions of glands.—In reply to a question from Dr. GLOVER, Mr. Godlee stated that he had encountered cases of tuberculous testicle existing in non-phthisical patients.—Mr. SYMONDS remarked that, at a discussion held by the Society some time ago, it was agreed that improvement of strumous subjects followed the removal of the local mischief, even in those who were distinctly phthisical.—Dr. EWART thought it doubtful whether scooping of the glands was really an imitation of nature. Entire removal was desirable, so that no focus of future inflammation should be left behind.—Mr. STEPHEN PAGET mentioned the case of a man who was under Mr. T. Smith at St. Bartholomew's Hospital. He was the subject of strumous disease of the right epididymis, and it was decided not to operate on him. After being for a fortnight at the sea-side, the man returned with the testicle also attacked, and sloughing away. Phthisis next appeared, and strumous disease of the left testicle. He was again sent to the sea-side for eight weeks. The phthisis improved, but the disease of the testicle advanced. By the latest accounts, the man was very ill.—Mr. BARWELL urged the desirability of an understanding as to what were strumous and what tubercular glands. Speedy removal of diseased tissue containing living organisms was to be aimed at; but he thought the fewness of the foci in struma rather militated against the bacillary theory of the affection. He also would like to know if bacilli had been found in the glands removed by Mr. Treves. He thought that glands too far gone for the knife were equally unsuited for treatment by the thermo-cautery. He disapproved the plan of scraping out the glands and leaving their capsule, which often subsequently became the centre of inflammation.—Mr. TREVES said that the process taking place in all strumous glands was tuberculous in a measure, and he characterised four varieties of inflammation which might be distinguished on examination of a large series of cases, namely (1) a low form of chronic inflammation; (2) chronic inflammation in the products of which giant-cells were to be found; (3) inflammation resulting in product of a tubercular form; (4) typical miliary tubercles. The last named variety of inflammatory change was exceptional, and it was only in it that bacilli were discovered. The difficulty of distinguishing between bacillous and non-bacillous forms constituted the obstacle preventing the true nature of the growth from being ascertained. The experience he had gained while resident surgeon at the Margate Hospital was the basis of his statement as to the unfrequent association of scrofula and phthisis. On the subject of blistering, Mr. Treves expressed himself decidedly averse to the practice. It led to harm in many cases, and especially when the relations of the affected part rendered extension of the irritation by the lymphatics certain to occur. He employed the thermo-cautery to puncture the skin before introducing the spoon, because, by so doing, undermining of the skin was prevented as a sequel to operation. Harm had undoubtedly sometimes arisen after incomplete scraping. Mr. Barwell had misunderstood his reference to removal of the gland; this, he insisted, should only be attempted with the knife when complete excision could be effected. His own experience of scraping, like that of Mr. Teale, of Leeds, was very satisfactory. In treatment, rest occupied a most important position.

Malignant Stricture of the Œsophagus.—Mr. CHARTERS SYMONDS brought forward a case to illustrate the use of a new form of permanent œsophageal catheter. The patient was exhibited wearing one of the tubes; the latter also were shown. The patient, a man, aged 40, gave a history of seven weeks' dysphagia before coming under treatment on June 23rd, 1884. At that time he was unable to swallow, and it was impossible to pass a bougie. He, however, on the day of admission, managed to swallow some milk, and in a few days took fluids freely. The first tube was passed on July 15th. This was the usual long œsophageal catheter, and projected from the mouth. It proved a source of great irritation, and had to be removed in thirty-six hours. The long tube produced much laryngeal irritation, and, by plugging the stricture, prevented the descent of the saliva, and gave rise to constant expectoration. The tube brought before the Society by Mr. Symonds was designed to remove these inconveniences, while retaining the advantages of the method of treating œsophageal stricture by permanently wearing a tube. The tube was about six inches long; one end expanded into a funnel, having an outside diameter of half to three-quarters of an inch; the other had the same construction as an ordinary catheter. The tube was passed through the stricture, the funnel resting on its upper face, thus preventing the further descent of the tube. For removing it, a piece of strong silk was attached, carried out of the mouth, looped over, and fastened behind the ear. These tubes were made of gum-elastic. The patient had been wearing the catheters since July 15th. They had been renewed at various intervals—at first of a week, and later they had been retained a fortnight and three weeks. No difficulty was experienced in removing them, nor did the patient suffer any inconvenience from their presence. The man could swallow fluids freely, and had gained in weight. The advantages claimed for this form of tube were that, while maintaining a passage into the stomach, it did not interfere with deglutition, produced no irritation, was not unsightly, and, moreover, retained to the patient the pleasures of taste. The man was able to move about with comfort, and, except for the silk passing out of his mouth, was not aware of the presence of the tube. It was suggested that, if the cases

of this disease were taken earlier, a large tube might be employed, and the patients kept in comparative comfort, while at the same time the number of cases necessitating gastrostomy would be greatly diminished. It was the desire to avoid this operation, often so unsatisfactory, that led to the construction of the tube. (The tubes were made by Messrs. Down Brothers, of St. Thomas's Street, S.E.)—Mr. DURHAM testified to the excellence of Mr Symonds' method as applied to some cases. It enabled the patient to enjoy the pleasures of taste and swallowing, but he thought it would prove inapplicable to cases in which the disease was situated high up, close to or behind the larynx.—Mr. BERRY was of opinion that the method would only apply to cases in which the stricture was low down. He had himself treated three cases of high stricture by means of a soft flexible catheter. He would be glad to know the size of strictures open to the suggested treatment. He thought even tight strictures might be dilated to admit soft tubes.—Mr. SYMONDS said he did not consider his method universally applicable, but he had determined to make trial of it in high strictures when opportunities arose. The smallest tube employed was that equal to No. 8 catheter.

Living Specimens.—An interesting case of Choreiform Movement supervening in Childhood, and probably Congenital, was exhibited by Dr. W. B. HADDEN; and the same gentleman, with Dr. BALLANCE, showed a woman with Enlargement of the Hands and Feet, and Œdema of the Face.

MEDICAL SOCIETY OF LONDON.

MONDAY, JANUARY 26TH, 1885.

ARTHUR E. DURHAM, F.R.C.S., President, in the Chair.

Trephining for Depressed Fracture.—Mr. WILLIAM ROSE showed a patient, aged 33, who had come under his care on November 25th. The man was insensible, respiration was stertorous, the pulse was feeble, the pupils were equal, reacted to light, but dilated. Urine and fæces had been passed involuntarily. A depressed fracture, 1¼ inch to the left of the median line and close to the occipito-parietal suture, was easily discovered; a large hæmatoma developed rapidly. Mr. Rose trephined within one hour of the occurrence of the accident, which was due to a fall down stairs on to a stone floor. Several loose pieces of the bone were removed from the surface of the dura mater, which was apparently intact; the portion of skull depressed was about a square-inch in diameter; a small drainage-tube, just the length of the thickness of the skull, was put in, cut off flush with the skin, and the wound elsewhere closed. The operation was performed under strict antiseptic precautions. The patient vomited, and was removed to bed unconscious, but two hours later was sleeping quietly. About nine hours after the operation, he could be aroused to answer questions; about twelve hours after operation, he complained of severe frontal pain. Two days after the operation he was much better, and his urine was passed naturally. He still suffered from noise and light, and was greatly relieved by being placed in a dark room. On the tenth day he was able to read the newspaper, and on the twentieth day he left the hospital. The adoption of antiseptics rendered it possible and proper to make an early examination in such cases.—The PRESIDENT congratulated Mr. Rose on the successful issue of the case.

Epithelioma of the Tongue.—Mr. F. BOWREMAN JESSETT read a paper on cancer of the tongue, dealing chiefly with the question of the frequency with which the organ was attacked, its etiology and treatment. Of 2,227 cases seen at the Cancer Hospital, the tongue was the seat of the disease in 190 cases, or about 8.5 per cent. Statistics collected by Sir James Paget, Mr. Sibley, von Winiwarter, Mr. Morris, and Mr. Barker, were given and compared; there was a general agreement in the proportions arrived at. Mr. Barker's statistics showed a higher percentage (16.3 per cent.), and this high rate might have been due to the large number of Welsh miners admitted to University College Hospital. There was no organ in the body which was subjected to such rough treatment as the tongue; and this fact, combined with the surroundings of the organs, afforded some explanation of the frequency with which cancer occurred in the tongue. Phthisis, syphilis, and hereditary tendencies were classed as the constitutional causes of cancer of the tongue. He believed that tuberculous ulcers were disposed to become cancerous. He thought no one would deny the difficulty that frequently existed in diagnosing between tubercular, syphilitic, and cancerous ulcers of the tongue. He strongly advised excision if treatment effected no benefit after a fortnight. Mr. Morris had shown that ichthyosis was a frequent antecedent of epithelioma of the tongue. Age had a considerable influence in the production of the disease. In the statistics he had collected, the average age was 52, the oldest patient was 79, and the youngest 32. When the growth was small he thought the incision ought to be made beyond the middle line. Division of the gustatory nerve and ligature of the lingual artery were of use in extreme cases. The operation of complete removal of the whole tongue had been in use for two hundred years. The various operations which are in common use at the present time were briefly passed in review. Mr. Barker had found that in only 17, out of 170 cases, had the patient been free from disease at the end of a year; in 639 cases operated on, the death-rate was 20.7 per cent. An examination of all the published cases which were available had led him to the conclusion that no one operation yielded the best result in all cases. The *écraseur* was most suitable when the disease was limited to the anterior part; the knife or scissors was best when the growth was small. The difficulty of removing the whole of the growth, when large, by the *écraseur* was referred to, and a preference for the operation by ligature of the lingual artery and removal with scissors was expressed. On the whole, however, the statistics of death were in favour of the use of the *écraseur*.—Dr. PURCELL advocated ligature of the lingual artery, and, in cases of extensive disease, tracheotomy, before removing the tongue.—Mr. TREVES thought the chief and first operation for removal of the tongue was Billroth's operation: removal with scissors after ligature of the lingual artery. It left a clean-cut instead of a lacerated surface; the recurrence of the growth was postponed by ligature of the lingual artery, and the operation to expose this artery laid bare glands in that neighbourhood which were often involved. A piece of the gustatory nerve could be excised at the same time; this diminished the quantity of the saliva, and the fetor which resulted from its decomposition. Whitehead's operation, in his experience, was attended with severe hæmorrhage, and the ligature of the lingual artery did not seriously increase the complexity of the operation.—Dr. SNOW advocated the use of the galvanic *écraseur;* secondary hæmorrhage was rare after its use.—Mr. BARWELL thought that the use of the scissors was followed by quite as much slough as that of the *écraseur;* the operation with the latter instrument was more rapid, and, when applied in the manner he had introduced, the tongue could be removed as far back as the base of the epiglottis. The method was described.—Mr. WALSHAM asked whether Mr. Jessett had ever known a case of tubercular ulcer of the tongue followed by epithelioma. He much preferred the *écraseur,* which was in general use at St. Bartholomew's Hospital.—Mr. WALTER PYE inquired whether the wire or the galvanic *écraseur* had been spoken of. Scissors properly set were cutting instruments, and left a clean wound. —Mr. JESSETT briefly replied. He thought the wire better than the galvanic *écraseur.*

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, JANUARY 14TH, 1885.

Sir JOSEPH FAYRER, K.C.S.I., M.D., in the Chair.

The Constitutional Requirements for Tropical Climates, with Special Reference to Temperaments.—A paper on this subject, by Surgeon-General W. J. MOORE, was read. The author commenced by remarking that in former times more importance was attached to temperament than now, persons having been supposed to be fitted by temperament for different stations of life; but the modern tendency was to ignore temperament; Mr. Hutchinson, for instance, observing that what were called temperaments were really conditions depending more on the wear and tear of life. The author, however, remarked that although the difficulty of diagnosing temperament certainly increased with age, there was no difficulty in the young. The bilious temperament characterised by great endurance and least sensibility to external impression, was regarded as best fitted for the tropics. The term bilious as implying a tendency to hepatic disease, was a misnomer, for there was no such extraordinary tendency in this temperament, but there was a certain cutaneous depo sit of carbon, which gave a so-called bilious aspect, being an infinitesimal approach towards the darker races of mankind. When the Aryans, 5,000 years ago, descended into India, there was reason to believe they were European in colour, type, and temperament, like the Germanic branch of the Aryans; but the climate of India, in certain ways, which the author sketched altered the Eastern Aryan branch into the Hindoo. The inhabitants of Hindostan, whether aborigines (with some exceptions) or Hindoos, or Mahomedan conquerors, were marked by much the same colour and much the same temperament. There were the dark complexion and skin, the dark hair, the spare habit, associated with a quick intellect and irritable disposition, with great powers of endurance. There were rarely found the differences which existed among Europeans; such, for instance, as the difference between the typically nervous excitable Frenchman and the dull heavy phlegmatic Dutchman. Theoretically, it would appear that the European who, in type and temperament, most resembled the condition to which climate had converted the Hindoo

would be best fitted for the tropics; and, practically, this seemed to be the case, the majority of robust old Anglo-Indians being of the bilious or bilio-nervous type. But the type next best fitted for the tropics was the sanguine, explainable, to some extent, by the tendency of a hot climate to convert the sanguine into the bilious habit. The various influences exerted on the constitution by a tropical climate were next sketched, with the intention of showing how heat operated in a recognisable manner, in contradistinction to such unrecognisable or assumed causes of disease as telluric influences, miasmata, etc. Among other requirements for tropical life was the important one of suitable age. Soldiers were usually sent too young to India. At the same time, the mistake was often made of regarding men of 55 unequal to tropical service, for such men represented the survival of the fittest, men who had supported the burden of the day, under which many of their compeers succumbed, and who might be credited with more than the average *vis vitæ*, with prudence of life, and with the suitable temperament. The annoyances which the typical nervous temperament experienced in tropical life from minor ills, such as mosquitos, flies, prickly heat, etc., were next referred to. It could not be forgotten that temperaments were usually associated with particular diatheses, some of which might be acquired. The malarious, scorbutic, syphilitic, etc, were, it was believed, more readily acquired by some temperaments than by others. Hereditary predisposition to disease was next mentioned; the hereditary disposition to gout being intensified in India by the general scorbutic condition. In support of this proposition, the relationship of the earlier symptoms of the two diseases noticed by all authors, from Sydenham to Ralfe, was remarked. Stress was also laid on the pathological relationship of scurvy being caused by diminished alkalinity of the blood, gout by an excess of acid in the blood, leading to a similar condition. With regard to the hæmorrhagic diathesis, bleeding from the nose and gums was mentioned as among the principal manifestations; but bleeding from the nose was often a result of malarious cachexia, and bleeding from the gums of scurvy; it was therefore evident how the hæmorrhagic diathesis would be intensified or excited by tropical climate. After some remarks on the liability of females to that class of complaints called by women "internal," the author concluded by lamenting the want of care for themselves displayed by Europeans in the East, who, although probably versed in the classics, in which there were stories showing the evil results of the gratification of wishes, did not hesitate to eat, drink, sleep, and idle excessively, than which nothing was more detrimental to health.—In the discussion which followed, Sir Joseph Fayrer, Surgeon-General Manifold, Inspector-General Dawson, Dr. Dickson, Brigade-Surgeon Don, and Surgeon-General Comyn took part.

ACADEMY OF MEDICINE IN IRELAND: PATHOLOGICAL SECTION.

JANUARY 16TH, 1885.

A. W. FOOT, M.D., President, in the Chair.

Congenital Dislocation of the Hip-Joint.—Dr. E. H. BENNETT exhibited some specimens of congenital dislocation of the hip-joint. The first was taken from a child, aged 6 years, who died last spring in St Patrick Dun's Hospital. At the time of her admission, he had little hesitation in diagnosing double congenital dislocation of the hip. The child was then perfectly healthy in other respects. The midwife who attended at the child's birth stated that the presentation was normal, and the labour perfectly healthy. For the first two years, the deformity was not noticeable; but it was observed that she was slow in walking, and that she began to waddle. She could stand with ease and steadiness, and could run with facility, but could walk only indifferently. During attacked with scarlatina, of which there was an epidemic in the third, signs of tubercular meningitis appeared, and after a couple of weeks she died. He was only able to exhibit the pelvis and the upper extremities of the femora. The gluteus maximus, on both sides, was reduced in part to a membrane, and the muscular fibre was almost entirely replaced by fat and tough fibrous tissue. The casts exhibited how complete was the separation of the knees, and also that inversion was wholly absent. No tumour was found beneath the gluteus maximus by the head of the femur, because the latter was directed backwards. The capsular ligaments were greatly thickened, and were more like fibro-cartilages than ordinary ligaments. There was no perforation of the ligaments on either side, but they were equally thick, loose, and hypertrophic. The attachments of the ligaments to the capsules were normal; but the acetabulum was dragged into an abnormal position. The true acetabulum was filled with fat. The seat of the new articulation was above and behind, but there was no bone exposed. No socket was formed in the bone, its formation being prevented by the interposition of the capsule. On the right side, the ligamentum teres was found to be represented by a curious leaf-like structure continuous with the cartilage, and having no connection with the acetabular cavity. On the opposite side, destruction of the ligamentum teres had proceeded to a less extent, and the ligament was in its normal place, and attached in the normal way, but reduced to a mere shred. These facts explained many recorded cases in which the ligamentum teres was said to be altogether absent. In each case of the kind, the extent to which the ligamentum teres underwent absorption was simply a question of time. Had the girl lived a few years longer, the ligament would have appeared to be entirely absent, and the dislocation attributed probably to its absence. In the majority of cases it was present, but undergoing absorption. The other specimen was one which he had himself dissected, and it repeated all the phenomena of that of the case from Sir P. Dun's Hospital, including the projection of the anterior superior spine and the approximation of it to the tuber ischii, while the crests of the ilia stood up close to each other. The last feature of the deformity was continued through the whole series. The specimen he now showed of a bone, without the pelvis to which it had belonged, could be diagnosed by any one as a congenital dislocation. When he dissected the specimen, many years ago, he found no sign of morbus coxæ, nor traces of abscess, adhesion, or perforation of the capsule. The axis of the head and neck of the femur had rotated about a quarter of a circle. He noticed the extreme density of the structures forming the new capsules. In a paper read at the International Medical Congress, in Copenhagen, the author stated the best time for performing an operation in such cases was, when the individual had reached puberty. That would be when all the secondary deformities had developed to the utmost. He believed the only chance of remedy depended on an early and exact diagnosis. The present specimen proved that there was no tendency either to eversion or to adduction of the limbs.—Dr. BARTON asked what was Dr. Bennett's theory of the cause of the wearing away of the ligamentum teres.—Dr. FOY observed that the majority of writers stated that the head and neck of the femur rotated in the direction of the internal condyle, but that that did not occur in congenital dislocation. In the present case, the question was whether the rotation had occurred in intra-uterine life or afterwards.—Dr. FRASER asked whether the approximation of the ilia was a part of the original congenital affection, or was it a secondary result caused by muscular action.—Mr. W. STOKER said Professor Smith attributed the absence of inversion to the weakening of the front of the capsule, or the want of that part of it which developed into an ilio-femoral band.—Dr. BENNETT, in reply, said the specimen showed the ligamentum teres in a transition state. He regarded the change as an example of atrophy through pressure. He believed the changes adverted to by Dr. Fraser were the result of muscular action under abnormal conditions. In his specimens there was no defect in the capsules. Professor Smith had accepted Hutton's explanation, that the position was a gradually assumed one, and that the absence of inversion, and of any posterior tumour, resulted from the head and neck of the femur being directed forwards instead of backwards. Cruveilhier's plates corresponded.

Tumours of the Neck.—Dr. KILGARIFF exhibited a large cervical tumour, removed by him from a young woman, aged 25. A similar growth had been removed from the same place six years before. It implicated the lower part of the ear, the face, and the ramus of the jaw, the side of the neck overlapping the clavicle and lying on the sheath of the carotid, and was deeply imbedded in the parotid region. It became ulcerated six months before operation, and she became much reduced by the hæmorrhage from the ulcer. Photographs were shown of the patient before and after the operation, which proved very successful. Dr. Coppinger, having examined the growth, reported that it was encapsuled, and that the fresh section showed large translucent areas. Microscopically the sections presented the characters of myxomatous tissue. The outer parts were chiefly made up of lymphoid tissue. He considered it a lympho-sarcoma.—Dr. COPPINGER said the microscopic examination showed the specimen to be a sarcoma which had undergone myxomatous change, to which its non-vascularity was due.

Epithelioma of the Great Toe.—Dr. KILGARIFF also showed a great toe removed for epithelioma of the matrix of the nail from a man aged 62. It appeared two years ago. It had a villous appearance.—Dr. COPPINGER observed that the cells were of smaller size than were usually met with in epithelioma of the lower limbs, and there was less vascularity than usual. The history of the case pointed to a slow growth, which, after existing in the toe a long time, became ultimately malignant.

Large Gall-stones.—Dr. J. W. MOORE exhibited some large gall-

stones. In 1882 he had presented to the Pathological Society a series of gall-stones which had been passed by an elderly woman after terrible suffering. There was very little icterus. The calculi had been in his possession since last summer. The woman had perfectly recovered. There was an absence of jaundice, accounted for by the number and peculiar facetation of the calculi.—The PRESIDENT said the great size of the calculi raised the question whether there was some abnormal communication between the gall-bladder into the duodenum.—Dr. FRASER suggested they came through ulcerations in the gall-bladder. The facetting was supposed to be produced by friction between the stones, but it really resulted from their motion whilst aggregating. In one case the stone had been broken, and became covered with fresh materials. In all the cases he had seen that showed facetting, the biliary matter was interlaced with cholesterine.

Obstruction of Intestine.—Dr. BARTON exhibited a specimen of obstructed bowel. The patient, an engine-fitter, aged 34, had suffered occasionally during six months from derangement of the digestive organs. He complained last summer of colicky pains after food—a peculiar pain across the abdomen, with a sort of gurgling. These symptoms occurred at irregular periods, and in the interval he had good health. On Christmas-eve, he had a severe attack of abdominal pain and obstinate constipation. For ten days he suffered from these symptoms, with partial obstruction, swollen abdomen, and peristalsis of the intestines perceptible through the abdominal walls. He had occasional action of the bowels produced by enemata, in which the excreta were of a soft character. On admission into the Adelaide Hospital on January 5th, his abdomen was swollen, the chief point of pain being on the right side over the cæcum. Pressure on the rest of the abdomen did not cause much pain. He had a long drawn face, and vomited what was of a distinctly fæcal character. It was concluded that he had intussusception of the ileum in the large intestine at the ileo-cæcal valve. The swelling had increased to such an extent as to account for the total obstruction which existed for three days. He was put under opiate treatment. When Mr. Barton saw him, the patient had free action of the bowels, the fæcal matter being soft and fluid, evidently from the small intestine. The abdominal swelling and pain had diminished, and the vomiting ceased, although he could not retain food. For the next five days, the treatment was on the supposition of inflammatory obstruction—not an intussusception. He gained ground till three days ago, when the pain and vomiting returned; and, treatment availing nothing, it was determined to operate. On opening the abdomen as a tentative measure, he made an incision from the umbilicus downwards, and found that the parts about the cæcal valve were not obstructed. The ileum was thickened, and the cæcum enormously distended; but there was no intussusception. At the transverse colon, he discovered a hard mass, with a hard band of lymph around it, about as thick as his little finger; and he divided it. Immediate relief followed. This was only part of the diseased mass; and he excised portions of the transverse colon, and sewed the cut end of the ascending colon to the upper end of the wound, the rest of which he fastened up; so that the man, who was still alive, had a false anus. The operation occupied two hours. Whether the man would survive or not was doubtful, the shock having been very great. The wall of the intestine was occupied by a mass which nearly filled the cavity, leaving passage barely for a quill-pen. The fizzing noise which attended his temporary relief from pain and obstruction months back was evidently caused by the passing of the liquid fæces through the opening. The obstruction was of the inflammatory kind, though the mass was exceedingly hard; it grated under the knife, and seemed of a fibrous character. The condition of the ileo-cæcal valve was that of inflammatory thickening.—The President, Dr. Warren, and Dr. Doyle commented on the case; and Dr. Barton replied.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

Lunacy Law and Practice.—Dr. ADAM, of West Malling, read a paper on existing lunacy law and practice. He mentioned several reasons why lunacy should be more generally adopted as a study by the whole medical profession, and not almost entirely relegated to a specialty. Cases sometimes fell to the lot of medical men, which would be more appropriately dealt with by the legal profession solely. A great difficulty arose when a member of a family became affected with mental disease, owing to the uncertainty of the construction and interpretation of existing laws by legal luminaries; and deplorable results daily arose from delay or inaction in taking necessary steps from this cause. A point had been raised whether the superintendent or proprietor of an asylum had power under the Acts to send for and bring a patient into an asylum after certification. Mr. Baron Huddleston thought they had the power; Mr. Justice Manisty that they had not. From 1859 to 1877, 185,000 certificates, all of which had been found good, had passed through the office of the Commissioners in Lunacy; 90,000 patients had been discharged from asylums during those years, of whom 22,000 had been from private asylums. The last Parliamentary Committee on the lunacy laws, after rigid examination into their practical working, failed to find a single case where a patient had been wrongly detained. It ought to be borne in mind that, while the greatest possible respect must be paid with regard to personal liberty, at the same time the successful treatment of mental disease depended upon its being taken in hand early. Medical men, both in this country and in America, had been unanimous on the point that, in its early stages, insanity was as curable a disease as any other. With regard to private asylums, those patients who had considerable property were entitled to have their comforts provided for, and they must be put in the care of some persons, whether they kept private asylums or not, who would be responsible for the expenditure. If private asylums were to cease, the State must make some provision for the ladies and gentlemen now under care in them, equal to their requirements; and probably most private asylum physicians who had their whole property and professional reputation staked in them at present, would welcome a change to State or public control of their establishments if proper recompense were made by the State. If medical men were, by future legislation, to be prevented from exercising their functions in private asylums, they must, by a parity of reasoning, be prevented from taking single cases for profit. Some persons argued on behalf of judicial intervention in every case before a patient was placed under care and treatment. To say nothing of the delay which would probably arise from such a course, in many cases it would tend to confirm delusions common in the insane, that they had been guilty of crime. The Scotch system of intervention by the sheriff was in reality no protection whatever against illegal detention. The sheriffs looked upon and interpreted their functions as purely magisterial; they did not even see the patient, but confined themselves to examining documents, a duty at least equally well performed under existing English law by the Commissioners in Lunacy. The general conclusions arrived at, after long careful study and consideration of a confessedly difficult subject, were as follows. In the event of any amended lunacy legislation, it would be well if all obstacles to early treatment were as far as possible removed. The liberty of the subject would be as certainly insured by constituting asylums, legally, hospitals for the insane, by rendering the process of admission to the benefits of curative treatment as easy on good grounds being shown, as for the treatment of any other disease; but there should be adequate responsible inspection while patients were undergoing this treatment, from the time they were placed under it until they were discharged or died; discharge being rendered equally easy with admission on recovery or improvement up to the point, as far as it could be ascertained, of safety to self and others.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

JANUARY 15TH, 1885.

W. A. GARRARD, M.R.C.S., President, in the Chair.

Strangulated Hernia.—Mr. ARTHUR JACKSON related a case in which he had operated on December 25th, 1884. There was nothing particular about the operation; the difficulty was in the diagnosis. a scrotum full of something; a special and recent tumour outside the internal ring; spasmodic sickness; no abdominal distension; a good countenance; a quiet pulse; very slight hiccough. The recent tumour appeared on Tuesday, December 23rd, late in the evening. The scrotal swelling was chronic. With diffidence, herniotomy was performed; and, on cutting down on the recent tumour, a port-wine coloured piece of bowel was found very tightly constricted, and was reduced with difficulty.

Hæmophilia.—Dr. GWYNNE introduced a lad, aged 10, whom he had known almost from his birth, and had frequently treated for hæmorrhages from his fingers, tongue, nose, scalp, and various other parts of his body, caused by injuries generally of a very slight nature. The right knee was slightly contracted, and the lower extremity of the femur was much larger than its fellow. When about a year old he had knocked it when in bed, and in the morning it was found much swollen; since that time, the condyles had become enlarged, and the knee had been weaker, and the hamstring-muscles slightly contracted. He was an active boy on his legs, except when suffering from the effects of slight knocks. Dr. Gwynne had sometimes counted more than half a dozen ecchymoses on different parts of his body. His growth was stunted, and he was only of the same height as his brother, who was two years younger. There was no family history. His complexion was dark.

Genu Valgum; Removal of Wedge of Bone.—Mr. PYE-SMITH showed wedge of bone which he had recently removed from the lower end a man's femur for the cure of genu valgum. The patient was a cab-iver, aged 28. He had been admitted into the Public Hospital on count of a partial dislocation outwards and on to its inner edge of e left patella. This was reduced under ether, by flexing the knee, id the osteotomy had been subsequently performed to remedy the ock-knee. The degree of deformity was very great, the legs forming angle somewhat greater than a right angle when the knees were aced together in bed. A wedge of bone was removed, by means of a all saw, from just above the condyles of the left femur, the apex of e wedge having an angle of about 40°. Listerian antiseptic precau-ons and dressings were employed. The case was progressing favour-ly, and it was intended soon to operate on the other limb, which as equally affected.

Natural Drainage in Otorrhœa.—Mr. C. ATKIN read this paper, in ich, after noting that in fatal cases the Eustachian tube was usually und more or less blocked, he went on to say that, though cleansing the tympanic cavity *per tubam* was recommended in cases of in-issated secretions, not sufficient stress was laid on the necessity of eping the tube open for drainage-purposes in all cases. The usual utine-treatment of allowing powders and drops to be applied to the r, followed by a plug of cotton-wool "to keep the cold out," was ndemned, unless a previous examination had shown that the stachian tube was in a patent condition. Notes of a fatal case were id, where the pus had not burrowed back into the mastoid cells, but d ulcerated through into the roof of the pharynx, causing an inter-ittent fœtid discharge through the nose. The patient, a man aged , died on the second day after admission into the Infirmary, from scess of the cerebellum.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

JANUARY 8TH, 1885.

J. J. NASON, M.B., in the Chair.

Fibromyoma of Uterus.—Dr. SAVAGE showed a fibromyoma of the erus, about the size of the fœtal head, which he had removed by sterectomy. The patient had been flooding, and was rapidly failing health. At the end of a week, her progress was satisfactory.

Abdominal Section.—Dr. SAVAGE read a paper based on one hundred d four abdominal sections performed during the year 1884. Of is number, 9 died: 3 of septicæmia; 1 of tetanus; 1 of granular dney; and 4 of exhaustion, apparently due to causes not rectly connected with the operation. [The paper is published page 217.]—Dr. MALINS read a paper based on fifty cases abdominal section performed for various purposes. Among ese were: ovarian tumours, 17; chronic ovaritis, 16; re-oval of appendages for fibroids, 4; chronic pelvic peritonitis, 4; lvic abscess, 3; hysterectomy, 1, etc. There were 4 deaths: 2 from ritonitis; 1 from exhaustion; and 1 from fatty embolism eleven ys afterwards. Forty-one of the operations were performed in the neral Hospital, and nine in private practice. Stress was laid upon e attention to details, and scrupulous care in carbolising all sponges d instruments. The dressings were of carbolised gauze; and, later, rum-sublimate gauze. Remarks were made upon the necessity of ore careful diagnosis, and also upon the after-history of these cases nerally, with relation to the occurrence of ventral herniæ, and pros-cts of complete recovery in the cases of chronic pelvic peritonitis.

WOLVERHAMPTON DISTRICT MEDICAL SOCIETY.

JANUARY 8TH, 1885.

Treatment of Club-Foot.—Mr. VINCENT JACKSON read a paper on heap and ready way of treating club-foot. Having given a summary the history of the subject, which dated from 1837, he enumerated e varieties of the deformity, and divided the treatment into opera-ve, manipulative, and mechanical. For the latter purpose he ongly recommended the use of plaster-of-Paris, as being quite as ectual as, and far cheaper than, the more costly special instruments. . Jackson then demonstrated his method of procedure.

Cucaine as an Anæsthetic in Operations on the Eye.—Mr. A. E. ESSHIRE read a communication on the value of cucaine as a local æsthetic in operations on the eye, and stated that he had used it in ty cases, and found that it abolished, or so lessened pain, that st ophthalmic operations could be performed with comfort both to patient and to the operator. He used a five per cent. solution, plied every five minutes.

Aneurysm of the External Iliac Artery.—Mr. JACKSON exhibited a specimen of aneurysm of the external iliac artery, with ligature of that vessel, the patient having died in twenty-six hours from acute gangrene.

Cancer of Kidney.—Dr. DINGLEY showed a specimen of cancer of the kidney, the chief interest in which was that no trace could be found of the other kidney. The renal artery, ureter, and vesicula seminalis were also absent, but there were two suprarenal bodies, and two testicles.

Dr. DINGLEY also showed a specimen of a new Growth in the Liver, probably of a malignant character; and the Intestines, showing perforation occurring in Enteric Fever.

In the discussion which followed the reading of the papers, Dr. Lycett, Dr. C. R. Smith, and Mr. Jackson took part.

REVIEWS AND NOTICES.

TEXT-BOOK OF HUMAN PHYSIOLOGY: including Histology and Microscopical Anatomy, with special reference to the Requirements of Practical Medicine. By Dr. L. LANDOIS, Professor of Physiology and Director of the Physiological Institute, University of Greifswald. Translated from the Fourth German Edition, with Additions, by Professor WM. STIRLING, M.D., Sc.D., of the University of Aberdeen. Vol. I. London: Charles Griffin and Co., Strand. 1885.

IT speaks well for the popularity of Professor LANDOIS's *Text-book of Physiology* that no fewer than four large editions have been already published in Germany, although the book made its first appearance not more than four or five years ago. Indeed, it has evidently supplied a want in that country. In its German form, it has also attained considerable popularity in England. Inasmuch, however, as it is essentially a book for students as well as for practitioners of medicine, no doubt the fact that it has not hitherto been translated has, to a considerable extent, interfered with its wider circulation amongst that class of readers in this country. We must, therefore, tender to Professor STIRLING, of Aberdeen, sincere thanks for undertaking the arduous task of rendering the work into English, thereby giving to English students easy access to one, from their point of view, of the most practical works on physiology ever written.

The book, as the translator aptly remarks in his preface, forms a kind of bridge between physiology and practical medicine, as one of its special features consists in the arrangement at the end of the various sections of the physiology proper of an excellently clear and succinct account of the ways in which the normal functions treated of in the preceding paragraphs may be modified under diseased conditions.

In the present volume, forming one-half of the whole work, besides the introduction, which treats of the general scope of physiology and its relations to the other branches of natural science, of matter, of vital energy, and of the relations between plants and animals, there are seven divisions or chapters devoted to the consideration of: I, The Physiology of the Blood; II, The Physiology of the Circulation, with sections on the Blood-glands, including the Spleen, Thymus, Thyroid, Suprarenal Capsules, Hypophysis Cerebri, and the Coccygeal and Carotid Glands; III, The Physiology of Respiration; IV, The Physiology of Digestion; V, The Physiology of Absorption; VI, The Physiology of Animal Heat; VII, The Physiology of the Metabolic Phenomena of the Body, in which there is, first of all, an excellent epitome of the substances used as food; then an account of the mammary glands and their secretion; next, of the phenomena and laws of metabolism; and, lastly, a general view of the chemical constituents of the organism.

In the chapter on the Blood, every section is full of information, the methods of counting the blood-corpuscles, and the action of reagents upon them, being very fully dealt with; under the latter head, too, is described Gaule's experiment, by which the *Würmchen* or cytozoon may be demonstrated in frog's blood as follows. "A few drops of freshly shed frog's blood are mixed with 5 cubic centimètres of 0.6 per cent. solution of common salt, and the mixture is defibrinated by shaking it along with a few cubic centimètres of mercury. A drop of defibrinated blood is examined on a hot stage (30°—32° C.) under a microscope, when a protoplasmic mass, the so-called *Würmchen*, escapes, with a lively movement, from many corpuscles, and ultimately dissolves." Similar 'cytozoa" were discovered by Gaule, in the epithelium of the cornea, of the stomach and intestine, in connective tissue, in most of the large glands, and in the retina (frog, triton). Most probably these structures are parasitic in their

nature, as suggested by Ray Lankester, who called the parasite "Drepanidium ranarum." An excellent account of the decay of the red blood-corpuscles in health. and of the changes they undergo, and their decay in disease, is given, and also of the third element of the blood, namely, the "blood-plates" of Bizzozero, called "hæmatoblasts" by Hayem. The colouring matters of the blood and its derivatives are very fully discussed. The phenomena of coagulation, the gases of the blood, the method of their extraction and estimation, the differences between arterial and venous blood, with the methods of estimating the quantity of the blood in the body, occupy the remaining section of the physiology proper of the blood. The variations from the normal condition of the blood are then considered under the heads of: A, increase of the blood or of its individual constituents; B, diminution in the quantity of blood, or of its individual constituents; the former containing accounts of plethora, polyæmia serosa, polyæmia aquosa, plethora polycythæmica, and plethora hyper-albuminosa, and the latter includes oligæmia vera, oligæmia sicca, oligæmia hypalbuminosa, mellitæmia and lipæmia.

An excellent account of the action and of the sounds of the heart will be found in Chapter II. Cardiac murmurs are explained, and all the most approved methods of estimating the intracardiac pressure given. The influence of the respiration on the heart is described, and an apparatus for representing both the effect of inspiration and expiration is supplied. It would take too long even to mention the subjects of the many sections devoted to the circulation, but it is necessary to point to those on the pulse, blood-pressure, and plethysmography, all of which deserve special attention.

A table of the respiratory muscles and nerves in the next chapter has already been inserted into one or more English text-books; in the chapter on Respiration will also be found a very good account of the respiratory sounds in health and disease. The elaborate apparatus of Regnault and Reiser, of Andral and Gavarret, and of Pettenkofer, to estimate the amount of the respiratory excreta, are drawn and described.

In the chapter on Digestion will be found a very useful account of the action of fungi as exciters of fermentation, part of which has been inserted by the translator; otherwise, the subject is treated of in much the same way as in other text-books. At the end, however, of the chapter, has been added a full account of pathological variations of digestion, together with short sketches of the comparative anatomy of the digestive organs, of digestion in plants, and of the history of the progress of the knowledge of the digestive processes.

Absorption and the lymphatic system are next treated of, and then the phenomena of animal heat. This last subject is discussed at great length, and the sections upon the subject are one of the features of the whole work.

A consideration of the metabolic phenomena of the body, under the heads indicated above, concludes the volume. We commend highly the account of foods and dietary which it contains.

It would be impossible, without prolonging this review to inordinate dimensions, to give anything but a sketch of Landois's *Text-book*, but its special qualities are its completeness and conciseness. It contains a very large amount of accurate information, put in such a way as to be attractive and not tedious to the reader, and the information is brought up to date; but long discussions about disputed points appear to be in nearly all cases avoided.

Professor Stirling's translation possesses the great merit of reading as though it were not a translation; and the additional information which he has inserted (enclosed, for convenience of distinction, within brackets) appears to us to be in all cases ample and judicious. The illustrations of the work are good, both those which are to be found in the original, and also those which have been added from various sources, notably from Cadiat, by the translator.

MEMORIAL OF THE LIFE AND WORK OF CHARLES MOREHEAD, M.D., F.R.C.P., C.I.E., First Principal of Grant Medical College, Bombay.

THIS little memorial is "printed for private circulation only." But Charles Morehead was not a private person; on the contrary, he was a public man in the truest sense of the term—a physician who has left his mark on an important branch of the medical art, that of tropical medicine; and was one of the foremost men in the noble medical service of India in giving to its people the benefit of European medical and surgical science. This must be our apology, if any be needed, for bringing this memorial to the notice of the profession outside the ranks of the public services.

Charles Morehead was the son of the Rev Dr. Morehead, one of the ministers of St. Paul's Episcopal Church, and Dean of Edinburgh, who, towards the end of his life, was Rector of Essington, in Yorkshire, "a man of high and noble aims," a scholar of no mean status, an eloquent divine, with "considerable literary and poetic gifts." In his mother, the subject of this notice was equally fortunate; for she was a woman "remarkable for energy and individuality of character," witty and cultivated to such a degree as made her a welcome addition to the best literary society of Edinburgh. Like many others who have risen to eminence in various walks of life, Charles Morehead received his early education in the High School of Edinburgh; subsequently, in the University of Glasgow, where he studied moral philosophy and logic—studies to which, in after years, he looked back with the greatest satisfaction. From Glasgow he returned to Edinburgh, and quickly made his mark in the science-classes, and in due time became a favourite pupil of Alison, whose clinical clerk he was, and for whom, in after years, he professed and felt the deepest veneration. In 1826, he became a pupil of Louis in Paris, and, until the too early death of that great physician, kept up a close and friendly correspondence with him. From Laennec he received his first lessons in the use of the stethoscope. The writer of this notice can with truth say, from intimate knowledge, that the father of stethoscopy had few more apt scholars; this instrument was rarely out of his hand, where, with great propriety, it is to be seen in the photograph facing the title-page of the *Memorial*.

In 1892, a year after his graduation, he entered the Bombay Medical Service, on which he was destined to shed much lustre. While only an assistant-surgeon of two years' service, he attracted the notice of Sir Robert Grant, then Governor of the Presidency, a statesman and man of letters and refinement, and who never displayed more insight into character than he did when he selected Dr. Morehead for his personal staff. Sir Robert, in the famous minute which he wrote shortly before his death in 1838, on native medical education, showed how much he valued the wise counsel of his physician, by closely following the lines traced by him in certain valuable contributions on this subject, drawn up for the Board of Education, of which he was secretary. The Grant Medical College was founded in Bombay as a fitting memorial of the Governor who had interested himself so much in the cause of native medical education. In October 1845, it was completed. Dr. Morehead was appointed principal; and, on November 1st in that year, the course of instruction began. To this College, about the same time, through the munificence of Sir Jamsetjee Jejeebhoy, was added the hospital which bears the name of that philanthropic Parsi. From that time onwards, Morehead may be said to have given up his life to teaching. His whole time was spent either in the College or the hospital. Chemistry, anatomy, physiology and materia medica, were taught by able and hard working associates; but the distinguishing feature of the medical teaching was the time given by the principal himself "to actual, patient, and continuous observation of disease at the bedside;" his was clinical teaching in the strictest sense of the term; and not even his great masters Alison, Louis, or Laennec, were more painstaking than he was in this part of his work. The result was, that he became *facile princeps* as a diagnostic physician. The amount of clinical material he accumulated was prodigious, and from this his *Researches on the Diseases of India* was written, a work of which Parkes wrote "that it is a wise book: the deep thought and matured judgment, which constitute wisdom, are visible in every page; and I much mistake if it is not the greatest gift that the profession in India have ever had;" and more to the same effect. On his retirement from India, Dr. Morehead was offered the chair of Military Medicine in the Army Medical School, founded in 1860. At first, he was disposed to accept the offer, but finally declined it, partly from considerations of health, and partly because the War Office refused to acknowledge his well earned claim to seniority as regarded his position in the school. Mr. Hermann Haines, the editor of the *Memorial*, has done justice not only to Morehead's work but to his high moral qualities. "Lapse of time," says Dr. Coles, an old colleague in Grant College, "has not dimmed our recollection of his calm sagacity, his devotion to duty, and his clear and far seeing views. The interval has rather enhanced our appreciation of his great example, of his teachings and writings, and of his long and valuable labours in India."

We close this memorial of a good man, a true physician, and a model public servant, with a sigh over the present condition and future prospects of the noble service that has been so productive of good and able men. The indifference of the Government it has served so well has thrown it into the cold shade, and suffered it to be elbowed out of its place by another, which, whatever its merits may be, can not with truth assert superiority over that which claimed Charles Morehead as one of many brilliant representatives.

A Descriptive Catalogue of the Pathological Museum of the Middlesex Hospital. By J. Kingston Fowler, M.A., M.D., Curator of the Museum, etc., assisted by J. B. Sutton, F.R.C.S., Assistant-Curator of the Museum. Published by order of the Governors and Committee of the Medical School. London: J. and A. Churchill. 1884.

The existence of a multiplicity of medical schools in London has its advantages, among which is a healthy competition in museum-work. The renowned collection at the Royal College of Surgeons has strong rivals at some of the larger hospitals, but the museum attached to the Middlesex Hospital stands neither last nor, in any respect, least. The physical proximity of that institution to the Berners Street societies, as facts have shown, has proved highly advantageous to its scientific welfare, being especially convenient for junior residents of the class that contributes so much to the Pathological Society. The hospital museum contains over two thousand specimens, as we learn from the *Catalogue*. Amongst these are some valuable examples of bone-disease in animals, including a specimen of a disorder resembling mollities ossium in the racoon-like dog (*Nyctereutes procyonides*). Many of these examples of zoo-pathology were collected by Mr. J. B. Sutton. Dr. Cobbold has added some good specimens of intestinal worms; but the gem of the collection is the large series illustrating diseases of the suprarenal bodies. For this the museum has long been celebrated; it possessed more than ten specimens in 1877, when the first of the same kind was presented to the College of Surgeons' collection.

Without a good catalogue a museum is almost useless. Dr. Fowler and Mr. Sutton have provided the Middlesex Hospital Museum with a good catalogue, as might be expected, since they have both earned a just reputation as industrious and learned pathologists. In binding, the *Descriptive Catalogue* so closely resembles its prototype and homologue at St. Bartholomew's that, unless the eye catch the three words of Middlesex, which lie on the shield, adorned by an argent and sable chevron in the arms of the Smithfield hospital, it might readily be mistaken for the latter. The interior is equally, if not more, similar. Dr. Fowler admits, in his preface, that this catalogue has followed the plan adopted in the Bartholomew catalogue, which in turn resembles, in certain points, that which describes the College of Surgeons' collection, for reasons pretty generally known. As the system of these older catalogues must be familiar to our readers, we need not here describe it. All will admit that Dr. Fowler has followed a good model; and we hope that other curators will imitate his example, with a view of effecting something like homogeneity in catalogues, an aim of which students, pathologists, and critics cannot fail to approve. We trust that Dr. Fowler, Mr. Sutton, and their successors, will follow another good example from similar sources, and issue frequent printed supplements of additions to the collection. They have themselves, we understand, already done good work in their museum, and added valuable specimens, since their *Descriptive Catalogue* returned from the press.

On the Use and Abuse of Pessaries. By G. Granville Bantock, M.D., Surgeon to the Samaritan Free Hospital. Second Edition. London: H. K. Lewis. 1884.

This popular monograph has quickly reached a second edition. The author has done much service to the profession in ably and completely demonstrating the fallacies of those who disbelieve in the value of pessaries, and deride the use of them by those who do. In this excellent little work, the practitioner will find clearly explained, and well illustrated by cases and figures, the basis of the rational use of pessaries. He will also learn when not to use pessaries—a knowledge only second to a right understanding of when to use them. Dr. Bantock uses the block-tin variety of this instrument. We agree with him that this is the best substance from which to manufacture the Hodge's pessary, and can endorse his remarks as to its superiority in regard to cleanliness and lightness over the vulcanite and India-rubber forms. Dr. Bantock has given a well selected series of typical cases of retroversion and anteflexion, in which complete relief has been obtained by judicious treatment by pessaries. His remarks on anteflexion are worthy of consideration, and are supported by what we consider as incontrovertible facts. The author is in the habit of treating anteflexed uteri with the compound stem-pessary of Dr. Meadows. The new edition has been carefully revised, and valuable matter added. The book forms a really valuable addition to gynæcological literature, and will amply repay those who read it.

Intestinal Obstruction: its Varieties, with their Pathology, Diagnosis, and Treatment. The Jacksonian Prize-Essay of the Royal College of Surgeons of England, 1883. By Frederick Treves, F.R.C.S., Surgeon to, and Lecturer on Anatomy at, the London Hospital; Hunterian Professor of Anatomy at the Royal College of Surgeons of England. With Sixty Illustrations. Cassell and Co. 1884.

Mr. Treves's Jacksonian Essay is a very complete monograph on intestinal obstruction, a standard work on a subject that has not been so comprehensively treated by any contemporary English writer. Its completeness renders a full review difficult, since every chapter deserves minute attention, and it is impossible to do thorough justice to the author in the few paragraphs which our space allots to us for purposes of criticism. The book itself is compact and portable; it includes 507 pages of text, with sixty woodcuts, almost entirely original. The thick type headings to the paragraphs increase its value as a work of reference; but it is desirable that those who make use of *Intestinal Obstruction* with the object, not of reading it through, but of seeking information upon any one subject, will not neglect matters of context. Thus, should a surgeon have under his care a case of severe vomiting which leads him to suspect the existence of intussusception, it is to be hoped that he will not content himself with searching for the heading "Vomiting" in the excellent chapter on that subject. In purely literary work, these headings may certainly save unnecessary trouble; but, for clinical instruction, they may defeat the object of the author. The woodcuts representing different morbid conditions of the intestines are of high value, and of considerable artistic merit; but some are indifferently printed. After inspecting several copies of *Intestinal Obstruction*, we have come to the conclusion that, in preparing a future edition, Fig. 48 should be held up to the printers as a pattern for the other woodcuts. These observations reflect, be it understood, in no way either upon the author or upon Mr. R. E. Holding, the artist; it is only the printing of the cuts that is at fault.

It is chiefly in association with resection of the intestine that Mr. Treves has gained a name as an authority in abdominal surgery, and some of his opinions on the subject have been recently published in the *Medico-Chirurgical Transactions*. After describing and figuring his own clamp for resection of the intestine, the author does full justice to Mr. Stanmore Bishop's instrument, which formed the subject of a paper, read in the Section of Surgery at the Liverpool meeting of the Association, and published in the Journal of November 3rd, 1883. Mr. Treves admits that Mr. Bishop's clamp is more readily applied than his own, but finds that it is rather too large and too heavy, and considers that the connecting screw is placed in an inconvenient position. As might be expected, the author devotes a large portion of his work to such subjects as colotomy and abdominal section as operative remedies in cases of obstruction; and the great questions involved in the pathology, symptoms, and treatment of intussusception, are discussed at full length, without any tedious prolixity. Turning to rarer or less generally recognised conditions, we must give an honourable mention to a chapter on Obstruction of the Intestine by Gall-stones. Lastly, Mr. Treves has given full prominence to the more essentially "medical" aspects of his subject, as is evidenced by his observations on obstruction by fæcal masses and chronic constipation. Hence, from the above short criticism, it will be seen that *Intestinal Obstruction* is a work that will prove of equal value to the practitioner, the student, the pathologist, the physician, and the operating surgeon.

Medicinische Bibliographie (Medical Bibliography). Edited by A. Würzburg, M.D., Librarian to the Imperial Office of Health. Leipzig: Breitkopf and Härtel.

The student of medical literature will find this publication of great service to him. It appears weekly, in the shape of a sheet of six to eight pages octavo, containing a list of the most important recent papers and books, arranged under several headings, according to the nature of their contents. Its very moderate price (three shillings half-yearly) recommends it to attention. The titles of the books and papers are given in the language of the originals.

At the end of each year, an index of authors and subjects is given, by which the work acquires a permanent value as a book of reference. Two yearly volumes have already appeared (1883 and 1884); the third is in the course of publication. Many readers of the Journal will no doubt be glad to avail themselves of the opportunity offered them of adding such an useful *multum in parvo* to their library.

NOTES ON BOOKS.

Charley Kingston's Aunt. By PEN OLIVER. London: Macmillan and Co. 1885.—A novel, written by a physician, with a medical student for its hero, would deserve a few words of notice at our hands, even if it were of less conspicuous merit than this interesting volume. The medical student has not hitherto filled a very enviable place in the world of fiction; Dickens and Albert Smith ridiculed him, and Thackeray dismissed him with a sneer. In strange contrast with the medical student of fiction is the "family doctor" commonly met with in the same region. The Bohemianism of the early stage is replaced by a solemn sedateness, and the youthful scapegrace becomes so intensely respectable as to be almost inevitably dull. The hero of this story, and his friend, the house-surgeon, drawn by the hand of one who knows the class of which he writes, more truly represent the manners, the occupations, and the aspirations of the student as he is. The plot turns upon a highly dramatic incident, but it is well worked out, and the interest is well sustained until the mystery is fully explained. This mystery all arises from a loss of memory, the result of a progressive disease of the brain, of which the pathology is skilfully indicated, which affects Charley Kingston's aunt on a journey home from America. How her death was discovered, and how the circumstances which led to the temporary disappearance of her fortune were unravelled, we must leave to the reader of the story itself to discover. The scene is laid in one of the best known medical schools of London, and old students there will have no difficulty in recognising the truth of several of the portraits which are incidentally sketched. Apart from its technical interest, this book will secure attention by its vigorous writing, its many and well touched pictures of life and character, its clever incidental use of a picturesque and fading rustic dialect, and its side-references and just compliment to some of the social traits of medical character. "Almost every successful doctor," says the writer, "is a skilled collector of pictures, books, metal-work, porcelain, engravings, fossils, etc." It is indeed remarkable how the learned habit of observation, when combined with artistic and literary culture, have led medical men to appreciate, to study, to compare, and "to collect." Certainly, there are few departments of art, literature, and archæology, in which contemporary medical men have not distinguished themselves as among the keenest, most discriminating, and most erudite collectors. All through this interesting book will be found touches indicating an intimate knowledge of medical society, and a bright insight into some of the best sides of medical life and character.

The Healer-Preacher: Sketches of Medical Mission-work. By GEORGE SAUNDERS, M.D., C.B. (London: J. F. Shaw and Co.), is a sympathetic and earnest account of the working of medical missions, illustrated from the author's experience of medical mission-work, and by incidents which have occurred in the course of his labours amongst the sick poor. It is profoundly religious in its tone, and will be welcomed by many who frequently desire information on the subject.

Lumley's Public Health. Second Edition. By W. PATCHETT, Q.C., and A. MACMORRAN, Barrister-at-Law. London: Shaw and Sons.—Lumley's Public Health Act, 1875, appears now in its second edition, with very extensive additions by Mr. Patchett, Q.C., and Mr. A. Macmorran. These additions include all statutes relating to public health to the end of the session 1884, with notes containing all cases to the date of publication, and index. The present edition, although in many respects a new work, is virtually a seventh edition of Lumley's Sanitary Acts. The book has been very thoroughly revised and fully annotated, and constitutes, in effect, a manual of all the statutes affecting or relating to sanitary authorities and their duties. It has always been a work of the highest authority, and, in its present form, will be invaluable to those who have occasion for the kind of knowledge which it offers.

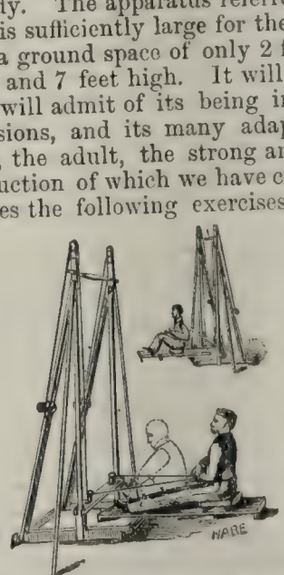
Plant Lore Legends and Lyrics. By RICHARD FOLKARD, Jun. London: Sampson Low and Co. 1884.—This very charming volume is full of interesting lore relating to the myths, the traditions, the superstitions, and the folk-lore of the plant-kingdom. It is quaintly printed and illustrated, and abounds in antiquarian and archæological details of much interest. It is chatty, full, well selected, and well classified.

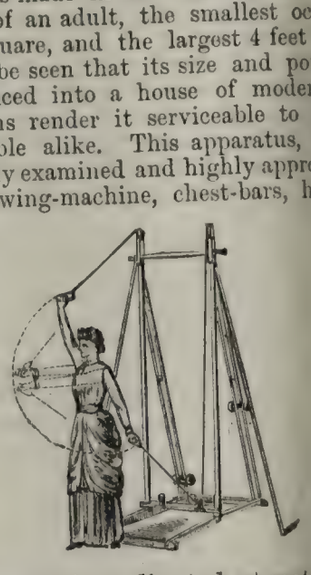
In the Watches of the Night. London: Remington and Co.—A series of charming little poems, many of them tenderly written, and reverent and serious in tone, from the pen of Mrs. HORACE DOBELL. This little volume is the fifth. Eighteen volumes are announced—rather a formidable series.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

HOME GYMNASIA.

THE fact that gymnasia are found so rarely in our houses is perhaps less due to any want of recognition of the hygienic benefits attending their use, than to want of acquaintance with the means by which this want may be most satisfactorily met. The Chadborn and Coldwell Manufacturing Company, 223, Upper Thames Street, have introduced a portable gymnastic apparatus, combining, in a very remarkable way, a number of arrangements which stamp this apparatus as one of more than ordinary utility. It is, we learn, capable of making over one hundred combinations, and of exercising every muscle of the body. The apparatus referred to is made in three sizes, each of which is sufficiently large for the use of an adult, the smallest occupying a ground space of only 2 feet square, and the largest 4 feet by 2 feet, and 7 feet high. It will thus be seen that its size and portability will admit of its being introduced into a house of moderate dimensions, and its many adaptations render it serviceable to the young, the adult, the strong and feeble alike. This apparatus, the construction of which we have carefully examined and highly approve, includes the following exercises. Rowing-machine, chest-bars, hori-





zontal bar, pulling weights (high chest-motions, direct chest-motion, low chest-motions, floor-motions), curved board (for back, chest, neck





and abdominal muscles), leg-weights, bicycle-motion, health-trapeze, and spring board.

There are also extra attachments for special exercises and the curative treatment of some diseases. Among these is a back and stomach roller, with adjustable postural board, for kneading and strengthening the back and abdominal muscles, also for the preventive and curative treatment of female diseases, etc.; hand-roller (for strengthening the hand, wrist, and forearm).

The accompanying illustrations will show the manner in which some of these exercises are effected, while with each apparatus is supplied an illustrated chart, by the aid of which any exercise may be carried out without further tuition (the movements are shown by dotted lines). The rowing-exercise, by means of a sliding seat, is one which will be found particularly agreeable, requiring no great expenditure of strength, and affording much of the enjoyment obtained in actual rowing. This apparatus may be erected in any ordinary nursery, bath-room, or small open space. It occupies comparatively little room, and is of singularly ingenious, varied, and compact construction. We are informed that it has been highly spoken of by the Instructor-general of gymnastics to the Army, at Aldershot, and has attracted the attention of some members of the profession. It is further, the recommendation of cheapness.

A SELF-HELPER.

:UR attention has been called to a very cleverly constructed apparatus or exercising the legs, when, from long disuse, they have become stiff ad weak, and all but useless. Mrs. Stuart, of Powis Square, has in-ented this apparatus for her own use, and by its help has regained ower in her lower extremities, after existing for some years as a help-ss cripple. The machine, which the inventor calls the self-helper, as been made by Messrs. Baylis and Thomas of Coventry, and is upon ie principle of a tricycle, but fixed in one position. It is alculated to be of great value in the treatment of similar cases, pro-ding that the patient has as much determination and perseverance are possessed by the lady to whom we are indebted for a view of ie "self-helper." Extended varieties of this kind of machine for assive exercise of the muscles are to be found at the Zander Gym-asium, Soho Square, where the whole theory and practice of passive ovements may be studied with advantage.

ROYAL COLLEGE OF PHYSICIANS.

N ordinary meeting of the Fellows was held on Thursday, January th, under the presidency of Sir WILLIAM JENNER, K.C.B.

The following gentlemen were admitted Members of the College: . R. Dakin, M.D.Lond.; W. A. Foxwell, M.B.Camb.; H. Hand-d, M.D.Edin.; A. H. N. Lewers, M.B.Lond.; J. M. McDonagh, .D.Brussels; W. Pastéur, M.D.Lond.

The licence of the College was conferred on forty-eight gentlemen, ho had passed the required examinations. Thirteen others had ssed in medicine and midwifery.

A communication was read from the Lords of Her Majesty's Trea-ry, with reference to the forthcoming new edition of the *Nomenclature Disease.*

The quarterly report of the Finance Committee was received and opted. The Examiners' annual report was also received; it showed at the number of candidates for the College licence had increased ring the last year, and also that there had been a somewhat high oportion of rejections.

The Committee of Management sent in a report, stating the answers ich they advised the Colleges to give to the questions submitted to em by the Medical Council with regard to visitation of medical hools, length of medical study before examination, and extent and nprehensiveness of examinations. The answers suggested by the mmittee were adopted by the College.

The Registrar proposed, and the College adopted, the following olutions:

. That every member of an English university who shall have sed such an examination or examinations at his university as shall nprise the subjects of the first and second examinations of the amining Board in England, and who shall have completed not less n four years of medical study according to the regulations required his university, be eligible for admission to the third, or final, ex-ination of the Board two years after his having passed all the other uired examinations; that every candidate so admitted to exami-ion be required to pay a fee of five guineas; and that every such didate who shall have passed such third or final examination shall, the further payment of not less than twenty-five guineas, and ject to the by-laws of each college, be entitled to receive the nce of the Royal College of Physicians of London, and the diploma Member of the Royal College of Surgeons of England.

. That any candidate for the licence of this College only, exa-ed after October 1st, 1884, may avail himself of the regulations ting to the examinations of the Examining Board in England.

Dr. Fincham, Dr. Andrew, Dr. Hughlings Jackson, and Dr. Regi-d Thompson, were elected Councillors. Dr. Broadbent was also ted Councillor, in the room of Dr. Herbert Davies, deceased.

The following additional Examiners, in accordance with the con-t scheme, were elected: Chemistry, Dr. Russell; Materia Medica, F. Taylor and Dr. Murrell; Elementary Physiology, Dr. Ewart and V. D. Harris; Physiology, Dr. Pye-Smith; Medicine, Dr. Beale, Cayley, Dr. Moxon, Dr. Green, and Dr. Sutton.

OTICE has been received by the Council of the London School of licine that, by the will of the late Mr. John Byron, a sum of ly £700 has been left to them to found a scholarship for the pur-of helping ladies of small means who desire to study medicine.

EDICAL MAGISTRATE.—Mr. W. T. Girdlestone, M.R.C.S.Eng., been placad on the Commission of the Peace for Flintshire.

EDICAL MAGISTRATE.—Dr. Stewart has been appointed a Justice ie Peace for the Co. Down.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 31st, 1885.

OVARIOTOMY, HYSTERECTOMY, AND OÖPHORECTOMY.

IN the present number of the JOURNAL are several original papers on abdominal sections performed for the removal of diseased portions of the female internal organs of generation. These operations may be roughly divided into ovariotomy and removal of thin-walled broad-ligament cysts; hysterectomy; and, lastly, amputation of the uterine appendages for various purposes. Ovariotomy is now a well established operation; no surgeon doubts that it is justifiable, and few operators refuse to perform it, excepting when there is evidence, through objective symptoms extending beyond the area of the pelvic genitalia, that the tumour is malignant, and that its cellular elements have overstepped the limits of the ovary. As to the antiseptic question in relation to this operation, it must be left, in great part, to acknowledged authorities to settle; and hitherto they have not arrived at any agreement. It cannot be doubted that some ovariotomists have achieved great triumphs in a long series of operations performed under the spray; and these surgeons have given good reasons to prove that the spray and its concomitants have played a prominent share in their successes. It must be remembered, however, that the surgeons in question are both skilled and experienced, so that the share in the success attributed to Listerism must be discounted. On the other hand, other equally skilled operators can show as good results without Listerism; but here, again, it must not be forgotten that those anti-Listerians are men of undoubted skill and long experience. Judging from the good results of antiseptic surgery in general hospitals, we cannot help thinking that the surgeon who feels that, figuratively, his shoulders are not broad enough to bear failures for which he is in no way morally to blame, had better at least begin his career as an operator under the Listerian flag. If everything be cleared out or tied that ought to be cleared out and tied, the patient may fare as well, or better, if the hissing and chilly spray be dispensed with; but the inexperienced operator inevitably discovers, very early in his first efforts, that it is not easy to tie and clear out everything that ought to be tied and cleared out. If broken down tissue and oozing vessels be left in the abdominal cavity, the patient's chance of recovery will most probably be greater if Listerian precautions have been taken. Dr. Keith justly observes that it was the willing and tender, though unclean, hand that carried most of the poison into the wounds before Sir Joseph Lister introduced a system that enforced precautions. Still, a willing and tender, but not expe-

rienced hand, may not know the way to take the germs of future poison out of the wound; and such had better trust to strict antiseptic precautions.

The question of tapping has been ably discussed, this week, by Dr. T. Oliver, of Newcastle, who agrees with Dr. Keith, that a thin-walled broad-ligament cyst should be tapped, rather than removed by operation, since a tumour of this kind often disappears after tapping. It is possible that these surgeons are absolutely correct in regard to the true thin-walled broad-ligament cyst. A recent pathological observer has brought forward strong evidence that this thin-walled cyst is generally developed in the cellular tissue between the folds of the broad ligament, quite independently of the parovarium; or at least is formed from the terminal cyst often found at the outer extremity of the horizontal duct of that most interesting structure. In such a case, the tumour forms a simple cyst of the kind readily cured by tapping wherever its seat may be. Unfortunately, the same observer has shown that the true parovarian cyst, developed from the vertical tubes of the parovarium, generally contains papillomatous growths, that may produce disastrous effects if disseminated over the peritoneum after tapping. This has been known to occur in actual practice; yet such cysts present all the physical characters as to feeling, and nature of their fluid contents, of the simpler form of pure broad-ligament origin. In the practice of Dr. Bantock and other surgeons, tumours of the simpler type have required removal after repeated tappings, which set up troublesome adhesions. From the question of tapping, we may briefly refer to the subject of drainage after operation, for Dr. Savage, this week, strongly urges the value of the drainage-tube.

Hysterectomy, for the removal of myomata of the uterus, stands in a very different position from ovariotomy, and has made far slower progress than the latter operation. Dr. Keith evidently favours it, and justifies his partiality to this severe and radical remedy for a miserable and protracted, though not rapidly fatal, disease, by his truly brilliant results. He is most honestly reticent about anything like a strenuous advocacy of hysterectomy; and only considers it justifiable in extreme cases which have long been under the operator's observation, and where life has been rendered useless through the presence of the tumour. With all these precautions, he can claim a mortality of three in thirty-eight cases, the lowest ever attained by any operator. On the other hand, Mr. Lawson Tait is no supporter of hysterectomy. He declares that nearly every patient recovers from it, as it were, by the skin of her teeth, such cases never going on straightforwardly to recovery as ovariotomies do. He has stated in the address, an abstract of which we publish this week, that the amount of worry which is given him by every case of hysterectomy, even when successful, is such as to be almost beyond the recompense of any fee; and the disappointment inflicted by every death is quite indescribable. Instead of a late hysterectomy, he advocates early removal of the appendages, in which matter he admits that he is supported by Mr. Knowsley Thornton. There is a moral to this disputed question, which is, that the surgeon not deeply experienced in abdominal surgery had better shun hysterectomy altogether, and that, before attempting removal of the appendages to check the growth of a myoma, or the hæmorrhage that it often occasions, he had best bear in mind that this latter operation is much harder to perform than would at first appear; that experienced operators have often felt uncertain that all the ovarian tissue has been removed at an operation that they have witnessed, and that, without complete removal, the proceeding is worse than useless; a that, in cutting away one appendage, uncontrollable hæmorrhage m take place, so as to force the operator to remove the uterus against h inclination. Dr. Keith describes such a case, and Dr. Savage a Mr. Thornton have, we believe, met with similar instances.

Most important and most serious of all these operations on the pel viscera in woman, is removal of the uterine appendages for chro disease of the ovaries or Fallopian tubes, or for certain disord which it is believed can be cured by removal of the appendages. T ethical aspect is here as important as the question of mortali The very high authority of Sir Spencer Wells weighs strongly agai oöphorectomy for the causes just noted, but we must refer our read to the abstract of Mr. Lawson Tait's address for his opinion and experience of this operation, and the results which have followed his own cases. One very important cause of failure after remova the appendages is described in this address. Hæmatoceles are ap form below the ligature after operation, and to give rise to pain fever, or even to suppuration. That Mr. Tait's practice has throw great light on a most important class of diseases, the very existenc which was hardly recognised fifteen years ago, there can be no do and the pathological evidence adduced by Dr. Fowler and others at least confirmed his diagnostic recognition of these disorders. T alone will show whether his radical method of treatment is justi by results, and a series of instructive after-histories are promised Mr. Tait. In the eye of the profession in general, a mortality of fo five per cent. may be tolerated for such a proceeding as the comp removal of appendages that have been rendered functionally us by long standing disease that has caused persistent pain, a tend to local suppuration, and a risk of a fatal complication, such as rupture of a suppurating Fallopian tube, an accident to which Savage refers in his paper this week. The mortality, however, be far lower than four per cent. before surgery can encourage oöph tomy for mere theoretical purposes, nor is an operation always j fiable because the patient recovers from it.

ON THE FORMATION OF TAILS IN HUMAN BEI

Professor Virchow delivered an address at a recent meeti the Berlin Medical Society, on the formation of tails in human b an account of which appeared in the *Berliner Klinische W schrift*. He maintained that, in treating this question, we ha deal with three different things; first, complete tails, of nothing of importance has been said in recent times; secondl usual form of soft imperfect or incomplete tails; and, finally simple skin-appendages resembling tails, which, properly spe have no connection whatever with tails. Professor Virchow that, some time ago, he was fortunate enough to obtain a spe which was of no small interest in discussing the question appearance of tails in human beings. It was a specimen th long been in the University Museum, but had been hidden other things, so that nobody knew of its existence. When pathological specimens were being moved into the Patho Institute, this was found.

This question, which has attracted much attention in recent is of special interest, not only from a pathological point of vi also as connected with the general theory of Darwinism. For one sees a human being with a tail, the thought revives that t return to animal shapes, and it appears a new reason for ac

arwin's laws of development. The old view, already expressed by hann Friedreich Meckel, has been everywhere confirmed by recent vestigations; namely, that thehuman embryo does indeed originally ssess a projecting end of the spinal cord resembling a tail, so that ere is in reality a certain similarity to animals in the early stage of bryonic life.

The other question, whether, under similar circumstances as with imals, tails exist in the thoroughly developed human being, is just as tainly proved. Bartels has given a whole series of such cases, and s shown with no small amount of probability that there are certain tions amongst whom these cases occur very frequently. This idea d previously occurred to a German, Dr. Ornstein, when Surgeon-neral of the Greek army. He noticed certain peculiarities of very nmon occurrence amongst the army recruits, which led him to sup-e that the peculiarities ascribed to satyrs and other wood-inities by ancient sculptors were no invention, but based on a real, ugh perhaps somewhat exaggerated, phenomenon amongst the Greek ion. The peculiarities that struck him were, thick patches of hair, protuberances, and finally, even apparent prolongations of the al cord and the lower extremity of the back.

Without dealing with the question in detail, Professor Virchow ted out the difficulties connected with its explanation; for mple, when one sees that, between the formation of hair on the on of the rump and the caudal protuberances of this region, a *um quid*, something between the two, occurs, namely, hairy , it is very easy to infer, as Ornstein says, that the whole is a rected system, and that the formations of hair are to be looked as a relic of an original caudal formation.

he question would be much clearer, if it could be shown with hing like certainty that, in one or the other kind of these ations, the vertebral column, as such, appeared as an element, as l supporter of the whole formation. The data on this point ot be relied upon, hence the difficulty. But there are cases of in whom the tail appears as a real prolongation of the axis, and fore as proceeding from the vertebral column; but the majority ese prolongations are "soft tails," containing neither bone nor age, resembling a *cauda suilla*, as older writers called them, and ay class them as "imperfect tails;" for though they are not real they represent the equivalent of a tail. There is also this lty: that skin-appendages, resembling tails, are found on all of the bodies of monstrosities, for example, in the case oned by Elsholz of Cölln-on-the-Spree (the old name for Berlin) 69. It was the case of a girl with such an appendage on the part of the thigh, and with one at the regular place of a tail. ld be said that the appendage on the thigh is in the form of a ut is not one; therefore, the other appendage is also no tail. aid Dr. Virchow, in the specimen before us to-day (a case of a one appendage is between the shoulders, the other where a turally occurs. The upper appendage is clearly only a skin-dage, having nothing whatever to do with the vertebra; whereas wer one proceeds directly from the coccyx, and is in immediate tion with it. Professor Virchow said he would not explain was that these two, a real and a false tail, occurred together; m his experience of fœtal misformations, he concluded that skin-protuberances are, as a rule, due to adhesive processes in the early stage of embryonic life, and that, in the case ned, the upper appendage is one of these. He then drew attention to a case previously published by him in the *Zeitschrift für Ethnologie*, 1875 (vol. vii, page 280), concerning the formations in the region of the rump surrounded by hair, mentioned by Ornstein. Cases of this kind, Professor Virchow added, were seldom described in Germany, and such pronounced formations of tails as those mentioned are rarely to be seen in collections.

SUPPLEMENTARY REPORT OF ENGLISH CHOLERA-COMMISSION.

In a report dated from Calcutta on March 4th, 1884, Dr. Koch stated that he had obtained evidence distinctly supporting the theory that cholera is spread by a water-borne contagion. During a small local epidemic, Dr. Koch found in the water of the tank round which the huts (bustees) of the natives were clustered, specimens of the cholera-bacillus; he found a large number of bacilli when the epidemic was at its height, and but few, even in a sample taken from a very dirty part of the pond, when the epidemic had nearly ceased. To this observation, though admittedly interesting, it was never possible to attach much importance; and the report presented by Dr. Klein and Dr. Douglas Cunningham (published in another column) shows, at least, that it is not safe to build any theory upon this solitary observation made by Dr. Koch. The evidence on this point is curious, if inconclusive.

An outbreak of cholera occurred in three houses belonging to well-to-do people, who had a good and pure water-supply. The source of the water is not indicated, and we are left to conjecture that it was drawn from wells. The mere statement that the water was good and pure is unsatisfactory; the omission will doubtless be supplied in the full report, which will, it is understood, shortly be issued. The water of three of these so-called tanks was examined. Tanks are in fact ponds, formed often by the natives in digging out mud with which to daub their wattle-huts. Water accumulates in the hollow thus formed, which is also a convenient receptacle for all kinds of garbage and filth. The size of the tank varies, according to the conformation of the ground and the amount of excavation. Dr. Klein found comma-bacilli in all three tanks. Among the natives living in the huts around these tanks, there was but little cholera. At the first tank, situate not far from the houses in which the outbreak of cholera took place, no cases had occurred. The second tank was the one upon which Dr. Koch's report (British Medical Journal, April 12th, 1884, p. 740) was founded; only one case of cholera had occurred during November among the 200 families who lived round this tank. Dr. Klein says that he found "undoubted comma-bacilli" in it, as also in a third tank in communication with the second. During the year 1884, up to the date of the report, no case of cholera had occurred among the 200 families who lived in the huts around this third tank. The flow of water, however, was from this third tank into the second, so that the contamination of the second tank, if such there were, must have been due to some circumstance peculiar to the second tank; this Dr. Koch saw in the fact that the foul linen from the first case of cholera in the local epidemic which he studied was washed in this tank. It must be admitted that Dr. Koch showed something less than his usual caution in publishing the isolated observation upon the water of this tank. By the use of the word "undoubted," we understand Dr. Klein to mean bacilli specifically identical with the comma-bacillus of Dr. Koch. The report shortly to be issued is awaited with

much impatience. In their preliminary reports, the English Commissioners have boldly traversed the main conclusions of the German observer, and it has been impossible to avoid a discussion of the points of difference disclosed. We have previously indicated the kind of evidence upon which the discussion turns. At present, Dr. Koch appears to have by no means established that the comma-bacillus is the cause of cholera, and this he himself appears to recognise, as we hear that he proposes to return to India to pursue his investigations at the earliest date that his official duties in Berlin will permit.

Lord Brabazon has offered £100 towards the expense of planting trees in the thoroughfares of Lambeth.

The Prussian Government has conferred upon Sir Joseph Lister the distinguished order of knighthood *pour le Merite*.

THE PARKES MUSEUM.

The Council have received a number of interesting articles and models from the Japanese section of the Health Exhibition; and, at the special request of the Japanese Commissioner, they have sent a large case of selected duplicates from the Museum to the Home Department at Tokio.

THE ARMY MEDICAL SERVICE.

Sir James Paget will deliver the prizes, and give an address, on Monday, February 2nd, at noon, to the surgeons of the Army and Indian Medical Services who have just completed their course of instruction during the winter session of the Army Medical School at Netley.

EULACHON OIL.

Eulachon, or "candle-fish" oil, an oil which has long had a local reputation in British Columbia, as a remedy in consumption and other wasting diseases, has lately been recommended by some American physicians as a therapeutic substitute for cod-liver oil. In its physical and chemical properties, eulachon oil resembles cod-liver and other fish oils. It is given in doses of two or three drachms twice or thrice daily.

THE CHILDREN'S HOSPITAL, BIRMINGHAM.

The annual report for the year 1884 shows that 2,050 more patients were treated during that year than in 1883, and that there was a slight decrease in the receipts of the charity. A home for nurses has been fitted up adjacent to the in-patient department, and the convalescent branch at Alvechurch has been enlarged.

QUEEN'S HOSPITAL, BIRMINGHAM.

At a meeting of the Committee of the Queen's Hospital, Birmingham, on January 27th, Mr. Walter Fowler, of Guy's Hospital, was unanimously elected to the office of Honorary Casualty Surgeon, vacant by the promotion of Mr. Hawkins. There were five eligible candidates.

PENNY DINNERS.

In the *Sanitary Record* of January 15th, appears a series of articles giving details of seven experiments in the establishment of cheap dinners for destitute children. The most valuable of these, to the practical philanthropist, are the accounts of such eminently successful undertakings, from a commercial point of view, as those of Sir Henry Peek at Rousdon, and of the Rev. W. Moore Ede at Gateshead; but all are interesting and instructive, and it is to be hoped that the publishers will reprint the series in cheap pamphlet form, with a tabular analysis of details, for the benefit of future experimenters. A subcommittee of the Committee of Representative Managers of London Board-Schools, of which Mr. H. Forbes Clarke Honorary Secretary, in a circular issued a short time since to t representative managers of the schools connected with the Committe state that in several of the Board-schools many children are unable learn as much as they otherwise would, from the fact that they are i sufficiently fed. How to supply this want without pauperising t parents is a difficult problem; but, from careful inquiry, the Su ommittee have ascertained that, under certain conditions, substa tial and nutritious dinners can be provided at one penny each to p all expenses. The Council of the Charity Organisation Society, a meeting held on Monday, January 26th, appear to have arrived at t same conclusion, and there is reason for hoping that the moveme will now be carried on upon really self-supporting lines.

THE SOCIETY OF APOTHECARIES.

At a meeting of the Court of Assistants of the Society of Apoth caries, held on January 27th, the undermentioned gentlemen w appointed as assessors in surgery at the Hall; namely, George Her Makins, F.R.C.S.Eng., Resident Assistant-Surgeon to St. Thom Hospital; and William Johnson Walsham, F.R.C.S.Eng., Assista Surgeon and Demonstrator of Practical Surgery at St. Bartholome Hospital, Surgeon to the Metropolitan Free Hospital.

SWORD-SWALLOWING.

One of the most revolting of the performances by which str jugglers seek to attract the attention and the coppers of the idle that known as sword-swallowing. This may be an optical illus with a "trick" or telescopic sword, or the veritable passage into gullet of a short blunt-edged weapon of solid iron. The latter, b the more realistic and disgusting method, is that generally practi and is not more difficult of accomplishment than the introductio the stomach-pump; but, the instrument being rigid and its direc unskilled, it is an extremely dangerous performance. Since its troduction or revival, about eight years ago, by a conjuror at Westminster Aquarium, the trick has become a common and has been the cause of many accidents. Its most re victim is a man named Henry Fry, aged 30, who was adm to the Newington Infirmary on Saturday, January 17th. stated that on the previous Thursday he was attempting to sw a sword, a feat he had been in the habit of performing freque when he was seized with severe pain, and began to vomit b Difficulty of breathing and of swallowing followed, and he applie admission to the infirmary, where he died last week. A very si case is recorded in the eighth edition of Erichsen's *Science and A Surgery*, in which a juggler died, a few days after admission to versity College Hospital, from perforation of the œsophagus, injury to the pericardium. Tricks and exhibitions which entail of the provisions of Nature, and danger to health and life, are grading to the spectator as to the performer, and cannot too str be deprecated. It is not, unfortunately, in the gutter only tha are to be found; but it is to be hoped that culture and educatio ere long, exercise more influence in the music-hall and in the and will extinguish, amongst others, this objectionable class called entertainment.

VASELINE IN PASTRY.

Our Paris correspondent writes: At a recent meeting of the C of Hygiene of the Department of the Seine, M. Riche, in the of a commission of medical and sanitary authorities, read a concerning the practice of using vaseline in pastry as a sub for butter or fat. Pastry thus prepared can be kept for son without becoming rancid, a quality advantageous to the seller, equally undesirable for the buyer and consumer, who is not w either by smell or taste, of the falsification of the ingredients staleness of the pastry. Vaseline does not possess the nu qualities of either butter or fat, and its action on the di

pparatus has not been determined, so that it cannot be affirmed that s introduction into articles of food may not be dangerous to health. he Council of Hygiene, therefore, has resolved that it is not esirable that the use of vaseline, petroleine, or neutraline, and all milar products, in preparing pastry or any other form of food, be ermitted in France.

ROYAL MATERNITY CHARITY.

HE Report of the Royal Maternity Charity, read at its one ndred and twenty-seventh annual meeting, showed that, during the st year, the staff of 32 midwives had attended at the houses of poor arried women, and assisted at the births of 1,768 boys and 1,463 rls. There were 34 cases of twins and one case of triplets, in which the children survived; only seven of the mothers died. The numr of births exceeded those of the previous year by nearly 500. From e consequent increased expenditure, and the general depression hich had affected all charitable institutions, their finance-report was t satisfactory, and they found themselves indebted to the treasurer the sum of £326. It was stated that the results of the labours of staff of midwives had been of a most satisfactory kind; and, of the 65 cases at which they had assisted, over 3,000 were unattended any medical assistance, a fact which spoke strongly for the ability l skill of their staff. The only unsatisfactory feature about the ort was the fact that it should be necessary to sell some of the ck. The Chairman, in the name of the subscribers, presented society with a portrait in oils of Dr. Longstaff, who had thirty years acted as the Chairman of the society; and, in doing highly eulogised the services which he had rendered to the charity.

TYPHUS FEVER IN ENGLAND.

E appearance of typhus fever in our large centres of population ot a contingency to be regarded without serious misgiving at a e when distress is so prevalent, and indications have not been want- of late of the failure, or probable failure, of that almost complete unity which England has, in recent years, enjoyed in respect of disease. Under these circumstances, it is satisfactory to learn t the Local Government Board have deputed Mr. Spear, one of their lical staff, to inquire generally into the existence of typhus in Eng- l and Wales, and into the conditions in the large towns that ht be expected to favour the spread of an epidemic of the disease. lth-officers and others may, no doubt, greatly assist the inspector early notification of any outbreak of a suspicious character.

TEMPERANCE IN THE NAVY.

W. S. CAINE, M.P., Civil Lord of the Admiralty, recently speak- on the subject of the progress of temperance in the Navy, said it been shown that the greatest hardships and the severest cam- ns could be better carried out without the use of intoxicating k than with it. Look, for example, at the present campaign up Nile. The worst part of the desert route had now been traversed he greater portion of Lord Wolseley's army, and it had been done water. The water, he regretted to say, was very inferior in ity, being greatly diluted with mud, and was served out at the of one quart per man per day, but yet there had scarcely been an lid. Then the most brilliant infantry charge of modern times— of Tel-el-Kebir—had been carried through on cold tea, and not the spirit-ration; while every day was proving that the finest ce in the world—the men in the British Navy—could do all the that fell to them better without than with intoxicating drink. ight instance the Marines working in the heat of Suakim and in cold of Skye. As to the bluejackets, 8,000 of them were talers; or, adding the four or five thousand abstainers in the naval ls and training-ships, the grand total of abstainers was 12,000. ligent officers knew how to value men who were abstainers, what- might be their own views as to the matter of intoxicating drink. He could not but regard this as a most satisfactory condition of things, nor refrain from saying that the agency by which this had been brought about was that of the National Temperance League. They began with the lads in Greenwich Hospital School, where there was a flourishing Band of Hope. On entering the training-ships, they were encouraged to persevere; and finally, when drafted into the men-of-war, the temperance society established on board nearly each one of them was ready to receive them. For the first two years, they had cocoa and other things in lieu of the spirit-ration, which they, however, lost if at the end of that period they elected to have the spirit-ration. He was not in favour of compulsory temperance or of "stopping poor Jack's grog," as some had said, but of placing before the men of both services the argument for total abstinence, and allowing them to decide for themselves. At the late Scarborough election, the people were asked, "Will you vote for a man who is going to rob poor Jack of his grog?" and the answer of the electors was his return by a large majority. While he did not believe in compulsory temperance, still he would give the seaman every facility to be a total abstainer if such were his wish.

NITRO-GLYCERINE IN CONTRACTED KIDNEY.

IN the *Berlin Klin. Wochenschrift* (No. 3, 1885), Professor Rossbach, of Jena, opposes the view that the cardiac hypertrophy and high blood-pressure met with in contracted kidney are compensatory, and that they account for the increased urine; for nitro-glycerine (like amyl nitrite and sodium nitrite) lowers the pressure till the pulse is of normal, or even subnormal, softness, and yet the urine is not diminished in quantity, while the patients are much improved generally. Amyl and sodium nitrites act too rashly; nitro-glycerine, on the other hand, is perfectly tolerated after a few days of slight passing headache after each dose. Nitro-glycerine is declared to be "an excellent means for preserving life, and for combatting severe symptoms" (œdema, asthma, retinitis, etc.). The dose is from half a milligramme to a milligramme ($\frac{1}{120}$ to $\frac{1}{60}$ of a grain, nearly); and about ten to fifteen doses a day are given. It is thus conveniently prepared. A weighed quantity is dissolved in ether, and the solution is mixed with a mixture of two parts of chocolate-powder and one of gum acacia. After allowing the ether to evaporate, the mixture is softened with water, and made into tablets containing the dose desired.

ALLEGED FALSE IMPRISONMENT OF A LUNATIC.

AT the Somerset Winter Assizes, recently held at Taunton, an action, brought by Mrs. Lowe, wife of the vicar of Upottery, was tried before Mr. Baron Pollock, for alleged false imprisonment of the plaintiff by the defendant, Dr. Fox, of Brislington, in his private asylum. Mrs. Lowe was removed to Dr. Fox's establishment in 1870 under two medical certificates, her husband signing the order for admission; and it was alleged that the certificates were formally wrong. The order was returned by Dr. Fox to Mr. Lowe for a correction, which was made; but meantime the defendant detained Mrs. Lowe. The corrected order was forwarded to the Lunacy Commissioners. The question, as stated by the plaintiff's counsel, was, whether the amendments made an invalid order valid; and, though there was statutory provision for amendments, whether it required the sanction of the Lunacy Commissioners before it was of any force. Whilst at Brislington, the plaintiff was visited by the justices of the peace, who were against her further detention; whereupon the defendant communicated with the Lunacy Commissioners, who were of opinion, contrary to that of Dr. Fox, that she should be discharged. Upon this, Mr. Lowe wrote to Dr. Fox, saying, "I suppose I must consent to Mrs. Lowe's discharge, and I beg that you will carry out this suggestion as soon as you think it advisable." It was contended that this constituted an order for discharge, and that the law compelled the defendant to discharge her forthwith. Dr. Fox, however, caused Mrs. Lowe to be further detained for two months; hence the action. Important points were

thus raised as to how far it is legal to detain a lunatic temporarily, on an informal order, and as to what constitutes a compulsory order of discharge. These points were settled at the trial, subject to an appeal, the judge ruling that the defendant had received a proper order, and such medical certificates as were required; and that he was protected thereby. He also held that Dr. Fox could not have acted upon the discharge contained in Mr. Lowe's letter, without disobeying the duty imposed upon him by statute.

LAPAROTOMY AND FALL OF TEMPERATURE.

PROFESSOR WERTH, of Kiel, has recently conducted some clinical observations on the influence of operations, especially abdominal section, on the temperature of the body. In thirty-one cases of laparotomy, he took the temperature, by inserting a thermometer in the rectum, within half an hour after operation, and found that, with very few exceptions, there was a distinct fall of temperature, amounting, on an average, to half a degree. On taking temperatures in the same manner, however, in thirty-six cases, chiefly plastic operations on the vulva, vagina, and cervix uteri, where the peritoneal cavity was not opened, he found that, except in six cases, there was a distinct fall to the extent of 0.4 degree. In all these operations, the room where they were performed had been kept uniformly warm. No direct relation between the duration of the operation and the extent of the fall of temperature could be established. Dr. Werth believes that the cooling in laparotomy is due to the same causes as in any other operation. The loss of blood is the most important agent in lowering temperature; and another factor, according to Dr. Werth, is the influence of the anæsthetic, which appears to have a specific influence on the temperature. In experiments upon animals, the marked fall in temperature when the abdomen has been freely opened in the middle line has been shown to be due, in great part, to the exposure of viscera. Hence, particularly when the spray is employed, it is advisable not only to cover the intestines with sponges, to prevent their prolapse and exposure, but also to wrap up the tumour in warm flannels until its pedicle has been secured and divided, since, until that has been done, the cooling of the blood circulating in the tumour may be sufficient to cause effects prejudicial to the patient.

THE HEALTH EXHIBITION LIBRARY.

THE large and valuable collection of books in the Health section of the library of the recent International Health Exhibition, consisting of about 1,500 volumes, has been presented to the Parkes' Museum. This addition to the library of the museum at 74A, Margaret Street, which already contains a large collection of standard works on sanitary science, and a very complete collection of reports of medical officers of health, over the whole country, will make it, with the reading-room, which is supplied with the principal sanitary periodicals, both home and foreign, the best library of reference on sanitary subjects. The Council have made special arrangements for the admission of students to the library and reading-room.

HOSPITAL-ACCOMMODATION IN NEWCASTLE-ON-TYNE.

THE demands upon the Infirmary of Newcastle-on-Tyne have outgrown its accommodation; with room for 225 patients, it has recently had to make up beds for about 260. This has naturally caused the governing body a good deal of anxiety. An important meeting, presided over by the Earl of Ravensworth, was held on the 20th instant, to discuss the steps to be taken. Upon one point, the necessity of so enlarging the hospital-accommodation as to provide another 100 or 150 beds, there was a hearty unanimity; but, upon the method of attaining this end, there was, not unnaturally, some difference of opinion. The first proposal was to build a new wing, and plans were prepared; it was, however, urged by Mr. Heath and some other members of the medical staff that the present site of the infirmary, with a railway-station on one side and a cattle-market on the other, was unsuitable; that the new wing would interfere with the fr access of light and air; that, sooner or later, a new site would ha to be found, and that the money which it was proposed to expend building a wing would be laid out to more advantage in purchasing new site, and commencing the erection of a new hospital. Of t general justice of these opinions, there can be no doubt; and t meeting unanimously adopted a resolution, moved by Dr. Philipso to the effect that a site suitable for the erection of a hospital capab of containing 400 beds should be purchased in a more salubrious neig bourhood. Several such sites were mentioned as probably availab and it was hinted that the corporation might be able to facilitate t acquisition of one of them. As a temporary expedient to meet t pressing emergency, it was decided to erect a wooden building in t garden of the Infirmary. Newcastle may be congratulated on t public spirit which is prepared in these hard times to face the erecti of a new hospital for 400 beds; the necessity, however, for taki such a step appears to be quite clear.

DIETETIC EDUCATION.

WITHOUT accepting the exclusive doctrines of the vegetarians, s ported, as they often are, by arguments founded upon misunderstan ings of physiological facts, it may yet be readily admitted that majority of English people set far too much store by animal fo This is, doubtless, to a great extent, due to the prevailing ignora of what a vegetarian diet can afford. The Englishman unable to p chase butcher's meat, imagines himself reduced to white bread smea with butterine, and washed down with weak tea or fiery gin; potat cabbage, carrots, and turnips, all boiled, are his only idea vegetables; and the monotony of the diet soon palls upon palate. Instead of calling upon the "richer classes" to set example, and talking of the "poorer classes" as though they overgrown children, incapable of learning by reason or experience, vegetarians would do a more useful work, if they took up the sug tion to provide cheap and well cooked meals; the class which proposed to benefit could thus learn, by experience, what excel meals can be provided at a low cost, if meat be excluded. The tarian dinners at the International Health Exhibition were la patronised and very generally liked, although many vegeta appear to have had the opinion that they might have been made better. Even the simpler ways of cooking vegetables appear t almost unknown to the women of the artisan class. Do they ever vegetable soups? Do they understand how to blend vegetable gether? Do they, in fact, ever practise any other method of coo vegetables than by boiling? English women are commonly very servative; they dislike and resent being asked to make culinary ex ments; they are inaccessible to argument, but may be quickly verted by experience. If we are to learn to use more vegetable women of the country must first be convinced of the advantages would accrue; since they can only be converted by experience duty of the vegetarians is plain; is not the proof of the puddi the eating?

INUNCTION OF MERCURY IN TYPHOID FEVER.

LIEBERMEISTER has shown the striking influence of calomel giv ternally in cutting short typhoid fever. Dr. Kalb, of Thalma now reports his treatment of 100 cases by the inunction of me ointment (see *Berlin. Klin. Wochenschrift*, No. 3). One gram rubbed into the abdomen on the first day for fully half an hou the next day, over one thigh (inner aspect), on the third day the other thigh. The same course is repeated during the thr lowing days. A few calomel and opium pills are given on th day, and alcohol is given methodically. On the eighth day, tw after completing the inunction, the temperature falls to norm very near it, and remains so, with very slight oscillations. N did Dr. Kalb find this method unfailing, but 80 per cent. of th were perfectly free from fever within ten days from beginning

ıction. Other patients in the same ward complained bitterly that ey were not treated in the same manner. The spleen remains en-ged for about a fortnight after the fall of temperature, and the ·ictest care must be taken to keep the patients under observation ring this time, for fear of a relapse. The treatment is only of lue when adopted before the ninth or tenth day of illness, before seola has appeared.

OPIUM AND MORPHIA-TAKING.

E regular use of opium in any form is fortunately not one of our .ional vices. The active disposition of our people may be allowed furnish a reason why we should hope and expect that it will not ome one. From time to time, notwithstanding, cases meet one in ich habit has assumed this ghastly form; and there are no doubt sons, and even sections of society, for whom it possesses a peculiarly ıgerous attraction. Those who have lived in harassing anxiety, or ler pressure of grief, know how surely the disinclination for all ılar work is accompanied by a craving for pleasant diversion. It singular fact, also, that this longing is with some very apt to take form of morbid appetite. The worried man, accustomed to eat drink in moderation, will often in these circumstances forget to ıt his glasses after dinner. For the same reason, another, who is e abstemious, betakes himself to his pipe of tobacco for consola-. There is relief in the sense of busy idleness, and in the refresh-t of stimulation or of rest occasioned by the drug. Yet, after all, stimulant acts but for a time, and the quiet is artificial. Sense is :oured, but the mind is not diverted, nor the source of trouble ped. The remedy, however, though partial and illusory, is near easy; it is familiar, it is something, and it is believed in. If can be said of the moderate use of substances which many persons rd as daily necessaries, it is not remarkable that so powerful an t as opium should obtain a higher influence over the minds of who think they stand in special need of artificial comfort. They ome its stronger narcotic property, and are willing to forget that are placing themselves, as well as their troubles, under the ·ol of a master-habit, detrimental to the healthy and happy exer-of mind and body. But there are other causes which occasionally te in establishing a practice of opium-taking. Its immediately icial effect on pain and sleeplessness has often served as an in-ction to its regular use. Cases are recorded in which almost in-ole doses of morphia have come to be used by sufferers from lgia, for example, with no ultimate result except the ruin of a tution under the double action of pain and poison. Women d particularly dread reliance upon opiates. At certain periods, ly the stage of middle life, they are prone to more or less us derangement. The presence of this condition depends upon circumstances, and often cannot be at once removed; neither be corrected by the use of any drug; yet some have recourse to ine, and others to drink. The cultured woman will seek to suit ste with sedatives, while her sister of a lower type and station ncommonly flies to gin. But these are all Job's comforters. benefit is transient and unreal, their evil consequences are the most certain and injurious realities. The nature of these uences can be appreciated by most of our readers, without pre-escription. Their remedy, we would urge, consists, first, in nce of their cause. Until this first step be taken, no real pro-in recovery can be relied upon; and such avoidance, to be al, must in all cases, unless we admit a very few doubtful ex-ıs, be absolute and immediate.

GRATUITOUS MEDICAL RELIEF IN BRIGHTON.

ighton Charity Organisation Society has been making inquiry ıtuitous medical relief in that town, the work being undertaken mmittee, consisting of the Rev. R. P. Hooper, Dr. Hawksley, Kellar, Dr. Tindal Robertson, Dr. J. Stephens, and Mr. G. B. The report presented by these gentlemen states the popula-tion of Brighton and Hove as 130,000, and asserts that, of these, 24,883 received hospital-treatment in one year—23,242 as out- and 1,673 as in-patients—while, in addition, 5,062 were treated under the poor-law. These figures are surprising, and probably closer examination would show that, while they are correct as to the number of cases, the number of individuals is overstated. The report recommends that, before medical relief is given, each applicant should be referred to the Charity Organisation Society, for inquiries to be made. There are, however, several obvious objections to such a course, chief among these being that no expert opinion of the condition of health of the persons applying would be obtained. The most important fact is here, as in most similar cases, lost sight of—namely, that the question is one primarily affecting the medical profession, and should be dealt with on a general basis by its members, in such a manner as would be just to their own interests, and for the welfare of the public and the sick poor.

THE EXAMINATIONS OF THE UNIVERSITY OF LONDON.

We understand that at the last meeting of the Senate of the University of London, the proposal to replace logic and psychology at the examination for the M.D. degree, by an examination in psychology in its relations to medicine, was discussed, and in principle approved. The subject was referred back to the committees for further report, and especially for a more precise definition of the domain of psychology which it was proposed to include.

THE LATE SIR GEORGE JESSEL.

We understand that the memorial portrait of the late Sir George Jessel, Master of the Rolls, was formally presented to the Senate of the University of London at its last meeting. The portrait has been painted by Mr. John Collier; it represents the late Vice-Chancellor of the University in three-quarters full face, and faithfully reproduces the general shrewd expression and intellectual features of that most distinguished lawyer and graduate of London Uuiversity.

THE EXPLOSIONS AT WESTMINSTER.

There is no feature about the recent dastardly outrages at Westminster and the Tower more surprising than the small amount of damage to buildings and injury to individuals which was produced by them. We have ascertained, on inquiry at the Westminster Hospital, that even the policeman, Cole, who so gallantly carried off the explosive, and was, according to his own statement to us, within two or three feet of it when the explosion occurred, sustained injuries which can hardly be called serious. As was the case with the people injured by the explosions a year ago in the underground railway, temporary deafness, in all likelihood due to rupture of the tympanum, was one of the chief consequences; in some cases, too, there was an amount of shock out of proportion to the actual gross lesions sustained; this was probably due to a slight but extensive concussion of the brain and spinal cord; even in the policeman Cole, this concussion was not sufficient to produce insensibility. He is aged 43, and his comrade 42; they were admitted into the Westminster Hospital, under the care of Mr. Cowell, very shortly after the explosion; their faces and hands were black, and the hair and beard were filled with a black material, the hair being matted together. The clothes were much torn, and their coats apparently burst through by the explosive force. Cox had the left leg of the trousers slit up nearly to the hip, whilst Cole had the brass letter A, on his coat-collar, bent and twisted. Both men state that they have no recollection of anything after the explosion. Cole distinctly states that he remembers stooping forward to throw the parcel, which felt hot, towards the Hall, then he saw a bright light, but he can recall no sound, and the next thing he remembers is finding himself in bed in the hospital. In Cox the period of forgetfulness appears to have been more prolonged; but, when admitted, neither of them was insensible, but both were stunned, and quite deaf. They were also cold, from the shock that they had re-

ceived. Cole was suffering from considerable difficulty of breathing, and complained of severe pain in the left side. On examination, four ribs were found to be broken, the sixth, seventh, eighth, and ninth. There was no sign of contusion, and from the character of the fractures it is probable that they were produced either by the explosive force to which the front of his chest was exposed, or, as is more likely, by the other policeman falling upon him. Cole is slightly built, while Cox is tall and burly. There has certainly been no sign of wound of either the pleura or the lung. Cox had a slight wound behind the left ear, over the mastoid portion of the temporal bone, a bruise over the right eye, and another on the left ankle. There seemed to have been no other injury. There were, however, slight signs of blood in both ears, and it is probable that both tympani were ruptured. His hearing, however, is rapidly recovering. There was no sign of bleeding in Cole's ears, although he was quite deaf when he was admitted; he gradually recovered his hearing in the left ear, but not in the right. Cole had a few bruises on his arms and legs. Cox suffered for about an hour after his admission from traumatic excitement. He struck out in all directions, and was with difficulty restrained; but by the time that Cole had had his broken ribs strapped and bandaged, he had quieted down. The notes on Monday showed that the men were still suffering from the effects of the shock. The temperature was but slightly raised. Cole's urine had a specific gravity of 1016; it was acid, with a trace of albumen and a small quantity of blood sufficient to discolour it. The pain in the side was less, and he was fairly comfortable. Cox had a good deal of frontal and occipital headache. Mr. Cowell informs us that on Wednesday, Jan. 28th, both patients were free from pain and cheerful, could take food and sleep well, and that the temperature and urine in both cases were normal. The recovery of both will, he adds, probably be uninterrupted. "Cole has shown a pluck that in the army would have gained him the distinction of the Victoria Cross." The improvement above noted has continued.

SCOTLAND.

THE SAMARITAN SOCIETY OF THE ROYAL INFIRMARY, EDINBURGH.

THE truly benevolent and beneficent work done by the Samaritan Society, in the Edinburgh Royal Infirmary, goes on unostentatiously ministering to the wants of those who are deprived of their bread-winner by sickness, or aiding many patients who leave the Infirmary before quite fit for employment. There are three principal ways in which the Society effects its Christian purpose; first, by voting weekly allowances to the families of poor, but deserving, patients; second, the distribution of clothing; and third (and most necessary in a cosmopolitan institution like the Edinburgh Infirmary), the payment of fares home of patients who have come from a distance. At the annual meeting of the supporters of the Society, held on Tuesday, it was stated that the total income for the year had been over £386, and, after paying all necessary expenses, it left a balance of over £107 in the hands of the committee. The Lord Provost presided at the meeting, and moved the adoption of the report, and various leading citizens spoke in favour of the Society. Professor Chiene stated, on behalf of the staff of the Infirmary, that the Society was doing a very great deal of good.

IRELAND.

AN inmate of the Limerick District Lunatic Asylum committed suicide by hanging himself last week.

THE PAYMENT OF MEDICAL OFFICERS' SUBSTITUTES.

AT a meeting of the Newry Board of Guardians held recently, a communication was received from the Local Government Board in reference to a resolution adopted about Dr. Crossle, who had bee doing duty for Dr. McBride during his illness. The resolution wa that Dr. McBride at present, and all other officers in future, be calle upon to pay their own substitutes. The Local Government Boar stated that it was usual for boards of guardians to remunerate out the poor-rates the temporary substitute for a medical officer incapac tated from the discharge of his duties by illness. With respect to t latter part of the resolution—that, in future, all union officers shall called on to pay their substitutes—the Board pointed out that general resolution of this kind would not be binding on a future boar as each case should, as it arises, be treated on its own merits. Af an animated discussion, the guardians, by a majority of four, decid to allow Dr. Crossle £3 3s. per week.

A CASE OF LUNACY.

AT Dungarvan Petty Sessions, last week, an inmate of the workhou by name Farrell, was charged with being a dangerous lunatic, a with having assaulted two of the other inmates. Dr. Holland g evidence that she was a dangerous lunatic, and that recently she been under treatment in hospital, and he did not consider that workhouse was a proper place for her. Evidence was also given the police and others; but the magistrates, because she beha quietly in court, refused to send the woman to an asylum, and manded her for a week, to see how she would get on. Accordin she returned to the workhouse, where she became very violent, finally seized her child, a girl of 10 years, by the legs, and held he the fire in the ward. After considerable difficulty, the child rescued from her dangerous position, but not before she was dr fully burnt, and now lies in a precarious condition, her mother b removed to the Waterford Asylum. There could have been no d as to the insanity of this woman, and the magistrates committ grave error in refusing to be guided by the opinion of an experie practitioner.

COLERAINE UNION: SUPERANNUATION TO A MEDICAL OFFICE

AT a recent meeting of the Coleraine Guardians, Dr. Traill, F.T.C in pursuance of notice, brought forward a motion to the effect the resolution of September 13th last, refusing to give a retiring sion to Dr. McIntire be rescinded, and that a pension of £60 a be given to him from the date of his retirement. He said i simply a question of justice or injustice to a deserving old gentl who had trusted to the honour of the guardians that his int would be safe in their hands, for he resigned without making conditions as regarded his retiring-allowance. Dr. McIntire w years of age, and had served for over thirty years, and could n longer continue to discharge the onerous duties of a dispensary m officer. Mr. Given, J.P., seconded the motion, and said h thoroughly convinced that there was not a more upright, faithfu diligent public servant, or one who was better entitled in the e of life to a recognition of his labours. An amendment was mov Mr. Pinkerton, who strongly objected to the proposed grant flagrant act of injustice to the ratepayers, as he believed Dr. M was still capable of performing his duties. The question wa put to a vote, when there voted for Dr. Traill's motion 25, and a it 21. It was then proposed that a pension of £60 a year be g to Dr. McIntire, which was carried, Mr. Pinkerton giving notic on that day five weeks, he would move that the resolut rescinded. It is probable, however, that, in the meantime, th Government Board may sanction the pension, which will ter the matter.

DR. W. H. O. SANKEY has been elected "Membre Etranger" of the Medico-Psychological Society of Paris.

MR. CHARLES W. GLASSINGTON has been elected President Students' Society of the National Dental Hospital, *vice* Mr. H. resigned.

CANTOR LECTURES.

the third lecture, on Monday, Dr. POORE began by stating that the nber of microbes found by Miquel in the air, varying from zero on Alps, to 28,000 per cubic mètre in hospital-wards, seemed to show t the number was proportionate to density of population, for density population meant an aggregation of productive foci of microbes. breath of even healthy persons often contained microbes, and the sture in the breath, if collected, was putrescible, and, when it consed upon the walls of a room or elsewhere, it doubtless formed a ductive focus. In hospital-wards, which were occupied all the nty-four hours, and were never empty for months together, and in ch productive foci were furnished by diseased lungs, diseased bodies, nds, and collections of expectorated and other excreta, and where temperature was always high and uniform, it was no wonder that microbes in the air became excessive. It was important to bear in d the fact that productive foci might exist independently of the y, and that all collections of putrescible matter were sources of ger. The indictments against sewers and cesspools, which were luctive foci, and often contained specific poisons, were too numerous equire more than a passing allusion. They were often direct causes isease, and sewers acted most powerfully in an indirect manner, by ouraging overcrowding, and by allowing houses to be built close ther, without any outlet for filth, except into the sewer. This was ry important consideration, because overcrowding probably took first place among causes of high mortality.

ttention was next directed to some diseases which were certainly ed by floating matters in the air; and, in the first place, Blackley's resting experiments were dealt with, whereby he proved that his sufferings from "hay-fever" were undoubtedly caused by the en floating in the air. That fungoid spores in the air might work lculable harm was illustrated by reference to the potato-disease, the strong evidence which there was to show that, when the dis- first broke out in this country, the spores of the *Peronospora stans* were borne in the air, and travelled from Belgium to the Isle Vight, and thence to the Midlands and Scotland, infesting the whole ie potatoes in the country in the course of a few days. In suddenness nset and extent of the area invaded, epidemic influenza could not but nd us of the potato-disease. That influenza was caused by an il poison, all the facts of the epidemic seemed to show; and Sir nas Watson, writing in 1837, regarded rather with favour than rwise the idea that the disease might be due to multiplying organ- of a vegetable or animal nature, carried hither and thither by the osphere. There was certainly more to be said in favour of such a ry at the present time; and, when the next epidemic of influenza rred, Miquel and other workers in the same line might possibly e the question.

ie exhaustive inquiry of Power, and the observations of Bertillon others, had scarcely left us room to doubt that, under favourable mstances, the poison of small-pox might be carried through the or some thousands of feet at least.

bercular phthisis had lately been moved from the class of local dies, and put with infective diseases; and the influence of the lus tuberculosis, which had been discovered by Koch, was now generally accepted. Many of the facts which long had been nised with regard to phthisis and tubercular disease generally, ed strongly to support the idea of its being an infective malady. ng these facts were the following.

A local deposit of tubercle had a tendency to infect the whole , and run an acute course, which was sometimes strikingly like that her infective maladies.

The infectiveness of phthisis is difficult to prove, (*a*) because the is usually very insidious, and (*b*) because the disease is so com- that it is impossible to exclude infection in any case. But the fact overcrowding is, of all causes, the most potent agent in determining isis, is a strong argument that it is often caught by inhaling tive matter in overcrowded and ill-ventilated rooms and work- s.

The fact that the disease, once started, is very prone to progress ite of removal of the cause, is suggestive of an infective process; gain, the traumatic action of chemical or mechanical impurities e air.

e undoubted heredity of phthisis need be no stumbling block to ceptance of it as an infective disorder. Even if we suppose that fective particle passes from parent to child *in utero*, there is ng in that outside of our experience.

lin's experiment showed that the presence or absence of some nal ingredient in a cultivating liquid might cause the growth of ganism to flourish or languish; and what was called a 'family predisposition" might very well mean that the blood and tissues of certain individuals were, from some cause, peculiarly well suited for the growth of the bacillus.

Again, the inheritance of a long narrow chest probably involved a feeble coughing power for expelling catarrhal products. These products would be very prone to lodge at the apex of the lung, which was without thoracic support, and there form a nidus for the growth of the bacillus.

These commonly accepted facts with regard to phthisis thus seemed to be singularly in harmony with the infective theory of its causation. The fact discovered by Dr. George Buchanan—that phthisis diminished in a district after effective sewerage had been carried out—was as easy to explain (or more so) by an infective theory of the disease as by any other. Sewage-works would remove a certain amount of infective matter promptly from the neighbourhood of our houses; and, by drying the sewage-sodden soil and making cesspools unnecessary, would deprive the bacilli of some circumstances favourable, if not for their growth, at least for their vitality. Phthisis did not stand alone as an example of an infective disease which was intensified by filth in the neighbourhood of our dwellings.

Soil, as a climatic factor, was next considered, and the conditions which favoured the occurrence of malaria were discussed. A review of the peculiarities of mountain-climates was next entered upon, and it was strongly urged that mountain health-resorts would soon lose their reputation if the authorities allowed houses to be packed together without sufficient curtilage, and without regard to sanitary considerations; or if phthisical patients were to be crowded into barrack-like hotels to spend about twenty out of the twenty-four hours. Such a proceeding, in view of the infective nature of phthisis, seemed to be of all things the most undesirable.

In conclusion, Dr. Poore stated that he had endeavoured to show in these lectures that many so-called climatic diseases were in reality diseases due to negligence. If the study and practice of hygiene had done good at home, it had no less removed much of the terror which tropical climates formerly inspired. The truth of this was shown in a very striking manner by the returns of sickness and mortality among British troops on home and foreign stations. These returns proved that sickness and mortality had everywhere diminished, as the well known rules of sanitation had been enforced.

MEDICAL NOTES FROM THE NILE EXPEDITIONARY FORCE.

[FROM OUR SPECIAL CORRESPONDENT.]

January 9th, 1885.

THE rapid transit of troops up the Nile by boats, and along its banks on camels, still goes on. Somewhat more than half the entire number of boats have already passed up the cataracts; they are now over a considerable portion of their troubles, and have a fine stretch of smooth water before them, right up to Korti, which is the concentrating station just now, from which a dash across the desert is being attempted by a portion of the force; while an advance of another portion of the troops along the river towards Merawi is, I believe, intended, with a view of punishing Stewart's murderers. Every nerve is being strained by the authorities, military and medical, to push up men and stores with all rapidity, as Gordon cannot go on holding out indefinitely, and the season for active operations is slipping by apace, leaving us a narrow margin of scarcely three months before the hot season and exhausting Khamsin winds are on us.

So far, the general health of the troops is certainly satisfactory, though the death-rate from enteric fever is very high. This disease continues to be prevalent, and of a decidedly severe type, attributable no doubt to the fact that the men very often overlook the early and painless diarrhœa, and continue their journey either by boat or camel, in their wish to get up to the front; all the time eating their ordinary ration of salt beef and biscuit, and not reporting themselves sick until prostrate, and unable to go on any further.

As met with elsewhere, this disease in the Soudan chiefly singles out young soldiers; and those of a florid complexion, with fair hair, suffer from the malady in its worst form. The range of temperature is typical; I have seen no hyperpyrexia, nor have I heard of any such cases; the usual head-symptoms, such as apathy, a tendency to stupor, and occasionally partial deafness, are to be noticed. The patients, as a rule, take their nourishment well; but profuse and uncontrollable diarrhœa exhausts the sufferer. The evacuations are extremely fœtid. Few remedies seem to have any power of even temporarily moderating this most distressing symptom;

which is not only most troublesome to the poor sufferer, but breaks his rest at night.

One very remarkable case of enteric fever lately came under my notice. A very fine robust looking soldier, 24 years of age, for some days complained of feeling out of sorts, listless, and that he had obscure pains in his joints, principally in his shoulders and elbows, and down his legs. His joints were examined, but there was no sign of anything rheumatic; and, as there was only slight feverishness, he was kept for a couple of days under observation on milk-diet, but with no medicine. His comrades hinted that he was shamming, as he had been heard to say that "he wouldn't go on any further," or words to that effect. There was nothing whatever, either abdominal or otherwise, to lead to a suspicion of enteric mischief; until, all of a sudden, on the third day, violent and general peritonitis set in, and soon proved fatal, perforation being found after death.

Obscure cases of this kind occur now and again in military and naval practice. In days gone by, I have heard of one or two cases of thoracic or abdominal aneurysm only discovered after death, where the man, if not actually punished as a malingerer, was looked upon with very great suspicion. Therefore, the greatest caution is necessary, so as not to do an injustice; while the interests of the service, and the chance of meeting a professional schemer, must not be overlooked.

Another very severe case of enteric fever came under my notice. A remarkably fine robust soldier, aged 24, of dark complexion, had a temperature of 104.8°, or thereabouts, on several evenings, and a pulse of 108, strong and bounding. Violent hæmorrhage from the bowel came on on the tenth day, and lasted on and off for two days; he must have lost altogether about two pints of blood. Under the influences of opium and gallic acid, with cold acid drinks, the hæmorrhage ceased, and a good convalescence ensued.

In the present campaign, so far as it has gone, I may safely say that we seldom or ever see a man in the early stages of enteric fever. Owing to the great *esprit de corps* and rivalry between the regiments to be first up at the front, a man really suffering from enteric fever, with only slight painless diarrhœa, goes on and on, sharing the labour and hardship, perhaps wet all day, and sleeping on the cold ground at night, eating salt beef and biscuits, with the other men in his boat or camel-troop, until he is so ill that he is simply prostrated; then he comes under medical treatment. I need scarcely say that his case cannot be looked upon very hopefully, however much we may admire the splendid spirit of pluck which keeps a man from giving in almost as a point of honour.

Under conditions such as the above, we must, I fear, look for a high death-rate; and, in cases of recovery, a tardy and difficult convalescence. At all events, be the cause what it may, climate, field-service, or an unusually severe type of disease, from one or all combined, enteric fever will claim far more victims than the Mahdi's bullets or spears.

So far, the climate is all in our favour. There is a powerful sunshine, no doubt; but it is generally tempered by a cool northerly breeze by day. The temperatnre by day, as a rule, is over 90°; some mornings, the temperature falls close to 50°; in fact, the early mornings are bitterly cold, and the dryness of the atmosphere is extreme. To sum up, the hospitals are well supplied, the sick are well cared for, the most captious critic can find no fault; the medical staff corps are working like men; and whether at professional duty or hauling a boat, or in desert marching, in mending a hospital-bed, or in building a hospital-kitchen, from morning to night, all day and every day, we are all hard at work, all honestly striving to help on the expedition.

MAHOMED MEMORIAL FUND.

THE following additional subscriptions have been received.

	£	s.	d.
Dr. H. P. Berry	1	1	0
Dr. Dobrée Chepmell	10	10	0
Charles Davis, Esq. (per Dr. Chepmell)	2	0	0
Dr. Debus	10	10	0
Dr. Gulliver	5	0	0
H. Horsley, Esq., Croydon	1	1	0
Jonathan Hutchinson, Esq.	10	10	0
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The Earl of Leven and Melville	5	5	0
H. W. Pigeon, Esq.	1	1	0
Alfred de Rothschild, Esq. (per Dr. Chepmell)	10	10	0
L. D. S.	1	1	0
H. N. Smith, Esq.	2	2	0
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Dr. Thorowgood	1	1	0
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SUPPLEMENTARY REPORT OF THE INDIA CHOLER COMMISSION.

THE following official paper has been published in the *Calcutta Gazet No.* 830, *dated Calcutta, December 9th*, 1884.

From Surgeon-General J. M. Cunningham, M.D., Sanitary Co missioner with the Government of India, to the Secretary to t Government of India, Home Department.

In continuation of my letter No. 810, of the 27th ultimo, I ha the honour to submit, for the information of the Government, t accompanying communication from Dr. Klein; and to suggest that also may be published in the supplement to the *Gazette of India*, general information.

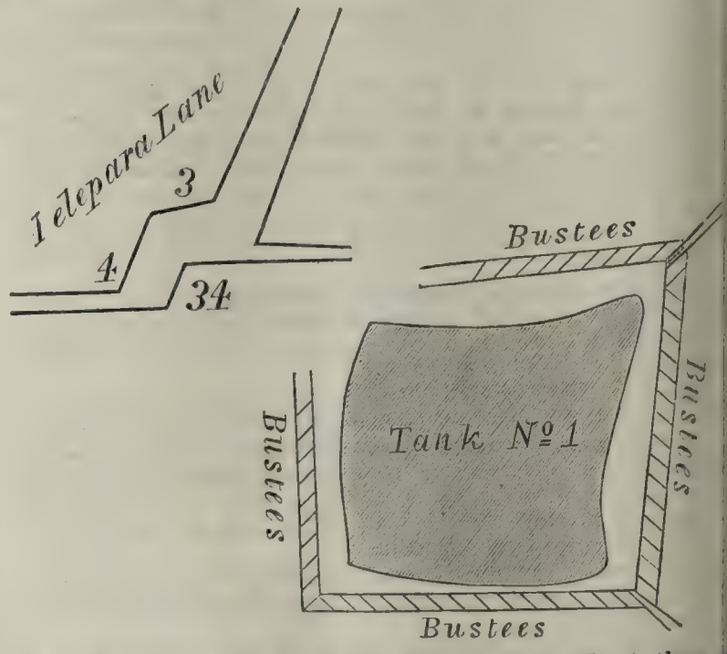
2. The fact that comma-bacilli have been found in tanks, with any case of cholera having occurred among the large number of peo using them, is an observation of much interest and importance regard to the relation of comma-bacilli to cholera. The observat has a special interest and importance, moreover, from the circu stance that one of the tanks in question is the *same tank* as that which Dr. Koch found comma-bacilli, and so hastily concluded t the outbreak of cholera which took place about that time am persons using this tank, had been caused by the comma-bacilli contained.

Dated Calcutta, December 3rd, 1884.

From Dr. E. Klein to the Sanitary Commissioner with the Gove ment of India.

In addition to the short memorandum signed by myself and Gibbes, which we had the honour to submit to you some days ag append here some interesting notes with regard to the relation comma-bacilli in tank-water to cholera in Calcutta, which were lected in conjunction with Dr. D. D. Cunningham.

An outbreak of cholera occurred between the 14th and 16t November in three houses in Jelepara Lane, in Calcutta. The ho are marked in the subjoined plan as No. 34, No. 3, and No. 4.



In No. 34 occurred three; in No. 3, two; and in No. 4, three Those of No. 34 were the first.

The only condition common to all these houses is this, that in of them is an opening of the sewer passing under the street.

A passage leads at some distance to a large tank, No. 1, a which is a number of bustees. The people of these bustees u is generally the case, this tank for all kinds of purposes, cess washing of clothes and utensils, and drinking.

The above three houses, Nos. 3, 4, and 34, of Jelepara Lan inhabited by well-to-do people, and they have in their houses a and pure water-supply of their own, and their inhabitants never near the tank at all. The water of this tank is very dirty contains undoubted comma-bacilli, exactly like those fou choleraic evacuations. Although a large number of the natives in the bustees surrounding this tank constantly use and drink o water, no case of cholera has occurred amongst them.

As you are aware from Dr. Koch's official reports to his govern this gentleman visited, during his stay in Calcutta (February 13t

th, 1884), bustees in Sahib Bagan, amongst the inhabitants of which ere occurred, between January 21st and April 27th, of this year a ere outbreak of cholera. These bustees are located around a tank, ich for convenience sake may be here called No. 2. There are ut two hundred families living around this tank, and, as is usually case, they utilise this water for washing, bathing, cleaning, and nking purposes. In this water Dr. Koch found the comma-bacilli, l he quite arbitrarily concluded that they caused that outbreak of lera.

visited this tank lately, and found in its water undoubted comma-illi; there has occurred, during the whole of November, 1884, one gle case of cholera, although about two hundred families use the er.

lose to this tank there is another tank, No. 3, and around this also about two hundred families. As in the former case, the ple here, around tank No. 3, use the water for all purposes, including nking purposes. The water of this tank is dirty, and a sample en close to the shore revealed undoubted comma-bacilli. There has occurred a single case of cholera in these bustees during the whole his year.

is worth stating that there is a communication between tank 3 and tank No. 2, there being a slight flow from the former the latter. Tank No. 2 receives water from the ice-factory e by.

THE PATHOLOGY OF PUERPERAL FEVER.

pathology of puerperal fever is a question upon which opinions widely differ. It is possible, indeed, to reduce the matter to con-able simplicity by adopting the view held by many German au-ities, that the ordinary form of puerperal fever is nothing but cæmia occurring in lying-in women, such septicæmia being either milder disease of septic intoxication, due to the absorption of nical products of decomposition, or the graver one of septic infec-due to the multiplication of septic organisms in the tissues, or in lood, or in both. On this view, it is admitted that pyrexia in ying-in woman may be due to a zymotic disease, such as scarla-showing its ordinary manifestations, or to a local inflammation f a septic character; but these are regarded as quite distinct puerperal fever in the ordinary sense. It is also possible for those ng this view to admit that a zymotic disease, such as scarlatina, give rise to puerperal septicæmia, but only on the ground that not the poison of the zymotic disease itself which produces this , but some septic material resulting from it, as, for instance, in hroat in scarlatina. For, it is argued, the hands or clothes of ccoucheur, or other person, may be infected by such septic mate-and, in this way, not the poison of the zymotic disease, but kind of septic poison, may be conveyed to the puerperal woman. e other view, which probably finds more favour in this country, t, in the puerperal woman, the effects of a zymotic disease may modified that the disease may either present more or less masked ubtful features, or may be undistinguishable from the ordinary eral septicæmia, and produce the local effects usual in that dis-In favour of such a possibility may be quoted those cases in , even apart from the puerperal state, a zymotic disease runs its without producing, in any unmistakable form, the ordinary r other local manifestations of the disease in question. For the n of the question, important evidence is to be derived from the ncy and degree in which the local lesions usual in puerperal emia occur in cases of undoubted scarlatina, erysipelas, or other ic disease, and from the frequency of a disease undistinguishable uerperal septicæmia arising after exposure to the contagion of me diseases. More decisive evidence in favour of possible trans-ion of the effects of zymotic poison is obtained, if it be shown disease having the characters of puerperal septicæmia can give contagion to erysipelas, scarlatina, diphtheria, and the like, in erperal patients, especially if the origin of the apparent septic-tself can be traced to the same zymotic disease which it repro-

nately connected with the true nature of puerperal fever is the n of its contagious character—one of immense practical im-e to all practitioners. If the unity of its nature be assumed, follow that contagion is more or less probable in any case. f those authorities, however, who believe in transformation of cts of zymotic poisons, hold that puerperal fever originating motic disease is either the only form which is contagious at hat it is contagious in a degree far beyond the fever of auto-origin. Another undecided point is the relative frequency of f autogenetic origin, and, in close connection with this, the prospect in any given case of cure by early local treatment, such as intra-uterine injections. It has been thought by some that many cases classed as autogenetic are really due to contagion conveyed by the accoucheur or others; and that the decomposition of the lochia, which is assumed to be the primary starting-point of the disease, is itself one of the effects of the contagion.

The solution of all these questions is a matter rather for clinical study in private practice than for pathological or hospital investigation, and is, therefore, peculiarly fitted for collective investigation. The first report on Puerperal Pyrexia, published in the last volume of the *Collective Investigation Record*, contains the analysis of 354 cases of puerperal pyrexia taken indiscriminately. A certain proportion of these contain valuable evidence on the question of contagion, of the results of zymotic disease in puerperal women, and of the possible origin of ordinary puerperal septicæmia from zymotic disease, but necessarily only a small proportion of the whole.

We publish below a series of questions by which the Collective Investigation Committee proposes to continue the investigation. It has been thought that the analysis of general cases has been carried sufficiently far, and it is now desired to obtain records of those comparatively rare but significant cases which may throw light upon the points specially requiring solution. It is hoped that all who have met with such cases will assist the investigation; not only general practitioners, but consultants whose practice lies in this direction. The questions include, amongst others, two subjects which the answers previously received suggested as requiring investigation, but upon which they did not afford any decisive information. The first is the possible origin of a disease resembling puerperal septicæmia, from the contagion of enteric fever, measles, rötheln, small-pox, diphtheria, or pneumonia. The second is as to an occurrence which appears to be more common in epidemics in lying-in hospitals than in ordinary practice; namely, the appearance in puerperal septicæmia, of diphtheritic or pseudo-diphtheritic deposits in the throat or genital passages, and the relation of these to true diphtheria. It will be observed that, while most of the questions refer to cases which only a few may have met with, there is one section (5) upon which a large number of practitioners will be able to afford information, namely, as to the effect of local treatment directed to the interior of the uterus.

COLLECTIVE INVESTIGATION COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

No. VII.

PUERPERAL PYREXIA (1) *Local Origin of Contagion;* (2 and 3) *Relation to the Zymotic Diseases;* (4) *False Membrane;* (5) *Effects of Local Treatment;* (6) *Pyæmic Character;* (7) *Contagion.*

CAN you record a case of puerperal pyrexia having any of the following characters?—

1. A case originating in some definite local cause (such as retention of placenta or decomposed clots), which was the source of contagion, either to puerperal women, or to other persons.
2. A case in which a disease having the ordinary characters of puerperal septicæmia appeared to communicate the infection of any zymotic disease (erysipelas, scarlatina, etc.) to the infant, or to other persons.
3. A case, the origin of which appeared to be contagion derived from enteric fever, measles, rötheln, small-pox, diphtheria, or pneumonia.
4. A case in which diphtheritic, or pseudo-diphtheritic, deposit occurred in the throat or genital passages.
5. A case in which benefit was derived from intra-uterine injections, or the removal from the uterus of any septic material.
6. A case in which the joints became affected by inflammation.
7. Any case generally which proved the source of contagion to puerperal women, or to other persons, or in which there was evidence of the conveyance of contagion by hands, clothes, instruments, or in any other way.

Anyone who is able to record any case or cases falling under any of these headings, is requested to send a short report of the cases, noting especially any evidence as to the probable origin of the disease, whether from contagion, and, if so, where and how the contagion was contracted.

Reports to be sent to the Secretary of the Collective Investigation Committee, 161A, Strand, W.C.

PRESENTATION.—Dr. Byass, of Cuckfield, was, on January 24th, presented with a substantial mark of the esteem in which he is held by a large circle of friends resident in this district, where Dr. Byass has continued in practice since 1829. The testimonial took the form of an exquisitely traced casket, containing bank notes to the amount of £500, accompanied by a silver salver and an album, giving a list of the names of the subscribers.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885: ELECTION OF MEMBERS.

Regulations for the Election of Members passed at the Meeting of the Committee of Council, October 12th, 1881.

1. There shall be a standing notice in the JOURNAL every week, of the meetings of the Committee of Council throughout the year; and stating that gentlemen wishing to be elected members of the Association must send in their names *twenty-one days* before the meeting of the Committee of Council at which they wish to be elected.
2. That a list of applicants be in the hands of the Committee of Council *fourteen days* before such meeting of the Committee of Council, and that the Branch-Secretaries be supplied with *several* copies of the list.
3. That no member be elected by a Branch, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Meetings of the Council will be held on April 8th, July 8th, and October 14th, 1885. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary, not later than twenty-one days before each meeting, namely, March 18th, June 17th, and September 24th, 1885, in accordance with the regulation for the election of members, passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

CORRECTIONS IN THE LIST OF MEMBERS OF THE BRITISH MEDICAL ASSOCIATION, 1884-5.

DUBLIN BRANCH.

MEMBERS UNATTACHED: OMISSION.

Harrison, J. J., Esq., 19, North Frederick Street, Dublin.

METROPOLITAN COUNTIES BRANCH.

MEMBERS UNATTACHED: OMISSION.

White, W. Hale, M.D., 4, St. Thomas Street, S.E.

NORTHERN COUNTIES OF SCOTLAND BRANCH.

MEMBERS UNATTACHED: OMISSION.

Devlin, Thos. P., Esq., Dounby House, Orkney, N.B.

ARMY AND NAVY.

OMISSIONS.

McAdam, J. A., Esq., Surg., R.N., Royal Marine Barracks, Walmer.
Kirtiker, K. R., Surg. I.M.D., Thana, near Bombay.

CORRECTIONS.

For Shaw, J. A., Esq., Surg.-Maj., M.S., Tenby, Wales, read Shaw, J. A., M.D., Surg.-Maj., M.S., Aldershot.
For Townsend, S. C., Esq., Dep. Surg.-Gen., Bengal Army, Simla, read Townsend, S. C., C.B., Surg.-Gen. Bengal Army, Lauriston, Bedford.

FOREIGN AND COLONIAL MEMBERS.

OMISSION.

Emmett, T. A., M.D., 87, Madison Avenue, New York.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary. —C. SIBTHORPE, Honorary Secretary, Madras.

GLASGOW AND WEST OF SCOTLAND BRANCH.—The Annual General Meeting of this Branch will be held at the Western Infirmary, Glasgow, on Saturday, January 31st, at 2.30 P.M.—A. NAPIER, M.D., Honorary Secretary, Crosshill, Glasgow.

SOUTH-WESTERN BRANCH.—A quarterly meeting of the Branch will be held at Plymouth on Tuesday, February 3rd, on the occasion of the opening of the South Devon and East Cornwall Hospital. The opening ceremony, to which all Members of the Branch are invited, will take place at 12 o'clock. The Branch meeting will be held at 3 P.M., at Chubb's Hotel. Business, papers, etc.:—Mr. George Jackson, Plymouth: Remarks on the Medical Aid Sick Association. Dr. P. Maury Deas, Exeter: Note on the Use of Permanganate of Potash in Cases of Insanity, associated with Amenorrhœa. Mr. W. E. C. Nourse, Exeter: A case of Syphilitic Periostitis, followed by Paralysis, Intestinal Obstruction, and Phthisis. Mr. Arthur Kempe, Exeter, will show a new form of Long Midwifery Forceps. Notice of any papers or communications to be sent to the Honorary Secretary. There will be a luncheon at 2 o'clock; tickets, 2s. 6d., exclusive of wine. Members intending to be at the luncheon are requested to communicate with W. Square, Esq., 14, Portland Square, Plymouth, not later than January 31st. (The South-Western train, leaving Exeter, Queen Street, at 8.50 A.M., reaches Mutley Station at 11.15. This is the nearest station to the hospital.) By order of the Council.—P. MAURY DEAS, Honorary Secretary, Wonford House, Exeter.

SPECIAL CORRESPONDENCE.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

Grants for Medical Purposes in the New Prussian Budget.—The Ne Professorship of Hygiene and the Hygienic Laboratory.—Professo Cohnheim's Successor at Leipzig.

THE following are the principal new items in the Prussian Budget f 1885-1886 for the medical faculty at Berlin: 3,900 marks for a "ausserordentlicher" Professor of Physical Physiology; 3,900 marks f founding an "ausserordlicher" Professorship of Dermatology; 23,3 marks for founding a Professorship of Hygiene and a Laboratory for givi instruction in the branches of hygiene: this sum includes 6,900 mar salary and allowance for a house for a Professor, 1,350 marks for a assistant, 2,940 marks salary and allowance for a house for a prepare and salaries for a servant and a porter; 22,440 marks for the Hygie Museum. The above are annual grants. Besides these, 50,000 mar for the alteration of the building, and 10,000 marks for fittings, a asked for the Hygiene Laboratory; and 32,000 marks for alteration building, 16,000 marks for interior fittings, and 10,000 for removi and arranging the collections. Large grants are also asked for alte tions in the Anatomical Institute, and for new instruments, etc., a also for the Pharmacological Institute. Considerable items are a included for the increase of the staff or extension and enlargement the buildings connected with the medical faculties of the Universit of Breslau, Halle, Göttingen, Marburg, Bonn, Kiel, and Greifswald.

It was in Göttingen that the Prussian Government commenced offer facilities for hygienic instruction. The results obtained th have been considerable, notwithstanding certain disadvantages w which the work had to contend. The advantage of extending th facilities to the University of Berlin is, that hitherto the only pl where students and medical men could thoroughly devote themselve bacteriological research has been the Imperial Board of Healt whereas now the Medical Faculty of the University will have its o laboratory and its own professor. I give these details with spe reference to the article in the BRITISH MEDICAL JOURNAL for Janu 17th, on "The Organisms of Cholera," in which you refer to absence of facilities afforded by the State in England for carrying original investigations, and for acquiring the skill in manipula requisite for understanding and applying observations made fo already in other countries.

Dr. Birch-Hirschfeld, of Dresden, has been elected to chair of General Pathology and Pathological Anatomy at the U versity of Leipzig, vacant since the summer by the death of the Professor Cohnheim. I take this opportunity of mentioning that general surprise was felt at the Medical Faculty of Leipzig not n nating Dr. Weigert, who had been working for seven years the late Professor Cohnheim at Leipzig. The Saxon Minister of cation did not think fit to take the initiative himself; but *Deutsche Medicinische Wochenschrift*, commenting on this inci hopes that the Prussian Minister of Education will soon find an portunity of acknowledging the merits of "one of the most emi younger pathologists" of Germany.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Germination of Plants.—The Pathological Anatomy, Pathogeny Treatment of Cholera.—Researches on Cholera.—Eosine-poiso —Inspection of Lodging-Houses.—General News.

M. PASTEUR presented, at a recent meeting of the Académie des ences, a communication from M. Duclaux, "On the Germinati Plants in Soil freed from Micro-organisms." For these experim he chose two plants—the Dutch pea and haricot-bean—one of has its cotyledon in the earth, the other on the surface. Th was rendered sterile before the seed was sown. Germination di take place. Moreover, the earth was covered with milk, an substance did not undergo any alteration. Thus, these two e ments indicate that the presence of micro-organisms in the ea essential to germination. M. Pasteur, after reading M. Duc paper, described to the Academy some experiments he had made time ago. Food perfectly free from micro-organisms was ad tered to an animal from its birth. M. Pasteur believed that, these conditions, animals would perish. His supposition prove rect, for the process of digestion cannot be accomplished in t sence of micro-organisms.

M. Poznansky, in a communication made to the Académie de Méde-ne on cholera, expressed his belief that the reports of M. Brouardel ıd M. Proust prove that premonitory diarrhœa is not a conclusive mptom. According to M. Poznansky, it is the slackening of the ılse which indicates a coming attack of cholera, and can be so dia-ıosed in healthy people; furthermore, the gravity of the attack is nerally in direct proportion to the slackening of the pulse. His ieory teaches that cholera has three forms, in all of which the pre-ominant feature is stasis of the blood. In the first form, ordinary ıolera, stasis only appears in the organs which have a slow capillary rculation, such as the portal system. In the algide form, stasis ppears in the organs with a less slow capillary circulation, such as ıe kidneys, muscles, and subcutaneous tissue. In the asphyxiating rm, stasis happens in the heart and brain. All cholera-attacks present ree distinct periods. The first, or that of stasis, closely resembles e premonitory period; the pulse becomes slower, diarrhœa sets in, ere is general disturbance, and the nervous system is also affected. the second period, partial stasis is established, the heart has more rk to do, and its beats are stronger and quicker; in some organs, e circulation is quicker. The symptoms are cerebral congestion, zziness, quickened pulse, cramps, sickness, a general state of suffer-g, and diarrhœa. In the third period, stasis disappears; if the ond and third periods have not been too long, the patient recovers; nerwise, a typhoid condition declares itself. M. Poznansky con-lers that his theory concerning stasis explains many of the pheno-na of cholera. Thus, it is comprehensible why cholera-patients, ing to the accumulation of carbon in their organs, do not feel cold. Poznansky recommends, from experience, small doses of hydro-anic acid given at intervals; respiration becomes quickened, the culation more active, and the temperature higher. Prussian blue, l veratrum-root in powder, as a sternutatory, and ammonia in the m of vapour, which saturates the surrounding atmosphere, are use-

n a communication, presented by M. Vulpian to the Académie des ences from M. Pouchet, the author states that he has examined blood moved from the heart and principal blood-vessels of patients who had cumbed to cholera, and discovered the presence of acids and salts tained in the bile. He interprets this fact as evidence that the stituent parts of bile are not originally elaborated in the hepatic enchyma, but exist formed in the blood, whence they are gradually hdrawn by the liver, which acts as an excreting organ. The con-ion of the biliary ducts in the bodies of cholera-patients supports s view; they are perfectly empty. The hypothesis that the biliary s found in the blood result from the re-absorption of materials tained in the liver is not tenable, because this organ would then verful with bile, whereas it is almost free from it. Apparently, ing the algide period of cholera, the liver ceases to secrete; it be-nes flabby, and the biliary ducts are empty. M. Pouchet has erved that, during the period of reaction, biliary salts are rapidly inated, and are present in the urine in large quantities, which contains a substance of an oily aspect with toxic properties; nals inoculated with it die.

. Villiers has forwarded to the Académie des Sciences a note on formation of ptomaines in cholera, and the part which they play. se alkaloids may develop in the living organism, under special ences, and determine phenomena indicative of specific intoxi-on. He ascertained the presence of ptomaines in the liver, lungs, eys, and in blood removed from the hearts of recently deceased era-patients. The quantity varied, and was most considerable the kidneys. M. Villiers concludes that the ptomaines were de-ped before death, in connection with the pathological phenomena holera.

. Hageur, during the recent epidemic, treated cholera by venous tions of saline solution. To a litre of distilled water was added grammes of sodium chloride and eight grammes of sodium sul-e, heated to 38° Centigrade (100.4° Fahr.). The injection was ted in from twelve to fifteen minutes. In the case of all feeble ects, this treatment produced only incomplete reaction when algide condition had been pronounced. Among healthy sober ts and children, the results were remarkable; the injections ed to rescue them from certain death.

. Napias draws attention to the fact that, since carmine has been ced by geranium, and other reds containing eosine, the flower-rs employed in making red roses suffer from colic, and painful blotches appear on their skin. This is explained by the presence d in eosine. M. Napias recommends that aluminium should be tituted for lead.

. Conseil Général of the Seine recommended a special sanitary e for inspecting suburban lodging-houses. The Prefect of Police has issued a decree which, among other clauses, contains the following. Every inspector should inspect, at least once a-year, every furnished lodging in his division. A visit of inspection also should be made when lodging-houses are opened or change hands. When a case of illness from an infectious disease happens in a lodging-house, the inspector must at once pay a visit. Each inspector sends in a report of his inspection during the month of October.

The Italian Ambassador has informed the Académie des Sciences that the Royal Academy of Turin will, in 1886, award a prize of twelve thousand francs (£180) to the author of the best work that appears, between 1883 and 1886, on any subject connected with physics, chemistry, physiology, geology, geography, or statistics, or to the author of a brilliant and useful discovery. This prize is open to competitors of all countries.

ABERDEEN.

[FROM OUR OWN CORRESPONDENT.]

Proposed Extension of the Buildings of the Aberdeen Medical Schoo —Hot Dinners for Children.—Meeting of the British Association.— Royal Infirmary Ambulance.

It will gratify all well wishers of the Aberdeen Medical School to learn that an energetic effort is being made to enlarge the buildings at Marischal College for the teaching of medical subjects. The great increase of the numbers of students attending this school of medicine has necessitated considerable alterations and improvements in the present buildings; but the addition of the Sir Erasmus Wilson Chair of Pathology, and the steady development of practical classes and increased laboratory and museum requirements, make it imperative that the buildings be enlarged. Some years ago, owing to the energetic action of Professor Struthers, new anatomical buildings were erected, which, for convenience, comfort, and thorough practicality, will compare favourably with any in the kingdom. The other departments, however, are more or less hampered. In October of last year a committee of the Senatus was appointed, with Professor Ogston (Surgery) as convener. This committee has reported to the Senatus, that immediate extension is required, and they have also submitted alternative schemes, whereby this end may be attained. The Senatus has approved generally of the scheme, and has given its sanction to its publication. The matter will, in due time, be brought before the University Court, and will no doubt meet with its hearty approval. Briefly, the scheme proposed is to complete the quadrangle of Marischal College, by carrying the two side-wings forward to Broad Street. One scheme proposed that a new front should be thrown across, to join the two extended wings, and to face Broad Street; but in the alternative scheme, it is proposed to retain the present Gray Friar's Church, which stands between the College and the Broad Street, and while continuing the wings forward, as in the previous scheme, it is suggested that the church, which is of pre-reformation date, might be adapted for an University hall for University ceremonials. In the latter scheme it is proposed to add a suitable tower at the north end, facing Broad Street, with an archway entrance, between it and the end of the church. Any scheme will involve the purchase of a considerable amount of property which lies between Marischal College and Broad Street, so as to obtain the necessary site for extension. It is calculated that a sum of £80,000 will be required for the site, and to erect, equip, and furnish the proposed new addition to the medical school. It is proposed to approach Government to contribute to this end, as it did in the case of Glasgow and Edinburgh; the former of which got £120,000, the latter £80,000. At the same time, it is proposed to extend King's College, to meet the requirements of the Faculty of Arts; and altogether for the two colleges a sum of £100,000 will be required. This sum, it is hoped, will be raised by the numerous friends of the northern University, aided by a Government subsidy. The rapid development of the Medical Faculty, and its fame as a teaching and hard-working school, are known throughout the length and breadth of the land, and for many years this school has continued to attract students, not only from the northern counties, but also from other parts of Scotland, and from England and the Colonies. We heartily wish success to this new departure, and we take it as a sign that the new and young race of professors, in the granite city, are heartily alive to the requirements of medical progress, and that they mean to do everything in their power to keep in the very van of that progress. Success must attend the efforts of those who devote themselves so heartily to teaching and working with their students as our Northern professors do. The Senatus has not fixed upon any plan for the new extension; but the plans that have already been sketched are to be submitted for public criticism. Besides affording the space required for the medical

school, the scheme will open up Marischal College, itself a much needed improvement; and the building, when completed, will be, architecturally, one of the finest in the north of Scotland, and will in this way add to the beauty of Aberdeen. The Professor of Surgery, as convener of the committee, deserves great credit for the trouble he has taken in organising and carrying out the scheme as far as it has gone.

Penny-dinners for school-children have become a recognised institution in some quarters. We are glad to find that the Countess of Aberdeen, who is ever foremost in every good work, has inaugurated the supplying of hot dinners to the scholars attending the Cairnorrie Public School on the Haddo Estates. The midday "piece" will thus give way to the hot and refreshing, cheap but nutritious dinner. This is particularly desirable in the case of children who have come a long distance to school. When there are two or more children from one family, the second or subsequent dinners cost only a halfpenny. Lady Aberdeen hopes to extend the system to all the schools of the district.

The interim local committee of the British Association met lately in Aberdeen, and it was announced that satisfactory progress had been made in regard to the guarantee-fund, nearly £2,000 having been already subscribed. The local committee is large and representative.

Through the exertions of some ladies and friends, the Royal Infirmary is now provided with a proper ambulance for the conveyance of patients to the infirmary. There is a balance of funds, which it is proposed to devote to the purchase of a similar ambulance for infectious cases.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

The Infirmaries and Fever-patients.—Royal Infirmary: Annual Report.—Precautions against Cholera.—Sick Children's Hospital.—Lenzie Convalescent Home.—Belvidere Hospital.

THE question how far our infirmaries are to be utilised for the treatment of fever-patients, has just received a very authoritative decision in the resolution which was come to at the annual meeting of the contributors to our Royal Infirmary. Some months ago, the matter was under consideration by the Infirmary directors; and, on Dr. Fergus's suggestion, it was deemed advisable to give up the practice of admitting such cases into a general hospital like the Infirmary. This view had the support of all the other medical members of the Committee, and also of the medical staff, and would have been at once carried out, only it met with decided opposition from the chairman of the lay-directors, Mr. Macewen, who took an opposite view, and raised the question anew at the meeting of the contributors to the hospital on the occasion of the annual meeting. Such opposition was shown to his proposal, that he was glad eventually to withdraw his motion; and Dr. Fergus's view was acquiesced in by the meeting, who very properly thought that, in such a purely medical question, the medical men were the best judges.

But for this incident, our Royal Infirmary meeting would have been a very harmonious one. Although there had been some falling off in the number of indoor patients as compared with the year before, the record of the year's work is very satisfactory in every way. Excluding patients who died within forty-eight hours of admission, the annual mortality reached the low figure of 6.6 per cent., which speaks well for the general healthiness of the hospital. Some important changes have been made in the working staff of the hospital, the advisability of which can only be judged of after a sufficient lapse of time. It is a matter of congratulation that the financial working of the year shows that all the expenditure has been met, and the substantial balance of £10,261 paid to the credit of the stock-account.

Although all immediate fear of an importation of cholera into our midst has for the present passed away, none the less opportune was Dr. Christie's paper, at the last meeting of the Philosophical Society, on the National and Local Precautions that should be taken against Cholera. Dr. Christie's knowledge of the literature of the disease, and his personal experience in connection with outbreaks abroad, render his opinion valuable. It is clear that he regards quarantine, and the disinfection, at railway-stations, of persons and goods coming from infected districts, as of little real value for preventing the introduction of the disease; and that he attaches most importance to the rigid medical inspection of ports, and of the crews and passengers coming from infected ports. When once cholera has got a footing in a place, he would rely most on cleanliness, in its fullest and widest sense, as the primary element of safety; while he would confer on the local authority of the place increased powers, and insist on their carrying them out.

The vacancy of assistant-physician on the staff of our Sick Children's Hospital, caused by Dr. Gemmell's promotion to succeed Dr. Leishman, has been filled by the appointment of Dr. George S. Middleton. It is very generally felt that the choice of the directors has been a good one, and it has given general satisfaction. No doubt, when the dispensary is in full working order, room will be found on the staff for some of the other candidates, such as Dr. Lindsay Steven, whose claims, even in the present instance, the directors found difficulty in passing over.

The Lenzie Convalescent Home is one of the few of our charitable institutions that can show a revenue sufficient to meet its expenditure and leave a balance on the right side. Its present accommodation is scarcely sufficient to meet the demands which our infirmaries and the general public make on it; and a feeling has arisen that perhaps the press of patients might be relieved by building, in a suitable locality, a special home for the consumptive patients, who form so large a number of the inmates. This seems an excellent suggestion, and would be a great boon if carried out; for, at this season of the year, the situation of the present home and its construction are not the best adapted for that class of sufferers.

Formal intimation has been received by the Health Committee that the Board of Supervision has sanctioned the plans of the buildings which are just now being constructed at Belvidere Hospital. These consist of two pavilions similar in character to those already erected and containing sixty beds, with nurses' dormitories and other accommodation. These will complete the fever-hospital, which will then have twenty-six wards, arranged in pairs in thirteen pavilions, and able to accommodate about four hundred adult patients; though, no doubt, a much larger number of children could be provided for in them. These additions will not be ready for some time, but they will only increase the size of what is even now one of the best hospitals provided by any local authority for its fever-patients, and which was referred to, in the recent discussion at Edinburgh on the treatment of fever-cases, as a model hospital of its kind.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

Hospital Finance.—Benefit Performance in Aid of the Stanley Hospital.—The City Ball.—Serious Charge against the Management of the Netherfield Institution.—Proposed Foundling Hospital for Liverpool.

THE question of how to raise funds for our hospitals is becoming more difficult each year. As already mentioned in the JOURNAL, the Hospital Sunday collections this year show, so far as the results are known, a considerable falling off as compared with last year. The same is true of the Hospital Saturday collections. The latter day is set apart in order to enable the working-men, especially, to come and show their practical sympathy with institutions which do much for them and for their families. Considering the enormous working population of this city, the amount subscribed is ridiculously small. It is generally thought that the fault rests with the system, and that, if a better system were adopted, the results would be much more satisfactory. The cost of working the medical charities is roughly estimated at about £50,000 a year, towards which the Hospital Saturday Fund contributes between £2,000 and £3,000, or about 5 per cent. of the working expenses. A few days ago, a representative meeting of working men was held at the Town Hall, presided over by the mayor, in order to consider what steps could be taken to augment, if possible, the subscriptions. After a lengthy discussion a small committee was appointed to thoroughly investigate and report upon the whole subject.

Some hospitals are fortunate in being able to rely to a certain extent upon obtaining assistance from special sources. Such, for instance, is the case with the Stanley Hospital, in aid of which a benefit performance is given, annually, at the Rotunda Theatre. This year's benefit took place on the evening of the 23rd, and was a great success.

The city ball is another example of the same. Established for many years, it continues to be one of the most popular gatherings of the season. The receipts go to the Consumption Hospital and the Women's Convalescent Institution, these two charities moving hand-in-hand in this matter, for the reason that they were both established by the same gentlemen.

A very serious charge has been brought against the authorities of the Netherfield Institution for Infectious Diseases. It is stated that in several instances patients admitted for scarlet fever have been

harged before the "peeling" stage has terminated; and that this has tely occurred in the case of some children who were sent there from he Female Orphan Asylum in Myrtle Street. The resident medical ficer of the Netherfield Institution maintains that the statement is true; but, in the meantime, the managing committee have insti- ted a strict investigation into the matter.

We are, it is said, to have a Foundling Hospital here. The need r such an institution has long been felt. This project is, doubtless, part the outcome of the alarming accounts of infanticide that have cently come before the public. It is thought that the knowledge of e existence of a foundling hospital will lessen the temptation to ake away with their offspring, that besets so many poor girls who ve been led astray. Mrs. Le Couteur, for several years the super- tendent of the Ladies' Charity and Lying-in Hospital, and who s had many years' experience of work of the kind, is to be the atron.

CORRESPONDENCE.

DR. KLEIN ON CHOLERA ORGANISMS.

SIR,—I am glad to be able heartily to agree with Dr. Klein in what says, in his letter in the BRITISH MEDICAL JOURNAL of January h, about the behaviour of putrefactive organisms in artificial cul- ations.

The English Cholera Commissioners—of whom, as we all know, Dr. ein is one—say in paragraph 4 of their preliminary report; "The mma-bacilli,' in artificial cultivations carried out by one of us K.), do not behave in any way differently from other putrefactive anisms."

At my demonstration before the Medical Society of London, I wed that Koch's and Finkler's comma-bacilli do behave in many rs differently from each other in artificial cultivations. Dr. Klein admits this in his letter, and I am at a loss to understand how the ements in that letter are to be reconciled with the statement in agraph 4 of the Preliminary Report of the English Cholera mission.

s to whether Koch's comma-bacillus is or is not specific, I did not h that point at the meeting of the Medical Society, nor will I do ow.—I am, sir, your obedient servant, G. A. HERON.

THE LUNACY BILL AND THE CERTIFICATION OF LUNATICS.

R,—In the proposed Lunacy Bill, the certification of lunatics is e placed in the hands of the medical officers of health, the ordinary ical attendants, and the medical officers of asylums. This duty hitherto been largely performed by the medical officers of the -law Service for pauper lunatics.

believe the members of this service have discharged their duties and justly; and it appears to me hardly fair to take the work of fication out of their hands.

have myself certified for three or four hundred persons of unsound in this district. The knowledge gained by this very large ex- nce, under the new system, will in future be lost. I am not e that the medical officers of health possess any special qualifica- for this duty.

trust the Poor-law medical officers will make their voices heard in ection with this Bill. It affects them, not so much in a pecuniary as in the want of confidence exhibited by their exclusion from st of certifiers.—I remain, yours faithfully,

TH. M. DOLAN, M.D.

rton House, Halifax.

E THYROID GLAND IN RELATION TO MYXŒDEMA.

,—In the report of Mr. Horsley's lecture on the Thyroid Gland, appears in the JOURNAL for January 17th, it is said that complete al of this body "produces, in monkeys, the disease first accu- described by Dr. Ord (*Medico-Chirurgical Transactions*), and by him myxœdema."

hould not, I think, be forgotten that the first to describe the on was Sir William Gull, whose communication to the Clinical y "On a Cretinoid State supervening in Adult Life in Women," ad on October 24th, 1873, while Dr. Ord's paper is dated three later. Sir W. Gull's account is perfectly true to nature in its tion of the clinical features of the disease, and the credit of ts first accurate describer undoubtedly belongs to him. Of all uent additions to our knowledge, Dr. Ord's valuable contribu- tions are certainly of the first importance; but it is hardly correct to say that the disease was "first accurately described" by him.—Yours obediently,

M.D.

PERFORMANCE OF OVARIOTOMY BY SURGEONS ENGAGED IN GENERAL HOSPITAL PRACTICE.

SIR,—In your issue of January 24th, Mr. Lawson Tait has, I observe, referred to some remarks of mine made in the discussion which has recently taken place in the Academy of Medicine in Ireland, on Mr. Thomson's paper on Ovariotomy, in which reference was made to some, in my opinion, unwise observations of Mr. Tait as regards the undesirability of surgeons engaged in general hospital-practice undertaking the operation of ovariotomy. The fact of my having had a mortality of 25 per cent. in a limited number of cases is, apparently, in Mr. Tait's opinion, an argument for an abandonment, on my part, of the operation altogether. No other construction, I take it, can be put on his words.

Notwithstanding, however, I confess to feeling, on the whole, indisposed to acquiesce in this view, being encouraged to continue the performance of the operation from my last six cases having been in succession successful, a result which I attribute mainly to my having carried out Listerian antiseptic practice more rigidly and carefully than before.

If operating surgeons were to act on the principle advocated by Mr. Tait in their practice generally, and abandon all operative procedures attended at times with a mortality of 25 per cent., the results to surgery would unquestionably be most disastrous. This, I anticipate, even Mr. Tait will scarcely dispute.

I regret that this discussion has arisen, as it may, possibly, tend to defer the day—one, I trust, in the near future—when the present pernicious system of disintegrating and tearing surgery into shreds will be looked upon as an anachronism, which is alike a nuisance and a folly.—I am, sir, yours truly, WILLIAM STOKES.

5, Merrion Square, Dublin.

SIR,—If my friend Mr. Lawson Tait will do me the favour of reading my paper in the *Dublin Journal of Medical Science* for February, he will probably find something more to answer than there is in the abstract published in your columns. I have tried to show that his claim that these operations should only be performed by specialists, on the ground of their greater knowledge and experience, is untenable. My cases are, it is true, few in number, but they were all successfully done under conditions of which Mr. Tait certainly does not approve—under carbolised spray, in the presence of all the students who wished to attend, and by myself, who am not a surgeon specially devoted to abdominal surgery.

I am sure I do not know what hospital surgeons, "without exception," do, with their wives, or their sisters, or their mothers, who may happen to suffer from ovarian disease. But I do know one case in which a doctor sent his wife to a specialist in England; she was operated upon, and she died. The three other cases which to my knowledge crossed the Channel to consult specialists, were operated upon; and they died. I do not suppose it will be argued that a general surgeon in Ireland—we have no specialists, in Mr. Tait's sense—could have worse results than these. I place no more importance on these four cases than to draw this conclusion: that even specialists have bad results, and that they are neither omnipotent nor omniscient.

Mr. Tait again puts forward the value of experience, by implying that the hospital surgeons send their friends to the specialists because of their greater familiarity with such cases. Of course, experience is most valuable, but it is not everything. A surgeon who has done one hundred cases has more experience than one who has only done fifty, and so on. Now, if we are to measure success in operation by the number of cases operated upon, as Mr. Tait implies, may I ask if he would carry out his own principle, and send one of his friends to a surgeon who had done a greater number of abdominal sections than himself?—Yours, etc., WILLIAM THOMSON, F.R.C.S.

34, Harcourt Street, Dublin.

ARSENICAL POISONING.

SIR,—The question of prohibitive legislation to meet the evils attendant upon the use of poisonous pigments in the manufacture of wall-papers and other domestic fabrics, is a pressing one. It will doubtless meet with considerable opposition from those who have an interest in things as they are, and others who are always ready with an outcry against restrictions in trade. The editorial article of the

Times distinctly foreshadows this, although, in its usual spirit of fairness, it could not well refuse to insert a communication from "A Sufferer," which exposes the unsoundness of the argument employed.

He very naturally demurs to the dictum of the editor, that "the remedy against arsenical poisoning is in the hands of the public themselves, and, consequently, legislation on the subject is unnecessary. At present, anyone wishing to paper a house or room, may ask for a written guarantee that the paper is free from arsenic." But, should the guarantee prove false, what then? He may suffer for months without knowing why; or, should he suspect the paper, he must have it analysed, and consult his solicitor, and involve himself in a troublesome and uncertain law-suit.

The case put is no imaginary one, for such an one has come to my own knowledge. Again, supposing the purchaser be too poor to protect himself, is he and his family to suffer for months without a chance of redress; and, in any case, is it right or just to place the burden of proof of wrong doing on the shoulders of the public?

In other trades which involve questions of health, the adulteration of foods and drinks, it is thought right and politic to protect the purchaser; and it would surely involve no great hardship upon the manufacturers of wall-papers and other fabrics if they were compelled to furnish a warranty with their goods, the infraction of which should involve them in a heavy penalty, recoverable by a public officer. I trust, then, that the National Health Society will persevere in its laudable efforts to bring about legislative interference in the manufacture of wall-papers, and that a Bill will shortly be introduced into Parliament which will prohibit the use of arsenical pigments in the manufacture of all domestic fabrics. Some of the largest houses engaged in the wall-paper trade have already expressed a willingness to assist in the passing of such a measure.

I wish it were possible to include in the proposed Bill aniline dyes, some of which contain arsenic; and others, although free from it, are known to be nearly as injurious to health. I not unfrequently meet with cases of skin-disease induced by gaudy coloured socks and gloves aniline dyed. Quite recently, a gentleman came under my care, a sufferer from persistent superficial ulcers of the legs, which had resisted all treatment. I suspected the socks he was wearing, and, on steeping one in boiling water, a quantity of colouring matter was discharged. This consisted of an irritative aniline dye; no arsenic was discovered. The socks were discarded, and the ulcers healed without further difficulty.

One word with regard to the history of the present movement, given in the JOURNAL of this week. The first official step taken certainly arose out of my microscopic demonstrations, and a paper read before the Medical Society of London in the early part of 1879. The reading of my paper (published *in extenso* in the *Sanitary Record*, April 25th, 1879) was immediately followed by the appointment of a committee (of which I was chairman), charged with the duty of obtaining the fullest acquaintance with the subject, and bringing the question to the knowledge of the Government. The Society of Arts subsequently took up the matter, and obtained a good deal of valuable information; but, owing to adverse and interested counsels, even the standard test of purity arrived at was abandoned, and the committee was dissolved without making a report. The matter was subsequently taken up by the National Health Society; and, with the view of obtaining legislative action, the Government, on being approached by the committee, at once acceded to the request for information as to the laws relating to the use of arsenic in domestic fabrics in other countries; and the result is a valuable Blue Book, showing that very stringent laws for the exclusion of arsenic from manufactures are generally in force on the Continent. Why, then, should there be a difficulty thrown in the way of a beneficial law being passed in the interest of the British public?—I am, sir, your most obedient servant,

JABEZ HOGG.

1, Bedford Square.

THE MANAGEMENT OF THE THIRD STAGE OF LABOUR.

SIR,—The treatment advocated by Dr. Smyly in the paper read by him at the last annual meeting, and reported in the JOURNAL of January 3rd, leaves out of consideration altogether one of the most important forces in nature—that of gravitation. Its aid can only be secured in labour by delivering the patient in the kneeling posture by the side of the bed, or a chair. In such a position, no constant hold upon the uterus by the hand is required; it falls into the pelvis by its own weight, and expression or extraction can be employed at leisure, or in the event of a pain. Moreover, the patient has then the greatest possible power in expediting the whole process of parturition, because of the fixation of the muscles of the chest, abdomen, and pelvis, secured by the firm position of the elbows and knees. Instruments also can be most easily applied, and with less fuss and exposure than in bed.

The only three cases of *post partum* hæmorrhage which I have had to treat out of 300 consecutive labours were confined in the orthodox or recumbent posture.

I am of opinion that no one need have any fear of hæmorrhage in the kneeling position. It is quite a common thing in this district for the patient to be delivered in the kitchen or one of the lower rooms, and then to walk upstairs to bed immediately after the expulsion of the placenta. Hæmorrhage is never expected, even in the most feeble.

Early division of the cord is not spoken of either in the paper or in the discussion. I think it is most important to secure this, in order to arrest the placental circulation at once, and thus favour coagulation in the maternal sinuses.

It may not be out of place here to give my opinion upon one or two other matters connected with the subject. I consider, then, that two or at the outside three days, is long enough for any woman to lie in bed after labour. I recommend all to sit up in bed frequently, and as soon after labour as they choose, in order to allow the discharges to flow freely away, and in order to prevent retroversion. I remember a case of this displacement occurring by the fifth day, from the persistent adoption of the supine position, in which a cure was effected by the adoption of the prone position for an equal period. There is in my opinion no reason at all in adopting one position after labour to the exclusion of all, or almost all others. I accordingly advise all my patients to get up as soon as ever they feel able to do so; and those who have been accustomed before to keep in bed for a week or ten days, find that they recover much more rapidly than under the old system. I thing that the explanation in many cases of "catching cold" by getting up too soon, is to be found in the old practice of dosing every lying-in woman with gruel, and keeping her in bed until the skin is "parboiled" with perspiration, and ready then to take umbrage at a breath. With ordinary diet from the commencement, and little confinement to bed, such occurrences are rare.

Strict attention should, of course, at the same time be observed with regard to cleanliness. Puerperal fever would, I am sure, become a much rarer disease, if the Russian system of washing out the vagina three or four times a day with antiseptic injections were the rule after labour. I order it after all cases of instrumental labour, and prefer Condy's fluid to any other; but it is very difficult to overcome the prejudices and absurd notions of friends with reference to the matter. In every case, cleansing the external genitals with carbolic soap at least twice a day should be recommended, and the slight tears, especially more particularly in primiparæ, then dressed with some antiseptic application, such as vaseline and iodoform ointment, or 1 to 10 carbolic oil.—I am, sir, your obedient servant,

Clayton-le-Moors. C. R. ILLINGWORTH, M.D.Edin.

A NEW SYMPTOM AND A NEW THEORY OF LOCOMOTOR ATAXY.

SIR,—I regret to perceive, from the two letters published on the above subject in the JOURNAL for January 17th, that the animus which has unfortunately characterised this discussion from the beginning is increasing rather than diminishing; and as, by this untoward circumstance, for which I am in no way responsible, the real points at issue are obscured, I consider it useless to go on with it. Nothing that I may say will convince those who will not be convinced; nor can I prevent those who are so minded from twisting anything I may say the wrong way. I therefore address the following remarks rather to your readers than to my antagonists; and I beg to state at the same time that, as far as I am concerned, this discussion is at an end with my present communication.

Both my opponents consider it highly reprehensible—indeed, from the tone of virtuous indignation which pervades their remarks, almost immoral—on my part that I should not have quoted more extensively from Dr. Ross's book; and more particularly that I should not have referred to the paragraph on what that author obstinately calls, in all editions of his book, as well as in his last letter, the "Brach-Romberg symptom." (It should be "Brach-Romberg"—*vide* the works of Eulenburg and Erb, and Brach, *Medicinische Zeitung des Vereins*, etc., 1840, No. 45.) Indeed, Dr. Ross goes so far as to intimate that in this matter my reputation is at stake—a reputation which I am truly obliged. It will hardly be credited, after all this hubbub—and yet it is the fact—that it would not have made the slightest difference in the argument had I quoted that paragraph. To Dr. Ross's question, whether there is not a third theory of ataxy in the field, apart from that of Leyden and Erb, I answer that there

only a third, but at least three more, namely, those of Jaccoud, edict, and Cyon; and that it is just this multiplicity of theories h has, as I stated in the first instance, prevented me from quoting all. To his further question, whether his theory has anything ommon with my own, I reply that I not only consider them ely different, but I also add that I consider his theory to be ly and radically wrong. Your readers are aware that what is d the "reeling gait" of patients suffering from cerebellar disease ntirely different from the "ataxic gait" of tabes. This is not place for describing these differences, which Hughlings Jackson so ably discriminated; suffice it to say that they exist, and are rally acknowledged to exist. Now, if Dr. Ross's cerebellar theory taxy were correct, the walk of a patient suffering from tumour of cerebellum would be more or less the same as that of another ted with locomotor ataxy, for both suffer from perversion or loss rebellar influence. Yet the reverse is the fact; and my theory, the ataxic gait is owing to the interruption of nervous influence elling between the limbs and the central ganglia, through disease e posterior columns, is therefore even *a priori* more plausible than erebellar theory of Dr. Ross.

m amused to find that Dr. Ross should consider Dr. de Watteville a redoubtable champion as to make me afraid to encounter him. ne, his prowess appears rather like that of Don Quixote running k the windmills. Dr. de Watteville first charges me indignantly not quoting Ross throughout two pages; and then, almost in the breath, quotes only a portion of a single sentence of mine, thus g it a meaning entirely different from what I intended. I never that no one before me had seen differences in locomotor and static in the same patient; but I said that I had found this to be the n the commencement of the second stage of tabes, and had con- d it with a distinctly different localisation of the sclerotic process is stage of the malady. Dr. Ross, in his paragraph about the Brach- berg symptom, does not say a word about the stage of the malady hich the patient was; and with regard to localisation only makes exceedingly vague remark "that the individual fibres implicated th instances may not be the same." If this be localisation, I say, the less we have of it the better.

e last remark I have to make is, that my theory of the part which entral ganglia play in the production of locomotor ataxy, is by no s "fantastical," but in complete accordance with the most wed modern physiological research. Ferrier (*The Functions of rain*, pp. 236-254) has fully discussed all the points connected the functions of these ganglia, and eventually arrives at the usion (p. 294) "that actions at first requiring volitional education onscious exertion become organised, as it were, reflexly or auto- ally in these ganglia." This is the second time I have had to to Dr. de Watteville, by a quotation from Ferrier, that his physi- is of a very shaky description; but I promise him that it shall last. Every unprejudiced reader will see that it is just this atic or reflex action which is disturbed in tabes; and I explain by assuming that the influence of the central ganglia is not d to reach the limbs in consequence of the obstruction of the which run between Burdach's and Goll's columns on the one and the posterior third of the posterior segment of the internal e, which is in the closest possible connection with the basal uclei, on the other hand.

ow beg to take leave of this subject, and, thanking you for ng me space to rebut the attacks which have been made on me, n, etc.

JULIUS ALTHAUS, M.D

THE TITLE OF DOCTOR.

—At page 99 of the JOURNAL, Mr. Keir acknowledges that the urgh College of Physicians has never officially recognised its ates by the title of Doctor of Medicine; but he claims to have ed the abstract title of doctor on several occasions from certain officials of that college. I can assure him that my college ver officially sanctioned the use of this abstract title by any of ntiates, and that it has had in its archives, since shortly after a form of reply to all inquiries as to this, intimating that its ates have no legal right to such a title. In the face of this e use of the abstract title of doctor to any licentiate by any person ed by the college, be he printer or officer, can only be regarded erc inadvertency. The only possible good that could accrue ich a use of the title of doctor, would seem to be to induce blic to believe that the person so designated possessed an uni- degree. I am well assured that no gentleman would either ly make himself a party to such a fraud, or desire to see the whose diploma he holds associated with such fraudulent

I may add that "the doctor" has been, from time immemorial, the title given in Scotland to any medical practitioner, whatever licence he held; and, in this sense of the word, I myself can see no harm in giving, either colloquially or in writing, the title of doctor to any licentiate of a College of Physicians, or to any Bachelor of Medicine, provided it is neither claimed as a right, nor put upon the calling cards or the door-plate. I would even include Licentiates in Surgery in this privilege; but in Scotland, at least, all surgeons sternly repudiate any such title; and the best way to annoy them is to call them doctor, and that even although they possess the degree.

Having, I think, sufficiently vindicated my college from any desire to encroach upon university privileges, this correspondence, so far as I am concerned, must now close.—I am, yours sincerely,

GEORGE W. BALFOUR, Vice-President of the Royal College of Physicians of Edinburgh.

MILITARY AND NAVAL MEDICAL SERVICES.

DRESS OF MEDICAL OFFICERS IN THE ARMY.

A DESCRIPTION of the anticipated changes in the uniform of the army medical officers has been published in a recent General Order from the Horse Guards. It is expressly mentioned that the medical officers will be allowed to wear out articles of uniform of the old pattern now in their possession, before being required to provide themselves with those of the new pattern. The changes affect medical officers of all ranks, from the Director-General downwards, as well as the Quarter-masters, who appear in the General Order among the "officers of the medical staff." The principal alteration is the one to which we have elsewhere already adverted, namely, the change in colour of the tunic worn on full dress, and on all parade occasions, from scarlet to blue. The cocked-hat that used to be worn by the army-surgeons of all grades is now limited to medical officers of the administrative grades: officers of the executive ranks wear the helmet, similar in general design to that worn by the men of the Medical Staff Corps. The General Order in question also applies to medical officers of the militia medical staff, who are to wear the same uniform, and to use the same horse-furniture, as the army medical officers of corresponding ranks, excepting only that the letter M is to be worn below the badges of rank. The medical officers of militia-battalions, however, who have not elected to serve on the departmental staff-list, are to continue to wear the uniform of their regiments, but with cocked-hats, plumes, belts and pouches, which will sufficiently distinguish them from the regimental company officers.

ARMY MEDICAL SERVICE.

No casualty is reported among the officers of the Medical Staff of the Army during the operations in the Soudan under General Stewart from the 18th to the 22nd instant.

Mr. J. I. Bowsell has been appointed Acting Surgeon to the 1st Kent Volunteer Artillery.

Mr. J. H. Anderson, M.B., has been appointed Acting Surgeon to the 5th (Deeside Highland) Volunteer Battalion of the Gordon Highlanders, till lately known as the 1st Kincardine and Aberdeen Volunteers.

Mr. J. B. Macpherson has resigned his appointment as Acting Surgeon to the 1st Lancashire Rifle Volunteers, which he entered on the 5th September, 1883.

Mr. S. G. Milner has been appointed Acting Surgeon to the 1st Surrey (South London) Rifle Volunteers.

Surgeon-Major J. O'Reilly and Surgeon-Major I. Hoysted have been permitted to exchange places on the Indian roster of service. The name of Surgeon-Major O'Reilly is, therefore, to be substituted for that of Surgeon-Major Hoysted to proceed to England during the present trooping season.

Surgeon J. R. Yourdi, M.B., passed the lower standard in Hindustani on the 1st ultimo.

Mr. C. C. Balding, who was formerly attached to Her Majesty's Medical Service in the Crimea, died on the 24th instant at Shefford, in Bedfordshire, in the 53rd year of his age.

INDIAN MEDICAL SERVICE.

SURGEON S. C. NANDI, M.B., Bengal Establishment, has been appointed to the officiating medical charge of the 10th Native Infantry

at Benares, vice Surgeon-Major W. Duncan, who has proceeded on general leave.

Surgeon F. J. Doyle, Madras Establishment, is ordered to do general duty in the Eastern District when relieved at Masulipatam.

Surgeon-Major E. G. Russell, M.D., Bengal Establishment, officiating as 1st Resident Surgeon of the Presidency General Hospital, has been directed to act as Civil Surgeon of Nuddea during the absence on deputation of Surgeon-Major E. A. Birch.

Surgeon R. D. Murray, M.B., Bengal Establishment, officiating Civil Surgeon of Nuddea, has been appointed to officiate as first Resident Surgeon of the Presidency General Hospital during the absence on deputation of Surgeon-Major F. C. Nicholson.

Surgeon-Major H. Whitwell, Bengal Establishment, officiating Civil Surgeon of Beerbhoom, has been appointed Acting Civil Surgeon of Julpigoree, during the absence of Dr. R. Macrae, who reported his departure from India on furlough on the 23rd of November last.

The services of Surgeon M. P. Kharegat, Madras Establishment, have been temporarily placed at the disposal of the Surgeon-General with the Government of Madras.

Surgeon-Major J. Arnott, M.D., Bombay Establishment, Professor of Midwifery at the Grant Medical College, and Obstetric Physician to the Jamsetjee Jejeebhoy Hospital, returned to duty on the 22nd ult. by permission of the Secretary of State for India.

Surgeon-Major P. Murphy, M.D., Bombay Establishment, in medical charge of the 21st Native Infantry, has also been permitted to return to duty.

Mr. John M'Cosh, M.D., late of the Bengal Establishment, died at 6, Bury Street, St. James's, on the 16th instant, in the 81st year of his age.

Mr. W. K. Hatch, M.B., Bombay Establishment, by accepting the post of Surgeon to the Governor during the remaining three months of His Excellency's stay in Bombay, does not, it is stated, vacate his appointments as Second Surgeon to the Jamsetjee Jejeebhoy Hospital, and Professor of Anatomy and Curator of the Museum of the Grant Medical College.

Surgeon-Major C. E. Raddock, Bengal Establishment, Medical Officer of the 3rd Native Infantry, and in medical charge of the Bundelcund Political Agency, has been promoted to be Brigade-Surgeon, *vice* Brigade-Surgeon C. Kilkelly, who has retired. Mr. Raddock entered the service January 29th, 1857.

Surgeon-Major W. E. Allen, Bengal Establishment, has retired from the service, which he entered on February 18th, 1859.

[In the JOURNAL for January 24th, page 203, column 1, line 11 from bottom, *for* Barratvala *read* Banatvala.]

THE NAVY.

THE following appointments have been made at the Admiralty during the past week :—S. W. Vasey, Surgeon, to Malta Hospital ; A. Patterson, Surgeon, to Haslar Hospital ; W. Rowlands, to be Surgeon and Agent at Waterloo ; I. H. Anderson, Staff Surgeon, to the *Wild Swan ;* W. W. Jacobs, Surgeon, additional, to the *Duncan*; Deputy Inspector-General M. W. Cowan, M.D., to Bermuda Hospital ; S. Johnson, M.B., Surgeon, to the *Ranger.*

Mr. Anthony Richard Lynch, B.A., M.B., died of typhoid fever on the 10th inst. at the Royal Naval Hospital, Bighi, Malta, where the deceased officer had been under treatment for some twenty days. He was surgeon of the *Inconstant* during the Egyptian war, for which he received the Egyptian medal and the Khedive's bronze star, and was appointed to Malta Hospital in April last year.

THE LATE SURGEON C. B. LEWIS, ARMY MEDICAL DEPARTMENT.

A BRASS to the memory of this most promising young officer has been recently erected in the Chapel of the Royal Victoria Hospital at Netley. Surgeon Lewis entered the Army Medical Department about six years since, and died of cholera at El Warden, while serving with the army of occupation in Egypt, on July 30th, 1883, at the early age of 29.

During his student-days at King's College, Lewis was universally popular, and well known as an athlete, having won the Mile Challenge Cup in the United Hospital Athletic Sports for several years in succession.

The memorial brass has been erected by several of his brother-officers in both the Indian Medical Service and Army Medical Department, and the work has been admirably executed by Messrs. Clayton and Bell.

MEDICO-LEGAL AND MEDICO-ETHICAL.

LIABILITY OF A HUSBAND TO PAY FOR MEDICAL ATTENDANCE ON HIS WIFE.

IT seems hard to disabuse the public mind of any idea that has o become fixed there. One such idea, which persists in survivin spite of repeated decisions of the Courts to the contrary, is the no that husband and wife are one, and that the husband is necessa responsible for the payment of debts contracted by his wife. No do in many cases he is liable, and in many more the debts are paid with any question of liability being raised. But the law undoubtedl that the liability of a husband to pay such debts is a question t determined by reference to the ordinary rules applicable to cas agency. If an agent do anything within the scope of his autho as agent, his principal is responsible ; but if the agent do somet entirely different, then he himself, and not his principal, is the pe who has to answer. A wife, when managing her husband's ho hold, is ordinarily his agent, and consequently her acts in orde goods for herself or her household ordinarily bind him, and he h pay. But the question whether in any particular case she authority as an agent, is a question of fact ; and where it ca shown that she has not such authority, her husband is not boun pay debts she has incurred. It is true that the relationship of hus and wife raises a *primâ facie* presumption of agency, and c quently that a wife may have an implied authority to pledg husband's credit for necessaries supplied for her own use or that o household. But this presumption is, in legal language, liable rebutted ; and the fact that the husband makes his wife a reason allowance for the purpose of paying for such necessaries, and secretly forbidden her to pledge his credit for anything, is quite cient to rebut any *primâ facie* presumption of her authority. Thi finally decided by the House of Lords in the year 1880, in the ca Debenham *v.* Mellon, and is undoubtedly now established law. W the husband and wife are living apart, the *primâ facie* agency o wife is less apparent than when they are living together. It i that a husband may not turn his wife out of doors without m adequate provision for her, except in cases where she has so mi ducted herself as to forfeit her right to remain his wife. If h he must pay for necessaries supplied to her ; but if he give h adequate allowance, he is under no further liability, and person give her credit must not expect the husband to pay the de incurred.

The law on these points is so well established that we shou have thought it necessary to restate it, if a case tried in the S port County Court this month had not shown that it is suppos to apply to charges for medical attendance. In that case, Messr and Turner, who are stated to be surgeons practising at Stoc sued Lieut.-Col. Creagh for a small sum due to them for attenda his wife. It appeared that Mrs. Creagh had an allowance fr husband, who, at the time when she was attended by Messrs. B Turner, was serving abroad with his regiment. She had sinc and her husband, finding himself pressed by various credit payment of debts incurred by her, set up the defence t was not liable. Judge Hughes held, and, as it seems to us, reference to the previously decided cases, held rightly, th defence was a good one, and consequently Messrs. Bale and failed to get judgment for the amount of their bill. It is no d hardship on many professional men that they cannot always g fees paid forthwith, and that credit often means eventual los do not, however, see that the fact of credit having been giv married woman makes the case any harder than if the credit h originally given to the husband, and he had turned out to be in In either case, the fees would be equally irrecoverable ; but the los properly be debited to the professional exigencies or personal indi which prevented payment from being asked for at the time when were earned. In case a married woman is living with her husb medical man who is called in can generally prove that the husban him in, or knew of his attendance ; he can consequently claim from the husband direct, without raising any question as to th authority to incur the expense of medical attendance. A ca however, some day arise, where the husband has provided his w money to pay all expenses at once, and forbidden her to pl credit at all ; and then we doubt whether he would be liable, medical attendance given with his knowledge and sanction. husband and wife are not living together, no question of san incurring a doctor's bill can well be raised ; and where the wi allowance, the husband cannot be made to pay. Whether sh

ate allowance or not is a matter which the medical man who attends not likely to know ; and, if he choose to let his bill run, instead ting payment at the time, he must take the risk of ultimately it.

foregoing remarks are irrespective of the Married Women's Pro- Act, 1882. That Act in no way affects the liability of a husband debts incurred by himself or by his wife, as his agent. But it ially increases the difficulty of a creditor who wishes to fix him responsibility on the ground that the wife was his agent ; for n 1 provides that "every contract entered into by a married n shall be deemed to be a contract entered into by her with t to, and to bind, her separate property, unless the contrary be ." The case before Judge Hughes was with reference to attend- iven before that Act came into operation ; and consequently the ant then had to show that his wife was not his agent to incur bt. Since the passing of that Act, it lies on the plaintiff to show ıe husband has either expressly authorised his wife to pledge his or has left her unprovided with necessaries, so as to give her an l authority to do so. Creditors will rarely be in a position to his affirmatively ; consequently, if they choose to give credit to an of whose means they know nothing, they must not complain lose their money.

AMERICAN QUALIFICATIONS.

Can a man with an American M.D. put "Doctor" on his door-plate, and se as such in England? 2. In case he qualified in England, would he have through the usual college course before being admitted to examination? llegal, could such a man be prosecuted, and with what result? 4. Con- ıg that he is undercharging the general fees, would it be right so to do secute?

JUSTITIA.

1. Anyone may practise in this country as long as he does not pretend to the *Register;* but "anyone who shall wilfully or falsely pretend to be, or or use the name or title of, a physician, doctor of medicine, licentiate in ine, surgery, bachelor of medicine, surgeon, general practitioner, or ecary, or any name, title, or addition implying that he is registered, or ıe is recognised by law as a physician, etc., is liable to a penalty ."

n American M.D. is not a qualification for registration. It would depend examining bodies to say what course of study they would require. Each an impose such conditions as it chooses, subject to the supervision of dical Council.

4. You can prosecute if you like, but the result cannot be predicted t knowing more of the facts of the case. It is always desirable to stop un- d persons, if possible.

INHIBITION OF AN ASSISTANT.

ı you kindly give me information where I can procure the usual bond or signature preventing an assistant from practising within a certain e.—Yours faithfully,

WALTER BERRY.

)ur correspondent may be able to get a form of the bond he wants from a r, such as Messrs. Waterlow Bros. ; but he had better have it drawn by tor, as, otherwise, he will be very likely to find that the document is, for ason, informal, and cannot be enforced.

MEDICAL ATTENDANCE ON CLUBS.

ish to ask my brother practitioners, through the medium of this L, if it is the usual practice for medical men to seek after and engage to on a few members of a club who have, or fancy they have, a grievance the duly appointed medical officer to the club, when no such complaint ı made officially to the club in question. I am medical officer to several which another practitioner is thus acting. I would also further ask if arrying out the letter and spirit of the oaths taken when a licentiate his diplomas.—I am, sir, yours obediently,

JOHN BRIDGER, M.R.C.S.E., L.M., L.S.A.

House, Cottenham, Cambridge.

INDIA AND THE COLONIES.

INDIA.

eroy has appointed Dr. J. Findlay, of the Army Medical ent, to be his surgeon. Dr. Findlay has filled a similar posi- Sir James Fergusson's staff for upwards of three years, pre- which he was employed in the Poona Circle. Dr. Anderson, surgeon to Lord Ripon during his Viceroyalty, is also a of the Army Medical Department. Dr. Hatch, an officer of an Medical Department, will succeed Dr. Findlay on the is Excellency the Governor. His appointment will render e post of Second Surgeon to the Jamsetjee Jejeebhoy Hos- fessor of Anatomy, and Curator of the Museum at the Grant ollege.

h Regiment, on its march from Quetta, lost no fewer than men from cholera.

Dr. Wellington Gray, Senior Surgeon to the Jamsetjee Jejeebhoy Hospital, and Professor of Surgery and Clinical Surgery in the Grant Medical College, goes home on a year's leave next month.

HOSPITAL AND DISPENSARY MANAGEMENT.

REPORTS ON THE LUNATIC ASYLUMS AND ON THE HOSPITALS OF NEW ZEALAND.

DR. GRABHAM issues two reports—one as Inspector of Hospitals, the other as Inspector of Asylums, in New Zealand. In each case, the present is the second annual report.

The account of the hospitals shows that great progress has been made since Dr. Grabham's appointment towards the end of 1882. At that time, various abuses almost completely destroyed the utility of the institutions. Patients who could well afford to pay for private medical aid, and worn-out old people, such as are found in an English workhouse, practically monopolised the wards, and crowded out deserving and urgent cases. Such abuses have now been to a very great extent remedied, and many of the hospitals would in every way compare favourably with any European institution of a like kind. Dr. Grabham draws attention to the excessive amount of alcoholic stimulants in the hospitals throughout the colony. The number of hospitals is thirty-eight. The inspector visits the more important ones twice; the others once. At the end of the report is a classification of diseases, compiled in the Registrar-General's office, which, we may charitably hope, was not prepared by a medical man. "Carbuncle," "stricture of the urethra," "want of breast-milk," and "scabies," are ranked under "zymotic diseases." The remainder of this classification, for which we regret we have not space, is hardly less felicitous and amusing.

The report on the asylums shows that on December 31st, 1883, the number of lunatics under care and treatment in the colony was 1,375. This is an increase of 106 persons over the number for the previous year. The proportion of the insane to the population in 1882 was 1 to 413, while in 1883 it was 1 to 393. The increase is almost double what would be accounted for by increase of the population. As an explanation in part, Dr. Grabham has "good reason to think that persons who have recently been in English asylums, or have shown insane tendencies, are not rarely shipped to this colony. with the view of escaping the burden of their maintenance at home." For the credit of human nature, it is to be hoped that in some cases, at least, the welfare of the invalid was a motive in determining the voyage. Dr. Grabham protests against a very objectionable power given to magistrates or justices by the Lunatics Act, 1882, by which 137 persons were admitted "pending examination by medical practitioners." The entire number of admissions was only 421. "A large number of these (137) patients were never examined by medical practitioners ; and nineteen, when so examined, were found to be 'not insane.'" "The medical superintendents have assured me that in several instances the so-called lunatic showed no symptom whatever of insanity, and considerable delay occurred in procuring his or her release." This circumstance should make clear to our own lunacy law reformers that there is no such thing as *ex officio* knowledge of insanity, and that the mere fact of being a magistrate does not confer the training requisite to inquire properly into a person's mental condition."

There are in New Zealand eight lunatic asylums, including one licensed house. The accommodation, however, is quite insufficient even for the persons under treatment at present. In speaking of Ashburn Hall, the private asylum, the inspector says: "There is no dearth in the colony of insane persons who would be benefited by the advantages which this well-conducted establishment offers." The colony, after all, is not very unlike the mother country.

DELANCEY FEVER HOSPITAL, CHELTENHAM.

OF the fifty-five cases admitted to this institution, during 1883, forty-eight were returned as suffering from scarlet fever, all of which were discharged recovered. That the mortality was *nil*, may be partly explained by the fact that only three were under the age of five years, the average age of those admitted being fifteen years. It would appear, too, that most of those attacked suffered from a mild form of the disease ; and the returns of the last seven years go further to prove this, only three deaths having occurred in a total of two hundred and forty-three cases. It is significant that no case of small-pox was admitted during the year ; but by the erection of a separate laundry for small-pox clothing, the efficiency of the hospital-work has been materially added to.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

ENGLISH URBAN MORTALITY IN THE FOURTH QUARTER OF 1884.

THE vital and mortal statistics of the twenty-eight towns dealt with by the Registrar-General in his weekly returns are summarised in the accompanying table. During the fourth quarter of 1884, 80,364 births were registered in the twenty-eight large English towns, equal to an annual rate of 33.2 per 1,000 of their aggregate population, estimated at nearly eight millions and three-quarters. The birth-rates in these towns in the corresponding quarters of 1882 and 1883 were 34.8 and 31.8 respectively. In London, the birth-rate last quarter was equal to 33.3 per 1,000, while it averaged 34.9 in the twenty-seven provincial towns, among which it ranged from 28.6 in Brighton, 29.5 in Bradford, and 30.2 in Plymouth and in Huddersfield, to 38.5 in Nottingham, 39.0 in Preston, 39.7 in Sunderland, and 42.9 in Cardiff.

The deaths in the twenty-eight towns during the last three months of 1884 were 50,920, corresponding to an annual rate of 21.7 per 1,000, against 22.9 and 21.2 in the last quarters of the two preceding years, 1882-83. In London, the rate of mortality did not exceed 20.2 per 1,000, whereas in the provincial towns it averaged 22.9. The lowest rates in these towns were 17.8 in Portsmouth, 19.1 in Brighton, 19.5 in Birkenhead, and 20.3 in Plymouth and in Huddersfield; while they ranged upwards to 25.3 in Liverpool, 25.8 in Manchester, 26.5 in Cardiff, and 29.9 in Preston. From the principal zymotic diseases, 5,669 deaths resulted during the quarter under notice, equal to an annual rate of 2.4 per 1,000. Among these twenty-eight towns, the lowest zymotic death-rates were 1.0 in Plymouth, 1.1 in Brighton, 1.1 in Portsmouth, and 1.1 in Huddersfield; in the other towns, the rates ranged upwards to 3.8 in Hull, 4.0 in Bolton, 5.3 in Preston, and 6.5 in Cardiff. The 5,669 deaths from the principal zymotic diseases included 1,224 which resulted from diarrhœa, 941 from scarlet fever, 916 from measles, 903 from whooping-cough, 809 from "fever" (principally enteric), 483 from diphtheria, and 393 from small-pox. The 1,219 fatal cases of diarrhœa registered in these towns last quarter were equal to an annual rate of 0.52 per 1,000, and exceeded the average of recent corresponding quarters; the highest rates of mortality from this disease were recorded in Hull, Blackburn, Bolton, and Preston. The death-rate from scarlet fever, which had been 0.41 each of the two preceding quarters, was last quarter 0.40 per 1,0 In London, the rate of mortality from scarlet fever was equal to 0. while in the twenty-seven provincial towns it averaged 0.45 1,000, and was highest in Sunderland, Sheffield, Cardiff, and N castle-on-Tyne. The 916 fatal cases of measles were equal to a rat 0.39 per 1,000, against 0.94 and 0.48 in the two preceding quart this disease was proportionally nearly twice as fatal in the provin towns as in London, and caused the highest death-rates in H Leicester, Bolton, and Cardiff. The rate of mortality from whoop cough was equal to 0.38 per 1,000, which was below the rate in re corresponding quarters; while the death-rate from this disease did exceed 0.26 in London, it averaged 0.49 per 1,000 in the provi towns, among which the highest rates were recorded in Birmingh Oldham, Leeds, and Preston. The mortality from "fever" show slight increase upon that recorded in the preceding quarter; this ease was proportionally most prevalent in Salford, Leeds, and D The death-rate from diphtheria showed a further increase upon recorded in the two previous quarters; of the 483 deaths referr this disease in the twenty-eight towns during the quarter under n no fewer than 315 occurred in London. Of the 393 deaths from s pox recorded in the twenty-eight towns, 364 were returned in Lo 10 in Birkenhead, 6 in Sunderland, and 5 in Liverpool. The nu of small-pox patients in the Metropolitan Asylum Hospitals, was only 536 at the end of September, has since rapidly increased was 1,076 at the end of the year. The number of new cases adn weekly to these hospitals averaged 84 in October, 203 in Novembe 217 in December.

Infant-mortality in the twenty-eight towns last quarter, mea by the proportion of deaths of children under one year of age to registered, was equal to 156 per 1,000, against 161 and 159 corresponding periods of 1882 and 1883. The rate in London d exceed 136 per 1,000, whereas in the twenty-seven provincial it averaged 172, and ranged from 107 in Portsmouth, 125 in Brig and 136 in Plymouth, to 198 in Bradford, 199 in Cardiff, 206 in ton, and 213 in Bolton.

The causes of 1,239, or 2.4 per cent., of the 50,920 deaths regi in the twenty-eight towns last quarter were not certified, eith medical practitioners or by coroners. In London, the proport uncertified deaths was only 1.3 per cent., whereas in the pro towns it averaged 3.3, ranging from 0.6 and 0.7 in Derby an mouth, to 5.7 in Liverpool, 6.2 in Oldham, and 6.7 in Hull.

Public Health Statistics relating to Twenty-eight Large English Towns, for the Fourth Quarter of 1884.

Towns.	Estimated Population middle of 1884.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhœa.	Rate per cent. of Uncertified Deaths.
				Births.	Deaths.	Principal Zymotic Diseases.									
28 Towns.	8,762,354	80,364	50,920	34.2	21.7	2.4	5,669	393	916	941	483	903	809	1,224	2.4
27 Towns.	4,742,993	44,420	29,161	34.9	22.9	2.7	3,442	29	623	576	168	620	538	888	3.3
London	4,019,361	35,944	21,759	33.3	20.2	2.1	2,227	364	293	365	315	283	271	336	1.3
Brighton	112,954	866	579	28.6	19.1	1.1	33	1	1	9	5	2	8	7	1.6
Portsmouth	133,059	1,248	637	35.0	17.8	1.1	39	—	8	1	9	1	16	4	1.4
Norwich	90,410	800	550	33.0	22.7	2.1	51	—	—	2	9	17	16	7	2.0
Plymouth	75,509	611	412	30.2	20.3	1.0	20	—	—	1	2	2	8	7	0.7
Bristol	215,457	1,768	1,188	30.6	20.6	2.1	122	—	36	7	6	33	16	24	2.2
Wolverhampton	78,367	692	485	32.9	23.1	1.9	40	1	1	4	1	13	5	15	2.5
Birmingham	421,258	3,870	2,380	34.2	21.1	2.6	292	1	36	21	9	91	26	108	1.9
Leicester	132,773	1,279	821	35.9	23.0	2.8	100	—	51	14	6	14	3	12	1.9
Nottingham	205,298	2,118	1,257	38.4	22.8	1.9	103	—	1	14	14	36	17	21	2.5
Derby	87,608	827	496	35.2	21.1	2.7	64	—	3	6	—	1	40	14	0.6
Birkenhead	90,870	921	475	37.8	19.5	1.6	38	10	7	3	1	—	9	8	4.0
Liverpool	573,202	5,367	3,891	34.9	25.3	3.0	464	5	122	82	41	62	41	111	5.7
Bolton	108,968	925	738	31.6	25.2	4.0	117	—	59	8	1	8	9	32	2.4
Manchester	338,296	3,228	2,341	35.6	25.8	2.1	192	—	13	26	8	35	39	71	2.7
Salford	197,153	1,892	1,181	35.8	22.3	3.1	166	—	6	37	7	29	38	49	4.7
Oldham	122,676	1,055	780	32.1	23.7	2.1	69	—	8	6	2	29	5	19	6.2
Blackburn	110,498	1,082	726	36.5	24.5	2.5	74	—	10	12	1	—	20	31	2.3
Preston	99,481	1,042	798	39.0	29.9	5.3	141	—	33	18	2	26	19	43	4.5
Huddersfield	86,004	698	469	30.2	20.3	1.1	26	—	9	1	—	3	5	8	3.4
Halifax	76,479	635	470	30.9	22.9	2.6	54	—	11	13	—	15	10	5	4.3
Bradford	209,564	1,661	1,199	29.5	21.3	2.4	136	—	23	19	5	38	11	40	1.9
Leeds	327,324	3,049	1,979	34.7	22.5	3.4	301	1	7	68	16	78	77	54	1.8
Sheffield	300,563	3,061	1,708	38.0	21.2	2.8	222	—	4	84	3	24	32	75	5.1
Hull	181,225	1,781	1,131	36.6	23.3	3.8	186	2	63	16	4	22	31	48	6.7
Sunderland	123,204	1,313	811	39.7	24.5	3.1	103	6	8	29	4	26	8	22	3.0
Newcastle-on-Tyne	151,325	1,554	994	38.3	24.5	3.1	125	—	6	50	5	11	20	33	2.5
Cardiff	93,468	1,077	665	42.9	26.5	6.5	164	2	97	25	7	4	9	26	1.5

AL GOVERNMENT BOARD INQUIRY AT THE HOLBORN UNION WORKHOUSE.

earn, from the *Holborn Guardian* of the 24th instant, that, on preceding day, an inquiry was made by Mr. R. Hedley, Local rnment Board Inspector, into the circumstances attendant on the val of one Saul Kaye from his residence, 71, Gray's Inn Road, in arish-ambulance, to the workhouse in Gray's Inn Road, and sub-ntly to the Holborn Union Infirmary at Highgate.

would appear that the man Kaye, who was a beershop-keeper at bove address, had got into difficulties with his brewers, who had ned an order for his ejectment from the premises held by him and vife. It further appeared that he had been attended profession-by Mr. David Harris, of Great James Street, who is the deputy . Tom Robinson, one of the district medical officers of the Hol-Union, conjointly with that gentleman, for some weeks; that, on ber 16th last, he (Mr. Harris) had given a certificate, at the re-of Mr. Shepheard, the sheriff's officer, that Kaye was fit to be ved. Mr. Harris had received five shillings from the sheriff's r for such certificate, and he also admitted that the same sum had paid to him, a few days previously, for a similar certificate, but nied that he was aware that the man was to be removed to the house, or that he was to go to the Holborn Infirmary. Similarly, elieving officer denied that he had authorised the use of the h-ambulance in this removal; but it was not a little singular that ne out that he stood by whilst the man was being put out of his , and into the ambulance. Again, the proprietor or keeper of so-called parish-ambulance was unable to tell how and by what s it had been applied for, or who told him to go to Kaye's house. s wife deposed that she had not applied for assistance from the n, nor did she need it.

ve, having been placed in the ambulance, was taken to the Hol-Workhouse, where some difficulty arose as to his admission; this, ver, was got over by the relieving officer, in conjunction with Mr. s, signing an order for the man's removal to the infirmary at gate, at which institution he was admitted on the afternoon of lay, and from which establishment he was sent to the workhouse days later, owing to his suffering from an attack of delirium ns.

is not a little remarkable, that all the parties concerned in this le removal of a sick man from his residence, first to the work-gate, and subsequently to the infirmary, denied all knowledge w the ambulance was obtained, and who directed the removal to ouse, and we should be left altogether in the dark how this pro- had been managed, if the rules governing the admission of ts to the Holborn Union Infirmary had not necessitated the ure of the relieving officer and of the district medical officer, or deputy, Mr. Harris.

our mind, it is abundantly clear that the parochial authorities s union have lent themselves to the sheriff's officer, acting for very company, in their successful ejectment of Mr. Kaye from one ir houses; and we shall be very much astonished if the Local nment Board do not sternly rebuke this use of the machinery of or-Law, in ejecting a sick person, *not a pauper*, solely because s in the debt of the Company.

THE DISPOSAL OF SEWAGE.

ifficulties which beset local authorities as regards the disposal of are great. On the one hand, they are bound by law to pro-nd keep up any efficient system of sewers for the purpose of ing sewage-matter from the houses in their district; and, on the the simple plan of getting rid of that sewage by discharging it he nearest stream is no longer allowed. They are forbidden, on the terms of paying large compensation, to interfere by orks with any one's land, and are also forbidden to foul any water. have from time to time come before the law courts, which show hese prohibitions are real, and that any infringement of them e restrained by injunction, or visited by the infliction of substan-mages. The last of these cases are those of Selous *v.* the Wimble-oard, and Selous *v.* the Croydon Rural Sanitary Authority, in Mr. Justice Denman recently gave judgment. The plaintiff is ner of land called the Garretthouse Estate, in Wandsworth, and ece of water called the Western Pool, which communicates with er Wandle. The Wimbledon Board have a sewage-farm adjoin-Western Pool, and the effluent from it is discharged into the e, near the pool. The Croydon Rural Authority have their -farm some distance off, but get rid of the effluent from it by of a pipe, which goes through the Wimbledon sewage-farm, and ges direct into the Western Pool. For the easement of going through the Wimbledon sewage-farm, a payment is made to the Wimbledon Board, and that board had constructed some camp-shedding in the pool for the purpose of carrying the pipe, and also apparently of protecting the banks of the pool. Mr. Selous complained (1) that the sewage-farm of the Wimbledon Board was a nuisance to his property; (2) that sewage was discharged from it into the Wandle, and thence into his property, the Western Pool; and (3) that the erection of the camp-shedding in the pool was a trespass. Against the Croydon Rural Authority, his complaint was that the discharge of the effluent by means of the pipe was unauthorised, and also that the effluent was not properly purified before being discharged; and that it consequently fouled the Western Pool. Other points were raised in the course of the cases, the trial of which occupied a long time, but they need not be noticed here. The claims against the Wimbledon Board turned principally on questions of fact. Mr. Justice Denman decided that the sewage-farm was so conducted as to be a serious nuisance, and on that head granted an injunction, and awarded £200 damages; he also restrained the board from discharging the effluent into the Wandle so as to contaminate the Western Pool, but, considering that no serious damage was proved, he only awarded nominal damages; the camp-shedding he held to be a trespass, and ordered its removal within three months, or payment of £50 damages. It is impossible for any one who did not hear the evidence to judge of the correctness of these decisions; but, except that the damages awarded might have been larger, there seems no reason to doubt that they were right. They merely follow on previous cases which had already established that, where a local authority causes a nuisance, it may be restrained, and may be condemned to pay damages. The case against the Croydon authority raises a new point, which Mr. Justice Denman characterised, and rightly so, as of vital importance—namely, whether Parliament has authorised local authorities to carry water into or upon the land of a private owner. Section 16 of the Public Health Act, 1875, provides that "any local authority may carry any sewer.....after giving reasonable notice in writing to the owner or occupier (if, upon the report of the surveyor, it seems necessary) into, through, or under any lands whatsoever." These words are very large; but Mr. Justice Denman intimated that, in his opinion, the Act did not confer any power of bringing the sewage, though purified, into private land or water without the consent of the owner. It was not, however, necessary to determine this question, as Section 17 provides that nothing in the Act shall authorise a local authority to discharge sewage, or filthy water, into a natural stream or pond, "until such sewage is freed from all excrementitious or other foul or noxious matter, such as would affect or deteriorate the quality of the water in such stream, etc." Although the effluent from the pipe was fairly clear, yet it was admitted that sewage-fungus was occasionally discharged from it; consequently, the Croydon Rural Authority was restrained from discharging the effluent any longer into the pool, after the expiration of a period of three months, which was given them for the purpose of providing some other outlet; £200 damages were also awarded, which are to be increased if the new outlet is not provided within the time, and in any case the nuisance must be abated before hot weather comes on. These decisions as they have been given will be useful, as showing to local authorities that they, whose duty it is to get rid of nuisances, must not cause them. From a lawyer's point of view, it is a pity that the right of a local authority to discharge pure water on to land, or into a stream, has not been definitely decided; but, having regard to general principles, we think Mr. Justice Denman's opinion is correct, and that no such right exists. Some day, perhaps, the question will come definitely before a court; for the present, we suppose the rate-payers of the Croydon Union will be content to leave to others the cost of having it settled.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 6,231 births and 4,092 deaths were registered during the week ending the 24th instant. The annual rate of mortality, which had been 24.9 and 24.2 per 1,000 in the two preceding weeks, declined to 24.0 last week The rates in the several towns, ranged in order from the lowest, were as follow:—Brighton, 16.4; Blackburn, 17.6; Derby, 18.0; Hull, 19.6; Bradford, 20.0; Oldham, 20.2; Birkenhead, 20.7; Leeds, 21.0; Newcastle-upon-Tyne, 21.8; Huddersfield, 22.7; London, 23.1; Bristol, 23.2; Portsmouth, 23.2; Nottingham, 23.4; Bolton, 24.2; Halifax, 24.3; Sheffield, 24.4; Plymouth, 25.4; Salford, 25.8; Birmingham, 26.0; Sunderland, 26.2; Manchester, 28.0; Liverpool, 28.2; Preston, 29.1; Leicester, 29.9; Norwich, 30.3; Wolverhampton, 34.9; and Cardiff, 40.9. In the twenty-seven provincial towns the death-rate for the week averaged 24.7 per 1,000,

and was 1.6 above the rate recorded in London. The 4,092 deaths registered last week in the twenty-eight towns included 112 which resulted from whooping-cough, 69 from measles, 47 from scarlet fever, 46 from small-pox, 38 from "fever" (principally enteric), 32 from diphtheria, and 28 from diarrhœa; in all, 372 deaths were referred to these principal zymotic diseases, against 372 and 370 in the two preceding weeks. These 372 zymotic deaths were equal to an annual rate of 2.2 per 1,000. In London the zymotic rate was 2.0, while it averaged 2.3 in the twenty-seven provincial towns, among which these zymotic rates ranged from 0.5 and 0.6 in Blackburn and Birkenhead, to 3.6 in Preston, 5.7 in Leicester, and 10.2 in Cardiff. The deaths referred to whooping-cough, which had been 91 and 108 in the two preceding weeks, further rose last week to 112, and caused the highest proportional fatality in Bristol, Birmingham, and Leicester. The 69 fatal cases of measles showed a slight further decline upon recent weekly numbers, and caused the highest rates in Sunderland, Leicester, and Cardiff. The deaths referred to scarlet fever, which had been 51 and 59 in the first two weeks of the year, declined to 47; this disease was proportionally most fatal in Newcastle-upon-Tyne. The 38 fatal cases of "fever" exceeded by 10 the number in the preceding week, and caused the highest rate in Wolverhampton, Norwich, and Derby. Of the 32 deaths from diphtheria in the twenty-eight towns, 12 occurred in London, 5 in Liverpool, 2 in Bristol, and 2 in Bradford. Of the 46 fatal cases of small-pox, 43 occurred in London (exclusive of 15 deaths of London residents from this disease in the Metropolitan Asylum Hospitals situated outside Registration London, 1 in Liverpool, 1 in Birmingham, and 1 in Bolton. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 1,001 and 1,009 at the end of the two preceding weeks, further rose to 1,092 on Saturday last; 287 new cases were admitted to these hospitals during the week, against 234 and 216 in the two preceding weeks. The death-rate from diseases of the respiratory organs in London was equal to 6.6 per 1,000, and was slightly below the average. The causes of 93, or 2.3 per cent. of the 4,092 deaths last week in these twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.—During the week ending the 24th inst., 849 births and 695 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had declined from 30.7 to 29.0 per 1,000 in the three preceding weeks, further fell last week to 28.5, but exceeded by 4.5 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 20.1 in Edinburgh, 20.5 in Leith, 22.9 in Paisley, 24.9 in Perth, 26.6 in Aberdeen, 28.9 in Greenock, 32.7 in Glasgow, and 35.4 in Dundee. The 695 deaths registered in these towns during last week included 87 which were referred to the principal zymotic diseases, against 94 and 83 in the two previous weeks; of these, 29 resulted from whooping-cough, 26 from measles, 11 from diarrhœal diseases, 9 from "fever," 6 from diphtheria, 5 from scarlet fever, and 1 from small-pox. These 87 deaths were equal to an annual rate of 3.6 per 1,000, which exceeded by 1.4 the average zymotic death-rate in the twenty-eight large English towns. The zymotic rates in the Scotch towns ranged from 1.7 and 2.3 in Perth and Aberdeen, to 4.6 in Leith, and 4.8 in Dundee. The 29 deaths from whooping-cough were within one of the number in the preceding week, and included 9 in Glasgow, 5 in Dundee, 5 in Leith, and 4 in Greenock. The fatal cases of measles, which had declined in the four previous weeks from 36 to 20, rose again to 26, of which 16 occurred in Glasgow, and 5 in Dundee. The 9 deaths from "fever" showed a decline, and included 3 in Edinburgh, and 3 in Glasgow. Of the 6 fatal cases of diphtheria, 4 were returned in Glasgow, where 4 deaths from scarlet fever also occurred. A death attributed to chicken-pox (classed to small-pox in Scotland) was returned in Edinburgh. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 8.1 per 1,000, against 6.6 in London. As many as 114, or 16.4 per cent. of the 695 deaths registered last week in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS—In the week ending January 24th, the number of deaths registered in the sixteen principal town districts of Ireland was 531. The average annual death-rate, represented by the deaths registered, was 32.0 per 1,000. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000:—Armagh, 15.5; Belfast, 34.0; Cork, 37.6; Drogheda, 21.1; Dublin, 31.3; Dundalk, 48.0; Galway, 33.6; Kilkenny, 29.6; Limerick, 40.5; Lisburn, 53.2; Londonde 8.9; Lurgan, 25.7; Newry, 24.6; Sligo, 52.9; Waterford, 2 Wexford, 8.6. The deaths from the principal zymotic diseases re tered in the sixteen districts during the week were equal to an an rate of 2.8 per 1,000, the rates varying from 0.0 in Londonde Newry, Kilkenny, Drogheda, Dundalk, Sligo, Lisburn, Lurgan, Armagh, to 11.6 in Waterford; the 11 deaths from all causes re tered in the last-named district comprising 4 from measles and from typhus. In the Dublin Registration District the deaths re tered during the week amounted to 216. Thirty-two deaths f zymotic diseases were registered in Dublin, being 5 over the nur for the preceding week, but one under the average for the t week of the last ten years: they comprise 5 from measles, 3 scarlet fever (scarlatina), 3 from whooping-cough, 2 from diphth 3 from enteric fever, 4 from diarrhœa, etc. Fifty-five deaths from eases of the respiratory system were registered, being 8 over number for the week ended 17th instant, but 7 under the averag the third week of the last ten years; they comprised 35 from b chitis, 6 from pneumonia, and 2 from croup. The deaths of 17 chil under five years of age (including 14 infants under one year were ascribed to convulsions. Seven deaths were caused by apop 11 by other diseases of the brain and nervous system (exclusive of vulsions), and 15 by diseases of the circulatory system. Phthi pulmonary consumption caused 32 deaths, mesenteric disease 3, cancer 2. Three accidental deaths were registered. In thirty- instances there was "no medical attendant" during the last illnes

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HEALTH OF FOREIGN CITIES.—It appears, from statistics publ in the Registrar-General's return for the week ending the 24th that the death-rate in the principal Indian cities recently ave 34.6 per 1,000; it was 28.4 in Bombay, 32.1 in Calcutta, and 4 Madras. Cholera caused 18 deaths in Calcutta, and 12 in Ma and "fever" was prevalent in each of these cities. According t most recently received weekly returns, the annual death-ra twenty-three large European cities averaged 28.4 per 1,000, ar ceeded by 4.4 the mean rate during last week in the large E towns. The rate of mortality in St. Petersburg was equal to and showed an increase upon the rates in the preceding w the 527 deaths included 8 from typhoid fever, and 15 from theria. In three other northern cities—Copenhagen, Stock and Christiania—the death-rate averaged 24.9 per 1,000, and r from 21.7 in Copenhagen, to 27.1 in Stockholm; measles cau deaths in Copenhagen, and scarlet fever 5 in Stockholm. The rate in Paris was 28.5, showing a further increase upon the ra recent weeks; the deaths included 33 from measles, 17 from t fever, and 38 from diphtheria and croup. The 201 deaths in B included 4 from diphtheria, and gave a rate of 25.0 per 1,000. rate of mortality in Geneva was equal to 24.8. In the three pr Dutch cities — Amsterdam, Rotterdam, and the Hague — t averaged 29.9, ranging from 22.2 in the Hague to 31.5 in Amst where 9 deaths resulted from scarlet fever, and 8 from mea fatal cases of whooping-cough were returned in Rotterdam Registrar-General's table includes nine German and Austrian ci which the death-rate averaged 26.1 per 1,000, and ranged fro and 25.3 in Berlin and Dresden, to 29.5 in Breslau and Prag 35.2 in Trieste. Diphtheria caused 41 deaths in Berlin, an Dresden; and 21 fatal cases of small-pox were recorded in The rate of mortality was equal to 31.8 in Rome, and to Turin; 26 deaths were referred to small-pox in Turin, and 8 in The death-rate in Madrid was 40.8, and the 372 deaths inclu from measles, and 23 from diphtheria and croup. In Lisb 142 deaths were equal to a rate of 36.4, and included 17 from pox. The usual returns from New York and from Brooklyn appear to have been received. In Philadelphia, the rate of m was 26.5, and in Baltimore it was 22.9 per 1,000; diphtheria 25 deaths in Philadelphia and 12 in Baltimore, while typho was somewhat prevalent in each of these cities.

REPORTS OF MEDICAL OFFICERS OF HEALTH

KING'S NORTON RURAL DISTRICT.—The sanitary authority district have much reason to be gratified with the results of t carried out by Mr. Hollinshead, who reports for 1883 a genera rate of 11.77 per 1,000 (the lowest ever recorded), and a zym of 0.4 per 1,000. These figures, which have shown a steady sistent decline for the past ten years, clearly prove the value o tion in improving the public health. There was also a decrea rate of infantile mortality, but Mr. Hollinshead regrets that still many children who fall victims to disease through the

and early precautions being taken to cope with the many ail- to which young children are liable. He does not believe that s wilfully neglect their children, but inclines to the idea that it ı ignorance, together with a total disregard of those sanitary laws if carried out as desired, would go a long way towards improv- habitations of the poorer classes, as it is next to impossible for n to thrive in the dirty and badly ventilated dwellings only too on among the poor. The health-officer has nothing new to say ard to the zymotic diseases which prevailed in his district last eyond the fact that they were, for the most part, of a very mild The provision of a temporary hospital was attended with the st results, and to this measure must be attributed some part of r death-rate of 1883. The present building is not, however, te for the requirements of the district, and it is to be hoped ith their present experience before them, the authority will not e to provide a more modern and permanent institution.

STON.—Mr. Pilkington's report for 1883 is, in some respects, avourable than that for 1882. With the exception of 1881, the umber of deaths was lower than that recorded during any of evious five years, although, during that time, the population y considerably increased, while the death-rate (23.79 per 1,000) ı the same exception, below any observed during the past fifty hough still sufficiently high. An epidemic of infantile diar- revailed during the autumn months, when 168 deaths of a total referred to this disease were registered. The borough was also with epidemics of measles and whooping-cough, and scarlet ntinued more or less prevalent throughout the whole of the The death-rate amongst children continues terribly high, no an 781 deaths, or one-third of the whole number, being those its under twelve months. In 1882, as many as 818 deaths, or cent. of the total, were those of infants. Mr. Pilkington con- he principal causes at work in swelling this mortality are un- surroundings, improper food, and the too early return of s to the factory. Many of the victims were puny infants, the whose births and deaths were separated by a very short in-

FORD BRIGG RURAL DISTRICT.—The mortality in this district t children under five years of age is very serious. Taken as a the deaths of children represented, in the year 1882, 38 per the total mortality; but, excluding the ironstone villages, four er, the percentage is reduced to 24. Mr. Moxon observes, on ject: "Perhaps the chief of the causes of this high death-rate in errors of diet. Unless infants are fed upon milk, either e mother (which, of course, is infinitely the best food), or from , it is exceedingly difficult to rear them. On inquiry, I find rge number of the people are not supplied with this necessary f infant food. They either do not take it at all, or only irre- and there is not sufficient encouragement for the milk-seller to day by day, to the door as in towns. In one village, where e over 200 houses, and probably 1,200 inhabitants, I could l two milk-sellers—one having two cows, and the other only read-sop, as it is called, I found to be a common food for in- This article of diet is merely bread soaked in hot water and d, and is an unfit food for young children. This, and other diet, are, I believe, chief causes of infant mortality. Strong st children struggle through such treatment, but the weak and es succumb to diseases which have their origin in such dietetic Mr. Moxon's experience in this respect is, unfortunately, by s uncommon. The remedy is to be found in the better edu- women as to the management of their children. Mr. Moxon sses the doubtful policy of insuring the lives of infants as they are born—a practice which, from its very nature, is ob- le and open to abuse. In 1882, zymotic diseases accounted aths, or 2.25 per 1,000 of the population, whilst the death-rate causes was 16.5 per 1,000. Contrary to the experience of ars, when the varying mortality has been generally dependent greater or less amount of infantile death, the whole excess of in 1883 was caused by an unusual loss of life among older Chest-affections and phthisis were unusually fatal to adults, wer than 20 women died from puerperal fever. This unfortu- rrence was the subject of special investigation, and extraordi- autions were adopted to prevent the spread of this fatal dis- e general death-rate was equivalent to 19.0 per 1,000.

OREST RURAL DISTRICT.—In his report for 1883, Mr. Jenkins icular attention to the mortality among children between the and 5. Of the 211 deaths which occurred during the year, per 1,000 of the population, were those of children under 1 e, and 30 were those of children under 5. The medical officer on that, in many cases, improper feeding has much to do with the fatality. In many places, the poorer people appear to have considerable difficulty in procuring milk, and try to feed their infants on farinaceous or other unsuitable food. "They usually object," he adds, "to condensed milk, which I have always found to succeed admirably." In contrast with the large mortality at early life, it is noticeable that 41 deaths took place in persons over 70 years of age. For the year 1883, the birth-rate was 27.85, and the death-rate 15.97. To zymotic diseases, 16 deaths were attributed. The chief factor in this particular class of mortality was measles, which accounted for no fewer than 13 deaths. Of these, as many as 12 occurred at a single village—Eling. This circumstance may be explained by the fact that Eling is quite close to Southampton, where the disease was very prevalent, and whence, no doubt, it was conveyed. Mr. Jenkins observes that the mortality from measles is largely due to the indifference with which parents frequently regard this disease, and to their delay in seeking medical assistance until some complication has arisen.

MEDICAL OFFICERS OF WORKHOUSES AND FEES AT INQUESTS.

SIR,—Referring to Mr. Beetham's opinion on the above in the JOURNAL for January 18th, I find the following note at page 38 of Lumley's *Medical Officer's Manual*. It refers to Art. 207, No. 9, which requires the medical officer "to enter in such return the death of every pauper who shall die in the workhouse, together with the apparent cause thereof. They (that is, the Poor-law Commissioners) do not require a *post mortem* examination to be made . . . Where the coroner directs such an examination to be made, it does not appear that the 6 and 7 W. IV, c. 89, s. 5, prevents the medical officer from being paid the fee allowed by that statute for *post mortem* examinations (6 Off. Cir. 54)."

It is quite clear, therefore, that such fees may be lawfully demanded, and that coroners are bound to pay them.—I am, etc.,

FRED. W. LOWNDES.

Liverpool.

*** We are aware of the facts mentioned in our correspondent's communication, and we trust shortly to get a copy of the official circular referred to, either from the Local Government Board, or, in the event of their refusal, then an inspection of it in the reading-room of the British Museum; that is, if the official circulars of the Poor-Law Commissioners, Poor-Law and Local Government Boards, have been held of sufficient importance to be sent there.

BEER IN WORKHOUSES.

SIR,—As the following report takes in the question of the duties and responsibilities of workhouse medical officers, as well as the allowance of luxuries to the inmates, it may probably be of sufficient interest to claim a place in the JOURNAL when you can find room for it. I would respectfully suggest that the Local Government Board should distinguish between what is required for the treatment of disease, and what is allowed for luxuries, and that the guardians should be responsible for the latter. Much vexatious and useless book-keeping would thus be saved to the hard worked and ill paid medical officer, and the illustration diminished of an epigrammatic parody.

"Full many a tale of complicated woes
In the dark closet of the clerk is stored;
Full many a list, which chronic ills disclose,
Unheeded lies upon the Poor-law Board."

—I am, etc.,

HENRY MEYMOTT.

Ludlow.

"At the fortnightly meeting of the Ludlow Board of Guardians, November 17th, 1884, the complaint made by Mr. Dansey, the inspector from the Local Government Board, of the excessive quantity of beer consumed in the workhouse, was taken into consideration. Mr. Meymott, the medical officer, was called upon for an explanation. He remarked that not a drop of beer, a pinch of snuff, nor a pipe of tobacco, could be given without a written order of the medical officer, who was thus placed in an invidious position, and the scientific treatment of disease was brought down to the level of catering for the luxuries of the poor. He did not require them for the treatment of disease. He considered that the guardians, and not the medical officer, should be responsible for them. He placed himself in the hands of the Board; and whatever they might think proper to allow, consistent with justice to the ratepayers, he would be happy to sanction. During the thirty-seven continuous years he had held his appointment, it was the custom to allow them, and his signature in the book was simply a matter of routine. He thought it should be taken into account that, about ten years ago, he saved the Union about £15 a year by discontinuing an old custom of giving wine and spirits and water on various occasions. Mr. Meymott was subsequently directed by the Board to continue, for the present, the allowance of snuff and tobacco, and to diminish gradually the quantity of beer."

"CHARGE OF NEGLECT AGAINST A MEDICAL OFFICER."

SIR,—My attention was directed this morning, for the first time, to a statement in your JOURNAL, January 3rd, with the above heading. May I ask you, under such circumstances, to permit me to state my account of the case.

On the Sunday, not the Saturday, previous to the decease, a little girl was sent to my house for some medicine for Alice Maud Kemp, who, she said, had a short, hard cough. I inquired of her whether I was to visit the deceased, and she told me her mother did not consider that necessary if I could send some cough-mixture. I accordingly gave the medicine, after asking some more questions, and then said, "If she is no better this evening let me know, and either I or my assistant shall call." This occurred on Sunday morning at ten minutes to eleven, and the next I heard of the case was on the next day, Monday morning, at a quarter-past nine, when a messenger asked me to go at once, as the deceased was making a peculiar noise in her throat, and it was thought she was dying. I said I would go as soon as I possibly could; and, hurrying off my patients, who were then waiting for me, was just setting out, when, at twenty minutes after ten, the messenger returned, saying the child had died. These, sir, are the facts of the case.

I must confess, however, I did not visit the child when dead, as I did not consider

that necessary, and especially so as the coroner's officer called on me relative to the coming inquest, to which he told me I should be summoned. Mr. Carter, the coroner, notwithstanding, in my absence and unknown to me, held an inquest, and both he and the jury passed what censures they supposed the case deserved; still, I think it would have been more straightforward and satisfactory to all parties concerned had there been a chance given of hearing the other side of the story.—I am, sir, obediently yours, HENRY JOHN FORSTER.

420, Old Kent Road, January 27th.

. H. C. should address the Registrar of the College, and forward the correspondence to us subsequently if of public interest.

WATER-ANALYSIS BY MEDICAL OFFICERS OF HEALTH.

SIR,—If your correspondent "M. O. H.," in the JOURNAL of November 8th, will communicate with me, I shall be pleased to give him some particulars as to an useful mode of testing water for organic impurities, suitable for field-work, where time is an object. I think he will find it effective and reliable.—Yours, etc., THOMAS PARTRIDGE, Medical Officer of Health, Stroud Urban and Rural Sanitary District.

Bowbridge House, Stroud.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 22nd instant.

Messrs. G. H. Broadbent, L.K.Q.C.P.I., Manchester; P. Leech, L.S.A., Warrington; J. B. Mann, L.K.Q.C.P.I., Manchester; J. Aspinall, L.S.A., Hindley; and R. B. Eskrigge, L.R.C.P.Ed., Ardwick, students of the Manchester School; J. L. Davison, M.D.Toronto, Toronto; C. Williams, Sydney, New South Wales, of University College; J. C. Kershaw, Ardsley, Yorkshire, Leeds School of Medicine; G. F. Sydenham, L.S.A., Tiverton; F. J. Malden, M.B.Durham, St. Neots; G. P. Newboult, M.B.Durham, Weymouth; W. H. Bell, L.S.A., Myddelton Square, of St. Bartholomew's Hospital; and H. C. Ensor, L.S.A., Llanishen, near Cardiff, of Guy's Hospital.

Sixteen candidates were rejected.

The following gentlemen were admitted Members on the 23rd instant.

Messrs. J. N. Anwyl, L.S.A., Manchester; E. Humphry, L.S.A., Brighton; G. S. Leggatt, L.S.A., Highbury Hill, of St. Bartholomew's Hospital; S. L. Deeble, L.S.A., Netley; and C. B. de E. Chamberlain, L.S.A., Southsea, of University College; A. C. Ingle, L.S.A., Cambridge, Cambridge School; E. J. Bower, L.S.A., Craven Street, W.C., of Charing Cross Hospital; H. H. Ballachey, L.K.Q.C.P.I., Edgefield, Norfolk, Glasgow School; T. G. Langhorne, Holland Park Gardens, of the London Hospital; R. C. Priestley, L.S.A., Hertford Street, W., of King's College; H. H. Lovell, Barnstaple, of St. Mary's Hospital; W. B. Mackay, M.D.Ed., Lancaster Road, W., of the Edinburgh School; H. E. South, L.S.A., Balham, of St. George's Hospital; G. Cree, L.S.A., St. John's Park, of Middlesex Hospital; and G. G. Adams, L.R.C.P.Lond., Clifton, of the Bristol School.

Eleven candidates were referred.

The following gentlemen passed on the 26th instant.

Messrs. A. A. Orr, B.A.Oxon., Charlotte Street, W., F. H. Napier, Lancaster Gate, Z. B. Mudge, Hayle, Cornwall, R. T. Fetherstonhaugh, L.R.C.P.Lond., West Dulwich, and R. Pollard, M.B.Durh., Torquay, of St. Bartholomew's Hospital; F. E. Little, Halsey Street, S.W., and H. M. Page, Westbourne Park, W., of St. George's Hospital; P. M. O'Brien, Liverpool, of the Liverpool School; B. Relton, L.S.A., Ealing, of St. Thomas's Hospital; J. H. Hacking, L.R.C.P.Lond., Old Trafford, of the Manchester School; J. K. Lewis, L.S.A., Greenwich, of Charing Cross Hospital; and H. W. Windsor-Aubrey, Hale, near Salisbury, of the Bristol School.

Twelve candidates were rejected.

The following passed on the 27th instant.

Messrs. T. E. Hillier, Cornwall Residences, N.W., E. W. Reid, Canterbury, and G. D. Haviland, Hawkhurst, of the Cambridge School; W. J. Winckler, L.R.C.P.Lond., Ampthill Square, N.W., R. T. Bowie, L.R.C.P.Lond., Forres, N.B., P. Flemming, Regent's Park Road, and S. C. Jones, Llandyssul, of University College; T. W. B. Burn, West Brixton, of St. Bartholomew's Hospital; R. Emmett, Clapham Common, of St. George's Hospital; E. Goodall, Portsdown Road, W., R. Moody-Ward, St. Thomas's Street, G. P. Norman, Belsize Square, N.W., and G. T. Cattell, Brixton, S.W., of Guy's Hospital: C. U. Laws, Newcastle-on-Tyne, of the Newcastle School; and A. Roberts, Bishop's Stortford, of the London Hospital.

Six gentlemen passed in Surgery, and, when qualified in Medicine, will be admitted Members of the College. Ten candidates were rejected.

The following gentlemen passed on the 28th instant.

Messrs. J. McK. Ackland, Southernhay, of Charing Cross Hospital; M. G. Dundas, L.S.A., Forest Gate, E., of Guy's Hospital; and O. F. Wunderlich, L.R.C.P.L., Wallace Road, N., of St. Bartholomew's Hospital.

Three gentlemen who had previously qualified in Surgery, having passed in the additional subjects, were also admitted Members.

Messrs. J. H. Sellick, Reigate, H. E. Jones, St. Thomas's Terrace, S.E., and F. Heatherley, Newman Street, W., students of Guy's Hospital.

Eight gentlemen passed in Surgery, and, when qualified in Medicine and Midwifery, will be admitted Members. Two candidates were referred for three months, and eleven for six months.

At a recent meeting of the Board of Examiners, Mr. P. W. Men of the Bristol School of Medicine, passed his examination in Anat only.

APOTHECARIES' HALL.—The following gentlemen passed t Examination in the Science and Practice of Medicine, and rece certificates to practise, on Thursday, January 22nd, 1885.

Bluett, George Mallack, University College.
Bowman, Henry Claxton, Manchester Royal Infirmary.
Cox, Alfred Harold Lissant, King's College.
Cox, Joseph Bethel, St. Bartholomew's Hospital.
Cree, Gerald, Middlesex Hospital.
Earls, James Henry, Dublin.
Halliday, Henry, Leeds School of Medicine.
Roach, George Ernest, Guy's and London Hospitals.
Scott, Joseph Sandbach, Manchester School of Medicine.
South, Henry Erskine, St. George's Hospital.
Taylor, John Francis, London Hospital.
Venis, Walter, King's College.
Watts, Henry Ernest, Westminster Hospital.

The following gentlemen also on the same day passed their Prir Professional Examination.

Cundell, W. H., St. Mary's Hospital.
Winship, W. A., Newcastle-on-Tyne College of Medicine.

MEDICAL VACANCIES.

The following vacancies are announced.

BALLYSHANNON UNION.—Medical Officer. Kinlough Dispensary. S £120 per annum and fees. Applications to Mr. Clancy, Honorary Secre Stracomer, Kinlough, by February 2nd.

BRIXTON, STREATHAM, HERNE HILL, AND ANGELL TOWN DIS SARY.—Honorary Medical Officer. Applications to Mr. Faulkner, 45, Road, Dulwich Road, S.E., by February 3rd.

DERBY AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIA —Surgeon. Salary, £160 per annum. Applications to Mr. J. Bullivan Abbey Street, Derby, by February 9th.

DONCASTER GENERAL INFIRMARY AND DISPENSARY.—House-Su Salary, £100 per annum. Applications by January 31st.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHAR Honorary Physician. Applications to Mr. J. Lewis, 17, Bartlett's Bui Holborn Circus, by February 9th.

FISHERTON HOUSE ASYLUM, Salisbury.—Medical Officer. Applicati Dr. Finch.

GENERAL INFIRMARY AT GLOUCESTER, AND THE GLOUCE SHIRE EYE INSTITUTION.—Physician. Applications by February

JESSOP HOSPITAL FOR WOMEN, Sheffield.—House-Surgeon. Salar per annum. Applications by January 31st.

LEICESTER UNITED FRIENDLY SOCIETIES' MEDICAL ASSOCIA 114, High Cross Street, Leicester.—Resident Medical Officer. Salary per annum. Applications to the President by February 4th.

MACCLESFIELD GENERAL INFIRMARY.—Senior House-Surgeon. £100 per annum. Applications to the Chairman, House-Commit January 31st.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer for the Hospital, Monsall. Salary, £200 per annum. Applications by Februa

MIDDLESEX HOSPITAL, W.—Medical Registrar. Applications by ary 31st.

MOTHERS' LYING-IN HOME, Juniper Street, Shadwell, E.—Medical Applications to Mrs. Ashton Warner, by February 2nd.

MOUNTJOY CONVICT PRISON.—Assistant Medical Officer. Salary, annum. Applications to the Under Secretary, Dublin Castle, by ary 10th.

NAAS UNION.—Medical Officer, Newbridge Dispensary. Salary, £ annum and fees. Applications to Michel Flood, Honorary Secreta bridge, to February 5th.

OWENS COLLEGE, Manchester.—Lecturer in Dental Mechanics and in Dental Metallurgy. Applications to the Registrar by January 31st

PARISH OF BIRMINGHAM.—Resident Second Assistant Workhouse Officer. Salary, £130 per annum. Applications by January 31st.

RADCLIFFE INFIRMARY, Oxford.—Resident House-Physician. Salary annum. Applications by February 14th.

ROTHERHAM HOSPITAL AND DISPENSARY.—Resident House- Salary, £100 per annum. Applications by February 1st.

ROYAL HOSPITAL OF BETHLEHEM.—Assistant Medical Officer. £300 per annum. Applications by February 12th.

ROYAL INFIRMARY AND GENERAL DISPENSARY, Aberdeen.—P Salary, £100 per annum. Applications to Mr. W. Carnie, 27, Street, by February 1st.

SALFORD AND PENDLETON ROYAL HOSPITAL.—District Surgeon £80 per annum. Applications by February 1st.

SUSSEX COUNTY HOSPITAL, Brighton.—Physician and Assistant-P Applications by February 11th.

TOWNSHIP OF MANCHESTER.—Resident Assistant Medical Officer. £140 per annum. Applications endorsed "Medical Appointm February 7th.

UNIVERSITY OF OXFORD.—Lecturer in Human Anatomy. Salary, £ plications to the Secretary of the Common University Fund, New Oxford, not later than February 1st.

WICKLOW CO. INFIRMARY.—Medical Officer. Applications to Rev. Honorary Secretary, The Parsonage, Wicklow, before February 11th.

MEDICAL APPOINTMENTS.

ETT, George Mallack, M.R.C.S. and L.S.A., appointed House-Surgeon to the London Temperance Hospital, Hampstead Road, N.W., *vice* Harold Simmons, resigned.

TON, George Augustus, M.A., M.B., B.C., M.R.C.S., appointed Senior House-Surgeon to the Ardwick and Ancoats Hospital, Manchester, *vice* C. A. G. Robertson, M.R.C.S., resigned.

OT, Ernest F., L.R.C.P. and L.M.Ed., L.S.A.Lond., appointed Medical Officer to the Reformatory School for Boys, Saltley, Birmingham.

RRIS, Thomas, M.D.Lond., appointed Pathological Registrar to the Manchester Royal Infirmary, *vice* Robert Maguire, M.D.Lond., M.R.C.P., resigned.

ATH, Charles J., M.R.C.S., L.S.A., appointed Senior House-Surgeon to the Preston and County of Lancaster Royal Infirmary, Preston, *vice* G. M. King, L.R.C.P.Edin., L.R.C.S.I., resigned.

SON, L. J., M.D.Lond., B.S., F.R.C.S.Eng., appointed Honorary Medical Officer to the Harrogate and Bath Hospital, *vice* A. Ford, F.R.C.S.Ed., resigned.

DSON, T. J., M.D., appointed Medical Referee to the English and Scottish Law Life Assurance Association, and to the National Life Assurance and Endowment Company for Leeds and District.

ERTSON, R. S., M.R.C.S.E., L.R.C.P.Ed., appointed Junior House-Surgeon to the Ardwick and Ancoats Hospital, Manchester, *vice* H. Scott, M.B., resigned.

RTERS, William A., L.R.C.P., L.R.C.S., L.M., appointed Assistant Medical Officer to the Nottingham Friendly Societies' Medical Institution.

BIRTHS, MARRIAGES, AND DEATHS.

charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTHS.

WFORD.—At 5, St. John's Park, Blackheath, on January 21st, the wife of Dr. Crawford, Director-General Army Medical Department, of a son.

VER.—At 3, Eldon Square, Newcastle-upon-Tyne, on January 19th, the wife of Thomas Oliver, M.D., M.R.C.P.Lond., of a daughter.

DEATHS.

DING.—On January 24th, 1885, at Shefford, Bedfordshire, from locomotor ataxy, aged 52, Charles Culledge Balding, M.R.C.S. and L.S.A., formerly of H.M. Medical Staff in Crimea, second son of the late James Balding, M.R.C.S., of Barkway, Herts.

LDAN.—At Brownhill Villa, Ayr, N.B., on January 17th, in his 74th year, Bernard Haldan, M.D., L.R.C.P.Edin., L.R.C.S.Edin., and L.S.A.Lond., late of Preston.

ES.—At 1, Loraine Place, Holloway, N., on January 21st, Dr. Derry Jones, aged 41 years.

T. JOHN AMBULANCE ASSOCIATION.—Advices by last mail report t very encouraging progress is being made at the Victoria Centre of St. John Ambulance Association; and that the Duke of Manster and the Governor, Sir Henry Loch, as representing the pter of the Order of St. John, had consented to attend a public ting called to give further impetus to the movement.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

NDAY.—Medical Society of London, 8.30 P.M. The Lettsomian Lectures will be delivered by Dr. T. Lauder Brunton. Subject—Digestive Disorders: their Consequences, and Treatment. Lecture III.—Treatment of Indigestion; Removal of Causes; Imperfect Mastication; Fatigue; Injurious Mental Influences; Regulation of Diet; Cookery; Gastric Tonics and Stimulants; General Tonics; Removal of Waste; Aperients; Diuretics; Alteratives; Exercise; Treatment of Symptoms affecting Special Organs.—Odontological Society of Great Britain, 8 P.M. Casual communications by Messrs. Storer Bennett, Walter H. Colfin, and Arthur S. Underwood. Inaugural Address by President.

ESDAY.—Pathological Society of London, 8.30 P.M. Dr. Carrington: Cancer in a Cirrhotic Liver and Adrenals, with Pigmentation of Skin and Viscera. Dr. Coupland: 1. Atrophy of Adrenals with Addison's Disease; 2. Case of Addison's Disease (card). Dr. Barlow: Atrophy of the Adrenals. Dr. Sainsbury: A Case of Addison's Disease. Dr. Norman Dalton: Infiltrating Growth in Liver and Adrenals of an Infant. Dr. Norman Moore: Cases of New Growth in the Intestine. Dr. Hale White: Myo-neuroma of the Pituitary Body. Mr. D'Arcy Power: A Knee-joint Seventeen Months after the Performance of Ogston's Operation. Mr. Bowlby: Tumour of the Pituitary Body. Dr. Goodhart: Tumour of the Pituitary Body in a Baboon (card). Dr. Hadden: 1. Misplaced Kidney, with Short Ureter (card); 2. Foreign Body in Trachea (card); 3. Detachment of Peritoneal Coat of Small Intestine from Injury (card).

DNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown. Dr. McKeown: The Prevention of Ophthalmia Neonatorum and its Ravages. Dr. Murphy: Sequel to a Case of Ovariotomy. Annual Meeting. The President (Dr. Gervis) will deliver the Annual Address.

RSDAY.—Harveian Society of London, 8.30 P.M. Mr. W. H. Evans: A Case of Labour complicated by Vaginal Hernia. Mr. G. Cowell: Purulent Ophthalmia in Infants.

DAY.—West London Medico-Chirurgical Society, 8 P.M. Discussion on Myxœdema. Dr. F. D. Drewitt: On Myxœdema. Mr. Larder; Notes on Three Cases of Myxœdema, with Remarks on the Clinical Features of the Disease. Dr. Atkinson: Notes of a Case of Myxœdema. Several patients will be shown by the readers. Mr. Swinford Edwards and Mr. P. Dunn will show some morbid specimens.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th.,; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

Vaginal Examinations.

Sir,—With the view of obviating the necessity (which many patients very naturally object to) of having another woman in the room while I make a vaginal examination, and yet to protect myself if I examine my patient alone I have long thought of adopting the following plan, namely, to make the patient sign a certificate that she of her own will submits to a medical examination. Would this be considered unprofessional or unadvisable?—Your obedient servant,

M.D.

Appointment of Dentist to Pauper Schools.

Sir,—In the remarks in your issne of the 10th instant upon the appointment of a dentist at the North Surrey District Schools at Anerley, you have fallen into an error in giving credit to the Local Government Board for their wisdom in making such provision.

Although the schools are under the supervision of the Local Government Board, the appointment of a dentist is in no way due to their suggestion or instrumentality, nor, as at present advised, do I believe it even requires their consent and approval.

The credit of setting an example to other similar institutions by making the provision, the wisdom of which you truly say is obvious, belongs solely to the managers of the schools, by whose desire I recently issued an advertisement in your Journal, inviting candidates for the post.

It is but fair to add that the managers were in some measure led to make the appointment at this particular time at the suggestion of the medical officer of the schools, Mr. Henry J. Prangley.

I shall feel obliged by your inserting this correction in your next issue.—I am, sir, your obedient servant,

Howard J. Chaldecott,
Clerk to the Managers.

Dorking.

Selection of Out-Patients at Hospitals.

Sir,—I quite agree with what Mr. Kesteven has written on this subject. The hospitals were intended for the very poor, and this is the very class that the system of small payments excludes. A more effectual remedy against the present abuse would, I believe, be found in a conspicuous notice to the following effect: "This hospital is intended solely for the poor. Patients' addresses will therefore be verified; and if the head of the family be found to earn more than thirty-five shillings per week, the usual physicians' charges will be made, and the account sent in at the end of the attendance."—I am, sir, yours faithfully,

Ralph W. Leftwich, M.D.

Non-Penetration of the Lining False Membrane: an Unnoticed Danger in Tracheotomy.

Sir,—The writer of an article under the above heading, in the Journal of January 17th, will find a case very similar to his recorded by Trousseau (*Clinique Médicale*, 4me ed., tome i, p. 549). In Trousseau's case, however, after the withdrawal of the cannula and the introduction of a dilator, the membrane presented in the wound, and was removed by means of forceps; but, as the disease had extended to the bronchial tubes, the fatal termination was not long delayed.—Your obedient servant,

William A. FitzGerald, M.D., F.R.C.S.I.

Sir,—At page 127, Mr. Ashby G. Osborn reports a case where the trocar passed behind the false membrane, not penetrating the cavity of the trachea. A glance at Section 621 : 3 of the *Medical Digest*, under the heading "Dangers," will show that Pitha, in 1860, warned us against such accidents.—Yours obediently,

Richard Neale, M.D.Lond.

60, Boundary Road, South Hampstead, N.W.

Erratum.

In the Journal of January 10th, page 95, line 51 from bottom, for "exomphalos," read "exophthalmos." Line 47 from bottom, for "The entire calculus weighed 4½ ounces," read "One calculus weighed 4½ ounces; the other 4 ounces." At page 109, column 2, at the end of Mr. J. Startin's letter, for "House-Surgeon" read "Honorary Surgeon."

Nursery-Maids as Carriers of Infection.

Sir,—It having fallen to my lot to attend to a low-class practice for some time, I have made observation of what I believe to be a very common origin for some of the cases of infectious disease which we meet with among our better patients. I am unaware if the cause I am about to mention has been noted before with any stress, though I should think this very probable; however, personally I believe it will account for some of those cases of infectious disease occurring in well-to-do families where every source of infection seems to have been sought for and excluded.

Over and over again, when visiting cases of measles, scarlet fever, pertussis, and even diphtheria and typhus, in the back streets, alleys, and courts of our city, have I noticed perambulators at the door, or well dressed young children waiting about the lower room, while the respectable-looking nursemaid, naturally anxious about the sick brother, sister, or parent, is visiting the subject of infectious disease. These visits are repeated when the maid takes her charges for a walk; and, even if the children should not come into contact with the sick person, it is easy to see how the nurse-girl becomes the mediate agent in the transmission of the disease to her employer's house. Often, too, do servants in general spend the day, or evening, in nursing some sick relative or friend. In a recent case, I remember this relative was the subject of diphtheria. I have warned and scolded maids whom I have caught *in flagrante delicto*, and have endeavoured to discover their employers; but the effect has not been satisfactory, the chief result being increased vigilance to escape the medical man's observation. It is often remarkable to see the squalid homes and miserably poor and degraded relations to which clean, respectable, and well dressed servants often belong; and maids from the best families may return to a home where everybody herds in one or two dirty rooms.

I am aware that the cause to which I draw attention is a difficult one to discover or to avoid by those most concerned; perhaps, in these days of energetic sanitary inspection, it may come more under control. The obtrusive preventive sanitation of to-day will not shrink from the investigation of the home-history and the family-arrangements of our servants, when it has been able to induce so many of us to swallow, and even look as if we liked, the larger pill of general compulsory notification of infectious disese.—Sincerely yours,

Liverpool

John D. Hayward, M.D.Lond.

Practice in Canada.

Sir,—Would you, or any of your correspondents, kindly give me all particulars to medical practices in Canada? What are the general fees? Are there ma Government or other appointments? Are there openings for medical men Ottawa or Winnipeg? and would much capital be required to start with? Is usual for medical men to dispense their own medicines? Answers to the questions, also any other information, I shall esteem it a great favour to receiv —I am, sir, yours faithfully,

Omicron.

Grey Hair.

"Thirty-Five Years" asks for a good and not troublesome recipe for dyeing gr hair black.

Carriages for Medical Men.

Sir,—Having kept carriages of all kinds during the past twenty years, I find that t safest, cheapest, and most comfortable vehicle for country work, is a machine had built about two years ago. It is like the lower part of a hansom, the s being down close to the axle, and is therefore so low as to need no step, a one is in no danger of being hurt should the pony fall. It is drawn b creature twelve hands high, which, my groom says, is kept for 4s. 6d. a wee I often go out alone, and sometimes find one wheel up a bank, but never turn over, as a gig would be under such circumstances. The back comes to shoulders, so that I find it as pleasant as my brougham or Victoria. I am hav a movable head made to it, with a view to a four months' drive shortly. I no draughtsman, or would send you a sketch of it, but shall be very pleased give any of your readers further information, or an opportunity of trying it

Yours, etc., W. Hardin

West Drayton, Middlesex.

Four Consecutive Twin-pregnancies.

Sir,—While acting as *locum tenens* for a dispensary doctor in the county Wicklow April, I delivered a farmer's wife of twins, both healthy children. In conversati the woman told me she had been five years married, and on three previ occasions she had been delivered of twins, one child only being alive whe was in attendance. She also told me one had been born with a hare-lip, otherwise deformed about the face. On the local medical officer returning f leave, he informed me that her statement was correct.—Yours faithfully,

Tullow, co. Carlow. Wm. W. Fenton, M.I

Medical Study in Vienna.

Sir,—Can any of your correspondents favour me with some information conc ing the opportunities for clinical study in Vienna, especially in the departm of ophthalmic surgery and midwifery? Is a knowledge of German indisp able?—Yours truly,

S. H.

The Climate of Colorado.

Sir,—Would any member kindly give me, through the columns of the Journa few statistics as to the climate of Colorado, and its suitability for phthi subjects?—I am, etc.,

Jas. Hudson, M.B.Lon

Home for a Hystero-Epileptic.

Sir,—Can you or any of your readers kindly inform me of some institutio home where a girl of 13, who suffers from what is, apparently, hystero-epile could be placed, by the payment of a moderate sum weekly? The parents poorly off, and the child has been both at the Evelina and Great Ormond St Hospitals; but no actual diagnosis appears to have been made. When attacks are occurring with frequency—a dozen or more during the day—sh quires constant watching, to prevent injury to herself or others.

I shall be very much obliged for any information received.—I am, sir, y obediently,

W. Gripper, M.

Featherstone Villa, Wallington, Surrey.

A New South African Sanatorium.

Resort to African health-stations is apt to be associated in the mind with idea of long rough journeys in bullock-wagons, ending in rough and not comfortable quarters. We therefore are glad to learn of a new sanatorium- farm of Grasslands, which can be easily reached, and where much comfort be had. Among the supplies procurable, very superior mutton, and abun of excellent milk and cream are prominently mentioned. We wish tha accounts furnished of the place were more definite, especially that we ha tinct notions of its climate and altitude. Some of our readers may like a short abstract of a rather diffuse account of the farm given in a recent paper.

"This sanatorium is situated about twenty-six miles from Grahamstown lies between Fort Brown and Committee's Drift. Grasslands is admi suited, in every way, for a sanatorium, and already several individuals been there, and have improved wonderfully in the course of a few days. scenery of the farm is varied, and far-stretching views are obtained from side; the atmosphere is health-giving, from the high altitude of the plac the homestead is spacious, well furnished, and thoroughly comfortable. house has been planned to secure an even temperature, and even on the h day some of the rooms are beautifully cool. By the aid of a verandah possible at any hour of the day to find a shady seat. The farm spreads o elevated piece of country, broken up into picturesque depressions, covere wood, and sloping away in all directions, on one side towards the Fish the silver line of which can be seen in the distance. When the adjacent l covered with mist, Grasslands is bared to the morning air; in the sum catches the gentle winds that blow, and in the winter it gets the sun a long. There are a tennis-court and rifle-ranges, and quiet horses for ladie sturdy cobs for gentlemen."

Dr. Macleod should inquire at the Home Office. We have no precise in tion on the subject.

Treatment of Vaccination-Vesicles.

Dr. Illingworth says that, having used the following prescription duri last five years for inflammation after vaccination, he has never found It is a mixture of zinc-ointment (3vj), glycerine (3iss), and carbolic ac It should be applied to the vesicles on the eighth day. If there should inflammation round them, it should be gently rubbed in with the finge then applied on linen twice a day.

Enquirer should communicate with the Secretary of the Faculty of Phy and Surgeons of Glasgow.

A Teaching University for London, and the University of London.

,—The medical students of London are placed under a deep obligation to you y the powerful articles in your Journal in reference to the above subject. It ; high time that something should be done to enable them to obtain degrees in ıedicine with the like facilities of those residing in other university towns, ıch as Cambridge, Edinburgh, etc.

Why could not a teaching university, on the lines of Edinburgh or Cambridge, e established in London with University and King's Colleges as a basis? No oubt plenty of endowments would soon fall in to establish scholarships and ·llowships, and found chairs. Students would flock to it from our own country, ; well as from the colonies and abroad; and an institution would soon be estab- shed worthy of our great metropolis, with its 4,000,000 of inhabitants.

Cambridge recognises the wants of the times, and supplies them as far as she ın by altering her regulations from time to time, founding cheap colleges, etc.,) that any fairly well educated and industrious student, even without much eans, can now go to Cambridge for three years, with the certainty of being able) take an ordinary degree in arts at the end of that period, and in medicine, so, after another two years' study; but, on the other hand, if he be an excep- ·nally clever youth, he has abundant opportunities of showing his powers in ıe various triposes, etc. This University is evidently established for the masses, ıd not for the chosen few. The medical examinations, also, have been so vided in character, that students can now take them in parts, which is a great ·on to many who can take up a few subjects well, that would entirely fail if ey were compelled to take up a number.

Much the same may be said of Edinburgh, where, after a four years' residence, hard working student feels sure of being able to take a degree; and, if he have e ability, he may show it by some original work in his thesis for the M.D., or · obtaining some one of the various scholarships or fellowships open to edical students.

The former University will undoubtedly attract all the more wealthy of the ıglish medical students, as is being shown by their recent pass-lists, and the tter, with the other Scottish universities, most of the less wealthy, who aspire a degree.

The ambitious student is naturally anxious to take a degree, and will conse- ·ently pass several years in an university town, even if it be on "the top of ·n Nevis," as Dr. McVail very aptly puts it, and will go to London merely for ·ear's practical work; while the London students proper will be composed of ·ose—few in number—who seek the London University degrees, and those who e content with the ordinary qualifications only. These latter will grow less ·m year to year, as the need and worth of a degree become more and more own in general practice.

The University of London, supposed to be founded on such liberal principles, practically, so far as medicine is concerned, most conservative. If it carried t its principles, as an examining board only, in its entirety, it should merely amine medical students, and not lay down most exacting and arbitrary periods study, which, with their annual examinations, are well nigh prohibitive, cept to a few who can afford to spend considerable time and money in ful- ling their present regulations; or if the Senate were not prepared to go that ıgth, they might at least allow students to go up for the various examinations er four years of study at a recognised school of medicine, never mind when at study took place—before or after matriculation—and that no further study ould be required.

The matriculation and preliminary scientific examinations should be held ree times a year, and every other examination twice, excepting, perhaps, those the degree of Doctor in the different faculties. If this be taken exception to the ground of expense, let the Government be appealed to for increased ıds, and a larger fee demanded of candidates for degrees.

Candidates, also, ought to be allowed to take the matriculation and preliminary entific in two parts; or if they passed in a certain number of subjects—say a f—those subjects should be allowed them, and they should be required to ng up those only in which they had failed at any subsequent examination. e organic chemistry of the intermediate M.B. might be added to the pre- inary scientific, so as to get the whole of the scientific part of the examina- n over, and then one could go direct to the strictly medical subjects. If the ·jects of the intermediate M.B. remain as they are at present, candidates ght to be allowed to take them in two parts—anatomy and physiology, and teria medica and organic chemistry—as well as those of the final M.B.

ıs the University is merely an examining body, and its matriculation is :nowledged to be the most severe of its kind, as well as the arts examination medicine, law, and science, the Senate may fairly give those who pass it some ·ignation—such as L.A., Licentiate in Arts—which would increase its value, l produce a much larger number of candidates for the examination. Having ·sed a matriculation examination may mean a good deal or nothing. Several leges at Oxford—Baliol, New, etc.—have a severe one, others less so; while formal matriculation in the University means simply enrolling your name its books.

ıuch the same holds good at Cambridge, where only a few colleges—Trinity, g's, Caius, Trinity Hall—require an examination, and the University none ll. Many of those who pass the London matriculation, both male and ıale, are subsequently engaged in tuition and other walks of life where the session of some designation such as that stated above would be of immense antage. The terms Matriculation, Scientific, Undergraduate, University of don, are too long and meaningless, except to those connected with the Uni- ·sity, to be of any use at all in ordinary life. One may frequently see ched to a school, Mr. ———, London University; or, amongst the candidates ained by some of the bishops, Mr. ———, London University, which means, ıppose, that they have matriculated. A very large number of those who ·r for matriculation never intend going further, but merely want evidence of ·eral education, which evidence, however, is so unwieldy and little under- ·d outside the University, that it practically becomes of no moment.

the present time, there is a general examination-mania pervading the le country, from the Board-school upwards to the university, producing a ous nightmare, and giving us very little time to think. This certainly s in medicine to a marked degree; for, although one may have the London ·ersity degree, yet if you require the ordinary qualification of the College of ·icians or Surgeons, you must undergo their examinations; and, indeed, it ly within the last few years that either College has recognised the examina- of the other in part. Here has been a waste of time and strength, which r. Crichton Browne might very justly censure.

is does not hold good amongst lawyers and barristers. They pass a pre- liminary and two professional examinations, and have then done with them, whether they become Lord Chancellors, judges, or otherwise.

Surely some scheme for a teaching university of London may be formed, at which the intelligent industrious medical student may spend his four years with a certainty of obtaining a degree after passing a reasonable number of examinations.

Universities are generally created for the masses, and not for the few, although the latter seems to have been the object of the London University, so far as regards the London medical student. (See other evidence bearing on this point in British Medical Journal of January 10th, 1885, page 101, under the heading of "Medical Logic.")

I would advise any students commencing the study of medicine to go to Cambridge for three years, or Edinburgh for two, and spend the remaining two in London, passing the examinations of their respective universities, and avoiding all others, if they value their health and success in after-life.—I am, sir, yours faithfully,

An Undergraduate in Medicine.

Malta as a Health (?) Resort.

Sir,—There appears to be so much misapprehension in the minds of the medical faculty at home as to the desirability of Malta as a health-resort, that I beg to give them the experience of some months' sojourn in that island. We may—for English visitors—pass over the summer, with its debilitating heat, frightful glare, indifferent water, and bad remittent fever, with diphtheria; and commence with "the season" in winter. English visitors are practically restricted to residence in the town of Valletta (where everything is "going on"), or its low-lying suburb Sliema. The former is one of the most overcrowded places in the world. There are no localities or houses set apart for visitors; all the residences are on the first to third floors of houses, whose cellars and ground-floors are occupied by hordes of native families, shops, or the less unsavoury stable; so that the noise, smells, and unsanitary conditions may be better imagined than described; slumber is broken by jarring bells, and most discordant street-vendors' cries. The rent for these abodes is exorbitant, the servants provoking, and food, when not procurable (as during quarantine) from abroad, most indifferent. The streets are so narrow, and the houses so high, that ventilation is obstructed; the footways are so badly paved, that walking is attended with the danger of a sprained ankle, etc.; and driving on the roads is, owing to the jolting, most painful to anyone, to say nothing of invalids. The Government are carrying out the much needed and most necessary drainage-works; but, in the meantime (as during the summer), the sewers are being opened up, the fæcal-polluted soil is exposed to the air, and disgusting poisonous emanations lower one's vitality, even if not communicating disease. Then there is no "country" to escape to. The only roads are between stone walls, and either dust-enveloped or muddy. There are no trees to speak of, no vegetation except crops, so that there is nothing pleasant to the eye, or good for the lungs. All this renders abortive the single condition favourable to health in Malta, namely, an equable climate; and just now the severe prevalence of its endemic typhoid fever, and malignant diphtheria, has carried grief and mourning into many English families who came to Malta "for their health." The Maltese will not subscribe a penny to do away with many of the removable causes of diseases; their only idea is to get much out of, and "do," "the foreigner" in every way; and many "foreigners" have expressed their utter astonishment at being so misinformed about "Melita," and regret they were led to come to it.—Your obedient servant,

A Surgeon, Member British Medical Association.

On a Cheap Form of Artificial Leg.

Sir,—Will you kindly allow me to make one or two observations, which, although they may partake somewhat of the nature of criticism on a communication under the above heading in your issue of January 10th, are intended chiefly to direct attention to some cheaper substitutes for the expensive artificial limb? Mr. Barwell assumes that persons suffering from the loss of a leg or foot have only the alternative of an expensive artificial one or a common pin-leg. He ignores the fact that for amputations below the knee nearly all surgical instrument-makers supply a cheap substitute, consisting of a leather case for the stump, terminating in a wood-block at the bottom shod with leather, and held on by a leather thigh-case strapped or laced in front; the upper and lower parts being connected by leather straps when there is a fair length of stump below the knee, or by steel joints when it is short. Such an arrangement is (altogether apart from the question of expense) better and less cumbersome than a complete artificial leg for persons who are engaged in any heavy work. I may mention that the firm of which I am a member has made limbs of this construction for many years at a price as low as that charged for pin-legs (25s.). For amputations above the knee, a somewhat different arrangement is used, consisting of a wood or leather thigh-case, and a flat wooden lower part attached to the thigh-case by a movable joint acting as a knee-joint, and thus doing away with the inconvenience experienced with the pin-leg.

The improved form of leg proposed by Mr. Barwell, with steel side-supports, appears, with one exception, to be a precise copy of a leg made in Paris; the French leg, however, being superior in the lower part, where, instead of the steel side-pieces being rigidly fixed to the foot, and rendering necessary a curved sole, the ends are formed with holes, and a round steel pin, passing through them and through the foot, forms a very neat ankle-joint. The place of the tendons is supplied by pieces of ordinary elastic web attached to the foot before and behind the joint, and, as they are not concealed, are, when worn out, easily renewed by the wearer. I might suggest to Mr. Barwell a slight improvement in his arrangement for amputation above the knee; it is to omit the stop rendering the knee rigid in walking, and to apply springs of India-rubber cord, so as to straighten the knee-joint when bent; such springs could be applied with little trouble, and would improve the action of the leg in walking.

In conclusion, I may say that the chief disadvantages of the proposed forms of leg are: 1, the liability to breakage of the steel side-pieces unless made very heavy; 2, the great strain and consequent rapid wearing of the knee-joints, which have to carry the whole weight of the body of the wearer. In this matter, I speak from experience, having made new joints and also a new leg, copied from an old French leg, for a customer.—I am, yours obediently,

Nottingham. J. Selby.

Medical Practice in the Argentine Republic.

Sir,—Having read a letter in the Journal of January 10th respecting practice in the Argentine Republic, I should be glad if you or some of your readers could give me any further information, both as regards the mode of starting practice there, and also as to the climate and amount of capital required to begin. Hoping some-one will reply to these questions soon, I am, yours truly, J. T. B.

The Choice of an Anæsthetic.

Sir,—Will you kindly inform me with whom the responsibility and choice of an anæsthetic lies—the operator or the administrator? I say the latter, but have been led to believe that the surgeon usually decides. My reason for asking is, that I prefer chloroform to ether.—I am, sir, yours obediently,

Anæsthesia.

*** The responsibility in question falls upon the anæsthetist, and the choice of the anæsthetic should, therefore, rest also with the administrator. The surgeon, in our experience, usually leaves to the administrator the choice, and does not particularly care what vapour is used so long as his operation is rendered painless, and the patient recovers from the anæsthesia without accident of any kind. The choice of the anæsthetic, however, which depends upon many different conditions—the age of the patient, the nature of the operation, etc.—is generally a matter of amicable arrangement between the operator and administrator. Our correspondent appears to fear that his choice may not be acceptable to every surgeon, and wishes, perhaps, to enlist some authority on his own side, in view of a future possible divergence of views. May not the fear of such conflict arise from an apprehension that his preference of chloroform to ether is not now generally entertained by surgeons, at any rate, for operations upon adult patients? And, if this be so, would not our correspondent do well to endeavour to assimilate his views to the opinions of those who often have the choice of an anæsthetist, even if to the latter gentleman belong the selection of the anæsthetic to be used?

Certifying Factory Surgeons.

Sir,—Could you, or any of the readers of the Journal, let me know how certifying factory surgeons are appointed? Is it by seniority in age, or residence, or qualifications? or has influence anything to do with it?—I am, etc.,

Member British Medical Association.

Royal College of Surgeons of England.

The following were the questions in Surgery, Medicine, and Midwifery, submitted to the candidates at the final examination for the membership on January 20th. *Surgical Anatomy and the Principles and Practice of Surgery.* (Four questions at least to be answered, including one of the first two.) 1. How would you amputate the thumb at its carpal articulation? What parts would be divided in the operation? 2. Give the attachments and relations of the scalenus anticus muscle, with special reference to ligature of the subclavian artery. 3. You are called, four or five days after its infliction, to a case of punctured wound of the palm, which was attended at the time of the accident with copious hæmorrhage. This being repeated, what modes of treatment are open for adoption? State your reasons for the particular method which you would select. 4. What are the causes of gangrene? How is dead tissue separated from the living? 5. What are the xarieties and complications of compound fracture of the tibia and fibula? How would you treat them? 6. Describe the symptoms, treatment, and prognosis of foreign bodies in the pharynx and œsophagus.—*Principles and Practice of Medicine.* 1. Describe a fit of ague. Point out the etiology, varieties, pathological effects, and treatment of this complaint. 2. Give an account of the causes, morbid anatomy, symptoms, and treatment of acute peritonitis. 3. Describe the physical signs of (*a*) pericardial effusion, (*b*) emphysema with chronic bronchitis, (*c*) cancer of the liver. 4. Mention the important ingredients in the following officinal preparations, and indicate briefly their actions and therapeutic uses, with their doses:—Confectio sulphuris, liquor arsenicalis, mistura ferri composita, pilula ipecacuanhæ cum scillâ, pilula saponis composita, pulvis kino compositus, pulvis elaterii compositus, spiritus ammoniæ aromaticus, and tinctura colchici.—*Midwifery and Diseases of Women.* 1. Describe the mechanism of labour, with the head presenting in the right oblique diameter and the occiput posterior. 2. What is the meaning of the terms "uterine inertia" and "tonic contraction of uterus?" How would you distinguish between these conditions? 3. Describe a case of phlegmasia dolens from its commencement to its termination in recovery. What are the dangers incident to this disease? 4. What are the conditions which give rise to menorrhagia? How would you treat them?

Hospitals for Morphinism.

Sir,—I observe that one of your correspondents has inquired as to the existence of any hospitals for the treatment of morphinism, and your answer agrees with the result of my own inquiries, that there are none in this country. Yet it is to be feared that cases of morphinism, resulting from the abuse of hypodermic injection and the taking of chlorodyne and other opiates, are of frequent occurrence, and are becoming more common every day, as is the case also with chloralism. The first step in the treatment of such cases, as in common alcoholic inebriety, is to remove the patient from all the surroundings which are associated with the formation of the habit, and to launch him on an entirely new career of healthy physical and mental occupations. I have been accustomed to take, or to send, under suitable medical supervision, such patients to travel abroad; but this, though attended, almost invariably, with good results, is a very expensive line of treatment; and, moreover, it is not the best which might be adopted if suitable means for isolating and treating the patient existed at home. It may interest your correspondent to know that there is a scheme on foot, at the present time, for establishing a private home for young men of intemperate habits, in a good house on the banks of the Thames, a short distance from London, but isolated from all town-associations, where boating, fishing, riding, driving, lawn-tennis, gymnastics, billiards, and other healthy outdoor and indoor occupations can be carried on; and also, when necessary, the higher branches of education and preparation for examinations can be pressed forward simultaneously with medical treatment. It is intended to meet the case of many young men whose bad habits are of short duration, and are, therefore, easily curable.—Your obedient servant,

Z.

Oatmeal for Constipation in Children.

Sir,—I have always found a tablespoonful of fine bran in bread and milk, night and morning, to be the best method of combating this troublesome ailment, and it is very useful in conveying to the child silica and phosphates. The bran should be allowed to soak in the milk, and then, when warmed up to a little below boiling point, it should be poured on the bread.—Yours truly,

124, Fulham Road, S.W. V. Poulain, M.D.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. Laurence Humphry, Cambridge; Mr. W. Anderson, London; Dr. Carrin
ton, London; Our Liverpool Correspondent; Mr. Shirley Murphy, Londor
Mr. H. J. Forster, London; Mr. Percy Pope, South Hayling; The Secretary
the Home Hospitals Association; M.B.; Mr. William Battle, London; Mr.
R. Purdy, Woodlesford, Leeds; Sir James Paget, London; Dr. Champney
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Mr. Richard Wood, Bromsgrove; Dr. Poulain, London; Mr. J. L. Green, Sal
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Hamilton Scott, Canterbury; Mr. Jabez Hogg, London; Mr. John Marsha
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Abraham, Dublin; Dr. V. Poore, London; The Secretary of the Society of Ar
Mr. G. A. Bolton, Manchester; Dr. W. Hickman, Folkestone; Mr. Arth
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Paul, Liverpool; Mr. S. Watson, London; Messrs. Lynch and Bateman, Mc
chester; Mr. R. Sterling, Kilkenny; Mr. J. H. Hughes, Ombersley, Dre
wich; Mr. H. S. Bryant, London; Dr. Dolan, Halifax; Mr. G. H. Cable, Gre
wich; Dr. J. McGrigor Croft, London; Dr. Atthill, Dublin; Dr. P. Kirkpatri
Picard, London; Mr. W. Roger Williams, London; H. E. D.; Mr. T. P. Devl
Orkney; The Editor of *Life;* Mr. Walter Berry, Upwell; Mr. G. Cow
London; Mr. T. Bryant, London; Dr. Hobson, Harrogate; Mr. Dyke, Merth
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grove, Llanwddyn; Mrs. W. Taylor, London; Dr. Heron, London; Dr. E. Rayn
Stockport; The Honorary Secretaries of the Odontological Society; Mr.
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chester Correspondent; Our Dublin Correspondent; Dr. C. Theodore
liams, London; Dr. M. Suggaty, Venice; Mr. John Whitty, Tagart, co. W
ford; The Secretary of the Parkes Museum; Mr. W. F. Jebb, Lond on;
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Messrs. Street and Co., London; Dr. W. Hale White, London; Our Be
Correspondent; The Secretary of the Parkes Museum; Dr. Thomas Cole, B
Mr. H. L. Jones, Chatham; Mr. Lawson Tait, Birmingham; Mr. G. B.
son, Walton, Preston; Mr. John H. Chapman, London; Mr. G. S. Mahor
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M. Stone, London; Dr. T. Harris, Oxford; Miss Isabel Thorne, London;
F. E. Eliot, Birmingham; The Secretaries of the Mahomed Fund, Lon
Our Edinburgh Correspondent, etc.

BOOKS, etc., RECEIVED.

Helps to Health. By H. C. Burdett. London: Kegan Paul, Trench an
1885.

Year-Book of Pharmacy and Transactions of the British Pharmaceutical C
ence. London: J. and A. Churchill.

Photo-Micrography. By A. C. Malley. London: H. K. Lewis. 1885.

Dental Surgery. By A. W. Barrett, M.B. London: H. K. Lewis. 1885.

Bodily Deformities and Their Treatment. By H. A. Reeves, F.R.C.S.E. L
H. K. Lewis. 1885.

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LETTSOMIAN LECTURES

ON

DISORDERS OF DIGESTION: THEIR CONSEQUENCES AND TREATMENT.

Delivered before the Medical Society of London.

By T. LAUDER BRUNTON, M.D., F.R.C.P., F.R.S.,
Assistant-Physician to St. Bartholomew's Hospital.

Lecture III.

my first lecture, I mentioned that the function of digestion, like alth generally, may be strong or weak. A strong digestion is pable of withstanding all sorts of adverse influences, while a weak gestion can remain undisturbed only under the most favourable cir-mstances. When any disturbances have occurred in the digestive nction, no matter whether it were strong or weak originally, the st step towards restoring it to health is to remove, if possible, any sturbing causes which may still be acting upon it. One of the mmonest of these is imperfect mastication. As I have said several nes already—but the importance of the subject will excuse the re-ation—the first step in the process of solution is mechanical disin-gration. Children are not long in learning this truth, for they soon d out that they get a fuller flavour from a hard sweetmeat if they ak it with their teeth, than if they simply suck it. The child thus s the sweetmeat quickly dissolved, and its sense of taste is more roughly gratified, but the sweetmeat does not remain so long in mouth. If children of an older growth would remember this early perience, and apply it to their food generally, there would be less in-gestion. Man is a low pressure engine, and works almost all his organs nsiderably under their full power. All around us in a town or city see men who, in a walking tour, could do twenty, thirty, or forty les without the least inconvenience, and yet in their ordinary avo-ions they probably do not walk two. In the country, on the other nd, we find men of good brains, who have perhaps distinguished mselves at college by their mental powers, by their close applica-n, and by the long hours during which they could work, and who , in their daily life, rarely set themselves a harder mental task than understand the leading article of a daily paper. It is the same ng with the other organs of the body. A healthy stomach can ally digest a good deal more than it is called upon daily to do. A lthy kidney can excrete twice or thrice as much as it ordinarily s; and thus, in fact, we see that, when one kidney is removed, organism frequently seems hardly to feel the loss, all the waste-ducts being excreted as usual. But there is a limit to all things, l that limit is more easily reached in some cases than in others. some one has shrewdly remarked, we have two kidneys and two gs, but we have only one stomach, and therefore there is the ater reason why we should not overburden it. When a young n is called upon for extra exertion, either bodily or mental, he is e to meet the demand by making a spurt; but, as he grows older, s power gradually lessens. The same is the case with the stomach. ys' stomachs can digest almost anything, though half-chewed en apples may sometimes prove too much even for them. In outh, the stomach will digest the food even when bolted half wed; but, as the man approaches middle age, it resents this tment; it will no longer make a spurt to do the work of the s as well as its own, and indigestion is the consequence. Imper-mastication frequently arises from too short a time being allotted a meal, or from the mind being occupied during the meal with the of something to be done afterwards. It is curious sometimes to ch the phases of mastication varying in the same person during a le meal, according to the ideas which cross the mind. In some le, whenever the idea of something to be done occurs to them, or energy seems to be evolved, and finds expression in rapid move-ts of the jaws and bolting of the food. It is, therefore, evident , during meals, all ideas of action to be taken by the individual elf should be banished from the mind. In sensitive persons, also, well to banish the idea of action to be taken by others, because persons have such strong sympathies that they throw their own nality into that of others, so that, if we watch them listening hesitating speaker, we see their lips moving and their fingers hing.

Persons who are taking their meals alone very frequently read during them. From what I have said, it is obvious that what they read at this time should not have reference to any of their avocations, nor even to anything which may interest them very strongly, such as politics, unless it be presented in an amusing form, as in *Punch*. But a solitary meal should be avoided if possible; for the mere presence of a companion, and, still more, occasional conversation, acts as a pleasant stimulus, and tends to maintain the nervous activity to which I referred in my first lecture as an important factor in perfect digestion.

Another cause of imperfect mastication is the condition of the teeth. Sometimes the teeth and gums are tender, or one or more of the teeth may be decayed, and the discomfort or pain occasioned in them by mastication leads people to bolt their food, or to masticate on the other side of the mouth, if the tenderness be limited to one side. But where this is the case, we not unfrequently find that several teeth have already been lost on the side with which such a person does chew, and that these teeth have been lost in such a way as to make the act of mastication a mere farce. When all the teeth are gone, the person may chew perfectly well, not only by means of artificial teeth, but also without them. One of the puzzles of my childhood was, how my grandfather, an absolutely toothless old man, was able to eat and enjoy hard toast. But every tooth in his head was gone, and his gums were like the mandibles of a turtle. It is not the complete, but the imperfect, removal of the teeth which is the source of mischief. We not unfrequently find that the teeth have fallen out in such a way that only one or two are left behind, which oppose one another so slightly that they are of very little use indeed for chewing, but they thoroughly prevent the gums from coming together, and leave large spaces in which the food can escape mastication completely. The remedy in such a case as this, is to get in false teeth; for few people, now-a-days, care to be absolutely without teeth at all.

But the effect, even of thorough mastication, upon the food will vary a good deal according to the nature of the food itself; and tough substances, which can with difficulty be comminuted, will be more indigestible than those which are readily broken up. Now new bread is proverbially unwholesome, and the reason for this is not far to seek. If we take a piece of a hot roll and try to pulverise it between the finger and thumb, we find that it is more or less tough and tenacious, and that we can hardly do more than tear it apart into little bits. If we take a piece of stale bread, on the contrary, we can easily break it up into a fine powder, which, of course, is much more readily acted upon by the digestive juices than lumpy flakes of new bread. Biscuits are also readily powdered; and crisp dry toast, although not so easily broken up between the finger and thumb, is still readily digestible, because it must be "broken" up by the teeth before it can conveniently be swallowed, for otherwise it would scratch the throat; although lumps of new bread of a similar size would slip down the œsophagus easily. Buttered toast is a different thing, as it cannot be readily pulverised, any more than new bread. Buttered muffins and suet-dumplings are other examples of a similar kind. Potatoes are generally regarded as indigestible, and are forbidden to dyspeptics, whilst stale bread is allowed. It is possible that there may be other reasons for this indigestibility than simply difference of physical condition, but I have little doubt that one reason at least is the fact that very many people—indeed, I think most people—are apt to swallow potatoes in lumps without thorough mastication, and these lumps will be very slowly acted upon by the digestive juices.

The fine subdivision of fatty food is also of great importance in regard to its digestion. Many people cannot bear to eat the fat of hot mutton, but yet they can eat the same when it is cold. If we try to pulverise a piece of hot mutton-fat and a piece of cold mutton-fat, we will see that the difference is much the same as that between a piece of new and of stale bread; and probably this is one reason, though there may be others, why hot mutton-fat is so liable to make people sick. But mutton-fat may be eaten hot by persons with delicate stomachs, if it be properly subdivided by admixture with farinaceous food. If, for example, it be cut up very small, and mashed up with potatoes, even children may take it without difficulty, and mutton-fat and milk is an old-fashioned and useful remedy. The more minutely we can subdivide the fat, the more easily is it digested. I have already discussed this subject elsewhere, but it is of such practical importance that I may, perhaps, be allowed to repeat part of what I have said before. If we were asked to take a pat of butter whole, the very idea of it might make us sick, but we have no difficulty whatever in taking the same amount of butter spread upon bread. Many years ago, my friend Professor Hugo Kronecker asked me the question, "How should butter be spread in a sandwich? should the whole of it be put on one slice of bread, and the other slice of bread simply put over the top of it, or should the pat of

butter be divided into two halves, and one of them spread on each piece of bread?" I was uncertain how to reply. He answered the question himself, and said that "the butter should be divided into two halves, and one spread on each piece of bread, because, in this way, the butter is more minutely subdivided, and thus not only gives a more agreeable taste, but is more readily digested." In buttered toast, we get the agreeable taste and the minute subdivision of the fat, but the advantage obtained from this is more than counterbalanced by the difficulty in breaking up the toast, which I have already mentioned.

In regard to butcher's meat, also, there are great differences, depending both on the kind of meat used and its condition at the time of cooking. I mentioned in my first lecture, that meats which have short, easily disintegrated fibres, such as fish, the breast of a fowl, or mutton, are much more readily digested than those having long or tough fibres, such as beef. But a great deal depends, also, upon the condition of the meat at the time of cooking. I once got a most useful lesson on this point. I went into a restaurant, and ordered a beef-steak, as I had previously had them exceedingly good and tender at the same place. But that day, all my efforts to masticate the steak were in vain, although I went on till my jaws actually ached with the exertion. On complaining to the waiter, and asking where he had got that tough old meat, he said it was not old, but, though young, it was too new. They had had an unusual number of customers that day; all the usual supply of beef-steaks had been consumed, and they had sent to the market for more, but had got some meat killed that morning. Now, the old Romans, who were great epicures, used to eat still newer meat than this. They suffocated their fowls in wine, and cooked them forthwith; so we see, then, that both meat which is perfectly freshly killed, and also meat which has been kept for a sufficient time, are tender. If we analyse this condition, we see that it is simply this: meat which is cooked before *rigor mortis* appears, or after it has passed off, is tender; but meat cooked while *rigor mortis* still exists is sure to be tough. In the case of game, the practice of keeping the meat until it is tender has been overdone, and it is not unfrequently kept until it is actually commencing to decompose. The taste for "high" meat is an acquired one, and is, I think, a morbid one. It is also, I think, not without some danger, for not only may the products of decomposition formed in the meat, before it is cooked, be injurious, but decomposition will be rather apt to occur more readily in the intestinal canal. The gastric juice, no doubt, has a considerable antiseptic power, and so has the bile; but still these powers may be overtaxed, and eating high meat is one of the ways in which this may be done. It is, however, rather extraordinary to what an extent the consumption of decomposing food may be carried without any immediate injury, as we see amongst the Esquimaux and Icelanders.

The effect of keeping may, to a certain extent, be imitated by the application of a vegetable digestive ferment. In the West Indies, a tough beef-steak is rendered tender by rubbing it with the juice of a fresh papaw fruit, which contains a ferment papaine, having an action very much like that of trypsin of the pancreas.

Another cause of imperfect digestion is, I believe, bad cooking. Even if we leave out of account the actual physical detriment to the food in the way of hardness, or toughness, due to bad cooking, the absence of a pleasant flavour will in itself tend greatly to interfere with digestion. The mere thought of agreeable food is sufficient to make the mouth water, not only in man, but in animals.

I remember once seeing a striking instance of this. While walking one evening, I saw a dog sitting opposite the door of a butcher's shop, gazing intently at the meat inside. Two long streaks of saliva were hanging down from its jaws, half-way to the ground. Its attitude of eager expectancy was so striking, that I could not help going into the shop to buy something for it; but it was sitting almost directly in the doorway, so that my passing through disturbed its delightful dream, and off it went.

We have already seen that the secretion of saliva is the first link in the chain of digestive processes. The saliva stimulates the secretion of gastric juice, and the gastric juice again stimulates the flow of bile, and possibly also of the pancreatic juice. Moreover, pleasant and repulsive food will act on the stomach through the nerve-centres; while the idea of pleasant food will excite appetite, the very idea of unpleasant food will excite disgust, and even bring on nausea and vomiting. Other things being equal, then, food that is well cooked and savoury will be much more digestible than the same food cooked or served in an unappetising manner. Even in regard to serving, there is much to be learned in this country from the French and Germans. In many a restaurant in London we find the tablecloths spotted and greasy, the salt-cellars and mustard untidy, the knives and forks dirty; and, as for a table-napkin, such a thing, in many of them, is unknown. In a French or German restaurant of a similar class, the tablecloth is very likely to be of coarser linen, but scrupulously clean; everything would be put down in a tidy and appetising fashion, and a clean napkin would be served to each guest. The food itself may be no better, perhaps not so good, but the way in which it is served would make all the difference to a delicate appetite.

In my first lecture, I spoke of cookery as a powerful moral agent, capable of influencing men's opinions and feelings to a very great extent. That food itself is a moral agent has been long recognised, and has found expression in the proverb, "A hungry man is an angry man;" but that the moral influence depends on the way in which the food is cooked, as well as on the food itself, is not so generally admitted. And yet it has long been known, for we read that Isaac directed his first-born son, Esau, to prepare savoury meats, such as his soul loved, so that, after he had eaten thereof, he might bless his first-born with all the fervour of which he was capable. Considering the different effect upon the appetite of well cooked meat and of unsavoury food, it would be strange if they both excited equally pleasant feelings, and had an equally beneficial effect upon the temper. Some may think that, in speaking of cookery as a moral agent, I am greatly exaggerating its power; and they may regard it as idle folly if I go still further, and say that cookery is not only a powerful moral agent in regard to individuals, but may be of great service in regenerating a nation. Yet, in saying this, I believe I am speaking quite within bounds, and I believe that schools of cookery for the wives of working men in this country will do more to abolish drinking habits than any number of teetotal associations. I do not at all mean to say that the vigorous efforts of teetotal societies, Good Templars, Blue Ribbon Army, and others, have been altogether a failure; but I do not think that their plan will ever be crowned with complete success, and I believe there is a better way of attaining their object. Supposing you had a friend lying in bed, wrapped up in blankets so that he could not move hand or foot; a fly settles on his nose, and he begins to make faces to try and remove it. You do not like to see him making faces, and wish him to stop. Which would be the most rational method of doing so? Would it be to exhort him to summon all his fortitude to keep his face still, notwithstanding the annoyance, or would it be better for you to drive away the fly? No doubt it might be an excellent moral training for him to use his self-control and keep his countenance placid notwithstanding the irritation, but the simpler and more effective method would be to drive away the fly. Moreover, in nine cases out of ten, his power of self-control would be insufficient; and this is exactly what occurs with persons who have a strong desire for intoxicating liquors. Many years ago, I met, in a teetotal journal called the *Adviser*, with an account of an old drunkard, who uttered the bitter complaint, "The neighbours always speak of my drinking, but they never speak of my drouth." The old man was in the right; and, if we are to abolish drunkenness, we must remove the thirst which leads to it. I have discussed the causes, physical and moral, of this thirst more at length elsewhere, and the only ones with which I shall concern myself now are bad food and imperfect cookery. In my first lecture, I mentioned that, so long as the food was only in the intestinal canal, it was still outside the body as far as nutrition was concerned; and thus the malnutrition which gives rise to a craving for alcohol may be a consequence of imperfect digestion, as well as of an insufficient supply of food.

I have spoken of food and of cookery as moral agents, but a clear-headed clergyman in New York has perceived that dentistry may be a moral agent, and he has insisted on all the people attending his mission-chapel keeping their teeth in good condition. If anyone has bad teeth, he is sent to a dentist, who fills or extracts them as may be needed. A dentist is supplied who does the work for nothing, if the patient cannot afford to pay. (The *New York Medical Record*, February 24th, 1883, p. 224.) Since the clergyman adopted this plan, he has had very much less trouble from drunkenness in his congregation.

The relation between the consumption of alcohol and the quality of the cookery has recently been investigated in Switzerland, and it has been shown that, where the food is insipid and unappetising, the people have recourse to a glass of "schnaps" to make up for the deficiency.[2] We have no experiments at present to show how savoury and unsavoury food, respectively, affect the circulation in the brain; but it seems highly probable that savoury has a much more stimulating action than unsavoury food on the cerebral circulation. I have insisted a good deal upon the important vascular changes which are produced by the act of swallowing, and these changes appear to afford an explanation of some curious phenomena. It is frequently stated that a glass of beer, slowly sipped, will intoxicate a man; whereas

[1] Scotch word for thirst.

[2] Schuler. *Die Ernährungsweise der arbeitenden Klassen in der Schw* Bern. Stämpfli'sche Buchdruckerei.

ame quantity, swallowed at a draught, will have little or no effect. do not know how far this is true, but it is not the kind of statement hat would be readily invented, so that I think there must be founda- ion for it in fact. We can easily see that the disturbance of the irculation, consequent upon frequent sipping, may so aid the effect of he alcohol that intoxication may ensue, although the alcohol alone ould not have produced this effect. But, while frequent sipping may e thus used, on the one hand, to produce intoxication, it may be em- loyed, on the other, in the cause of temperance. Some time ago, I aw in an American periodical a cure for drunkenness. The person as advised, whenever the craving came on, to sip a glass of cold ater. At first sight, this may seem a poor substitute for a glass of hisky, and very unlikely to remove the craving for alcohol; but, as have mentioned in my first lecture, a glass of cold water, slowly pped, has more effect upon the pulse than a glass of brandy swal- wed at a draught; and may therefore be a very efficient substitute, deed, for alcohol.

To prevent any misunderstanding on this point, I should mention at the effect of sipping upon the pulse is not a permanent one; it sts while the sipping is continued, if the sips be taken at short in- rvals; but it passes away after the sipping ceases. While its effect on the pulse is thus greater for the time than that of alcohol, it is uch less permanent. When I wrote my paper on "Nervous De- ession as a Consequence of Dyspepsia," the effect of sipping upon e action of the vagus had not been discovered, but its stimulant tion had been observed clinically; and I then recommended that a ass of soda-water, with or without the juice of a lemon squeezed into should be slowly sipped when the feeling of weakness came on, and biscuit eaten along with it, if desired.

But, besides cooking and mastication, we have to consider a most portant question—the kinds of food which a person may eat. In a althy man, the best guide, both as to quantity and quality, is the petite. Food that is eaten with a relish is, as a rule, wholesome; d sometimes it is rather astonishing to find how people's instincts ide them to what is suitable for them, in utter defiance of all *a priori* tions. As Dr. Austin Flint very sensibly puts it, "the diet should regulated by the appetite, by the palate, and by common sense." Too eat a regulation of the diet is sometimes very injurious; and this, I lieve, is more especially the case in persons of a nervous tempera- nt. I have already mentioned that some cases of acidity, and even severe pain, do not depend upon any abnormal acidity of the stric juice, nor of the contents of the stomach; nor yet do they de- nd upon any imperfection in digestion, for Leube has found that, in ch cases, digestion is often performed very thoroughly and rapidly eed. The pain in these cases depends upon hyperæsthesia; and, the patient begin to cut down his diet, one article after the other y disappear, and the mischief will only become worse. The nervous tem becomes more and more irritable as the blood becomes more poverished, and the system may break down completely from nition. In such cases, as I shall have afterwards to mention, ced feeding, or, as we may term it, stuffing, the patient, is of the atest possible service.

But, as Dr. Flint wisely puts it, the palate and the appetite alone will serve as reliable guides to the quantity and quality of food. They st be regulated by common sense, or, in other words, by experi- e. We find this in the case of animals. A horse turned loose into eld of new clover may eat so much as to kill himself by overdisten- n of the stomach and intestines. A cow turned loose for the first e into a pasture in which colchicum, or other poisonous plants, w, may eat of them at first, and be ill in consequence; but, after it become acquainted with their injurious action, it will avoid them. appetite which regulates the quantity of food, and the palate ch regulates its nature, must both be trained; and we must also our experience, in order to make sure that we do not misinterpret ir demands. When a person has been fasting for many hours, his petite becomes ravenous, and he is apt to eat far more than is good him. We are sometimes apt to treat ourselves as we occasionally t others, and be in too great a hurry to gratify the demands of our appetites, as well as to answer the questions, or grant the requests le to us by others. Solomon says of the man who hastens to reply question before he has fully heard it out, that "it is a folly and ne to him," and the same is true of the way in which we some- s treat our appetite.

et us take the ordinary case of a man who has breakfasted at 8 in morning, and has had nothing to eat till 7 at night. He sits n with a voracious appetite, and gorges himself until he becomes comatose, and resembles a bloated boa-constrictor rather than a nal being; or else his overloaded stomach rebels, and a fit of nt vomiting and purging induces his relations to send in a hurry for their medical man, and urge him to come with the utmost speed, for So-and-so is dying of cholera; and yet the poor appetite was not to blame. The nervous system had been starved and wanted food; but, as I have already insisted more than once, food in the stomach is outside of the body for the purposes of nutrition, and requires to be absorbed before it is available for the wants of the organism. No doubt the stomach, as it becomes gradually distended, informed the brain, through its nerves, that food was on its way. But still, this was not sufficient, and the appetite remained unappeased. By the time enough food has been digested and absorbed to satisfy the cravings of the nervous system, too much had been put into the stomach, to its detriment.

If, instead of hurrying the food down, the person had been content to eat slowly, with intervals between his courses, as, for example, if he had been put down to a *table d'hote* abroad, the chances are that the dinner would have done him no harm, for the long intervals between the courses would have allowed some of the food taken at first to be digested and absorbed; and, the craving appetite being thus lessened, the temptation to overeat would have been removed. Not unfrequently we hear people say that they are well when living abroad and dining at a *table d'hote*, although the food that they get there is not nearly so good as what they get at home. The reason, in all probability, is, that they are obliged to spend more time over their meal, and are unable to swallow it down, or, as the Americans phrase it, "to get outside of it," so quickly as they can at home.

The remarks of Dr. Beaumont in regard to the question of appetite, as a regulator in eating, are so apposite that I shall quote them. Since they were written, medical opinion has passed to the opposite extreme from that which he denounces, and starving, rather than stuffing, has become the fashion. A reaction has set in against the starving system; but let us hope (although we can hardly expect) that it will not pass beyond the just views of moderation which Dr. Beaumont advocates. He says: "There is no subject of dietetic economy about which people err so much as that which relates to quantity. The medical profession, too, has been accessory to this error, in giving directions to dyspeptics to eat until a sense of satiety is felt. Now, this feeling, so essential to be rightly understood, never supervenes until the invalid has eaten too much, if he have an appetite which seldom fails him. Those even who are not otherwise predisposed to the complaint, frequently induce a diseased state of the digestive organs by too free indulgence of the appetite. Of this fact, the medical profession are, generally, not sufficiently aware. Those who lead sedentary lives, and whose circumstances will permit of what is called free living, are peculiarly obnoxious to these complaints. By paying particular attention to their sensations during the ingestion of their meals, these complaints may be avoided. There appears to be a sense of perfect intelligence conveyed from the stomach to the encephalic centre, which, in health, invariably dictates what quantity of aliment (responding to the sense of hunger and its due satisfaction) is naturally required for the purposes of life; and which, if noticed and properly attended to, would prove the most salutary monitor of health, and effectual preventive of disease. It is not the sense of satiety, for this is beyond the point of healthful indulgence, and is Nature's earliest indication of an abuse and overburden of her powers to replenish the system. It occurs immediately previous to this, and may be known by the pleasurable sensation of perfect satisfaction, ease, and quiescence of body and mind. It is when the stomach says enough; and is distinguished from satiety by the difference of the sensations—the former feeling enough, the latter too much; the first to be produced by the timely reception into the stomach of proper aliment, in exact proportion to the requirement of nature, for the perfect digestion of which a definite quantity of gastric juice is furnished by the proper gastric apparatus. But, to effect this most agreeable of all sensations and conditions—the real Elysian satisfaction of the reasonable epicure—timely attention must be paid to the preliminary processes, such as thorough mastication, and moderate or slow deglutition. These are indispensable to the due and natural supply of the stomach at the stated periods of alimentation; for, if food be swallowed too fast, and pass into the stomach imperfectly masticated, too much is received in a short time, and in too imperfect a state of preparation, to be disposed of by the gastric juice."

"But it is with idle people as with children. Leave them without occupation, and their chief amusement will then be derived from the indulgence of their appetites. Hence the prevalent pastime of forenoon-visits to the pastry-cook's, where the appetite is indulged with as little regard to the real wants of the system, or the condition of the stomach, as if digestion were meant merely as an appendage to taste. Many young persons do themselves serious injury in this way,

and then complain loudly of the discomfort which attends the subsequent indigestion of a heavy dinner. To relieve the weakness, arising not from exhaustion, but from the oppression of satiety, they resort to wine, as if, by adding fuel to the fire, they could reasonably hope to extinguish the flame." (Combe's *Physiology of Indigestion*, ninth edition, by James Coxe, M.D., 1849, p. 77.)

Appetite and palate have both their own work to do in regulating the quantity and quality of the food; but each of them requires, as Dr. Flint says, to be regulated by common sense, for otherwise they sometimes disagree, and the pleased and tickled palate sometimes endeavours to force down a much larger quantity of savoury food and delectable dishes than appetite declares to be either necessary or good for the organism. When pushed beyond a certain point, the appetite rebels, and "the full soul loatheth the honeycomb;" but before this point is reached, a good deal more than enough may have been eaten; and if the same process be repeated every day, serious mischief will ultimately result, and the more accommodating the appetite is, the more serious will the mischief be. Many a man has been saved by a weak stomach, which punished its owner by sickness or headache whenever he tried to overburden it, and thus checked his tendency towards excess at the very outset. Where the stomach and intestines are more accommodating, and continue to digest all that is put into them, the burden of the work is shifted elsewhere, and either the liver fails to reconstruct the new material with which it is deluged, or the tissues are poisoned, and the overworked kidneys become degenerated. The palate, too, sometimes makes demands which are apt to be misconstrued. As the late Professor Laycock observed, patients recovering from a severe illness not unfrequently have a strong desire for salt herrings, pork, or ham, things which would be almost certain to disagree with them if their appetite were indulged. But the fact is that the patients do not want the pork or herring; what they really desire is salt, and they crave for these articles because they contain salt. If salt be given to them in the form of a mixture, their appetite is appeased, and the harm is avoided which the herring or ham might have caused.

If we were to attempt to lay down a diet-table, containing all the things that a person, whether healthy or dyspeptic, may eat, the task would be endless; it is much simpler to say what he may not eat. The oldest diet-table in the world might have been a very long one if everything that might be eaten had been named; whereas it was very short—"Of every tree of the garden thou mayest freely eat, but"—and here follows the one exception, of which Adam might not eat without injury. The next diet-table is still more extensive, "Every living thing that moveth shall be meat for you, even as the green herb have I given you all things; but"—and here again comes the singular exception—"the flesh with the life thereof, which is the blood thereof, shall ye not eat." In a third diet-table, intended not for mankind generally, but for people under peculiar conditions, we still find the same rule followed; the foods that were to be eaten being classed together under one or two sweeping definitions, and only a few exceptions mentioned by name. Dyspeptics may be regarded as a peculiar class of people, requiring fuller instructions as to diet than healthy people, and a few general directions to them are by no means out of place. Thus, they may be directed to avoid new bread, buttered toast, muffins, and pastry, all of which are difficult to disintegrate. They may be told to eat fish, or to prefer meat which has a short fibre, like mutton, chicken, or game, rather than to take those meats where the fibres are long and tough, like beef.

There are some substances taken as food which are utterly indigestible. We know that prehistoric man was fond of strawberries, because the seeds of these fruits which some man, ages and ages ago, had eaten and voided unchanged, still remain to inform us of the fact. Most seeds, when whole, are indigestible; and on this quality, indeed, their distribution over the earth's surface depends. Even when broken, like the kernels of nuts or almonds, they are sparingly digestible; and the same is the case with the skins of fruits, and the harder fibres in the stalks of vegetables. Where the intestines are slow to act, such things as strawberries, raspberries, figs, nuts, prunes, and apples, may be allowed, and even recommended; but, where the intestines are irritable, all such things must be forbidden. Acid fruits are not only indigestible in themselves, but are apt to leave irritation behind; and Dr. Beaumont found that, an hour after giving St. Martin some raw ripe sour apples, the stomach was full of fluid and pulp which was quite acrid, and irritated the edges of the fistulous opening, "as is always the case when he eats acescent fruits or vegetables." The acrid condition went on increasing to the end of an hour and a half; and, at the end of two hours, the mucous membrane appeared irritated, although the apple had passed out of the stomach into the intestine, probably in an undigested condition, and, as we know in other cases at least, it would even be apt to produce diarrhœa. Some drinks are peculiarly liable to cause indigestion; amongst these are sour wines, some kinds of beer, and tea. Sour wines, especially if taken regularly, are apt to bring on a condition of gastric catarrh; and, in certain conditions of the system, a single glass even of good wine appears to act almost like poison. It seems to undergo acetic fermentation in the stomach, and produces acidity, discomfort, or pain. I do not know what these conditions of the stomach are in which a single glass of good wine will produce this effect, even in persons to whom it is not usually injurious. I have noticed, however, that sometimes this tendency to acidity is associated with a hyperæsthesia of the mucous membrane of the œsophagus, so that port or sherry causes an unpleasant burning feeling all the way down the gullet, while usually nothing more would be felt than a pleasant warmth, if any sensation were observed at all. Tea is very apt to cause a feeling of acidity and flatulence. Sometimes the acidity comes on so soon after the tea has been taken, that it is difficult to assign any other cause for it than alteration in the sensibility of the mucous membrane of the stomach or œsophagus. Tea contains a quantity of tannin, as we very readily notice by the black spot which a drop of it will leave upon a steel knife, and it contains also caffein and volatile oil. The effect of the tannin is to interfere very considerably with the digestion of fresh meat; and there are many people in whom tea, taken along with fresh meat, will upset the digestion. It does not interfere with the digestion of dried meat, such as ham and tongue; the fibres of these having already become shrunk and toughened in the process of curing. Tea at breakfast is not so apt to cause indigestion, probably because bacon or tongue are more frequently taken along with it at this meal than fresh meat, and also because the long interval which has elapsed between breakfast and supper or dinner allows the stomach to become completely empty before any new food is put into it. Tea in the afternoon, two or three hours after lunch, will sometimes bring on acidity almost immediately; and I am inclined to think that this is due either to its producing increased sensibility of the gastric mucous membrane, or, what is perhaps still more probable, to its altering the movements of the stomach, so that the mucous membrane of the cardiac end of the œsophagus becomes exposed to the action of the contents of the stomach. These are much more acid two hours after a meal than they are immediately after it; and they will thus produce a much more irritating action upon a sensitive mucous membrane. A part of the mischief wrought by tea in the lower classes is due to their allowing it to infuse for a long time, so that a large quantity of tannin is extracted. This danger may be avoided by simply allowing boiling water to stand in the tea-pot for five minutes or so, and then pouring it off into another teapot, where it may be kept hot for a length of time without undergoing any change. Another reason is that they drink it extremely hot. Heat is a powerful stimulant to the heart, and a cup of hot tea is, therefore, much more stimulating and refreshing than a cold one; for not only does the hot tea act more powerfully on the heart through the nerves of the stomach, but the heat will reach the heart directly through the thin diaphragm. The practice of sipping the tea almost boiling hot is, however, apt to bring on a condition of gastric catarrh. Coffee does not affect the stomach to such an extent as tea. In its preparation, however, a substance called caffeon is produced; and this, along with the caffein which is present in both coffee and tea, appears to dilate the abdominal vessels, and cause a feeling of fulness in the abdomen, with a tendency to piles in some persons. Cocoa is less liable to cause acidity or abdominal discomfort than tea and coffee; but, when continued for some time, it is apt to give rise to those symptoms already described under the head of biliousness. In all probability, this depends partly on the amount of fat it contains; as cocoatina, from which the fat has been removed, is less likely to produce the symptoms than chocolate.

(To be continued.)

Donations and Bequests.—Mr. George Sturge has given £300 on account of £3,000 to the Middlesex Hospital, £100 on account of £1,000 to the Hospital for Women, and £50 on account of £500 to the British Home for Incurables.—The Misses Hampson have given £5 to the Royal Albert Asylum for Idiots and Imbeciles of the North Counties, Lancaster, in memory of their brother, the late Mr. William Hampson.—An unknown friend, per Mr. C. Cooper, postmaster, Stoke-upon-Trent, has given £50 additional, making £275, to the North Staffordshire Infirmary at Hartshill.—A Friend, per Mr. D. Griffith, has given £100 to the Middlesex Hospital.—Miss Susanna Fuller, of Barton Mills, has bequeathed £100 to the Mildenhall Cottage Hospital.—The Sussex County Hospital has received £100 under the will of Mr. H. Bingley.—Mrs. Francis has given £50 to the Middlesex Hospital, in memory of her father, Dr. J. Hall Davis.

ON THE RADICAL CURE OF HERNIA.

Introduction to a Discussion at a Meeting of the Staffordshire Branch.

By W. DUNNETT SPANTON, F.R.C.S.Ed., M.R.C.S.Eng.,
Surgeon to the North Staffordshire Infirmary.

In introducing the subject of the operative cure of hernia for discussion, in obedience to the request of our excellent secretary, I shall, perhaps, best attain the object in view by making my remarks of a general, rather than a systematic or statistical character. If the importance of the subject may be gauged by the amount of literature and discussion expended upon it, we may fairly conclude that it has, during the last four or five years, taken rank among one of the prominent surgical questions of the day. For a long time, it was quite a rare event to find any reference to it, except an occasional record of a case of Wood's or Wutzer's operation; but now that is all changed; and why?

No doubt the introduction of so-called antiseptic surgery has had much to do with this advance; but far more is it due to the removal of the long standing prejudice on the part of the teachers of surgery against operations of every description for the cure of reducible hernia. As long as surgeons carefully excluded from their lectures and their text-books any commendation of such procedures, it was hardly to be expected that practitioners generally would either advise or adopt them. The fact is that, as an operation of expediency, that for the cure of reducible hernia has long had a bad name, and has been followed by the usual consequences; and surgical authors, like so many surgical sheep, have followed each other astray, without venturing to find out for themselves the worth or the danger of any of the operations which have from time to time been advocated. For many years, the excessive mortality which followed them no doubt deterred prudent and conscientious surgeons from undertaking what they might consider an unjustifiable risk; and if we come to analyse some of these figures, there is certainly grave reason for such hesitation. In the earlier operations of Langenbeck of Berlin, and Schumacher, for ligature and excision of the sac, there are recorded three deaths in ten cases; and, taking all the cases which have been reported in the medical journals for the last few years of the various forms of open operation by ligature, I find 147 cases with eight deaths, a mortality of 5½ per cent.

It is necessary to draw a broad line between the reducible and the strangulated form, of whatever class it may be. Statistics have been given, and numerous instances recorded, in which a so-called radical cure has been effected conjointly with an operation for the relief of strangulation, along with other instances where an operation has been performed of a purely expedient character for the cure of an ordinary reducible rupture.

It is, of course, quite impossible, in a case of strangulation, to say how far a fatal termination may be due to what is done at the time of operation, or how much must be attributed to preceding mischief; and such cases should, therefore, be classed by themselves. On the other hand, in dealing with an ordinary reducible rupture in a healthy person, if anything do go wrong, we may safely assume that it is *propter* as well as *post hoc*. These cases ought, therefore, likewise, to be considered apart. Some surgeons who have published cases have mixed them up in such a manner as to deprive them of much of their value. For example, of sixteen cases described by Sir W. MacCormac "operations for the radical cure of hernia," only two were simple cases; in all the others, strangulation had occurred. If this conclusion be maintained, we can hardly hope that the operation will ever free itself from the stigma of being accompanied by a high rate of mortality, which such an association is almost certain to convey.

For many years it has been the usual custom, at some hospitals, to combine with the ordinary operation for strangulation that of ligature of the sac, and closure of the hernial ring. Mr. Bryant tells me that this has been practised at Guy's Hospital for many years. At the North Staffordshire Infirmary my colleagues and I have done this for a long time, and with excellent results. It would be tedious to relate cases in support of the practice, because it is, I believe, recognised as legitimate and safe; but I may say that in the last instance in which I did it, that of a femoral hernia, in an old lady, 76 years of age, under unfavourable conditions so far as concerned the strangulation, her recovery was rapid and complete, and the hernia has not troubled her since.

There are, of course, many instances met with, in which it would be quite inadmissible; such, for example, as extreme exhaustion of the patient, where it would be obviously wrong to add one iota to the shock already existing. Where, again, the bowel is in a gangrenous condition, especially when adherent to the sac, it would be more prudent not to attempt it. It is, in fact, one of those operations of which the surgeon must be the judge at the time of its performance. Only, it should be the rule rather than the exception. The opportunity afforded by a strangulated condition to effect a solid cure, should also prove an inducement to operate as early as possible in every case, without waiting to see how completely it is possible to defeat Nature's efforts by that species of taxis which results in inflammation of the bowel, or perhaps sloughing of the sac or omentum. I had an illustrative case of this kind quite recently. A man of middle age, with a history of scrotal hernia of long standing, was seized with some of the symptoms of strangulation, but without constipation. Taxis was perseveringly employed, with the result that he was brought to the hospital with a large suppurating scrotum, which, on being opened, showed that he had been suffering from an irreducible hernia, and that the efforts to reduce this had caused so much inflammatory action as to lead to sloughing of the mass of omentum of which the hernia consisted, and the formation of an abscess in the sac. Happily, the opening into the peritoneal cavity was closed, and the case has progressed well.

I have, in some former papers (British Medical Journal, 1880, 1881, and 1882), advanced what seem to me cogent reasons why all suitable cases of reducible hernia should be as far as possible not merely relieved, but cured—provided this can be done without undue risk to the sufferer. This is really the vital point in the consideration of this question. Are any of the operations usually performed with this object in view, sufficiently safe to warrant their frequent performance? and, again, are they reliable enough to effect the desired purpose, and to render it worth while on the part of the patient to submit to the danger and inconvenience of an operation? An operation of expediency, in order to be fully justifiable, must be reasonably safe; and if it can be shown that this is the case, the main difficulty in the way of its more general adoption will be removed.

There is a general impression that a truss will effect a cure in a large proportion of instances, provided it be worn long enough—that is, for life. But we have no clear evidence of this. Instrument-makers will tell you that, when once a truss is worn, it is usually worn for life, unless, as too often happens, it helps to bring about strangulation, and thus ends its career. Some ruptures undergo spontaneous cure, some few may be cured by the use of a truss; but there remains a large class which are not amenable to any palliative treatment, and seem to demand other measures for their cure.

In boys and young men, so far as inguinal hernia is concerned, I have seen the most favourable results from my own operation; and in them the results are the most satisfactory, both as regards the permanence of the cure, and the safety of its performance. I have never practised it in the case of old men, though there is no reason against it of which I am aware. In a few instances, I have been asked to operate in gentlemen past middle age; but their high social position, and the adequate support afforded by a first-rate truss, led me to advise the continuance of its use rather than any operative measures.

Mr. Mitchell Banks, who has kindly come to give us his experience, has proved himself such an able champion of the open operation by ligature, that it is superfluous for me to advocate its utility; but it may be as well to draw attention to the fact that, in its earlier days, this operation was attended by a comparatively high rate of mortality—a rate, indeed, sufficiently formidable to deter cautious surgeons from following it. During the last few years, however, this has been, to a large extent, remedied; and the results which have been published recently are sufficiently good to justify its more general adoption.

Dr. Warren, of Boston, Massachusetts, has recorded a large number of cures by Heaton's method of injecting a decoction of oak-bark around the hernial ring. When in America recently, I found that several cases had been operated on in this way at New York with a fair amount of success, but the operation seems to be little adopted generally.

Dr. Macleod, of Calcutta, operated in twenty-eight cases by ligature, antiseptically, with six deaths. His plan is to isolate the sac up to the internal ring, then ligature it with catgut in three places, cutting off the sac below the lowest ligature. He then stitches the inner pillar and conjoined tendon to the outer pillar, leaving the neck of the sac as a plug in the inguinal canal. Of the whole number, seventeen were cases of reducible hernia, and among these were two deaths. But besides these, there were five cases in which suppuration and putrefaction took place. The rupture recurred in two out of eight instances where union by first intention took place, and the average

number of days in hospital was fifty-five. Such results as these do not say much for the safety of the method, and sufficiently show, as the *Lancet* remarks, that "it is a procedure not to be entered upon lightly."

I was somewhat gratified to read in the *Edinburgh Medical Journal* of August, 1883, some account of Dr. Neve's experience in India on this subject. The arguments he uses are so forcible, and his remarks so apposite, that I venture to reproduce some of them here.

Dr. Neve narrates nine cases in which he operated, during the year, by my method, in the Kashmir Mission Hospital, where Dr. Downes had, the year before, also operated on eight cases with success.

The patients varied in age from two months to fifty years, and in only one case was any constitutional disturbance observed; pain was seldom severe, sometimes altogether wanting. Eight of the cases are reported as cured, one recurring. This one was in a man who ran away from the hospital the day he was operated on, and only returned two days later, because he could not remove the instrument himself. Recurrence was hardly surprising under the circumstances; that he survived the recurrence is the only wonder. Notwithstanding, the hernia was, when last seen, only about a quarter of the original size. The longest time in hospital was thirty-one days, and the shortest eight days. In no case was there any accumulation of pus, sloughing, or dangerous symptom of any kind.

Dr. Neve observed that the hardness remaining at the hernial canal "conveys an impression of great security, such as to make the spot operated on decidedly stronger than some of the parts immediately around." He adds "of the obliteration of the sac in this operation, I entertain no doubt whatever." After a comparison between other methods and my own, Dr. Neve concludes by saying: "I am certainly not prepared to think that there can have been, or will eventually be, recurrence in more than a small proportion of the cases operated on, and hope that my small experience may contribute to show that, in Spanton's operation for radical cure of hernia, we have a method devoid of danger of death, almost without risks of any serious results; —a method of singular simplicity of detail and ease of application; a method adapted for the congenital hernia of the tube, as for the large tumour and lax tissues of the old, and far more suited than more delicate, and perhaps more precise, operations for the requirements of country or colonial practice, in which it might well replace the palliative measure of a truss or bandage with which the profession has too long been satisfied."

This independent testimony is the more valuable, inasmuch as Dr. Neve is personally unknown to me, and I have had no communication, direct or indirect, with him.

To sum up, the cardinal points bearing on the question of the cure of simple hernia may be said to be *necessity*, *safety*, and *efficiency*. I have shown elsewhere, both from analogy as well as from direct evidence, that the first cannot be questioned in those cases which are not amenable to effectual treatment by means of a truss; and that we have no more right to permit a patient who consults us concerning a painful physical, and, incidentally, still more trying mental state, to continue unrelieved, than we have to refuse to remove an agonising neuroma, or excise a painful joint, on the ground that in neither case is the patient's life in jeopardy. I have also shown, and the diagrams here will exhibit, the large number of hernial subjects who die annually from strangulation, the larger proportion of whom ought to be considered as dying from a preventable cause. How common it is to see, among working men and women, an ill-fitting truss, not unfrequently upside down, rubbing on a descended rupture, and ready, when strangulation takes place, to irritate and influence the constricted bowel! When we meet with such cases, the surgeon knows only too well that his prognosis must be unfavourable, and that the unlucky truss has done its worst to vitiate the beneficial results of any operation performed for the relief of the strangulation.

Truss-dangers afford, therefore, a strong argument in favour of operative measures while a permanent cure can be safely effected. Practically, a hernial subject is an unsound one, and cannot pass a medical examination for any public service; nor will a truss avail him in the least to overcome this difficulty; but a curative operation will. One of my cases is that of a boy who was committed to an industrial school; but, on account of a rupture, according to the rules of the institution, he was inadmissible. It occurred to me, therefore, to cure the boy first, and let him be admitted afterwards. This was done five years ago; and the lad has worked on the school-farm since, has become an useful, steady, working lad, instead of the alternative course of being sent to prison or among the young criminals of a reformatory. He is here for you to examine.

An instance occurred to me this year, in which a gentleman of position consulted me on account of his only son, about six months old, who had a rather large inguinal rupture. The child had worn a truss, but being a noisy, roaring infant, it was not of the slightest use. The father said to me that he would not have a child of his "not perfect," if by any means he could be made so; and expressed a strong wish to have an operation performed for the cure of the hernia. In February last I operated by my usual method, at the same time circumcising the child for a tight phimosis, which had probably been the cause of the rupture; and I have lately heard that the result has been very satisfactory. Now, in this instance, the necessity arose from the utter uselessness of a truss, and from the full recognition on the part of the parent of his responsibility towards his young child. He has now the satisfaction of knowing that he has done his duty, and has had his child made physically "perfect."

I ought to add that the surgeon, in whose charge the patient was, recognised his responsibility in the matter with that amount of moral courage which too many lack, by advising the performance of the operation, even in the case of a son and heir.

Of the second element—that of safety—I think I need only say that up to the present time, no case has come to my knowledge in which death has resulted from the performance of my operation; nor have I seen or heard of a single case in which symptoms of an alarming nature have been attributable to it. No instance of general peritonitis, of erysipelas, of pyæmia or septicæmia, or any other indication of blood-poisoning, has, so far as I am aware, been observed. The operation must have been performed at least one hundred times by different surgeons; and there are not many operations of the same degree of gravity of which it can be said that this number has been performed, in various parts of the world, without a single fatality. It may, therefore, be looked on as a safe operation.

The ligature method can, of course, be applied to a much wider range of cases, and we shall hear from other speakers what they have accomplished in this direction. I am quite ready to admit and fully appreciate the advantages of an open dissection; but it must be borne in mind, as I have already indicated, that the mortality hitherto from this method has been very different indeed from the subcutaneous one. As experience increases, we may expect the proportionate safety of the operation to augment also.

Lastly, as to efficiency; some captious persons seem to think that unless an operation can restore the abdominal walls to the same condition as they ought to have presented if the sufferer had never had hernia at all, it cannot be called efficient. But surely this is expecting a little too much. What is usually meant by being efficient is, take it, that a hernia, which formerly came down of its own accord does so no longer under any ordinary provocation, and that artificial support of any description is not required. That, moreover, this condition is not only temporary, but permanent—unless, or until, a new and independent rupture may take place. Now, this efficiency is assured in all the cases which we call cures, and which constitute a variable proportion, which is difficult accurately to determine, of those operated upon. In some of the cases I have shown at meetings of the British Medical Association, and elsewhere, it has been almost impossible to distinguish any indication of an operation having been performed, without careful scrutiny. I have usually found that, when the result has remained good for twelve months, it has been permanent, and some of my cases, which you will see, were done more than five years ago. It is well never to be too hasty in assuming that an unpromising looking case is about to prove a failure. Some I have seen of this kind have turned out as satisfactory as possible in the end. A few failures need not dishearten us; for, even in some of these, a man may be enabled to perform work for which, either with or without a truss, he was quite unfit before; and this surely is a great advantage.

I have on a former occasion described the operation I usually practise. It has been objected by some that the proceeding is "occult," and this is, to a certain extent, true, inasmuch as it is subcutaneous. When, however, the finger is introduced under the skin, it is surprising how accurately the parts around can be felt, and the exact position of the vessels and adjacent structures be clearly defined. For this reason, the operation is one which can be almost as exactly performed as one that is open, and we avoid some of the drawbacks incidental to the latter. Hæmorrhage is by no means trivial in some of the cutting operations; free suppuration is tolerably frequent; and, in many, a large unsightly cicatrix is left, weakening the abdominal wall at the part. In this way, in some of these cases, I have seen the patient in a worse state than he was before anything was done. Whatever defects may be alleged against my operation, I do not remember a single instance in which, when it has failed to effect a cure, matters have been made any the worse by it. Failure in effecting a cure, is one thing; but to make the patient worse than he was before, is quite

ther. Each operation has its sphere, and, while I prefer the strephome for young patients, and for moderate-sized herniæ of the inguinal lass, I am inclined to believe that, for other cases, it is best to cut own, and apply some form of ligature to the sac and abdominal rings. Ve must never lose sight of the fact that we rarely see two cases of ernia exactly alike; and, although we may lay down certain general ules for guidance, yet each case will have to be dealt with on its merits. Vhat will apply to a large, lax, thin hernial opening, will certainly ot answer for a small, tight, dense one; and it must necessarily rest ith the surgeon himself to judge, from the nature of the condition ith which he has to deal, what is best likely to succeed. Experience ill teach far more on this head than arguments or statistics.

In all these cases, the risks, as well as the advantages, of an operaion ought to be clearly stated to the friends of the patient, with hom the decision as to its performance should rest.

The foregoing remarks have reference chiefly to the inguinal forms f rupture, but other forms are likewise amenable to cure; and the ame arguments which are applicable to the one form apply equally to he others. Among these, umbilical hernia ought specially to be entioned. There are few conditions which entail greater discomfort, r lead to more constant danger, than a large exomphalos; but, haply, it is an infirmity which can in many instances be dealt with by perative measures. Although my instrument can be, and has been, sed to remedy this condition, it seems to me the best method is that f ligature. It was first advocated by Mr. Barwell in 1861; and the peration he describes of opening the sac, removing any adherent or uperfluous omentum or sac, ligaturing its neck, and stitching the dges of the umbilical opening, is the same as that now usually practised. Mr. Mitchell Banks and Mr. Lawson Tait, as well as my colague, Mr. Folker, have had considerable experience of this operation, nd we shall, no doubt, hear their views upon it. The last patient on hom I operated was enormously fat, as most of them are, with a very rge hernia, more or less adherent to the sac. I removed a large porion of omentum, with the whole of the sac, which was securely tied ith silk, and the edges of the opening, after being pared, stitched ogether. The result was quite satisfactory.

In femoral and ventral herniæ, too, the ligature is most valuable, and as now been employed in a sufficient number of cases to warrant its ore general adoption.

Having said so much in favour of operative measures, it must not e inferred that they are advocated for universal or indiscriminate loption. Nothing of the kind. Of course, a patient suffering from ny serious chronic disease—especially tubercular—from habitual ough, or other ailment, which would contraindicate any ordinary rgical procedure, would be equally unfitted for this. The chief urces of danger are to be found in some of the forms of inflammatory tion—peritonitis, diffuse cellulitis, orchitis, hæmorrhage, and sepcæmia.

In some cases, sharp orchitis has taken place, with considerable dema of the scrotum; but this, within certain limits, is not to be precated, as it shows that the spermatic cord has been tightly compressed by the closure of the canal; and no ultimate harm arises from . I have met with localised cellulitis, in a few instances, which resulted in free suppuration along the line of the instrument. In one, is was caused by the restlessness of the patient, with a strumous abit. No further harm resulted than delayed convalescence, though, one instance, the free suppuration prevented adhesive union, and used the operation to be unsuccessful. Peritonitis ought never to appen if the neck of the sac be securely closed, so that the peritoneal vity is at once shut off; and, to guard against septicæmia, every ssible surgical precaution ought, of course, to be rigidly taken.

These are the chief dangers; but there are some inconveniences obrved sometimes which deserve brief mention. One is the rather equent occurrence of retention of urine. It usually lasts only a day two, and is, of course, at once remedied by the use of the catheter. ain is sometimes rather considerable; usually it is very trivial, but casionally requires the free use of sedatives. I am disposed to attrite it to the inclusion of the ilio-inguinal nerve, for, as soon as the rephotome is removed, the pain usually ceases. In very young chilen, the difficulty of keeping on the dressings has led me to adopt the ternative of not attempting it, but simply to keep the wound conantly moistened with eucalyptus, or other antiseptic oil, and leave it en. Cases so treated recovered quite as well as others. One instance rly I remember where the bowel descended while the instrument as in position. In this case, the child was a cross loud-crying e, and the hold on the internal pillar gave way. No harm was done; e instrument was at once removed, and a second operation subseently performed, which resulted in success. In another case, where e operation was successful in curing the oblique inguinal rupture, so much thinning of the abdominal wall took place, over the situation of the internal ring, that a direct inguinal hernia resulted. This appeared to be an illustration of one of the reasons advanced by some authors against all operative measures—namely, the inability of certain abdomens to find room for their contents, so that they must protrude somewhere. But even in this case, the small direct hernia was easily amenable to control by a light truss, whereas what it replaced was quite unmanageable.

These constitute, I think, the principal drawbacks to the operation; and it will be acknowledged that they are trivial, compared to many which might be named, associated with other and less important surgical proceedings; but I have been anxious not to exaggerate the advantages, on the one hand, nor to extenuate the dangers, on the other —even at the risk of being unnecessarily prolix.

ON THE RADICAL CURE OF HERNIA.

Read before the Staffordshire Branch.

By VINCENT JACKSON, F.R.C.S.Ed., M.R.C.S.Eng.,
Senior Surgeon to the Wolverhampton and Staffordshire General Hospital.

It is now twenty-five years since Wutzer recommended his well known treatment for the cure of hernia; a treatment which, although a very fair and impartial trial was given to it, signally failed to permanently accomplish what it professed to be enabled to do.

Professor Wood materially revived the attention of surgeons to the operative treatment of these cases. This operation was, and is, practised by many. Mr. Spanton simplified Wood's operation, and a large measure of success has been obtained by its employment. But the question arises, can the operation of Wood or of Spanton truthfully be called a radical cure? Have not both of these operations failed in some cases to effect a temporary cure; and, in others, has not a return of the hernia when a truss has not been worn, even in promising cases, been a cause of disappointment alike to patient and to surgeon? To me it seems a misnomer to call an operation radical, which requires the wearing of a support to prevent its becoming ineffectual; and while I admit my admiration of the ingenuity displayed by the authors of the two operations alluded to, yet I am bound to say that, in my opinion, the only operative procedure which can justly be spoken of as radical is, when the sac is either dissected away or pushed within the abdomen, and the pillars of the external ring, where possible, completely and permanently united.

If the handiwork of the operator upon the lines just indicated be rewarded by a successful recovery, I can hardly conceive the possibility of a relapse, for the closed pillars seem to me to be as much a barrier to a re-descent as the pad of any truss. How are the pillars to be maintained closed? Not by the use of silk or gut sutures, but by the employment of silver wire.

Mr. Mitchell Banks has spoken strongly upon the importance of metallic sutures, and he says that he has found a single tie sufficient to prevent separation of the two ends. I have, however, generally finished off with a twist or two.

But while I have thus expressed myself, truth, sincerity, and experience compel me to state that, in my opinion, a place will always be found for Spanton's operation. There are many cases of inguinal hernia in which it is not only applicable, but perhaps preferable to the other methods.

I will now narrate the history and notes of my last operative case for the cure of hernia.

H. C., aged 18 months, was admitted into the Wolverhampton and Staffordshire General Hospital, August 19th, 1884. The mother reported that the baby was still unweaned, and had suffered almost from birth from a right inguinal hernia; and although a truss had been applied and worn more or less, yet the hernia continually came down, and at last its size became so great that a truss was powerless to prevent its descent. This unpleasant condition was so troublesome, and at times occasioned so much pain, that the parents requested the performance of some operation to palliate or cure the defect. The child was healthy, and well nourished. The hernia was with ease replaced; the rings, easily admitting the middle finger, were large, and almost in direct apposition.

On the left side, there was no evidence of the presence of a hernia or of any weakness of the abdominal walls in the usual situation of a hernial protrusion; the external ring was thoroughly competent. To test the accuracy of the mother's statement, the truss-maker to the hospital was requested to fit a truss to the patient, but with a negative result; for, upon standing or crying, down came the bowel.

The child having been weaned, and being in every way in a suit-

able condition, on September 19th chloroform was administered; and, the sac being emptied, the following operation was performed, Listerian precautions being used.

An incision was made from just above the external ring, on the right side, through the whole length of the scrotum, until it terminated immediately below the posterior wall of the sac, that is, the centre of the lower end of the testis; and, in this way, all the structures down to the sac were severally incised. The apex of the latter, which was not opened, was cleared away from the margins of the external ring and structures of the cord by means of a Brodie's director; and, being then held between the forefinger and thumb, it was pulled down as much as safety would permit, so that its highest point could be deligated by a chromicised catgut-ligature. Just below, with a pair of scissors, the sac was cut across, the upper end immediately slipping within the ring; and the lower portion, except the part attached to the testicle, was removed by dissection, due care being taken to avoid injuring either the vas deferens or the vessels accompanying it. All bleeding points having been secured or arrested, the pillars of the external ring were approximated by four points of interrupted silver wire suture, and the scrotal wound coapted by gut-sutures applied and tied at very short intervals; at the extreme lower limit, and at the most dependent point, a small and short glass drainage-tube was inserted. The gauze-dressings having been carefully and systematically applied, and due convenience for micturition also afforded, the little patient was returned to his cradle.

September 13th. The report stated that, immediately after the operation, and for many hours, the child was very faint, and at times much collapsed. Restoratives were freely used, and eventually rallying commenced, and reaction was fully established. There had been no sickness, neither was there the slightest abdominal tenderness. The dressings, being in good position, were undisturbed.

September 14th. The wound was dressed, the drainage-tube being removed.

September 16th. The wound was redressed; it had a very healthy appearance.

September 19th. Lister's dressing was discontinued, as the wound was healing fast. Unguentum boracis was applied; and, in a few days, the healing was complete and sound. Three or four weeks afterwards, the child commenced to have whooping-cough; and, in spite of this severe and trying test, the radical cure continued. No truss has been worn since the operation.

This case causes reflection as regards (1) the age of the patient; (2) one or two points in connection with the operation.

1. The patient was young, and with truth I think it may be added very young—an unweaned baby carried in the arms; and probably, unless the spray had anything to do with it, this circumstance was the cause of the very prolonged shock which followed the operation. On several occasions, I have noticed the depressing effect of surgical operations upon young children; they bear the operations well, but they bear the shock of them badly.

2. The points in connection with the operation are these. *a*. The sac was ligatured before it was opened; and it was detached from above downwards, instead of, as some surgeons prefer, from below upwards. *b*. The pillars of the ring were carefully stitched together, and closed by four silver wire sutures, and so there is every reason to believe they still remain an evidence of the advantage, as well as of the necessity, of using metallic rather than catgut sutures; for with the former you are enabled permanently to place an effectual barrier against the re-formation of a fresh sac and hernia.

ON THE TREATMENT OF IRREDUCIBLE INTESTINE IN HERNIOTOMY.

By F. A. SOUTHAM, M.B.Oxon., F.R.C.S.,

Assistant-Surgeon to the Manchester Royal Infirmary, and Surgeon to the Clinical Hospital for Women and Children.

It occasionally happens that, on opening the sac in herniotomy, coils of intestine are found, so closely and so firmly bound together by dense adhesions, that it is impossible to divide or tear them through without injuring the bowel; especially in cases where the walls of the latter are extremely congested, and, consequently, more readily lacerable than in a healthy state.

This condition is only met with in herniæ which are of long standing, and have previously been of an irreducible nature. Associated with these internal adhesions, others are often found running between the walls of the sac and its contents; in rare instances, the portion of mesentery contained in the sac is so much thickened and hypertrophied that, independently of the presence of any adhesions, the bowel may be irreducible from this cause alone.

In ordinary cases, adhesions, especially if recent, may be divided or torn through without much danger, though at times it may be necessary to dissect away the portion of the sac to which they are attached.

It is to the treatment of cases where the internal adhesions (that is, those between the coils of bowel) are so extensive, so firm, and so short, that they cannot be separated in this way, or where the hypertrophied condition of the mesentery is present, that I wish to call attention.

The ordinary method is to leave the bowel, after dividing the stricture, unreduced in the sac; the result is that the bowel, especially if much congested or inflamed, not unfrequently sloughs and gives way, or if recovery take place, the patient is still left with an irreducible hernia. In other cases, attempts to break down the adhesions are persevered with until the bowel is ruptured. An alternative to these procedures, in cases of inguinal hernia, is to enlarge the opening in the abdominal walls by an incision, carried upwards from the internal ring, large enough to admit of the reduction of the coils of intestine, still adherent together, into the cavity of the abdomen. The opening having been made, the bowel is replaced through it, as it were, *en masse*; the wound in the abdominal wall is then closed, and at the same time a radical cure may also be performed.

In illustration of this method of treatment, I may mention the following case of strangulated inguinal hernia, which was under my care at the Manchester Royal Infirmary, in February, 1884; it occurred in a man, aged 49, the hernia having been present and irreducible for upwards of twenty years. On opening the sac, there was found a mass of bowel, of the size of one's fist, the coils of which were firmly adherent together by short, dense, firm bands, evidently of long standing; there were no adhesions between the bowel and the walls, or the neck, of the sac, nor was there any omentum present. After dividing the constriction, which was high up at the internal ring, an attempt was made to separate and break down the adhesions binding together the coils of intestine; but these were so firm and short, that it was quite impossible to do so without lacerating the walls of the bowel, which, being extremely congested, were not in a condition to stand much force or pulling about.

The incision was accordingly prolonged along the inguinal canal up to the internal ring, and then carried upwards from the latter for about three inches through the whole thickness of the abdominal walls. This having been done, the coils of intestine, still adherent together, were then without any difficulty at once replaced in the abdominal cavity. The margins of the opening in the peritoneum were brought together by catgut sutures, and the internal ring was also closed in the same way, care being taken not to include the spermatic cord. The opening in the abdominal walls was then closed with silk sutures, passed deeply, so as to include the muscles, but not the peritoneum; a drainage-tube was brought out at the top of the wound and also through a counter-opening at the lower part of the scrotum, so as to draw the sac from its bottom. The wound was then dressed according to the Listerian method, the operation having been performed under the carbolic spray. The wound readily healed, and recovery took place without a single bad symptom; the patient was up on the twelfth, and on the eighteenth day he left the hospital, wearing a truss, the pad of which was made to cover and press over the abdominal incision. When last seen, some weeks later, he was following his usual occupation, that of a labourer, and there was no evidence of any tendency to the formation of a ventral hernia.

A somewhat similar plan of treatment was adopted by my colleague Mr. W. Whitehead, with an equally successful result, in a case in which I assisted him some months previously; in this instance, however, the irreducibility of the bowel was not due to any adhesions, but to a much rarer condition—namely, an extremely thickened and hypertrophied condition of the mesentery contained in the sac.

The advantages of this plan of treatment over the ordinary method are as follows.

1. If much congested or inflamed, the bowel is more likely to recover itself in the abdomen than in the sac, where, if left, it not unfrequently sloughs, and perforation results.

2. The patient is not left with an irreducible scrotal hernia.

3. A radical cure can be performed at the time of operation.

The chief objection to this method is that, owing to the somewhat free division of the abdominal walls sometimes necessary, a ventral hernia might afterwards form at the cicatrix; but this can, as a rule, be prevented if the patient wear a truss or an abdominal belt; even if slight protrusion do appear, the inconvenience caused would be

ably be less than that which accompanies a large irreducible scrotal ernia.

The extra-opening into the abdominal cavity is not attended by much nore danger, if the operation be performed with strict antiseptic pre-autions; and the risks attendant upon it are, I think, not greater han those which accompany the leaving of the bowel unreduced in the ac, or the attempt to forcibly reduce it by dividing or tearing through ld adhesions, when exceptionally dense and firm.

NOTE ON CHOLECYSTOTOMY.

Read before the Pathological and Clinical Section of the Birmingham and Midland Counties Branch.

By LAWSON TAIT, F.R.C.S.,
Surgeon to the Birmingham and Midland Hospital for Women.

THE performance of this operation has now been so frequently successful in various parts of the world, that I think we may take it as an stablished addition to surgical procedure. I have been written to by nany practitioners, asking for a list of the cases which I have performed, and I therefore desire to publish them, in order to save the ecessity in future of furnishing each of my correspondents with nanuscript references.

[Here Mr. Tait gives a Table, the particulars of which, with the exception of the case related below, are contained in Mr. J. W. Taylor's Table, published at page 221 of the JOURNAL of January 31st.]

The only addition to the literature of the subject, which requires present notice, is a recent paper by Dr. G. McF. Gaston of Atlanta, Georgia, which has been sent to me by its author. It was printed in Gaillard's *Medical Journal* for October, 1884; and the editor proposes that the proceeding advocated by Dr. Gaston should, in future, be known as Gaston's operation. Briefly, it consists of making a communication between the gall-bladder and the duodenum. The paper in which the proposal is made is so indefinite, and contains such singular views of the anatomy and physiology of the organs concerned, that it is quite possible I do not understand the full merits of the proceeding. Dr. Gaston's operations were limited to five dogs, upon two of whom the results were eminently unsatisfactory; and it is perfectly certain that the proceedings, which he recommends for dogs, could not possibly be applied to the human being. I can see no advantage in the establishment of a circular canal passing through the duodenum and the gall-bladder; and I think that, in all probability, the ring so formed would be a very convenient trap for knuckles of intestine.

The operation of Marion Sims restores the gall-bladder to its normal function, whilst that of Gaston certainly never could. In the event of the recurrence of the disease, whether it be suppuration or the formation of gall-stones in the bladder, a small incision will enable us to reach the bladder on the second occasion without opening the peritoneum; but the whole trouble would have to be gone over again, from the first step to the last, with additional complications, if Gaston's operation had been performed; and, from my experience of artificially made fistulous openings, I do not think the chances would be very great in favour of the artificial communication remaining long open between the gall-bladder and the duodenum. Another difficulty would be that the contraction might, in process of time, form a stricture of the duodenum, so that I cannot, in face of all these considerations, see my way to give Dr. Gaston the credit for his suggestion which he evidently thinks I ought to award him.

In addition to this proposal of Dr. Gaston, I have had a large number of suggestions communicated to me from various sources, all of which I have carefully considered without having seen my way to recommend any of them as an addition to the original proposal of Marion Sims, the only practical addition to which consists in crushing the stones outside the duct by means of forceps, as already published in this JOURNAL, May 8th, 1884. The case there narrated has had a perfectly successful result, for Mr. Forty, of Wotton-under-Edge, under whose observation the patient is, tells me that the fistula has been completely closed for nearly five months, and that she is in perfect health.

I have now to add a fourteenth case of the operation for gall-stone, in which this plan of crushing the stone outside the duct had to be employed, the fragments being removed by the ordinary aperture in the bladder—a sort of combined lithotomy and lithotrity, by which one of the chief difficulties of the operation was easily and successfully overcome.

I saw Mrs. W., aged 50, in consultation with Mr. Littlewood, of Walsall, on January 6th. The patient was then haggard in expression, her face denoting protracted suffering. She had been in bed for many months, suffering from constant pain in the region of the liver, with symptoms of gastric disturbance and general *malaise*. She had been practically an invalid for five years. Mr. Littlewood had discovered a tumour below the liver; it was firm and elastic, and could be moved, latterly, in almost any direction, and to some considerable distance over to the left of the middle line; it varied from time to time in size, and sometimes could not be discovered at all. She suffered from violent exacerbations of pain, which Mr. Littlewood regarded as due to the spasmodic contraction of a distended gall-bladder, the duct of which was blocked by a calculus. I entirely agreed with his view, and we both advised the patient to submit to a surgical operation, and to our advice she yielded a ready consent.

On January 13th, I made an incision, about three inches long, over the notch of the liver, and came at once upon a distended gall-bladder. This I emptied through an aspirator needle, and made an incision into the bladder at its base. I found in the neck of the bladder a large rough calculus, which was easily removed; but, beyond this, in a saccular expansion of the cystic duct, I could just touch another calculus, upon which I could not get my forceps to act from within the bladder. Keeping the forefinger of my left hand inside the gall-bladder as a guide, I passed my forceps into the peritoneal cavity, and grasped the calculus through the walls of the duct, gave it a smart squeeze, and easily broke it into small pieces, all of which I carefully removed with a scoop. I then stitched the wound of the gall-bladder to the wound of the abdominal walls in the ordinary way, and put a gum drainage-tube into the gall-bladder.

On January 16th, bile began to flow freely through the wound, but it has now entirely ceased, as the wound is quite closed. The drainage-tube was removed on the 18th, and the stitches were taken out on the 21st. The patient got up on the 29th, and returned home on February 5th.

SEVENTY CASES OF DUPUYTREN'S CONTRACTION OF THE PALMAR FASCIA.[1]

By NOBLE SMITH, F.R.C.S.Ed.,
Surgeon to the All Saints' Children's Hospital, and Surgeon to the Orthopædic Department of the Farringdon Dispensary.

THE contraction of the fingers in these cases is now well known to be due, as Baron Dupuytren first pointed out, to induration, thickening and contraction of the palmar fascia, the tendons and other structures remaining in a perfectly normal condition.

The truth of this view of the pathology of these cases has been abundantly proved by dissection in the dead, and by examination and operation in the living. A simple way to demonstrate the fact that the resistant cords which may be present are not tendons, is to place a finger upon the palm, while the patient brings the flexors into action by closing his hand against some resistance. If the cord were a tendon, such action would increase its tenseness, whereas the band of fascia will be thus relaxed.

Without entering into further details of description of this affection, which are well known, I propose to discuss several points which appear to me to be of chief interest, and upon which my researches enable me, I believe, to throw some new light.

Through the courtesy of Dr. Rayner, medical officer to the Marylebone Workhouse; Dr. Yarrow, of the City Road Workhouse; and of Dr. Dunlop, of the St. Pancras Workhouse, I have been enabled to examine 700 elderly inmates of those institutions, among whom I have found 70 cases of Dupuytren's contraction (in 15 of which, however, the fingers were not bent). The points to which I have chiefly directed my attention, are,

1. The supposed immunity of females from the affection;
2. The cause of the malady;
3. Its treatment.

Modern writers have stated that contraction of the palmar fascia is only found in men. This statement is incorrect, for, out of 444 women examined, I found 11 cases of well-marked Dupuytren's contraction, and 15 cases of indurated, thickened, and contracted fascia alone.

I may here remark that, amongst the individuals examined, I found many cases of various kinds of deformed and contracted fingers; some from gout, some from rheumatism; also some of those congenital cases in which the joints and the tissues in the immediate neighbourhood of the joints are at fault. These congenital cases have occasionally been set down wrongly as Dupuytren's contraction, and I

[1] Read before the Medical and Chirurgical Society, March 25th, 1884.

therefore take this opportunity of remarking that I have been careful not to fall into this error.

I have made sketches of some of the undoubted cases of this contraction in women, which I now show you. (Figs. 1 to 7 inclusive.)



Fig. 1.



Fig. 2.

The next point which I propose to discuss is, the cause of this disease.

Many modern writers have considered the affection to be the result of gout, a fate which has befallen many other obscure, and perhaps more serious affections. It has also been thought to be rheumatic.

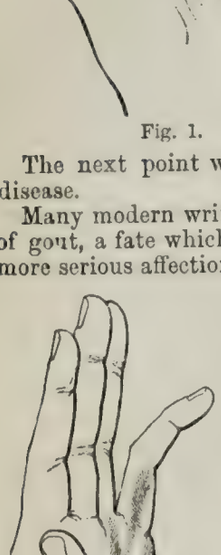


Fig. 3.

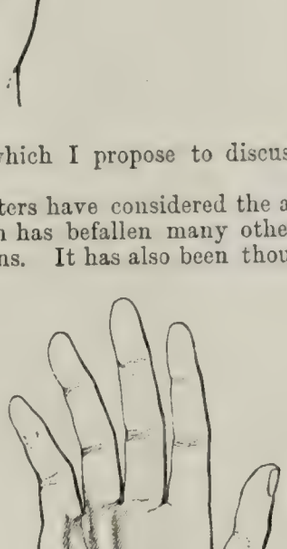


Fig. 4.

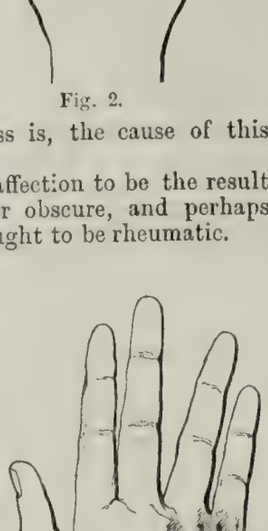


Fig. 5.



Fig. 6.



Fig. 7.

My researches go far towards showing that it has nothing whatever to do with either gout or rheumatism. Of the eleven women above mentioned, two had had a good deal of rheumatism, three said they had suffered from it, one would only acknowledge to having had it very slightly, and the other five had never had any rheumatism at all. None of them had had gout. Of the 44 men, 8 said they had suffered much from rheumatism, 1 had had it moderately, 9 had had very little indeed, 2 acknowledged to rheumatic gout, 3 only had suffered from gout, and one of these had only had slight attacks, but as many as 19 denied having suffered from either gout or rheumatism.

When we consider how common a complaint rheumatism is, we should not expect to find many of the old inmates of a workhouse who are not occasionally sufferers from this affection; so that the above figures may, I think, be considered (as I have considered them) as tending to disprove any association between Dupuytren's contraction and rheumatism. The fact that three only had suffered from gout may be considered by some to prove nothing, as they will probably say that in the other cases gout was expending itself on the fascia, or some similar statement; but such opinions will be no evidence, and I venture to consider it shows that Dupuytren's contraction is not due to the gouty diathesis.

Moreover, among the gouty subjects of these workhouses, and there were many of them, I noticed that the hands were peculiarly soft, totally different from the hands of those affected with contracted fascia.

From my inquiries, I could discover no special *general condition* of health which might have given rise to the disease. In fact, the affected individuals, both male and female, seemed nearly all healthy and tolerably robust. They were mostly old people, the average of their ages being 73; forty-one were over 70, and twelve of these were over 80. Their own ideas about the origin of the contraction were generally rather vague; but some particular kind of work was credited by many of them with having been the cause. Thus, among the women, using a hammer, holding the board in washing, pulling the handle of a beer-engine, and general hard work, were mentioned; among the men: wheeling heavy loads in a barrow; using a brush to dress horses; carrying a hod; using a chopper; using pliers in wire-work; using a hammer; using a spade; using an awl; blacksmiths' work; painters' work; plasterers' work; using a pick and shovel; driving; joiners' work; rubbing a copper plate in printing; coach-painting; turning the draw-winch in piano-making; and others attributed the contraction to general hard work.

Thus evidence regarding the former occupations of the individuals affords us very little information concerning the cause; but the much greater frequency with which the right hand suffers leads one to suppose that *use* has a material influence. Thus, in 20 cases, the right hand alone was affected; in 8 cases, both hands suffered, but the right hand chiefly. In 4 cases, the fingers were contracted in the right hand, and the fascia only in the left. Both hands were about equally bad in 15 cases; the left hand alone in 3 only; both, with the left chiefly, in 2 only; the left fingers contracted, and fascia alone in the right hand, in one case only. Thus, when one hand alone was contracted, we have 20 right hands to only 3 lefts. So, to sum up the whole, we have 32 cases out of 55 in which the right hand suffers chiefly.



Fig. 8.

In the cases of fascia-contraction, without the fingers being bent, we find a more equal result, for, in eleven cases, both hands were involved. In two cases, the right only, and in two cases the left only. With regard to individual fingers, the ring-finger was most commonly contracted. It occurred twenty-nine times; the little finger fourteen times; the ring and little fingers eleven times; the little, ring, middle

nd index, three times; the ring and middle once; the little and ndex once; the little, middle, and index once.

With regard to the question of pressure as a cause, we must remark hat, in some cases, no such influence seems to have existed. Case 59 s a good example. This was a very intelligent man, aged 75; the figure Fig. 8) shows the extent of contraction in the two hands. He was a abinet-maker up to 30 years of age, when he became a teacher in a chool, and has never done any manual work since. The contraction egan when he was 55 years old, without any apparent cause, unless t were rheumatism, from which he had suffered much all his life, or heumatic fever, with which he was laid up about the time the contraction began. The deformity has increased gradually up to the present time. His general health is good.

Of course, the majority of the inmates of workhouses have done ard work, so that it was not to be expected that one should find many ich cases as this one, but other instances have been recorded of this ffection occurring in people who have never done hard work.

Case 50 has some bearing upon this point, for the left hand alone as contracted, as shown in the figure (Fig. 9); although the man, ho had been a sawyer, said he had always used his right hand most.



Fig. 9.

The large proportion of cases in which both hands were affected ems to indicate something more than a local cause. If we include ie cases of induration and contraction of fascia in which the fingers ere not bent—and I know of no reason for not doing so—we find oth hands affected in 41 cases of the 70. What general cause can ave thus influenced the hands symmetrically, it is difficult to determine, but there is one condition which may perhaps indicate some erve-irritation. I refer to contraction of the palmaris longus muscle. n the last 45 cases which I saw, I examined the tendon of this uscle, and found it tense and prominent in nearly every case (in two three individuals whose wrists were thick and fat, it was not apparent).



Fig. 10.

Perhaps contraction of this muscle may be the first morbid condition, and by its constant action irritate the fascia, and so cause it thicken and contract. If this be so, such a process would not preclude the formation of the contraction in some cases by irritation of ie fascia locally. In fact, it seems to me probable that in many ases local irritation produces contraction of the muscle first, and subsequently helps to keep up the irritation of the fascia, and that in the other cases the contraction of the muscles is the original cause.

I have met with several cases which show that injury to the fascia will produce contraction identical with, or very similar to, Dupuytren's contraction.

Case 34 was that of a very intelligent man, aged 66, whose right hand alone was contracted, as shown (Fig. 10).

It began six years ago, while he was working in the Zoological Gardens, where he had been for several years. He injured his hand with a piece of iron, which entered at the back of the hand and penetrated to the fascia in the palm. From the appearance of the hand there seemed little doubt that the injury had caused the contraction, and the condition of the fascia, independently of the cicatrix, was almost exactly similar to that of the other cases.

In Case 51 (Fig. 11) the right little finger alone was contracted, it had existed five years, and was attributed to a cut with a piece of pipe, of which cut the scar remained, and the thickening surrounded the scar.



Fig. 11.

Several other cases were attributed to injuries, but in these cases there were no special reasons for accepting such explanation of the origin.

Treatment.—After troubling you with so many details of the conditions met with in these cases, I am able, I think, to offer a few practical suggestions with regard to treatment.

Forced extension of the fingers by means of mechanical apparatus has not proved very successful, and one might suppose that the irritation produced by such extension might give rise to increased disease of the contracted fascia.

Subcutaneous section of the fascia is the only operation which promises relief, but such relief has not always been permanent. Multiple incisions have been recommended, but I would urge the importance of making as few incisions as possible, because it is our object to separate the cut parts of the fascia sufficiently far to prevent reunion and re-contraction.

The permanent effect of division of a band of fascia in one place only was shown in Case 65. The figure (Fig. 12) shows the right hand.



Fig. 12.

The contraction had existed for twelve years, and the patient stated that, twenty years ago, the left little finger was nearly as bad, but that, while at work as a copper-plate printer, the band of fascia broke,

and the finger was released, and has never recontracted. The thickening of the fascia, and the depression where the pieces had separated, were very well defined.



Fig. 13.

If one, or at most two divisions, do not suffice to release the fingers, I would apply pressure to separate the cut ends, and postpone further operation for at least a few days.



Fig. 14.

Another plan can be followed with advantage in some cases. Division of the band of fascia diagonally, after separating the distal end from the skin; the object being to obtain union of the cut fascia in a lengthened position; but I prefer, when possible, to separate the ends entirely.

I think the contraction of the palmaris longus muscle demands more attention than it has hitherto received, and that, when tense, it should be divided. Possibly, in the early stages of Dupuytren's contraction, tenotomy of this muscle might stop the development of the disease, by lessening or removing the constant irritation of the palmar fascia.

I will conclude this paper by showing you sketches of a hand upon which I operated, on the principle of few incisions, one representing the contraction before operation, and the second showing the result of the incisions (Figs. 13 and 14). The result of the operation has been entirely satisfactory.

THERAPEUTIC MEMORANDA.

CUCAINE IN SKIN-DISEASES.

SINCE the value of new drugs is only to be estimated from records of the results obtained by them in practice, I think the following cases may be of interest.

A lady was affected with extensive eruption of lichen planus, accompanied by very severe irritation, which prevented sleep being obtained except by the aid of narcotics. All the usual local remedies were tried without benefit. A 4 per cent. solution of hydrochlorate of cucaine was freely and repeatedly applied to and around the irritable spots, but no relief was experienced.

A lady suffering from severe eczema of the limbs of long standing, the affected parts being red, exuding, and partially denuded of epidermis. Most intense itching had long persisted, which none of the many measures tried had alleviated. An ointment of vaseline, containing 5 per cent. of hydrochlorate of cucaine, was freely and frequently applied to the eruption, and rubbed in as firmly as the tender and inflamed condition of the skin permitted. Some slight diminution of the irritation followed.

For cucaine to be of service for preventing skin-irritation, it seems to me that it should be dissolved in an oily or fatty substance, and the condition of parts should be such as to allow of its being firmly rubbed into the skin, so as to favour absorption.

WYNDHAM COTTLE, M.D.Oxon., F.R.C.S.Eng.,
Surgeon to the Hospital for Diseases of the Skin, Blackfriars.

ASTHMA PRODUCED BY A LINSEED-POULTICE.

A FEW days ago, I was called in to see a female patient, aged 32, who was suffering great pain from an ulcer over the right tibia. The ulcer communicated with some superficial necrosis of the bone, but the patient had refused the surgical aid of several other practitioners and now rejected mine also. In order to give her temporary relief, I ordered her to take half a grain of codeia, and to have a linseed-meal poultice applied over the ulcer. She strongly objected to the poultice, saying that, for the last four years, she had had an attack of asthma each time a linseed-poultice had been used. Not crediting this, I insisted on the poultice being put on. Three hours later, I was summoned to see her, as her sister thought she was dying. I found her livid, and struggling for breath, and certainly in as bad an attack of asthma as I ever saw. The offending poultice was removed, and the attack gradually subsided. This patient is not troubled by any other kind of poultice; in fact, she is really fond of oatmeal in this form. I have tried whether the dust of dry linseed-meal would induce an attack, but with negative results. If, however, a linseed-poultice be made near her, even though not for her use, she is at once threatened by a feeling of constriction of her chest. Another curious sequence in this case was the appearance of urticaria on the back, chest, and arms, and of a crop of herpes where the poultice had been.

As exciting causes of asthma, the dust of ipecacuanha, flax, scammony, oats, have all been known. Trousseau relates the case of a chemist who could not powder linseed without having a fit of asthma. In this case, however, the dust had no injurious effect; and I fancy the asthma was produced by the smell given off with the steam of the poultice. GEO. C. KINGSBURY, M.A., M.D., Blackpool.

NOCTURNAL INCONTINENCE OF URINE CURED BY LARGE DOSES OF BELLADONNA.

KATE C., aged 7, a delicate child, whose legs were so curved by rachitic deformity that she was scarcely taller than an average child at 4 years, had been troubled with nocturnal incontinence since her

th. Various plans had been resorted to by the mother without ccess.

She was ordered ten minims of tincture of belladonna three times a y. I heard nothing more from her parents, but a fortnight after I ppened to meet the mother, and was told the medicine had been rsevered in for six days without any appreciable result, and it was idently looked upon as a hopeless case. I persuaded the mother to once more. This time I ordered the belladonna in drachm doses, e dose to be taken in the afternoon, and one four hours later, just fore going to bed. These doses caused excitability and a little ndering. The second night there was no incontinence. After that, ly one dose a day was taken at bed-time, and this was continued four more nights. The cure was complete and permanent. Up- rds of four months have elapsed, and there has been no recurrence the trouble.

REMARKS.—There can be no doubt, in this case, that the taking of belladonna and the curing of the incontinence were cau-e l effect. It is a very clear instance of the different effect of the ne drug taken in different doses.

E. PAGET THURSTAN, M.D.Cantab.,
Southborough, Tunbridge Wells.

SURGICAL MEMORANDA.

HE TREATMENT OF PHIMOSIS WITHOUT OPERATION.

EE, in a recent number of the JOURNAL, a short description of a odless method of treating phimosis, and think it may be interest- to many medical men to know that such a method was practised long ago as 1740.

n *A General System of Surgery*, by Dr. Laurence Heister, Professor Physic and Surgery in the University of Helmstadt, second volume, ge 79, it is written :

"I must not here forget to mention an Instrument, contrived by intimate Acquaintance Dr. Trew, while I was at Altorf, for re- ming back the contracted Prepuce in a Phimosis, without Incision ; Table XXVI, Fig 5, where the elastic Plates AA being inserted der the Cutis, and being gradually let out by the screw B, do wly dilate the Skin till it may at last be turned back without In- ion ; but whether this Instrument will always answer the Expecta- n, I much doubt."

Speaking of paraphimosis, the author also says : "Petit's Method is compress the Glans by a strict Bandage, passed one Part through other, and, when it is sufficiently contracted, he reduces the Prae- e over it."

HENRY N. OGLESBY, 31, Micklegate, York.

PATHOLOGICAL MEMORANDA.

THE IRON PROCESS IN HISTOLOGY.

RELIABLE and time-saving process is always of value, therefore I ture to call the attention of working pathologists to the following n. I may premise that iron was first, I believe, used in normal tology by Polaillon, in the study of sympathetic ganglia, and sub- uently by the Drs. Hoggan, for bringing out the details of articular tilage ; but, to my knowledge, it has never been used to any extent morbid histology. I have been in the habit of employing it for ne years; and, as I cannot find any reference to it in the most modern rks on the subject, it will be well to draw professional attention to method I employ, through the medium of the JOURNAL.

Preparations that have been hardened in alcohol or methylated rit are either placed for twelve to twenty-four hours in a ution of chromic acid, one-eighth per cent., or in water; y are then frozen in gum, and cut by the Williams-Swift crotome, and floated on to water. Thin sections are selected, and ced for a minute in strong spirit, then dipped, for half a minute, ordinary tincture of perchloride of iron, and at once from this thout washing) into a 2 per cent. alcoholic solution of pyrogallic d for half a minute, then washed in water. In another minute they ready for dehydration in absolute alcohol, and can be at once sed through clove-oil and mounted in Canada-balsam in the linary way, or they may be washed in water and mounted in cerine. The preliminary immersion in spirit is not absolutely essary, though I think that it somewhat improves the action of iron and acid, and perhaps gives better preparations.

This plan is suited to any morbid growth, but it is especially licable in growths in or near epithelial surfaces. The details of all ds of tumours can be accurately studied, and even the finest fibres of the stroma and its contained cells can be distinctly made out.

I shall be happy to show many specimens of various morbid growths to anyone interested, at the laboratory of the Hospital for Women Soho Square, W. H. A. REEVES, 78, Grosvenor Street, W.

TOXICOLOGICAL MEMORANDA.

POISONING BY CHLORODYNE.

LATELY, a kind person, by mistake, gave an ounce and a half of Browne's chlorodyne, *minus* twenty minims, to an elderly farm-labourer. An emetic was soon afterwards administered, and the patient quickly recovered from the effects of the dose. He was brought to the hospital the next day, apparently none the worse. The case is interesting with reference to the one related in the JOURNAL of January 24th.

THOMAS COLE, M.D.Lond., M.R.C.P.,
Physician to the Royal United Hospital, Bath.

TOXIC EFFECTS OF GELSEMINUM.

ON May 7th last, I was summoned to a patient I had been attending for neuralgia, by a message stating she was in a fit. On arriving, I was informed that, the pain being severe, she had taken within an hour an eight-ounce mixture containing, besides quinine, two drachms of the tincture of gelseminum. The first symptoms were giddiness, followed by double ptosis, extreme dimness of vision, difficulty in breathing, also in articulating. I was also informed that there had been a transient rigidity of the muscles of the neck, arms, and slightly of the lower extremities. At the time when I saw her, about two hours after taking the mixture, she was very pallid, the face was drawn, there was double ptosis, slightly contracted pupils, and dimness of vision ; the pulse was rapid and feeble, and the extremities chilly. The patient complained of numbness in the hands, feet, and lips, succeeded by tingling.

I ordered strong coffee and an ammonia mixture; and, in the course of three hours, the symptoms had entirely disappeared, but the neuralgia had returned more severely than ever.

CHARLES WOOD, Dover.

CLINICAL MEMORANDA.

DIABETES MELLITUS IN A BOY SEVEN YEARS OF AGE.

THE patient, a boy seven years of age, was last summer a well developed and a well nourished boy, weighing about sixty pounds. The beginning of this winter the parents noticed that he soon became tired of playing, and found his lessons more irksome. He then began to complain of being continually thirsty, and passed a large quantity of urine; his appetite improved; he also grew thinner, and complained of headache and debility, and a whitish powdery film was noticed on his clothes.

These symptoms becoming aggravated, I was asked to see the boy in the beginning of January. The thirst was great, the appetite voracious, and he was extremely thin. He was passing about 8 pints of urine in the twenty-four hours. His weight was about 40 pounds. The urine was of a pale straw colour, acid reaction, specific gravity 1042. It contained no albumen, but a large quantity of sugar. The lungs were healthy. The abdomen was large and tympanitic; the liver slightly enlarged. He also complained of pain on pressure over both kidneys. I prescribed opium and a diabetic diet.

A few days afterwards I was called in, and found him dangerously ill; the temperature 102° F.; the pulse small and frequent; the mouth dry, the thirst continuing; constant vomiting ; constipation ; great pain and tenderness over the abdomen. Examination revealed a considerable quantity of ascitic fluid. Acute peritonitis having set in, Dr. William Carter was called in consultation. He also examined the urine, and found sugar. The symptoms became worse ; a state of coma set in, and he died during the night.

This disease is extremely rare in children ; so rare, that it is not even alluded to by Tanner, Meigs and Pepper, Vogel, or Lewis Smith, in their works on Diseases of Children. Dr. West mentions the case of a girl, three and a half years, her brother, two years, and sister, two and a half years, having died of the disease. Dr. William Roberts, in his book on *Urinary and Renal Diseases*, mentions the case of a boy three years of age, which was fatal in three weeks.

JAMES EDWARDS, M.R.C.S., etc.,
Assistant-Surgeon to the Liverpool Lying-in Hospital.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ROYAL INFIRMARY, EDINBURGH.

NEPHRO-LITHOTOMY.

(Under the care of Mr. J. CHIENE.)

[FOR the notes of the following case, we are indebted to Mr. Albert E. Morison, M.B., C.M., house-surgeon at the time, and to Mr. Peter Campbell and Mr. Ross Robertson, the clerk and the dresser of the case.]

R. G. S., married, 29 years of age, was admitted on September 29th, 1884, at the request of Dr. William Wilson, of Glasgow. He complained of "attacks of severe pain in the small of the back." He stated that his father and mother were alive and well, that six brothers had died in infancy, and one of dropsy at the age of 25. The patient was most temperate in his habits, and had had no previous ailments.

Four years earlier, after a day's duties without extra fatigue, and apparently without the slightest exciting cause, he was suddenly attacked by a severe pain in the region of the right kidney. This was the first time he experienced it. The pain was of a dull gnawing character, and remained fixed in one spot. He obtained much relief by pressing on the spot with his hand; the pain first seemed to come to the front, and then passed off. There was instant relief when the pain was gone, and the patient did not feel exhausted. He cannot recollect how frequently these attacks occurred, but they were always of the same nature, and would take place at any time. He had undergone various forms of medicinal and dietetic treatment, but without any apparent benefit.

His state on admission was as follows. At times he was entirely free from pain. Nothing could be learned from sight or from touch. His general health was good. The heart, lungs, pulse, temperature, digestion, tongue, and alimentary canal were normal. The average condition of the urine, as indicated by frequent examinations made from October 5th to October 11th, at various periods of the day, may be stated as follows:—The colour varied from pale amber to a dark sherry, and was at times smoky. The specific gravity was 1,022 to 1,026; it was acid, and contained albumen, varying in quantity from a trace to a half; it contained no sugar, no bile. The guaiac test occasionally showed the presence of blood. Microscopic examination revealed abundant oxalates and urates, and a small quantity of pus and blood-corpuscles. Amorphous and stellar phosphates were also occasionally present, and sometimes abundant. The diagnosis arrived at was renal calculus.

The treatment adopted was as follows. At noon on October 15th, chloroform was administered, the patient placed on his sound side, and an oblique incision, four inches in length, extending from the edge of the erector spinæ, and parallel to the last rib, was made in the right lumbar region. The kidney was easily reached; on examination of its anterior aspect, an elevation was at once felt in the lower half of the substance of the kidney. A needle was now passed into the kidney, and the stone detected. The kidney-tissue was scratched through with the finger-nail, until the stone was reached; the wound in the kidney-substance was enlarged with dressing forceps, and the stone exposed. Attempts were made to remove it with various forms of forceps, but, the kidney being healthy and very mobile, these attempts were unsuccessful. At last, with some difficulty, the stone was grasped with a vulsellum, and removed. There was considerable oozing. Two drainage-tubes were introduced, both passing into the kidney-substance. The operation was performed under the spray, with strict antiseptic precautions. The wound was stitched with horsehair-sutures, and a carbolic gauze-dressing fixed in position with domette-bandages.

The stone was oval in shape, and had the following measurements: length, 1 inch; breadth, $\frac{9}{10}$ inch; long circumference, $2\frac{3}{8}$ inches; broad circumference, $1\frac{7}{8}$ inches. It was found, on examination, to have a paler, somewhat crystalline outer crust, enclosing a darker central portion, and to consist mainly of oxalate of lime, with a small proportion of uric acid. It had none of the characteristic appearance or dense heaviness of a typical mulberry calculus; its central portion was porous, and the weight, when dry, was rather more than 48 grains.

At 4 P.M., morphia was given, on account of severe pain, "just like his old attacks." A steam-kettle was kept constantly going to encourage action of the skin. At 7.30 P.M., the temperature was 99.4° Fahr.; the wound was dressed on account of oozing. At midnight, no urine having been passed since the operation, pilocarpin, $\frac{1}{6}$ grain, was administered. The patient passed a sleepless night.

October 16th. At 7.30 P.M., a catheter was passed, and $12\frac{1}{2}$ ounces of slightly blood-stained and very albuminous urine were drawn off. At 11.30 A.M., the temperature was 99.4° Fahr. The dressing was renewed on account of a copious flow of urine from the wound. At 3 P.M., the urine was drawn off, and morphia, gr. $\frac{1}{8}$, given, after which he had two and a half hours' sleep. At 7.30 P.M., the temperature was 100°. The wound was dressed. The urine still flowed abundantly from the wound. Tinct. hyoscyam., ♏ xxx, was administered, and the patient slept well. At 11.30 P.M., the urine was drawn off.

October 17th. At 9 A.M., the urine drawn off was very bloody. At 11 A.M., the temperature was 99.8°; the wound was dressed. One drainage-tube was removed, the other shortened, so as to be out of the wound in the kidney-substance. The patient was much easier. At 7.30 P.M., the temperature was 99.4°, and the discharge of urine through the wound was greatly diminished. He passed water himself during the evening; the urine was still much blood-stained. He passed a good night.

October 18th. At 11.30 A.M., the temperature was 98.8°; the wound was dressed. The discharge of urine through the wound was diminished. The tube was shortened a little more. At 8 P.M., the temperature was 99.4°; the wound was dressed again, but there was very little discharge of any kind. At 11 P.M., the patient complained of severe pain across the bowels, due to flatus, which was relieved by passing a catheter up the rectum. He slept well.

October 19th. At 12 A.M., the temperature was 98°. The wound when dressed, was looking well; the tube still further shortened. The whole wound healed, except where the drainage-tube was inserted. At 9 P.M., the temperature was 100°; the wound was again dressed. No urine could be detected in the discharge. The bowels were moved twice by medicine, and the patient felt relieved.

October 28th. The temperature was 99°. There was no discharge and the patient felt quite comfortable. At 7.30 P.M., the temperature was 100°; the wound was again dressed. There was very little discharge of any kind. The tube was removed.

October 21st. At 11 A.M., the temperature was 98.2°. The wound was dressed. Urine passed in the morning was examined; its colour was amber, with a greenish tinge; the deposit of pus and mucus was not dense; albumen amounted to one-twelfth; there was no sugar, no bile, and the blood-reaction with guaiac was not well marked. Microscopic examination revealed pus-corpuscles and blood-discs here and there. The urine passed at noon was of a clear straw-colour, with a greenish tinge; there was a slight deposit of pus and mucus; the reaction was acid; the specific gravity 1023; there was only a trace of albumen; the blood-test was faint. Microscopic examination showed that pus-corpuscles were still abundant, but blood-discs were rare. At 7.30 P.M., the temperature was 99°.

October 22nd. At 11 A.M., the temperature was 99°. The wound was dressed at 7.30 P.M. Temperature 99.6°.

October 23rd. At 11 A.M., the temperature was 98.4°. The wound was dressed, the discharge having come through.

October 24th. At 2.30 P.M., the wound was again dressed; there was a slight discharge, chiefly from the sinus left by the short tube, the wound looked satisfactory.

October 25th. At 2.30 P.M., the wound was dressed; there was but little discharge of any kind.

October 26th. At 1 P.M., the wound was again dressed with gauze and mackintosh. The patient remained in a very comfortable condition; and when the wound was dressed on November 5th, it was healed except that, where the drainage-tube lay, there were still some granulations.

On November 11th, he got up for one hour in the afternoon, and felt well, though weak. The urine was amber-coloured; the deposit contained mucus and a slight trace of pus, but no blood.

On November 12th, he was up for two hours, and said he felt quite well.

Nov. 19th. He had been in the habit of being up nearly all day since November 13th. He felt quite well, and went home on this day just five weeks after the operation was performed. On no occasion since the operation had the temperature risen above 100°, and on only twice after October 23rd did it reach 99°.

The result, therefore, was that the patient was cured.

REMARKS BY MR. CHIENE.—The following is an extract from a letter dated January 13th, 1885, received by me from the patient

OF THE UNIVERSITY OF ILLINOIS

'he weather was very wet for a long time after reaching home, and as kept in-doors, but felt myself growing stronger every day. I e been watching my water, and it is now perfectly clear. I have inconvenience in twisting or turning my body, and feel so far quite iew man. Two years ago, I weighed 11 st. 4 lbs., but when I ie to Edinburgh in October, I was only 10 st. 3 lbs. I now turn scale at 12 st. 4 lbs. I am daily getting stronger, and more for my duties."

. week later, he says: "I have been doing more this last week, feel first-rate."

his case is another example of the removal of a stone from an erwise healthy kidney. Since 1881, the following cases have been lished in the *Transactions of the Clinical Society of London.*

Vol. xiv, 1881.—Henry Morris, a case of nephro-lithotomy. Mr. ris uses this word to express "incision of the kidney simply and y for the removal of a renal calculus." He would use the term irotomy for those cases in which the calculus has set up "suppu- on of the kidney, so as to lead to pointing of an abscess in the or to the existence of an external swelling." Mr. Morris operated ebruary 11th, 1880, on Maria M., aged 19, domestic servant. operation was performed at the suggestion of Dr. Coupland. In 1881, a small sinus still existed at the seat of the operation. woman was in excellent health, and engaged in domestic service. calculus was a mulberry-calculus, and weighed 31 grains.

Transactions Clinical Society, vol. xv, 1882.—On August 16th, Mr. Marcus Beck removed a stone from the upper part of the s of the kidney. The stone weighed 29 grains, and consisted of s of uric acid alternating with layers of phosphates. The pa- left the hospital on the thirty-fifth day, with the wound soundly d. On December 20th, 1881, he had resumed work as a paper- er.

Transactions Clinical Society, vol. xv, 1882.—On October 25th, Mr. Butlin operated, removing a stone from the pelvis of idney. The calculus was composed of calcium-oxalate, was the f a large filbert, and weighed 60 grains. Complete recovery took

Transactions Clinical Society, vol. xvi, 1883.—On October 20th, Mr. Bennett May removed a large stone of irregular shape from idney. The wound "healed rapidly, and was quite sound at the f the fifth week, never showing any tendency to form urinary a." The stone consisted mainly of a crystalline phosphate of lime. atient, up to February 9th, 1883, had been "wholly relieved of and hæmaturia," but still had a little pus in the urine.

Transactions Clinical Society, vol. xvi, 1883.—On February 6th, Mr. H. G. Howse removed a stone from the pelvis of the y. The calculus was nearly circular in shape, was formed ex- ly of oxalate of lime, and weighed 26 grains. The wound was t healed on April 4th, and finally closed completely.

e above is a complete list, as far as I can discover, of the shed cases of nephro-lithotomy performed in this country, in no tumour could be felt in the region of the kidney prior to ion. Three cases, Mr. Haward's (*Transactions Clinical Society*, v), Mr. Anderson's (*Transactions Clinical Society*, vol. xvii), at of Mr. Jones (BRITISH MEDICAL JOURNAL, vol. i, 1883), are ed from the list, as in each of them a distinct fulness could be ed before operation. The case of Mr. Symonds has not yet been hed, and cannot, therefore, be classified, and the same difficulty with regard to the case of Mr. Paul, surgeon at Stroud, in stershire, to which reference is made in the *Gentleman's Maga-* August, 1733.

the cases already cited, however, I think we are justified in that of Marchetti (*Philos. Transactions*, vol. xix, No. 223). ntitled "An Account of a Gentleman being Cut for the Stone Kidney, with a Brief Enquiry into the Antiquity and Practice hrotomy," by Mr. Charles Bernard, F.R.S.

Hobson, consul for the English at Venice, was operated on by icus Marchetti, professor at Padua. Two or three small stones emoved by cutting into the body of the kidney. A urinary remained after the operation; and on his return to Venice, his moved from the fistula a stone of the figure and magnitude of stone. He was seen in London, ten years afterwards, by Mr. d. The sinus still remained, discharging a small quantity of d urine. He was upwards of 50 years of age when Mr. Bernard m, and was apparently in perfect health, and able to undergo tigue.

account of Mr. Bernard, as far as I am able to judge, appears n authentic one, and there is no evidence that an abscess or xisted before the operation. The fact that Mr. Bernard, who the account, was not a medical man, seems to me to be of little importance, because he was asked to see Mr. Hobson along with Dr. Tyson, by Dr. Downes, who had known Mr. Hobson formerly in Venice.

From the cases now recorded in this country, and from the success of these cases, there can be little doubt that surgeons are justified in making a diagnostic incision in the lumbar region, in examining the kidney with the fingers, and in exploring its substance with a needle.

If a stone be discovered, the kidney-tissue is to be scratched through with the finger-nail, to avoid hæmorrhage, until the stone is reached; the wound so made is to be enlarged with a pair of dressing-forceps, and the stone removed. The probability is that if the stone has been reached through the substance of the kidney, the urine will cease at an earlier date to come by the wound, than if the stone has been reached through the wall of the pelvis of the kidney. One reason of this, probably, is that closure of a wound in the substance of the kidney takes place more rapidly than closure of a wound in the pelvic wall, the reparative changes in the vascular kidney-substance being more rapid, and the amount of urine tending to escape from a wound in the kidney-substance being less than that from a wound in the wall of the pelvis of the kidney.

The symptoms which encourage a surgeon to explore the kidney where there is no swelling present, are:—1, long standing pain in one loin, often intermittent in character, the pain shooting down into the inguinal region and testicle; 2, blood in the urine; 3, absence of any calculus in the bladder to account for the symptoms. If the calculus be in the pelvis of the kidney, there will probably be also pus in the urine, and the symptoms as a rule will be more severe and more constant than if the stone be fixed in the substance of the kidney.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEBRUARY 3RD, 1885.

J. S. BRISTOWE, M.D., F.R.S., President, in the Chair.

Cancer of Cirrhotic Liver and Adrenals.—Dr. CARRINGTON showed specimens from a patient aged 54, who, for two months before admission into the Seamen's Hospital, had suffered from epigastric pain and increasing weakness; this had become so great, that he could hardly walk across the ward. The skin was everywhere of a walnut-brown, except in the axillæ. The mucous membranes were not stained. In the epigastrium was a tumour, evidently connected with the liver. He gradually became more and more feeble, and died three weeks after admission. At the necropsy, the body was well nourished; the lungs were of a deep black colour, and œdematous; the blood was fluid, and there were ecchymoses beneath the pericardium. The site of each adrenal body was occupied by a cyst the size of a large orange, containing soft brown grumous blood-clot. The surrounding tissues were not infiltrated. The liver weighed 62 ounces, and was extremely cirrhotic; its colour internally and externally was black. Scattered thickly through the organ were nodules looking like altered blood-clot; several were as large as a pullet's egg. The spleen weighed 13 ounces, and was very black externally and internally. Dr. Carrington thought the case was worthy of note on account of the obscurity of its pathology. Though the naked eye appearances were those of cancer of the adrenal organs, the microscopic examination had shown that the walls of the cysts consisted of normal adrenal substance. The apparent secondary growths in the liver consisted of clumps of altered liver-cells. The pigmentation of the skin and viscera showed either that cancer of the adrenal bodies could produce the pigmentation, or that the patient was the subject of malarial melanæmia. Microscopic examination did not, however, confirm either view.

Atrophy of Adrenals with Addison's Disease.—Dr. COUPLAND exhibited a specimen from the body of a man, aged 37, who had been under observation for four years. The symptoms began in 1879, and the patient died in January 1884. Attacks of faintness, lassitude, and vomiting were the prominent symptoms. The last attack appeared to have been determined by a drinking-bout. The pigmentation of the skin was most marked in the face, hands, axillæ, groins, and scrotum; there were slaty patches in the lingual and buccal mucous membrane. At the necropsy, the site of the right adrenal body was occupied only by a few orange-coloured pellets of fat. The numerous nerves could be traced to this region from the semilunar ganglia. The left adrenal was atrophied to about a third of the normal size. There was lymphoid infiltration of the gastric mucous membrane,

and hyperplasia of the follicular and agminate glands of the intestine, and of the splenic follicles. The body was well nourished, and there was no tubercular deposit. Dr. Coupland referred to five other similar cases on record—namely, Dr. Kent Spender's case, published in the BRITISH MEDICAL JOURNAL; Dr. Wickham Legg's case, reported in *St. Bartholomew's Hospital Reports;* and the three cases recorded by Dr. Goodhart, Mr. Davy, and Mr. Eastes, in the *Transactions* of the Society. Dr. Coupland dwelt on the fact that atrophic changes normally occurred in the adrenals in old age, and on the fact that they were not unfrequently congenitally absent in ill developed individuals, especially when there was defective cerebral development. He made reference to the results of Tizzoni's experiments (*London Medical Record*), and to Dr. McMunn's observations on the origin of the pigment of the adrenals (*Proceedings of the Physiological Society*, December 1884). The suggestion that the function of these bodies was excretory, and that disease of them might account for all the symptoms of Addison's disease, could not be sustained; the adrenal bodies might be destroyed by cancer, degeneration, or atrophy, without the occurrence of the disease. The alternative doctrine of the dependence of the symptoms upon a lesion of the abdominal sympathetic seemed to be the only possible one; but, in order to harmonise it with such cases as the one he now recorded, Dr. Coupland considered that it was necessary to suppose that the atrophic changes of the capsules should be a result of some primary derangement of the nerve-centre.—Dr. BARLOW also showed a specimen from a case of extreme atrophy of the adrenal bodies; all that appeared to remain was the fibrous capsule, and microscopical examination showed only the fibrous septa, and a few of the cells, of the cortex. The spleen was enlarged and tough, and its capsule thickened. In the left kidney was a small bilobed tumour, situated in the cortex; it had the microscopical appearances of a gumma. The kidneys were otherwise healthy, and no other lesions beyond a small pleural adhesion were found in the body. The patient was a woman aged 42, who presented all the typical signs of Addison's disease; the pigmentation was nearly universal. She had been ill for ten months, and, during that period, she had given birth to a dead child. The pathological bearings of the case were very shortly discussed; and Dr. Barlow observed that the possible association of Addison's disease and syphilis had not yet received sufficient attention. Dr. Turner had recorded a case very like the one now before the Society, and Bärensprung had given a very careful account of congenital syphilis of the suprarenal bodies, describing a condition probably due to miliary gummata. Beyond this, he knew of no literature bearing on the subject.

Addison's Disease.—Dr. HARRINGTON SAINSBURY reported a case which he described as one of ordinary Addison's disease. The patient was a man aged 51, who had been in robust health up to three years before he came under treatment; during that period, he had had attacks of faintness, vomiting, and epigastric pain; lassitude, wasting, and a peculiar sallow tint of skin, were the most marked symptoms when he was admitted. He died quietly a few days after admission. The staining of the skin was very slight. At the necropsy, some scattered patches of pigment were seen in the costal pleura, and the lungs were much pigmented. There were numerous minute ecchymoses of the mucous membrane of the stomach, and the glands in the portal fissure were enlarged; the adrenals were converted into masses of stony hardness. On section, the caseous change was far advanced on the left side, and well marked, but less extensive, on the right side. No tubercular bacilli were discovered in the adrenal bodies, nor any tubercular lesions elsewhere. The amount of fibrous tissue in the semilunar ganglia was, he considered, excessive. No tubercle was found elsewhere.

Infiltrating Growth in Liver and Adrenals.—Dr. NORMAN DALTON showed specimens from the body of a male child, aged 6 weeks; the father gave a history of syphilis. When admitted, the greater part of the abdomen was occupied by a firm non-fluctuating tumour, which was clearly the enlarged liver. The child shortly died, and it was found that the liver weighed thirty-seven and a half ounces. It retained its natural shape, but was soft, and on section the colour was deep brown, dotted with small hæmorrhages, some old, others bright red, and about one centimètre in diameter. There was a tumour of the size of a hen's egg in the left adrenal; it presented very much the same appearance as the section of the liver, but the hæmorrhages were larger. Microscopic examination of the affected parts of the liver showed that the tissue was infiltrated with leucocytes, which were also contained in the meshes of a well marked stroma of fibrous tissue. In the adrenal bodies the appearances were similar, but the cells, in some parts, were embedded in a peculiar finely granular substance. The normal adrenal tissue appeared to be entirely separated from the tumour by a fibrous layer. The pathology of the case was very obscure. He believed that no similar appearances had been described as due to syphilis; but in leukæmia, collections of leucocytes, occurring in a more diffused fashion, were to be met with. The growths had originated, he believed, from the medulla of the adrenal capsules, s that the affection of the liver would be secondary. An almost identi cal case had been described by Mr. R. W. Parker, and he agreed with him that the tumour probably originated in intra-uterine life.

Addison's Disease.—Mr. J. A. P. PRICE exhibited a patient, i whom the pigmentation was at first confined to the trunk, thighs, an arms. The colour was not bronze but a dirty brown, and there was peculiar white mottling. The pigmentation was of about three years duration, and there was a glandular enlargement in the neck and probably in the abdomen. Th slight exophthalmos, and rapi irregular cardiac action which had c me on in this case, confirmed th theory that this pigmentation was due to sympathetic disease.—D ANGEL MONEY referred to a case somewhat similar to that related b Dr. Norman Dalton. The female child was somewhat older, an there was great enlargement of the external genitals, with growth large hairs. Dr. Dickinson had recorded a similar case in an ear number of the *Transactions* of the Society.—Dr. HALE WHITE sa that he had examined microscopically the semilunar ganglia in sever hundred cases, and he felt satisfied that the appearances in Dr. Ha rington Sainsbury's case were not abnormal.

Tumours of Pituitary Body.—Dr. HALE WHITE showed specime from a myo-neuroma of the pituitary body. It was taken from a bo who died of meningitis, probably produced by the tumour. Micr scopic examination showed that it consisted largely of striped muscl the fibres were as a rule well formed, but had here and there unde gone atrophy. At one part of the section, a small body about the si of a pin's head was seen; this was exactly like a sympathetic ga glion, having a fibrous sheath and several ganglionic nerve-cells i bedded in a fibrous groundwork. Around each nerve-cell, which w multipolar and nucleated, there was a clear space. In the same p of the tumour were several bundles of white nerve-fibres, some of whi had undergone granular degeneration. Fibrous tissue containing bound together these nervous and muscular elements. The tum was of the size of a large hazel-nut; it implicated the optic chiasma, a there was extreme atrophy of the optic nerves. New growths of pituitary body were not excessively rare, but one like this had not, believed, been previously described, the nearest approach to it being tumour of the pineal gland containing several cysts lined by epit lium; the tissue between the cysts contained hair, sebaceous glan fat, hyaline cartilage, smooth muscle, and nerve. Was this new grow in the pituitary body, he asked, due to an included ovum, or was developed from the posterior lobe of the pituitary body, which in lower animals remained connected with the brain more closely than man?—Mr. BOWLBY also showed a new growth of the pituitary bo The patient was a man, aged 22, who had been subject to fits for years; he had also suffered much from headache, and, when admitt was semicomatose. The tumour consisted of two distinct part smaller lower bony part, and an upper larger and softer mass, in wh were many cysts containing sabulous material. Microscopic exa nation showed it to consist of fibrous tissue, traversed by very nume vessels. Epithelial masses had grown down into this mass, and broken down at the central portions, thus forming the cysts. bony part was true bone, but contained remnants of epithelial tis This tumour must, he thought, be included among the teratomat Mr. J. BLAND SUTTON observed that the tumour in Dr. White's probably arose from a nipping off of the upper end of the phar during the development of the fœtus, in addition to the gland portion of the pituitary body, which was normally derived from epiblast tucked in to form the mouth and pharynx.

Primary Carcinoma of the Prostate.—Mr. BRUCE CLARKE sho the bladder and prostate from a man who had experienced some culty in micturition for six weeks before he came under observa The prostate was large and fixed, and it was necessary to draw off urine. Subsequently, the urine had to be drawn off habitually contained blood, and was alkaline. He unexpectedly suffered fr severe rigor and fever, but recovered so far as to allow cystotom be performed; a digital examination then revealed a hard no growth at the neck of the bladder. He died suddenly, of hemip and coma. In addition to the tumour of the bladder and pros the lumbar glands were found to be involved, and there secondary growths in the liver and lungs. There was an absce the psoas muscle, and another at the base of the brain. Death therefore, to be attributed to septic infection.

Cirrhosis of Liver and Congenital Disease of Kidneys.—Dr. WHITE showed the liver from a child aged 9; it weighed 41 o was firm in consistence, tough on section, greyish in colour, and

ailed on the surface (hypertrophic cirrhosis). The kidneys presented shrivelled lobulated condition, probably congenital.—Dr. WICKHAM EGG inquired if the temperature was raised, as was often the case hypertrophic cirrhosis; and whether the heart was affected.—Dr. ALE WHITE could not say whether the temperature was raised, the patient survived less than an hour after admission; but one ng was in a state of red hepatisation. The heart was not altered.

Card Specimens.—Dr. COUPLAND: Cases of Addison's Disease. Dr. ODHART: Tumour of Pituitary Body in Baboon. Mr. D'ARCY OWER: Knee-joint seventeen months after Ogston's Operation. Dr. ADDEN: (1) Misplaced Kidney; (2) Foreign Body in Trachea; (3) tachment of Peritoneal Coat of Intestine. Dr. HALE WHITE: lculus of Triple Phosphate.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JANUARY 14TH, 1885.

HENRY GERVIS, M.D., President, in the Chair.

Specimens.—The following specimens were shown: Uterus removed Vagina on account of Cancer, Dr. EDIS; Phosphatic Calculus re-ved by Urethra, Dr. A. ROUTH; Electrical Speculum, Dr. HEY-OD SMITH; Fibroid Uterus removed by Porro's Operation, Dr. ANDFIELD JONES, jun.; Cancerous Uterus removed by Vagina, Dr. RCELL; Cancerous Cervix removed by operation, and microscopical tions, Dr. GODSON.

Extirpation of the Uterus.—Dr. WILLIAM A. DUNCAN described two es of vaginal extirpation, and discussed the subject of extirpation its various aspects. Case I.—The patient, aged 37, married, with child 11 years old, was admitted to the Royal Hospital for Women Children on December 11th, 1883, with a slight attack of pelvic lulitis. A few days previously, there was found a small growth of thelioma on the portio vaginalis, near the os uteri, and only involv-the anterior lip of the cervix. The attack of cellulitis passed ay gradually, and on January 22nd, 1884, extirpation was performed *vaginam*, according to Schroeder's method. Great difficulty was erience in ligaturing the broad ligaments, which were shortened m the inflammatory thickening left. A double drainage-tube was erted, and an iodoform-plug in the vagina. The patient made an interrupted recovery, and was discharged cured on the thirty-th day with an arched cicatrix in the vagina, but no induration atever. She was readmitted on June 14th with cough, pain over lower ribs on the right side, night-sweats, and pyrexia. On the h, an indurated mass was felt, on vaginal examination, above its f; the pelvic glands were enlarged. The patient continued in ch the same state, with intermitting pyrexia, the temperature re-ining, as a rule, between 100° and 105°. She was discharged, at own request, on July 16th, and died at home on November 1st.—e II.—Mrs. P., aged 54, was admitted on February 4th, 1884, with rating epithelioma of the cervix. She had been married thirty-years, and had had eight children. She had been quite well n the menopause (ten years ago), until eight months before ad-sion, when hæmorrhage followed coitus. Vaginal extirpation was e on February 26th, as in Case I. Collapse set in as soon as the toneal cavity was opened, and death took place twelve hours after ation. The author, having discussed the advantages and disad-tages of the abdominal and vaginal methods, gave statistics of all cases he could find, showing that, after 137 abdominal extirpa-s, there were 38 recoveries and 99 deaths, being a death-rate of per cent.; whilst, after 276 vaginal extirpations, there were 197 veries and 79 deaths, being a death-rate of 28.6 per cent. The ils of the after-treatment were then discussed, the author being of ion that there was no necessity either to sew up the wound in the na, to put in a drainage-tube, or to plug the vagina; but he in-d on the importance of the free use of iodoform locally, of the ght posture for the first ten days, and of the free administration pium. He next reviewed the various malignant and non-malignant ases for which the operation had been done, and was of opinion in none of the latter was it ever justifiable; that in sarcoma and car-ma of the body of the womb and mucous membrane of the cervical l, it was indicated; whereas in cancer of the portio vaginalis, for h it had frequently been performed, the death-rate was four times ter than after supravaginal amputation of the cervix, and the nate results were almost precisely alike (32 per cent. being free from rrence two years later). Hence, in these cases, he argued that one not justified in performing it.—The PRESIDENT expressed the ks of the Society to Dr. Duncan for his paper, and for his kind-in having tables of the cases quoted printed for the use of Fel-. He indicated, as lines for discussion, personal experiences of the operation, and the pathology of the disease as bearing on the justifiability of the operation.—Dr. BRAXTON HICKS offered a word of caution in regard to accepting the evidence of the curette in cases occurring in the child-bearing period of life, since the mucous membrane of the uterus, under the influence of pregnancy and other stimulants, presented an appearance nearly, if not quite, like that of malignant disease. Again, sarcomatous polypi, which might return and yet ultimately cease, could not be distinguished by the microscope from truly malignant growths.—Sir W. MACCORMAC made some remarks.—Dr. JOHN WILLIAMS thought that our knowledge of the operation was sufficient to enable us to form a judgment, at least as regarded the vaginal and abdominal methods. The abdominal method was far the more fatal (72 per cent.). It was as likely to be followed by recurrence as the other; it had, therefore, practically been discarded. After the vaginal method, the mortality was from 25 to 34 per cent. The author estimated it at 28 per cent., which was a little above the mortality of ovariotomy for many years after it had become a recognised operation, and this mortality might be considerably reduced. But the two operations were very different. If the patient recovered from ovariotomy, she was restored to health and strength, and so remained. After extirpation of the uterus for cancer, however, the disease recurs in a large number of cases within six months, while very few remained free after two years, and only one has remained free for five years. Again, most of these cases were cases of cancer of the cervix, and not of the body; and supravaginal amputation gave better results than extirpation. This clearly limited the operation to cancer of the body. The diagnosis of this, however, presented difficulties. Dr. Williams had done the operation four times, and the only patient who recovered from it died a month later of fæcal fistula, high up in the small intestine. The patient had been examined under ether, and the uterus was found freely movable, very slightly enlarged, and no growth could be discovered in the pelvis, nor any adhesions between the uterus and the surrounding organs; but, at the operation, a soft adhesion was found between the fundus and a coil of intestine. The disease had passed through the uterine wall to the small intestine; and, three or four days after the operation, liquid fæces passed by the vagina. Here the most careful examination failed to discover the extension of the disease beyond the uterus. Again, before a just opinion of extirpation could be formed, the course and history of cancer of the body must be better known. This disease was far commoner than was formerly supposed, and its course was longer than was believed. In the early stages of cancer, the pain was not severe, but became so after the disease had invaded the deeper tissues. Now, when recurrence took place after operation, the disease was placed at an enormous advantage; it recurred at the edge of the cicatrix, and at once attacked the deeper tissues, being associated with the severe suffering of an advanced stage of cancer. This meant that, after the operation, the patient had a few weeks or months of comfort and supposed freedom from disease; and then the disease returned, and occupied the position it would have occupied, after months of comparatively little suffering, had it followed its course unmolested; for the tissues through which it would have had to make its way had been removed by the surgeon's knife.—Mr. KNOWSLEY THORNTON expressed his agreement with the conclusions of Dr. W. Duncan, and also with the remarks of Dr. Williams. He was not an opponent of operations for cancer; in the case of the breast, it was possible to remove the whole disease and all suspicious glands. The surroundings of the uterus, however, were very favourable for the spread of cancer beyond the possibility of complete removal. He thought the attack of cellulitis in Dr. Duncan's case was very likely due to displacement of cancerous elements during examination, and might account for the rapid recurrence after an apparently successful operation. Here he must express his single dissent from the author; he believed the practice of curetting cancer of the uterus to be very dangerous, and apt to spread the disease. He had thought that the one possible indication for the operation was severe pain; but, after Dr. Williams's remarks, he was inclined to alter his opinion. Cancer of the body was slow in growth, and he thought it was rarely painful as long as it was confined to the body. The fœtor of the discharge might be controlled by insufflation of iodoform. In cancer of the cervix, extirpation was inferior to amputation of the cervix and the application of chloride of zinc. He preferred this method to all others, on account of the power which chloride of zinc appeared to possess of following up the cancer-elements and destroying them. Dr. W. Duncan had omitted one point—namely, the necessarily imperfect removal of the tubes by the vaginal method. As they were part of the uterus, any operation which left them behind must be imperfect. This condemned the vaginal method as completely as the frightful mortality of the abdominal method condemned that operation.—Mr. DORAN believed that there were anatomical reasons against the extirpation of the cancerous uterus. Mierzejewsky and

Lebec had shown that, in the connective tissue between the body of the uterus and the peritoneum, there was a dense network of lymphatics, whilst two wider lymphatic plexuses formed a collar round the uterine and vaginal portions of the cervix. The lowest of these communicated freely with the vaginal lymphatics. All these networks joined, and emptied themselves into two or three large trunks running to the obturator gland, passing along the lower border of the broad ligament. He had found that this gland soon enlarged in cases of cancer of the cervix, though not with the stony hardness like that of cancerous axillary glands, except in advanced cases, where the uterus was already fixed and deeply ulcerated. This disposition of the lymphatics favoured the spread of cancerous elements, and the whole of the broad ligaments could not be removed. —Dr. PLAYFAIR agreed with the conclusions expressed in the paper. In the most common form of cancer, in which extirpation was most likely to be of value, the diagnosis was uncertain till it was too late to operate. Apart from epithelioma, cancer of the cervix was always obscure till fixation occurred, which distinguished it from hyperplasia, etc. The progress of the disease was sometimes surprisingly rapid. In one case seen with Mr. Thornton, one week sufficed to fix a perfectly mobile uterus, and to veto the operation. Even in cancer of the body alone, he was doubtful if extirpation was justifiable. He then related a case in which he had suggested extirpation three years ago, and the patient was still alive in comparative comfort, the bleeding having been controlled by insufflation of iodoform and tannin. In epithelioma of the cervix, removal of the diseased tissue and the application of chloride of zinc was the best operation. He related a case in which the patient remained in comparative comfort four years after this operation, though the disease had recurred. In another case, though the case was well adapted for extirpation, he had advised Sims's operation. The patient went to Sir Spencer Wells, who had, at her request, extirpated her uterus. The disease recurred within a year, and she died. He had no doubt Sir Spencer Wells would acknowledge, in the light of recent experience, that, if the patient had been let alone, or Sims s operation done, her expectancy of life would have been as good, to say nothing of the risks of the operation.

On the motion of Sir SPENCER WELLS, the discussion was adjourned to the ordinary meeting in March.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, JANUARY 2ND, 1885.

FREDERICK LAWRANCE, M.R.C.S., President, in the Chair.

Treatment of Urethral Stricture.—Mr. F. SWINFORD EDWARDS read a paper on this subject. He divided stricture (organic) into two great classes: strictures of the penile urethra, and strictures of the fixed or bulbo-membranous urethra. For the first variety, he recommended free division by means of the dilating urethrotome, and, at the same time, stated that, sometimes after this treatment, an impassable subpubic stricture would, after a time, disappear, showing that it was spasmodic in nature, and kept up by the coexisting anterior contractions. After stating that gradual interrupted dilatation should always first be tried, gradual continuous dilatation was spoken of and condemned, as often giving rise to inflammatory complications, amongst which was cystitis, for the cure of which internal urethrotomy had more than once been successful. Rapid dilatation, as performed by Harrison's modification of Holt's dilator, was strongly recommended in cases of subpubic stricture where a cutting operation was unadvisable. In discussing internal urethrotomy in cases of deep-seated stricture, Teevan's modification of Maisonneuve's urethrotome was praised; Mr. Edwards had performed internal urethrotomy by means of this instrument in nearly 30 cases, with invariable success. During the past three years, there had been 142 cases of internal urethrotomy at St. Peter's Hospital, with three deaths only; two of these cases dying from accidental causes, which would probably not recur. In the third case, there was old standing suppurative nephritis. Suppression of urine was the after-complication most to be dreaded in these cases. Holt's immediate method was not favourably criticised. External urethrotomy was considered more dangerous than internal; and Mr. Edwards said that it ought to be limited, except possibly in some cases of traumatic stricture, accompanied or not by urinary fistulæ, to cases of impassable stricture. In conclusion, the author commented upon the importance of being able to recognise the presence of stricture of large calibre, situate in the penile urethra, such a condition being quite sufficient to keep up a chronic urethral discharge, to cause vesical irritability and other urinary troubles, not forgetting spasmodic stricture in the deep urethra.—The PRESIDENT remarked on the great improvements in instruments during recent years.—Mr. R. W. LLOYD said the anterior strictures might be divided with a blunt-pointed bistoury. In suppression of urine, he preferred oil to turpentine enemata, as he considered the latter liable to increase kidney-congestion.—Dr. THOROWGOOD said that he had found uræmi convulsions come on when vomiting ceased.—Mr. MAITLAND THOMP son treated cases of suppression of urine with the hot air bath.—Mr BRUCE CLARKE remarked that, in treatment of stricture at the meatus careful dilatation was necessary after division. He was of opinio that more deep strictures could be cured without division than we generally supposed. If the strictures now submitted to internal urethro tomy were treated by external cutting, the results would be better. E ternal urethrotomy, with antiseptic irrigation of the bladder, was a ver useful mode of treatment.—Dr. ALDERSON was in favour of intern urethrotomy.—Mr. LUNN thought the cases which required extern urethrotomy were those where there was atony of the bladder with pus i the urine. He asked about the use of cucaine in the internal operatio —Mr. WEISS agreed with Mr. Edwards as to the unadvisability divulsion. He objected to tying in metal catheters.—Mr. BOY BARROW had used silver instruments for years, and thought dilat tion by them much preferable to internal urethrotomy. Notwit standing the great improvements in soft instruments, the silver on conveyed tactile impressions much better.—Dr. THUDICHUM thoug hospital-cases as a rule very different from those met with in priva practice. He did not agree with giving aconite to prevent rigo Preparations made by the same makers were sometimes seven hundr times as strong as others professing to be of the same strength.—M MENZIES inquired as to the use of anæsthetics.—Dr. CAMPBELL PO spoke of the value of tying in a small soft instrument in commenci the treatment by dilatation.—Mr. PERCY DUNN remarked upon t importance of rest in allaying spasm.—Mr. ALDERTON mention the great benefit to the patient of soft instruments, owing to their g ing less pain.—Mr. EDWARDS, in reply, stated that in cases of s pression of urine it was a good practice to give a brisk purgative at t outset, to be followed, if necessary, by turpentine enemata. In answ to Mr. Lloyd, he said that dilating urethrotomy was more exact, a easier of manipulation, than the use of the bistoury, for dividing an rior strictures. He agreed with Mr. Bruce Clarke that incisions of meatus required constant attention to prevent recontraction, but fered from him in his views concerning the treatment of deep-sea strictures, believing external urethrotomy to be a much more seri and risky operation than internal, and the after-results to be better, if as good, to say nothing of the prolonged treatment in b As to treatment by continuous dilatation, he had abandoned it, now never kept an instrument in the urethra for dilating purposes more than a few hours. He agreed with the remarks as to the imp ance of rest in impassable strictures, these often becoming passa after a day or two in bed with hot-air baths. Opium or bellado suppositories, or, failing these, ether or chloroform, should be giv In conclusion, Mr. Edwards showed various instruments—nam Harrison's, Voillemier's, Trélat's, Teevan's, Maisonneuve's, Civial Watson's, and Thompson's urethrotomes, and called special atten to the corkscrew filiform guide, or pilot-bougie.

Pathological Specimens, etc.—Mr. H. PERCY DUNN showed pa logical specimens—namely, Epithelioma of the Tongue; Sarcom the Lower Jaw; Extreme Fatty Degeneration of the Heart; and Larynx and Pharynx from a Case of Cut-Throat.—Mr. BRUCE CLA showed a ready method of treating the Convalescent Stage of Joint Disease in a Child by Plaster-of-Paris Splint.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, JANUARY 16TH, 1885.

T. ORME DUDFIELD, M.D., President, in the Chair.

Small-Pox Hospitals.—Papers were read on the subject "Are Sm Pox Hospitals necessarily (*per se*) a Source of Danger to the Surro ing Population?" by Drs. E. T. Wilson, Gwynn, and Tripe.— WILSON stated that the occasional spread of small-pox in immediate neighbourhood of small-pox hospitals in the metro seemed to be an acknowledged fact; at the same time, it was c from the exhaustive inquiry of Dr. Thorne Thorne, that no such tension of the disease had ever been known to take place in even largest provincial towns. How was a difference so remarkable t explained? The answer was important, as on it would seem to the very existence of isolation-hospitals for small-pox in London, in their present modified form. Those who held that no new ele had been introduced, would point to the exceptional facilities w existed up to a recent period, and perhaps still existed, for the tension of small-pox around the isolation-hospitals. Defects of and of construction; ingoings and outgoings with but slight pr

tions; abuse of the ambulance-system; convergence of friends upon the hospitals, and of patients who often walked through the streets; surroundings generally of the poorest; cases treated at home or concealed: these and other causes, too numerous to be mentioned, were maintained to be sufficient to account for any undue spread of the disease in the neighbourhood of small-pox hospitals. Others, however, —notably Mr. Power, Dr. Tripe, and Dr. Gwynn—had felt themselves compelled to the conclusion that, whatever might be the case elsewhere, in London, the infectious matter from small-pox hospitals was carried through the air for a distance of a mile or a mile and a half. The evidence for this remarkable theory, first propounded by Mr. Power in 1881, rested on statistics chiefly, and on facts which certainly admitted of more than one interpretation. Much stress was laid, for instance, on a graduated intensity in the number of houses invaded round small-pox hospitals, although, in some cases, the houses and population were so varied in character, as to render any comparison between districts useless; and, in others, the intensity had been shown to result from a convergence of disease commencing at a distance, and not from any divergence springing from the hospital as a centre. Again, while Mr. Power held that the spread took place at the commencement of an epidemic only, when acute cases began to accumulate in a hospital, and the atmospheric conditions were favourable (these being a still foggy air deficient in ozone), others contended that the spread was noticed towards the close of an epidemic under atmospheric conditions very varying, sometimes in the direction of the wind, sometimes in its teeth, and apparently in entire independence of the number of acute cases at the time in the hospital. Such contradictions must give rise to the suspicion that neither the atmosphere nor the numbers in the hospital were concerned in the spread; especially when it was found that the waves of intensity during an epidemic period were synchronous to a very remarkable extent around the various small-pox hospitals, and in the metropolis as a whole; that, moreover, whole streets and buildings with susceptible individuals, in the closest vicinity to small-pox hospitals, often enjoyed an immunity from the disease quite unaccountable on any theory of distal aërial spread of the infection. The distribution of cases also, in both time and space, specially in Mr. Power's investigation, pointed to some causes acting continuously within the district, rather than to any emanation from the hospital itself. On these grounds, and in view of the known causes of the spread of small-pox giving rise to thirty, or even fifty cases from a single one, it was contended that there was no need of a hypothetical aërial spread of infection to account for cases whose origin could not be traced; and that a small-pox hospital *per se*, and independently of its intercourse with the neighbourhood, was not necessarily a source of danger to the surrounding population.—Dr. E. WYNN read a paper dealing with the question, Could a small-pox hospital, limited to thirty or forty beds, be maintained in a crowded neighbourhood without danger to the surrounding inhabitants? Abundant proof had already accumulated that in former epidemics small-pox had greatly increased in the neighbourhood of large hospitals. In Hampstead, houses lying between the hospital and Haverstock Hill were attacked; and in the epidemic of 1877 there was a great concentration of disease in houses adjoining the hospital. But, in the epidemic of 1881, when the hospital was closed, the houses and streets in the vicinity were almost entirely free from small-pox. The Hampstead hospital was again opened, for small-pox, on April 6th, 1884, the largest number of admissions in any week being 44, and in some weeks the numbers in hospital fell to 7 and 5. Three or four weeks after the opening of the hospital, a large increase in the number of cases in Hampstead occurred; the houses near the hospital were not the first attacked, the chief outbreak being in the district of Belsize. These latter houses were distant from the hospital from one quarter to half a mile, and during the period they would receive their infection the wind blew steadily from the direction of the hospital on to them. After the first week in June, the number of houses invaded within a quarter mile circle from the hospital continued to rise steadily, in proportion to the other houses in the parish, until at the end of eight months, out of 310 houses in the special area, 62 had been attacked, against 134 out of a total of 6,870 houses contained in all the parish. In the epidemic of 1881, the special area, containing 267 houses, contributed only 4, against 36 in all the parish. Thus, with the hospital open, the incidence on houses in the special area had increased to 20.9 from 1.5 with the hospital closed. A similar area, taken round the workhouse, showed only an increase of 1.5 over 7. The death-rate from small-pox, per 1,000 deaths, had risen from 1 in 1881 to 15.3 in the present case. The author asked if the explanations offered to account for the spread of small-pox, in the neighbourhood of the hospital, by concealed cases, by overcrowding, by the natural march of the epidemic from east to west or south to north, were to be accepted as satisfactory when the hospital was open, why did the disease almost absent itself from this locality during a severe epidemic when the hospital was closed? The entrance to the hospital was formerly on the west side; yet disease, in former epidemics, concentrated itself on the east side, where ambulances only came to remove cases, by reason of a barrier erected in Fleet Road. In the present case the barrier had been removed, and the entrance was now in the Fleet Road; yet the disease first appeared on the west side. There appeared to be little spread of disease on the line of sewer above the hospital. The author believed the danger from the hospital to arise from its action being continuous, whereas local outbreaks in other quarters could be effectually dealt with by disinfection and removal of cases.—Dr. TRIPE began his paper by stating that, if it were admitted that the infectious matter of small-pox could infect at a distance of twenty yards, and this was allowed by most authorities, he could not understand why, under favourable circumstances, it could not infect at a greater distance, especially as no one assumed that the poison could be destroyed in a few minutes. He then referred to the great difficulty in ascertaining the precise source of infection in most cases, and therefore of assigning aërial infection as a means by which the disease was spread. This was especially the case as regarded the Homerton Hospital, where the visitors and tradespeople, going to the small-pox and fever hospitals, entered and came out by the same gate, and where the wards were much too near the street. After describing the position of the hospital as regards the streets and open country, he brought forward statistics to show how that, in all the epidemics since that of 1870-71, the inhabitants of the streets near the hospital had suffered far more than those at a distance from it; that the high rate diminished as the distance from the hospital increased; and that, although other outbreaks, nearly as severe, had from time to time occurred in other parts of the district, yet they had not occurred in every epidemic, as was the case with the streets near the hospital. He specially instanced the statistics of the epidemic of 1883-84, in which the percentage of cases within the quarter-mile radius was 22.9, and of deaths 33.6, out of the total cases reported and of deaths registered amongst the inhabitants. The deaths included all those occurring at Highgate, at the hospitals, ships, and at Darenth. Between the quarter and half-mile radii, the cases were 33.9 per cent., the deaths 35.2, and the houses 14.7 per cent. of the whole—making 56.8 per cent. of cases, and 68.8 per cent. of deaths amongst the residents in 20.8 per cent. of all the houses in the district. In the space between the half-mile and one-mile radii, there were 25.6 per cent. of cases, and 16.8 per cent. of deaths, leaving only 17.6 per cent. of cases, and 14.5 per cent. of deaths, amongst the inhabitants of the district (above one-half) outside the mile radius. As regards the proposition that the disease was spread by aërial infection, Dr. Tripe stated that, in March 1884, an outbreak of 67 cases in six days occurred in a part of the district (to the south-west of the hospital) where there had been but two cases a fortnight before, and where it was, in his opinion, impossible that the disease could have been caused by the so-called ordinary modes of infection. In this instance, the wind veered three times round the compass from south-west, and blew, on each occasion for some time, in a direction east-north-east or north-east from the hospital. There was almost a calm on two occasions, the wind blowing about three miles an hour; on the other occasions, it had the velocity of from six to eight miles an hour. Also, the air was unusually moist for March. Dr. Tripe again expressed his belief, which he had stated when examined before the Royal Commission on Hospitals for Infectious Diseases, that the infection might be carried over a high building; and he gave what he considered reasonable proof of this assumption.—In the discussion which followed the reading of the three papers, the President, Drs. Gibbon, Iliff, Pringle, and others, took part.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, JANUARY 2ND, 1885.

P. W. LATHAM, M.D., President, in the Chair.

The Use of Hyoscyamine in Delirium Tremens.—Mr. HYDE HILLS read the notes of a case in which he had used this drug. He was called up one morning to see a fine healthy looking man, 34 years old, who had been drinking a bottle of brandy a day for ten days, but had taken none for the last twenty-four hours. He had not slept for three nights, and was now delirious, with the usual symptoms. He administered one-fourth of a grain of hyoscyamine in a little brandy and water at 4.30 A.M.; and at 7.30, as he was still restless and noisy, with dilated pupils, a second dose of one-sixth of a grain was given. At 1.30, as he did not sleep, one-third of a grain was repeated; after which he remained quiet for about two hours. At 9.35 P.M., though

still showing the effects of the drug in dilated pupils and dry tongue, he was given five-twelfths of a grain. He had a restless noisy night, and was worse than ever. His pulse was 120, he complained of thirst, and had taken no nourishment for thirty-six hours. At 5.45 A.M., or twenty-five hours after the first dose, he was given seven-twelfths of a grain; he was soon quieter, and in two hours was asleep. In the morning, he was quite right, and soon recovered. The same drug was used in five other cases of delirium tremens. In three cases, a quarter of a grain given at bed-time produced sleep, and was not again required. In two, a quarter of a grain was given ineffectually, but one-third of a grain in the morning had the desired effect; and all recovered. In a case of mania, a third of a grain produced rather alarming symptoms. Mr. Hills had not seen any report of cases of delirium tremens treated with this drug, although the suggestion had been made. His practice would be to give a fourth of a grain first, and, if necessary, give increasingly larger doses every six hours. He was in the habit of giving it in some alcoholic beverage. Merck's solution of the amorphous hyoscyamine was the preparation used.—Mr. CARVER had used the drug on two occasions. In one case of delirium tremens, after bromide of potassium and chloral had failed, small repeated doses of hyoscyamine quieted the patient within twelve hours. In a bad case of acute mania in a young lady, doses of half and three-eighths of a grain produced sleep and recovery in a very satisfactory manner. The late Dr. Bacon had advocated its use in mania, and employed it with great success in Fulbourn Asylum.

Perineal Section for Cystitis in Fractured Spine.—Mr. WALLIS had performed this operation in the case of a man admitted into the hospital with fracture of the cervical spine, and in whom severe cystitis was rapidly bringing on a fatal result. The operation was performed in the usual manner, and a long elastic tube inserted. The result as concerned the cystitis was immediately beneficial, and the patient rapidly rallied from his dying condition, and gained flesh. He died subsequently from other complications.

Cucaine.—Mr. WALLIS related two cases in which he had used this drug with satisfactory results; a case of foreign body in the cornea, and before the treatment of corneal ulcer with nitrate of silver.

STAFFORDSHIRE BRANCH.

E. T. TYLECOTE, M.D., President, in the Chair.

Radical Cure of Hernia.—Mr. W. D. SPANTON opened a discussion on this subject, by reading a paper, which is published at page 271.

Mr. BANKS (Liverpool) said that up to the end of last June he had performed the operation for radical cure of hernia on twenty-five cases of inguinal, seven cases of femoral, two cases of umbilical, and three cases of ventral hernia; as well as on thirteen cases of strangulated inguinal, eleven cases of strangulated femoral, and two cases of strangulated umbilical hernia; in all, sixty-three cases of every kind. With regard to young children, he considered that a well-fitting truss, applied sufficiently early, and worn for a sufficiently long period, was adequate to the cure of the great bulk of cases, without the necessity of any operation whatever, and he had only operated on young children on two or three occasions. There were exceptional cases, however, where, owing to the carelessness of parents, the hernia assumed such a great size, that no truss could sustain them, and then some operation was necessary; and he had no doubt that Mr. Spanton's plan would be of service in many such cases, while for the more serious ones, the plan he himself advocated, namely, the removal of the sac, and the suturing with silver cord of the pillars of the ring, would be required. As regards adults, if a man had only a very slight hernia, which he could easily keep up with the aid of a light truss, he would by no means induce that man to have an operation performed, as he believed the wearing of a light truss very soon came to be simply a part of a man's ordinary dressing, as putting on his braces or his necktie might be. He considered that the operation should be reserved for serious cases where a truss was ineffectual in keeping up the rupture, and where, consequently, the patient went about in danger of strangulation, and performed his duties painfully and inefficiently. In such cases a patient was prepared to run a certain amount of risk to obtain a great relief, and in such cases the surgeon was entitled to put him to that risk, when once fully explained. He strongly deprecated useless operations as calculated to lessen the real value of the operation, and he, furthermore, considered it essential that, even after a so-called radical cure, a light truss should be worn as a protective measure. He pointed out that the most serious cases of hernia were those where the sac contained adherent omentum, and where, consequently, no truss could be effectual. These could only be cured by a removal of the omentum, in the course of the operation which he advocated. He awarded to Mr. John Wood the highest praise for his labours in the department of rupture, and only regretted that his operation had not met with the success which so much labour and ingenuity deserved. Nevertheless, he felt convinced that in the future Mr. Wood's operation, and all those of the nature of Wutzer's, would disappear from practice; while, as for the injections of the neck of the sac, practised by certain American surgeons, he considered them little better than quackery. Mr. Banks exhibited a healthy well made man, 47 years of age, who had come from Bristol to Liverpool to be operated upon. When 8 years old, he first began to suffer from a right inguinal hernia, but, by wearing a truss, this seemed to disappear after two or three years, and so he left the truss off. At 14 the rupture came down again with great suddenness, after violent exertion, and he never could keep it properly up. At 18, Wood's operation for radical cure was performed upon him, but without the slightest benefit. As years went on, the rupture grew bigger and bigger, till about five years ago it absolutely incapacitated him from all work, and he was reduced to the condition of a chronic invalid. He had to lie about the house in a dressing gown, and occasionally got a short stroll outside, but always with a greatcoat on, to conceal the tumour. During all these five years the hernia was never reduced although many attempts were made by excellent surgeons. Finding his life only a burden to him, he was prepared to run any risk for the prospect of a cure. The rupture was of enormous size, being bigger than the man's head. It reached nearly down to his knees, while the penis was quite buried in it. It appeared as if it would contain at least one half of the bowels. The patient was kept in bed for a fortnight, with the lower end of his bed and the pelvis raised. Heavy shot-bags were laid on the tumour, which was kneaded and pressed daily. At the end of the fortnight, the rupture, which for five years had never been replaced, was got back, and the operation for radical cure attempted. This was a most prolonged and dangerous proceeding, simply from its magnitude. One assistant was employed, with a the fingers of one hand stuffed into the inguinal aperture, to keep the bowels in the abdomen. Then the great sac was dissected out, cut off and stitched across and across as high up as possible. It was too bi to tie across with a ligature after the usual fashion. The outer pillar of the ring had been so distended that it practically did not exis The inner pillar was therefore pulled down to Poupart's ligament, an the two united by four wire sutures. Then a great piece of scrot skin was removed. There was a great deal of subsequent suppuratio and, although never in any serious danger, the patient passed throug a sufficiently trying ordeal before recovery took place. At the time the report (three months after the operation) he was going about perfect comfort, with a strong large padded truss carefully adjuste Without the truss, it was clear that any violent exertion would bri back the rupture, as, although it did not come down, still coug ing impulse was present sufficiently strong to show that it would folly to risk the nullifying of a good job by doing without a trus With this, however, he was perfectly comfortable and vigorous. had entered upon a new existence, being transformed from an usel and helpless invalid to an useful and active man, still in the vigo of life.

Mr. FOLKER considered Mr. Spanton's operation ingenious, but, the larger number of cases, the hernia came down again, after bei apparently cured for a few months; he thought it would not be lik to be very generally adopted. He could not quite agree with Spanton that, where failure occurred, the case was no worse than fore; for, as the ring was somewhat dilated at the time by the int duction of the finger during the operation, it allowed the hernia come down to a larger extent when the adhesions gave way. Of th Mr. Folker saw an example in a child, whose mother lately brought to the infirmary, complaining that her child was worse than before operation. On the subject of inguinal hernia (to which alone Spanton's method applied), Mr. Folker said, though in the grea proportion the hernia came down again, occasionally very successful ca were seen; and he considered the best age for its performance was tween 3 and 7, but could hardly admit its being justifiable unde years of age, as nearly all congenital cases might be cured by a tru Mr. Mitchell Banks' operation had proved very effective in two ca of young men operated on by Mr. Folker, both of whom subsequen followed laborious occupations, and without a truss; whereas anot young adult on whom Mr. Spanton's operation was performed only made worse, and, for the present, frightened from further ope tive proceedings. Mr. Folker considered Mr. Mitchell Banks' op tion decidedly the best yet proposed for the radical cure of ingui hernia, especially in the adult. Referring to umbilical hernia, considered it was the most dangerous of all to have anything to with; and regretted having to record two fatal cases after operat

erhaps this was due to the fact that the subjects of this form of hernia ere generally very bad ones for operation. They were almost all fat, rpulent, middle-aged, women; and the hernia, consisting of both wel and omentum, generally burrowed about, and formed adhesions the subcutaneous fat. The inconvenience of this form of hernia as at times beyond endurance, and, therefore, one was occasionally liged to operate, sometimes meeting with most gratifying results; deed, Mr. Folker mentioned a case in which, although he had been liged to remove six inches of sloughing bowel, the woman was doing ell. In both umbilical and inguinal hernia, when operating for rangulation, Mr. Folker had been in the habit, for some years past, trying to permanently bring the parts together by sutures after the rnia had been returned, so as to make a radical cure, and had seen me cases that had been very successful; though, of course, many re lost sight of, and might not all have proved equally good.

Mr. VINCENT JACKSON made some remarks, which are published at ge 273.

Mr. ALCOCK stated that operations for the radical cure of hernia, children, were as a rule uncalled for, inasmuch as there was a tenncy to a natural cure, as shown by the fact that the cases of hernia et with in adults, both strangulated and those requiring only the aptation of a truss, were the result of traumatic and other conditions ntracted since childhood. He had operated in nearly fifty cases of angulated hernia, and the history of these showed that no one of em had suffered from hernia in infancy or childhood. His own erations for the radical cure of hernia, both Wood's and Spanton's, d been very disappointing, and he was inclined now to limit them irreducible hernia, where a mass of omentum was a bar to the aring of a truss, and a source of great danger to the patient.

Dr. EDDOWES (Market Drayton) remarked that, in reference to the plication of a truss to a child, for the purpose of preventing the scent of a hernia, he had seen several cases in which the application the instrument had been mischievous, and in one case death had en produced by it.

Mr. F. MARSH also spoke on the subject.

Mr. SPANTON, in reply, observed that the arguments which had en used by the various speakers had been advanced chiefly against erative interference in young children; but he would ask what was be done in those not very uncommon cases where a truss "was ite powerless," as mentioned by Mr. Jackson, or where it could not, her from the pain, or the soreness caused, be borne at all? In all h, no one, he thought, would hesitate in advising an operation, n in children. The case mentioned by Dr. Eddowes showed, reover, that a truss was by no means so innocent an appliance as was usually considered—for death in that instance was directly attributable to its use. The very gratifying result in the grand case of the ient exhibited by Mr. Banks, and in Mr. Jackson's also, was a nclusive proof of the wisdom of, as well as the necessity for operation, some of the very large and hopeless looking instances sometimes t with. Mr. Spanton felt sure that all must have listened with ch interest to the remarks made by Mr. Banks, whose experience l been considerable, and to whom they were much indebted for kindness in coming to take part in the discussion.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, JANUARY 21ST.

T. H. BARTLEET, F.R.C.S., President, in the Chair.

Ligature of Common Carotid Artery for Hæmorrhage during Scarlatina.—Mr. BENNETT MAY showed a girl whose common carotid ery he had ligatured for hæmorrhage from the external auditory atus, undoubtedly due to erosion of the internal carotid artery occring during the fourth week of an attack of scarlatina. The e had been previously reported to the Society in an incomplete n. Since then, certain nervous symptoms, which attended the lication of the ligature, had been investigated by Dr. Suckling, ose report was appended. The girl had thoroughly recovered, and . May remarked that the case appeared to be the only successful of the kind recorded. Politzer stated that thirteen cases of a ilar nature were to be found scattered throughout surgical literae, and that every one of them had terminated fatally.—Dr. CKLING read a report on the nervous symptoms in the above case.

General Paralysis of the Insane.—Dr. SUCKLING showed a case. a man, aged 36, had been unable to follow his employment for past eighteen months on account of his mental disorder, which s characterised by forgetfulness and irritability when in any way erfered with. The condition of *bien être* was well marked. There marked tremor of the lips, tongue, and facial muscles, especially en put in action; there was also inequality of the pupils. No hisy of excess could be obtained.

Abdominal Section.—Mr. LAWSON TAIT read a paper entitled "General Summary of Conclusions from One Thousand Cases of Abdominal Section." An abstract of this paper was published at page 218 of the BRITISH MEDICAL JOURNAL for January 31st.

HARROGATE MEDICAL SOCIETY.

JANUARY 17TH, 1885.

A. S. MYRTLE, M.D., President, in the Chair.

Specimens, etc.—Dr. OLIVER showed specimens of Powder of Digitalis; the one utterly worthless, the other carefully gathered and prepared.—Dr. WILLIAMS exhibited a case where he had successfully tied the Femoral at the base of Scarpa's triangle for Popliteal Aneurysm. He also showed numerous Hydatid Cysts from the Liver of a girl; the parent-cyst being expelled after the use of various injections, including carbolic acid, zinc, and equal parts of alcohol and water.

Secondary Syphilis.—The PRESIDENT read a paper on secondary syphilis, giving most interesting examples of the congenital forms of organic lesions, especially of nerve-centres, but dwelling particularly on the eruptive forms, showing how obstinate these were, and how successfully they could be dealt with at Harrogate by combining mercurial treatment, in the same way as was done at Aix-la-Chapelle, with the sulphur-water and baths. Dr. Myrtle advocated rubbings, injections of the albuminate into the muscles of the hip, and the use of tannate in doses of a grain and a half twice a day, especially in cases showing a disposition to cachexy.—All the members took part in the discussion which followed, the general opinion being in favour of a full mercurial course as the best means of dealing with the syphilitic habit.

REVIEWS AND NOTICES.

SCIENTIFIC PAPERS AND ADDRESSES. By GEORGE ROLLESTON, M.D., F.R.S., Linacre Professor of Anatomy and Physiology and Fellow of Merton College, Oxford. Arranged and Edited by WILLIAM TURNER, M.B., Hon.LL.D., F.R.S., Professor of Medicine and Anatomy in the University of Edinburgh. With a Biographical Sketch by EDWARD B. TYLOR, Hon.D.C.L., F.R.S., Keeper of the Museum, Oxford. With Portrait, Plates, and Woodcuts. Oxford: Clarendon Press. 1884.

WITHIN two handsome volumes are collected the most important writings of a man of genius. It is generally admitted that Professor ROLLESTON was, above all, literary, then scientific, and thirdly medical; and these *Papers and Addresses* confirm that idea, save that it is hard to say whether his scientific ability was not on a level with his literary talents. They prove that, more than even was suspected in his lifetime, he took far more interest in letters and science than in medicine. Being a scholar of high classical attainments, and also well read in British and European history, the archæological essays in this collection are of peculiar interest, and few but a Rolleston could have made them so thoroughly readable. The light of his brilliant powers as a writer also shines throughout the anatomical papers, which are written in a style that it would be well for many living authorities to imitate closely. It is such an essay as "The Modifications of the External Aspects of Organic Nature produced by Man's Interference" that shows Professor Rolleston at his very best. He demonstrates how the domestic animals have gained by domestication, and compares the perpetual anxiety of the wild cattle and antelopes, that live amidst lions and tigers in the tropics, with the Arcadian life of our own sheep and oxen feeding in peace, regardless and ignorant of their doom, in the meadows of a land where the wolf lives only in menageries. Should the inhabitants of these islands suddenly perish or emigrate in a body, the dogs would, in a few days, worry the cattle off the face of the land, save some few that might reach Cumberland or the Highlands, whilst cats and weasels would vie with each other in wasteful destruction of game; and hawks, no longer frightened by tourists or killed by sportsmen, would return to the island in great force and clear off small birds and rodents. The breaking-down of embankments in our rivers would convert vast tracts of land into swamp, and land-animals would have to give way to gulls. Professor Rolleston, in another paper, shows the precise nature of our Anglo-Saxon ancestors, which seems to have been a very bad nature, notwithstanding their manly public spirit and love of self-supporting institutions. They appeared to "live the pace," like the Franks; so that very few old men's skulls are to be found in their cemeteries

whilst the crania of Romano-British skeletons frequently exhibit all the signs of healthy senility. Yet the Anglo-Saxons were family-men, who were interred with their wives, women of their own stock, and not prizes of war. It is known that native Saxon women were brought over in the fleets of Cerdic, if not with the army of Hengist and Horsa. Professor Rolleston discovered that the ugly type of female crania found in association with male Saxon skeletons corresponded entirely with these latter, and were quite distinct from the skulls of Romano-British women, which showed the characters of prolonged civilisation, and interbreeding with what would be called a handsome stock. Thus, through the observance of certain conditions which maintain the physical and social excellence of a nation, the Anglo-Saxons developed into a great people, notwithstanding habits of dissipation and an indifference to concrete beauty. It must be remembered that Professor Rolleston treats these questions in an essentially scientific spirit, never rushing into picturesque ideals of life in the early middle ages, based rather upon romantic traditions than on anthropological research. Scientific history is a thing of the future, but its germs lie in the writings of our author, and of a few other contemporary writers; and, just as the modern historian has put Cœurs-de-Lion and cavaliers in the background, in favour of Magna Charta and the growth of representative institutions, he may, in the next century, give his first considerations to still more subtle questions which science alone can solve.

Among the best of the more or less purely medical papers in these *Addresses*, we may cite the author's "Physiology in Relation to Medicine in Modern Times," delivered before the British Medical Association at Oxford in August 1868. Its nature may be judged by all who remember the views of the author and the manner in which the subject is generally treated. No doubt those who attain professional success by social qualities alone may disagree with some of our author's conclusions; yet they are none the less true, and many flourishing family physicians have gained the confidence of the public by the exercise of a scientific instinct, the very existence of which may have never been recognised by their patients, nor even by themselves. Common sense is not necessarily unscientific in the practitioner; and it is neither common sense nor scientific to disparage that kind of scientific education which Professor Rolleston believed to be of paramount importance to the student.

INDEX CATALOGUE OF THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE, UNITED STATES ARMY. Vol. v. Washington Government Printing Office. 1884.

THE fifth volume of this *magnus opus* of Dr. BILLINGS, well maintains the international character and completeness which have marked each of the preceding volumes. When we recall to mind that one-third part of the whole mass of the world's literature belongs to medicine and allied sciences, the value of such a work as this becomes increasingly apparent. Each succeeding volume brings with it an increase in the number of its pages, and we have in the work before us fully seventy pages more than contained in the first instalment of the work. This volume, which alphabetically embraces from "Flac" to "Hearth," contains 1,055 pages, 15,555 names of authors, and refers to no less than 5,755 volumes and 12,596 pamphlets, 80,969 subject-titles of separate books and pamphlets, and 34,127 titles of articles in periodicals. The recent additions to medical periodical literature occupy eleven pages.

Few, if any, libraries cover a wider field than do the Washington Library, which this work represents, and it would be difficult to find a library which more completely represented the medical literature of the world. It has been shown, "from a comparison of the catalogue of the medical library of the Surgeon-General's Office, with the *fasciculi* of the catalogue printed by the British Museum in 1881-1882, that, on 1,140 pages, containing about 34,000 titles, exclusive of cross-references, there were the titles of 657 books, and 880 inaugural theses relating to medicine. Taking the corresponding portions of the Washington catalogue, it is found that the British Museum has 262 medical books, 372 medical theses, and 118 different editions which are not in the Washington Library; while, on the other hand, the Washington Library has 285 books, 342 theses, and 88 different editions which are not in the British Museum. There are common to both libraries 277 books and 508 theses. The two libraries are, therefore, nearly equal as regards medical books, exclusive of medical journals, transactions, and reports, in which the Washington Library is much the richer."

Few persons can form any conception of the amount of careful labour the compilation of such a complete and comprehensive work entails. Of its great value there can be no two opinions; the knowledge where to find reference to a fact is often enough of greate moment than a knowledge of the fact itself. This work will form when completed, by far the most complete index catalogue of medica literature ever issued from the press, and one of which its author an his country may justly be proud.

DISORDERS MISTAKEN FOR HYDROPHOBIA. By CHARLES W. DULLES M.D. Pp. 37. Philadelphia: Collins. 1884.

IN the BRITISH MEDICAL JOURNAL, December 1st, 1883, p. 1078, w reviewed a small pamphlet by the same writer on the subject of Hydr phobia, disagreeing with the theory of fright or imagination suggeste by the author.

The present essay marks a very important advance in the writer study of the subject. He has in a small compass produced a mass evidence proving that various disorders have been mistaken for hydr phobia, and has thus done good service in directing the attention the profession to the dangers of swelling the list of hydrophobic cas by a false diagnosis.

He has enriched his paper by a very copious bibliography, revealin the extent of our literature upon this obscure but attractive diseas Under five divisions, namely: 1, disorders of the alimentary canal 2, disorders of the respiratory apparatus; 3, disorders of the circulato apparatus; 4, systemic disorders; and, 5, disorders of the nervo system; he has produced cases classed as hydrophobia, but whi should in reality have been assigned to one of the foregoing categorie There cannot be a doubt that mistakes in diagnosis have been ma in regard to hydrophobia, and it would be desirable, if possible, check these returns. In Scotland, for instance, according to Dol (*Rabies or Hydrophobia*, p. 125), there were provisionally registere from 1855 to 1874, under the heading of Hydrophobia, the followi cases, which, after investigation, were placed under their true heading in 1855, a case of malignant pustule; five cases of snake-bite various years; in 1860, three deaths from glanders; and in 186 another death from the same cause. In 1871, there occurred thr deaths in Glasgow, and one in Kincardineshire, which were attribut to glanders, but of which two were due to glanders and one to farc This is given on the authority of Mr. William Robertson, Superi tendent of Statistics in Scotland.

In 1874, sixty-one deaths from hydrophobia were registered England; and we have no doubt that, if all these cases were inves gated, some of them might be expunged from that nomenclature, a transferred to another; but the inference would not be correct th because there were some mistakes, hydrophobia therefore did exist. Mistakes occur in the diagnosis of typhoid fever and oth diseases, so that hydrophobia is not singular in this respect.

With this reserve, we can recommend Dr. DULLES's interesti pamphlet to all who are interested in the subject of hydrophobia.

NOTES ON BOOKS.

Sanitation of Public Institutions, being the Howard Prize Essay the Statistical Society for 1883. By R. D. R. SWEETING. 8vo, 97. London: Baillière. 1884.—This is a collection of the ex riences and observations of John Howard on the hygienic conditi of prisons and hospitals at home and abroad, under the various he of site, cubic space, ventilation, cleanliness, water-supply, etc., w the opinions on the same points of the best authorities of the pres day, showing how he anticipated the conclusions of modern sanit science in the most remarkable manner. The author, too, shows t many of Howard's recommendations were acted on even in his o time, by a comparison of his observations in his last tour of spection of prisons in England and Wales with what he had fo before he began his first continental travel. He vindicates the cla of Howard to be held in the light of a man of science, and a s tarian as well as a philanthropist and social reformer. A book wh consists of a condensed enumeration of facts and figures cannot claim to literary merit, but it will be found most useful to those sirous of reviewing the progress of sanitary reform, and the impro ment that has taken place in the material and moral managemen these institutions.

THE appointment of Visiting-Surgeon to the Gaol, Guernsey, va by the death of Mr. Thomas Saumarez Lacy, has been given to Marc Anthony Bazille Corbin, by His Excellency, Major-Gen Sarel, C.B., Lieutenant-Governor of Guernsey.

NGLISH CHOLERA COMMISSION.

THE RELATION OF BACTERIA TO ASIATIC CHOLERA.

the meeting of the Royal Society on Thursday, February 5th, . KLEIN, F.R.S., read a paper on this subject. The following is abstract of this important communication.

Dr. Klein said that he proposed to bring before the Royal Society results of an inquiry into the etiology of Asiatic cholera, under-ken, at the instance and expense of the Secretary of State for India, himself, Dr. Gibbes, and Mr. Alfred Lingard, while in India. This estigation would be published *in extenso* by the India Office, but mission had been granted to bring to the notice of the Society some the more important points of the inquiry, particularly those regard- the relation of bacteria to Asiatic cholera. He also gave the ılts of further observations made since the return of the Commission n India.

ıs is now well known, Dr. Robert Koch, in an extensive inquiry o the etiology of cholera in Egypt, Calcutta, and in France, 3-84, undertaken by him, Drs. Gaffky and Fisher, at the instance he German Government, has arrived at certain conclusions, which, ·fly stated, are these :

. In all persons suffering from Asiatic cholera, there occur in the ·water stools during the acute stage of the disease certain well racterised bacteria, which, on account of their curved shape, Koch ed "comma-bacilli."

. These comma-bacilli are mobile rods, of small size, of about the e thickness as tubercle-bacilli, but only of half their length ; they always more or less curved, sometimes as much as to form half a le ; they vary in length according to the state of growth ; they ır either singly or in couples, in the latter case arranged like an S.

. The comma-bacilli occur in great numbers in mucus-flakes as . as in the fluid of the choleraic evacuations. They occur in the ır part of the ileum of persons dead in the acute stage, almost to exclusion of other bacteria, and in such great numbers that the ır part of the ileum may be considered to contain almost "a pure ivation of comma-bacilli."

The mucous membrane of the ileum, particularly that of the ır part, around and in the lymphatic glands located here—the ary and Peyer's lymph-glands—exhibits in typical and rapidly cases characteristic alterations : loosening and detachment of epithelium of the surface, and of that lining the glands of erkühn ; swelling and congestion of the blood-vessels of the ous membrane, particularly at the peripheral portions of the ph-glands. These alterations are due to the presence, growth, and ciplication of the comma-bacilli in these tissues, and the disease era is caused by the production on the part of these comma-bacilli, by the absorption on the part of the system, of a special chemical ent.

ıis state (the presence of the comma-bacilli in the tissue) is most ounced in the lower part of the ileum, higher up it is more limited, gradually diminishes, and finally disappears in the upper part of mall intestine.

The blood and other tissues are free of any organisms.

The comma-bacilli grow well outside the body at the ordinary erature of the room, but better still at higher temperatures up to r 40° C. They divide transversely ; after division, the two parts remain joined end to end in the shape of an S ; and, by further ion, they may grow into a spiral-like or wavy form. They grow in the mucus-flakes taken from the intestine, and placed on linen in a moist cell ; they grow well on potato, in broth, in Agar-jelly, in solid nourishing gelatine mixtures (gelatine, peptone, beef-extract). In this latter substance they exhibit a peculiar and ite mode of growth not seen by Koch in any other bacteria. The ma-bacilli require for their growth an alkaline medium ; they are l by acid, by drying, and various antiseptic media.

On account of their constant occurrence in the intestines of nts suffering from Asiatic cholera, on account of their absence in ther diseases of the intestine, and on account of their peculiar of growth in nourishing gelatine, Koch claims for these comma- i not only an important diagnostic value, but also considers as the true cause of cholera.

Since his return to Germany, Koch has convinced himself of the ctness of the observations of Nicati and Rietsch, who maintain cholera can be produced in dogs and guinea-pigs by injecting directly into the small intestine of these animals the comma-bacilli taken either directly from the choleraic evacuations or from artificial cultivations.

The investigations of the English Commission have led to the following conclusions.

1. Koch's statement as to the constant occurrence of comma-bacilli in the rice-water stools of cholera patients is correct ; the comma-bacilli vary greatly in numbers in different stools and in different cases, in some being exceedingly scarce, in others numerous.

2. These comma-bacilli vary greatly in length, some being twice and three times as long as others, some well curved, as much as to form half a circle, others showing only just a slight bend. The name comma-bacillus is inappropriate ; the organism is more correctly termed a vibrio.

3. The comma-bacilli occur in the mucus-flakes of the rice-water stools, as well as in those taken from the ileum of a person dead of cholera. The sooner after death the examination is made, the fewer comma-bacilli are found in the mucus-flakes ; even in typical rapidly fatal cases, the mucus-flakes taken from the ileum, and examined soon after death (from between fourteen minutes to an hour or an hour and a half), contain the comma-bacilli only very sparingly indeed, and not to the exclusion of other bacteria. Our investigations do not bear out Koch's statement as to the lower part of the ileum being, in acute typical cases of cholera, almost "a pure cultivation of comma-bacilli." In not one of the many *post mortem* examinations of typical acute cases have we found such a state.

4. The mucous membrane of the ileum, in typical rapidly fatal cases, if examined soon after death, does not contain in any part any trace of a comma-bacillus or any other bacteria, not even in the superficial loosened epithelium. If the *post mortem* examination be sufficiently delayed, comma-bacilli and other bacteria may be found penetrating into the spaces of the mucous membrane. Koch's theory as to the comma-bacilli present in the mucous membrane secreting a chemical poison inducing the disease cannot, therefore, be correct.

5. Neither the blood nor any other tissue contains comma-bacilli or or any other micro-organisms of known character.

6. The behaviour of the comma-bacilli in artificial media is not such as to justify their being considered as specific. They grow well in alkaline and neutral media, are not killed by acids, and their mode of growth in gelatine-mixtures is not more peculiar than that of other putrefactive bacteria ; they show marked differences when grown in different media, but not more so than the ordinary putrefactive bacteria when compared in their growth with one another. The comma-bacillus of the mouth shows the same peculiar character of growth in gelatine as Koch's comma-bacilli.

7. Koch overlooked the fact that "comma-bacilli" occur in other intestinal diseases, in the mouths of healthy persons, and, as shown recently, even in some common articles of food. (By Dr. Deneke in stale cheese.)

8. The experiments performed by Koch and others on animals do not in the least prove that the comma-bacilli are capable of producing cholera or any other disease. The results obtained by them are much more easily explained in an opposite manner.

9. There is direct evidence to show that water contaminated with choleraic evacuations, and containing, of course, the comma-bacilli, when used for domestic purposes, including drinking, by a large number of persons, did not, in the case of the tanks near the Jelepara Lane, produce cholera.

10. The mucus-flakes taken from the small intestine of a typical rapidly fatal case of cholera, contain numerous mucus-corpuscles filled with peculiar minute straight bacilli ; in this state they are found when the examination is made very soon after death ; soon, however, the mucus-corpuscles swell up and disintegrate, and then their bacilli become free. The small bacilli are never mixed in the mucus-flakes. They are one-third or one-fourth the length of the comma-bacilli, and about half their thickness. They are non-mobile ; they grow well in Agar-Agar jelly, but show in their modes of growth no peculiarity by which they could be considered as specific. When grown on the free surface of the nourishing material they form spores.

11. These small bacilli are not present in the blood, in the mucous membrane of the intestine, or in any other tissue.

12. Experiments made with these small bacilli on animals produced no result.

13. Since my return to London, I have ascertained that the comma-bacilli of cholera show two distinct modes of division, one the known one of transverse division, and a second one of division in length. When growing in Agar-Agar jelly at the ordinary temperature of the room, after some days the bacilli swell up, owing to the appearance in their protoplasm of one or more vacuoles ; as these vacuoles increase, so the

comma-bacilli become gradually changed, first into plano-convex, then into oblong bi-convex, and ultimately into circular corpuscles. The longer the original comma-bacillus, the larger the final circle. These circular organisms are mobile, just as are the comma-bacilli; and, by disintegration of the protoplasm at two opposite points, two perfect more or less semicircular comma-bacilli are formed. Growing the comma-bacilli in Agar-Agar jelly kept at higher temperatures (30 to 34° C.), the comma-bacilli multiply by transverse division only; but, transferring these to Agar-Agar jelly, and keeping this at the ordinary temperature of the room, they again gradually change into circular organisms, which, by division in the diameter of the circle, form two new comma-bacilli.

The British Medical Journal.

SATURDAY, FEBRUARY 7th, 1885.

THE ATTEMPT ON THE LIFE OF O'DONOVAN ROSSA.

RARELY has society been more startled than by the news of last Tuesday's publications that an attempt had been made, by a young woman in New York, upon the life of O'Donovan Rossa. Succeeding so rapidly as it did to the events of the previous week, when the House of Commons, Westminster Hall, and the Tower were all injured by the hand of the reckless dynamitard, it was naturally looked upon in the light of a judgment upon the victim of this lady's vengeance. That epidemics of homicide and suicide have from time to time swayed all nations, and that there is a vast amount of imitation in these attempts, is well known to all students of history. And this homicidal act doubtless took its origin from one of a similar nature recently perpetrated in Paris.

The facts of the case are so fresh in the minds of the public, that it is needless to do more than mention them most briefly. It appears that Miss Dudley engaged O'Donovan in conversation, and then, stepping backwards, fired a shot from a revolver into his back, which penetrated the scapula. Four other shots were subsequently fired; but, although bystanders affirm that they were discharged at the prostrate man, Miss Dudley declared they were only fired into the air.

It would be indeed a bold piece of diagnosis to say whether this lady was or was not insane at the time of committing the act, unless indeed further particulars are forthcoming. It is well known that an insane murderer will take no steps to conceal himself, will give himself up to the authorities, will calmly confess to the murder, and also that little or no reason can often be found for the homicide. In this case, however, Miss Dudley was actuated by what, whether sanely or insanely, we do not yet pretend to say, was a motive of comprehensible revenge. Suicidal attempts in those who are guilty of these homicidal acts are common enough. A few years back, Frederick Hunt murdered his wife and child, and afterwards endeavoured to lie down under an approaching train on a line of railway. He was found insane at the Croydon Assizes, and is now, we believe, in Broadmoor. It is proved that, three years ago, this lady inhaled chloroform to an extent to render herself insensible at Liverpool Street Station, and that when in custody she was detected in the further act of taking opium. In September, 1883, a similar attempt with chloroform was made by her, apparently on her own life. "On her trial, it being established that she was incapable of pleading, she was ordered to be detained during Her Majesty's pleasure, and with this object was removed to the Sussex County Asylum, Hayward's Heath, where sh was classed as a dangerous lunatic." When she was admitted, sh was suffering from suicidal mania. After some months, she recovere and was discharged by consent of the Home Secretary.

Dr. S. W. D. Williams, the eminent superintendent of the asylu at Hayward's Heath, describes Miss Dudley's case as one of mor congenital insanity. She was not a woman subject to delusions; b it was owing to this perverted moral nature that she never evinc the slightest contrition for her attempts upon herself; nor is it like —in the judgment of the medical men who have studied her case that she will be in the least degree able to understand that, in see ing the life of another, she has been guilty of any wrong. In D Williams' opinion, she would always be liable to a recurrence of t suicidal mania; and this at any time would be equally liable to transformed into homicidal mania. Indeed, during the earlier peri of her detention, she was both homicidal and suicidal.

NOISE AS A FACTOR IN DISEASE.

FOR the purposes of relation with the external world, our organs consciousness, brain, and spinal cord are provided with orga apparatus, whose respective functions of receptivity we call the sen The vibrations set up by what we designate light, whether white coloured, are received by the rods and cones of the retina, and, be either there or in the optic centre transposed, so to say, into code of the consciousness, become known to the inner self. In manner, the vibrations propagated by the tympanic appara acting as the disc of a telephone to the organ of Corti, are the auditory centre, transposed, and are construed and perceived the inner consciousness; sound, taste, smell, touch, or feeling, act in a like fashion, or on the same principle. This is fectly well known to every physiologist. There is, however, a sideration of fact which does not sufficiently often enter into our culations when estimating the effect of the external or the inter namely, that the consciousness does not take cognisance of all nearly all, the impressions which are conveyed to it, and that these noticed impressions are not without their effect.

It is probable that everything we see, hear, taste, smell, and feel, p a part in the constructive and nutrient development of the ce elements of the nervous system. Development through the env ment—which we know to be Nature's method of culture—requires all external influences should operate in this way, and experi demonstrates that they do. When, therefore, we speak of noise nerve-destroyer, we do not only regard the conscious effects of n that disturb and irritate, but the worrying and destructive influ of sounds which may or may not attract the attention and excit mind of the person injured.

Setting aside for a moment those more popular considerations w are generally recognised and discussed in relation to the injurious e of needless noises on the sick and the nervous, let us bestow moments' thought on the more scientific aspects of this que and try to see if there be not grave scientific reasons why the p sion should take the matter seriously in hand, and endeavour to o such amendments of the law as may be necessary to make the pr tion of needless noises a legal offence, as it is a social and sonal one.

ust as there are noises which may be too "loud" or too "acute" the organ of hearing, that is, scientifically excessive in the nerical speed, or in the amplitude, of the vibrations they set up in membrana tympani, the plate of the stapes, or the elements of the an of Corti, so there are noises which are either absolutely or rela-ly injurious to the auditory centre in the sensorium, or to that erior centre of audition, which is situated in the cortical surface of cerebrum. The destructive effects of noises such as those of an losion, or a piercing shriek, are understood. It is to be regretted the mischief too often done by sudden and unexpected, too long ected, or too exciting, or too distressing, noises acting on the brain pro-necessarily or unnecessarily, when perhaps the fault is not so much he noise as in the organ by which it is impressed, is not equally recognised. There is reason to fear that critically fatal, or per-ently destructive injuries, are wrought in too many cases of cere-irritation, nervous excitability, or mental hyperæsthesia, without knowledge of either patient or medical attendants, so insidious are effects of these nerve-destroying agents, and so subtle are the pro-s by which they produce the most disastrous effects. The ticking clock, which may at first soothe by its monotony, will sometimes nsciously become an excitant. Of all noises, those which are re-ed at appreciable intervals are the most harmful, because they set rhythmical disturbance in the nervous centres, like the rhythmi-ontraction set up in an area of capillary vessels, by stimulation of ce acting reflexly on the vaso-motor system.

is not improbable that a morbid flushing of the auditory centres gular intervals is set up by rhythmically repeated noises, such as of bells, particularly the "fairy" and "funeral" bells, or the dong of the regulation three or five bells used for service pur-s in urban and suburban districts. Another notably injurious of noise is that which increases in intensity, as the sound of ap-ching wheels. The sense of pain produced by this accumulating ant is a significant indication of the injury this variety of noise s. Another and most destructive noise is that which occurs fre-tly but at uncertain periods, and which either keeps the centre perpetual state of expectancy, or subjects it to a series of suc-ve shocks. The most notable variety of this class of noises is which finds its typical embodiment in the shriek or prolonged of the locomotive whistle. In some neighbourhoods, even the all whistle constitutes a tormentor of the same kind acting in ray described. It is not simply that these noises worry and irri-preventing or disturbing sleep—that is, the physiological of the brain. That would be bad enough, but the matter is by far than this; for, whereas disturbance set up in the brain by leational centres acting *ab initio*—that is to the extent, and in ay in which only ideation can be original—may be destructive, terrupting the nutritive processes, the disturbance set up from ut is much more powerful and injurious, not simply over-ex-the cerebral centres, but actually throwing them—mechanically were—into a morbific tumult.

a word, while the effect of mentally distressing noises may be to ce local hyperæmia by excessive stimulation of function, the of physically disturbing noises, which shock or worry the nerve-s—whether consciously or unconsciously—is not merely to in-t normal nutrition, but to set up morbid nutritive processes by tuting abnormal rhythm and habits in place of the normal. s development takes place through the organic world by stimu-lation through and by the environment, so that development may be either interrupted or prevented through or by the environment. And as the environment determines the development, through function calling into prominence those integral parts of our organs which are necessary for the performance of the function elicited—growth by exer-cise, the essential principle of development—so organic growth, and, therefore, structure, may be rendered morbid, and "organic disease" created, by abnormal excitation. This is a great fact. It lies at the root of the whole science of physiological pathology, or perverted growth and structure. It is the key to the enigma of organic disease. Inherited tendencies are dependent upon transmitted forms and types of organic development, and these are produced by special stimulations of growth through the environment, just as modifications of species are produced. The great bulk of the formative influences are exerted without the consciousness of the organism influenced. In the same way that evolution is carried on, its counterpart or corollary, dissolu-tion—as expounded by Herbert Spencer, and applied by Hughlings Jackson and others—is wrought. It is to these subtle and overlooked influences and powers that we owe the major part of diseases as a series of phenomena.

Prominent among the media of morbid influence is the sense of hearing. On strictly scientific grounds, therefore, wholly disregarding the popular and sentimental, we contend that the protection of the sick against nerve-destroying worries is a duty which devolves on the profes-sion of medicine, and which it cannot with impunity disregard or neglect.

DYNAMITE AND PANIC.

THE medical aspects of dynamite outrages include two subjects; the kind of injuries experienced by those who are exposed to the direct mechanical effects of this terrible compound, and the psycho-logical results of the news of an outrage of this class on the genera population. Facts are proving that medical evidence as to the effect of these explosions on the British public is essentially negative, that s to say, they are neither followed by physical nor by political panic. The utmost practical result in this direction is an occasional wrangle between English and Irish labourers, and a considerable amount of mental worry to the relatives of certain high and low officials. This absence of panic after a dynamite explosion is certainly remarkable, especially in London, which contains hundreds of thousands of individuals who are in tastes diametrically opposite to the late Colonel Burnaby, and who do not like being in danger; indeed, some of the bravest men in the world have been much troubled by fear of assassination, though they have smiled at death in the battle-field. Hence, we have rather to consider the cause of the absence of panic at present, than to examine the nature of a panic that does not exist The conditions of European civilisation in the nineteenth century certainly tend to keep down a popular scare. Individuals fear public opinion, which is powerful in these days, and strongly aided by a free press that can report acts of cowardice as well as deeds of bravery. They dread being convicted of folly or cowardice; and, from constant suppression of an unworthy instinct, they end by losing that instinct. It is the same principle that causes the calm which generally pervades a hospital-ward; the sufferer is ashamed to weep or to writhe before strangers, under the influence of pain, and hence, as many hospital-patients admit, they come to make light of what they have learned to control. Then, it is certain that self-respect, one of

the greatest checks to panic, is a virtue which forms a solid attribute of the Anglo-Saxon. Again, familiarity breeds contempt; and the public are, unfortunately, only too familiar with dynamite outrages; but luckily they have learnt that such catastrophes do not entail widespread destruction, and involve very little danger to life. Lastly, a metropolitan population constantly thirsts for news, and ever wishes to play a share in everything that happens. On hearing an explosion, the average Londoner may feel startled for a moment, but his fear gives place in a few seconds to a feeling of unconscious satisfaction that he is a participator in an important event. He eagerly seeks the precise site of the outrage, and possibly takes some of his lady relatives or his children to the spot as to a spectacle. He reads the newspaper-accounts of the occurrence for a day or two, and then almost forgets it, turning his reflections to Khartoum or Redistribution. Such is the influence of a dynamite explosion on the citizen of London in the latter half of the nineteenth century.

On the other hand, this stoic disregard of one kind of danger, this forgetfulness of a calamity when once it becomes stale news, does not necessarily apply to every kind of catastrophe. A severe epidemic certainly causes more fear than an explosion, yet those who are forced to stay in a stricken town soon learn to face the plague bravely. It is, we find, the outbreak of fire in a place of public amusement that has hitherto been the most fruitful cause of dangerous panic in a London crowd, as at Covent Garden Theatre in 1856. Everybody strives to escape from the building, and there may be but two exits, or even only one, generally through narrow doorways; hence follow a crush, struggling, fighting, and suffocation, with a raging fire as a background, possibly with still greater danger from volumes of asphyxiating smoke. These conditions, however, are mostly absent in the ordinary dynamite explosion, which, partly on that account, is much less liable to create panic. From this, we may draw the moral that, whilst the authorities take precautions against dynamite, it is to be hoped that the safety of theatres against fire will not be overlooked. There are several play-houses in London where, if a fire broke out during the midst of the performance of a piece, the results might be more terrible than anything witnessed in all the recent dynamite outrages put together.

Dr. R. E. Carrington has been appointed an Assistant-Physician to Guy's Hospital, to fill the vacancy caused by the death of Dr. Mahomed.

The *Centralblatt für die Medicinischen Wissenschaften* appears under new editorship. Professor Kronecker has been called to Bern, and Drs. M. Bernhardt and E. Salkowski now edit this journal, assisted by Dr. Senator, whose name still appears on the title-page.

DR. GRANT BEY.

The *Egyptian Gazette* announces that the Queen has granted permission to Dr. Grant Bey to accept the Order of the Medjidieh of the Third Class, which the Khedive has conferred upon him for his valuable services during the epidemic of cholera in 1883. Dr. Grant Bey had already received the Order of the Fifth Class for his cholera services in 1865.

THE ENGLISH CHOLERA COMMISSION.

At the Royal Society on Thursday last, Dr. Klein gave an outline of the results of the investigations which he had carried out in India in conjunction with Dr. Heneage Gibbes and Mr. Lingard. We publish an abstract of this important paper at page 289. As the matter is of much importance, it is proper to add that our report has received the verbal corrections of the author, and that the official report upon which the results of the investigation must be finally judged will shortly be presented to the India Office.

THE ROYAL COLLEGE OF PHYSICIANS.

The following lectures will be given at the Royal College of Physicians during the present year, and by arrangements with the authorities will be published in these columns:—Gulstonian Lectures, Dr. William Osler, February 26th, March 3rd, 5th, "Endocarditis;" Croonian Lectures, Dr. Hermann Weber, March 10th, 12th, 17th, "Hygienic and Climatic Treatment of Consumption;" Lumleian Lectures, Dr. Andrew Clark, Bart., M.D., March 19th, 24th, 26th, "On some Points in the Natural History of Dry Pleurisies."

EXAMINATION OF LUNATICS.

At a meeting of the Council of the Poor-Law Medical Officers' Association, held on February 3rd, attention was drawn to the proposed Lunacy Law Amendment Bill, from which it would appear that in future poor-law medical officers will be debarred from examining lunatics, and such duty will be vested in medical officers of health, the family medical attendant, and superintendents of asylums. The Council feels strongly that such a step would throw an undeserved slight on the 3,500 poor-law medical officers of England and Wales. The Council sincerely trust that every poor-law medical officer, in his respective district, will at once place himself in communication with his representative in Parliament, so that such Bill may be amended when in Committee.

URBAN MYOPIA.

In a recent address at the Society of Arts, Mr. Brudenell Carter drew attention to a form of myopia to which the dwellers in populous places are peculiarly subject. There is no doubt that town-life is conducive to short sight. There is not one man in ten who, in walking about a crowded town, does not habitually keep his eyes fixed upon the ground, or, at any rate, upon a very near point. Visual accommodation for near distance becomes habitual, because it is a protective necessity against collisions and other dangers of the streets. Let dwellers in towns should take frequent walks abroad, so that, by gazing on distant objects, they may preserve their eyes by a healthful relaxation of visual tension.

GERMAN AND BRITISH SCIENTIFIC RIVALRY.

In concluding a series of reports upon the International Health Exhibition recently published in the *Deutsche Medizinal-Zeitung*, Leopold Casper observes: "We were not a little surprised to learn from the English medical press, a few weeks since, that the fact that the more important discoveries in bacteriology have been made in Germany, must be considered as a humiliation to the professional England. Britain has also felt mortified that the etiology of cholera, a disease so interesting to her on account of her Asiatic colonies, has been discovered by a German. We must say that these assertions have caused us some astonishment, and they remind us rather of a nation more immediately contiguous to our borders. England has her incomparable Lister, who with deep intelligence had established his therapeutic regulations so firmly, that all subsequent discoveries have simply been made through following in his path, before the name of Koch was known. Yet, who ever said that the discoveries of Lister were a humiliation to Germany? Pasteur has recently repeated the old saying, that science has no nationality. On this principle, and notwithstanding the undoubted fact that the method has been improved upon in Germany, Lister is accounted by us, and will ever be considered by us, as one of the most glorious names in the annals of science. Since it is so evident that Germany, we admit with pride, has imported and cherished this flou

icinal system, it is not at all clear why no fresh discovery should e out of England. Moreover, England has already fitted out an dition for researches on the nature of cholera, and the excellent gical laboratory at the Health Exhibition proved her eagerness earch further along the new path of knowledge. In describing laboratory in detail in our pages, we feel that we are carrying out wishes of our colleagues; since, although the most important dis-ries in bacteriology have been made in Germany, it in no way ws that Germans have nothing to learn from Englishmen. Yet nust say that we have nowhere seen worse antiseptic surgery than ngland, 'the cradle of antiseptics'."

SMALL-POX AND FEVER IN LONDON.

returns from the small-pox asylums, laid before the Metropolitan ums Board on January 31st, showed a very disquieting state of gs in regard to the long continuance of the epidemic which has ted London and the suburbs of the capital. The number of fresh s received in the fortnight was 548, against 448 in the previous ight—thus making, in round numbers, a thousand cases in four s. In the course of the fortnight, 82 had died, and 362 had been arged recovered, leaving 1,112 cases under treatment, a number eding by 98 the number left a fortnight ago. Of the number r treatment, 669 were in the camp at Darenth, 318 in the ships at Reach, and the other cases were spread over six asylums in various icts of the metropolis, in numbers not exceeding 30 in any one Sir E. H. Currie called attention to the pregnant character of figures, and remarked that the epidemic seemed to be in as full as when it commenced. There was an enormous significance, he l, in the fact that the numbers showed a hundred more fresh cases in the previous fortnight; and the managers must see from this there was every reason why revaccination should be encouraged very part of the metropolis. He called their attention to the ragement given in Poplar to revaccination, which was offered free st to all comers, the authorities doing this to stamp out this loath-disease, and he commended the example to all the local authori-The managers, in their several localities, could do much in this tion; and it was necessary that revaccination, as well as vaccina-should be well looked after. The fever returns showed that 101 cases had been received in the fortnight, against 73 in the pre-fortnight; that 11 had died, and 90 had been discharged, leav-79 cases under treatment, against 382 the previous fortnight. ases in the asylums are: 304 cases of scarlet fever, and 75 of ic fever.

MANCHESTER MEDICO-ETHICAL ASSOCIATION.

annual meeting of this Association was held on January 30th. report of the Committee showed continued prosperity, with ady increase of members and funds. The retiring president, Lloyd Roberts, gave a very able and interesting address, after n the following gentlemen were elected office-bearers and mem-of Committee for the year 1885. *President:* F. H. Walmsley, *Vice-Presidents:* G. Bowring, Esq.; C. H. Braddon, M.D.; C. llingworth, M.D.; S. Woodcock, M.D. *Treasurer:* D. Lloyd ts, M.D., F.R.S.Edin. *Secretaries:* J. Broadbent, Esq.; A. tuch, M.D. *Committee:* W. Armstrong, Esq.; W. H. Barlow, ; F. H. Collins, M.D.; A. Emrys-Jones, M.D.; J. Foster, Esq.; Mallett, M.D.; S. H. Owen, M.D.; J. A. Palanque, Esq.; F. erce, M.D.; S. Rains, Esq.; A. E. Sutcliffe, Esq.; W. Walter,

MMERSMITH POLICE-COURT AND THE HABITUAL DRUNKARDS' ACT.

appears from recent correspondence that the formalities necessary atients wishing to enter a retreat are not generally under-it may be useful if we explain the way by which they may mitted into one of these retreats. No doubt, the great draw-back to the working of the Act is the fact of patients being obliged to go into what Mr. Paget, the stipendiary magistrate of Hammersmith, very wrongly terms "imprisonment," and also having to sign before two magistrates. The licensee of the Tower House Retreat at Westgate-on-Sea always suggests that any patients wishing to enter his establishment should first visit Westgate, and satisfy themselves that they are not entering either an asylum or a prison; and they are also able to form an opinion as to whether they will like the treatment and the general rules of the place. To those wishing to place themselves under the Habitual Drunkards' Act, every facility is offered them, as Mr. J. H. Brown, the licensee, is always able to find two magistrates who are not only always ready, but perfectly willing, to assist the patients by courteously witnessing their signatures. So simple and easy are these formalities made at Westgate, that no less a number than twenty-nine patients have entered Tower House Retreat during the year ending December 31st, 1884, and we are informed that not one of them regretted the step they had taken.

RADICAL CURE OF HERNIA.

We publish, this week, two interesting papers and a discussion on this very important subject. The great prevalence of hernia amongst every class of the community is well known; it is an affection that is much dreaded by the patient, and looked upon as a possible source of fatal mischief by the surgeon. To the patient, it gives an impression that he is imperfect; in many respects it is revolting to his sense of delicacy; and he particularly objects to be obliged to wear a truss, which he has to do, as a rule, for life. This instrument costs money, and easily gets out of order; nor are the frequent precautions required to insure cleanliness and prevent abrasion and painful pressure agreeable to the patient, since people do not like, as a rule, to have to take any precautions. The ruptured among the working-classes are especially in danger when in the pursuit of their bread-winning labours, and to them in particular is a truss objectionable, for all the reasons given above. The fitting of a truss is not always a congenial task to the surgeon; and few cases are more troublesome to him than that of a hernia complicated by the bad effects of an improperly fitting truss, especially when strangulation has occurred and operation is rendered necessary. On the other hand, several operations for the radical cure of hernia, though well known to readers of medical literature, have not yet become thoroughly popular amongst general hospital surgeons. The danger of opening the peritoneum has deterred many operators from attempting any of these radical procedures; and although abdominal sections for the removal of large tumours have proved that the peritoneum may be handled and cut with greater impunity than was formerly suspected, and antiseptics have revolutionised surgery, still there is a great difference between operating through a wide incision in the median line and through a comparatively small incision over the inguinal ring, especially as regards facility of manipulation and a clear view of the structures immediately involved in the operation. Hence, all information on the radical cure of hernia from surgeons who have had experience in this new department of surgery will be welcomed, and such information will be found in Mr. Spanton's and Mr. Vincent Jackson's interesting contributions, and in the comments of Mr. Mitchell Banks and Mr. Folker, which we publish this week.

THE CHLOROFORM-HABIT.

Inebriety is by no means confined to alcohol. Though in England inebriety from opium and ether has attracted comparatively little attention, the habit induced by these and other narcotics has been described by observers in other countries. The latest development of excess comes from the United States, in the shape of a record of several cases of addiction to chloroform. In one instance, the *habitué*, a very abstemious physician so far as alcohol was concerned, accidentally experienced the pleasurable sensations of intoxication from this agent,

and gradually lapsed into confirmed nightly inhalation of chloroform, extending over three years. By this time, his regular dose was three drachms. Change of scene and of circumstance caused a break in the habit; but the presence of chloroform brought about a relapse. Shortly afterwards, a struggle for emancipation from the slavery to chloroform was begun, which, after extending over two years, was finally successful. Dr. J. E. Clark has noted several similar cases. It would be well for temperance reformers in England to keep themselves familiar with the work of the Society for the Study and Cure of Inebriety, that the causes giving rise to the habit may be grappled with; else there is some danger that, if alcohol be discarded as a favourite means of intemperance, some other substitute may be resorted to.

AMENDMENT OF LUNACY LAW.

MR. CLARK BELL, in his address as retiring President of the Medico-Legal Society of New York, and speaking on the lunacy question, says that in England, the Government pledged itself in the last Parliament to bring in an amendment to the lunacy statutes of that country, which he regarded as, in many respects, superior to their own in New York, especially in the vital questions of supervision and visitation of the insane, and authority over superintendents of insane-asylums, the manner of commitments, and in other important respects. In Italy, the Government had formally initiated a complete lunacy law, and introduced it to the Italian Parliament. In France, a commission of eminent men had been carefully considering changes in the French law, and the English Minister at their national capital had sought the advice of governors of American States regarding the existing system in New York, as bearing on contemplated changes in that country to be proposed by the English Ministry. Mr. Bell thinks the practical question would best be solved in New York by a commission to be named by the governor, through a careful inquiry by men selected for their knowledge of the subject, who should be asked to report such changes in our lunacy statutes as are demanded by the exigency of the times, and the needs of that defenceless class who, not able to speak for themselves, have all the higher claims on our sympathy, our care, and our protection. Professor R. O. Doremus succeeds Mr. Clark Bell as Chairman of the New York Medico-Legal Society.

FOREIGN STUDENTS IN PARIS.

A SLIGHT agitation has arisen among students of all faculties in Paris, but especially among medical students, on the ground that foreigners are favoured to the detriment of natives. It is said that they are given the best places in the laboratories, dissecting rooms, and lecture-theatres, and that they are allowed to obtain the degree of Doctor of Medicine too easily, being excused too many examinations. It was even said that the examiners, yielding to the clamour, were inclined to give the first place at the examination for the *internat* to a French student, although the best man was a foreigner. "Dr. Simplissime," who writes the amusing and gossiping *feuilleton* of *L'Union Médicale*, takes a very calm view of the situation; he tells the students that, if it be true that the foreigner gets the best place at demonstrations and lectures, it is because he is more in earnest and more hardworking than the native, and that he is only excused examinations after careful investigation of the diplomas he presents. Great care is taken to put the foreign student who has commenced his education in his own country as far as possible on the same footing as the native-born student. The principle, however, is carried out beyond the University. The hospitals in Paris are under the direction of a Government department; and the *internes*, who hold the same kind of position as the house-surgeons and house-physicians in this country, are, in fact, Government officers; these officers are appointed after a public examination, the *concours de l'internat*, and to this, at present, foreigners are admitted. It is not unnatural, perhaps, that many should think that the foreign student is treated rather too generously, nor that the cry of "France for the French" being raised. Public appointments, it is said, ought to be reserv for Frenchmen born or naturalised. It would certainly ill become who so jealously guard all public appointments from the intrusion foreigners, that even our fellow-subjects in India are excluded fr entering the service of the army, to complain if the French determi to limit the freedom with which they now offer their appointments all comers. It is a curious reflection, however, that no such difficu could arise in London, for there are hardly any foreign students London; the few students who are not Englishmen hail from Colonies or dependencies; and the majority of even this class w find their way to England pass on to the great schools of Scotland another proof that there is something very wrong in the organisation medical education in London at the present time.

CHELSEA HOSPITAL FOR WOMEN.

A COURSE of six lectures on the Medical and Surgical Diseases Women will be given at the Chelsea Hospital for Women by Aveling, Dr. Edis, and Dr. Fancourt Barnes, the subjects and da of which are as follow: February 9th.—Lecture I. By J. H. A ling, M.D.: Introductory Lecture. British Gynæcology—Past Present.—February 16th.—Lecture II. By A. W. Edis, M.D.: the Diagnosis and Treatment of Uterine Hæmorrhage (First Part) February 23rd.—Lecture III. By Fancourt Barnes, M.D.: Ute Displacements.—March 2nd.—Lecture IV. By J. H. Aveling, M. On the Methods of Examining the Female Pelvic Organs.—March —Lecture V. By A. W. Edis, M.D.: On the Diagnosis and Tr ment of Uterine Hæmorrhage (Second Part).—March 16th.—L ture VI. By Fancourt Barnes, M.D.: Dysmenorrhœa. The lect will begin at 5 o'clock each day, and will be open free to all qualified practitioners on presentation of address-card.

URBAN ARBORICULTURE.

IT will be remembered that Lord Brabazon, as chairman and on beha the Metropolitan Public Garden, Boulevard, and Playground Associat recently offered £100 towards the cost of planting trees in the thoro fares of Lambeth, on condition that the parish should itself contri a similar sum to the purpose, and should maintain and preserve trees so planted. The General Purposes Committee of the Lam Vestry, to whom Lord Brabazon's offer was referred, recommended rejection, on account of the alleged difficulty of rearing sapling the streets; but we are pleased to learn that the majority of the ve have refused to accept their report; and, on the motion of the c man, the Hon. and Rev. F. Pelham, himself a member of the P Garden Association, have referred it to the committee for reconsi tion. That trees can and do grow in what would, at first thought, a the most unpromising circumstances, is sufficiently proved by ma green oasis in the blackest and busiest parts of the City; and the flou ing condition of the young trees on the Victoria Embankment- *Boompjes* of London—shows that a stone pavement need not inte with their nourishment and growth, if only provision be mad drainage and for occasional artificial watering. Care, of cours necessary in the selection of proper and suitable trees, and in plant but, with ordinary precautions, there is no reason, beyond initia penditure, why London should not have as many trees as lamp-p and as many avenues as streets. The grass and foliage of the garde the archiepiscopal palace testify—if evidence be needed—that the a sphere of potteries and factories is not inimical to plant-life; an trust that the boulevards of Lambeth will soon be a source of pri its inhabitants, and an example to other parishes.

HOSPITAL SATURDAY FUND.

THE eleventh annual meeting of the Hospital Saturday Fund held at the Memorial Hall, Farringdon Street, under the presi of Mr. S. Morley, M.P., who moved the adoption of the report,

ich it appears that, during the past year, twelve thousand letters itling the holders to medical or surgical treatment, had been distri- ed among the workpeople who had subscribed to the fund. It was isfactory to be able to report continued progress; £9,000, or £750 re than in 1883, had been awarded in 1884 among one hundred and nty-seven institutions, three more than in the preceding year. nding to the Workmen's Convalescent Home, which had been suc- sfully established in connection with the Hospital Saturday Fund St. Margaret's Bay, near Dover, the chairman appealed for help to ar off the debt of £2,000 which remained upon the building, and pro- ed that, in the event of £1,600 being raised for this purpose, he ild supply the deficient £400. Freed from the necessity of paying)0 upon the £2,000 which had been borrowed to complete the pur- se of the freehold, the institution would be enabled to accommo- e one hundred more patients, or eight hundred altogether, in the rse of a year. The report was adopted; and those present pledged mselves "to promote, by every means in their power, a weekly col- ion throughout the workshops of the metropolis, on behalf of the pitals and dispensaries and other medical charities of London." vas decided that the ladies' street-collection should be made on the d Saturday in July, instead of the first Saturday in September; health of many ladies having suffered, owing to the very inclement ther last Hospital Saturday.

THE WOOLWICH MURDER.

EDERICK MARSHALL, who was committed to the present sessions the Central Criminal Court to take his trial for the murder of a at Woolwich, and who has been examined by a Medical Commis- , and pronounced insane, has been removed in custody to the admoor Lunatic Asylum.

SURGERY OF THE KIDNEY.

ISCUSSION on the Surgery of the Kidney will be held at the Medical iety on Monday next. The subject will be introduced by Mr. Henry ris, whose experience in this branch of surgery is well known, and has recently advocated an operation for the removal of calculi a the ureter.

THE HEALTH EXHIBITION SURPLUS.

Council of the International Health Exhibition, at a meeting l, under the presidency of Sir James Paget, in the rooms of the ety of Arts, received the statement of accounts, from which it eared that there would probably be a surplus of £19,000. Inas- h, however, as this was but the second of the series of exhibitions ounced by the Prince of Wales at the close of the Fisheries Exhi- on, it was decided that the surplus should not be disposed of until financial success of the forthcoming Inventions Exhibition should ssured.

THE DEGENERATION OF LONDONERS.

a lecture at the Parkes Museum on January 29th, Mr. James tlie took a very pessimistic view of the future of London. His ry is as disappointing as the map of Australia used to be when ould trace all the streams of a great watershed gathering themselves a mighty river, which flowed only to end miserably, vanishing a sandy desert. So England, Mr. Cantlie tells us, is constantly ing into London a stream of healthy folk, whose offspring de- rate, so that the race quickly ceases to be. The upper middle es, the professional classes, who take a long annual holiday, and se children are generally educated at public schools in the country, of course, to be excluded from this generalisation. But he con- ed that London possesses a hygienic constitution which separates ry distinctly from rural or suburban areas, and that its effect on human constitution is a type of the kind of effect produced by towns. He pointed out that the atmosphere of London con- s no ozone, and that possibly, in relation with this fact, there are the further facts that, in London, it is impossible to get beneficial exercise, or to become sunburnt. Though it must be admitted that, of these statements, two are somewhat fanciful, and the other exaggerated, it is impossible not to recognise that the human organism is not under favourable conditions in London or other large towns. A good constitution and regular habits of life hide from observation the depression of vitality, which, however, is produced, and shows itself in a gradual diminution of the reproductive faculty, and in the extinction of the race. It is impossible, according to Mr. Cantlie, to find a pure Londoner of the third generation, that is to say, an individual whose two parents and four grandparents were all born and bred and continuously dwelt in London. It is rare to find an individual whose two parents, and three out of four grandparents, who fulfil the above condition; and such an individual is a very miserable ill-developed specimen of the human race, of stunted growth, low stature, small head, and feeble intellect, destitute of any faculty of enthusiasm or humour, and very liable to scrofulous disease. The presumption, therefore, is that the true bred Londoner of the third generation does not exist, the reproductive power of the race happily ceasing before this stage is reached. It is easier to accept Mr. Cantlie's conclusions than his premisses. Deterioration of the race undoubtedly occurs in large cities; it may be in part due to the disappearance of ozone, but the fouling of the air, especially by the imperfect scavenging of the streets, the bad water so largely distributed, the imperfect drainage, the badly planned house-drains, the unventilated rooms, and the dense packing of the people under conditions most favourable to the spread of epidemics, and the dissemination of such diseases as tuberculosis and scrofula, are among the most potent factors in bringing about the degeneration. How long the inhabitants of "the province of houses," which contains more people than Scotland, and is called London, will be content to leave the government of the province to the present haphazard collection of more or less ignorant and incompetent rulers, is a matter of deep interest and near concern to all who have to live within the area.

LECTURES AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

PROFESSOR PARKER will commence his annual course of lectures in the theatre of the Royal College of Surgeons on Monday next, and deliver six lectures on Birds, their Genesis and Structure. He will be succeeded, on the 23rd instant, by Professor Frederick Treves, who will deliver three lectures on the Anatomy of the Peritoneum and Intestinal Canal in Man. On March 2nd, Professor Charles Stewart will commence a course of three lectures on the Structure and Life-history of the Hydrozoa. Professor Alexander Hill will commence his course of three lectures on March 9th, on the Grey Masses of the Cerebro-Spinal System, their relations to one another, and to Peripheral Nerves; and, on March 16th, Professor W. A. Brailey will commencce his course of three lectures on some points in the Anatomy and Physiology of the Eye. The lectures by Professors Lund, Wood, Stewart and Schäfer, will be given some time in June.

PUBLIC MORTUARY FOR THE METROPOLIS.

IT is satisfactory to learn that the St. Pancras Vestry has at last awoke to the necessity of providing proper mortuary-accommodation, and thus removing what has long been a public scandal, to which we have more than once called attention. At a meeting of the vestry held on Wednesday, a report was presented from the Parliamentary and General Purposes Committee stating that, the vestry having determined upon the erection of a public mortuary and coroner's court, and instructed the committee to carry out the decision, they recommended that the plans of an architect named should be accepted, subject to certain conditions. Mr. Hoppey, the chairman, moved the adoption of the report, and Mr. Dixon seconded. A letter was read from Dr. Danford Thomas, the coroner, in which he referred to the "shed" used as a mortuary for St. Pancras, and to the fact that Islington, the City, St. Giles's, and even Clerken-

well, had mortuaries and coroners' courts for which fees were paid by the county; and he estimated that, if a court were built by St. Pancras, it would realise to the parish about £60 per year. It was also stated that the estimated cost of the proposed mortuary and coroner's court would be £2,000. Mr. Watkins moved an amendment, to the effect that the report be referred back for further consideration, and that it be an instruction to the Committee to make provision for a mortuary-building only, with the necessary rooms for *post mortem* examinations, and for a person to take charge, especially in view of the proposed new measures for the government of the metropolis. It was contended that the erection of a coroner's court was only wanted by the coroner for his own convenience, instead of holding his inquests where the parties died. The amendment was carried by a large majority.

THE NATIONAL HEALTH SOCIETY.

THE annual meeting of the members of this Society was held on the 3rd instant, Mr. Ernest Hart in the chair. The report showed that a hundred lectures upon simple sanitary subjects had been delivered during the year to large audiences of working people and others in London and the provinces; that the committee for investigating arsenical and other poisons had been actively at work; that about 35,000 of the Society's useful publications had been sold at the International Health Exhibition, where a successful conference on school-hygiene had been held under its auspices, and that several new pamphlets and leaflets had been issued, including one entitled "How to Oppose and Prevent the Cholera," of which 27,000 copies had been sold and distributed. The chairman urged the members to make the useful work of the Society known among their friends, increased funds being much needed to carry it on.

OBSTETRICAL SOCIETY OF LONDON.

ON the evening of Wednesday, February 4th, there was an interesting meeting of this Society. Mr. J. Knowsley Thornton exhibited a pair of dermoid ovarian cysts which he had removed, a few hours previously, from a young woman in the third month of pregnancy. The pedicle of the tumour on the right side was twisted. Mr. Thornton believed that this was the first instance on record of double ovariotomy during pregnancy. As metrostaxis very frequently followed removal of both ovaries in a subject not pregnant, it would be interesting to see if symptoms of abortion would follow in this case. Dr. McKeown read a paper on the Prevention of Ophthalmia Neonatorum and its Ravages. He urged the importance of impressing upon midwives, students, and practitioners the duty of sending all new-born children with weak eyes to an ophthalmic surgeon. The subject was referred, by the President of the Society, to the Council, with a request that a paragraph should be added to the manual published by Messrs. Longmans, and entitled *Rules for the General Management of Infants, recommended by the Obstetrical Society of London*, the paragraph embodying the recommendations contained in Dr. McKeown's paper. We record with gratification the fact that the President, Dr. Gervis, announced that he had been requested to draw attention to the series of questions drawn up by the Collective Investigation Committee of the British Medical Association for furthering researches on the nature of puerperal pyrexia, and published in the JOURNAL (January 31st, 1885, page 249). He trusted that the Fellows of the Society would take full cognisance of these questions, and assist in the cause of investigation. At the close of the ballot for the election of a new President and other officers of Council, the President, Dr. Gervis, announced the election of Dr. J. B. Potter as president for the ensuing year, the other officers elected being those nominated on the ballot-paper. The outgoing President, Dr. Gervis, then delivered his valedictory address. He referred to the flourishing condition of the Obstetrical Society of London, which now included 722 Fellows, so that, excluding the Honorary Fellows of the Royal Medical and Chirurgical Society, it was the largest in the metropolis. It was renowned for the activity of the discussions which took place at its meetings, and one of the most favourable features of the Society was the constant presence of the great majority of senior Fellows and former members of council. Dr. Gervis gave a summary of the work done by the Society last year, and paid an eloquent tribute to the memory of Drs. Hall Davis and Lanchester. A vote of thanks to the retiring president was proposed by Dr. Graily Hewitt, seconded by Dr. Playfair, and put to the vote by Dr. Gustavus Murray, and carried unanimously. Dr. W. A. Duncan proposed a vote of thanks to the retiring treasurer, Dr. J. B. Potter; this was seconded by Dr. Horrocks, and carried unanimously, as was a similar vote in favour of the retiring vice-presidents, proposed by Dr. John Williams, and seconded by Dr. Hunt.

HUNTERIAN SOCIETY.

THE annual meeting of this Society will be held on Wednesday, February 11, at 7.30 P.M.; after which, at 8 P.M., the Oration will be delivered in the theatre of the London Institution, by Dr. F. Charlewood Turner. The following is the list of officers recommended by the Council for election:—*President:* P. H. Pye-Smith, M.D. *Vice-Presidents:* Major Greenwood, M.D., W. C. Toulmin, Esq., William Clapton, Esq., Stephen Mackenzie, M.D. *Treasurer:* H. I. Fotherby, M.D. *Trustees:* H. I. Fotherby, M.D., D. De Berdt Hovell, Esq. *Librarian:* P. L. Burchell, M.B. *Orator:* Sir Andrew Clark, Bart., M.D. *Secretaries:* Charters J. Symonds, M.S., F. Charlewood Turner, M.D. *Council:* R. E. Carrington, M.D., F. M. Corner, Esq., C. Davison, Esq., T. R. Fendick, Esq., R. Fowler, M.D., E. G. Gilbert, M.D., J. Dundas Grant, M.D., G. E. Herman, M.B., W. Talbot King, M.D., John Millar, Esq., W. Rivington, M.S., R. G. Tatham, Esq. *Auditors:* G. E. Herman, M.B., T. R. Fendick, Esq., Waren Tay, Esq., R. Clement Lucas, Esq. *Library Subcommittee:* James Greenwood, M.B., A. H. Smee, Esq., W. Rivington, M.S., W. C. Toulmin, Esq. The annual dinner will be held at the Albion, Aldersgate Street, on Friday, February 13th, at 6.30 P.M., Dr. Robert Fowler, President, in the chair.

THE SUFFERERS FROM THE DYNAMITE EXPLOSIONS.

ON inquiry at the Westminster Hospital on Thursday afternoon, we were informed that the two policemen, Cole and Cox, are both going on well. The fracture of the ribs which the former sustained has not been followed by any complication, but the terrible shock has caused an amount of nervous exhaustion, from which he will probably recover but slowly. Two girls were admitted into the London Hospital under the care of Mr. Frederick Treves, a few hours after the explosion at the Tower. They were walking, arm-in-arm, into the Armoury at the moment the explosion occurred. They were knocked down, and partially buried by the falling material and by the arms displaced by the explosion, and some slight lacerations were inflicted in this way. In both cases the hair, eyelids, and eyebrows were singed, and there was a burn of the face of the first degree. Both patients were deaf in one ear; and, in one girl, the membrana tympani had been ruptured, and in both shock was very pronounced. They have now so far recovered as to be able to leave their beds, and will soon return home.

THE LATE DR. DAWSON TURNER.

THE announcement of the death of Mr. Dawson Turner, D.C.L., "sometime student of the Westminster and Charing Cross Hospitals," as he took pleasure in styling himself, will be read with regret by a large circle to whom he had endeared himself by the many kindly acts of charity which it became the mission of his life to bestow. It was well said by Dr. Octavius Sturges, who knew him intimately, that "the sole object of his life—both his business and his pleasure—has been to relieve the more pressing needs of those in distress." In his daily walks, he would seek out the destitute, inquire into their

istances, and, there and then, render them such timely aid, in l or clothing or removal of some pressure of debt, as the particular e required, lifting the poor out of their distress without degrading m to pauperism. His daily tour of the wards, and distribution of ks, toys, and pictures; his thoughtfulness for all, and especially the children, and care that, on their discharge, they should be vided at his own cost with warm clothing, and tea and other com- s—all this had gone on for so long, that we had come to look upon s part of the hospital-administration. In such a life—so bright in f—all will see much to admire and to imitate; and the hope may xpressed that others may yet be found to carry on the good work ch he did so continuously and so well.

SCOTLAND.

HE town of Kilwinning is at present suffering from a severe epi- ic of measles and scarlet fever, which has necessitated the closing ie public schools.

s a mark of the esteem in which the late Dr. Marshall was held ie Queen, a pension of £150 *per annum* for life has been conferred is father.

IE Aberdeen University Court has, at its last meeting, decided to its approval to the effort about to be made for the extension of Jniversity buildings, reference to which has already been made in OURNAL.

ENTERTAINMENT FOR THE INSANE.

worth noting, as a feature in the advance of the kindly treat- of the insane, that on Saturday, January 24th, Mr. J. L. Toole is company gave a dramatic entertainment to the inmates of the rose Lunatic Asylum.

EDINBURGH UNIVERSITY COURT.

meeting of the Edinburgh University Court held last week, the ing examiners in the Faculty of Medicine were reappointed: in ry, Dr. J. D. Gillespie; in Clinical Medicine, Dr. Byrom Bram- in Physiology, Dr. Richard Caton; in Materia Medica, Dr. m Murrell; in Pathology, Dr. Sydney Coupland; in Practice dicine, Dr. Thomas Barlow; in Midwifery, Dr. J. Halliday ; in Anatomy, Professor D. J. Cunningham; in Chemistry, . P. Aitken; and in Medical Jurisprudence, Dr. H. D. Little- To the vacant examinership in Botany, Professor Isaac Bayley r was elected, and to that in Natural History, Dr. Ramsay H. air. The appointment of examiner in Clinical Surgery was, er, postponed. The Court resolved to recognise the examina- n Arts of Sydney University, held after one year's study, as ying for entrance on medical study in Edinburgh University.

INSTALLATION OF THE RECTOR OF ST. ANDREW'S.

xcellent and suggestive address delivered by Lord Reay at his ation last week as Rector of St. Andrew's University, shows that the students of that ancient seat of learning set their on a very fit and proper person to fill the post. Fully nted in every way, from personal experience, with university was only natural that he should choose as the subject of his s a question that has of late been much discussed and argued henever educational matters were under consideration, namely, orm of university teaching. He seems to be at one with those ers who would have established a wider range of subjects and organisation than at present exists, and he would like to see pecialisation in teaching, so as to meet the present demand for instruction on the part of the general public. He would also hat narrow the entrance-gate to university classes, and, by the standard of proficiency, ensure the intellectual fitness of students for university teaching. The liberal and Catholic tone, too adopted in dealing with the religious side of our university teaching, will recommend itself to all, and there can be no hesitation in saying that the address is of an eminently practical character; and the recommendations which it contains, coming from such a quarter, must materially help on those changes which all admit to be necessary to bring university education in Scotland up to the requirements of the present day.

THE SCOTCH SANITARY PROTECTION ASSOCIATIONS.

WE recently were able to speak of the very satisfactory progress the Glasgow Sanitary Association was making, and we are now pleased to report similarly of those of Edinburgh and Dundee. The latter has only been in existence a short time, but has received encouraging support; while the former has just passed through the most prosperous year yet experienced since it was started. Its membership now numbers between eight and nine hundred, while its income is close on £1,500. We have always spoken favourably of these private efforts on the part of communities to aid themselves in correcting the sanitary defects and improving the hygiene of the houses in which they dwell; and we are glad to see that this can be done efficiently, and at a yearly cost which the annual subscriptions are sufficient to cover. We observe that the Association very properly sent its engineers in August last to visit the London Health Exhibition, so that the latest improvements in sanitary science might be seen, and thus brought within the reach of the members of the Association.

IRELAND.

PRESENTATION TO DR. BARRON.

A DEPUTATION, representing the resident pupils, past and present, and the students attending the Belfast Royal Hospital, waited on Dr. Barron last week for the purpose of presenting him with an address, accompanied with a case of surgical instruments, on the occasion of his resigning his connection with that institution. Dr. Smith, house-physician, presided, and expressed on the part of the students their great regret at losing Dr. Barron as a teacher, and bore testimony to the ability he had always shown in the discharge of his duties, and to his kindly disposition. The deputation were afterwards entertained at supper by Dr. Barron.

THE SAMARITAN HOSPITAL, BELFAST.

FROM the annual report of the committee, it appears that the effort which has been successfully made to keep the expenditure within the income, has placed the hospital on the most secure position, and has brought the benefits of the charity within the reach of the class of sufferers for whose relief the institution was founded. During the year the patients contributed a sum of £250 to the funds, a result in the highest degree satisfactory, as it is a guarantee for the sustained support and progress of the hospital. During 1884, 1,100 patients were treated, 84 being intern cases.

HEALTH OF DUBLIN: QUARTERLY REPORT.

DURING the December quarter of 1884, the births registered in the Dublin district amounted to 2,538, or 26.9 per 1,000; and the deaths to 2,833, or 30 per 1,000. Zymotic diseases caused 396 deaths, being 85 under the number for the previous quarter; they were equal to an annual rate of 4.2 per 1,000. One-third of the mortality from zymotic diseases was due to scarlet fever, which caused 132 deaths fever caused 77 deaths, or an increase of 24, as contrasted with the September quarter; and diarrhœa and dysentery 83, or 26 over the average. To diseases of the respiratory organs, 598 deaths were ascribed; the deaths in this group comprising 406 from bronchitis and 109 from pneumonia. The deaths of 186 children were due to convulsions. Apoplexy caused 55 deaths; other diseases of the brain

and nervous system, 141 ; and diseases of the circulatory system, 180. From phthisis, 332 deaths were due ; mesenteric disease, 79 ; and cancer, 49. The average temperature of the quarter was 43.7°, and the rainfall measured 5.585 inches.

UNIVERSITY OF LONDON.

An adjourned meeting of Convocation was held at the University Building on Tuesday last, the 3rd instant. Dr. Storrar, Chairman of Convocation, presided.

Mr. F. W. Aveling moved, and Mr. G. G. Gray seconded, the following resolution :—"That in the opinion of this House, it is desirable that in future for the matriculation examination there be set a definite period of Greek history, and a definite period of Roman history, to be varied with each subject set for translation. That the questions in classical history and geography be strictly confined to these periods, and not be taken, as at present in the Greek paper, from any subjects which have a connection, however remote, with the author or the book." The mover complained that, in the papers laid before the candidates in the matriculation examination, questions of a much too wide and indefinite character were to be found far more frequently than was desirable, especially far-fetched queries as to archæological matters, not at all arising out of the texts placed before those under the trying ordeal for translation and grammatical analysis. The seconder followed in the same line of criticism. Other speakers, such as Mr. W. T. Lynn, rather objected to the proposal as it stood ; and on the motion of Mr. F. E. Dembski, seconded by Mr. W. L. Carpenter, an amendment was carried to refer the scheme to the Annual Committee for consideration and report.

The Rev. Hawkins Jones moved, and Mr. J. W. Bone seconded, the following resolution :—"That, in the opinion of Convocation, the Scriptural examinations may advantageously, and should, be thrown open to the graduates." The mover remarked, seemingly to the surprise of many present, that the University regulations limited this branch of its examinations to those of its *alumni* who had taken their B.A. degree. No less a proportion than one-fourth of their graduates were ministers of religion, and he himself, as a clergyman of the Church of England, and as one engaged in preparing others for Holy Orders, was anxious that the House should pass a vote for the abolition of this obsolete restriction.—Mr. Lynn and Dr. R. F. Weymouth spoke, and the proposal was passed unanimously.

Mr. Hawkins Jones moved, and Mr. Lynn seconded, the following resolution :—"That, in the opinion of this House, the interests of the University would be promoted by the formation of a union which should aim at bringing members of the University into frequent friendly and intellectual intercourse, and that the Annual Committee be requested to draw up a scheme for the foundation and administration of such a union."—Mr. R. H. Belcher and Mr. W. Spratling discussed the motion, which was carried by a large majority.

Mr. F. E. Dembski proposed, and Dr. G. G. Gray seconded, the following resolution : "That it is the opinion of Convocation that, in the appointment of examiners, the Senate should be requested to recognise, as far as possible, the high value of London degrees, and not to give a preference to members of other universities, excepting when they desire to confer distinction on men of extraordinary mark ; also not to re-appoint an examiner in the same subject for a second period of five years, to the exclusion of other equally competent candidates for the office." The seconder of the resolution stated that, out of 48 appointments to examinerships in the University in a single year, no more than 17 fell to London graduates. Among those who opposed the proposition were Mr. H. A. Nesbitt, Mr. F. Stock, and the Rev. R. H. Belcher ; while Messrs. Spratling and W. Moore supported the resolution. Mr. T. Tyler was neutral. After further speeches, it was moved that the House should proceed to the next question on the agenda paper. On a division, the amendment was lost by 38 to 34 votes. The debate accordingly proceeded, but, the mover having replied on behalf of his resolution, it was put, and lost, only a few voting in its favour.

Mr. T. Tyler proposed : "That it is desirable that Convocation should meet three times at least in every year, and that it be referred to the Annual Committee to consider the best means of giving effect to this resolution, with power to communicate with the Senate thereon." This resolution was carried by a large majority.

Mr. B. Whitehead proposed, and Mr. T. Drever seconded, the first of a series of resolutions, as follows : "That, in the opinion of Convocation, a doctorate, either of literature or of philosophy, should be as accessible to bachelors of arts as the D.Sc. is to bachelors of science." In the course of the discussion, the Chairman referred to recent changes which had been made by the Senate with regard to the d torates of science and literature. As to the doctorate of science, all t divisions for the examination were cleared away ; and a man who we in for the degree of doctor of science must be a bachelor, who sent some paper or original work dealing with the subject in such a way to show an original, peculiar view of the work already done. It h been found that it was utterly impossible, in getting into the vanced realm of science, to chop it up into divisions, and to cond the examination on a section which would justify the deg of doctor. It was, therefore, proposed that there should some kind of evidence given by a bachelor of a special particular knowledge of one department of science, either the way of original matter, or in the way of dealing w the original matter that had been produced; and this essay, after be looked into by the examiners, would form the subject of examinat for the degree. The Senate had constituted a new branch for M.A.—namely, a branch in modern and other languages, includ Hebrew and Sanscrit. The qualification in future for the doctorat literature would be that a candidate should be an M.A., as hitherto two of the four branches, other than that of mathematics, so tha would be a double master ; and besides this, he would have to proc an essay or thesis on some original literary inquiry, or a paper sh ing that, though he might not have produced additional matter was minutely conversant with all the literature around the subjec was dealing with to justify the examiners in giving him the deg These changes would appear in the Calendar for 1885. The resolu was carried by 21 to 8.

Mr. Whitehead then proposed his second resolution, which wa follows : "That the M.A. pass examination in each branch shoul easier than the B.A. honours examination in the same subject, should be of such a character that any B.A. might reasonably expe pass it in the year following his final B.A. examination." After discussion, in which the resolution was opposed on the ground it would lower the M.A. degree, it was resolved to pass o the next business. Mr. Blackwell moved, and Mr. Enri seconded, the following resolution standing in the name of M Bassett Hopkins :—"That, in the opinion of Convocation, desirable that a fourth branch be added to the syllabus of the examination, viz., modern languages." This was agreed to, the meeting, which had lasted three hours and a quarter, broke up.

MEDICAL SICKNESS, ANNUITY, AND LIFE-ASSURANCE SOCIETY.

The second quarterly meeting of the General Committee of the Society was held on Wednesday, January 21st, at 38, Wimpole S W., under the presidency of Mr. Ernest Hart. The following present: Dr. W. M. Ord, *Vice-President;* Dr. W. Clibborn, M Bartlett, Mr. M. Greenwood, jun., Mr. J. Brindley James, M Wallace, Mr. E. Noble Smith, Mr. R. H. Coombs (Bedford), an J. Pickett.

The report of the Executive Committee and the audited stat of accounts for the half year were presented by the Chairman, w his preliminary remarks, drew attention to the fact that many members had already derived benefit from the sickness-fund said that, while proof of its usefulness was afforded by over £30 been paid out in one week, the members would be pleased to kno the average rate of sickness was well within that assumed by the a in his calculations. He was also glad to congratulate them continued and accelerated rate of progress in the growing members, twenty-nine proposals having been received since t monthly meeting (five weeks).

From the report and accounts (which were unanimously ad it appeared that there had been a steady increase in the whole funds, the income for the last quarter having been over During the half-year, there had been an expenditure of £127 sickness-pay to twelve members on account of a total of 37 sickness ; and it was stated that the "sickness-rate woul probably be under that assumed, but might approach more n it than some of the more sanguine thought likely." Duri half-year, 120 new proposals had been received, while the nu policies allowed to lapse were very few, representing an annu of under 4 per cent. The management expenses had bee below the 10 per cent. allowed for, without taking into acco entry-fees, the whole of which were an additional reserve total reserves now, as the result of three quarters' work, amou £4,008, of which £2,500 had been profitably invested, and was on deposit with the bankers, the remainder standing to

ount. Means would be taken to secure a suitable investment for at st an additional £1,000. The report concluded with expressions of fidence in the future of the Society, and requested that all com- nications on the business of the Society should be addressed to the retary, Mr. C. J. Radley, 26, Wynne Road, Brixton, London, S.W.

AT an ordinary meeting of the Bath and Bristol Branch, held at the seum and Library, Bristol, on Wednesday, January 28th, Mr. A. Boys drew attention to the objects of this Society, and proposed following resolution: "That this Branch of the Association form a nch of the Medical Sickness, Annuity, and Life-Assurance Society, that the business be transacted in this room at the time which ll be most convenient to the Directors of the Branch." This was nded by Mr. Michell Clarke, and resolved unanimously.

STATION-HOSPITALS IN INDIA.

ERE is no part of our duty as journalists more distasteful to us n to be under the almost constant necessity of urging those in nority, at home and abroad, to do justice to members of our pro- on employed in the medical services of the country. Still, it is a y, and we must not shrink from it. It is a fact reflecting little it on the good sense of all departments of Government, that it is om possible to obtain acts of justice and reasonable consideration a body of men quite indispensable to the service of the State all the world, without having recourse to the hateful means of ation. Surely it is, or should be, the desire of wise rulers to pre- discontent from eating like a canker into the heart of a service, cious of its importance to the public weal. Commissioned officers , of course, the right to represent their grievances, but they can- do so collectively. Every one smarting under a sense of wrong t speak for himself; collective representation of grievances is con- r to the first principles of military law, and properly so. As, efore, medical officers, like all others who serve under the Mutiny can do little to help themselves, or, by their unaided efforts, in even a hearing, it is all the more necessary that those whose ds are not tied should bring such influence to bear as they can mand to obtain redress of grievances when such really exist. ers in the combatant ranks have powerful friends, not only in the ary press, but also in the most influential journals in the king- to say nothing of parliamentary influence, and, we may almost representation. Our brethren look to the medical press, and, e all, to the Association which this JOURNAL represents, for help me of need. Once more we repeat, the BRITISH MEDICAL NAL has never been allowed to be the organ of mere grumblers, to und in all services; but, when a real grievance crops up for n reasonable redress is refused, it is our clear duty to speak out. is is a long introduction to a very simple case; but, for very and sufficient reasons, we have felt it to be our duty once more fine our position in relation to matters of this kind. We now re to ask the authorities in the India Office why they decline to ion the resolution of the Viceroy in Council to grant what is n in India as "charge-pay" to medical officers in the responsible on of heads of station-hospitals. It is a notorious fact that the luction of the station-hospital system has been an immense sav- f expense to the Government of India. It is difficult to con- a more responsible position, if human life and suffering count ything, than such a post in such a climate as that of India. In ier posts in that country, officers—civil, military, and judicial— uid in proportion to their duties and responsibilities. Why, we hould responsibilities touching questions of life or death in the thousands of valuable soldiers (who are not as plentiful in as, in the times in which we live, they should be) be thought than those of other branches of administration? Every day asses sees more and more demanded from medical officers—higher cations, more stringent tests, examinations exacted as a *sine n* for every step of promotion, grave and ever increasing respon- es in time of war, often not confined to their own acts and but the scapegoats for the blunders and misdoings of other ments. In the face of all this, we maintain that equity and alike demand that the services of medical officers charged with sponsible duty of chiefs of station-hospitals should be recog- and as fairly remunerated as in the case of those who serve the n other capacities.

CATERHAM IMBECILE ASYLUM.—The managers of the Metro- Asylums Board have agreed to ask the assent of the Local ment Board to the increase of the salary of Mr. G. S. Elliot, s been medical superintendent of the asylum for some years, 500 a year to £600.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885: ELECTION OF MEMBERS.

Regulations for the Election of Members passed at the Meeting of the Committee of Council, October 12th, 1881.

1. There shall be a standing notice in the JOURNAL every week, of the meetings of the Committee of Council throughout the year; and stating that gentlemen wishing to be elected members of the Association must send in their names *twenty-one days* before the meeting of the Committee of Council at which they wish to be elected.
2. That a list of applicants be in the hands of the Committee of Council *fourteen days* before such meeting of the Committee of Council, and that the Branch-Secretaries be supplied with *several* copies of the list.
3. That no member be elected by a Branch, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Meetings of the Council will be held on April 8th, July 8th, and October 14th, 1885. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary, not later than twenty-one days before each meeting, namely, March 18th, June 17th, and September 24th, 1885, in accordance with the regulation for the election of members, passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary. —C. SIBTHORPE, Honorary Secretary, Madras.

STAFFORDSHIRE BRANCH.—The second general meeting of the present session will be held at the North-Western Railway Hotel, Stafford, on Thursday, February 26th, 1885. The President, Dr. E. T. Tylecote, will take the chair at 3.30 P.M. Papers will be read by Dr. Reid (Stafford) and Dr. C. Smith (Wolverhampton), and a discussion will take place upon Chorea and Acute Rheumatism. Dr. Isambard Owen (London) will be present at the meeting.—VINCENT JACKSON, General Secretary, Wolverhampton, February 2nd, 1885.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE third ordinary meeting of this Branch was held at the Museum and Library, Bristol, on Wednesday evening, January 28th; E. CROSSMAN, Esq., retiring President, in the Chair. There were also present sixty members and four visitors.

New Members.—Messrs. W. M. Beaumont, M.R.C.S., of Bath, and F. St. J. Kemm, L.R.C.P., L.R.C.S.Edin., of Worle, were elected members.

Medical Sickness, Annuity, and Life-Assurance Society.—Mr. A. H. BOYS'S resolution, seconded by Mr. MICHELL CLARKE, is given this week in our column devoted to the proceedings of this Society.

Intestinal Obstruction.—A discussion upon the treatment of intestinal obstruction was opened by Mr. Greig Smith. The following gentlemen took part in the debate: Mr. Treves (of London), Dr. E. L. Fox, Mr. Cross, Dr. Shingleton Smith, Mr. Dobson, Dr. Markham Skerritt, Mr. Michell Clarke, Dr. Goodridge, and the Chairman.

EAST ANGLIAN BRANCH: ESSEX DISTRICT.

THE first meeting of this newly formed District was held at the Saracen's Head, Chelmsford, on Wednesday, January 28th, under the presidency of Mr. R. F. SYMMONS of Colchester, President of the East Anglian Branch.

Rules.—A code of rules for the regulation of the meetings of the District was agreed upon.

Secretary.—Mr. W. T. Jackman of Coggershall was elected Honorary Secretary for the year.

Treatment of Strangulated Hernia.—Mr. HOWARD MARSH read a paper on the treatment of strangulated hernia, with especial reference to those cases in which it was advisable or necessary to form an artificial anus, and the great assistance afforded by the use of the enterotome in effecting the closure of the opening in the gut and re-establishing the use of the natural passages.

Colotomy.—Mr. THOMAS SIMPSON (Coggershall) sent a paper on a case of colotomy, by which life was prolonged four years, in a patient 71 years of age. Death was caused by a rupture taking place immediately below the artificial anus. The pathological specimen of this case will be sent to the museum of St. Bartholomew's Hospital.

The Next Meeting of the District was arranged to take place at Braintree, in the summer.

SOUTH EASTERN BRANCH; WEST KENT DISTRICT.

THE second meeting of the session was held at the Gravesend Hospita on January 27th, Dr. CHARLES FIRTH in the chair.

Papers, etc.—The following papers were read.

1. Mr. C. B. Keetley read a paper on the Results of Treatment in Hip-Disease. He said that excision of the hip-joint, at any rate in children, was an unsatisfactory operation, leaving the patients hopeless cripples; and he strongly advocated treating hip-disease by early operation; his method of operating being to expose the joint, and scrape away all disease with a Volckmann's spoon, and then filling the joint with iodoform, to close the wound with sutures; observing strict antiseptie precautions throughout. In this way he could secure a good result (usually ankylosis) in six weeks. In the discussion which followed, the Chairman, Dr. J. V. Bell, Mr. Bernays, and others took part.

2. Dr. Venn related a difficult case of Labour complicated by Ovarian Cyst, the child being delivered after rupture of the cyst, the contents of which discharged spontaneously *per anum* some days later, the patient making a good recovery.

3. Mr. Bernays read three cases of Poisoning by Sewer-gas in Children, the chief symptoms being pallor, apathy, and gradual marasmus. In one case, the pulse was very slow. Two died, and one recovered.—Dr. Venn had noticed boils in such cases.—Mr. Bernays had seen boils upon one of his three cases.

4. Mr. C. J. W. Pinching showed a patient whose Thigh-bone he had enucleated.

Mr. Robbs and Dr. Firth exhibited some pathological specimens.

Messrs. Krohne and Sesemann showed a very interesting series of new surgical instruments.

Dinner.—Fifteen members and friends dined afterwards at the New Falcon Hotel.

Next Meeting.—It was resolved that the next meeting be held at Maidstone, in March or April; and that Dr. Charles Hoar be requested to preside.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Value of Iron as a Medicine.—The Action of Cucaine on the Skin.—Cardiac Hypertrophy in Adolescents.—A Venomous Wound Inflicted by a Weaver-Fish (Trachinus Vipera).—A Kinesiometer.—Decrease of the Population.—A Medical Action.—Appointment.

THE different opinions of the numerous authors who have discussed the question of iron, used as a therapeutic agent, may be summarised in the two following propositions. The first, that iron is a specific remedy for anæmia; it provides the blood-corpuscles with an element essential to their formation—hæmoglobin; the second is, that iron only serves as a stimulus to the digestion. M. Hayem, in the *Bulletin de Thérapeutique*, supports the first resolution; M. Dujardin-Beaumetz (*Réflexions Critiques sur l'emploi du Fer dan le Traitement du Chlorose*) the second. Tiedemann, Gmelin, and Claude Bernard have sought only to discover if iron is absorbed; others have based their views on the number of the blood-corpuscles, and the paleness or redness of the blood. MM. Debierre and Linossier, of Lyons, have ascertained the quantity of iron contained in the blood before and after a long treatment. A dog, weighing seventeen kilos, was submitted to a regular uniform diet, and a prolonged treatment with iron. Its blood contained a larger quantity of iron than before the treatment was begun, and increased more quickly than did the proportion of corpuscles. The proportion of urea in the urine diminished. The animal did not take any exercise, therefore the smaller proportion of urea observed must be attributed to the influence of iron.

M. Paul Bert has been making experiments on the influence of cucaine on the skin when deprived of the horny layer, and presenting only the rete mucosum. A solution of cucaine was injected into the serum of a blister. Another blister was opened, and its surface washed with a solution of cucaine. Some lint, saturated with a solution of cucaine, was placed on a third when opened. In all three instances there was pronounced analgesia, after an interval of five minutes. A needle, pressed in as far as half a millimètre, did not produce any pain. The analgesic area was very limited, and the regions beyond it which had not been treated with cucaine were acutely sensitive. As a general rule, analgesia disappeared after ten or twelve minutes; in some instances it was succeeded by pain. One patient for th days afterwards complained of painful pricking sensations.

M. Vulpian, at a recent meeting of the Académie des Sciences, r a note from M. Germain Sée, on cardiac hypertrophy consequent growth. It frequently happens that growing youths, from 15 to are subject to palpitation and constant headaches, accompanied hypertrophied heart. The principal symptoms of this condition, increased volume of the heart, recognised by percussion, a *bruit souffle* at the apex, and irregular pulse. M. Germain Sée recogn three forms of this affection; the tachycardic, with rapid pulse and lent palpitations; the dypspnœic, in which the respiration is diffic and the cephalic type, in which the cerebral circulation is distu in consequence of hypertrophied heart. M. Sée believes that condi is entirely misunderstood, and often interpreted as anæmia nervous affection; he asserts that it is perfectly remediable, and i opinion that "hypertrophy from growth" ought not to be consid as a reason for exempting youths from military service, always vided that they follow a treatment and diet appropriate to their dition. M. Vulpian and M. Larrey are less certain that lads hypertrophied hearts are fit to be soldiers.

M. Bottard, a house-surgeon, in a note read at the Biolog Society, described an unusually virulent wound inflicted by a wea fish. The wound was linear, and resembled a lancet-cut, on the in finger. The pain soon became intolerable, the wounded finger bec swollen, also quickly afterwards the other fingers, the wrist, and arm. A solution of carbolic acid was applied; instant relief follo and in two or three days the wounded finger seemed cured. On fifth day after the wound, shooting pains appeared, accompanie fever. There was inflammation of the index and median fing part of the palmar surface of the hand was also attacked. The gl were not swollen. Several incisions were made, and a few dro pus escaped. Some hours later, fresh incisions were made, and we peated three days subsequently. At the onset of the phlegmo symptoms, there were indications of intoxication. Gastric and motor disturbance troubled the patient; after a slight meal he be unconscious during ten minutes to a quarter of an hour. Th side of the body and face were covered with red blotches; ther not any sickness, but the patient became weaker, and sleep obtained by administering chloral. The pain then became less eschar formed, which reached from the extremity of the index- to the second articulation, where from distruction of tissue there large cavity. A week subsequently the patient, who was a m man, went to Paris, and was treated there by a surgeon, who rem a portion of the eschar, and applied a Guerin's dressing, whi desired to be kept intact during five days. However, after forty hours, the pain and odour obliged the sufferer to remove the dre The wound was then treated with carbolic acid immersions and plasters. The pains were calmed. A few months later, the p removed the eschar unaided, and eight days later on there wa plete cicatrisation. The finger was saved, but was atrophied, a first phalangeal articulation ankylosed. Neuritis also persisted. now three years and three months since the accident, and hand hard substance causes pain. Tactile sensitiveness was lost for time.

M. Gavoy has invented an instrument for determining the de mobility of the brain in the cranium; he has shown it to the di scientific and medical bodies. It is termed a kinesiometer.

M. Gustave Lagneau, the well known statistician, affirms th population has decreased in twenty-six departments of France. 1836 to 1881, among 648,027 inhabitants, the depopulation has average, reached seven per cent.; emigration to other towns is th cipal cause. M. Lagneau deplores this movement of the p towards large centres. In large cities, particularly in Paris are few births in proportion to the adult population. Illeg births present a much larger proportion than the legitimat these are always accompanied by a much larger death-rate, w about double that of the legitimate children. Emigration to countries or colonies, which is a fourteenth less than that f partment to department, is not so disastrous; it leads to impo and thus improves the condition of those remaining in the country. The emigrants also are surrounded by healthy con and have families, except emigrants to Senegal and Guiana departments in Normandy undergo depopulation because th few children born. In other departments, the death-rate is than the birth-rate, but immigration strikes the balance. neau says this low birth-rate may be interpreted to mean good individual, but future disasters for the nation. A scanty po may enjoy advantages which lessen the chances of illness a death, but it also invites a considerable immigration. In l

:hed the number of 1,001,090. These invaders in time of peace and thrive, yet the actual French population remains three or four es less than of England or Germany, and this, he fears, will lead to tical inferiority.

. few days ago, an action was brought by an *officier de santé* :nst M. Trélat, Professor at the École de Médecine, and M. Delens, he St. Antoine Hospital. M. Bouyer stated his case as follows. he act of nailing down a box in May 1883, he slightly injured the forefinger. He sent for M. Piogey, his neighbour, who was re- ed by his nephew. M. Delens and M. Trélat were called in by M. ;ey; and the plaintiff complains that a number of operations were ormed on him; that he was conducted to a *maison de santé*, and M. Delens applied undiluted alcohol to his bleeding wound; drainage-tubes were applied, and camphor-dressings bandaged on. r six weeks of daily agony, he left the *maison de santé* with a de- ied hand. M. Bouyer accuses MM. Delens, Trélat, and Piogey of ng treated and tortured him against his will, of having injured by unskilful treatment, and names his damages at 20,000 francs 0). M. Piogey declares that the plaintiff had a deep wound in eft forefinger. He sought the help of his nephew, because the nt required constant care day and night; symptoms of septic- a soon appeared, and it was necessary to call in a surgeon. M. ;er was recommended to M. Delens by Dr. Pénières, a deputy. ound that very serious lymphangitis had set in, and several ctions of pus had formed. He prescribed dressings of alcohol, in ion. M. Trélat's services were also secured by a mutual friend. patient expressed gratitude for the care taken of him, and never sed any part of the treatment, otherwise his wishes would have considered. M. Trélat accepted the responsibility of having ouyer removed to a *maison de santé;* his condition required it; as in an almost hopeless condition, and could not otherwise have he necessary attention given to him. M. Bouyer, the plaintiff, has condemned to pay damages of 3,000 francs (£120) to each of the defendants.

Grancher has been appointed Clinical Professor at the Children's ital, a chair formerly filled by the late Dr. Parrot.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

ing of an Echinococcus of the Liver into the Lung.—The German Surgical Society.

ESSOR LEYDEN demonstrated the following interesting case at ast sitting of the Berlin Society for Medicine. A woman, 24, a patient in the Berlin Charité Hospital, discharged, in the of twenty-four hours, a quarter of a litre of yellow sputum, g the consistence of common pus. She asserted that she belonged ealthy family, and that five weeks ago she had been attacked iolent fever and shivering alternately, and a few days after- suddenly had a fit of coughing, when she vomited the above- ned mass, which had a bitter taste. At first, he thought that as a case of abscess of the lungs. Crystals were found in the n, the quantity of which, as well as the statement of the patient ie vomit had a bitter taste, suggested to him that they were s crystals of bilirubin, and that this peculiar vomit was due to ting of an echinococcus of the liver into the lung. Abscesses g from the liver into the lungs contain a considerable number tals of bilirubin; and Virchow has shown that the hollow walls nococcus-sacs, surrounded by liver-tissue, are lined with large rs of these crystals. In a former case, in which echinococci ie liver had been vomited through the lungs, together with eyden had found a large number of crystals of bilirubin. After days' investigation, he succeeded in recognising the charac- stratification of the echinococci-membranes in three large and maller shreds that he found in the yellow purulent sputum; the aid of nitric acid, he produced the modification in colour ie membranes which is proper to crystals of bilirubin. The is was thus arrived at; it was a case of the bursting of a sup- g echinococcus-cyst of the liver into the right lung. The course lisease was favourable.

Fourteenth Congress of the German Surgical Society will take Berlin, from the 8th to the 11th of April. A social gathering members will be held at 8 P.M., on April 7th, at the Hôtel du Unter der Linden. The morning sittings will be held from in the University Clinic and in the Royal Charité Hospital; rnoon-sittings will be held in the Hall of the University, on from 12.30 to 4 P.M., and on the other days from 2 to 4 P.M. dance with a resolution passed at the Twelfth Congress, the subjects of the addresses and communications adopted for discussion are to be sent to the President. The members of the Society will dine together on the 9th of April at the Hôtel du Nord at 5 P.M.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Case of Leprosy.—Glasgow Eye Infirmary.—Nurses' Training Home.—Sick Children's Hospital.—Glasgow Medical Journal.—Branch Meeting of the British Medical Association.

THERE is at present in the Western Infirmary a well marked case of leprosy, the first manifestations of which showed themselves more than two years ago. The patient is a middle-aged man, whose occupation as a sailor has taken him a great deal over the world, and he has frequently visited places where the disease is common. Just now his condition exemplifies very well how all the varieties of leprosy belong in reality to the same disease, for in him are seen side by side the tubercular, macular, and anæsthetic forms, while on one foot a rather intractable ulceration seems to threaten the onset of the destructive and mutilating element in the malady. The patient has been in the Edinburgh Royal Infirmary, but is just now under the care of Professor Gairdner, who made the case the subject of a short but interesting clinical lecture in the operating theatre of the hospital.

The large amount of work done by the staff of the Glasgow Eye Infirmary is brought home to us, once a year at any rate, when the annual report of the institution is made public, as it was last week at the meeting of the contributors. Nearly 14,000 patients were treated there last year. Since the sanitary arrangements of the building were looked to, and since the introduction of the new nursing system, the general results of the in-door treatment of patients have been very satisfactory, and, under these improved conditions, operative cases have ended very successfully. It has been decided to make some extension of the hospital, the details of which have been left open for discussion. During the past year, there has been an addition to the hospital staff in the shape of a pathologist, the first holder of this new but very necessary office being Dr. Ramsay, the late house-surgeon to the institution.

The progress of the Nurses' Training Home during the past year has been very satisfactory, and it is gradually establishing in connection with it a large body of thoroughly trained nurses, whose services for private nursing are much sought after. The staff just now numbers about sixty, and their earnings last year amounted to £1,923. One excellent feature in connection with this institution is the very well appointed hospital belonging to it, and open to all the medical men of the town, where paying patients are admitted. It thus serves as a means of instructing the younger nurses under the eye of those already trained. Many patients avail themselves of the benefits of the hospital, no fewer than 243 having been admitted last year, the sum received from these in-door patients amounting to nearly £1,000. We have as yet in Glasgow no Home Hospitals Association, but the Nurses' Home is working on the same lines, and meeting a very necessary want.

For some time it has been known that there has been a difference of opinion among the directorate of the Sick Children's Hospital, as to whether or not the whole of the proceeds of the Fancy Fair should be devoted to the funds of the institution, or should be in part expended in the establishment of a dispensary. An authoritative announcement was made at the annual meeting that the latter is to be the course followed, and steps are being taken to fix on a suitable locality. The dispensary may, no doubt, be a necessary adjunct to the hospital; but its expenses will be a heavy drain on the funds of the parent institution, and will increase the demands on the beds, already much sought after.

There was a very satisfactory report handed in last week of the progress and financial prosperity of our *Glasgow Medical Journal*. Under the joint editorship of Dr. Coats and Dr. Napier, it has partaken in the activity and advance shown in recent years by our several medical schools, and the steady demand for it outside the list of the regular subscribers is very encouraging. A small committee are at present at work in indexing the contents of the journal since its first establishment, and it is hoped that next year will see the work completed. Such an index will help very much to strengthen the position of the journal.

Besides the meetings of charitable institutions, of which a very large number have recently been held, the profession had its usual social gatherings during the past week, in the shape of the dinners of the Western Medical Club and the Branch of the British Medical Association. Both were well attended, and passed off most agreeably. The preliminary meeting of the Glasgow and West of Scotland Branch was held in the

Western Infirmary, where country members had an opportunity of seeing some very interesting medical and surgical cases from the wards of the members of the staff.

CORRESPONDENCE.

MYXŒDEMA.

SIR,—An "M.D.," jealous for Sir W. Gull's reputation, is disposed to censure me for stating that Dr. Ord first "accurately" described the disease known as myxœdema, and at the same time reminds us of the unusually well known fact that Sir W. Gull first described the *symptoms* of that disease.

I maintain that I was perfectly correct in my statement, since to my mind the addition of an account of the pathological anatomy to that of the symptoms is necessary for an "accurate" description of a disease. And especially so is this the case with the array of *symptoms* of which an accurate description was first given by Sir W. Gull, for we must credit "M.D." with being aware that there are two states included under Sir W. Gull's happy expression adult cretinism; namely, that which is known as myxœdema ("first accurately described by Dr. Ord"), in which an excess of mucin is found in the tissues, and another state in which the symptoms, though closely similar, are not found in company with the above anatomical change.

I made no attempt in my lectures to do more than show how the experiment of thyroidectomy threw light upon the pathology of myxœdema, and I therefore could only briefly notice the theories bearing on this point.

If I had been discussing the discovery of the *symptoms* of myxœdema, and had made such an absurd omission as that with which "M.D." endeavours to charge me, I could see some reason for the appearance of his letter.—I am, yours sincerely, VICTOR HORSLEY.

129, Gower Street, W.C.

FLOGGING IN NAVAL SCHOOLS.

SIR,—In your issue of the 24th ult., you had an article upon the excessive and unnecessary caning at the Naval School at Greenwich, and on board some of the training ships. To me it appears that the Royal Naval School at New Cross is tainted with the same complaint, and that your remarks apply to that establishment also.

The system of punishment appears to be chiefly to give one or more hours' drill for trifling offences, and that if a boy during the week get four hours' drill, he is taken before the head master, and he is, as a rule, almost invariably awarded three or more cuts with the cane across his shoulders with his coat off, in addition to the drill. The cuts are not light ones, and they always bruise the poor boy's back so that the marks can be seen for a week, and sometimes they break the skin and bring blood.

I think such a system is injurious to the moral and physical health of the boys, and "the sooner a change is effected in the administration the better." I quite agree with you that "corporal punishment is no doubt at times necessary, but it should be a last resource."

I have long wished for an opportunity of calling attention to this cruel system, but I do not wish my name publicly mentioned, as I have a son there who would be injured thereby. I therefore give you my name and address in confidence—and not for publication.—Yours, truly, R. N.

HARVEY'S MANUSCRIPT LECTURES.

SIR,—The manuscript of the original lectures delivered at the Royal College of Physicians by William Harvey, including his earliest observations on the Heart and Circulation, and pronounced by him in and after 1616, were re-discovered in the British Museum in 1877. I gave a description of the little book, and exhibited an autotype copy of one page, in my Harveian Oration at the College, in 1877. I then suggested that it would redound to the honour of the present generation, and be an advantage to the history of medicine, if the whole of the lectures could be published in autotype, accompanied by an intelligible transcript. The handwriting is so crabbed, and there are so many abbreviations, that no one but an expert could succeed in understanding the lectures. Without the valuable aid of Mr. Bond, now the Chief Librarian of the British Museum, I should have failed in my attempts to understand much, if anything, of the lectures. By dint of much labour, Mr. Bond succeeded in interpre ing one of them, and has now been good enough to make me a quainted with a gentleman who is able and willing to transcribe t whole of the lectures.

My inquiries led me to suppose that no publisher could be found undertake the risk of publication, in the form proposed, unle guaranteed a certain amount of professional support. On the oth hand, I calculated that if from two to three hundred gentlemen wo engage to take one copy each, at the price of not more than t guineas, the work might be safely proceeded with.

Autotyping is a much more expensive process than ordinary pri ing, and the honorarium to the transcriber would necessarily a considerably to the cost.

May I ask your permission to submit the question to your read whether they will aid in this labour of love of, and admiration for, great prototype of the scientific physician?

I am permitted to state that the Presidents of the Royal College Physicians and Surgeons warmly support the proposition.—I am, your faithful servant, EDWARD H. SIEVEKING

17, Manchester Square, W.

Any communications on the subject may be addressed to me, o Messrs. Churchill, 11, New Burlington Street, W.

THE TITLE OF DOCTOR.

SIR,—It is needless for Dr. Balfour, or anyone else, to say that College of Physicians of Edinburgh did not confer the doctorat the licentiates admitted some years ago. It is for the college to an for this, if illegal.

It is well known that an enormous sum of money found its into the coffers of the college some twenty years ago; and had i been for this conferring of the title of doctor, this £10,000 would been put to other uses.

We have denial on one side, and facts on the other. It is ther unnecessary to continue the subject.—Yours obediently, WILLIAM DONOVA

SIR,—In 1865 I wrote to the secretary (Dr. D. R. Haldane) o Royal College of Physicians, Edinburgh, to inquire, if I passed examination as a licentiate, whether I was entitled to be Doctor; and also if I could place the same on my door-plate? D. R. Haldane's answer was: "That I was legally entitled (by charter) to call myself Doctor, and add the prefix on my door- etc.," which I always have done. Under these circumstances, pe Dr. George W. Balfour will kindly point out how I have made m a party to a fraud.—I am, yours faithfully,

EDWARD MILLS GRACE, L.R.C.P.E

Park House, Thornbury, Gloucestershire.

THE LUNACY BILL.

SIR,—Your leading article refers to a proposal of the draft Bi one of the certifying medical men shall always be the ordinary m attendant of the lunatic, and that the other shall be an official cian, the latter only being exempted from legal responsibilities. pose the former, under such circumstances, and naturally e declined to certify in a difficult case (by a difficult case I do not a doubtful case, but one in which the insanity is capable of b times detected with certainty by a medical man, though not apparent to others), there would then be no means of prevent lunatic from remaining at large, and such a law would signa as regards the most dangerous class of lunatics, thus described Bucknill. "Lunatics who commit crimes generally suffer fro form of insanity which is not easily recognised, and that is the why they have been permitted to remain at large, instead o confined in an asylum."

I may mention a case in point, which has just occurred in m practice. I was recently asked to certify a patient with suici dencies, but declined to do so, having resolved to sign no mor ficates until the certifying physicians are protected by law other medical men, however, were found to certify the patien the possible result that a life, temporarily in danger, may th been saved.

This would not have been possible if the proposed clau passed into law, while the community would be in greater da repetitions of such dreadful occurrences as the recent outrage a ford.—Yours, etc., GLYNN WHITTLE, M.D.Ca

Liverpool.

MILITARY AND NAVAL MEDICAL SERVICES.

STRIBUTION OF PRIZES AT NETLEY HOSPITAL.

winter session at the Army Medical School, Netley, was brought close on Monday, when Sir James Paget, surgeon to the Queen, nted the prizes to, and afterwards addressed, the candidates, all hom were successful, both in the Medical Department of the sh Army and Her Majesty's Indian Medical Service, in obtaining nissions. There were also present Director-General Crawford, eon-General Murray, Sir Joseph Fayrer, Sir James Hanbury, nel Bell (Assistant Adjutant-General), Professors Longmore, ean, Drs. De Chaumont and Aitken, Major Ward, Dr. Trend thampton), Colonel Farman, and the military and medical staffs e hospital.

e following is the list of surgeons on probation in the Medical rtment of the British Army who were successful at both the Lon- and Netley examinations. The marks shown are those which gained at the London examination. The order of position of gentlemen is not affected by the marks gained at the Netley ination.

R. Forrest	2475	16. C. W. Johnson	2110
W. Russell	2395	17. W. E. Berryman	2100
R. De Morinni	2370	18. A. T. J. Lilly	2080
F. Zimmermann	2355	19. R. Caldwell	2075
F. Stace	2340	20. C. C. Reilly	2065
Stables	2295	21. S. E. Duncan	2060
F. E. McCraith	2285	22. J. Maher	2030
A. C. Smith	2265	23. A. Perry	2030
M. Hewson	2210	24. S. N. Cardozo	2010
E. Moffet	2210	25. A. de C. Scanlan	2000
A. Haines	2180	26. H. W. James	1990
D. Moir	2175	27. R. Trevor	1990
Crofts	2150	28. H. D. James	1970
M. Dobson	2140	29. W. Turner	1970
E. Hale	2130	30. B. O. W. Norfor	1960

Forrest gained the Director-General's prize in Pathology; Mr. De Morinni ntefiore Medal and prize of 20 guineas, and Mr. Scanlan the Parkes ial Bronze Medal.

list of surgeons on probation in Her Majesty's Indian Medical e who were successful at both the London and Netley examina- is as follows. The final positions of these gentlemen are deter- by the marks gained in London added to those gained at Net- id the combined numbers are accordingly shown.

W. Leslie	5521	4. U. N. Mukerji	4961
rain	5411	5. W. L. Price	4798
. Bown	5285		

eslie gained the Herbert Prize of £20, with the Martin Memorial Gold and the Montefiore second prize.

essor LONGMORE opened the proceedings by reading the official ondence sent to the Director-General for the information of ajesty's Secretaries of State for War and for India. The two , signed by all the professors, recommended all the students as fit to receive commissions. The Herbert prize of £20 was d to Mr. J. T. W. Leslie, of the Indian Medical Service, who ken the first prize in the combined list, for both the London tley examinations, with 5,521 marks out of 6,900 obtainable. slie, it was added, while at Netley, had constantly acted in a xemplary way, and the professors had no hesitation in recom- g him for the prize, and requested that Her Majesty's Secre- f State might be informed of the high opinion they enter- of him. The Martin memorial gold medal for military medi- d also been gained by Mr. Leslie, with 851 marks out of a m of 900; and in this competition Mr. A. T. Bown, with 830 and Mr. D. Prain, with 820 marks, deserved honourable men- This report was signed by Dr. Maclean. The Parkes memo- nze medal for military hygiene, as was reported by Professor umont, was gained by Mr. A. de C. Scanlan, who had gained rks out of a maximum of 900. Mr. Leslie, with 725 marks, ncan, with 720, and Mr. Price, with 700, were deserving of uble mention; and it was requested that Her Majesty's Secre- f State might be informed of the high opinion entertained of entlemen. The Montefiore prize, Professor Longmore re- was awarded to Mr. William R. De Morinni, who had he highest place in the department of military surgery, d gained the medal and a prize of twenty guineas 0 marks out of a maximum of 900. Mr. Leslie took the second collection of books bearing on the subject of military surgery 740 marks. Surgeons on probation W. R. Hewson and J. R. approximated closely in the number of marks to the success- ent; and attention was called to these gentlemen as having particularly distinguished themselves throughout the whole examination in the department of military surgery. In connection with the prize in pathology, presented by the Director-General, Dr. Aitken reported that the highest number of marks was gained by Mr. J. R. Forrest—675 out of a maximum 800. Mr. Russell with 650 marks, Mr. Leslie with 645, and Mr. Prain with 640, deserved honourable mention. In connection with the Indian Medical Service, Messrs. Leslie, Prain, and Bown; and, in connection with the British Medical Service, Messrs. M. W. Russell, Forrest, and De Morinni, were recommended by all the professors to favourable notice. All the surgeons on probation had pursued their studies with such diligence, that more than half obtained two-thirds of the highest number of marks obtainable, and all the remainder more than one-half the total number.

Sir JAMES PAGET presented the prizes and delivered an address, which will be published in next week's JOURNAL.

Director-General CRAWFORD congratulated the students on their successes, and said he was sure that the chief reason why they would carry away a grateful remembrance of that meeting was the eloquent address they had just heard; and he tendered to Sir James Paget their thanks for having come down to address them. He hoped that what Sir James had said would remain in their memories as long as they had the honour of wearing Her Majesty's uniform.

Professor LONGMORE then closed the proceedings by repeating what had already been expressed in the schools by all the Professors, their hearty good wishes for the success of those before him in the noble profession upon which they were about to enter.

THE MACLEAN MEMORIAL.

AT a meeting held on Thursday, January 15th, 1885, at the residence of Surgeon-General Sir Joseph Fayrer, K.C.S.I., the following resolutions were unanimously adopted:

1. Proposed by Director-General T. CRAWFORD, M.D., and seconded by Deputy Surgeon-General J. A. MARSTON:

"That a representative committee, composed of members of the public medical services, be formed for the purpose of taking steps to mark by a suitable memorial their high appreciation of the distinguished services of Professor W. C. Maclean, C.B., M.D., on the occasion of his retirement from the Chair of Military Medicine in the Army Medical School at Netley."

2. Proposed by Surgeon-General Sir JOSEPH FAYRER, K.C.S.I., and seconded by Surgeon-General W. A. MACKINNON, C.B.:

"That the following gentlemen be requested to act as a Provisional Committee for the purpose of carrying out the foregoing resolution, with power to add to their number: Surgeons-General Sir Joseph Fayrer, Sir Guyer Hunter, W. A. Mackinnon; Inspectors-General H. Macpherson and J. D. Macdonald; Deputy Surgeon-General Marston; Surgeon-Major J. L. Paul; Brigade-Surgeon H. Cayley; Fleet-Surgeon Walter Reid; Surgeon-Major K. McLeod. *Secretary and Treasurer:* Surgeon-Major K. Macleod. *Bankers:* Messrs. Grindlay and Co., 55, Parliament Street, London, S.W."

3. Proposed by Surgeon-General W. A. MACKINNON, C.B., and seconded by Brigade-Surgeon H. CAYLEY:

"That the amount of the subscription be limited to £1 1s."

4. Proposed by Surgeon-General Sir JOSEPH FAYRER, K.C.S.I., seconded by Surgeon-Major K. MCLEOD:

"That the proposed memorial take the form of a portrait of Professor Maclean, to be hung on the walls of the Netley Hospital; and that, if funds permit, a replica of the portrait be presented to Mrs. Maclean."

We see, with great pleasure, this just tribute to one of the ablest and most valuable medical officers which the Army Medical Service has produced for many years. Surgeon-General Maclean has evidenced the possession of a rare combination of qualities. Profoundly attached to the scientific side of his profession, and possessing great clinical insight, his contributions to medicine, and especially to the pathology and treatment of tropical diseases, have been of the first order of merit; and his writings on subjects such as the treatment of dysentery, of tropical fevers, of diseases of the liver, and on the use of various therapeutic agents, have made a prominent mark on medical opinion.

His contributions to medical hygiene in their relation to clothing and general management of the health of the soldier, have been of pronounced importance. Not less valuable has been the personal influence which Professor Maclean has exercised over successive generations of students whom he has trained at Netley, in inspiring them with a love of their profession, a sense of the dignity of their work, an ardent interest in their calling, a liberal sentiment of pride and devotion in the fulfilment of their official duties, and a common

sentiment of brotherly love. Standing between the Indian and British medical services, he has known how to combine a common regard for the interests of both with that cordial love for the service in which he first won distinction, which is characteristic of his steadfast and affectionate character.

He carries with him into his retirement the warm affection and the unmingled respect of the whole of his profession. Civilians not less than army medical officers have learned to love and esteem his character, equally deserving of both regards in its intellectual and moral aspects. For ourselves, we feel that the retirement of Surgeon-General Maclean from the sphere of active work is a public misfortune.

ARMY MEDICAL SERVICE.

Surgeon J. Ruxton, M.B., who retired on half-pay on January 12th, 1882, has now left the service, receiving a gratuity. Mr. Ruxton entered the service on April 1st, 1871, and became Surgeon-Major March 1st, 1873. He took part in the expedition against the Jowaki Afreedees in 1877-78, and has the medal and clasp granted for that campaign.

Mr. F. R. Chapman, M.B., has been appointed Acting Surgeon of the 2nd East Riding of Yorkshire Artillery Volunteers. Mr. Chapman has been a Lieutenant in the corps since January 11th, 1882.

Surgeon G. Adams has resigned his appointment in the 1st Gloucestershire Engineer Volunteers, but is permitted to retain his rank, and to continue to wear his uniform.

Mr. G. E. Wherry, M.B., has resigned the Acting Surgeoncy in the 1st Cambridgeshire Volunteers, to which he was appointed on August 20th, 1879.

Acting Surgeon S. H. Steel, M.B., has resigned his appointment in the 3rd Monmouthshire Volunteers, which he joined so recently as December 13th last.

Surgeon-Major A. Lewer, M.D., who has been doing general duty at Bangalore, has been appointed Senior Medical Officer of the Station-Hospital at Madras.

Surgeon-Major J. N. Stock, Senior Medical Officer of the Station-Hospital at Madras, is directed to do duty at the said Station-Hospital.

Surgeon-Major R. H. Robinson has been appointed to the medical charge of the Aboo Sanitarium, in the place of Surgeon-Major C. White.

Surgeon-Major J. Paxton, M.D., having returned from leave, is transferred from the Sind Circle to do general duty in the Poona Circle.

Surgeon-Major W. J. Campbell has been directed to remain in England from December 27th until required to embark for India.

Deputy Surgeon-General R. Wolseley, M.D., Sanitary Officer to the Aldershot Division, has been appointed Principal Medical Officer to the North British District, Edinburgh.

INDIAN MEDICAL SERVICE.

In a resolution recently issued, regarding a proposal to locate a cholera-hospital in the vicinity of the European General Hospital at Bombay, the Government favour the opinion of the Sanitary Commissioner, who apprehends no evil consequences, against that of the Surgeon-General, who considers that the carrying out of the proposal would "terminate in calamitous results."

Surgeon-Major T. B. W. P. Johnston, Bombay Establishment, has been transferred to the half-pay list. He entered the service as an assistant-surgeon November 7th, 1854; became surgeon November 7th, 1866; and surgeon-major July 1st, 1873. He served in the Persian war of 1856-57, was present at the capture of Bushire and at the bombardment of Mohumrah, and has the medal and clasp granted for the campaign.

The Lieutenant-Governor of Bengal has accepted the resignation by Surgeon-Major E. Sanders of his appointment of magistrate of the municipal bench at the sudder station of Chittagong.

Surgeon-Major S. L. Dobie, Madras Establishment, superintendent of the lunatic asylum at Madras, has been appointed to the officiating medical charge of the 4th (Prince of Wales's Own) Cavalry at Kamptee.

Surgeon A. W. Leahy, Bengal Establishment, is appointed to the officiating medical charge of the Malwa Bheel Corps and of the Bhopawur political agency, during the absence of Surgeon-Major J. Duke.

Surgeon-Major C. J. W. Meadows, Bengal Establishment, civil surgeon of Backergange, has been directed to act as civil surgeon of Hazareebagh during the absence of Surgeon R. Cobb.

Surgeon D. S. E. Bain, Madras Establishment, civil surgeon and superintendent of the gaol at Kurnool, has been appointed superintendent of the lunatic asylum at Madras, *vice* Surgeon-Major Dobie.

The undermentioned gentlemen are granted furlough for the period specified: Surgeon-Major E. Sanders, Bengal Establishment, for 24 days, on private affairs; Brigade-Surgeon J. Browne, M.D., Bengal Establishment, for 182 days, on private affairs; Surgeon-Major J. M. Fleming, Bengal Establishment, medical officer of the 26th Native Infantry, for two years, on private affairs.

Surgeon M. J. Kelâwâlâ, Madras Establishment, is, on relief at Madura, directed to do general duty in the Eastern district.

The services of Surgeon R. E. S. Davies, M.B., Madras Establishment, have been placed at the disposal of the Public Works Department.

The services of Surgeon-Major A. Barry, M.D., Bengal Establishment, have been replaced at the disposal of Government in the Military Department.

Surgeon-Major E. W. Young, in medical charge of the 1st Bombay Lancers, and Surgeon H. W. B. Boyd, civil surgeon of Dhoolia, both of the Bombay Establishment, have been permitted to return to duty.

THE NAVY.

Staff-Surgeon J. D. Smith, M.D., has been promoted to the rank of Fleet-Surgeon. Dr. Smith entered the service December 8th, 18[illegible] and became staff-surgeon April 14th, 1877. He is at present serving in the *Unicorn*, a drill-ship for the Royal Naval Reserve, at Dundee, and to which he was appointed on May 5th last year.

The following appointments have been made at the Admiralty during the past week: F. W. Wright, surgeon, to the *Asia*; W. Earl, surgeon, to the *Grappler*; J. L. Aherne, B.A., surgeon, to the *Sultan*.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE SUPERANNUATION ACT IN THE CUCKFIELD UNION.

We learn that on the 29th September last, Mr. W. E. Porter, Medical Officer and Public Vaccinator of the 3rd district of the Cuckfield Union, forwarded to the board of guardians the resignation of his appointment, alleging as his reason that he was compelled so to do owing to declining heath, and asking that the board would, under the circumstances, grant him superannuation-allowance.

Mr. W. E. Porter had held these offices for twenty-seven years, and it would appear, to the satisfaction of the board of guardians, as shown by the resolution arrived at by the board, when the question of superannuation-allowance was considered, which was to the effect that, whilst "acknowledging his services and regretting the cause which had led to his resignation.....the guardians felt unable (having given his whole time to the duties of such appointment) to accede to his request for a superannuation-allowance."

Hitherto boards of guardians, in declining to grant superannuation allowance to their medical officers, have either given no reasons at all or only evasive ones; it has been reserved for the Cuckfield board to put forward as the pleas for their refusal to make an allowance to an old and faithful officer, who is in declining health, "that his whole time had not been engaged in the duties of his office"—a position utterly at variance with the principle of the Medical Officers' Superannuation Act, which was adopted by the Legislature solely to enable boards of guardians to grant such allowance to medical officers whose whole time truly may not have been given to their official duties, but who are expected at all times to be at the service of their respective boards whenever called upon—however much such duties may interfere with their private professional obligations.

DISPOSAL OF SEWAGE.

Sanitas should first disabuse his sanitary authority of the notion that anything is to be made out of sewage. Always use the word disposal, never utilisation. Then teach them to approach the question in a purely hygienic, it may be in an economic (since health is wealth), but never in a commercial spirit. The true economy is the price of clean soil and pure water; if any proceeds arise from the sale of crops, manure, or cement, they may be looked on as a small set off against the cost.

As to the system, much depends on the nature of the soil and the configuration of the surface; but, wherever practicable, irrigation is to be preferred, even if, as at Berlin, the sewage have to be pumped up to the level of the fields. Sand and chalk are good, but a friable loam is the best soil, since it

emical—or, more correctly, the bacterial processes by which organic matter converted into nitrites, nitrates, and carbonic acid—are most active. Stiff ays alone are really unsuitable, unless they can be lightened by working in nd or chalk without excessive cost. All irrigation-fields should be under-ained by well laid porous "agricultural" pipes at a depth of six to ten feet, eat care being taken that no crude sewage enter the drains through cracks in e soil, such as are apt to occur in heavy clays or chalk that has not been oken up and "prepared" to its full depth. These drain-pipes should dis-arge the effluent into open channels, and it is advisable that these should be rried as far as possible before finally discharging themselves into a river. A owth of anacharis might purify the effluent still more perfectly. Each acre of nd will dispose of the sewage of from 250 to 1,000 persons, according to the ality of the soil and of the sewage. No costly works are necessary; a culvert, umping-engine, if the land be not lower than the town, a series of concrete annels and spade-dug feeders. No filtration except the interception of solid dies should be attempted; a grating suffices for this; all finer filters, me-anical or soil, become choked.

Only grass-land—Italian rye-grass in preference—can bear daily soaking with wage. Root-crops may also be grown on surplus plots, but corn or leguminous nts should be attempted only where there is plenty of open land.

Where land is very scarce, the sewage may be subjected to a previous process clarifying in subsidence basins, but the cost is thus increased.

Where, again, no available land is to be had, even by conveying the sewage for ew miles in a culvert, chemical processes alone may be had resort to, and haps the A.B.C. is the best. The product is saleable, and has a fair manurial ue, but consists mainly of the reagents added, *plus* the suspended matter, anic and inorganic, with some ammonia fixed by sulphuric acid. If properly ried out, the A.B.C. process yields an effluent fit to be passed into a river of r size.

n a thickly populated district, General Scott's process may be profitably ployed, provided lime can be had cheap. The sewage is treated with milk of e, the sludge deposited in a series of tanks, and the effluent passed, after filtra-n through a small extent of sandy soil, into a river. The mixed sludge and e, after drying in the air, is burnt; and the resulting slag, when ground, yields ent of good quality; just as Portland cement is made from Thames and dway mud.

erhaps the best guide to the whole question is Robinson on *Sewage-Disposal*.

PAUPERS IN HOSPITALS.

—In your reply to my third query, you simply "express an opinion, judging m the provisions made in the Union, etc." (*Vide* reply, page 105.) I ven-e to submit that this raises a side-issue which is not quite pertinent to the ry.

he question I raised is simply, Are any of the funds of this voluntarily sup-ted infirmary—which is the only one to meet the wants of a population of 00—to be spent on paupers, when there are paid medical officers to attend heir wants, and a rate-supported workhouse-infirmary to receive them? Or, put it in another way, since it is compulsory on the ratepayers to provide infirmary and medical attendance, together with medicines and other neces-ies for paupers, should not the voluntary charity be reserved for those poor o are not paupers?—I am, sir, yours, etc., W. B. W.

* We agree with our correspondent that voluntary charity, whether it be of aterial or simply medical character, should be restricted to those poor sons who are not paupers; but in answering the queries contained in our e of January 10th, we had regard to the deficiency of decent provision for paupers in this union. So long as such a condition of things is maintained he board of guardians of this town, it is impossible to limit the use of the pital to *bonâ fide* non-pauper cases, seeing that the workhouse is licensed 200 paupers, whilst the payment for their medical care and attention is only a year. We would suggest that our correspondent should direct his energy acumen to amend this state of things, and then the use, or, as he suggests, abuse, of the hospital by pauper patients would be no longer necessary.

PAROCHIAL MEDICAL OFFICERS AND PAUPER LUNATICS.

I will thank you to inform me, through the medium of the JOURNAL, if chial medical officers can claim a fee for visiting pauper lunatics at the dence of their guardian. I have been informed that a fee of 2s. 6d. for each is allowed.

there any book published containing such information as to extra fees of -law medical officers?—Yours, etc., CELT.

* In England and Wales, the district medical officer is entitled to a fee of d. for his visit to a harmless lunatic resident with his friends; but what the ngement may be in Scotland and the adjacent islands, we are not aware. We ld hope, however, that some similar provision exists. As we have before ted out, the arrangement for parochial medical relief, in the northern por-of the United Kingdom, is open to serious objection. It is, however, satis-ry to note that the sympathies of the Board of Supervision have been ys exhibited in favour of the parochial medical officer. We advise that our spondent should at once write to that Board for the information he seeks.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English , including London, dealt with in the Registrar-General's y return, which have an estimated population of 8,906,446 s, 6,020 births and 4,188 deaths were registered during the ending the 31st ultimo. The annual rate of mortality, which had 4.9, 24.2, and 24.0 per 1,000 in the first three weeks of the year, gain to 24.5 last week. The rates in the several towns, ranged er from the lowest, were as follow:—Birkenhead, 13.5; Salford, Derby, 18.0; Hull, 19.0; Leicester, 20.7; Brighton, 20.9; , 21.8; Bradford, 22.6; Newcastle-upon-Tyne, 22.8; Halifax, 22.9; Birmingham, 23.7; Sheffield, 23.7; London, 24.1; Wolverhampton, 25.0; Nottingham, 25.2; Leeds, 25.8; Bristol, 26.3; Blackburn, 26.4; Manchester, 26.5; Liverpool, 27.1; Sunderland, 27.5; Huddersfield, 27.5; Oldham, 28.5; Portsmouth, 29.8; Plymouth, 30.2; Preston, 32.7; Cardiff, 34.9; and Norwich, 36.6. In the twenty-seven provincial towns the death-rate for the week averaged 24.9 per 1,000, and was 2.5 above the rate recorded in London. The 4,188 deaths registered last week in the twenty-eight towns included 396 which were referred to the principal zymotic diseases, against 370 and 372 in the two preceding weeks; of these, 141 resulted from whooping-cough, 58 from measles, 56 from scarlet fever, 43 from "fever" (principally enteric), 35 from diphtheria, 32 from diarrhœa, and 31 from small-pox. These 396 zymotic deaths were equal to an annual rate of 2.3 per 1,000. In London the zymotic rate was 2.1, while it averaged 2.5 in the twenty-seven provincial towns, among which these zymotic rates ranged from 0.6 in Derby, and 0.9 in Brighton and in Bolton, to 4.6 in Sunderland, 5.7 in Norwich, and 10.8 in Cardiff. The deaths referred to whooping-cough, which had been 108 and 112 in the two preceding weeks, further rose last week to 141, and caused the highest proportional fatality in Bradford and Norwich. The 58 fatal cases of measles showed a further decline from recent weekly numbers, and caused the highest rates in Sunderland and Cardiff. The 56 deaths referred to scarlet fever exceeded by 9 the number in the previous week; this disease was proportionally most fatal in Newcastle-upon-Tyne and Halifax. The 43 fatal cases of "fever" showed a further increase upon the numbers in the two preceding weeks, and caused the highest rates in Preston and Norwich. Of the 35 deaths from diphtheria in the twenty-eight towns, 15 occurred in London, 4 in Liverpool, 2 in Bradford, and 2 in Cardiff. Of the 31 fatal cases of small-pox in the twenty-eight towns, 29 occurred in London (exclusive, however, of 30 deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside Registration London), and 2 in Liverpool. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 1,009 and 1,092 at the end of the two preceding weeks, further rose to 1,147 on Saturday last; 253 new cases were admitted to these hospitals during the week, against 216 and 287 in the two preceding weeks. The death-rate from diseases of the respiratory organs in London was equal to 5.8 per 1,000, and was slightly above the average. The causes of 104, or 2.5 per cent. of the 4,188 deaths last week in these twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.—In the eight principal Scotch towns, having an estimated population of 1,269,170 persons, 876 births and 738 deaths were registered during the week ending the 31st ult. The annual rate of mortality, which had been 29.0 and 28.5 in the two preceding weeks, rose again last week to 30.2, and exceeded by 5.7 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 21.4 in Edinburgh, 22.0 in Leith, 24.3 in Aberdeen, 28.1 in Paisley, 28.2 in Greenock, 33.7 in Glasgow, and 41.9 in Dundee. The 738 deaths registered in these towns included 98 which were referred to the principal zymotic diseases, against 83 and 87 in the two previous weeks; of these, 28 resulted from whooping-cough, 23 from measles, 20 from diarrhœa, 11 from scarlet fever, 9 from "fever" principally enteric), 7 from diphtheria, and not one from small-pox. These 98 deaths were equal to an annual rate of 4.0 per 1,000, which exceeded by 1.7 the average zymotic death-rate in the large English towns. The zymotic rates in the Scotch towns ranged from 1.4 in in Aberdeen and in Greenock to 5.3 in Paisley and 7.1 in Dundee. The deaths from whooping-cough showed a slight further decline from those returned in the two previous weeks, and included 15 in Glasgow, 3 in Edinburgh, and 3 in Leith. The 23 fatal cases of measles were within 3 of the number in the preceding week; 12 were returned in Glasgow, and 10 in Dundee. The 20 deaths from diarrhœal diseases considerably exceeded the average for the season. The fatal cases of scarlet fever, which had been 5 in each of the two preceding weeks, rose last week to 11, of which 7 occurred in Glasgow, and 2 in Edinburgh. The 9 deaths from "fever" corresponded with the number in the previous week, and included 5 in Glasgow, where 5 of the 7 fatal cases of diphtheria were also returned. The mortality from diseases of the respiratory organs in these Scotch towns was more than double that recorded in the corresponding week of last year, and was equal to 8.8 per 1,000, against 5.8 in London. The causes of 86, or 11.7 per cent., of the 738 deaths in these Scotch towns last week were uncertified.

HEALTH OF FOREIGN CITIES.—It appears, from statistics published in the Registrar-General's return for the week ending the 31st ult., that the death-rate recently averaged 35.9 per 1,000 in the three principal Indian cities ; it was 28.2 in Bombay, 35.6 in Calcutta, and 49.5 in Madras. Cholera caused 48 deaths in Madras, 21 in Calcutta, and 5 in Bombay ; 4 fatal cases of small-pox occurred in Madras, and "fever"-mortality was greatest in Calcutta. According to the most recently received weekly returns, the annual death-rate per 1,000 persons estimated to be living in twenty-four of the largest European cities averaged 29.7, and exceeded by 5.2 the mean rate during last week in the twenty-eight large English towns. The death-rate in St. Petersburg was 32.0, and showed a further increase upon the rates in previous weeks ; the 570 deaths included 20 from "fever," and 11 from diphtheria and croup. In three other northern cities —Copenhagen, Christiania, and Stockholm—the death-rate averaged 31.9, and ranged from 26.8 in Christiania, to 35.3 in Stockholm ; diphtheria and croup caused 12, and scarlet fever 9 deaths in Stockholm ; 11 fatal cases of measles occurred in Copenhagen, and 5 of the 65 deaths in Christiania resulted from diphtheria and croup. In Paris the death-rate was 27.9, and showed a further increase upon the rates in recent weeks ; 38 deaths from measles, 36 from diphtheria and croup, and 19 from typhoid fever, were reported. The 193 deaths in Brussels, including 11 from diphtheria and croup, were equal to a rate of 25.1. In Geneva the rate was 25.6, and considerably higher than in recent weeks. In the three principal Dutch cities — Amsterdam, Rotterdam, and the Hague—the mean death-rate was 30.5, the highest rate being 31.5 in Rotterdam ; scarlet fever caused 15 deaths in Amsterdam, and whooping-cough showed fatal prevalence in Amsterdam and in Rotterdam. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 27.8, and ranged from 22.9 and 24.5 in Berlin and Dresden, to 32.2 in Breslau, and 45.4 in Trieste. Small-pox caused 16 deaths in Trieste, and 9 in Vienna. Diphtheria showed more or less fatal prevalence in most of these German cities, and was most fatal in Berlin and Dresden. The mean death-rate in three of the principal Italian cities was 30.6, the rate ranging from 26.2 in Rome, to 41.4 in Venice ; small-pox caused 15 deaths in Turin, 6 in Venice, and 5 in Rome. In Madrid the rate was so high as 47.7, and the deaths included 25 from diphtheria and croup, and 21 from "fever." The 152 deaths in Lisbon, of which 10 resulted from small-pox, gave a rate of 38.9. The rate in Alexandria was 35.3, 7 deaths being referred to "fever." In four of the largest American cities, the recorded rate averaged 25.0, ranging from 23.4 in Baltimore, to 25.7 in New York. Diphtheria showed fatal prevalence in each of these cities, especially in New York ; typhoid fever caused 11 deaths in Philadelphia, and 9 in Baltimore.

HEALTH OF IRISH TOWNS.—In the week ending January 31st the number of deaths registered in the sixteen principal town-districts of Ireland was 520. The average annual death-rate, represented by the deaths registered, was 31.4 per 1,000 of the population. The deaths registered in each of the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000:—Armagh, 77.5 ; Belfast, 28.3 ; Cork, 44.1 ; Drogheda, 16.9 ; Dublin, 33.8 ; Dundalk, 26.2 ; Galway, 30.3 ; Kilkenny, 29.6 ; Limerick, 33.7 ; Lisburn, 24.2 ; Londonderry, 12.5 ; Lurgan, 30.8 ; Newry, 10.5 ; Sligo, 4.8 ; Waterford, 20.8 ; Wexford, 29.9. The deaths from the principal zymotic diseases registered in the sixteen districts during last week were equal to an annual rate of 2.9 per 1,000, the rates ranging from 0.0 in eleven of the districts to 10.3 in Armagh. Among the 119 deaths registered in Belfast were 2 from measles, 6 from scarlatina, 3 from typhus, 3 from whooping-cough, and 2 from diarrhœa ; and the 68 deaths registered in Cork comprised 1 from measles, 1 from scarlatina, 2 from typhus, 2 from whooping-cough, and 1 from diphtheria. In the Dublin Registration District, the deaths registered during the week amounted to 240. Twenty-five deaths from zymotic diseases were registered in Dublin, being 7 under the number for the preceding week, and 10 below the average for the fourth week of the last ten years : they comprised 3 from measles, 3 from scarlet fever, 2 from typhus, 5 from whooping-cough, 3 from simple continued and ill-defined fever, 4 from enteric fever, etc. Fifty-eight deaths from diseases of the respiratory system (including 39 from bronchitis and 11 from pneumonia) were registered, being 3 over the number for the preceding week, but 13 under the average for the fourth week of the last ten years. The deaths of 19 children under five years of age (including 13 infants under one year old), were ascribed to convulsions. Five deaths were caused by apoplexy, 13 by other diseases of the brain and nervous system (exclusive of convulsions), and 16 by diseases of the circulatory system. Phthisis or pulmonary consumption caused deaths, and cancer 3. Two accidental deaths were registered. In t instances, the cause of death was "uncertified," and in 18 other ca there was "no medical attendant."

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—Admitted Me bers, January 29th, 1885.

W. R. Dakin, M.D.Lond., 61, Edith Road, W.
W. A. Foxwell, M.B.Camb., General Hospital, Birmingham.
H. Handford, M.D.Edin., Nottingham.
A. H. N. Lewers, M.B.Lond., 109, Gower Street, W.C.
J. M. McDonagh, M.D.Brussels, 123, Beaufort Street, S.W.
W. Pasteur, M.D.Lond., 19, Queen Street, Mayfair, W.

Admitted Licentiates.

G. G. Adams, 5, Oakfield Park, Clifton, Bristol.
E. Annacker, Oxford Street, Manchester.
E. I. Bower, 15, Acton Street, W.C.
R. F. Bowie, 24, Huntley Street, W.C.
H. T. Bury, 15, Granby Street, N.W.
R. M. Canfield, M.D.Vermont, 29, Amwell Street, E.C
R. H. Cox, 102A, Mount Street, W.
G. H. De'Ath, Guy's Hospital, S.E.
D. A. De Montbrun, 1, Osnaburgh Street, N.W.
A. W. Dingley, 277, Camden Road, N.
H. Downes, 14, St. Mary's Road, Canonbury, N.
R. T. Fetherstonhaugh, 25, Park Road, West Dulwich, S.E.
H. H. Fisher, 36, Wilmington Square, W.C.
J. H. Gilbertson, Hertford.
F. W. Gordon, Brynarlais, Llandrindod Wells.
A. S. Gubb, French Hospital, Leicester Square, W.C.
J. H. Hacking, Old Trafford, Manchester.
W. H. Hall, 27, Claremont Square, N.
W. G. Henry, M.D.McGill, 52, Torrington Square, W.C.
W. Huntington, 5, Amberley Street, Liverpool.
J. A. Jones, Tir Caradoc, Taibach.
C. L. Josling, Sidcup.
C. Kebbell, Sussex County Hospital, Brighton.
R. Lake, 47, Bessborough Gardens, S.W.
C. R. Laurie, Buckhurst Hill.
A. McKillop, M.D.Toronto, 12, Nicholas Street, E.
H. T. D. Medley, 40, Brondesbury Villas, N.W.
A. F. Messiter, Willington, Burton-on-Trent.
G. W. Mullis, 8A, Penton Place, S.E.
A. M. Page, 43, St. John's Wood Terrace, N.W.
E. B. Parfitt, 24, Maxilla Gardens, W.
H. J. Pulling, 24, Denbigh Street, S.W.
W. A. Ross, Toronto, Canada.
G. L. Rugg, Stockwell Villa, Clapham Road, S.W.
G. A. Shackel, Erleigh Court, Reading.
A. Smith, 54, Stockwell Green, S.W.
W. Spry, 1, Upper Bedford Place, W.C.
J. R. Staddon, 159, Fentiman Road, S.W.
G. E. Stewart, 29, Cobourg Road, S.E.
C. Strickland, 11, Warwick Road, W.
W. G. Thorold, 30, Sussex Street, Pimlico, S.W.
F. Tratman, 63, St. Peter's Road, E.
F. S. Turner, 29, Avenue, Chiswick.
W. Washbourn, 8, Granby Street, N.W.
C. J. West, 146, Buckingham Palace Road, S.W.
R. M. Williams, 94, Blackheath Hill, S.E.
R. R. Williams, 8, Ampton Place, W.C.
W. Winckler, University College Hospital, W.C.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following tlemen, having undergone the necessary examinations for the dip were admitted Members of the College at a meeting of the Co Examiners on the 28th ultimo.

Messrs. J. McK. Ackland, Exeter, of Charing Cross Hospital; M. G. D L.S.A., Forest Gate, E., J. H. Sellick, Reigate, H. E. Jones, St. Th Terrace, S.E., F. Heatherley, Newman Street, W., of Guy's Hospita O. F. Wunderlich, L.R.C.P.Lond., Wallace Road, N., of St. Bartholo Hospital.

The following gentlemen were admitted Members on the ultimo.

Messrs. W. A. Maggs, L.S.A., Hanover Square, and E. L. Williams, L.R.C.P. Buckingham Gate, S.W., of Middlesex Hospital; T. W. Thomas, Albert Street, S.W., W. A. B. McCabe, L.S.A., Jersey, and A. W. D L.R.C.P.Lond., Camden Road, N., of University College; F. J. Fre L.S.A., Torrington Square, of King's College; J. Wilding, L.S.A., bourne Road, S.W., of Westminster Hospital; H. W. Shadwell, Hammersmith, of St. Bartholomew's Hospital; A. F. Messiter, L. Lond., Burton-on-Trent, of the Birmingham School; W. G. T L.R.C.P.Lond., Ilfracombe, of the Bristol School; and R. Lake, L. Lond., Bessborough Gardens, S.W., of St. Thomas's Hospital.

The following gentlemen passed on the 2nd instant.

Messrs. H. W. R. Bencraft, Southampton, F. A. N. Bateman, L.R.C.P. Pall Mall, of St. George's Hospital; E. J. Smith, L.S.A., Brixton, of Cross Hospital; W. G. Rockwood, M.D.Madras, Ceylon, of the School; F. M. Wright, L.S.A., Bottsford, Notts, W. D. Stevenson, Kew Gardens, of Middlesex Hospital: and H. C. W. Jones, L.S.A., C ham, of the Cambridge School.

he following gentlemen passed on the 3rd instant.

ssrs. F. S. Barnett, L.S.A., Stoke Newington, E. X. Harcourt, L.R.C.P. Lond., Eastbourne, and F. E. Mathews, L.S.A., Doughty Street, W.C., of St. Bartholomew's Hospital; H. G. Nicholson, L.S.A., Hereford, and W. S. Thomson, George Street, W., of Middlesex Hospital; R. L. Huzzey, L.S.A., Ampthill, Beds, of Charing Cross Hospital; H. J. Sequeira, L.S.A., Jewry Street, E.C., of the London Hospital; W. J. Munro, M.B.Ed., Sydney, N.S.W., of the Edinburgh School; G. H. Doudney, M.B.Durh., West Dulwich, of St. Thomas's Hospital; and S. J. Brooks, L.S.A., Tollington Park, of King's College.

ıe following gentlemen passed on the 4th instant.

ssrs. H. F. Jackson, Ballina, and C. R. Laurie, L.S.A., Bournemouth, of St. Bartholomew's Hospital; F. A. Dixey, M.B.Oxon., Oxford, of University College; V. H. W. Wingrave, L.S.A., Guilford Street, W.C., of Middlesex Hospital; and E. Annacker, L.R.C.P.L., Manchester, of the Manchester Royal Infirmary.

the 233 candidates examined, 42 were approved in Surgery, and, ı qualified in Medicine and Midwifery, will be admitted Mem- of the College, and 15, having failed to acquit themselves to the faction of the Court of Examiners, were referred to their pro- ınal studies for three months, 79 for six months, 4 for nine :hs, and 3 for one year, making a total of 101 rejections.

YAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH, FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The inations for the triple qualification of these bodies were held at burgh in January with the following results. First Examina-

. Byham, Ealing; J. T. Simpson, Leeds; J. G. Mackay, Inverness; S. J. W. Hayman, Cornwall; J. Donaldson, County Cork; P. J. Wilkinson, Manchester; R. W. Stones, Durham; W. H. Clements, Gosport; L. Birch, Manchester: C. Carruthers, Kirkpatrick Fleming; A. G. Ginders, Exeter; J. Maclaughlin, County Derry; J. Gilmour, County Derry; R. Markland, Wigan; A. Bradshaw, Sierra Leone; G. A. Armstrong, Ireland; J. G. Holmes, Leeds; H. E. Blackwood, Kirkintilloch; A. H. Hoffman, Ipswich; A. L. Murray, Belfast; J. S. Nicholson, Yorkshire; J. A. H. Mogg, Redditch; R. T. Williams, Wales; A. A. Martin, Blairgowrie; S. J. Dunlop, County Antrim; C. B. Mather, Tonbridge; W. W. Shrubshall, Margate; W. H. Large, Nottingham; J. Dunn, Londonderry; S. Rumboll, Cambridge; J. G. Mackintosh, Edinburgh; W. J. O'Donnell, Cork; C. G. C. Scudamore, Clapham; H. Grant, Edinburgh; J. Howie, Dundee; J. H. Briggs, Yorkshire; G. F. Day, Hereford; F. M. Sykes, Manchester; A. M. Stewart, Callander; H. O. Hughes, Merionethshire; J. O. Jones, Denbighshire; T. S. Davies, Monmouthshire; and A. Morley, Leeds.

ond Examination.

onaldson, County Cork; T. Monies, India; H. P. Shuttleworth, London; S. J. W. Hayman, Cornwall; J. Wingfield, St. Petersburg; A. Morley, Leeds; J. W. Alexander, Glasgow; L. M. Dunlop, Stroud; W. L. Byham, Ealing; and J. T. Simpson, Leeds.

rd Examination, admitted L.R.C.P.Edinburgh, L.R.C.S.Edin-, and L.F.P. & S.Glasgow.

ynch, Australia; J. T. Simpson, Leeds; J. H. D. Redding, Pontydawe; H. M. Sweetnam, County Cork; H. C. Davies, Galway; S. J. W. Hayman, Cornwall; W. Hall, Portsmouth; S. E. Falconer, Poonamalee; L. D. Brown, Henley; W. N. Robertson, Canada; T. A. Leishman, Roxburghshire; and J. C. Clark, Dundalk.

YAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH.—*e Qualification.*—During the January sittings of the Examiners, llowing gentlemen passed their first professional examination.

lerke, County Cork; W. H. Chamberlain, Leicester; G. Elliott, Donegal; A. M. Neatby, London; F. Wilson, Halifax; C. A. Wickham, County Longford; A. Allen, Congleton; G. H. Bate, Cheshire; J. S. Greer, County Down; F. W. E. Coates, Salisbury; P. J. O'Leary, Castleishon; and W. C. Graham, County Antrim.

following gentlemen passed their final examination, and were ted L.R.C.P.Edinburgh and L.R.C.S.Edinburgh.

. J. Reed, Laghy; W. Haines, County Cork; L. J. B. P. Fernandez, India; L. F. Seelenmeyer, London; J. F. Donegan, Cork; G. L. Moore, Stoke-on-rent; J. J. O'Bryen, Clare; C. Chambres, North Wales; J. G. Uppleby, outh Africa; G. P. Godfrey, Mansfield, Notts; M. H. Taylor, Dublin; . H. Cogan, County Cork; T. J. Walker, Yorkshire; G. Bower, Macclesld; R. T. H. Bland, Plymouth; J. T. Cooke, Aden; R. T. Darwin, ndia; E. J. Thomas, Chester; A. Blakiston, Yorkshire; R. F. Bowers, Bengal; and W. Dowman, Cork.

THECARIES' HALL.—The following gentlemen passed their nation in the Science and Practice of Medicine, and received ates to practise, on Thursday, January 29th, 1885.

nard, Walter Burrows, Charing Cross Hospital.
nett, Deane, St. Mary's Hospital.
nett, James Robert Abrahall, University College.
nfield, George Wills, London Hospital.
or, Edwin Thomas, London Hospital.
uness, Harry Grattan, London Hospital.
nes, Charles, Charing Cross Hospital.
es, Edward Francis, London Hospital.
g, Frederick William Devereux, Charing Cross Hospital.
es, Alexander Wellesley Finch, Charing Cross Hospital.
hens, William John, King's College.
ston, Joseph Theophilus, Bengal Medical College, Calcutta.

MEDICAL VACANCIES.

The following vacancies are announced.

CARDIFF PROVIDENT DISPENSARY.—Dispenser. Salary, £70 per annum if unmarried, or £100 if married, to take entire charge of premises. Applications to the Honorary Secretary, 6, Guildford Street, Cardiff, by February 12th.

DERBY AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Surgeon. Salary, £160 per annum. Applications to Mr. J. Bullivant, 58, Abbey Street, Derby, by February 9th.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY.—Honorary Physician. Applications to Mr. J. Lewis, 17, Bartlett's Buildings, Holborn Circus, by February 9th.

GENERAL INFIRMARY AT GLOUCESTER, AND THE GLOUCESTERSHIRE EYE INSTITUTION.—Physician. Applications by February 18th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by February 14th.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer for the Fever Hospital, Monsall. Salary, £200 per annum. Applications by February 14th.

MIDDLESEX HOSPITAL.—Second Chloroformist. Applications to the Secretary-Superintendent by February 14th.

MOUNTJOY CONVICT PRISON.—Assistant Medical Officer. Salary, £120 per annum. Applications to the Under Secretary, Dublin Castle, by February 10th.

NATIONAL ORTHOPÆDIC HOSPITAL, 234, Great Portland Street, Regent's Park, N.W.—Physician. Applications by February 18th.

PARISH OF LIVERPOOL.—Assistant Medical Officer. Salary, £80 per annum. Applications to H. J. Hagger, Parish Offices, Brownlow Hill, by February 11th.

RADCLIFFE INFIRMARY, Oxford.—Resident House-Physician. Salary, £80 per annum. Applications by February 14th.

ROYAL ALBERT HOSPITAL, Devonport.—Resident Medical Officer. Salary, £200 per annum.

ROYAL HOSPITAL OF BETHLEHEM.—Assistant Medical Officer. Salary, £300 per annum. Applications by February 12th.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum. Applications to John Libby, Honorary Secretary, New Mills, Stroud.

SUSSEX COUNTY HOSPITAL, Brighton.—Physician and Assistant-Physician. Applications by February 11th.

TOWNSHIP OF MANCHESTER.—Resident Assistant Medical Officer. Salary, £140 per annum. Applications endorsed "Medical Appointment" by February 7th.

WICKLOW CO. INFIRMARY.—Medical Officer. Applications to Rev. H. Rooke, Honorary Secretary, The Parsonage, Wicklow, before February 11th.

MEDICAL APPOINTMENTS.

HICKS, J. Braxton, M.D., F.R.S., appointed Honorary Physician to the Royal Maternity Charity.

HOBSON, L. J., M.D.Lond., B.S., F.R.C.S.Eng., appointed Honorary Medical Officer to the Harrogate Bath Hospital, *vice* A. Ford, F.R.C.S.Ed., resigned.

JOHNSTON, M., M.R.C.S., L.R.C.P., and L.M.Lond., appointed Junior Assistant Medical Officer to the Sussex County Lunatic Asylum, Hayward's Heath.

MANSELL-MOULLIN, James Alfred, M.A., M.B.Oxon., M.R.C.P., M.R.C.S., L.S.A. and L.M., appointed Assistant Physician for Diseases of Women to the West London Hospital, *vice* Albert Venn, promoted.

ORWIN, Arthur, M.D., appointed Physician to the Guildhall School of Music.

WALKER, E. B. C., M.B. and M.C.Edin., late Junior Assistant Medical Officer, appointed Senior Assistant Medical Officer to the Sussex County Lunatic Asylum, Hayward's Heath.

WARE, J. W. Langston, M.R.C.S., L.R.C.P.Lond., appointed Medical Officer and Public Vaccinator to the No. 4 District of the Barnstaple Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTH.

PARSONS.—On January 28th, at 13, Whitworth Road, South Norwood, the wife of H. Franklin Parsons, M.D., of a daughter.

MARRIAGE.

FERGUSON—BUTTERWORTH.—On November 19th, 1884, at St. Paul's Church, Dunedin, by the Venerable Archdeacon Edwards, Henry Lindo Ferguson, M.A.Trin.Coll.Dub., F.R.C.S.I., late Assistant-Surgeon to the National Eye and Ear Infirmary, Dublin, to May, eldest daughter of John Leach Butterworth, of Dunedin, New Zealand.

DEATH.

WILLIAMS.—On January 18th, at Zanzibar, of malarial fever, John Alexander Williams, M.B., M.R.C.S., Medical Officer to H.M. Consulate, aged 29. By telegram.

THE DARENTH CAMP.—At a meeting of the Metropolitan Asylums Board on January 31st, it was resolved to appoint Captain Butler, R.N., to be General Superintendent of Darenth Camp, to have authority immediately after the Medical Superintendent. Captain Butler takes the place of the late steward, Mr. Harper, who has had to resign owing to ill-health, brought on by overwork. The managers agreed that Mr. Harper should be awarded the sum of 150 guineas, "in consideration of the extraordinary services rendered by him in the establishment and administration of Darenth Camp."

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.— Samaritan Free Hospital for Women and Children, 2.30 P.M.— Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.— Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.— Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M. —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Henry Morris will open a discussion on Some Points in the Surgery of the Kidney. Mr. James Startin will show, at 8 P.M., Cases of Lupus cured by Caustics.—Royal College of Surgeons of England, 4 P.M. Professor W. K. Parker: On Birds, their Genesis and Structure.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. D. Lowson: Case of Displacement and Fracture of the Axis. Mr. Richard Davy: The Radical Cure of Club-foot, with exhibition of cases.

WEDNESDAY.—Hunterian Society, 7.30 P.M. Annual meeting. 8 P.M. Oration, by Dr. F. Charlewood Turner.—Royal College of Surgeons of England, 4 P.M. Professor W. K. Parker: On Birds, their Genesis and Structure.—Royal Microscopical Society, 8 P.M. On the Life-History of a Septic Organism hitherto unrecorded (Presidential Address), illustrated by Lantern-Microscope.—Epidemiological Society of London, 8 P.M. Surgeon-Major K. McLeod: The Prevalence of Epidemic Roseola in Calcutta.

FRIDAY.—Clinical Society of London, 8.30 P.M. President's Address. Dr. Hale White: A Case of Myxœdema, with a *Post Mortem* Examination. Dr. Carrington and Dr. Hale White: Two Cases of Phlegmonous Pharyngitis. Dr. Hughes Bennett: A Case of Locomotor Ataxy without Disease of t Posterior Columns of the Cord. Dr. Seymour Taylor: A Case of Arres Rickets (living specimen).—Royal College of Surgeons of England, 4 P. Professor W. K. Parker: On Birds, their Genesis and Structure.—Medi Psychological Association, 4 P.M. Dr. Hayes Newington: The Influence Minor Uterine Troubles on Insanity. Dr. Hack Tuke: The Insane in United States.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Edi 161A, Strand, W.C., London; those concerning business matters, non-deli of the JOURNAL, etc., should be addressed to the Manager, at the Office, 1 Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the edito business of the JOURNAL be addressed to the Editor at the office of the JOURN and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MED JOURNAL, are requested to communicate beforehand with the Manager, 1 Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, sh authenticate them with their names—of course not necessarily for publicat

CORRESPONDENTS not answered, are requested to look to the Notices to C spondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Office Health if they will, on forwarding their Annual and other Reports favou with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

PERMANGANATE OF POTASH.

SIR,—Permanganate of potash, administered in tablets, of the strength o grain, gives rise at once to ulceration of the parts it comes in contact wit have recently had two cases in which this has happened under my care, an one of them, an ulcer lasted for ten days; it was seated on the inner surface lower lip, was about the size of a pea, and was sloughy on its surface. patients, I am compelled to say, are much out of health, and consequent low vitality. Fortunately, the tablets did not reach any portion of the tinal canal. In one case, the cheek and mouth were much swollen, so tha ing was painful; in this, two tablets only were used; in the other, a p one was taken.

It is within my knowledge, but not of my own experience, that pills co ing two to three grains each of this drug have been given twice or thrice and that certain effects have been attributed to them; it has also been to that some of these pills have been brought back after having safely p through the whole intestinal canal unchanged. It would seem, therefore, some of us are mercifully preserved.

Let those who introduced this remedy to the profession two or three ago give us their experience of it, and tell us whether it is as much used n it was eighteen months ago. Hoping these few lines may be of service,— sir, obediently yours, FREDERICK SI

Mandeville Place.

A MODE OF ASSISTING THE CIRCULATION.

SIR,—While reading some remarks on massage, movement-cure, etc., at p of the BRITISH MEDICAL JOURNAL for January 3rd, it struck me that gre might be afforded to the circulation of the blood and lymph by ap pressure to the limbs in a special manner. The theory is based on the p logical fact, that the contraction of the arteries which comes into play closure of the aortic valves is a most important agent in moving on the and, furthermore, pressure applied to the surface of the body during the of closure of the aortic valves must, in accordance with the laws of p drive on the venous, as well as the arterial, blood.

The mechanical part of the method may be likened to a sort of auxiliary and consists essentially of four elements: 1, a modification of the sphygmo 2, a delicate electrical appliance; 3, a machine working an air-pump; 4, for each extremity, having an outer rigid skin, and an inner thin flexible lying closely on the surface of the limb, with an air-tight space betwe lining and the rigid cover, communicating with the air-pump. On the of the aortic valves, the sphygmograph brings the electrical appliance, regulates the machine working the air-pump, into action. Each stroke air-pump raises the tension of the air contained in the air-tight chamber as may be required, and thus causes an application of pressure to the su the limb; the tension becomes at once normal before the aortic valve again; and so on at each beat of the pulse.

The cases suitable for treatment on the above principles would b general rule, those where there was a failure in the propelling power of t ventricle, or an increase in the resistance to the flow of the blood an between the aortic valves and cavity of the right auricle.

Contraindications are afforded in cases of aortic regurgitation, aneurys some cases of distended right heart; extreme dilatability of the arteries possibly also contraindicate, owing to the great distension which might duced of the cerebral thoracic and abdominal arteries on the applica pressure.

The above is just a mere sketch of an idea, and might be developed int thing useful. The weak point is, I think, the capability of the sphygmog play its part; but, even on this point, I am very sanguine.—I am, you truly, HUGH L. DONOVAN, M.D., Surgeon, Medical

Newbridge.

MEMBER OF THE BRITISH MEDICAL ASSOCIATION.—Certifying surgeons pointed by A. Redgrave, Esq., Whitehall. The appointment is often give oldest in practice in the town or village.

THERAPEUTICS OF MERCURIC CHLORIDE: A GERM-THEORY OF SYPHILIS.

I agree with Dr. Glasier, that the metallic preparations of mercury are less ant than the perchloride; this is generally accepted, as is also the fact the proto-salts are more easily borne than the per-salts. As to his admis- that there are "other preparations of mercury, which are not endowed control over the low forms of animal life," I think he is in error. Dr. Far- arson, in his *Guide to Therapeutics*, while pointing out the superiority of osive sublimate, distinctly states (pages 106 and 107) that all preparations mercury are destructive to the lower forms of animal and vegetable life, and readily absorbed by the skin. He then proceeds to show the beneficial lts obtained by treating favus, pediculi, etc., with mercurial ointment.

ıe fact that mercuric chloride often causes much local disturbance and rapid titutional effects, is, I think, owing to two causes. In the first place, it is state of greater immediate fitness to act on the albumen of the tissues with h it lies in contact; and hence the irritation observed in Sir Joseph er's cases, which led him to substitute the application of the sero-albumi- . On the other hand, mercury in the form of blue pill, grey powder, and bined as a per-salt, such as calomel, does not unite so readily to form this pound. This can be demonstrated by direct experiment.

e second reason why corrosive sublimate is more rapidly poisonous, is that quickly soluble in warm fluids. Nature's efforts to present the drug in a noxious form to the system at large seem to be anticipated. Before diges- has had time to carry out her salutary work, the poison has gained access ıe blood, finally manifesting its evil results where resistance is weakest, ely, on the delicate surfaces of the epithelium; hence, salivation, tender- of the gums, etc. On the contrary, the proto-salts, etc., being less readily rbed, are longer retained in the alimentary canal; a larger portion probably es off unchanged from the bowels, while what remains to be ultimately n up by the vessels is presented in a more innocent combination. It is well vn that mercurial preparations are always best borne shortly after a meal, ially in the case of the perchloride. This I have repeatedly observed; and ially the influence which the form of dietary has: the more albuminous it e greater and longer the tolerance.

ysiologically and therapeutically, the stomach has become to be less regarded e light of a chemical retort than it used to be. The teaching now is to try minister drugs in the most absorbable form, and as far as possible in such inations as nature herself adopts, in order to husband her powers. I there- suggest that corrosive sublimate should be administered in the form of a albuminate. If success attend the administration of such a compound a will be gained; but, if failure, still one error removed is one step nearer . I unfortunately have had no recent opportunities of putting this idea practice, although I hope soon to do so. If there be others who think it ı their while to make use of this suggestion, I shall feel interested in the , whatever it may be. There is one point of interest I should like to ain; namely, would the combination of corrosive sublimate with albu- appreciably modify its poisonous effects when administered in large to the lower animals, and would they bear with impunity more prolonged es?

regards Dr. Glasier's opinion in reference to micro-organisms in syphilis aving been satisfactorily demonstrated, I think that Dr. Lustgarten's researches at Leipsic are of considerable importance; namely, his dis- y in primary chancres of small slender groups of slightly curved bacilli, resembling those found in tubercle. This, coupled with the close analogy the clinical history of the disease has to the specific fevers, and the in- e which mercury had in septicæmia, a disease now thought by many to to living organisms, lends support to a germinal theory of syphilis.—

rs obediently, HENRY ARTHUR FOTHERBY.

George's Infirmary, Fulham Road, S.W.

LANCING THE GUMS.

ım glad Mr. Joll has altered his attitude towards the gum-lancet, and will t if the physical signs so indicate." We all desire to do the best for our ts; and I still think it a pity that mere theory should be exalted above experience. If my success, and that of the other gentlemen who wrote ur of lancing the gums, be the result of ignorance, as Mr. Joll insinuates, ll be content with our blissful condition. Mr. Joll's success with bro- f potassium and aperients is unusual; in fact, he says, in numberless I should be delighted to know what amount of bromide and what of aperient will relieve pain with the same speed and certainty as the gums, as in a case mentioned by Dr. Walford, where the child en kept awake for thirty hours, but, almost immediately after the nceт was used, the child went into a sound sleep. A correspondent in r journal on this subject says it is as absurd to prescribe bromide assium merely in painful dentition, as it is to give the drug to a hen he has a too tight boot on. Another correspondent in the same says the dictum of Marshall Hall was, "it was better to lance a child's 99 times unnecessarily, than to omit it once when necessary;" and to tement he agreed. "I am sure," says he (a M.R.C.S. of 1845), "many ractitioners who have followed his teaching (Marshall Hall's) can testify hether *post* or *propter*, a child, almost immediately after its gums are often passes from a distressed state of convulsions, screaming, or fever- , to calm refreshing sleep, and comparative health and comfort. From d I have seen apparently follow from lancing the gums, I certainly should ad not done my duty to a child in convulsions during dentition if I neg- to examine its mouth, and relieve tension by scarifying the gums, cut- , as Marshall Hall says, the first link in the chain of reflex irritation."

7 days ago, I was called to see a child who was apparently healthy and urished, but had been merely suffering from the teeth trying to come t; and then convulsions came on, and death ensued before my arrival. I in that case that lancing the gums might have prevented the sad ophe.

ry little thing will kill a child, and the comparatively insignificant of lancing the gums will often keep it alive.

nclusion, I can only say that, if lancing the gums be in disfavour on the nt and in America, so much the worse for the patients. The disregard aluable gum-lancet in America and the Continent may account in part frightful mortality amongst children in America and some parts of the nt.—I am, sir, your obedient servant, RICHARD PARAMORE, M.D.

unter Street, Brunswick Square, W.C.

s WILSON.—We doubt whether you can legally do so, apart from any of professional etiquette. The practice is a very common one.

NURSES.

SIR,—I have just read with great interest the letter on "Nurses," from "T. Wilson," in the BRITISH MEDICAL JOURNAL. I know, by personal experience, every statement made therein to be perfectly true. I myself was trained in two of the largest London hospitals, and, to get further practical experience, finished in a large provincial hospital in the north of England. In the first two, the less said about the meals the better; the food was good in quality, but the monotony of the *ménu* was very objectionable.

In the latter hospital, I cannot speak too highly of the way in which the sisters and lady-probationers (I belonged to the latter) were treated; the arrangements of the table, the cosy dining-room, and the two capital waitresses, made one enjoy the excellent variety of food; and the nurses (who had a separate dining-hall) were equally well fed. I notice that, in none of the letters on "Nurses" is any mention made of their sleeping-accommodation. In one of these three hospitals, the nurses' rooms in the corridor where I slept had no doors, only a curtain, and the partitions did not reach to the ceiling; therefore, in the room which I shared with two others, we had the benefit of the foul air from all the rooms on our own, as well as from those on the opposite, side of the long passage.

I cannot describe all the sleeping-rooms I have seen inhabited by nurses; and, if I did, I am much afraid that fathers of carefully nurtured girls would hesitate before they gave their consent to their daughters entering on the nursing-staff of some of our large hospitals. The only chance of obtaining a room to oneself is by paying £1 10s. per week extra for it; rather an expensive luxury, but quite worth the money, as it enables the possessor to pass the hours "off duty" either in quietness by herself, or in company of any friends she may invite to her room.

"T. Wilson" expresses well the want of rational amusements for the sisters, lady-probationers, and nurses. Why should those who pass so many hours at a stretch in sick-rooms have no kind of amusement provided for them? Why should not every hospital, when it is possible, have a tennis-lawn? I believe the sisters and nurses would often enjoy riding and boating, but are afraid to indulge in such pastimes, lest the authorities might consider them "not quite the thing."

I am now the matron of a hospital in a lovely part of England, and I most thoroughly enjoy a good galop (when I can spare the time), and come back from my rides feeling far better in mind and body, and much fitter for my work, than when I mounted.—I am, sir, yours, etc.,

SISTER EDITH, Matron of the Princess Alice Hospital, Eastbourne.

OVERPRESSURE IN EDUCATION.

SIR,—I hope that you and your correspondents do not mean to allow the discussion of this important question to lapse. Let it not be, at all events, before the subject has been more completely threshed out than has been the case hitherto. The verdict of the profession has certainly not yet been given, and while this is the case, the question remains, for obvious reasons, in a state the reverse of satisfactory. Thus a discontinuation of its discussion at this stage would, in my opinion, be both premature and regrettable. For either it is, or it is not, a great and pressing evil. If it is, then the profession ought to say so, and the matter be at once dealt with. If it is not, then the public mind ought to be relieved. But, first of all, is it a doctor's question? One would certainly think that it was; and yet this does not seem to be the opinion of all. Indeed, the editor of the *School-Board Chronicle*, which is, I believe, the official organ of the Education Department, goes so far as to insinuate that not only is it not a doctor's question, but that medical men ought not even to be heard in the matter. Incredible almost as it may seem, that such is his view, his own words but too plainly testify. Alluding to a recent resolution of the London School-Board in the matter, this gentleman, in a recent number of his journal, thus gives vent to his feelings. "Whether the London School-Board have been wise or otherwise in deciding, after long debate, to appoint a select committee 'to inquire into the allegations of overpressure in the schools of the Board, made in the report of Dr. Crichton Browne,' we venture to say they did well in refusing to instruct the select committee to procure the assistance of medical practitioners. The medical practitioner has had too much to do already with this question. Within these two years, the doctors have made enough mistakes in instances of, and inquiries into, alleged overpressure, to render School Boards, managers, and parents very careful indeed in appraising their testimony." (*School-Board Chronicle*, November 29th, 1884.)

Whilst we receive the latter part of this astounding statement with a considerable quantity of the proverbial *granum salis*, the first part is so amusingly absurd that its perusal provokes a smile. Nevertheless the assertion ought to be met, and I think can be. Its inconsistency, indeed, so it seems to me, is so patent, that it hardly requires demonstration. For if, as I take it, laymen receive with respect, and sometimes almost with blind credulity, all that a medical man tells them as to the nature and quantity of the food that is suitable to the stomach, why should they regard with less reverence, and as having less authority, what doctors have to say concerning the nature and quantity of the food which is suitable to the brain? The cases are parallel in every respect, and if, on the question of stomach-diet, the opinion of medical men is sought and esteemed, surely, on the question of brain-diet, there is, if anything, even more reason for seeking and valuing the opinion of the profession.

Without a doubt then, this is, after all, a doctor's question, or at least one on which medical men ought to be heard. This being so, without committing myself on this occasion to a definite expression of opinion as to the reality or otherwise of the alleged evil, I venture to hope that the medical journals will not cease to ventilate the matter till something like a consensus of opinion is collated, and some sort of a verdict given.

Fortunately, the British Medical Association has in operation a scheme for collecting facts and statistics which, adapted to the exigencies of this particular question, would soon result in the collection of data, sufficient in number, and reliable in accuracy, as to afford a basis for a trustworthy, if not unimpeachable, decision and verdict. Meanwhile, parents everywhere are waiting in suspense; and in view of the recent alarming increase of insanity and kindred disorders, their anxiety is not so wholly unnatural, or entirely ill-founded, as either to be disregarded, or even treated with levity.—Yours faithfully,

CHARLES WILLIAMS, Physician and Surgeon, and
Port Isaac, Cornwall. Member of the St. Endellim School Board.

PREVENTION OF INFECTIOUS DISEASES IN SCHOOLS.

In our notice of the *Code of Rules for the Prevention of Infectious and Contagious Diseases in Schools*, prepared for the Medical Officers of Schools Association, by their honorary secretary, Dr. Alder Smith, we omitted to state that the rules are published by Messrs. Churchill and Co., New Burlington Street, London.

The late Mr. Ford.

We regret to announce the death of Mr. Ford, for many years porter to the Royal College of Surgeons. He was a contributor to several London and provincial newspapers.

Diseases of the West Coast of Africa.

Sir,—In reply to "Medicus," I write to say that the most recent publication on the above subject is one on *West African Hygiene*, by Charles Scovell Grant, M.D., published by Stanford, 55, Charing Cross, S.W. It is a small pamphlet of about fifty pages, and though written more especially for non-medical readers, may, nevertheless, be studied with advantage by the young physician intending to sojourn on the African coast.—Yours faithfully, D. H. Cullimore, M.D.

27, Welbeck Street.

The Title of Doctor.

Sir,—In the Journal of January 24th, I notice a letter signed "L.R.C.P.Ed. and M.R.C.S. for Forty Years," having for its subject the Title of Doctor, also in your number for January 10th, a letter on the same topic signed by "W. J. Keir."

It is not my intention to enter upon any discourse as to the validity of the title. I had hoped that the resemblances of, and the differences between, a "degree" and a "qualification," were now patent to all, and do still believe so, as far as the greater majority of medical practitioners is concerned.

Both your correspondents have, when present at their examinations, been addressed as "doctor," the one by "each of the examiners," who, in addition to this, shook hands with him; the other by "an official of the College."

Eighteen months ago, I passed the Final Examination at the Apothecaries' Hall, London. I had not the good fortune to be addressed by "each of the examiners" as "doctor," neither did they all shake hands with me, but I was "orally addressed" by two "officials" of that institution by that title.

May I be allowed to ask your correspondents if, in their opinion, one is entitled to call himself "doctor" after having obtained the L.S.A.? and if not, why? and where the line should be drawn.—I am, etc., M.B.Edin.

Excision of the Cæcum for Epithelioma.

Sir,—Mr. Walter Whitehead, in his paper on a case of Excision of the Cæcum for Epithelioma, published in the British Medical Journal of January 24th, has overlauded a case reported by Mr. Sydney Jones in the *Lancet*, "Mirror of Hospital Practice," for January 10th of this year. Mr. Sydney Jones's operation was for scirrhous growth of six months' duration, and it was necessary to remove the bowel from the ileum to the transverse colon. The patient was a female, aged 54, and the operation was performed May 23rd, 1884. The patient died three days later from localised peritonitis.—I am, sir, yours truly,

St. Thomas's Hospital, S.E. William H. Battle, Surgical Registrar.

Treatment of Severe Cough.

Sir,—I should advise your correspondent, "J. C. H." (Journal January 3rd, p. 55), to try euonymin, with which I have been very successful in several cases. I always use the compound liquor of euonymin and pepsin made by Oppenheimer.—Yours truly, A. T.

The Brussels M.D.

Sir,—As a recent graduate of the University of Brussels, I wish to lay before your readers the status of the examination.

The test is a most rigid one, embracing thirteen distinct subjects, each having a separate examiner, the veto of any one being sufficient to score a rejection. The examination in clinical medicine and surgery, likewise regional anatomy, dissections, surgical and medical pathology, together with midwifery, is of a most searching character. I consider it fully equal to our best London tests; and it is quite a mistake to imagine that one can obtain the degree without careful preparation and clinical experience.

I have been prompted to write this letter on account of numerous inquiries relative to the Brussels M.D.—I am, sir, yours truly, Sigma.

Medical Study in Vienna.

Sir,—From my own experience, I can testify to the excellent opportunities and the most extensive field for clinical study in Vienna. The General Hospital can accommodate 3,000 in-patients, and there is free access to all. There are special clinical courses for graduates, most ably conducted in all departments of medicine, surgery, and midwifery; such as diseases of the ear, throat, eye, skin, etc. Regarding midwifery, there are three departments: 1, ordinary and instrumental labour; 2, all operations performed on the dead body and phantom; 3, a special "touch course," that is, the examination, external, abdominal, vaginal, and bimanual of pregnant women close on confinement, chiefly intended for diagnosis and prognosis. These courses are attended by graduates of every civilised nationality, eminently so by Americans, who far outnumber several times all the others. Consequently, as the Americans generally know German well, "S. H. B." will always have an interpreter at hand (and a most courteous one too); but, unless he understand German, he loses the professor's remarks, and being unable to question the patients for himself, he must trust, in great measure, to physical signs and his own observation. If "S. H. B." desire more information, I shall be glad to give him the benefit of my experience on his communicating with me.

In addition to the General Hospital, there is a very largely attended Polyklinik, or Out-door Dispensary, where abundant material is found for all medical and surgical cases except midwifery and gynæcology. There is a large children's hospital near the general one.—Yours faithfully, A. T. Brand, M.D.

Invery, Driffield.

Vaccination.

Disappointed.—The lymph of the National Vaccine Establishment is received from the best of the public vaccinators, and from the three vaccinators who especially act under the instructions of the Local Government Board, two of the latter being engaged at the Animal Vaccine Establishment. This lymph, therefore, ought to be as good as can be obtained. Apart from this, lymph can be procured from most of the public vaccinators by private arrangement, or for a small payment. The mother of a recently vaccinated infant can be induced to allow her child to be taken to our correspondent's house, where vaccination can be done direct. This is the best plan of all.

Self-Tuition in French.

Sir,—I am desirous of learning French, but am so situated that, if I do learn it, it must be by teaching myself. Would any member inform me as to the best books to procure, and the course of study that I should adopt? Is the Hamiltonian a good system to follow in self-teaching?—I am, etc., X. Y. Z.

J. W. B. is referred to the article on Myxœdema, in Quain's *Dictionary of Medicine*, and to Dr. Ord's paper in the *Medico-Chirurgical Transactions* for 1878.

COMMUNICATIONS, LETTERS, etc., have been received from:

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AN ADDRESS
ON
)ME POINTS IN THE SURGERY OF THE KIDNEYS.

Delivered at the Medical Society of London, February 9th.

By HENRY MORRIS, M.A., M.B., F.R.C.S.,
Surgeon to the Middlesex Hospital.

ccepting the honour which the officers of the Medical Society have me, by asking me to open a discussion on the surgery of the eys, I felt it was fortunate for me that the President of the Society a surgeon whose sympathetic interest and attention I should be to have, not only because of our personal friendship, but, more, use he himself was one of the very first in this country to take a tical share in the exploration and removal of the kidney.

may at once assume that surgical treatment—that is, certain de- surgical operations, such as nephrotomy, nephrolithotomy, and rectomy—is, to-day, well recognised as being not only justifiable, uccessful, in combatting several of the affections of the kidney. is is now granted on all hands; but there still remains much to (A) with respect to the symptoms which should guide us to these edings; (B) as to which of these operations is best adapted for ular cases; and (C) as to how we can most safely and certainly ut the working power of the second kidney, or even if there be a d kidney at all.

hall to-night say a few words on each of these points, and thereby, t, open up a sufficiently wide, but at the same time definite, for an instructive and interesting discussion.

And, first, let me take the subject of renal calculus, to illustrate our of further and more accurate knowledge of the symptoms of renal es. Formerly, and whilst surgical operations on the kidney re- the censure and reproaches of surgical authorities, certain sym- came to be associated with certain diseases, which were often h not verified by *post mortem* examination; and, of course, were checked off by the disclosures of the operating table. But, of late we have had a way of testing the accuracy of our diagnoses by sults of our exploratory incisions on the living.

v, before a surgical exploration of the kidney, with a view to olithotomy, is undertaken, two things are required; first, that shall have existed for some time before, and still exist, certain sym- which are looked upon as characteristic of renal calculus; and, ly, that these symptoms shall have shown themselves irremedi- y medicinal treatment.

if I were to ask "what are the symptoms so characteristic of alculus as to justify surgical exploration?" I should be told that re these. 1. Pain in the region of one kidney, extending at times, ly, to the groin and testicle. If this pain be more or less parox- in character, aggravated by movement, and occasionally exciting ng and sweating—in other words, if renal colic occur—the evi- is regarded as all the stronger. 2. Blood and pus in the urine, not rily in more than slight quantity at any time, and it may be ways, or almost always, present. 3. The absence of any inable condition of the bladder or prostate which can explain ymptoms. 4. Frequency of micturition, though by no means uently absent, is confirmatory of the other symptoms if it be t.

hout doubt, these symptoms are strongly suggestive of calculus, ry often correctly so. But the time has arrived when it should ted out that experience seems to show that they are not posi- haracteristic.

ological and clinical observation combined have long ago taught our forefathers that the absence even of all the symptoms is dence of the absence of renal calculus. Indeed, it is only too own that calculi in the kidneys may not only exist, but be working out the death of an individual, in whom none of these oms have been either observed or suspected. Could the presence calculus in such persons be accidentally ascertained, nephro- my would be a means of saving life and kidney too.

ical exploration of the living, on the other hand, has now dly proved to us that calculus is either not present in the kidney, or, at least, cannot be found there, in some cases in which all or most of these symptoms are very pronounced.

I have in my possession a list of eighteen cases in which nephrolithotomy has been completed; but I have also a list of fifteen instances more or less typically indicative of renal calculus, in which an exploratory incision in the loin has failed to disclose a stone. In several of these latter cases, digital examination of the kidney was supplemented by acupuncture, and, in two or three, by incision of the kidney, but in all with negative results so far as regards calculus.

It is a fortunate circumstance that the lumbar incision, if carefully and judiciously carried out, is a proceeding almost (for one ought not ever to say "absolutely" in speaking of surgical operations) without danger to life; whilst the removal of a calculus saves the integrity of the kidney, and completely restores the patient to the ordinary avocations and pleasures of life.

Still, it cannot be denied that the proportion which the cases of fruitless search bears to the cases of successful discovery, is, at present, so large, that there might be danger of nephrolithotomy dropping into disrepute if it were not for the repetition of successes it has scored; for the fact that the operation has been proved to be free from any inherent great risk; and is followed by very complete and immediate relief from suffering of an agonising and almost unbearable character.

Probably no other surgical operation, except the relief of retention by the catheter, or the removal of a foreign body from the conjunctiva, affords more immediate and unqualified relief than nephrolithotomy.

But, with the above facts before us, it behoves both physicians and surgeons to look to their diagnoses; to improve, if possible, their knowledge of the symptoms of stone in the kidney, so that the application of this operation should become both wider and more precise; for the precision of our results in operating must depend upon the perfection of our diagnosis.

A striking and consoling fact, however, connected with the cases in which no stone was found, is the remarkable, and, in some instances, prolonged relief which has followed the exploration of the kidney; and it may fairly be expected that, by following up such cases as these, we may increase and adjust our knowledge of the signification and bearing on renal affections generally of those symptoms which have been usually regarded as characteristic of renal calculus.

Different hypotheses suggest themselves as to the mode of relief in different cases, and we will consider them with the hope of learning what the morbid conditions are which may be mistaken for renal calculus.

a. In some, the symptoms may have been produced by excessive mobility of the kidney, and the operation may have given relief by tightening down the kidney in its proper place in the loin. This, I think, explained a case of my own. We know that movable kidneys sometimes cause unbearable pain and hæmaturia, and excite frequent micturition; and we know, too, that the degrees of mobility may vary from a freely floating organ to slight vertical or lateral shifting of position. There is no difficulty in understanding how the inflammatory effusion and subsequent contraction, which follow the free digital examination of the kidney, may lead to the fixation of an organ which is not actually floating.

b. In other cases, as Mr. Annandale supposed, the division of some of the nerves in the neighbourhood of the kidney may have caused the cessation of the pain and renal irritation. The pain may have been neuralgic or reflex, and associated with functional renal changes; then comes the division or stretching of the nerves, and both pain and functional disturbance cease. We have analogous cases in the results of neurotomy, neurectomy, and nerve-stretching, and in those extraordinary cases in which epileptic seizures have ceased after division of the scalp, and after trephining healthy cranial bone.

c. In a third class, the kidney-symptoms may have been due to some chronic perinephritis; and the lumbar incision may have given relief by taking off tension, in the same manner that the incision of the periosteum relieves the pain of periostitis, and the drilling of the bone removes the pain of ostitis. This view receives support from any case in which pus is discharged at the cicatrix from time to time after the healing of the operation-wound. I am indebted to Mr. Marcus Beck for the notes of such a case.

d. In a fourth set of cases, in which intense pain is complained of, and a history of hæmaturia is given, the whole of the symptoms may be due to hysteria. A young man under one of my colleagues, Mr. Hulke, who complained of excessive lumbar and groin-pain, and said he had passed blood with his urine—who had, in fact, the symptoms of renal calculus well upon the tip of his tongue—was explored, but no stone was found. Subsequently, he stated that he had forgotten to

mention that he had swallowed a pin, which had stuck in his kidney. Some chloride of sodium in solution was prescribed, with the object, as he was assured, of dissolving the pin. He made a rapid recovery, and left the hospital quite well. A young woman was sent up to me from Buckinghamshire, with the view of my examining her kidney; and twice since she has returned; but, as we were convinced her symptoms were hysterical, I declined on each occasion to operate. She wa much improved by a mixture of burnt sugar and water.

e. An abnormally acid urine, or urine highly charged with uric acid, may give rise to the whole of the symptoms which are excited by stone.

f. Again, though no stone has been formed, a number of crystalline forms or calculous particles may simulate renal calculus. In one case, I have good authority for stating that the temporary relief which followed the exploration was continued after the discharge *per vias naturales* of a small calculus.

In these two classes of cases, the very restricted diet and the absolute rest may explain the relief; or, what is more likely, the manipulation of the kidney may have detached some adhering crystals, or mucous mass, or sabulous material, from a calyx or the renal pelvis.

g. In a certain number of cases, slight and early scrofulous disease of the kidney has been mistaken for a calculus, and relief has followed acupuncture, or incision of the kidney, by giving vent to a little pus. This occurred in another of Mr. Beck's cases, of which he has kindly given me the notes.

h. A stone may be present and yet escape detection, either because of the great toughness and thickness of the renal tissue, or because it has become displaced from the kidney, and impacted in some part of the ureter. Under these circumstances, it is hardly likely that any difference would be made in the symptoms by the exploration.

There are many difficulties in the way of diagnosis. There is a great resemblance in the symptoms of renal calculus and of acid urine. There is no more certain cause of pain in the loins, frequent micturition, and even of a slight amount of pus or blood in the urine, than very acid urine, and urine overcharged with uric acid.

The acidity of the secretion, or the crystals of uric acid, by irritating or inflaming the mucous membrane of the kidneys, causes albuminuria, slight hæmaturia, or the admixture of pus with the urine; and this may go on for months or a year or two without causing any actual or permanent degeneration of the renal tissues. The patients who suffer from these conditions are often of a gouty diathesis; they frequently get a good deal of feverishness, and, though they do not experience acute pain in the testicle, they will sometimes complain of marked testicular tenderness on pressure.

The diagnosis in such cases will be cleared up by the improvement which follows alkaline treatment. The citrate or tartrate of potash or soda, given every four hours during the day, neutralises the acidity of the urine as it is secreted, and thus the cause of the symptoms, and with it the symptoms themselves, disappears. Moreover, these alkaline salts, by producing a supercarbonate of the alkali in the urine, dissolve the uric acid and the earthy phosphates, and thus not only tend to prevent the formation of urinary calculi, but, by diminishing their size, facilitate the expulsion of any small concretions—if so be that such have already formed and are adherent, or otherwise retained.

Where there is a persistent tendency to the formation of uric acid calculi, the symptoms again and again recur; so that the continuance or repetition of the alkaline treatment is necessary; and, as it promotes the descent and discharge of the calculi, the patients are apt to condemn the remedy as being the cause of their trouble, instead of honouring it as the means of their deliverance.

Hæmaturia is looked upon as almost a necessary result of calculus; and probably it would not be far wrong to say that hæmorrhage from the kidney is in a majority of cases caused by renal calculus.

It must, however, be borne in mind that, besides resulting from various other renal affections—non-malignant as well as malignant—renal hæmorrhage sometimes occurs when there is no ascertainable cause for it, from a mere relaxation of the blood-vessels, or from simple increase of intrarenal blood-pressure. If such hæmaturia occur in a rheumatic, or highly nervous or hysterical person, the symptoms of renal calculus may be very perfectly simulated.

On the other hand, a stone in the kidney may not cause hæmaturia at all, or not during the time the patient is under observation. If the quantity of blood passed have been slight, its presence may never have been observed by the patient; and if hæmaturia be intermittent, the most careful examinations, extending over many weeks or months, may not discover it.

The clinical history as to hæmaturia is, however, all important, and will sometimes help to save us from errors of importance. Dr. Owen Rees records how a young lady of marked hysterical disposition had lumbar pain and frequency of micturition set down to hysteria an treated accordingly; until, at length, due attention to the clinica history revealed that hæmaturia had existed on more than one occa sion. A mulberry calculus was ultimately found in her kidney.

Frequency of micturition is also a symptom which requires grea attention. It is the offspring of many causes—renal, ureteric, vesica prostatic, and urethral—but it is a very common symptom of ren calculus. In some cases, the irritation at the neck of the bladder is excessive that the thought of a calculus in the kidney or ureter do not arise; but catheters and sounds are again and again resorted to the supposition that the seat of disease is the urethra or bladder. the frequency of micturition be associated with pus in the urin cystitis is, perhaps, said to exist; whilst in reality the pus is comi from the higher urinary passages, and any cystitis which is present is t direct result of the so-called "exhaustive examinations" of the bladd with instruments.

I have known a case in which, for many months, the patient w ooked upon, and by eminent men, too, as suffering from subacu cystitis; but the pus in his urine came from the kidney, and in t end he died of a large abscess extending into the perinephric tissue.

Whilst a calculus is hollowing out a nest for itself in the kidney, is growing in a calyx or the renal pelvis, a slight degree of pyeli goes on and causes purulent urine, and often irritability of t bladder. When this encysting process is completed, and the calcu is comfortably lodged, the pus disappears from the urine, and the f quency of micturition subsides. The length of time this process la is very uncertain, and varies from a few weeks to a year or two, more. If it be not too prolonged, and the sufferer be healthy robust, perfect convalescence may follow; but, if the process be v prolonged, or the patient be strumous, aged, or weakly, renal absc pyelo-nephritis, or perinephritic abscess, and death result. A cor diagnosis may generally be made in cases of frequency of micturit if, besides small quantities of pus, there be also, from time to tim little blood in the urine, and more or less constant paroxysmal pai the lumbar region, and in the groin or testicle. When the lumba testicular pain is absent, frequency of micturition, with purulent blood-mixed urine, is insufficient for a correct diagnosis; and, e though renal calculus be the cause, there are no data for selecting kidney rather than another for lumbar exploration. But should we, u these circumstances, be ever justified in examining both kidneys within the abdomen? I think we should, if the patient be cle going into a bad way; more especially if there have been, at any t marked crystalline forms in the urine, and if a digital examinatio the vesical ends of the ureters give a negative result.

Probably, the greatest difficulty in diagnosis is between strumous kidney and renal calculus. The symptoms are at almost identical, and the disease has often made great progress b its strumous character is apparent.

When frequency of micturition and slightly purulent urine are with in a person of strumous habit, and are unaccompanied by tory of hæmaturia, the strumous nature of the disease is fairly c but when they are associated with a history of hæmaturia and lumbar or testicular pain in an otherwise healthy looking pe calculus is greatly more probable.

It must be remembered that a calculus may be present in a stru kidney; but this complication is an additional reason for re ing the calculus. In certain cases of early strumous disease, it fairly be expected that the removal or escape of the calculus lead to the cessation and repair of the strumous changes; wh on the other hand, if the calculus be not removed, the destructi the kidney will progress all the more rapidly.

We need more accuracy of diagnosis as to the whereabouts of calculus when there is one present. Is it in the calyx or pelvis kidney, or in the ureter? and if in the ureter, at what part course? I am persuaded there are cases, and probably not a fe which we might cure or relieve our patients by removing from the vesical end of the ureter by vesico-ureterotomy. I ha lated a case of the sort, and described the method of procedur paper in the *American Journal of Medical Sciences* for October,

When the patient is conscious that the seat of his trouble ha a shifting one, and has referred his pain to a lower and lower along the course of the ureter, until at last it remains stationar especially if the bladder becomes greatly more irritable; and if, i tion to these symptoms, anuria or a sudden decrease in the urine then it would be right to conclude that a calculus may have impacted at the vesical orifice—the narrowest part, by far, ureter—and to explore the bladder with this view, and remo calculus in some such manner, and with some such instrument have described.

Again, if, after a vesical calculus has been removed, fresh symptoms the disease return, as in a case related by Agnew; or if severe con- itutional symptoms, with more or less suppression of urine, should cur, as in Dr. Rawdon's case, calculus in the ureter should be sus- cted, searched for by digital exploration of the bladder, and, if de- cted, removed by vesico-ureterotomy.

I would also like to suggest to those surgeons who prefer abdominal phrectomy, to search the ureters for impacted calculus, especially in ses of hydronephrotic and pyonephrotic distension. I feel sure it uld be quite possible and safe to set the kidney free by excising a lculus from the ureter by intraperitoneal ureterotomy.

Within the last few weeks, Dr. Cullingworth, of Manchester, in a se of this sort, was about to perform nephrectomy, but, instead of ing so, he examined the ureter, and found a calculus impacted in just above the bladder. He excised the calculus, stitched up the ision in the ureter, and brought the divided peritoneum accurately gether over the ureter. A glass drainage-tube was placed in the vis. Pus drained away through the bladder, and the tumour idly subsided to one half its size. Unfortunately, the other ureter was blocked, and its kidney riddled with abscesses, and this, as . Cullingworth informs me, was the cause of his patient's death. The e gives promise of good results from intraperitoneal ureterotomy, ich, however, must be regarded as a more formidable proceeding n the vesical operation.

shall conclude this part of my subject with the following propo- ons.

. Although hæmaturia, associated with frequency of micturition a small amount of pus in the urine, is, in the absence of disease in lower urinary tract, strong evidence in favour of renal calculus, pain, either in the loin, groin, or testicle, of one side, is also ded to justify the surgeon to explore the kidney through the n.

. Pain alone, when persistent, or frequently paroxysmal, and ing rise to sickness and sweatings, or subject to exacerbations ing perfect rest, justifies lumbar exploration. When there is a ory of hæmaturia without pus, or a trace of pus without a history æmaturia, associated with one-sided pain, the exploration ought to made if alkaline treatment have failed.

. When the above symptoms occur in persons with acid urine, f gouty tendency, or who lead sedentary and indulgent lives, line treatment and diet ought to have a prolonged trial before pro- ng an exploratory incision.

When the urine is alkaline from carbonate of ammonia, and from fixed alkali, the alkaline-treatment should be tried, on the nd that urine, very acid when secreted, irritates and inflames the ous membrane, and so causes the alkalinity which is found when urine is discharged from the body.

Under certain circumstances, an abdominal exploration in h of calculus is justifiable when there is nothing to specialise h kidney is the seat of the stone.

If strumous, not calculous, kidney causes the above sym- s, the lumbar incision of the kidney may give great relief, by ding exit to pent-up pus. An exploratory incision, under these mstances, is a very advantageous thing.

Under the circumstances previously stated, digital exploration e bladder, in search of calculus in the ureter, ought to be made; if a stone be found in the vesical orifice, it ought to be removed.

Removal of a calculus impacted in the ureter, by intraperitoneal rotomy, is feasible, and in certain cases ought to be practised.

Exploration of the kidney should not be considered com- till incision of its substance has allowed of the thorough ination of the calyces; and nephrectomy for calculus, in kidneys isorganised, ought not to be entertained until after free incision kidney and digital exploration of the bladder have failed to dis- the calculus.

Exploration of the bladder, in the female certainly and in the generally, ought to be made before nephrectomy is resorted to for nephrotic and pyonephrotic tumours.

A stone in one kidney will sometimes excite sympathetic pain rritation in the opposite one; but this transferred pain is of an g character, not spasmodic or colicky, and it should not deter rgeon from exploring when there is well marked and frequently ing pain in the opposite loin.

Experience suggests that after lumbar exploration of the y the patient should keep on his back, and a well adjusted com- should be placed on the abdomen over the front of the organ ed; as there is, though rarely, a tendency for the kidney to fall from the loin, and delay the completion of the healing of the l.

B. The next subject is the question as to which of the operations should be resorted to in certain cases, and whether any at all should be performed in others.

Of course, there are some cases which do not admit of any such question; but there are several which do, and the question presses for an answer from surgeons engaging themselves in this field of prac- tice.

I do not here allude to the differences of opinion as to lumbar or intraperitoneal nephrectomy. This subject has recently been dis- cussed at the International Medical Congress at Copenhagen, and more recently still at the Royal Medical and Chirurgical Society. Nor do I refer to any difference in the method of performing nephro- lithotomy, because I do not doubt that the almost unanimous verdict is in favour of the lumbar incision. But here I would again suggest that those surgeons who employ the abdominal method should not rest content with an examination of the kidney, but should examine the ureter in all its length besides.

What I have in mind, however, are floating kidneys, wounded kidneys, cancer, strumous disease, and cystic enlargements and disten- sions of the kidney.

In floating kidney, which causes distress enough to justify any operation at all, ought nephrorraphy or nephrectomy to be practised? I venture to say that nephrectomy is not justifiable until nephror- raphy, as well as mechanical appliances, have failed.

In lacerated, punctured, or ruptured kidney, should the injured organ be at once excised, or the loin opened and drained, thus giving nature a chance to repair the kidney, and restore it to a useful workable condition?

This question, I think, must depend upon whether the great blood- vessels, or the peritoneum, are injured or not; also as to the extent of laceration of the renal substance, and as to whether the injured organ is or is not prolapsed through an external wound. The diagnosis and treatment of injured kidney is too large a subject to be fully discussed now; and I must content myself by saying that, if the indications of injured kidney or pelvis of kidney be marked, and the gravity of the case be urgent, an incision should be made down upon the kidney at once, and drainage or nephrectomy performed according to circum- stances. If the injured organ communicate with the surface through a wound in the parietes, we should be guided by the same principles as if the wound had been made by the surgeon. If primary nephrectomy have not been performed, and prolonged and profused suppuration occur, secondary nephrectomy should be practised.

If clots of blood accumulate in the bladder, or be forced into the urethra, and then give rise to obstruction, pain, and such distress as I once witnessed in a case of the late Mr. Hilton, median urethrotomy or lateral prostatotomy should be performed. I well remember this proceeding being discussed in the case to which I refer, and I am sure it would have saved much suffering had it been performed. Dr. Rawdon, of Liverpool, has recently put this treatment to the test of practice, though, unfortunately, at too late a period in the course of the case.

In cancer of the kidney, the question has been asked, Is nephrec- tomy ever justifiable? I think that, in the very early stage, before the lymphatics are involved, *if the growth could then be detected*, nephrectomy would afford a chance of prolonging life, and lessening suffering. In the middle and later periods of the disease, nephrectomy is useless, and, therefore, as it seems to me, unjustifiable.

In strumous disease, nephrotomy will often be found to give relief; and, in cases in which it is not far advanced, the disease may be checked altogether by the operation. In advanced cases, where the kidney has become a large abscess-cavity, or a congeries of smaller abscess-cavities, or where suppuration has been lighted up in the peri- nephric cellular tissue, nephrotomy, followed by antiseptic irrigation and drainage, is still the operation.

Nephrectomy in that form of tuberculous disease in which the kid- ney-affection is but a local manifestation of a wide spread constitu- tional disorder, would be useless, and should not be performed. But, when the strumous disease is limited to one kidney, nephrectomy pro- mises much as a means of prolonging life, and should be performed (but only after nephrotomy has failed) if there be a fear of lardaceous disease occurring from prolonged suppuration.

It is in scrofulous disease especially that the surgeon must be pre- pared for the catastrophe of removing a kidney, only to find, on the *post mortem* table, that the opposite kidney has been destroyed by the same disease. It is in these cases very particularly that we so much need the means of ascertaining the working capacity of the second organ; and it is in these also that the difficulties of so doing are most insuperable.

It is, perhaps, in cases of hydronephrotic and other cystic tumours of the kidney that the greatest divergence in practice has prevailed.

Some surgeons have punctured; others have performed nephrotomy; whilst a few have resorted to, and still recommend, nephrectomy.

I think nephrectomy ought rarely, if ever, to be performed, unless the tumour be of immense size, and nothing of the kidney but a cyst-wall remain. Even then, puncture or nephrotomy should have preceded nephrectomy. Not a few hydronephrotic tumours have spontaneously subsided; several others have completely yielded to a single tapping, or a repetition of tappings; several have recovered well and readily after nephrotomy; and some have gone on well and prosperously for a long time after nephrotomy, with an urinary sinus in the loin.

I would say of renal cysts and of hydronephrotic distension generally, that, as soon as the tumour has reached a size which causes inconvenience by pressure, not to say danger from rupture, it should be tapped; and that, if it refills, it should be cut down upon, punctured, and emptied, and then incised, and the edges of the cyst stitched to the edges of the wound. Under these circumstances, the cyst will collapse and probably close. If a fistula should remain and prove troublesome to the patient, the question of nephrectomy may be considered, and ought to be decided upon chiefly by the characters of the fluid which is discharged. If it be found that the kidney-structure is functionally sound, and secretes several ounces of urine each day, what remains of the organ ought not to be sacrificed without specially strong reasons; for it is safer to possess a healthy kidney and a half than only one healthy kidney.

I have already discussed the subject of opening the ureter in cases of obstructive distension of the kidney from impacted calculus; and I shall be much surprised if the next few years do not give us practical proof of the success of the treatment.

There is one point bearing on the frequency of micturition which has, I think, an importance in relation to hydronephrosis. The anatomy of the vesical orifices of the ureter and neck of the bladder is such that, during contraction of the bladder, the ureteric orifices are kept closed by the small muscles of the ureters. Now, when there is frequency of micturition, these orifices are constantly being closed, and obstruction in the ureters is the result. This, acting together with some other obstruction, such as a calculus, in one or both ureters, becomes an important auxiliary in the production of hydronephrosis. For this reason alone, it is very necessary to stop the frequency of micturition; and, should medicines fail to do so, there remains a most powerful and certain method, namely, median urethrotomy. This should be done, then, both as a means of relieving pain and preventing the increase of the hydronephrosis; but, at the same time, advantage ought to be taken of this opportunity of making a digital examination of the orifices of the ureters, to see if either be blocked by an impacted stone.

c. Much ingenuity has been spent upon instruments and plans for ascertaining the character of the urine secreted by the separate kidneys; and we have here to-night the gentleman who was, I think, the first to devote much labour and thought to this subject. Dr. Tuchmann will, I hope, demonstrate to us his method of closing the ureters. But I do not think he will greatly disagree with me, when I say that all the methods which have hitherto been suggested are either too unsafe, too unreliable, or too little practicable in hands which have not been trained by some hundreds of experiments, to meet with much favour. I would go further, and say I fear this must almost always be the case. The proceedings have about them something necessarily uncertain. If a tendon or nerve be divided, an artery or vein tied, or an organ of sense interfered with, a definite result ensues, whereby we are sure of what has happened. But, in closing one ureter for a few minutes, we have only the relative quantity of urine discharged meanwhile to guide us to the conclusion that one ureter has really been closed, or catheterised; and this, I fear, is but a broken reed to trust.

So far as I can learn at present, we must be content to rely upon the clinical history and course of the case, together with frequent examinations of the daily quantity and quality of the urine. In some cases, the line of research which has been followed by some of the Germans, and by Drs. Thudichum and Ralfe in this country, namely, of ascertaining the proportion which the amount of urea bears to the whole amount of solids passed, is likely to prove of considerable value. In estimating the condition of the kidneys from the amount of urea excreted, it should always be borne in mind that, under a low diet, the excretion of less than one half the standard daily quantity is quite consistent with two healthy kidneys.

In ascertaining the existence of a second kidney, the instruments for closing the ureters may possibly be more useful; because, if no urine at all flowed during their application, a safe inference might be drawn that there was no secretion passing into the bladder from an organ on the opposite side to the closed ureter. But, if allowance be made for cases of congenital malformation and deficiency of the genito-urinary organs—under which state of things it would be always right to suspect a single kidney—there is an intrinsic improbability against either congenital absence or congenital atrophy. Out of 8,068 *post mortem* cases, there were but two instances of congenital absence, and one only of congenital atrophy, of the kidney.

LETTSOMIAN LECTURES
ON
DISORDERS OF DIGESTION: THEIR CONSEQUENCES AND TREATMENT.

Delivered before the Medical Society of London.

By T. LAUDER BRUNTON, M.D., F.R.C.P., F.R.S.,
Assistant-Physician to St. Bartholomew's Hospital.

Lecture III. *(Concluded from page 270.)*

Another cause of imperfect indigestion is fatigue. When we sta on a walk, it does not matter much whether the road be rough or no any little obstacle is avoided with ease, and we thread our way ov rough stones, through tangled heather, or over a quaking bo without difficulty. Our nervous system is in full vigour, and pr serves perfect co-ordination amongst the movements of the differe parts of the body; so that one helps the other, and all difficulties a surmounted. But when we are tired, the case is very different; little roughness in the road will cause us to stumble, and an u expected stone may give us a sudden fall. The wearied nerv system no longer co-ordinates the movements of the various parts the body, so that they no longer work together for a common e The same thing occurs with the various parts of the intestinal can In my first lecture, I described the mechanism by which the acts chewing and swallowing appeared to act as stimulants to the circu tion and nervous system, and thus to ensure the proper co-ordinat between the functions of the mouth, stomach, intestine, and li But, if the nervous system be exhausted by previous fatigue, or bilitated by illness, the requisite co-ordination may not take pl and indigestion or biliousness may be the result. How often do find that the meal taken by a person immediately after a long railw journey disagrees with him, and either causes sickness, or diarrhœa a bilious headache. Forty winks after dinner is by no means a thing; but forty winks before dinner is frequently much better. I often do men who have been working hard all day, with their me faculties continually on the stretch, go home and have dinner fo with. Exhausted as they are, how can they expect to digest prop what they eat? Almost the only saving point is, that many of t live some distance from their places of business, and have a short during the homeward drive to sit still and rest. This is sufficien some, especially for young men; but it is insufficient for elderly and they ought to make a point of having a little rest at home b dinner. Some men, unfortunately, are so misguided as to be that exercise after a hard day's work will do them good; and, in of utilising the little time they have for rest after a day's labour over, they walk three or four miles, or take a tricycle-ride of se more, before dinner. The consequence is that, under the comb mental and physical strain, their digestion is impaired and strength broken down.

Effects, somewhat similar to those of fatigue, may be produce depressing or disturbing mental emotions, or bodily conditions. know how readily excitement of almost any kind will destroy the tite in some people, and depressing emotions will do it in a every case. We not unfrequently hear of girls in whom consum appears to have been brought on by an unfortunate love affai we accept the view that consumption depends upon the presence tubercle-bacillus, we might, at first sight, think that there c little or no connection between consumption and disappointed but the depressing effect of the disappointment will lessen the tion, impair the nutrition, and render the body more likely to a suitable nidus for the bacillus.

Different emotions appear to affect specially, not only di organs, like the heart and intestinal canal, but different parts digestive apparatus. Thus, disgust affects the stomach, c

omiting; fear is seen, in some of the lower animals, to affect the ctum, causing defæcation; compassion affects the small intestine, oducing borborygmi; worry and anxiety, although they act upon e stomach and lessen appetite, appear to have a very special in- ience upon the liver. They sometimes produce jaundice, and not frequently cause glycosuria; indeed, most of the cases of diabetes at one meets with in middle-aged persons appear to originate in orry or anxiety.

In treating cases of indigestion, or its consequences, due to injurious ental influences, the depressing cause must be removed if possible. this cannot be done, change of air and scene, with exercise short of igue, and in the open air, are serviceable. Bromide of potassium, her alone or combined with bromide of ammonium, is very useful, h in lessening the sensibility of the nervous system to worry, and procuring sleep; for, as Shakespeare truly says:

"Sorrow's weight doth heavier grow
Through debt that bankrupt sleep doth sorrow owe."

t is sometimes difficult to distinguish exactly between depression t may be called purely mental, and depression due to physical ses. I have already spoken of the mental depression due to dis- ers of the liver, but disorders of the genital organs are also apt to e rise to mental depression, and to digestive derangements. It is icult to say whether the genital troubles give rise to mental de- ssion through the medium of the digestive system, or whether y disturb the digestion through the emotions; at all events, dys- sia due to uterine and other genital disturbances is not to be over- ed. Uterine dyspepsia presents the usual symptoms of nervous pepsia, epigastric pain, acid eructations, and sometimes vomiting r each meal. The bowels are not unfrequently much constipated. ere, also, the first thing to do is to remedy, if possible, the condi- of the uterus; next, to lessen the nervous excitability by bromides ther sedatives, and to clear out the intestines by means of pur- ves.

e are sometimes too much inclined to regard digestion as a pro- which goes on in the intestinal canal only, and to forget how intimately it is related to the other functions of the body. But annot rightly understand either the pathology of indigestion, or action of remedies, unless we constantly bear in mind the intimate ion which exists between the alimentary canal and the rest of the . In the treatment of indigestion we employ several classes of s, one of which is known as gastric tonics. These consist chiefly getable bitters. There can be no doubt whatever about their ical utility, but it is not very easy to say how they act. They ase the appetite, lessen flatulence, and tend to diminish the dis- ort and languor which are apt to accompany indigestion. It is ble that part of this effect is due to their power of lessening faction; but there can be little doubt that they have other ns which are not yet thoroughly understood. One of the most l of all is nux vomica; and the great benefit derived from its probably due to its stimulating action on the nerve-centres, by the co-ordination of the digestive processes is rendered more t.

other class of remedies is that of carminatives, which tend to se flatulence. Amongst the most powerful of these are ethers olatile oils of various kinds, which probably act by increasing ovements of the stomach and intestines, and altering them in a way as to allow the gases they contain to escape upwards or wards. In addition to these, however, we have other remedies , probably, act in a different way. Charcoal lessens flatulence, generally supposed to do so by absorbing gases in the stomach. e power of charcoal to absorb gas is very slight when it is wet; s it will be wetted by the fluid in the stomach after it has been wed, it probably has but a very slight absorbing effect on the there. It is much more probable that it acts merely as a nical stimulant, and that its use in the stomach is similar to as a tooth-powder in the mouth. In the healthy stomach, the f mucus which covers the lining membrane is very thin; but, ormal conditions, the mucous membrane may be covered with k coating of slimy mucus, which will tend to prevent absorp- The mechanical action of the charcoal will tend to remove ating, and at the same time the friction which it exerts on the s membrane will tend to increase the flow of blood through the ; charcoal will thus aid absorption in a double way, by remov- mucus and by increasing the circulation. If this idea regard- action of charcoal be correct, we should expect that other owders would have a similar action, and this, I think, is the Subnitrate of bismuth, for example, is so insoluble, that it ly acts to a great extent mechanically; binoxide of manganese has a similar action; and cases of dyspepsia are reported which have been successfully treated by the administration of fine sand.

Closely allied to carminatives are stimulants, and foremost among these come alcohols and ethers. Ether, although perhaps the most powerful of all, is used less frequently alone than alcohol; but ethers mixed with alcohol, in the form of wines, are very frequently employed indeed.

The question of the employment of stimulants is one which has been greatly discussed, and which is apt to give rise to much excitement. Some would utterly abolish stimulants of every kind, while others would not only use them, but abuse them.

There is a great deal of practical truth in the definition of dirt as "matter in the wrong place." The white paint which gives brightness and cleanliness to the woodwork of a house, ceases to be clean, and becomes dirt, when it sticks to a lady's dress; and the pipeclay which the soldier uses to clean his belt dirties his uniform. So long as alcohol is in its place, it is beneficial; when it is out of place, it becomes hurtful. The difficulty here is to define the place for alcohol. Some would deny that it has any place at all, and assert that it is utterly injurious at all times, and in all places. But such assertions are valueless; they contradict the common experience of mankind, and defeat their own end by their extravagance. It is no use to deny the existence of facts, for they will continue to be facts, whether we allow them or not. What we have to do is to open our eyes to their existence, and regulate our conduct accordingly.

The question of the general use and abuse of alcohol is far too large to be entered upon here, and I have already considered it at some length in a paper which I read before the Society, and which received its approval ("The Physiological Action of Alcohol," *Practitioner*, vol. xvi, pp. 57 and 118), as well as in others which I have written subsequently ("The Alcohol Question," *Contemporary Review*, vol. xxxiii, p. 691; "The Influence of Stimulants and Narcotics on Health," *The Book of Health*, Cassell and Co.) The substance of the opinion which I have always held is, that so long as a man is young and healthy, he does not require alcohol, and is better without it. I think it better in every way for people to abstain entirely from the use of alcohol until they reach the age of manhood.

I do not think it a sin to use alcohol in moderation as a luxury, provided always that it be used in moderation, not only for the individual, but for the individual at the particular time at which it is taken, for what is moderation at one time would be excess at another.

In my first lecture, I described the advantage that I had derived from a good dinner with plenty of wine. I partook freely both of the food and of the wine, yet I did so in what was moderation for me on that particular occasion. I was exhausted with overwork, and depressed by the effects of a cold, and neither the food nor the wine caused undue excitement at the time of dinner nor injurious effects afterwards. Had I repeated this dinner frequently—let us say every night, twice a week, or even at longer intervals—or had I even taken it when in health, the quantity of food and wine—which was moderate for me at the particular time when I took that dinner—would have been excessive, and I should probably have suffered accordingly.

In regard to the use of alcohol in dyspepsia, I think St. Paul's advice to Timothy is very good: "Drink no longer water, but use a little wine for thy stomach's sake, and thine often infirmities." It is not the young and strong who require wine, but the infirm and the aged. In very many cases, attention to the rules given in regard to rest before dinner, to mastication, and to the quantity and quality of food, will do away with the necessity for any additional stimulus to the stomach in the way of alcohol. But I think there can be no doubt that, even when all these things are attended to, there are some persons who are the better for a little wine at dinner. These are generally, as I have said, either elderly, or a little below par. When I say below par, I mean in reference to their surroundings; for some of them may be very much above their fellow men, physically or mentally, and yet be below par in reference to their work, or to the surroundings which put upon them such a heavy strain that they require some additional stimulus to help digestion.

It is impossible to lay down a rule for the quantity necessary, for this will vary not only with every individual, but with the individual at different times. The stimulant which is most generally useful is probably claret. With some persons sherry does well, but with others it is apt to cause acidity, a good deal of the difference being due to the kind of sherry, or so-called sherry, used. In most severe cases of dyspepsia, brandy and water, or whisky and water, usually agree better than wines of any sort.

The methods we have considered hitherto in regard to the treat-

ment of dyspepsia have had reference to the increase of assimilation, to the way by which we may put more fuel on the furnace of life; but the question we have now to consider is—how are we to remove the ashes, the products of waste which would choke the fire and extinguish the life? The combustion necessary to functional activity takes them in the organs themselves, and not in the intestines; and it might be more correct to consider tissue-change, and the action of drugs upon it, before we discuss the drugs which act on the intestine; but, from another point of view, the latter is, perhaps, the more convenient. The next class of drugs acting on the intestinal canal which we will take up is that of purgatives.

It is evident that a regular action of the bowels is important, not only by removing the indigestible residue of food, and thus preventing fæcal accumulation, but by getting rid of some injurious products which have been formed during the process of digestion. It seems strange that one so frequently finds headache as the result of slight constipation, lasting perhaps only for a few hours; whereas, in constipation lasting for weeks, it may be entirely absent. This observation seems to me to afford additional support to the hypothesis I have advanced, that headache is due, in part at least, to poisonous products formed in the intestine and absorbed from it, for Brieger noticed that it was only in the first stages of albuminous decomposition that alkaloids were formed, and afterwards these seemed to disappear. In constipation, it seems not unlikely that poisonous substances are first formed and absorbed, but that they afterwards become either decomposed or excreted by other channels, and thus the effect which they at first produced afterwards diminishes, or disappears entirely. We find persons in whom a movement of the bowels takes place at very long intervals, and I have met with several such cases. During the time I was Casualty Physician at St. Bartholomew's, I must have seen 100,000 patients, reckoning that I saw each patient on an average three times. At first, I was accustomed to ask the question, "Are your bowels regular?" but I afterwards gave this up, because I found it was ambiguous. One day, I asked this question of a young woman, and she answered, "Yes, sir." I then asked, "How often are they open?" and she replied, "Once in three weeks, sir." Her answer to my first question was perfectly correct, for her bowels were regular, but the term regularity conveyed a different meaning to her and to me. This was an exceptional case, but I met with a number whose bowels were open only once a fortnight. In one case, they were only open once in three months, and the patient objected to take any laxative medicine whatever, as this was her normal condition. Such cases of constipation, occurring without any marked injurious result, are generally due to the fact that the patients live almost entirely upon food which leaves little or no indigestible residue, and which contains no excess of nitrogen. Most of the cases which I have seen were women who lived chiefly upon bread and butter, with a little tea, sugar, and milk, the greater part of which would be entirely digested and absorbed, passing off as carbonic acid by the lungs, and as urea by the kidneys. In most cases, however, especially among people who are better fed, constipation of this sort is likely to be followed by very injurious results. Where the bowels are habitually constipated, a most useful thing is to give a small aloetic pill before the last food of the day, dinner or supper, as the case may be. This slightly increases the peristaltic movements of the stomach and intestines, which would naturally be induced by the food itself; and the use of such pills may be continued for very many years together, without the least impairment to the general health. There are fashions in purgatives, as well as in anything else; and among the fashionable purgatives at present are the saline natural waters, or the salts obtained from them. These are best given the first thing in the morning, and should be either warmed or given along with warm water. When crystallised salts are used, such as Carlsbad salts, the quantity of water taken with them is of considerable importance. One-third to a half a teaspoonful of the salts, in a large tumblerful of hot water, is usually sufficient to produce one loose motion immediately after breakfast; but a larger quantity of salts with a smaller quantity of water often causes abdominal disturbance, discomfort, or even pain, with several small motions at intervals throughout the day. Where evacuation of the bowels only is desired, the saline solution may be taken at a single draught; but when we wish it to act upon the liver, it should be taken in sips during dressing.

It is a matter of common observation that cases of hepatic disorder are benefited by a visit to Carlsbad, although Carlsbad salts or water have been productive of little benefit when used at home. But then they are used in very different ways at home and at the spring itself. In Carlsbad, the patient rises early in the morning, and promenades before breakfast, to the sound of music, for an hour, slowly sipping the water at intervals. I have already mentioned the powerful effect of sipping upon the heart, but it has also an effect upon the liver. It has been shown that water, slowly sipped, not only increases the amount of bile secreted, but causes it to be secreted under higher pressure, so that, if any slight obstruction should be present in the bile-ducts, it will be overcome, and the bile will flow freely into the bowel.

It so happens that pharmacology, or the study of the action of drugs, takes us deeper into the secrets of the body than pure physiology or pathology; and I must now touch upon one cause of biliousness which I omitted before, namely, alteration in the condition of the bile itself. In a previous lecture, I discussed the effect on the vessels of the liver which might be produced by substances absorbed from the intestine; and I mentioned, in relation to it, the possible action of alkaloidal compounds formed in the intestine. I did not discuss the possible action of such compounds on the nature of the bile secreted, yet I believe this to be a very important condition indeed. We observe two kinds of biliousness, or rather, perhaps, I ought to say, biliousness with two different conditions of biliary flow. In the one kind, the stools are clay-coloured, from the absence of bile; in the other, the stools are either normal or are dark coloured from excess of bile. Now, certain bodies belonging to the aromatic series have a very remarkable action upon the secretion of bile. Salicylate of soda is a powerful hepatic stimulant, not only greatly increasing the quantity of bile, but rendering it much more watery than before. Other substances of the aromatic series, especially toluylendiamine, on the other hand, greatly increase the quantity of solids in the bile, and, indeed, do so to such an enormous extent that the bile becomes so thick and viscid that it will no longer flow through the biliary capillaries, and jaundice is the result. Before it has become so thick and viscid that it will not flow at all, a part of it may escape into the intestines, and give to the fæcal masses a very dark colour. We do not yet know whether a similar action on the liver is exerted by substances—we may, perhaps, say poisons—formed during the process of digestion in the intestine. If such substances be formed, their formation may be consequent on something wrong in the food which had been taken, or on some disturbance of secretion or absorption, or may be due to foreign organisms having been taken into the intestinal canal, and having produced there abnormal decomposition. Every now and again we find a number of people living in the same house suffering from jaundice, without any cause that we can discover; but probably it is due to their either having partaken of injurious food, or having been exposed to injurious influences, especially to the ingestion of microzymes.

There can be no doubt that a blue pill and a black draught, or a few grains of calomel, have a most beneficial action, not only upon the stomach, where Dr. Beaumont was able to see the morbid changes disappear under their influence, but upon the body generally. The benefit thus obtained is usually ascribed to the cholagogue effect of the mercurial, sweeping bile out from the body before time has been allowed for its reabsorption. Probably this is, to a great extent, a correct explanation; but recent researches render it not improbable that mercurials have another action, namely, an antiseptic one, in the intestinal canal, and that a good deal of the benefit derived from their use is really due to their preventing the formation of injurious products. If the hypothesis I have advanced be correct, that the bile is sometimes rendered thick and viscid by the action of certain products of digestion upon the biliary secretion, we would naturally expect that anything which will assist the bile to flow through the ducts into the intestine will be beneficial.

Lord Palmerston very truly remarked that "the outside of a horse is the best thing for the inside of a man;" and a brisk ride in the morning is better for most people than any amount of mercury or salts. It is not merely that the person gets exercise, for a considerable walk will not have a similar effect. It is the kind of exercise the liver being mechanically compressed, during riding, by the diaphragm on the one hand, and the abdominal muscles on the other, so that bile is actually squeezed out of it. Where riding exercise cannot be had, rowing, or even its imitation in the gymnasium, has a somewhat similar action; and when people are unable to get exercise at all, massage over the liver will tend to lessen the accumulation of bile within the ducts.

Closely connected with cholagogues and hepatic stimulants is another important class of drugs, namely, alteratives.

We are only beginning to have some vague idea of how drugs which belong to this class. Nitrohydrochloric acid is a favourite remedy, and a very useful one in biliousness. We cannot yet say precisely how it acts, but it no doubt does affect the tissue-change in the liver. The reason for supposing this is that acids—nitrohydrochloric among others—appear again in the urine in the form of ammo

ılts, and the ammonia with which they are combined appears to be ıe representative of so much nitrogenous waste, which, instead of ·ing converted into urea in the liver, has combined with the acid, ıd been excreted as ammonia. This indicates that acids act upon ıe liver, although, as I have just said, we do not yet understand ıeir precise mode of action. Clinically, however, we find that nitro-ydrochloric acid is exceedingly useful in persons who are troubled ·y eructations of sulphuretted hydrogen; and it not only removes ıe taste of rotten eggs which is so disagreeable, but lessens the de-·ession of spirits which frequently accompanies this form of dys-·psia. It is also useful in oxaluria and depression of spirits, even hen no disagreeable eructations are present. Ammonia also has a ·werful action on the liver, and chloride of ammonium has been rongly recommended in hepatic disease. It is only within the last ar or so that we have learned anything definite about the action of ımonia on the liver; but it has now been shown that ammoniacal lts increase the formation of glycogen. Our knowledge of altera-·es, at present, consists only of a few isolated facts, but, before long, may hope to have a more perfect understanding of their mode of ·ion, and, consequently, be able to apply them more successfully in ·ease.

Another class of remedies which are also useful in indigestion is ıretics. Although these have no very direct action on the intestinal ıal itself, they not only alter tissue-change in the body, but affect ·e nervous system, through which the digestive processes are co-linated. In some cases of gouty dyspepsia, large quantities of hot ter are exceedingly useful, both by relieving the dyspepsia itself l by getting rid of any urinary irritation. The diuretic action may increased by the addition of alkaline salts; and effervescent citrate tartrate of potash is useful both as a diuretic and as a local sedative the stomach in neurotic or gouty gastralgia.

By the frequent use of water as a diluent, either alone or with ·nes, the consequences of indigestion in regard to the lungs, heart, l head, may be often averted or remedied. Asthma occurring in ·ty subjects is, perhaps, best treated by a mixture of bromide and ·ide of potassium; and the addition of a little arsenic is said to in-·se its effect. In cases of intermittent pulse, bromide of potassium frequently very useful, though one of the best remedies for it ·ne which, I believe, was prescribed by the late Dr. Warburton ·bie, consisting of two grains of powdered rhubarb, ten of sub-·ate of bismuth, one and a half of nux vomica, and three of ·pound cinnamon-powder. This should be taken before meals; , if there be much acidity, ten grains of bicarbonate of ·, or of magnesia, may be added to it. It may be given ·er in water, or, what is perhaps more pleasant, wrapped in a ·r and swallowed along with a little water. Giddiness, as I have , frequently takes the place of headache in persons of middle age ·ring from biliousness, and both headache and giddiness are fre-·tly connected with disorders of vision. The most common causes ·eadache, indeed, are decayed teeth and inequalities of vision. ·re the teeth are decayed, rinsing the mouth out with a lotion of ·rbonate of soda, or applying a little cucaine to the exposed pulp, relieve the headache, and especially if combined with the use of a ·e purgative. In many so-called bilious headaches, the eyes, as I ·e mentioned, are very tense, and tender on pressure. Such head-·s are not unfrequently relieved by the use of small doses of sali-·te of soda, half a grain in an ounce of water being taken every ·ter of an hour or half an hour. How this acts, it is impossible at ·nt to say; for, though it possibly acts on the eyes themselves, its ·ty may also be due to its action upon the hepatic secretion. In-·lity of the visual power in the two eyes is an exceedingly common ·e of headache; and I have sometimes found that a sick headache be arrested, even after the well known zigzags have become visible, ·utting on a pair of spectacles which will equalise the eyes; or, ·aps even better, it will overcompensate the weak eye, and throw ·strain upon the other.

speaking of the disorders of digestion, I have left to the last ·of the most important methods, and one which sometimes gives ·ts little short of miraculous. This method was first introduced ·e profession in America and England by Dr. Weir Mitchell, in ·book on *Fat and Blood, and How to Make Them*, but in this try it obtained little notice, until it was taken up by Dr. William fair. It consists essentially in passive exercises and abundant ·ng. We all know how active exercise increases the appetite. ·e-change goes on more rapidly in the organs, waste is more ·dantly excreted, and more food is eagerly sought for. But there ·nany feeble flabby persons who cannot take exercise, or if they will not. Moreover, there are others who are quite willing to ·ise the voluntary muscles of the limbs, but cannot exercise the involuntary muscles of their internal organs. Now, treatment by massage helps both of these. It increases the nutrition, both of the voluntary muscles and of the internal organs; and under its use patients, apparently hopelessly incurable, completely recover. Dr. Playfair has had, moreover, success with cases of hysterical women; but I have been most struck with the success of the treatment in the case of a man in whom all medical treatment had proved useless. This patient, whom I first saw about two years and a half ago, in consultation with Dr. Image, of Bury St. Edmunds, was a very tall powerfully built man, who had been accustomed to outdoor life, and much active exercise. He had at one time suffered from asthma, but this had left him, and he became liable to attacks of pain and vomiting. I was inclined to look upon the case as one of neurotic dyspepsia, but other physicians, who had been consulted, both in this country and on the continent, regarded it as tubercular peritonitis. For two years he continued to become more and more emaciated, until at length he was reduced to the appearance of a living skeleton. Only once in my life do I remember seeing a man so thin, and that was a person who was exhibited in a show. Dr. Playfair was at first doubtful about undertaking the case; but as Dr. Image and I were anxious that he should do so, he kindly agreed, and in the course of eight weeks our patient was a different man. Under the use of massage and forced feeding, his muscles enlarged, until now he might perfectly well join a Highland regiment, and wear a kilt, without being ashamed. His muscles, which had almost entirely disappeared, have not only become of a normal size, but they are as hard as pieces of wood; and from being a simple skeleton, he is now a well developed man.

From the hasty sketch that I have given of the disorders of digestion, their consequences and treatment, in these lectures, it will, I think, appear that, although our knowledge of the subject is still very imperfect, a large number of observations have been accumulated, which we may hope will, before long, enable us to understand the pathology more fully, and treat these disorders more perfectly.

AN ADDRESS
ON
MEDICAL REFORM.

Delivered at the Annual Meeting of the Dublin Branch.

By LOMBE ATTHILL, M.D., F.K.Q.C.P.,
Ex-Master of the Rotunda Hospital; President of the Branch.

Dr. Atthill, having thanked the members of the Branch for the honour done him in electing him President for the ensuing year, and having referred to the flourishing condition of the Association in Ireland, and specially of the Dublin Branch, proceeded to say:

Just two years ago, this hall was the scene of an animated discussion on the subject of medical reform; and, after a debate which extended over three days, the Branch, by a large majority, decided in favour of an amendment moved by me, to the effect "that the policy of the parent Association in reference to medical reform should, in principle, be supported by this Branch." I regret to say that as yet nothing definite has in this matter been accomplished; the difficult question of medical reform remains as unsettled as ever.

During the past year, a Bill was wellnigh carried through both Houses of Parliament, which, reformer as I am, I must still declare to have been ill digested, unfair to most, if not all, of the medical corporations in the United Kingdom, and defective in some points of vital importance; and I most heartily rejoice that that Bill did not pass into law. If we are to have legislation for the medical profession—and it is much needed—you will, I think, agree with me, that it should be based on two great principles; namely, first of all, to secure the maximum amount of good to the general public, and next, to inflict the minimum amount of injury on the medical corporations, which have, during a long lapse of time, done much good work, and which still, with only one or two exceptions, fulfil their duties honourably, efficiently, and for the public good.

I will ask you to consider what the object to be gained by any medical legislation should be. Is it not primarily that notoriously incompetent men be excluded from the profession? Not that, by their exclusion, we, who have obtained admission, may be bettered, but that the public, and especially the poor, should be protected from the injuries which are, under the present system, inflicted on them;

for, under the present system, the law declares the holders of all registrable qualifications to be on a par, equally eligible for public appointments, and therefore equally entitled to public confidence; but it is notorious that at least one or two of the licensing bodies are so lax in their requirements, that men rejected as being dangerously ignorant by one set of examiners pass the examination at another place, a few days subsequently, and return legally qualified practitioners. Many of these dangerously ignorant men obtain public appointments by the force of interest, and to them the lives of thousands of the poor are entrusted. A monstrous injustice is thus inflicted on men of superior fitness, and a far more monstrous wrong on the public, and specially on the poor, who have no means of securing better advice. The first step, then, in any medical legislation should, without doubt, be the rendering the examinations of every one of the licensing bodies as efficient, and as nearly equally so, as possible. By equal, I mean that the curriculum of education should be the same, the mode and standard of examination identical, and the fee, if possible, equal in amount in all cases.

The Bill of 1884 would not have effected this. The regulations for the examinations to be held in each of the divisions of the United Kingdom were to be drawn up by the local boards elected by the licensing bodies in England, Scotland, and Ireland respectively; and there was not alone no guarantee for equality of curriculum and examination, but an almost absolute certainty that they would vary in each case. The old evils would therefore have remained, though doubtless in a modified form.

Then, while thus failing in the fundamental principle of protecting the public, by preventing inefficient and ignorant men from being placed on the *Register*, and possibly being elected to positions of responsibility, the Bill seemed to me to inflict the maximum amount of injury on the licensing bodies. It is obvious that the *prestige* of the medical corporations, and in some degree of the universities, would be lessened by the establishment of any boards, such as those proposed by the Bill—that is an unavoidable effect of any such proposal; but the injury would have been lessened, had the surplus funds which might have remained after paying the expenses of examinations, etc., been handed over to the medical corporations, in proportion to the average number of candidates admitted by each, during, say, the previous five years; while, again, the just claims of the medical corporations were sacrificed to the demands of the universities for a preponderating influence on the divisional boards, to which, certainly, they are not entitled.

With these glaring defects in the Bill, it is not surprising that the Government encountered such opposition as to compel them to abandon it, and thus the hope of an equitable settlement of the question was indefinitely postponed, and most sincerely do I hope that no such Bill will ever become law.

I could easily criticise, at length, the details of this Bill, and of those which during the last few years have been introduced into Parliament, but it would be a tedious and uninteresting task. Let me, however, express my regret that the one introduced by Lord Ripon in 1870 was not accepted by the medical corporations; for I am convinced that, had they co-operated with him, and, while accepting the principle embodied in it had confined their efforts to amending some of its details, an Act would have been passed which, while giving sufficient protection to the public, would have been infinitely more favourable to the corporations than any Bill which is likely to be hereafter introduced by Government.

The main feature of that Bill was the establishing a compulsory conjoint examination, to be conducted by the licensing bodies in each division of the kingdom, the rights of the various universities and medical corporations being interfered with in the least possible way. I believe I am safe in saying that last year each and all of the licensing bodies, at least in this country, would gladly have accepted such a Bill, could they have had it substituted for the one we all joined in opposing.

But we should learn a lesson from the past. Hitherto, as each Bill has been withdrawn, the medical corporations relapsed into a state of apathy, not to arouse themselves till another Bill was introduced which threatened to injure them, or, as last year's one did, to extinguish them. It is quite useless to suppose that because that Bill, like its predecessors, failed to become law, we are safe from legislative interference in the future. A reprieve has been granted; but of this be sure, that the defects of the existing system, under which twenty licensing bodies compete against each other, are too glaring to be left for long alone. We, if we be wise, will take advantage of the lull, and try if we cannot meet the next attempt at medical legislation more united than before, or, what would be still better, originate a Bill ourselves. Is it impossible that the leading medical corporations of the kingdom can ever be so far brought into union, as to be ab to formulate certain points which, while removing the grave defec which at present exist, would save these old and valuable corporatio from destruction? I cannot conceive a greater injury, alike to t public and the profession, than the destruction of the influence whi the Colleges of Physicians and Surgeons exercise over their membe and licentiates in each of the divisions of the kingdom. I am n now alluding to the educational aspect of the question, but to the go they do by binding their licentiates together, and by the fact th they form, as it were, courts of censors, which constantly exercise salutary supervision over them. It will be a bad day, alike for t public and for the profession, when this influence ceases to be felt. Th is one of the grounds on which I base my objection to the propo that the universities should have a preponderating influence over t corporations on the divisional boards. The graduates in medicine any of the universities form only a moiety, sometimes only a sm moiety, of all their graduates: once these have obtained their degre they are free from all control or supervision on the part of th Alma Mater, which, however they may respect, they cannot fear, a to whose censure, were it ever expressed, they would be perfec indifferent.

The cry for medical reform has come from the ranks of the prof sion and not from the public, who seem indifferent about the matt but, in my opinion, the medical corporations are in fault in not t ing the initiative, and guiding the movement instead of being dri by it. Unfortunately for the profession and for themselves, they too conservative; and I greatly fear that, in the near future, un they bestir themselves, and assume their proper positions as guiding hands in the movement, they will be virtually extinguish as nearly happened last year. There is yet time to avert suc catastrophe; let us hope that they will not, by their inflexibility obstinacy, allow destruction to overtake our time-honoured in tutions.

In this division of the United Kingdom, an obvious step of g importance should be promptly taken. A conjoint examina should be held by the Colleges of Physicians and Surgeons of Irela More than twenty years have elapsed since I first advocated this in my place as a Fellow of the College of Physicians. Attempt a attempt has been made since then by the advocates of this reform both colleges, as yet without success. For a long time, the Colleg Surgeons could not be brought to agree to a reasonable compro last year, however, the matter looked promising; and now, as it pears to me, but one or two points of very minor importance re to be settled. I trust this may yet be effected, and that an arra ment, so obviously desirable, may be speedily carried out. I already indirectly blamed the Council of the College of Surgeons formerly obstructing the proposal for a conjoint examination. I I must add, as a matter of justice to them, that my own col within whose walls we this day are assembled, is now hardly from blame.

But though I earnestly advocate a conjoint examination, it not be supposed that I consider it more than a step—doubtless a important one—towards medical reform; that, in my mind, shoul clude a compulsory conjoint examination for each of the three sions of the kingdom, with the same curriculum of education fo students, and the presence of one or more assessors at each exa tion, who should, of course, take part in it; their presence wou much to keep up an equality of the standard of examination in division of the kingdom, while their number would be too few to a stereotyped form, the danger of which would be lessened further by arranging that the same men should not hold office lengthened period. Some such Bill, if supported by the m corporations, would probably pass; but what hope have we twenty licensing bodies joining to promote such a scheme wh see that two colleges in the same city, in no way in rivalry with other, cannot agree on the terms for holding a conjoint examin Indeed, one is almost forced to think that the old Latin pr "Quos Deus vult perdere prius dementat," is applicable to our cal corporations.

If the proposal, formulated in Lord Ripon's Bill, for a conjoin mination, be rejected in consequence of the impossibility of g the twenty licensing bodies to agree, there is an alternative pla which, in my opinion, has many advantages, and which they n and certainly ought, to join in promoting. I allude to the s which exists in Germany, where a person, desiring to practise cine, must pass an examination conducted by the Government, dition to the university examination. There, the student first his university examination, and obtains his degree, but he is ine for any public appointment; indeed, I believe, is not allowed t

se till he passes the Government examination also. This system is, as ou are well aware, already in force in this country, so far as the my and navy medical services are concerned; and, I would ask you, hy should it stop there? The State must have satisfied itself that the grees and diplomas in medicine and surgery, granted by the various iversities and colleges, are not always satisfactory proofs that the lders of them are competent men; otherwise, it would never have one to the trouble and expense of holding special examinations to st the efficiency of candidates who wished to enter into the medical partments of the army and navy. Why should not the State take ual care of, and show equal anxiety about, the health of the civil pulation? It is impossible for the Government to escape from the rns of the dilemma on which they are fixed, for they must either mit that the examinations to which candidates for the army and vy medical services must submit, are vexatious and unnecessary, or at while they take care to exclude incompetent and ignorant men m having the charge of soldiers and sailors, they are indifferent to e injury to which the sick poor in our hospitals, workhouses, poor- unions, and gaols are being constantly exposed, from the possibly quent, and certainly occasional, election of incompetent men.

The German system has much to recommend it. It would leave the iversities and medical corporations as free as ever. Indeed, I lieve it would tend to improve their examinations, and to raise the ndard of education, for the disgrace which would attach to having eir graduates or licentiates rejected by the Government Board uld render them careful not to pass incompetent men.

The only objections which can validly be urged against this system : that it would entail additional expense on the candidate, and in ne degree protract his term of study.

But neither of these objections is of real weight; the cost of the te examination should not exceed a sum sufficient to cover its ual expense; the certificate, if given at all, should be issued free charge; but the mere placing the name of the successful candidate the *Medical Register* would suffice all purposes, and, indeed, would, hink, be the better course. As to the objection that the period of dy would be lengthened, this could only be to the extent of the erval which must necessarily elapse between the date of his obtain- his degree or diploma and that at which he could present himself ore the Government Board. This need only be a brief one; but, u were it longer, the protracting of the period of study would, in opinion, be a positive gain, in the great majority of cases, to the ividual; for the period allotted to study is far too short. I ask one of you, is it possible that any young man can attain in ut three years, as he is at present supposed to do, a competent wledge of medicine, surgery, midwifery, and materia medica, not mention anatomy, chemistry, botany, physiology, pathology, etc., h as to render him a fit person to whom the lives of his fellow n may safely be entrusted? And would not an enforced lengthen- of the period of study be a positive advantage to him, no less than hat of the sick poor who may come under his care?

he question is frequently asked by those of the public who think ll about medical reform, How does it happen that the medical orations have not taken any steps to lessen the abuses which they it exist under the present system? There can be but one answer; medical corporations fear that legislation will interfere with their ileges, and therefore will not make any move. The cry for medical m comes from the profession at large, who are naturally more ious for direct representation on the Medical Council, and for the ting increased powers to it, than for the welfare of the corpora- s. This state of things leads me back to the point I have already avoured to impress on you; namely, that if the medical corpora- s are to be saved from virtual extinction, they must come forward nselves, and take the initiative in formulating a Bill and guide movement. Medical reform may be delayed for a time, but come er or later it must. We are about to enter on a new political era; rliament far more democratic than any previous one will soon be ed. Democracies are always arbitrary; they have but scant re- t for old and time-honoured institutions; and I fear, in a very ears, the medical corporations, if they be not wise, will virtually e to exist.

ree years ago, my friend Dr. G. H. Kidd, who then filled the which I now occupy, delivered a very able address on the sub- of medical reform, the tendency of which was to deprecate any ge in the existing state of things; and, towards the conclusion of e argued in favour of an unlimited and unfettered competition be- n licensing bodies; and instanced, as an example of the good to fected under such a system, the condition of the medical profes- in America, where degrees or licences are obtainable, with very difficulty, from an almost unlimited number of bodies. At the time, I was somewhat surprised at the state of the profession in America being held up as an example to be imitated; for, though well aware that men of the greatest mental culture and of the highest attainments adorn its ranks, I have over and over again heard well informed Americans lament the deplorably low standard of education which exists among a very large number of the practitioners throughout the States. But mark what is going on there now. Why, medical reform is not alone demanded, but it is becoming a burning question, the tendency of opinion being in favour of the adoption of the system in force in Germany, the very alternative to which I have just now been alluding; indeed, a Bill has been prepared, and has, I believe, ere this been introduced into the Legislature of Pennsylvania, which, if passed, will establish the German system in that State.

The fact is, that the system at present in force here is a relic of the past, when the difficulties of travelling were so great that numerous centres, not alone for medical education, but also for the purposes of examination, were absolutely necessary; but now that the telegraph and railroad have all but annihilated time and space, some modification of it becomes absolutely necessary to prevent the incompetent student, when rejected at one place, from passing on to another where the examination is easier, and thus obtaining a qualification, which, though manifestly inferior, is by the law placed on a par with that obtained by the carefully trained and highly educated man.

To one other matter connected with medical reform I shall briefly refer. I allude to the constitution and functions of the Medical Council. That there should be representatives of the Crown and of the corporations on the Council is just and obvious, but that there should be none other I consider most unjust; and, therefore, I believe that the claim for the direct representation of the profession on the Council must be admitted, and that it must form a part of any scheme for medical reform which may be submitted to Parliament. Indeed, I believe that had this been done, and had powers been given to the Medical Council to enforce its "recommendations" as to curriculum of education and examination, much good would have been effected; but, as matters stand at present, the functions of the Council are rendered abortive, and, indeed, save for the issuing of the *British Pharmacopœia*, it has effected well nigh nothing; for I look upon the registration of medical practitioners as being of very doubtful advantage, seeing that it has virtually done little more than place the highest medical degree or licence on a par with the lowest.

An example of the inutility of the Medical Council, as at present constituted, is afforded by the fact that their "Recommendations" are practically disregarded by the licensing bodies. Thus, in their existing "Recommendations," they require "that the age of twenty-one years shall be the earliest age at which a candidate shall obtain a licence to practise, and the age shall in all cases be duly certified." One would suppose that this recommendation, so obviously right and proper, would have met with a ready acceptance; but, in point of fact, it is only enforced by a few of the licensing bodies. It was for some time enforced by the King and Queen's College of Physicians; but they were obliged to cease doing so, as it was proved that candidates to whom permission to be examined was refused by the College on this ground, were permitted to present themselves without question elsewhere. A stronger proof of the necessity of putting an end to the competition which exists among the licensing bodies than this, can hardly be brought forward, while it illustrates the utter inutility of the Medical Council to effect good, or to initiate any improvement in medical education.

I have dwelt at some length on the subject of medical reform, and of what should be the tendency of medical legislation, because I am satisfied that, though, from the pressure of great political events, there is at present a lull, the subject will ere long come again to the front; and I would fain hope that, when the question again arises, wiser counsels and more unity of purpose may be found among our medical corporations; and the more the subject is calmly discussed, the greater the hope that such may be the case.

But, though wise legislation is to be desired, it by itself can do but little to elevate the profession. The most it can effect is to raise the general standard of education, and to exclude from the *Register* half-educated and ignorant men; but no Act of Parliament, nor compulsory standard of education, can give lustre to our profession, nor will it ever add one name to the long roll of illustrious men who have ennobled the science of medicine. To effect that, careful training during the period allotted to study, and subsequent self-culture, are needed. The want of careful training is the great defect of the present day. This was well put by Professor Hamilton, in his address delivered in this hall last year. "Under the apprentice-system," he says, "we had training with very little teaching; under the lecture-system, we had much teaching, with little or no training." All this,

I heartily endorse. The worst feature of the present system is, that it produces men, so imperfectly educated in a vast number of subjects, and at so high a pressure, that the majority seem incapable of pursuing a steady system of self-culture, after they have obtained their degrees or diplomas; and, without this, hope there is none of their becoming efficient practitioners. Without self-culture, and the thoughtful investigation of the clinical facts which come under the observation of the young physician, advance in the true knowledge of his profession is hopeless; and medical reform, be it ever so carefully planned, will, when obtained, be but a barren victory.

ON THE SOURCES AND THE EXCRETION OF CARBONIC ACID IN THE ECONOMY.

Read at the Section of Anatomy and Physiology at the Annual Meeting of the British Medical Association, in Belfast.

By J. J. CHARLES, M.A., M.D., D.Sc., F.R.U.I.,
Professor of Anatomy and Physiology, Queen's College, Cork.

Not many years ago, it was a general belief among physiologists that the generation of carbonic acid occurred chiefly in the lungs, owing to the direct oxidation of part of the carbon contained in the blood; and, accordingly, the lungs were regarded as the chief, if not the sole, centre for the production of the animal heat. Respiration, in fact, was described as a combustion-process occurring in the lungs, a process with which the rest of the body was not in any way directly concerned, except, perhaps, in supplying to the blood some of its effete carbonaceous material to be burnt up in the course of respiratory oxidation. Chemical and physical investigations, however, have caused this view to be discarded. It has been found, for example, that the venous blood going to the lungs contains a large quantity of carbonic acid, and is absolutely warmer than the blood leaving the lungs, as has been proved in the case of the blood in the right and left sides of the heart respectively; the blood, moreover, which leaves the liver and other glands when in a state of activity, has been shown not only to possess a higher temperature, but also to be richer in carbonic acid than the blood entering these organs.

In short, the temperature of the blood, according to Claude Bernard's and Korner's observations, is highest in the liver, that of the blood in the hepatic vein being, on an average, 0.7° Cent. to 0.9° Cent. higher than that in the portal vein; and the next highest temperatures have been noted in the blood flowing respectively from the brain, the salivary glands, and the muscles, particularly when these parts are in an active condition. It is true that Heidenhain (*Physiologie*, von Dr. L. Hermann, Band v, theil 1, s. 274) has arrived at results differing somewhat from those of Bernard, for he finds that the blood of the liver has a temperature not exceeding that of the blood of the spleen, or of other abdominal viscera; yet there is no doubt about the temperature of the blood from the liver being high as compared with that of the blood from the lungs, muscles, etc.

What, no doubt, has greatly tended to direct so much attention to the importance of the tissues in respiration, has been the result of the investigations of the properties of protoplasm in the simplest forms of animal life. The primitive amœba has been shown to absorb oxygen, and give out carbonic acid; and the natural inference is, that all tissues containing protoplasm act after a somewhat similar fashion. The closest attention has, therefore, been directed of late to the minute chemical changes occuring at the tissues themselves; and, accordingly, we find Liebig, Matteucc, Valentin, and Hermann pursuing their investigations directly upon living muscles that had been removed from the animal body, and enclosed in tubes inverted over mercury; Ludwig and Schmidt analysing the blood before and after it had passed through the living and active muscles of the animal so as to detect its alterations; and Hammarsten investigating the gases of the lymph with the same object in view.

In the case of secreting glands, likewise, observations have been made upon their recent secretions, as well as upon the changes effected in the blood during its passage through them. The saliva, bile, urine, and the like normal fluids result directly from the action of the histological elements of the secreting tissues, and are, therefore, more immediately influenced thereby than can be the lymph or blood flowing through the same tissues; but by investigations on the secretions, as well as on the lymph and blood of the tissues, we obtain not only the quantity of the gases in the tissues, but likewise their tensions.

The importance, indeed, of these investigations into the gases of the secretions is very great; for, by their means, much light is thrown upon the seats of the oxidation processes in the economy. By a ve simple experiment an example of this oxidation, with the concurre disappearance of oxygen, and the possible formation of carbonic aci may be satisfactorily demonstrated. If we examine with a spectr scope, in a dark room, the red coloured light that passes between tw of the fingers held together in front of a good lamp, the spectrum oxyhæmoglobin will show itself. If, however, we apply a ligature the fingers close to the palm, in order to prevent the entrance fresh arterial blood, and examine as before, instead of the two ban of oxyhæmoglobin, there will be seen, in the course of a few minut only the single band of reduced hæmoglobin.

I. Sources of Carbonic Acid.—With these preliminary remarl we may now discuss the possible *sources of carbonic acid* in t organism. Some of the better known of these we shall merely glan at in passing; others, however, which are less familiar, as well as a more hypothetical character, we shall consider at greater length.

1. The chief source of carbonic acid in the organism, beyond question, is *simple oxidation*, in which a more or less direct combi tion occurs between the absorbed oxygen and the carbon of the fo and tissues. The fatty matter of the food which is not stored up directly consumed by the tissues requiring it, is ultimately transform into carbonic acid and water, just as the like destination awaits stored up fat of adipose tissue when it comes to be oxidised in system. The carbo-hydrates (starches and sugars) taken as food, g origin likewise, when oxidised, to carbonic acid and water, althoug is difficult to say whether these terminal products are direct or direct. Indeed, there may be intermediate products, as in the cas the sugars-aceton sometimes appearing in the urine in cases of diab and continued fever; or glycosates may first be formed in the blo and afterwards undergo complete oxidation. That some of th carbo-hydrates are oxidised during muscular activity, thus effectin large production of carbonic acid, is also a very reasonable hypothe The proteids, further, may give rise to carbonic acid as the resu oxidation; but it is more probable that a direct complete metam phosis of this kind takes place only to a very slight extent. As to two views held regarding the part played by the albumen of the fo whether a portion of it enters at once into the constitution of tissues while the rest circulates for a time in the blood, forming th unstable and readily destructible combinations; or whether the wh of it becomes tissue-albumen before undergoing subsequent met lism; it would seem, without entering on a critical discus of their respective merits, that the latter is the more likely; for great increase in the amount of urea excreted after food, a fact w appears to be in favour of the former hypothesis, may be readily plained on the very probable assumption that the leucin and tyr formed at the expense of the albumen in the alimentary canal, absorbed, and thus form the immediate source, together, poss with kreatin, of the bulk of the urea then discharged.

Mention may also be made of Bidder's and Schmidt's opinion, tha albumen of organs is regularly destroyed at the rate of about one per of the total albumen of the body in the twenty-four hours; and in cases of death from starvation, when the glands and muscles lost 50 per cent. of their albumen, some of it has been oxidised a tissues, and some of it liquefied and transferred to other parts o body, as the brain, etc., for their nourishment.

Reference may likewise, with advantage, be here made to respiratory exchanges which occur when certain tissues, suc muscle, brain, and bone, are placed in an atmosphere of oxygen. find, then, that 100 grammes of muscle absorb 50 c.c. of oxygen, exhale 56 c.c. of carbonic acid; 100 grammes of brain absorb 4 of oxygen, and exhale 42 c.c. of carbonic acid; and 100 gramm bone absorb 17 c.c. of oxygen, and exhale 8 c.c. of carbonic acid. consumption of oxygen and the evolution of carbonic acid, it will be seen, are highest in the case of muscle.

As to the influences regulating this destruction of the or materials of the body, Hoppe-Seyler states that they appear intimately connected with the activity of the histological eleme the organs; but whether they are of the nature of fermentati otherwise, it would, for the present, be impossible to say.

2. The second source of carbonic acid in the system is *the dec sition of albumen by hydration or dehydration.* In a paper (*Jo of Anatomy and Physiology*, 1882, p. 298) "On the Gases of the which I published in 1882, I put forward an hypothesis as to th bable mode in which albumen might, by its decomposition a liver, produce carbonic acid. I there assumed that a molec albumen might be supposed to combine with 50 molecules of and yield 8 molecules of urea, 7 of glycogen, 5 of carbonic aci oxygen, and 1 of sulphuric acid. The oxygen would not, of c

main free, but might enter into combination with reduced hæmobin or other substances. In favour of this assumption, it should remembered that, of the 18 atoms of nitrogen in a molecule of bumen ($C_{72}H_{112}N_{18}O_{22}S$), 4 probably belong to the urea group; d also that carbonic acid has actually been obtained in the laborary from albumen.

Schützenberger had, a few years previously, advanced an hypothesis mewhat similar to mine, although I was not aware of it at the time the publication of my paper. He assumes that 100 grammes of umen generate first 35.5 grammes of urea, and the residue, by subquently combining with 12.3 grammes of water, gives origin to 27.4 mmes of carbonic acid, and 51.39 grammes of fat. He has further own that albumen may be decomposed into carbonic acid, ammonia, alic and acetic acids, and that the ratio of the carbonic acid and monia to each other is the same as if urea had been made the sis of experiment. He also believes that the carbonic acid and monia may afterwards combine in the body under the influence of ctrical currents, and thus form urea, dehydration having taken ce at the same time. If this view prove correct, some of the carnic acid evolved in the liver would not leave that organ as such, her by the blood or the bile, and would not, therefore, appear at inner or the outer surface of the body in the gaseous form.

We can readily believe in the albumen of the tissues, particularly muscular and the nervous, undergoing these chemical changes ring its metabolism, and so account for the carbonic acid present in the tissues, and for the urea found in some of them; but it is, reover, probable that a part, at least, of the primary decomposin products of the albumen may be yielded up by the tissues to the od, and thus conveyed directly to the liver, where the decomposius above described may ensue. That chemical changes, such as dations and decompositions, occur to a large extent at the liver, is icated by the high temperature of the blood of the hepatic vein, well as by the great quantity of carbonic acid in the bile. In fact, re can be no doubt that the destruction of albuminous material is st active at the liver, for this organ, as we know, contains about urth of the total blood of the body;—an amount equal, indeed, to t in the muscular system, although this system constitutes at least f the normal body weight; besides, there are to be found in the liver reat number of nitrogenous substances intermediate between albun and urea, such as leucin, tyrosin, xanthin, hypoxanthin, uric l, etc. According to most authorities, also, there is more urea to met with in this organ than in any other in the body, many phyogists even believing that the bulk of the urea is formed e. The urea certainly cannot be derived from the blood by a e process of filtration into the liver; for the nervous and muscular ues, which do not directly produce urea, contain little or none of

Not only, however, may albumen be decomposed at the liver and luce carbonic acid, but there are good grounds for believing that crystalline indifferent proteid—hæmoglobin, which is a higher albun derivative, is broken up in the liver into a number of simpler ies—an hypothesis advanced by Dr. Zuelzer of Berlin. (*Untersuchungen über die Semeiologie des Harns*, Berlin, 1884.) The follow- equation expresses the decomposition—2 hæmoglobin ($= C_{1200}H_{1120}N_{308}Fe_2S_6O_{358}$) + 85 H_2O + 123 O − Fe_2O_3 =

	C	H	N	O	S
6 taurocholic acid ..	156	270	6	42	6
24 glycocholic acid ..	624	1032	24	144	—
2 bilirubin	64	72	8	12	—
135 urea	135	540	270	135	—
4 cholesterin	108	176	—	4	—
113 carbonic acid	113	—	—	226	—
	1200	2090	308	563	6

The fact that the use of albuminous food increases the amount of ary acids formed at the liver, tells somewhat in favour of this othesis.]

r, 13.332 grammes of hæmoglobin, with the necessary water and gen, yield 2.486 grammes of carbonic acid. A further decompon of a smaller proportion of hæmoglobin with the formation of ogen (taking glycogen as $C_{30}H_{50}O_{25}$; Schtscherbakoff) is also able. Thus 2 hæmoglobin ($=C_{1200}H_{1920}N_{308}Fe_2S_6O_{358}$) 01 O + 182 H_2O − Fe_2O_3 + 6 H_2So_4 =

	C	H	N	O
2 bilirubin	64	72	8	12
150 urea	150	600	300	150
32 glycogen	960	1600	—	800
26 carbonic acid	26	—	—	52
	1200	2272	308	1014

Or 13.332 grammes of hæmoglobin yield 0.572 grammes of carbonic acid, and 12.96 grammes of glycogen.

Owing to the destruction of red blood-corpuscles which is constantly occurring in the spleen, a considerable quantity of hæmoglobin in solution is as constantly being carried to the liver; and if this be borne in mind, it will readily be perceived that the amount thus disposed of is far from inconsiderable. Moreover, red blood-corpuscles are also broken up at the liver; for glycogen, as Hoffman has pointed out, dissolves them. To give an idea of the rate at which old red corpuscles are destroyed, and hæmoglobin at the same time set free, I may mention that a calculation has been made which indicates that the duration of the life of a red corpuscle is at most about thirty days. Thus, taking the amount of iron in all the corpuscles of the body as one gramme, and the quantity excreted in twenty-four hours as 35 milligrammes, all the iron would be eliminated from the body in thirty days; for $\frac{1}{0.035} = 30$ days.

Now whilst it must be admitted that some of the chemical changes I have described as taking place at the liver are to a great extent hypothetical; yet there can be little doubt that, as Heidenhain and others suppose, albumen in some form is decomposed in the cells of that organ, and biliary acids and pigments formed in the same cells as the glycogen. It is true that these two processes in the liver, resulting in the formation of glycogen and bile, though both are attended by a corresponding production of carbonic acid, differ markedly in that their periods of intensity do not synchronise; and, further, in that, whilst the biliary secretion continues during starvation, the formation of glycogen ceases. The secretion of bile, indeed, does not depend on the pressure of the blood; for the pressure under which it is secreted exceeds that of the blood in the liver, although the amount formed is influenced to a certain extent by its velocity and pressure, because with increased velocity and pressure of the blood, more albumen is brought in a given time to the liver to undergo metamorphosis.

II. Seats of Excretion of Carbonic Acid.—It has been computed that nine-tenths of the carbonic acid eliminated by the body passes off by the lungs, and the remaining tenth by the intestines, skin, and kidneys.

1. *The Lungs.*—About 900 grammes of carbonic acid, on an average, leave the body in the twenty-four hours by the lungs; that is, an amount of carbonic acid equivalent to 249 grammes (or 8 ounces) of solid carbon. This discharge of carbonic acid is chiefly due to diffusion, the tension of the carbonic acid in the venous blood being greater than that of the carbonic acid in the air of the air-cells. Of every five parts exhaled, one part is possibly derived from the blood-corpuscles, and the other four from the liquor sanguinis. In the corpuscles, there is probably some loose combination between the carbonic acid and the hæmoglobin; but in the liquor sanguinis, it is partly in solution and partly combined with sodic phosphate and carbonate.[1] Simple diffusion, however, is of itself scarcely sufficient to account for the total discharge, for we must also bear in mind that the gas is in a state of solution in its passage through the moist capillary walls and the epithelial lining of the air-cells. Further, the entrance of oxygen undoubtedly increases the tension of the gas in the blood, a fact which has been pointed out by Holmgren.

2. *The Skin.*—An average of nearly four grammes of carbonic acid is discharged by the skin in the twenty-four hours—that is, about 1-200th of the amount excreted by the lungs. The gas is exhaled from the sudoriferous glands, and partly also from the surface of the skin itself.

3. *The Secretions.*—I have already referred to the light which a full knowledge of the gaseous conditions of the secretions throws upon the respiratory interchanges at the tissues. Indeed, more is to be learnt from the study of the gases of the secretions even than from that of the gaseous exchanges, at the tissues, of either the blood or the lymph; for the secretions have been more directly in contact with the elements of the gland-tissues—being as it were part of the tissues themselves, and hence the importance of investigations in this direction.

The tension of carbonic acid in the cavities and liquids of the body, when these are surrounded on all sides by healthy tissues (as in the case of the bile in the gall-bladder and the urine in the urinary bladder) is greater than that of the carbonic acid in venous blood.[2] The tension of the gases in the tissues is determined indirectly from the tension of the gases in the lymph or in the secretions; but the

[1] Carbonic acid may likewise be united to paraglobulin in the red corpuscles. Setschenow believes that the colourless corpuscles also fix carbonic acid, their absorbing power for this gas being $\frac{1}{2}$th that of serum.

[2] Tension of carbonic acid in arterial blood, 21.28 mm. of mercury; venous blood 41.0; bile, 50.0; acid urine, 68.0; hydrocele fluid, 46.5; fluid of peritoneal cavity, 58.5; lymph, 35.5.

latter mode is to be preferred, for in lymph the carbonic acid tension is less than in venous blood, partly owing to gaseous diffusion between the arterial blood and the lymph, where the vessels containing them are in close proximity—an objection, however, which does not apply in the case of the secretions.

The secretions, as a rule, are formed in the interior of cells, either directly from their own protoplasm, or by the agency of the latter from materials derived from the blood. The phenomena of secretion are accompanied by the disengagement of heat, readily demonstrable by means of the thermo-electric needle, both in the blood and in the secretion formed.

Of these secretions, we shall first consider—

a. The Bile.—In this secretion, collected directly as it flowed from the liver of the dog, I found, in a series of experiments I made about two years ago in Bonn, a total of 57 volumes per cent. of carbonic acid,[3] 14 per cent. of which was evolved *in vacuo*, while the remaining 41.7 per cent. required the previous addition of phosphoric acid to disengage it; whereas of oxygen and nitrogen there were only traces. That this proportion of carbonic acid is very large can readily be understood, when it is stated that there are only 34 volumes per cent. of the gas present in the arterial blood of the dog, and 46 volumes per cent. in the venous blood of the same animal. The tension of these gases in the bile of the dog, as taken from the gall-bladder (for I am not aware that the tension has been determined in the case of freshly secreted bile), is comparatively low—only equal to 50 mm. of mercury; but then it should be recollected that the tension of carbonic acid in venous blood is only equal to 41 mm.; the blood-pressure also in the portal vein is very low, perhaps not more than 10 mm. From the bile of the rabbit (the only herbivorous animal in which freshly secreted bile has up to the present been examined) I obtained a total of 109 volumes per cent. of carbonic acid, free and combined—a larger proportion than has yet been discovered in the fluids of any animal, but only slight traces of oxygen and nitrogen.

With regard to the possible source of the large amount of carbonic acid excreted at the liver, two views suggest themselves: (*a*) that the carbonic acid is produced in the different tissues and organs of the body, the liver included, and some of it then passes out by simple diffusion or solution from the portal and hepatic capillaries into the bile (as may occur at the pleura in lymph exudations), the hepatic cells not being specially concerned in the process; (*b*) that, in addition to this *general* formation of carbonic acid in the body, there is a *special* production of the gas at the liver, owing to the decomposition in the hepatic cells of such bodies as albumen and hæmoglobin. I have already given reasons in support of the latter hypothesis. Of the carbonic acid thus generated in the liver, part will enter the blood and a larger proportion the bile, particularly if this fluid is alkaline; just as the carbonic acid formed in the tissues passes off from them in the lymph and in the venous blood, but a greater proportion in the latter, because it exercises a stronger chemical attraction for carbonic acid.

The amount of combined carbonic acid in animal fluids or secretions depends, as a rule, on their reaction, whether alkaline, acid, or neutral. If the secretion be alkaline, more of the tissue carbonic acid will leave the body by that fluid than by one less alkaline; while, if neutral, or particularly if acid, scarcely any combined carbonic acid will be found in it, as compared with the total carbonic acid in the blood. A good example of this can be observed in the case of bile. If the bile of a dog is alkaline, as it is usually, 100 volumes may contain 57 volumes of carbonic acid; while, if acid, there may be in 100 volumes only 5 volumes of the same gas. Urine, again, which is acid, contains only 14 volumes per cent. of carbonic acid; while, in alkaline saliva, there may be present as much as 50 volumesper cent. But, in herbivorous animals, in which the bile is more alkaline than in carnivorous, there is a proportionately larger amount of carbonic acid, and this greater richness in the gas may be the case, as well, with the other fluids of these animals, though this has not yet been determined.

Accordingly, from the proportion of carbonic acid in the bile, it would be unsafe to estimate the total amount of carbonic acid generated in the liver; for, if the bile formed be less alkaline than the blood flowing away from the liver, the greater part of the carbonic acid will probably be conveyed away by its means to be excreted elsewhere. I am not aware that any experiments have been made as to the relative quantities of the carbonic acid in the blood of the portal and hepatic veins, an exact knowledge of which would be most useful in our present inquiry; and without it, I do not feel myself in a position to say more on this subject.

[3] In this experiment, as in almost all referred to in this paper, the volume of the gas is given at a pressure of one mètre, and a temperature of 0° C.

b. The Urine.—The presence of sodic phosphate and carbonate the urine renders it capable of dissolving carbonic acid. Pflüger fou that 100 vols. of urine yielded of free carbonic acid 17 volumes a of fixed carbonic acid set free by phosphoric acid, 0.2 volume. Some this carbonic acid is probably formed by the cells of the kidn because nitrogenous metabolism occurs here; but the larger prop tion is possibly excreted in solution in the fluid discharged at t Malpighian capsules. An interchange of gases likewise goes on in t tubes of the kidney. The tension of the carbonic acid in the ur is higher than that in the bile, being equal to 68 mm. of mercury.

c. The Saliva.—The submaxillary saliva of a dog fed on flesh-m yielded Pflüger 19 volumes per cent. of free carbonic acid, and volumes per cent. of carbonic acid evolved on the addition of ph phoric acid—that is, about 50 volumes per cent. of the gas, free combined; and when the animal was fed on a mixed diet, the t volume of carbonic acid was considerably greater. In its richnes carbonic acid we, therefore, notice that this secretion approaches closely, but if the small volume of the submaxillary saliva be ta into account, it will readily be perceived that, as compared with b only a small proportion of the carbonic acid is thus discharged.

d. The Milk.—This fluid, according to Pflüger, contains 7 cent. of free and combined carbonic acid.

e. The Pancreatic Juice.—The amount of carbonic acid in secretion has not yet been ascertained.

f. The Intestinal Secretions.—It is impossible to say what propor of the gases in the alimentary canal is derived from the bloo diffusion, what from the air swallowed, and what from the ferme tion and decomposition of the intestinal contents. As Planer's searches have shown, the nature of the diet affects the compositio the gases in the intestines. Carbonic acid is always present in l amount. A gaseous interchange between the intestinal contents the blood very probably occurs, for in many animals (the air-swal ing fish, *cobitis fossilis*, for example) intestinal respiration appea be important.

g. The Normal and Abnormal Exudations.—Reference may be m in conclusion, to the carbonic acid in these liquids. They rese dilute liquor sanguinis in composition, and may or may not be s taneously coagulable; but they are always alkaline, and, there capable of retaining much carbonic acid in solution. The g derived from the tissues by means of the lymph poured out int serous or other cavity, or it leaves the blood in a state of solution accumulates according to the solvent or fixing-power of the med and its amount may be increased by decomposition or oxidatio curring in the exudation. Hydrocele fluid has yielded 48 vol per cent. of carbonic acid, 24 per cent. being free, and 24 f pleuritic effusion 44 volumes per cent. of carbonic acid, 15 per being free, and 29 fixed; peritoneal fluid 10 volumes per cent., cent. being free, and 3 fixed; œdematous fluid of the extremiti volumes per cent., 17 per cent. being free, and 7 fixed. In ma the liquids to which I have referred above, the tension of the greater than it is in the blood. Only traces of oxygen and nitr it may be added, are to be met with in any of these exudations.

Dr. McVail (Glasgow) congratulated Professor Charles on th careful and important experimental research, the results of wh had brought under the notice of the meeting. If the processes o mating the gases in the secretions and excretions could be so sim and systematised as to be possible of application in ordinary c work, an important service would be rendered to medicine. Up present, while physicians had made great advances in pr acquaintance with the greater mechanical actions of the body, s respiration and the circulation, they could do little in the v estimating the metabolic changes going on in the cells of the and tissues, although abnormal conditions there might be said t stitute the very fountain-head of disease. More particularly we Charles's remarks on the gases of the bile of great importance, a vestigations pursued in the same direction could not fail to greatly the knowledge of the metabolic processes going on in th He trusted Dr. Charles would continue the important work on he had so successfully entered.

Dr. Anderson (Galway) said that it was of the highest impo that the gases as well as the solid constituents of a tissue should be examined. The fresh bile from the receptacle w doubtedly a fluid good for analysis, and it must always be reco that such a fluid had been taken from the gall-bladder. T might, and indeed must, undergo changes in its course from th laries to the gall-bladder. In passing along the intestinal t was altered; whilst it remained in the gall-bladder, it changed. The greater part of the oxygen of the blood was u

ly consumed in the tissues; but the blood in a tissue was itself dergoing change at all parts of its course. Oxygen must be con-ned, and carbonic acid produced in the lungs, as well as in the er or skin. Urine in the capillaries of the kidney was not the ne of bladder; the saliva of the acini was not the saliva of the ct; and the bile of the gall-bladder was not the bile of the hepatic pillary ducts. Chemistry alone could teach the accurate constitu-n of tissues, and to that science we must look for progress.

Dr. CHARLES said, in reference to Dr. McVail's remarks, that he s afraid the method of estimating the gases in liquids pursued at sent was of too complicated a nature to be made use of in clinical restigations. As to the statement that the results of the analyses the gases of secretions were not reliable, owing to decomposition curring in the secretions after death, he held that this objection uld not apply to his experiments, as they had all been made on e flowing directly from the liver. Indeed, results of this kind were, his opinion, as trustworthy as those derived from an investigation the gases of the blood.

THE CURE OF WRITER'S CRAMP.

By A. DE WATTEVILLE, M.A., M.D., B.Sc.,
Physician in Charge of the Electro-Therapeutical Department, St. Mary's Hospital.

E group of symptoms—neuralgic, paralytic, and spasmodic—the ying combinations of which, in individual cases, constitute the nent known as writer's cramp or scrivener's palsy, has hitherto ed the most strenuous efforts of therapeutics. At least, the in-ces in which improvement has taken place are so few and far be-en, as to illustrate the saying that "exceptions confirm the ."

need not, in this paper, give a full account of the different ories propounded at various times in explanation of this singular rosis. The fact of its clinical versatility, sometimes with a sensory, ner with a motor predominance of symptoms (tonic, clonic, or tic), certainly points to a strictly peripheral origin. Several ob-ers have adopted this view, and Dr. Vivian Poore, who has devoted h attention to the etiology of writer's cramp, has advocated it much ability, describing this ailment as an instance of what he s "chronic muscular fatigue diseases." In this category, and in-tely connected with the complaint now under consideration, urally fall all those cases where groups of muscles brought into in the performance of acquired co-ordinated actions, become the of nervous troubles. These "professional neuroses," as they have been called by German writers, have received a considerable unt of attention during the last few years. Cases have been de-ed among violinists, pianists, telegraphists, as well as among ers, tailors, machinists, and even ballet-dancers.

ne pathognomonic symptom of the muscular disturbances in this of cases is that the spasm or paralysis, as the case may be, be-es apparent only during the action which brings the particular rdination into play. With reference to the pain, when it does , it may be spontaneous; but if it be called forth or exacerbated novements, it is only these co-ordinated actions which have the erty of doing so.

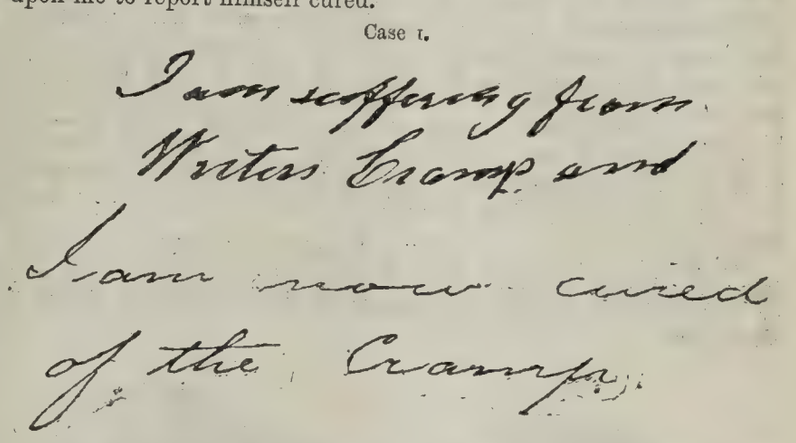
ow with reference to the treatment of these "professional" neu-, it may fairly be said that, not only has the *Pharmacopœia* been acked in the search of a suitable drug wherewith to combat the toms, but every known external means of treatment has in vain tried. Successes in individual cases have occasionally been re-d, but no method has proved regularly successful. Variously ed pens and supports for the hand and arm are but very poor titutes for the healthy action of these parts in writing. Electrical hydropathic applications have failed, even when combined with acted rest and hygienic measures. Massage, if we are to believe ry reports, has proved of service in certain cases; but, until five t years ago, no one claimed to have discovered a method by which ge percentage of the sufferers from writer's cramp and other "pro-nal" neuroses were speedily and permanently cured.

1881 Professor Charcot, on reliable reports published by some of eading physicians and surgeons in Germany, called to Paris a eman, Mr. Julius Wolff by name, whose successful application of age and gymnastics combined, had earned for him a great repu-n in his native country. Two inveterate cases of writer's cramp were placed under his care, with the result that, in both, the patients were able to resume their pens after two or three weeks' treatment (see *Progrès Médical*, January 21st, 1882). Since then the new method became known, by name at least, in this country; and we find it described, for instance, in the second edition of Dr. Ross's classical treatise on the *Diseases of the Nervous System*, vol. i, p. 606. (See also *The Year-Book of Treatment*, page 38.)

During the latter part of last year Mr. Wolff came over to this country for the purpose of demonstrating his method. The discouraging failures which had hitherto attended all my efforts for the relief of the comparatively numerous cases of writer's cramp and allied neuroses it had been my fate to meet, as contrasted with encouraging results obtained by the new system, made me anxious to obtain personal evidence as to its efficacy. I followed with keen interest the cases of two patients, treated under my eyes by Mr. Wolff, and of which I give a condensed account.

CASE I.—Mr. H. S., representative of a house of business, aged 38, was sent to me by Mr. Ernest Hart, with a view to deciding whether his case was a suitable one for the application of Wolff's method. The patient is tall and muscular, and though formerly rather delicate, has had no serious disease. There are some neurotic antecedents in his family. His present complaint began very gradually many years ago. He lost the power of writing quickly; his handwriting, which used to be good, became indifferent, from the uncertainty of his movements. Pains appeared in the forearm, upper arm, and shoulder. The thumb, index, and middle finger became the seat of cramps, accompanied with much pain. The spasm of the thumb made it slip off the pen. Then the hand began to turn. It took him fourteen minutes to write two lines in a very shaky manner. The patient had to give up his employment, and apparently improved by protracted rest; but not sufficiently to resume his writing. He was in this condition when I saw him; and as the case was one of typical writer's cramp, I immediately sent him to Mr. Wolff, under whose treatment he remained for four weeks. The operations of stretching, massage and local gymnastics, were repeated twice a day for from twenty-five to forty minutes each time. He has since called upon me to report himself cured.

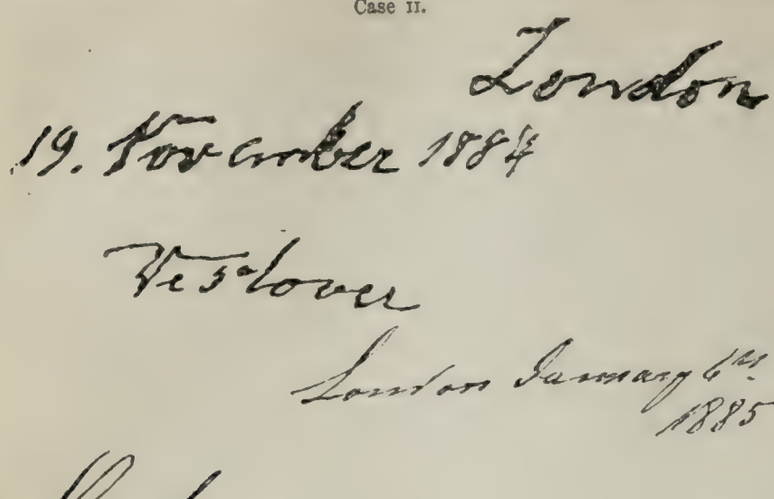
Case I.



CASE II.—Mr. F. B., merchant, a strong and healthy man, aged 35, without any antecedents worth noting, has, for over ten years, been unable to write properly. He began, without known cause, to experience a sense of fatigue in the hand and arm, but no pain. The thumb and little finger became more especially the seat of the feeling, which, however, did not preclude the possibility of writing. Actual weakness, however, set into these parts; later still, tremors and violent spasms made their appearance in the whole hand, in the thumb more especially. The power of guiding the hand was lost. On trying to write, the patient experienced such violent shaking, that his whole strength of will was unable to overcome it sufficiently to shape the letters. He could freely use his hand for every other purpose. He then gave up every attempt at writing. For the last three years he has been able to trace a few words. I saw this patient early in December, when he began Mr. Wolff's course of treatment. After five weeks, he was able to write for hours without pain, spasm, or tremor, and has now resumed an active share in all the duties of his profession. I may add that, as is usual in such cases, all the ordinary methods (electricity, hydrotherapy, etc.) had been tried previously, and failed.

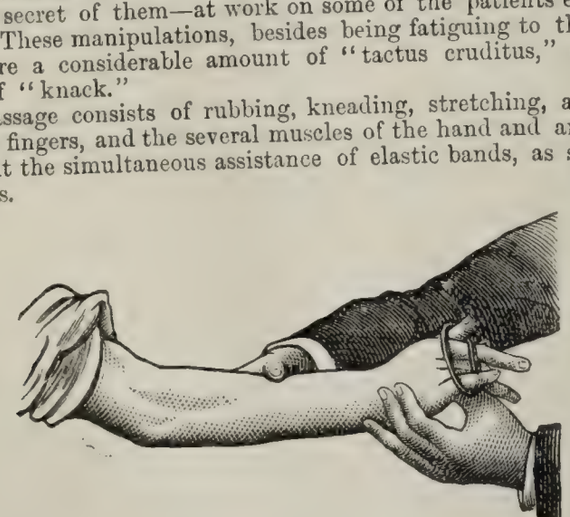
I have appended facsimiles of the handwritings of these two patients before and after treatment. In addition to the tremulous, distorted character of the letters before treatment, the reader must bear in mind the time and efforts required, in both cases, to trace these few words, as well as the pain involved in the performance.

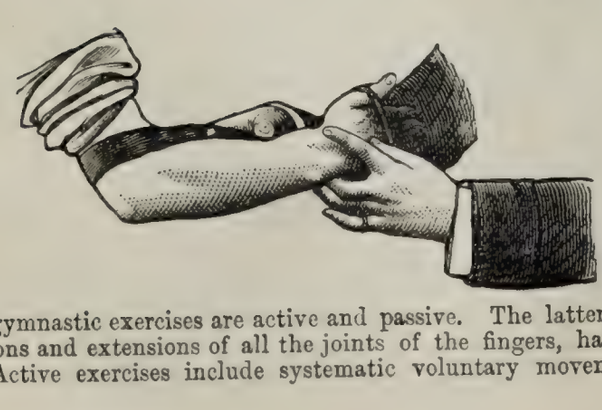
Case II.



The result obtained in these two unselected cases, as well as authentic reports obtained by myself of other cases treated at the same time in this country by Mr. Wolff, convinced me that his previous reputation rested upon a solid basis. In London his success has been the same as that witnessed by Professors Bamberger and Billroth in Vienna, by Professor Esmarch in Kiel, by Professor Bardeleben in Berlin, by Professor Nussbaum in Munich, by Professors Wagner and Schmidt in Leipzig, and equally eminent authorities in several other continental towns. I therefore thought it my duty to call the attention of the medical profession in this country to the fact that the hitherto intractable forms of neurotic disturbances, which we, for brevity's sake, may call "writer's cramp," can no longer be said to defy therapeutic measures. I have never practised myself the manipulations required to bring about the desired result, but have witnessed Mr. Wolff—who makes no secret of them—at work on some of the patients entrusted to him. These manipulations, besides being fatiguing to the operator, require a considerable amount of "tactus eruditus," or, more plainly, of "knack."

The massage consists of rubbing, kneading, stretching, and beating of the fingers, and the several muscles of the hand and arm, with or without the simultaneous assistance of elastic bands, as shown in the figures.





The gymnastic exercises are active and passive. The latter consist of flexions and extensions of all the joints of the fingers, hand, and arm. Active exercises include systematic voluntary movements of the parts affected; and if the general condition of the patient requires it, of all the limbs and trunk. As a rule, at least two sittings daily are required, extending from twenty to forty minutes each on an average; and, in addition to this, the patient may be required to practise the gymnastic exercises at home. Later on, graduated exercises in writing are prescribed. It is impossible to enter into minute details concerning these operations, which must vary with the idiosyncrasies and peculiarities in the case of individual patients.

The extremely rapid results obtained by this method of purely peripheral treatment in some authentic and inveterate cases of writer's cramp appear to me to speak against the central origin of the disturbance.

[Since this article was written, I have had the opportunity of testing the daily progress made by a gentleman sent by me to Mr. Wolff. The case, one of the worst I ever saw, was of seventeen years' duration; and yet, before a fortnight had elapsed, the use of the pen had returned to such a degree as to allow the patient to write for several hours a day, and with almost normal rapidity and firmness.]

Mr. Wolff having been but a short time in this country, I have had no personal evidence of the durability of the cures effected by him. But I have before me a letter written by a gentleman six months after his recovery from a writer's cramp of seven years' duration.

In the *Deutsche Medicinal-Zeitung* for January 25th, 1883, we also read of a case presented to the Medical Society of Berlin, in which no relapse had occurred four years after the treatment.

Mr. Julius Wolff, who is not a medical man, has from the beginning very wisely refused to act independently of the profession, and makes it a condition that in every case the treatment shall be undertaken under the responsibility of some qualified physician or surgeon. I have much pleasure, therefore, in inviting practitioners who have under their care patients suffering from writer's cramp, or some allied form of neurotic disturbance, to address themselves to Mr. Wolff, who is at present residing in London (28, Duke Street, Grosvenor Square, W.). I feel sure, from my personal knowledge of this gentleman and from experience I have had of his method, that they will have every reason to congratulate themselves on the result.

ABSTRACT OF A PAPER ON A REMEDIAL OPERATION SUGGESTED FOR CASES OF OBSTRUCTION OF THE GALL-DUCT.

By J. McF. GASTON, M.D., Atlanta, Georgia, U.S.A.

GAILLARD'S *Medical Journal* for October 1884 contains an interesting paper, on a suggested operation for the relief of the bad effects which arise from obstruction of the common bile-duct. By the operation of cholecystotomy, Dr. Marion Sims and others have endeavoured to correct the evils and remove the danger of a closure of the duodenal end of the common duct; but, out of thirty-four cholecystotomies, death occurred in nine soon after the operation, and, should the patient survive for a short time, the outward discharge of bile would represent a complete waste of one of the most important of the digestive fluids, and involve an impairment of nutrition that must ultimately prove fatal. Dr. Gaston, of Atlanta, proposes to establish for the bile a fistulous opening through the walls of the sac and the neighbouring intestine, the bile being thus discharged into the intestine, and not externally.

After discussing the clinical aspects of a case of obstruction of the common bile-duct, and the physiological results of this pathological accident, Dr. Gaston describes two necropsies made by himself in cases of complete occlusion of the duct. The first of these two cases was a middle-aged man, who came under Dr. Gaston's treatment for severe symptoms of impacted biliary calculus, including absence of bile in the evacuations, jaundice, itching, and tenderness over a fixed point a little to the right and below the ensiform cartilage. There was, also, a peculiar and very persistent pain in his right arm. There was a sudden improvement in the patient's condition, with a change in the character of the evacuations, which contained a number of gall-stones. Some of these were of a size that caused Dr. Gaston to suspect an ulcerated communication of the gall-bladder with the upper part of the small intestine. The patient gradually became convalescent, and returned from the United States to Brazil, where he superintended a plantation. He had, however, to come home again in a few weeks, expectorating offensive bile-stained sputum, and died in a few days.

The necropsy revealed ulcerations connecting the gall-bladder with that part of the intestines adjacent to the duodenum, and an opening through the diaphragm into the lungs, with which firm adhesions

isted. The ductus choledochus was completely closed, and its walls ickened and hardened. The collection of disorganised bile and ous exudation, which was doubtless originally confined in the ated sac of the gall-bladder, had made its way into a cavity formed tween the upper surface of the liver and the lower surface of the phragm, and extended through the aperture into the pulmonary ucture. The flow of this offensive matter into the bronchial tubes med to be the immediate cause of death.

The second necropsy was made on the body of a middle-aged edish woman, to whom Dr. Gaston had been called on the day pre- us to the fatal result of her disease. A tumour extending below line of the umbilicus from beneath the ribs on the right side, and breadth about equal to the width of a man's hand, gave indications fluctuation, and the feasibility of the removal of the fluid by iration was discussed. But her forces were so much exhausted that vas not deemed justifiable to precipitate the inevitably fatal result, l she died next morning. The patient had been confined to bed for ee months with jaundice, and the integuments were still of a dingy ow or brownish hue. It was found that the sac forming the iour was the relaxed and distended gall-bladder, which was filled h a semifluid dark-brown collection of inspissated bile, in which re existed several concretions of different sizes, and offering but e resistance to compression. The entire tract of the ductus chole- us was obliterated with thickening and hardening of the tissues. what had been the cystic orifice of the canal, there was a very con- rable dilatation, containing a biliary concretion which was closed n all sides by a membranous formation, into which an incision was e for its removal. In this case, cholecystotomy would have re- d the distended gall-bladder, but in no way aided in the restora- of the supply of bile to the alimentary canal, the essential requi- for the cure of the patient.

r. Gaston then describes at length the case of an American woman, 74, who had led an active life, and had enjoyed good health till ve months previously. She suffered from debility, jaundice, itch- constipation, with paleness of the motions. After the admini- ion of cholagogues without benefit, a hard mass, about the size of dney, was discovered in the anterior part of the right lumbar on ; and it might have been mistaken for a floating kidney, if fur- examination had not revealed that it was within a sac, of an g shape, that extended up under the ribs. There was a well de- unoccupied space between the upper border of this indurated and the lower margin of the ribs ; and, by thrusting the fingers v, and drawing upwards, this body could be carried up to the line e ribs, moving readily within the sac. The portion of the tumour ccupied by this body gave the sensation of a semi-fluid collection; though the evidence of fluctuation was not very distinct, Dr. n was convinced that it was inspissated bile, the kidney-shaped being a concretion of the same composition. The diagnosis was, fore, obstruction of the bile-duct, with dilatation of the gall- er, containing semi-fluid bile, and a large concretion. Cholecyst- y was considered to be inadmissible, and drugs were given to te the gastric symptoms, and to relieve the general debility which d. She was directed to use constantly the mixture of infusion of n, ten ounces ; aqueous tincture of rhubarb, two ounces ; tinc- f nux vomica, one drachm ; and bicarbonate of soda, one drachm dose being half a wineglass every three hours. After continuing or some weeks, it failed to act as a laxative ; and the discomforts ry kind being increased, with a very marked febrile excitement, cute sensitiveness over the epigastric region, it became necessary ort to some other means of giving at least temporary relief.

ving heard reports in regard to the use of olive-oil in cases of ic colic, with the result of dislodging gall-stones, it was thought if it did no good, it could do her no harm to try the experiment ull dose of the oil. Nothing further, however, was expected t than its laxative effect in relieving the then existing constipa- f the bowels. She took a teacupful of sweet oil, at intervals of hours, until three were taken, when her stomach refused to ac- ny more. In the course of the same night, she had free evacua- of a dark grumous matter, which continued for twenty-four with greater or less intervals. After the first discharges, there ry little of the characteristic fæcal odour with the evacuation ; eculiar and disagreeable smell accompanied the dejection of the uid matter that passed, and which had been previously retained . In the meantime, the tumour extending below the ribs on ht side diminished, and the hard mass already described receded ds to the margin of the ribs. The pain and sensitiveness in the trium ceased; but in the course of a week the darkish discharges eared, and eventually there was no further action of the bowels. tient again became uncomfortable, and the olive-oil was repeated with a good result in producing discharges resembling the former matter, but less in quantity, which recurred at intervals subsequently.

Her appetite now returned, so that she ate indiscriminately of such vegetables and other articles as she desired without any indications of indigestion, and eventually there seemed to be a restoration of the proper bilious secretion to the evacuations. During this improvement in other respects, the itching over the surface was not felt any longer, but there was a very slight diminution of the intensity in the yellowness of the skin and the eyes.

There was no appearance of biliary calculi in the discharges from the bowels, either under the direct influence of the olive-oil or subsequently; but the retained secretions and the former contents of the distended gall-bladder were evidently present in the evacuations.

The channel by which the inspissated bile found its way from its receptacle into the intestinal canal could not, Dr. Gaston believes, have been any dilatation of the natural outlet, but, as the concomitant general symptoms indicate, must have been the result of ulceration, which caused a communication of the gall-bladder with the upper part of the small intestine, adjacent doubtless to the duodenum. This opening, having closed after the first discharges, re-opened with the repetition of the oil, and continued as an outlet for the bile.

The relief afforded in other respects was not attended with a corresponding change in the icteric hue ; and this may perhaps be explained by the fact that a large mass of biliary concretion remained in the sac, together with a small accumulation of bile, thus affording the conditions of absorption which keep up jaundice.

Dr. Gaston, after dwelling upon the serious physiological results of obstruction of the common bile-duct, asserts that the prime consideration for the pathologist is whether any considerable collection of fluid ever occurs in the gall-bladder without occlusion of the gall-duct ; and the question of paramount importance for the surgeon is the practicability of restoring the flow of bile into the duodenum or the adjacent portion of the intestinal canal by the natural or artificial communication. The principle of cholecystotomy is not to effect this desirable aim ; it merely gives relief by external evacuation of the vitiated contents of a dilated gall-bladder. Dr. Gaston then reviews the opinions of other surgeons on cholecystotomy, and quotes several cases which, he believes, support his own views.

Dr. Gaston disapproves of Langenbuch's proposal to remove the dilated gall-bladder, believing, as Mr. Lawson Tait says, that it is "intrinsically absurd ;" but he adds that it is by no means so clear that the proposal made by Sir Spencer Wells to close the gall-bladder by a continuous suture, without attaching it to the abdominal wound, after the evacuation of its contents, may not be advantageous if it be followed by a subsequent operation for affording a direct outlet of its contents into the intestinal canal. Dr. Gaston believes that it is proper, under some circumstances, to evacuate the distended gall-bladder externally, with a view to establish subsequently a free communication from it to the intestinal canal, which is requisite for a successful result of the operation. An incision having been made into the peritoneal cavity over the most prominent part of the distension, a digital or ocular examination may enable the operator to determine upon the propriety of opening the sac ; and the process of introducing an exploring needle or trocar without making a cutaneous incision, with a view to detect gall-stones, being more liable to serious consequences, it is preferable that this plan of incision, with proper precautions, be adopted, so that the exploration and operation which may be indicated may be completed on the same occasion.

If it be found requisite to open the sac, so as to discharge its contents externally, and the serous surfaces be not adherent, a portion of the adjacent wall of the gall-bladder should be hooked up with a tenaculum, and secured with a continuous suture around the margin of the incision in the abdominal wall. The tissue included in the tenaculum may then be clipped out with scissors, offering thus a ready exit to the contents of the sac ; after which the orifice of the duct may be sought with the finger, so as to explore the canal with a probe. Should any communication with the duodenum exist, however small it may be, dilatation of the ductus choledochus should be attempted. But, in the event of occlusion, an effort may be made to pass a curved trocar along the obstructed tract, with a view to establish the canal, leaving the sheath, until a fistulous communication is effected, with the inner end passing into the intestine, and the outer extremity projecting from the superficial opening.

Should this measure be found impracticable after evacuating the sac, whether it contain gall-stones or fluid matters, the opening in its walls may be detached from the abdominal incision, and yet retained under control by a thread passed with a needle, like a drawing-string, around the margin. Thus, a finger may be introduced, and the surface of the alimentary canal brought below the insertion of the

duct into contact with a portion of the wall of the sac, so that a needle, with an elastic ligature, may be passed through the tissues of both, having the adjoining surfaces united closely in the loop which constricts the inclosed walls until they are cut through, so as to leave a communication between the two, such as has been observed in the ulcerated opening of the gall-bladder into the upper portion of the small intestine. As the elastic ligature might divide the tissues without proper adhesion between the surrounding surfaces, a circular stitching should be made by alternately catching the wall of the sac and that of the intestine with a continuous catgut-ligature, which would secure adhesion between their surfaces. This could be left for absorption, while the elastic ligature would naturally find its way into the alimentary canal, and the opening externally may be closed up, with the expectation that the bile shall find its way through the artificial connection into its proper channel, for intermixture with the contents of the alimentary canal.

Every step should be conducted so that none of the contents of the gall-badder, or the intestinal canal, shall escape into the peritoneal cavity; and an external fistulous discharge from the gall-bladder should be averted by closure of its walls separately from the union of the external incision.

Notwithstanding the uncertainty of demonstrating surgical procedures upon inferior animals, Dr. Gaston has undertaken some experiments upon dogs, which are calculated to illustrate the practicability of uniting the walls of the gall-bladder and duodenum by an elastic ligature, and encircling this with stitches of catgut, so as to effect adhesion of the surrounding surfaces, when the opening is made by this constriction and cutting of the tissues. He operated upon five dogs: on August 9th, 1884, No. 1; on the 11th, Nos. 2 and 3; on the 12th, No. 4; and on the 13th, No. 5. In case No. 3, on the 14th, the stitches were accidentally torn loose, and there were indications of peritonitis. The wound was well closed with interrupted suture, and a broad bandage placed around the body of the animal. On the 15th, this animal was found to have died during the night, and the necropsy showed that the elastic ligature had cut through entirely and disappeared in the intestinal canal, while the catgut continuous stitches, used to approximate the adjacent surfaces of the gall-bladder and the duodenum, had effected a slight adhesion. Upon slitting up the duodenum to the point of the opening, it was evident that too much tissue had been included in the ligature, as the orifice was unnecessarily large; and, in repeating this experiment, Dr. Gaston suggests that the needle and ligature should only include so much of the respective walls as to secure an orifice from the cavity of the gall-bladder into the alimentary canal. While the escape of bile left the sac flaccid, there was no evidence of discharge into the peritoneum, thus showing the efficiency of the mode of proceeding.

After escape of omentum on two consecutive days from the tearing out of stitches, case No. 4 died on the afternoon of August 18th. The necropsy revealed the gall-bladder full of bile, and the unknotted elastic strip was lying loosely upon the external surface of the duodenum, which presented a minute opening into the canal, with some thickening of its walls adjacent to this orifice. Upon a close inspection of the gall-bladder, a small circumscribed portion of its surface was found to be adherent to the under surface of the left lobe of the liver, and the cicatrix of the wound, by the ligature, was soldered up by this adhesion. As the ligature had broken in the application of it originally upon tying the second knot, Dr. Gaston infers that, so soon as the tension ceased, by partially cutting through the tissues, it was unknotted by its own elasticity, and as in this case there was no circular stitching, the parts immediately separated, thus failing to present any solution of the single-ligature problem.

The opportunity to verify a favourable result was lost by the escape of case No. 2, on the night of the 18th, which is a matter of regret, as this was the only subject that had no trouble with the external wound, and gave no indications of serious disturbances internally.

On August 20th, a puppy of three or four months was operated on, under the influence of ether, by making an incision of two and a half inches, and passing a silk ligature through a very small portion of the walls of the gall-bladder and duodenum, by which they were secured in close contact. But the circular stitching together of the serous surfaces around the ligature was not used in this case; and, from the fact that bile tinged the discharge from the wound during the afternoon and subsequent morning, Dr. Gaston believes that the silk thread, though doubled, may have cut out from the gall-bladder. The little animal was playful after the second day, and ate heartily.

On the 28th, he was found to be apparently free from all trouble. The external suture having been removed two days previously, and his jacket replaced, the wound was well-nigh closed, excepting at the anterior extremity, where the silk thread used for continuous suture of the internal peritoneal incision came into view. This was caught with the dressing-forceps, and removed by cutting the knot. Perfect union was effected throughout this line, and no opening could be found for the entrance of the point of the director, so that a puncture was made with the point of the bistoury for this incision.

The exploration revealed union of the gall-bladder and duodenum with adhesions of the latter to the lower surface of the liver over the line traversed by the cystic gall-duct, so that it was not practicable to ligate it as was intended. Neither could the ductus choledochus be reached, and yet no doubt exists of the exit by opening between the gall-bladder and duodenum, as the small size of the gall-bladder indicates that it is kept drained.

Case No. 1 died on August 23rd; and, although the external incision had not united at some points, the inner peritoneal wound seemed to be completely closed. Upon laying it open, considerable discharge of decomposed serum occurred; and upon tearing up the adhesions of the abdominal viscera, a large abscess was opened, lying at the posterior part of the right lobe of the liver. There were adhesions of the duodenum to the under surface of the liver, so as almost to conceal the site of the gall-bladder, which had undergone considerable degeneration of structure, yet presented the internal and lower wall distinctly. The securely knotted elastic ligature was found within its cavity, near a fistulous opening that communicated with the duodenum and the specimen is preserved, illustrating the adhesion of the exterior surfaces, and the orifice through the agglutinated walls, which have a striking resemblance to a diminutive human mouth, with the mucous membrane of the duodenum reflected over the margin of the gall-bladder.

In case No. 5, death ensued on August 24th, as, notwithstanding all precautions, the wound had been torn open several times. There were adhesions of various tissues about the liver, a firm attachment of the duodenum to its under surface, and to a portion of the wall of the gall-bladder, while in other parts the septum had undergone disintegration; yet a well-defined opening from the duodenum into the gall-bladder resulted from the action of the elastic ligature. The slit presented the same characteristics as described in case No. 1, but was a little longer, and the elastic ligature had disappeared in the intestine. The parts illustrating the fistulous communication and the surrounding adhesion are preserved in alcohol, so as to demonstrate the practicability of effecting this in the human subject; and in cases of degeneration and thickening of the walls of the gall-bladder there is less liability to take on destructive inflammation.

The fistulous communication between the cavities of the gall-bladder and the duodenum effected by the action of the elastic ligature, and the adhesion around this opening caused by the continuous circular stitching of the adjacent serous surfaces, proves, according to Dr. Gaston, the correctness of the principle upon which he had proceeded in these experiments. The extension of inflammation to the gall-bladder in such form as to cause disorganisation in No 1 and No. 5 is not satisfactorily accounted for; and there was no evidence of such serious results to the walls of the gall-bladder in case No. 3, in which it was noted that the gall-bladder was entirely empty and flaccid, as the aperture in its wall joined to that of the duodenum gave a direct outlet to the bile, without presenting evidences of intense local inflammation.

The fact is notable that the knotted ligature remained in the gall-bladder in No. 1, while it passed off in the canal in No. 5, depending doubtless upon the inclination of the knot to one or the other wall when tied. As the stitches placed in the incisions of the intestinal canal pass ordinarily into its cavity, it might have been supposed that the same thing would occur in this union of the gall-bladder with the duodenum; but quite a different principle operates in the two cases. In the case of suturing the incised wall of the abdominal canal a coagulable lymph is thrown out exterior to the site of the suture, that it is protected on the outside, and cuts its way into the cavity. But in the junction of the walls between two loops of intestine by ligature, no such process ensues; and in the union of the bile-sac with the duodenum, there is a division of the intervening tissues without any chance for such subsequent effusion, so that the ligature is more likely to go in the direction of the knot. It should hence receive special attention in tying the ligature, that the knot be drawn towards the wall of the duodenum, so as to have the ligature carried into the canal after the tissues in its loops are entirely divided.

Dr. Grimm, Staff-Surgeon and Body-Physician to the Emperor of Germany, has lately died. Dr. Grimm was the originator of the German military sanitary system.

SURGICAL MEMORANDA.

HE TREATMENT OF DUPUYTREN'S CONTRACTION OF THE PALMAR FASCIA.

R. NOBLE SMITH'S paper on Dupuytren's contraction, which was d last year before the Royal Medical and Chirurgical Society, re-ved at the time, if I remember rightly, a fair amount of criticism. e republication of this paper shows that Mr. Smith has not altered views on the etiology and treatment of that disease. With re-ence to the causation of palmar contraction, careful and laborious rk, involving the examination of some hundreds of cases, will be uired to arrive at anything like a satisfactory conclusion. This ch may be said, that contraction of the palmaris longus muscle is "the first morbid condition which occurs." I have examined ood number of cases in the early stage, and have never found palmaris longus muscle in an abnormal condition.

With regard to the treatment of the affection, Mr. Smith urges importance of making as few incisions as possible. I have some experience of the operative treatment of Dupuytren's traction, and have had the opportunity of assisting Mr. liam Adams many times with his cases. In my opinion, the e freely the contracted bands of fascia are divided, the better is result obtained. Free division is not always required to remove distortion of the fingers; indeed, it is remarkable how much the rmity is overcome by the first section of the fascia; but it should riably be practised, because, by such a method of operating, the rated fascia is cut up into small pieces, and thereby becoming rbed, the chief cause of relapse is removed. To my mind, the t excellence of Adams's operation consists, not merely in the ightening of the flexed fingers, but in the marvellous manner in h the thickened and indurated fascia disappears, leaving the n of the hand restored to almost its normal condition.

ne case which Mr. Smith illustrates as showing the efficiency of a incisions is, if I may judge from the condition shown in the lcuts, rather indicative of the imperfect action of that method of edure; the fingers are not straightened on the hand, and there is antity of thickened fascia still remaining in the palm.

ith reference to the occurrence of this disease among females, Mr. h appears to claim originality in proving that it is not confined en. This had been done before his paper was read.

F. R. FISHER, Grosvenor Square.

OBSTETRIC MEMORANDA.

CONCEPTION HINDERING MENSTRUATION.

ply to the memorandum of Mr. Wright on the above subject, at 177 of the JOURNAL of January 24th, I beg to state that, how-unusual such an occurrence may be in England, it is by no s uncommon in other places. In the West Indies, I have met many cases, at least a dozen, principally in Coolie girls, who given birth to children without previous menstruation. Indeed, the very immoral character of Coolies, it would be surprising if cases were not found frequently, and they can be fully corrobo-by many colonial practitioners.

much more unusual circumstance than menstruation being red by conception, is menstruation occurring in old age; yet this I have been called to an interesting case of this nature in a n, aged 76, who has been menstruating several times during the ear. I heard, too, of another case to-day, in a woman aged 80; nfortunately, she is dead, and it cannot be verified as in the one ttending. WM. DUNCAN, L.R.C.S.Ed., Ottery St. Mary.

THERAPEUTIC MEMORANDA.

JACARANDA LANCIFOLIATA.

c tried a preparation of jacaranda lancifoliata from Columbia, I am told, it is used by the natives as a specific for venereal s, I may state that I have administered it in fourteen cases the past four months, and have found it more efficacious any other preparation. I should like to know whether ther member of the profession has tried it, and with what

ny fourteen cases it has succeeded in stopping the discharge, without any complication, in, at the most, three weeks. I have tried it in two cases of syphilis (one in the secondary stage), and have found it, so far, most successful. In four of my cases, where no other treatment had been tried, it succeeded, in fourteen days, in stopping the discharge, and all inconvenience (chordee, etc.), with no return of any of the symptoms. In all the other cases, where other treatment had been followed, the result was just as favourable, only extending over a period of three weeks.

In none of my cases did I use any injection, except where a discharge had persisted over four months, and in another case of long standing gleet, giving the tincture in fifteen-minim doses, and an injection of the same, ten minims to the ounce. It stopped the discharge in three weeks, and there has been no return for a month. I had treated this latter case before with sandal-wood and an injection of zinc, without any beneficial result. I had used the iodide of potassium, and also copaiba; and, after making certain that there was no stricture, I tried the medicated bougie, but did not succeed in stopping the gleet, or the inconvenience of constantly passing urine, until, in desperation, I used this preparation. This patient had been under treatment before he came to me, and had been told that a sea-voyage, with return to general health, was the only thing likely to do good. Z. MENNELL, Surgeon, 31, Shepherd's Bush Road, W.

TOXICOLOGICAL MEMORANDA.

POISONING BY BELLADONNA AND ACONITE.

I WAS, some weeks ago, sent for to a patient aged 63, who had swallowed his liniment instead of his medicine. It was composed of one ounce of belladonna-liniment and one ounce of aconite-liniment mixed. He had for nine or ten years been suffering from paralysis agitans. On the day in question, he had fed at 12 o'clock, and he took the liniment at 2.30. I arrived about 3. He was then nearly insensible; pulse 110, feeble; temperature normal. The pupils were widely dilated, and did not answer to light. His breathing was difficult, and I had great difficulty in getting him to swallow an emetic of sulphate of zinc in warm water. I used the stomach-pump, which acted well. He had been sick before I arrived, but had not brought up much. I then began giving brandy and strong tea. At about 3.30, he had become entirely insensible; the breathing was stertorous; the eyes widely dilated; the pulse was very quick, and gradually left the wrist; the extremities became cold; and the temperature was 96°. There was at this time a distinct interval between one inspiration and the next. The teeth were clenched. I applied a mustard poultice to the heart, and a hot bottle to the feet, introduced a spoon between the teeth, and gave a teaspoonful of brandy and strong tea every three or four minutes. At about 4 o'clock, the pulse gradually returned; the temperature rose to 97.6°; the breathing became more frequent, and the extremities somewhat warmer. At 5 o'clock, the temperature was normal; pulse 120; the breathing fairly easy. He was still insensible, and the pupils were as before. I ordered aromatic spirit of ammonia and spirit of sulphuric ether, fifteen minims of each, to be given every half-hour. At 7 o'clock, the pulse was 120; temperature 100°; the pupils were as before. He appeared more sensible, had taken some milk, but had not retained it. I gave him a wineglass of equal parts of milk and lime-water, which he retained. The medicine was ordered to be repeated every three hours. At 10 next morning, he was sensible; pulse 96; temperature 99.8°; breathing easy; but the pupils were still dilated. He complained of slight feeling of soreness in the stomach, but had retained a pint and a half of milk and lime-water. I ordered the same diet to be continued; the medicine every four hours. At 5 in the afternoon, he seemed quite himself, conversed with ease on his escape and the mistake he had made. The pulse was strong and regular, 88; the temperature 99°. He had taken a quart of milk and lime-water. The paralysis agitans, which had been in abeyance, had returned. The pupils, however, were still dilated.

At 12.30 A.M., I was sent for. I found him with pulse 130, temperature 104°, quite insensible, breathing with great difficulty; and he died in less than an hour. His wife tells me he was very well until about 10.30, when she noticed a change. She tells me that she used the liniment once, but half a teaspoonful was quite as much as she took out of the bottle. He thus took nearly one ounce of the root of aconite, and the same of belladonna. The druggist who made up the prescription assures me the strength was correct.

J. B. RICHARDSON, M.B., L.R.C.P.Lond., Torquay.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

LONDON HOSPITAL.

(Cases under the care of Dr. STEPHEN MACKENZIE.)

DIFFUSE PAPILLO-RETINITIS, DUE TO CHLOROSIS.

[THE following notes are by Mr. T. WHOLEY, House-Physician; and Mr. MELLOR, Clinical Clerk.]

Sarah A. F., aged 20, a domestic servant, was admitted on December 27th, 1884, complaining of pain and weakness of the legs, loss of sight, and severe headache. The family-history was good in all respects. The patient stated that she had been perfectly well until sixteen months before admission (September 1883), when she had a feeling of sickness, but never vomited; she felt as if everything she took "must come up again." This was accompanied by a feeling of faintness from time to time, with occasional headaches. These conditions continued, without much variation, for a period of nine months, during the latter part of which she was in another hospital. She was discharged from this institution so much relieved that she was able to go about her previous work for three months, without any return of her previous symptoms. Last September (twelve months from the commencement of her illness), however, she was again attacked by headache and giddiness; and about this time she had several attacks of momentary complete loss of sight, accompanied by pain "shooting from the top of the head down the neck and back." She also had some pain and a sensation of weakness in the legs. Her eyesight, meanwhile, was becoming affected; she became unable to distinguish small print, especially with the left eye. The failure of sight became more and more marked; and she came under the care of Mr. Marcus Gunn, who subsequently referred her to Dr. Mackenzie. She stated that she had been rapidly losing flesh since her relapse.

Condition on Admission.—She was scarcely at all wasted, but her muscles were flabby. She was remarkably anæmic, with a slight flush on the cheeks. Her intelligence was good. The knee-jerks and superficial reflexes were normal. No motor or sensory defect was noticeable. Digestion was good. The bowels were constipated, as they had been throughout, but not previous to, the attack. The heart was natural, except for a slight prolongation of the first sound at the apex. There were no abnormal signs in the lungs, and no appreciable disease of the abdominal or pelvic organs. The catamenia were scanty and pale; there had been entire suppression for the twelve months previously. The urine was of specific gravity 1020, and was free from albumen and sugar. There was no œdema.

Examination of the Blood.—The corpuscular richness was 80 per cent.; the hæmoglobin was 30 per cent. The colourless corpuscles were in the ratio of 1 to 200 red. The red corpuscles varied in size; but there were none very small, or of a deep red colour. The colourless corpuscles had their natural appearance.

Ocular Condition.—She had completely lost sight in the left eye, having merely a sensation of green colour. The left pupil did not react to ideal accommodation (but this might have been due to inability to make her understand). Ophthalmoscopical examination of the right eye showed that the papilla was swollen to + 2 D. The veins were large and tortuous, and at parts completely obscured by a greyish, granular looking, uniform swelling, which obliterated the margin of the papilla, and extended for a considerable distance into the retina. The vicinity of the papilla was covered with minute whitish spots, which became larger and more defined on the outer side, but were not especially aggregated about the yellow spot. She could read Nettleship No. 8, at 9 inches, with this eye. In the left eye, the changes were much more marked, the swelling of the papilla amounting to + 3 D, and extending further into the retina. The vessels were almost completely lost for a considerable part of their course, simply appearing here and there as dark red spots. The retina, also, was much more opaque over a wide area. There were several white patches, larger than those in the opposite eye, to the outer side of the papilla. In the yellow spot region, there were a cluster of these arranged in a radiating manner, like the spokes of a wheel.

Progress of Case.—She was treated with Blaud's pills, and kept in bed, and, at the time of our visit, had undergone a marked improvement. Examination of the blood showed, on January 6th, corpuscle 100, and hæmoglobin 40, per cent.; on January 13th, corpuscles 92 hæmoglobin 60, per cent.; on January 23rd, corpuscles 92, hæmoglobin 70, per cent. The urine had been repeatedly examined. Th specific gravity varied from 1020 to 1030, and never contained an albumen nor sugar. The headache was lost, appetite was good, sh had no pains in the legs or elsewhere, and had just sufficient percep tion of light in the left eye to appreciate the strong illumination the ophthalmoscopic mirror.

REMARKS BY DR. STEPHEN MACKENZIE.—In his remarks on th case, Dr. Mackenzie said that the ophthalmoscopical appearanc were such as are commonly brought about by Bright's disease, b that the presence of papillo-retinitis did not justify the diagnosis kidney-disease without further and more direct evidence. Dr. Ma kenzie pointed out (and illustrated by drawings) that similar appea ances may be caused by cerebral tumour, lead-poisoning, glycosur and occasionally occur from anæmia and leucocythæmia. He ne discussed the diagnosis in this case. Bright's disease was exclud by the absence of albumen in the urine, of œdema, of increase of arter tension, and of thickening of arteries and hypertrophy of the left ve tricle. Against the diagnosis of cerebral tumour, was the absence of direct evidence of implication of the brain. This negative evide might not be conclusive, as sometimes, at a certain stage, dou papillitis (or papillo-retinitis), with headache and vomiting or naus was the only evidence of tumour of the brain, and justified its gnosis; but, in this case, another sufficient cause was found in ope tion. Lead-poisoning, which might give rise to either papillitis papillo-retinitis, was excluded by the condition of the gums and the history. There was no glycosuria. We were, therefore, dri to the blood-condition, obviously present, for an explanation of papillo-retinitis. He pointed out that other observers besides him had seen papillitis and papillo-retinitis from anæmia. The degre anæmia was considerable, but the deficiency being especially in hæmoglobin, and the disease occurring in a girl with amenorrh the condition would be regarded as chlorosis by those who separ this form of anæmia from the general mass of cases. Dr. Macke pointed out the marked improvement that had followed the adm tration of iron, in the form so valuable for this class of case; but marked that such cases were prone to relapse. As regards the spects of recovery of sight, he spoke very guardedly. The se implication of the retina, particularly in the left eye, in the ma region, rendered ultimate and complete restitution very uncertai spite of the slight present improvement. He had, however, seen or two cases of severe papillo-retinitis in connection with Bri disease recover, with but little defect of sight.

INTRACRANIAL TUMOUR, PROBABLY CEREBELLAR: DOUBLE PAPILLITIS WITH AMAUROSIS: DISAPPEARANCE OF BOTH KNEE-JERKS.

(From notes furnished by Mr. WHOLEY, Mr. A. PESKETT, a Mr. HODGE.)

EMMA F., aged 23, a shopwoman, was admitted on September 1884, complaining of intense headache and diplopia. Her fathe two aunts died of consumption. She, herself, she stated, alway joyed perfect health, until June, 1884, three months before admi when her present illness commenced with pain in the temporal r and at the backs of the eyes. She, further, had a sensation the eyeballs were too big for their sockets." A month late noticed that things appeared double. On admission, in additi the above symptoms, she complained of great noises in her which she compared to "the puffing of a railway-engine," a times she had a feeling as if her head "was opening and shut Her hearing had been good. She had noticed slight difficu walking, owing to a weakness at the knees.

She was a very intelligent and refined looking girl, somewhat nothing abnormal could be detected in the thoracic and abd organs. The knee-jerks were present, and equal on the two There was no ankle-clonus. Her vision was slightly impaire was only able to read No. 5 Nettleship, at ten inches, with eith Upon ophthalmoscopic examination, the right papilla was swollen (+ 3 D); the veins were large, tortuous, and at some par pletely buried. No distinct hæmorrhages were seen. In the l the papilla was still more swollen (+ 5 D), and the margin com obscured; the veins, where visible, were very large and tortuo there were a few small hæmorrhages. The pupils were large, an was slight paresis of the left external rectus.

Since admission, her vision had steadily deteriorated, and eve became lost, first in the left eye, later in the right. She h

mplete amaurosis, and lived in a red mist; the papillæ were commencing to atrophy; the paresis of the left external rectus had increased. The noises in the ear had nearly disappeared, and her hearing was good. Her temperature had remained normal throughout, except for one week, when she had a catarrh. Her urine had been of slightly low specific gravity (varying between 1010 and 1015), but had never contained sugar or albumen. The knee-jerks remained present during the first month, then became difficult to detect, and finally became lost, and have remained completely absent up to the present time. Her gait was peculiar. There was no distinct reel, but she walked in a weak manner, with frequent giving way at the knees, which produced a kind of curtseying movement with each leg, every few steps. She had complained of a bad taste in her mouth for some time. She recognised aloes and quinine as bitter, sugar as sweet, and tartaric acid as sharp. She could smell peppermint, and appeared to recognise oleum carui and oleum cinnamoni, but could not give them names. She had been treated with iodide of potassium and mercurial inunction.

Remarks by Dr. Stephen Mackenzie.—Dr. Mackenzie pointed out that in this case the double papillitis with headache, in the absence of renal disease, lead-poisoning, or noticeable blood-alteration, pointed to the diagnosis of intracranial growth. With regard to localisation of the tumour, there were only two available symptoms: (1) the paresis of the left external rectus, and (2) the gait. With reference to the first, Dr. Mackenzie remarked that paralysis of the sixth nerves was of less value, as a localising symptom, than that of nearly any other cranial nerves; the long and exposed course of the sixth nerves rendering them peculiarly liable to be affected by intracranial effusion or local stretching or pressure on the base of the brain. He, therefore, eliminated this symptom in the diagnosis of the seat of the lesion. The peculiar gait, however, he regarded as indicating that the tumour was seated in the cerebellum. Whilst in some cases of cerebellar tumour the gait was of a reeling character, like that of a drunken person, in other cases he had noticed a mere weakness of the legs, with yielding of the knees in walking. The loss of knee-jerks was an interesting feature of the case. He had seen two or three cases in which the knee-jerks were absent, or had become lost, in connection with symptoms pointing to cerebellar tumour; and Dr. Sewell had recorded a case in which *post mortem* examination revealed a tumour in the cerebellum in which both knee-jerks disappeared under observation. But loss of knee-jerks was of no value in localising the tumour in the cerebellum, for Dr. Hughlings Jackson and he had recorded cases in which the knee-jerks had been absent or lost in connection with a cerebral tumour involving one side only (*Brain*, 1883, p. 224). He was doubtful of the significance of the noises in the ear, but they might be due to irritation of the root or trunk of the auditory nerve. As regards the nature of the growth, although there was a history of phthisis in the family, he was more inclined to think it was gliomatous than tubercular.

TWO CASES OF INJURY BY EXPLODING DYNAMITE

(Under the care of Mr. Frederick Treves.)

Shortly after the explosion at the Tower of London, on January 24, two of the persons most injured were admitted in the London Hospital.

The patients were single women, aged respectively 20 and 19, who were in excellent health at the time of the accident. They were walking arm-in-arm, and had just entered the Armoury of the Tower, when the explosion occurred. Each had her right side turned towards the seat of the explosion. They saw a slight flame, and heard a report, which they speak of the noise as not considerable. They were thrown down, and were buried in some falling woodwork and a number of bricks. They did not become unconscious, nor lose a knowledge of their whereabouts. They both had their hair, eyebrows, and eyelashes singed, and when admitted into the hospital, three hours after the accident, presented bruises of the first degree of the right side of the face, also a number of small lacerations about the face, scalp, and hands.

The older patient got up, after the accident, without assistance, and made her escape from the building without help. She felt faint, giddy, and confused, but experienced no pain. Her eyes were examined, and into the right one some dust had been blown. She was found deaf in the right ear; the membrane on this side was ruptured. She was a little deaf also in the left ear, although here the membrane was sound; in neither meatus was there any dust or *débris*. Both she and her companion observed that it seemed dark in the streets (it was 5 P.M.), and, on entering the wards, she thought that the lights had been turned down, although, as a matter of fact, the wards were well lighted. She was not sick. Her temperature rose to 99.6° Fahr. within three hours of her admission. She was very restless, and slept but little during the night. The next day she seemed dull and disinclined to move, keeping her eyes closed, and making no complaints. On the evening of this day, her temperature was normal. By the fourth day, the hearing in the left ear was restored, and the patient made a rapid recovery, eating and sleeping well during the remainder of her stay in the hospital. Both patients were discharged on February 5th.

The younger patient was a foot taller than her companion. She was assisted to her feet after the accident, and had to be helped from the Armoury. She felt faint and weak, and unable to walk, but retained her consciousness. She vomited twice during the time she was detained at the Tower, and twice after her admission into the wards. She complained of no pain. She was somewhat deaf in both ears. In the right meatus, there was much dust and *débris*, but she heard no better when this had been removed. She did not recover her hearing for four days. The membranes were not visibly injured. She had the same dimness of vision that had been noted in the other case. Dust had entered the right, but not the left eye. She slept badly, and for the first three nights was so restless as to require morphia. Her temperature in the morning was normal, but it rose a degree each night for the first three nights. Neither she nor her fellow-patient ever complained of headache.

Her chief complaint was of a severe pain along the right inferior dental and auriculo-temporal nerves. She said that this pain kept her awake; it persisted for more than a week, and then gradually subsided. She had never had a like pain before. There was no bruising about the painful regions. The pain was probably referred to these parts from the fibres of the third division of the fifth nerve that had been damaged in the meatus. That the meatus had suffered to some extent was rendered apparent by a somewhat profuse catarrh that set in within a few days of her admission.

It may be that the vomiting in this case was due to some disturbance of the branch of the vagus (Arnold's nerve) that reaches the meatus. The patient had well recovered by the time of her discharge.

In both cases, the urine was healthy, and contained no trace of sugar.

Remarks by Mr. Frederick Treves.—It would unfortunately appear that, in the surgery of the immediate future, a new department must be admitted for the consideration of dynamite-injuries. About the gross local effects of dynamite-explosions, there is, of course, nothing special. The fractures, lacerations, and contusions inflicted by flying fragments and falling *débris* are not to be separated from like injuries produced by similar means. But, of the general effect upon the body of the concussion produced by the explosion, little appears to be known. Opportunities for investigating this matter have fortunately up to the present time been rare; and, such being the case, I have ventured to give an account of the two female patients admitted under my care after being injured by the dynamite-explosion at the Tower.

The point of greatest interest concerns the general effect of the injury upon the nervous system. It is evident that the body must be concussed or shaken by the explosion, but it would be expected that the effect produced upon the nerve-centres could not be identical with the so-called concussion that may follow a blow upon the head, or the shock of a railway-collision. The concussion resulting from such accidents as the two last named is produced by a comparatively well localised and gross form of violence, while the shock from a dynamite-explosion would act rather as a force that was diffused and finely divided. In the latter instance, it must be assumed that the individual is not so hurled to the ground as to become the subject of such an injury as may cause concussion in the ordinary clinical sense. The two women whose cases are herewith detailed were not thrown violently to the ground; one of them, indeed, observed that "she was not knocked down, but pushed back." They were both burnt, and both the subjects of some lacerations, but all the injuries were of the slightest character. What symptoms they presented may be ascribed solely to the general shock caused by the explosive, with, perhaps, some superadded emotional influence. It will be seen that neither of them suffered from the clinical condition known as concussion. They were not stunned. Their chief symptoms seemed to have been the outcome of a general enfeebling of nerve-function, whereby the action of the heart was depressed, the vision dimmed, and the hearing—apart from local changes—dulled. It is interesting to note that, in one case, the accident was followed by repeated vomiting. So far as local effects are concerned, it will be seen that the part that suffered most definitely was the membrana tympani.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

FEBRUARY 10TH, 1885.

GEORGE JOHNSON, M.D., F.R.S., President, in the Chair.

Case of Displacement and Fracture of the Axis. By DAVID LOWSON, M.D., Hull. (Communicated by Sir PRESCOTT G. HEWETT, Bart.)—The injury occurred ten years ago to a man, aged 75, and was produced by falling on the vertex from a wall six feet high. After recovering consciousness, the patient experienced great pain in the neck. The head was bent back and carried stiffly. Nasal respiration was obstructed, and the mouth was kept open to render it easier. Deglutition was difficult, the voice had a nasal intonation, and a hard swelling could be seen and felt, projecting from the back of the pharynx. There was no paralysis nor anæsthesia. The patient died in July, 1884, from senile gangrene, a disease having no connection with the injury. At the *post mortem* examination it was found that the axis was bent back to an angle of 60°; the bodies of the second and third vertebræ were ankylosed, and the arch of the third was partially telescoped into that of the second, to which it had become ankylosed. The cord was gently bent opposite the site of the injury, and the spinal canal at this point was quite wide and roomy. The specimen was exhibited to the Society. Two similar cases had been observed by Sir Prescott G. Hewett, and a specimen of an injury of this nature had been discovered by Sir James Paget in a churchyard.—The PRESIDENT observed that the absence of paralysis was to be attributed to the large diameter of the canal in the neck, which allowed considerable displacement without pressure.—Mr. W. ADAMS had met with three cases of unilateral dislocation, complicated with fracture. The head was fixed to one side, and there was pressure on the cervical and brachial nerves. The deformity could be reduced by extension of the neck under chloroform, and the patients, subsequently kept at rest for prolonged periods, did well.—Mr. NOBLE SMITH referred to a case in which there was projection of one cervical vertebra cured by extension under chloroform. He referred to cases of displacement of cervical vertebræ occurring as a consequence of caries.—Dr. LOWSON said that improvement occurred rather rapidly, so that no operative interference appeared necessary. In a few years the patient was quite free from any inconvenience which could be traced to the injury of the neck. Displacements due to caries had a quite different mechanism, and were entirely outside the scope of his paper.

The Radical Cure of Club-foot, with Exhibition of Cases. By RICHARD DAVY, F.R.S.E.—The author arranged his subject under the following heads: 1, the line of thought that has induced operative procedures in cases of intractable club-foot; 2, the cases especially suited for operation; 3, the operation itself, the description of its details, and the instruments necessary for its performance; 4, the list of cases operated on by the author (26), and notes of others operated on by other surgeons; 5, the exhibition of casts taken before and after operation, and living specimens of the results gained; also six specimens of the blocks of bone removed by the operations; 6, general observations on club-foot, with conclusions. The author considered that this operation was founded on the experiment made on the dead body of freely opening the transverse joint, twisting the foot into varus position, and inserting into the transverse tarsal joint a wedge. This demonstration justified the removal of the cuboid bone on the living subject in 1874, and, in addition, the fifth metatarsal base in 1875. The instruments and splint used by the author were exhibited, and his method of operating and after-treatment described. The open-air method of cicatrisation had been practised in all his cases. The percentage mortality was less than four, one out of the twenty-six operated on having died. Nineteen were boys, four girls. Two cases were submitted to the double operation at one sitting. Fourteen were cases of talipes equino-varus, ten cases of talipes varus, and two of talipes equinus. The oldest case was twenty years, the youngest sixteen months. The average stay in the hospital from the date of the operation to that of discharge was 77 days. The results of the operation were most satisfactory. A shortened symmetrical foot was left, which was far preferable to a stump. The patients became plantigrades, dispensed with instruments, and performed their ordinary duties. Six specimens of the osseous wedges removed (all in one block of bones) showed as component parts the individual bones of the transverse tarsal joint; one (Case 26) showed portions of the astragalus, os calcis, the bases of four outer metatarsal bones, and the internal cuneiform bones, and the whole of the scaphoid, cuboid, and two outer cuneiform bones. Professor Ogston's operation of attacking the astragalo-scaphoid joint by operation was alluded to in relation to flat-foot, but up to the present the excision of an osseous wedge at the transverse tarsal joint had been restricted to equinus and varus cases and their combinations. Mr. Edward Lund's operation of removal of the astragalus was also mentioned. In concluding, although the author put this excision of an osseous wedge forward as mainly applicable to inveterate cases, he was inclined to plead for its adoption in young persons under certain circumstances. The author summed up in favour of this operation as follows. In obstinate club-foot, where osseous distortion had occurred, a definite mechanical operation, with definite surgical landmarks, performed on the tarsal bones, had led to definite results; these results, occurring in the experience of one surgeon, might help to obtain general recognition of the value of the operation as a means of remedying deformity.—Mr. W. ADAMS thought that, when relapse occurred after tenotomy, it was very often due to the patient neglecting to make use of proper mechanical appliances for a sufficient time after the operation. The objections which he entertained to the operation were the occasional fatal termination, the possibility of the occurrence of abscesses and burrowing of pus, and that the operation did not alter the relations of the ankle-joint to the other great centre of motion. Mr. Lund's operation dealt only with the ankle-joint, and was imperfect on this account.—Mr. R. W. PARKER said that, in making dissections of feet affected by talipes, in conjunction with Mr. Shattock, he had been struck by certain anatomical facts. He thought an operation on a young child of fifteen or sixteen months could never be necessary. In adults who had been neglected, and in whom, in addition to the primary deformity, there had supervened secondary deformities from walking on the inverted foot, talipes became incurable by the ordinary means; but, considering what such patients could do with their deformed feet, how they could, and did tramp about, it was questionable whether any operation could do much to improve them, beyond, perhaps, improving the appearance of the foot. If this were all, was it worth the risk and the time consumed? He did not desire to reflect on the operation advocated by Mr. Davy, but to express the view he had himself arrived at from a general study of the subject. In dissecting feet affected with talipes, he had found, though the astragalus was usually altered in shape, that this was not invariably the case. On the other hand, in all the cases, the ligaments were shortened, and in severe cases, even after removal of all the muscles, the foot could not be straightened, on account of this shortening of the ligaments. Thus, in one well marked case, the anterior portion of the internal lateral ligament of the ankle-joint had blended with the talo-scaphoid and the calcaneo-scaphoid ligaments, and formed a strong unyielding capsule about the astragalo-scaphoid point; this resisted all attempts to straighten the foot. Even after this capsule had been divided, the foot could not be put quite straight; it was necessary to divide also the capsules of the joints between the scaphoid and the internal cuneiform, and between the cuneiform and the first metatarsal bones. He was thus led to think that, in the treatment of talipes more attention should be given to the ligaments than was usually done; and that many of the inveterate cases met with in practice were due to shortening of the ligamentous structures on the inner side of the foot. If the ligaments and muscles were equally stretchable—which, however, was not the case—it would be natural to expect more stretching in the muscles than in the ligaments, by reason of their greater length; it indeed appeared strange that so much should be made of the value of stretching a tenotonising structures like the muscles, while the short unyielding ligaments were left to take care of themselves. He exhibited some specimens illustrating this shortening of the ligaments; also another specimen showing that the ligaments could be divided without difficulty, and without any damage to other important structures of the foot. He recommended this operation for all severe cases in young persons, and for old adult cases, before severer measures were adopted, and indicated the method of carrying it out.—Mr. NOBLE SMITH observed that the question raised by Mr. Davy was really as to the relative merits of osteotomy and the ordinary methods of treating cases of talipes. When all the tendons were operated on at the same time, great mechanical advantages were lost. He thought that for nearly all cases of talipes were best treated by a well-conceived series of tenotomies, combined with the use of proper apparatus.—Mr. WALSHAM considered that the operation of excising part of the tarsal arch was only required in very exceptional cases. He had only met with five cases since he had been in charge of the Orthopædic Department of St. Bartholomew's Hospital, where the operation appeared advisable; even in two of these he ultimately succeeded in curing the cases without resorting to the operation. In one case of an adult man, a labourer, the

oval of a wedge-shaped piece of bone was followed by excellent results. certain cases, after transverse section of the arch without excision, with excision of a very small wedge, the foot could be got into ex-llent position.—Mr. DAVIES-COLLEY said that, in October 1875, he d removed a wedge-shaped mass from the tarsal arch; he had re-ved the cuboid bone, and parts of the scaphoid and os calcis, and bases of the metarsal bone. He thought the instruments recom-nded by Mr. Davy were unnecessary; at Guy's Hospital, where ly a raspatory and fine saw were used, excellent results had been tained; no death had occurred.—Mr. CROFT had performed the eration, which had been introduced, he believed, by Mr. Davies-lley, four times. The wound healed entirely in ten days, or, at st. three weeks, if antiseptic precautions were used; the patients, refore, derived great advantage from the use of antiseptics.—Mr. LLIAM ROSE had performed the operation twice, in patients 9 and years of age respectively. Orthopædic treatment had previously n thoroughly tried and failed. The result of removal of a wedge, cisely as recommended by Mr. Davy, was most excellent. He had d antiseptic precautions, and the wounds healed rapidly and ndly. He had twice performed a similar operation on the inner e of the foot for valgus.—Mr. BRODHURST deprecated the applica-n of the operation to children, or to cases of talipes equino-varus, or inus.—Mr. DAVY said that to Mr. Davies-Colley undoubtedly be-ged the credit of first performing the operation of removing a lge-shaped mass of bone. He showed casts from a case under the e of Mr. Manby at Wolverhampton. The patient was 40 years old, there was extreme congenital talipes equino-varus. The result of operation, as shown in the cast taken after recovery, was excel-. He did not advocate the operation in very young children, and only performed it in the cases recorded at the earnest request of mother. The operation ought to be reserved for older patients.

MEDICAL SOCIETY OF LONDON.

MONDAY, FEBRUARY 9TH, 1885.

ARTHUR E. DURHAM, F.R.C.S., President, in the Chair.

rgery of the Kidney.—Mr. HENRY MORRIS read a paper on the ical treatment of diseases of the kidney. This paper is published age 311.—The PRESIDENT observed that he was the first person in country in recent times to cut down upon the kidney in the ctation of finding a stone. He showed a number of calculi which ad recently removed from the pelvis of the kidney, in a case too dvanced to make a successful result probable.—Mr. BRYANT ad-ted the habitual resort to exploratory incision before proceeding to more extended operation.—Dr. TUCHMANN described an instru-t which he had devised for closing the orifice of the ureter, so as to tain whether both kidneys were working, or from which pus pro-ed.—Mr. KNOWSLEY THORNTON observed that it must not be ned, in cases where, after exploration, no stone was found, that tone existed, unless the kidney were incised, or removed subse-tly, or examined after death, as a stone might escape discovery e operation. In one case under his care, where the disease was mprobably scrofulous, great benefit, lasting at least a year, had wed incision of the kidney. In cases where one kidney was ly diseased, he doubted whether digital exploration of the bladder ltogether so safe as Mr. Morris was inclined to assume; death t be brought about by suppression of urine. He deprecated rotomy in scrofulous kidney as a preliminary operation before rectomy. He still strongly advocated bringing the ureter out. ad done eleven cases of nephrectomy; all were successful, but x in which he had brought out the ureter recovered much more ly and evenly than the others.—Mr. CLEMENT LUCAS com-ed on the great difficulty of making a diagnosis between cal- in the pelvis and the early stage of strumous pyelitis. Ex-tory incision was almost quite free from danger, and, combined the introduction of a drainage-tube, was sufficient for uncompli-cases of suppurative pyelitis.—Mr. WALTER PYE referred to the ncommon disappearance of symptoms without operation, due, ently, to the great power of resistance possessed by the kidney. escribed the case of a man, aged 42, who had for seven years ed from pus in the urine. The amount of pus was at one time but had now decreased to a very small quantity; the general had not suffered.—Mr. HENRY MORRIS, in reply, said that it ly in cases where there was a doubt which kidney was involved he proposed to make an abdominal incision, and advised ex-tion of the ureter on both sides. He did not agree with Mr. ton in thinking that digital examination, either in the male or e, was at all dangerous. Nephrotomy in scrofulous kidney was performed, in the hope of avoiding the necessity for nephrectomy and not, strictly speaking, as a preliminary operation.

Lupus.—Mr. J. STARTIN showed three cases of lupus treated by caustics, and one treated by erosion.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

JANUARY 29TH, 1885.

W. A. GARRARD, M.R.C.S.Eng., President, in the Chair.

Hydatids of Liver and Spleen.—Mr. W. BANHAM presented two cases of hydatid disease, one of the liver and the other of the spleen. A. J., aged 14, was first aspirated eleven months ago, and two quarts of clear hydatid fluid were drawn off. After the operation, acute febrile symptoms with incessant vomiting set in, and it was found that the cyst had completely refilled. It was again aspirated six months after the first operation, and apparently nothing but pus was drawn off, about one quart in quantity. The patient was restored to perfect health. The second case was a girl, aged 10, with a large well defined tumour in the left hypochondriac and epigastric regions, freely movable, firm and elastic to the touch, which was diagnosed as a case of hydatid of the spleen.

Hemianopia.—Dr. BANHAM introduced a woman, aged 38, who had long suffered from cephalalgia; three years ago she was attacked with left hemiplegia; and, four months ago, with a loss of the sight, so that she was only able to see objects on the right side. In neither of these attacks was there unconsciousness, and they were two days in attaining their full development. On examination, there was marked paresis of the left side, and, on testing her sight with the perimeter, there was found to be right hemianopia, the vision, in both cases, passing just beyond fixation-point. The left pupil was larger than the right; the pupillary reflex was absent. There were no morbid ophthalmoscopic appearances. Dr. Banham considered that the left hemiplegia was due to thrombosis of the right middle cerebral artery, and that the hemianopia was due to a similar cause affecting a branch of the posterior cerebral artery supplying the posterior part of the optic thalamus, and the corpora geniculata and corpora quadrigemina, or to a point of softening in the optic thalamus. The condition of the pupils seemed to exclude a purely cortical or subcortical lesion of the occipital lobes, while the healthy condition of the retina favoured the view that it was not purely a tract-lesion.

Double Amaurosis.—Mr. S. SNELL related the particulars of a case of double blindness in which vision had been lost in three days in the right eye, and, after a short interval, in as nearly as rapid a manner in the left. Perception of light was abolished, and the ophthalmoscopic signs were negative. Mr. Snell gave reasons for supposing a lesion of the chiasma, and promised a further report.

Paralysis of Both External Recti.—Mr. S. SNELL introduced, by card, a man, with double paralysis of the sixth nerve. The patient had been under observation for about three weeks for paralysis of right external rectus, and, within the last few days, the left had become completely affected also. It was feared that other evidences of a central lesion were developing.

Treatment of Empyema.—Dr. GWYNNE read a paper, and gave notes of four cases in children that came under his care during the latter half of last year. He advocated the choice of the seventh right and eight left interspaces for paracentesis, behind the line of the axilla, as these points were well above the highest level of the diaphragm in forced expiration. He laid great stress upon keeping the pus aseptic, as few patients bore well frequent washings of the pleural cavity. He preferred using a trocar and cannula to the incision with a knife, as being more cleanly, and allowing more control over the too rapid escape of the pus, and permitting the easy introduction of the drainage-tube through the cannula. A double opening was rarely necessary or desirable. He believed that the drainage-tube was often kept in far longer than was necessary, keeping up by its presence much irritation and discharge. In children, he thought, there was nothing gained by too early opening, as frequently, at first, the empyema was multilocular, and some delay broke down adhesions and made it unilocular—a matter of no small importance when drainage was established. He believed that, in the great majority of cases in children, empyema was not preceded by serous effusion.

WOLVERHAMPTON DISTRICT MEDICAL SOCIETY.

THURSDAY, FEBRUARY 5TH.

E. CROCKETT, L.R.C.P.Ed., F.R.C.S.Ed., in the Chair.

Puerperal Fever.—Dr. S. A. SMITH of Bilston read a paper on puerperal fever. After defining the term, carefully enumerating the

causes, and graphically describing the varieties, he gave some interesting and instructive details of two local epidemics which occurred in 1873 and 1884.—The discussion was maintained by Dr. Lycett, Mr. Crockett, and Mr. Jackson, and adjourned till the next meeting.

Excision of Knee-joint: Enchondroma. — Mr. VINCENT JACKSON exhibited a girl who was able to walk six weeks after he had excised her knee; also an ossifying enchondroma removed from the femur.

Cerebral Hæmorrhage and Abscess. — Dr. DINGLEY showed two brains, one with a large hæmorrhage into the pons Varolii, and the other with an abscess in the temporo-sphenoidal lobe, and meningitis from otitis in scarlet fever.

REVIEWS AND NOTICES.

ON SCLEROSIS OF THE SPINAL CORD, INCLUDING LOCOMOTOR ATAXY, SPASTIC SPINAL PARALYSIS, AND OTHER SYSTEM-DISEASES OF THE SPINAL CORD: THEIR PATHOLOGY, SYMPTOMS, DIAGNOSIS, AND TREATMENT. By JULIUS ALTHAUS, M.D. London: Longmans and Co. 1885.

WE have some difficulty in determining under what category to class this work. It is not sufficiently systematic or complete to constitute a text-book for students. It does not treat of diseases of the spinal cord in that exhaustive manner which would make it a standard work of reference. Nor, again, does it contain those special researches or novel ideas, for which it might be looked upon as an original monograph on the subject of which it treats. It may be said to be a careful compilation of what is known of certain affections of the spinal cord, illustrated by the clinical experience of the author. Although we are unable to share the hope of Dr. ALTHAUS that his labours have materially dispersed "the obscurity which at present hangs over this department of medical science," we are, at the same time, prepared to admit that it is impossible, for a physician of his industry and experience in diseases of the nervous system, to deal with the question without profit to his readers. The text of the book is clear and well considered, the facts are stated concisely, and a difficult and complicated subject is rendered simple to even the uninitiated.

The opening chapters are devoted to the healthy and morbid anatomy of the spinal cord, and more especially of its system-diseases, and a short account is given of the most recent views on the subject.

In the chapter devoted to etiology, Dr. Althaus expresses himself as a strong advocate in favour of syphilis being the cause of locomotor ataxy, or, as he prefers to call it, tabes spinalis. There can be no doubt that there is strong evidence to support this view; at the same time, there are many arguments which prevent us, at present, from fully accepting the doctrine. The extreme difficulty, in most cases, of actually proving the existence of syphilis, the long period of time between the inoculation of the poison and the development of spinal disease, and the therefore uncertain relation between the two, render the problem of determining between cause and effect a very complicated one. The same applies to exciting causes of all kinds, and statistics may easily be constructed to prove almost any theory according to the inclinations of the observer. We observe, for instance, that Dr. Althaus, in common with some other physicians, has a tendency to accept the opinion of the patient as to the cause of his ailment. We cannot help thinking that this is a dangerous practice, and might lead to most fallacious conclusions.

The most important chapter in this book is that devoted to the symptomatology of tabes spinalis, and this constitutes a very complete and excellent description of the disease. The first or pre-ataxic stage is more especially considered, as the author maintains that, in practice, the importance of this has been generally overlooked or misunderstood. A short account is given of the various affections to which almost every nerve and organ of the body is subject, and a clear and comprehensive picture is drawn of this remarkable and far-reaching disorder. Dr. Althaus insists that tabes can with certainty be diagnosed before the appearance of the symptom of ataxy. He asserts that, if a patient suffer from lightning-pains, absence of knee-jerk, or reflectory rigidity of the pupil, this disease may be assumed to exist; and that, if even one or more of these abnormalities only be present, it may be strongly suspected. He considers it is during this first stage that, if energetic treatment be persevered in, the disorder may be arrested or cured. It may, however, be urged that there is no evidence that the existence of the symptoms referred to constitute tabes, or must of necessity terminate in the clinical series of phenomena to which the name of locomotor ataxy is given, and certainly no convincing proofs to that effect are to be found in this book. It is, of course, very easy to assume that certain symptoms are the fore runners of a serious lesion, and that this is averted by their treatment but it is a much more difficult task to demonstrate the fact. Whil we admit that the subject is of great importance, and well worthy o investigation, we cannot but feel that the assertion of Dr. Althaus o this point is still unproved, and that his work fails to satisfy us o its soundness. More careful and extended observation and experi ence are yet required before we can be sure, first, that a patient su fering from lightning-pains, reflectory rigidity of the pupil, and th absence of knee-jerk, must of necessity be condemned as afflicted wit organic cord-disease; secondly, that, assuming this to be presen the treatment indicated has any effect on the lesion; and, thirdly that the symptoms may not disappear spontaneously. Dr. Althau speaks very strongly of the importance of the absence of the knee-jer phenomenon as a diagnostic symptom. He considers that "the lo of knee-jerk habitually indicates tabes spinalis, even when other sym ptoms seem to point in a different direction." He has "never foun the knee-jerk absent in healthy persons, excepting in the tw extremes of life." This seems rather a sweeping statement, and t observations of other observers on normal subjects have been differen the presence or absence of the knee-phenomenon having often be found to be influenced by purely local physical conditions. If t diagnosis of the early stage of so serious a disease is to be arrived by the arbitrary adoption of special symptoms, the marvellous succ of treatment in the hands of some physicians, as compared with othe may be explained. While fully admitting the value of the knee-je as an aid to diagnosis, we fancy that on this, as on any other meth of physical research, too exclusive dependence should not be plac as it is probable that abnormalities of this condition may arise un more circumstances than we at present suspect.

So chronic, so complicated, and so varying a disease as that of ta spinalis, of necessity gives an ample field for therapeutic opinion a experiment, with little chance of either proving or disproving merits of either. Dr. Althaus looks upon this disease as the resul syphilitic infection, and strongly advocates the necessity of spec treatment, at whatever stage. The lesion and symptoms are to combated, and, he says, often successfully, by mercury and iodide potassium. The sceptic, even assuming tabes to be syphilitic, this dyscrasia to be modified by these drugs, might inquire if s treatment was likely to be of benefit in an affection which appea perhaps, twenty years after the supposed inoculation of a constitutio poison, the patient having been, in the interval, in good health. Althaus' researches furnish no evidence in favour of this assumpt Quite as perplexing is the explanation of the effects of ergot of and nitrate of silver, which are asserted to be potent remedies locomotor ataxy. The former, we assume, is administered on principle of "similia similibus curantur," as bread poisoned with substance has been found to produce symptoms similar to that dis

Why nitrate of silver should especially dissipate sclerosis of columns of Burdach, is not stated. It is simply asserted that remedy is curative. We fail, however, in the present memoir, to cover any convincing evidence of the fact. Cases, without doubt, be selected of persons improving under a certain treatment; and easy to assert that the results are due to therapeutic administra The judicial mind has, however, always the *post hoc* fallac view, more especially as, in the present instance, only opin without scientific data, are supplied. Concerning the effects of tricity, which is also recommended for tabes, much the same ment applies. Up to the present, practical results have given encouragement for its employment. There is, however, a rat theoretical basis for its application, which cannot be said of mar the other medicinal methods of treatment.

Many observers exalt hydropathy, with various baths and mi waters, for tabes, and, as usual, each produces a list of cures in fa of his favourite application. Further evidence of the difficul settling this point is afforded by the statement that Dr. Al disapproves of these methods of treatment, and considers that benefits have been overestimated.

Although the main part of this book is devoted to the consider of locomotor ataxy, there are short chapters on several of the system-diseases of the cord, which, however, call for no special n

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LECTURES ON MENTAL DISEASES. By W. H. O. SANKEY, London. Second Edition. London: H. K. Lewis. 1884.

THIS is the second edition of a book which has considerable although not calculated, in one respect, to serve as a text-book too much coloured for this purpose with the particular views author. We shall not give an analysis of the work, but shall re

me of the principal points discussed in it, and indicate our opinion on them.

A fundamental idea with Dr. SANKEY is, that all mental disorders mmence with an initial stage of melancholia. That the prodromal mptoms frequently assume this form, we readily grant; but we together dissent from the rule being made absolute. It would be dious to cite cases in which no mental depression was present; we n only assert that the exceptions are far too numerous to allow ir adopting the author's doctrine. The analogies often seen be- veen the phenomena of intoxication, dreams, etc., on the one hand, id mental affections on the other, afford no ground for such a theory. e agree with him, however, in rejecting the term "acute dementia," r some time discontinued by the French alienists as objectionable. eaking of cases of *melancholia cum stupore*, Dr. Sankey says: They have been called 'acute dementia,' but, in my opinion, very ongly." (P. 121.) But Dr. Sankey does not appear to recognise ose cases of mental (non-melancholic) stupor which result directly m a shock or from the exhaustion of acute mania. It is well to ject to the term; but that there are instances of primary dementia m shock, and secondary dementia after mania and fever, cannot be nied, however rare they are, compared with the melancholy form own as *melancholia cum stupore*. Dr. Sankey's chapter on dementia indeed, as a whole, disappointing, and the unwary reader can only misled by being referred by "dementia" in the index to the de- iption of idiocy, from which it is important to distinguish it.

Definition is not our author's *forte*. He may, perhaps, be excused m attempting one of insanity, when so many have failed; but reader expects some reason to be given for the omission. He will rdly be content to be told that disease is "the sum of all the phe- mena in a given case."

Classification, though it does not find a place in the index, any re than the definition of insanity, is treated of in Part II. The und upon which it is formed is stated to be some essential cha- ter of the morbid process present in its entirety—that which is at root of the altered functions. The result is a classification which sely corresponds with that of the International Committee of enists which met in Paris in 1867. Moral insanity, however, is excluded from the latter, while it finds no favour with Dr. Sankey. reading him, we are reminded of what an able American alienist te after the trial of Guiteau, when Dr. Gray repudiated the doctrine h much vigour, and decided that the forms of insanity should so many, and no more. "As, listening to Dr. Gray, I sat there, ost the last of that long line of now vanished experts who for ks had occupied those seats, I could not help asking myself, erein is this new enumeration of 'all the possible manifestations nsanity,' with its convenient eliminations, to be preferred to the ? It is Gray now, but it was Ray then; and I wondered, if that tal giant could come back from the shore where he has so lately e to sleep, if we should not hear some such vigorous English as : 'You cannot get rid of a fact by denying its existence.'"[1]

mong other minor subjects discussed in these pages is the insane We agree with the author that the view that it is always, or eed frequently, due to violence, is wholly untenable. His theory ts causation is ingenious, but remains to be proved.

n treating of the causation of insanity, Dr. Sankey expresses his prise that, if we take the proportion of the liability to attacks of tal disease in different social classes, it is higher among persons of k and property than among those in the lower walks of life. The iculty lies in the fact that, according to statistics given by Dr. key, 1 in 50 paupers is insane; while only 1 in 3,982 non-paupers sane. This is, however, a deceptive test on several grounds. The safe mode of making a calculation is based on the number of the t class from which the inmates of county asylums are derived, on one hand; and the small class of society from which the private ients of licensed asylums and registered hospitals come. If Dr. key will work out the problem on these lines, his surprise at the ve mentioned liability to attacks of insanity in different social ses will be lessened. It is surprising that anyone should suppose the truth could be arrived at by ascertaining the proportion of per-insane to paupers. Even if this proved that pauperism pro- ed insanity, it would not help us to a knowledge of the effects of ure and civilisation, in relation to the occurrence of mental dis- . No light is thrown upon social grades of society, in connection n the relative prevalence of insanity, which is really the question ssue.

he plates accompanying the text deserve praise. Those from sec- tions prepared by Dr. Wiglesworth and Dr. Herbert O. Sankey are especially beautiful.

The book has its good points as well as its faults, but we cannot altogether recommend it as a safe guide to the student. Those who are interested in medical psychology would do well to read it, as it is freshly written, and suggestive.

[1] *Two Hard Cases*, by W. W. Godding, M.D., Superintendent of the Government pital for the Insane, Washington.

HUMPHRY SANDWITH: A Memoir compiled from Autobiographical Notes, by his nephew, THOMAS HUMPHRY WARD. Cassell and Co., Limited, London, Paris, and New York. 1884.

DR. HUMPHRY SANDWITH was so fine a specimen of the chivalrous, adventurous Englishman, that some fuller memorial than can be afforded by a short obituary notice in a periodical publication was naturally desired as a record of his life of almost incessant activity. He entered the medical profession, not because he had any special inclination to do so, but because it appeared to be the only career open to him. For a short time he was house-surgeon to the Hull Infirmary, but was compelled, by ill-health following an attack of typhus fever, to relinquish that appointment. After an ineffectual attempt to get into practice in Islington, he suddenly resolved to go to Constantinople, and set off, taking with him very little money, but several valuable letters of introduction. Though never officially connected with the British Embassy in that city, he received some patronage from Sir Stratford Canning, then at the summit of his power, and lived on intimate terms with several of the younger members of the embassy. It was easier, however, to amuse and be amused than to obtain patients, and Mr. Layard had little difficulty in persuading Sandwith to accompany him in an archæological expedition to Mosul and Nimroud; but his health again gave way, he suffered severely from malarial fever, and returned to Constantinople, to spend his time partly in acquiring a curious insight into Turkish life, in the course of his growing practice as a physician, and partly in acting as the correspondent of the *Times*, until the outbreak of the Crimean War gave him a more congenial field of activity. After an ineffectual attempt to see some active service, on the Danube, he became attached to the staff of General Fenwick Williams, in the capacity of Inspector-General of Hospitals.

Sandwith set to work with characteristic energy, and was well backed up by his chief, who appreciated the importance of sanitary precautions; the good result was seen in the fact "that, during the whole siege of Kars, we never had an epidemic of typhus, nor did that enemy of surgery, hospital gangrene, ever appear." When the garrison of Kars surrendered, the Russian General, in recognition of his services to the Russian wounded, gave Sandwith his unconditional liberty, and he returned to London, to be for a season one of the lions of society. In the autumn of the following year, he accompanied the present Earl Granville on his special embassy to attend the coronation of the Czar; and in February 1857, his services, which had already been recognised by his appointment as C.B., were further rewarded by the grant of the post of Colonial Secretary to the Mauritius. This appointment he only retained for a few years, relinquishing it in 1860, when he married. For ten years he practically disappeared from public life, but at the commencement of the Franco-Prussian war he was sent out by the National Aid Society. He could accomplish little for want of funds, and returned home, to protest against the apparent apathy of the Committee; he criticised so freely, urging, especially, the absurdity of having not a single surgeon on the Committee, that his services were not again brought into requisition. The good work which he did during the Servian and Russo-Turkish wars is still fresh in the memories of all. In January 1878, while in Bulgaria, during the latter war, his health finally gave way, and for the remaining three years of his life he lived the life of an invalid, with the exception of one short journey to Servia, which seriously overtaxed his strength. The final blow came through the serious illness of his wife, to whom he was deeply attached; and on May 16th, 1881, he expired in Paris, on his road home to England.

Such is a short outline of the life of a remarkable man, who reflected honour alike on his country and his profession. The volume before us has been carefully edited by Mr. WARD, who has consulted Dr. Sandwith's journals, and has made from them numerous interesting quotations. Dr. Sandwith had a considerable literary talent, and, in addition to *The Siege of Kars*, published several novels, one of which, *The Hekim Bashy*, in which the abuses of Turkish misrule were exposed, had a great reputation in the Slav countries; he was also successful as a public speaker, both as a lecturer, and on the political platform. Many of his curious experiences in Eastern countries are graphically described in this short memoir, which is brightly and pleasantly written, from the first page to the last.

SOME MEDICAL OBSERVATIONS IN INDIA. By Surgeon-Major ALBERT A. GORE, Medical Staff.

THIS is a collection of papers reprinted from the *Dublin Journal of Medical Science*. The first of the series treats of the relative value of "antiperiodic" remedies in the treatment of Indian intermittents. The following is a summary of the results of the author's trials.

	Average Quantity administered.	Average Number of Days under Treatment.
Quinetum	54.6 grains ..	5.63
Hydrochlorate of quinetum ..	53.0 ,, ..	5.13
Quinine	65.6 ,, ..	5.86
Arsenic	2.5 ,, ..	7.00

The reason why arsenic so often fails to cure intermittent fevers in the hands of British practitioners is that by them it is too timidly prescribed. Boudin long ago pointed out that an "arsenical must be opposed to a malarial diathesis;" and this can only be done by giving the remedy in efficient doses. At least half a grain of arsenious acid must be administered during the intermission; this Mr. GORE estimates to be the equivalent of fifteen grains of quinine.

The second paper, on Acute Goitre, confirms the value of the ointment of the biniodide of mercury in this affection, which is as common in certain parts of India as it is in the valleys of Switzerland. Mr. Gore gives thirty cases successfully dealt with by the application of this ointment.

The most interesting and important paper in the series is that On the Effect of Climate on Young Soldiers in the Hills of India. Professor Maclean, in his evidence before the Royal Commission which inquired into the health of the Indian army, urged that the true use of hill-stations was to preserve, not to recover, the health of European soldiers. In other words, that, where strong military and political reasons did not forbid it, the early part of the service of all European regiments arriving in India should be passed at such stations. The late Sir Ronald Martin was never weary of pressing a like opinion on the attention of the authorities, as a wise, economic, and humane policy. We find in Surgeon-Major Gore's paper strong confirmation of the "views" of the above authorities on this important subject. The paper is, in fact, the medical history of a draft consisting of ninety-six non-commissioned officers and men of the 1st East Lancashire (late 30th) Regiment, which landed at Bombay on November 5th, 1881, were at once "railed" to Moradabad, whence they marched through the Terai at the foot of the hills, at a cool season, when malaria was dormant, to Raniket, 5,000 to 6,000 feet above sea-level, but with valleys as low as 3,200 feet above the sea.

"This small and select body of men" were not exempt from disease; far from it, for there were in all 130 admissions into hospital, the most important of which were 20 for primary syphilis, 15 for gonorrhœa, 3 for secondary syphilis, 13 for hill-diarrhœa, 3 for dysentery, 5 for bronchitis, and 3 for pneumonia. The other admissions, with the exception of one fatal case of enteric fever, were for trifling affections to be found in every climate, and to which young soldiers, with their proverbial carelessness, are everywhere liable. The admissions for venereal affections were lamentably large, the Cossiahs, or hill-women, suffering from venereal sores, "*plus* dirt," to a fearful extent.

Surgeon-Major Gore sums up his history of this detachment in the following words: "The foregoing sketch shows that young soldiers brought direct from England, under the most favourable circumstances, as to the mode of travel and season, to the inner Kumaon hills, will not be exempt from attacks of the more commonly observed tropical diseases, but as a rule in a mild form, and amenable to treatment; in other words, they became seasoned to climate and initiated into the ways and manners of Indian life, with less risk to themselves than if placed in the plains. As with all newly arrived and young soldiers, the percentage of admissions was high, but the mortality was exceedingly low, and the loss from invaliding *nil*."

We have left ourselves little space to notice the two remaining articles of the series, namely, on Climatic Fevers in North-Western Bengal, and on Febris Complicata of India, a term Surgeon-Major Gore, following Dr. Veale, late Assistant Professor of Medicine at Netley, applies to the complicated forms of adynamic remittent, which closely resemble certain forms of Mediterranean fever, to which Dr. Veale gave that name, because, while indicative of the complicated nature of the symptoms, it did not, like the term typho-malarial, imply any theory as to origin. We recommend both papers to the careful study of physicians in tropical climates, assuring them they will find much to interest and instruct, particularly those who, being new to the diseases of such climates, are apt to be confused by the way in which malaria often obscures the diagnosis of fevers, into which it enters as a grave complication.

ATLAS OF THE DISTRIBUTION OF CUTANEOUS NERVES. By Professor HEIBERG. Christiania: Cammermeyer. 1884.

(ATLAS DER HAUTNERVENGEBIETE. Von Dr. JACOB HEIBERG.)

PROFESSOR HEIBERG is well known as an anatomist, and has recently put forward some original views about the movements of the bones of the forearm in rotation of the hand, maintaining with convincing argument that the ulna moves, as well as the radius, and describes a curve, which may be best understood as being that of the lower end of a cone, the apex of which is at the sigmoid cavity above. This formed a paper for discussion at the International Medical Congress last year. Now Dr. Heiberg has issued an useful atlas, showing the distribution of cutaneous nerves by means of differently coloured areas.

The plan is a good one, and it is possible to see at once the extent over which the nerves are commonly to be found. This will be useful in tracing the cause of certain affections of the skin, and of the cutaneous nerves; and will materially help the clinical teacher, and also be of use to the scientific practitioner. Allowance must be made for occasional differences in the extent of particular nerve-distribution from what is taught in our schools, and for some difference of nomenclature; but the latter is met by a very clear table of synonyms, facing each plate. There are ten of these plates, and they are well executed, the colouring being soft but clear, and the drawing good; and the size of the plates is such that the book can be easily carried and used in the wards or out-patient room. There is no doubt that a much clearer idea of distribution of nerves is obtained by the method here adopted than by the usual plates of cutaneous nerves, which, the more accurate they are, the more confusing they are; and we welcome this work as of great practical value. It will be useful for students to refer to this work in their clinical studies; and there is no doubt that models, prepared on the same plan, would be of great use to the anatomical as well as the clinical teacher.

CONFERENCES ON SCHOOL-HYGIENE. International Health Exhibition. London: Clowes and Co. 1884.

THE official publication of the valuable papers read at the conference continues; and we have now to notice one on "School-Dormitories," contributed by Dr. CLEMENT DUKES.

In the outset, we are startled by the statements of the writer that "50 per cent. of the school-dormitories of boarding schools in Great Britain are as bad as could possibly be;" that "40 per cent. are just passable;" and only "10 per cent. of such a character as to satisfy a sanitarian." Is this so? Our school-days were passed a half-century ago; doubtless then there was much overcrowding in dormitories, but, in our recollection, none of those enormous anomalies existed which Dr. Dukes describes with such scathing exactness. "The most expensive schools are the worst of all," he writes, and goes on to say that air, the great essential of human existence, is niggardly supplied, the means of egress of foul air are imperfect in the extreme, and the means by which fresh air can be continuously and imperceptibly supplied non-existent. The ten hours for rest and sleep usually passed in dormitories are passed in an atmosphere deficient in oxygen, but loaded with human exhalations. The results, uneasy sleep, unfreshed awakening, drowsy mornings, unfitness for study, all these are pointed out as the necessary sequences of the folly which permits, without supervision, the existence of evils which impoverish mentally the youth of Britain, and deteriorate bodily those upon whom, in the future, the hopes for the continuance of the life of the family are placed.

Pertinently as these conclusions apply to boys, their significance and force cannot but be increased greatly when we consider the pernicious influence such unhealthy sleeping rooms would undoubtedly have upon the more delicate organisation of girls; and more especially upon those who are approaching that period of life which is designated by Nature for the maturation of their especial functions.

Dr. Dukes proceeds to detail the cubic space, the superficial area, the modes of ventilation, etc., which should be required in every dormitory; required in the sense that these should be proportioned to the numbers associated for rest in these sleeping rooms, so as to ensure for each occupant a due allowance of breathing space, and a due quantity of pure fresh air to breathe. We will not follow him through the details, which are at once carefully set out, and are clearly indicative of the proper cubic capacities of rooms, and of the means of making the healthy dormitories; we would rather press upon the attention of our readers the unpleasing results which Dr. Dukes so pointedly pourtrays and ask, Can the doctrine of letting things alone, letting youth, in a period of growth, be deteriorated in health, always continue to be preached? We are aware, painfully aware, that the State, by

ws, does concern itself somewhat too largely with details best left to ciety to correct; yet, while admitting this, we cannot but say that ie facts, as stated by Dr. Dukes, call for inquiry, and the evils erred for amendment.

A lodging-house must needs be registered; the law commands it, d the courts enforce the law. Do school-houses, where boys girls are to be educated, less need the supervision of authority an do the common lodging-house of the poor man? Should there t be ensured to the former as ample a provision of fresh air, as wide provision of breathing space, as great freedom from unhealthy surndings, as the laws require shall be ensured to the latter? If it ould be enacted that these requirements shall be provided, and shall certified by the sanitary authority to be efficient and sufficient, we ceive that, while, on the one hand, the health of those who will be the future the men and women of Great Britain would be maially improved, so, on the other hand, the immunity from sickness ich would result, would recoup to the governors or proprietors of ools any outlay which might have been expended in the promotion a result so beneficent.

n the concluding paragraphs, Dr. Dukes writes of the evils of mor-y, which too often occur when many of those who have left the e hearths of their parents come to mix with those whose minds e been tainted. The correction of all such evils rests mainly with schoolmaster and his assistants. Personal influence, personal erintendence, a kindly loving care, that to some extent takes the ce of the loving influences of home; these are the true correctives evils, which, unless early arrested, blanch the ruddy cheek, ler pitiable the once self-reliant mind, check growth, and embitter life the springs of health and happiness.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MASON'S INVALID DIETETICS.

ER the title of George Mason and Co., Limited, a new company anufacturers of concentrated meat-essences, and like substances, been established at 417, King's Road, Chelsea, the head of the being, we are told, a descendant of the founder of the "Brand etics."

ie preparations are made in very advantageous circumstances. iave had the factory visited, and the processes examined, and can that they are carried out with great exactness and skill, and that quality of the products is of the first class. The chief articles hose identified with the name of the Brand family: concentrated tea, essence of beef, beef-jelly, and savoury meat-lozenges, all extracts of meat. The concentrated extract put up in skins is ufactured under a new patent, by which the outside of the skin is epared as hermetically to seal the contents, and to prevent it hardening, which has hitherto been a great source of objection is solidified form of meat-extract.

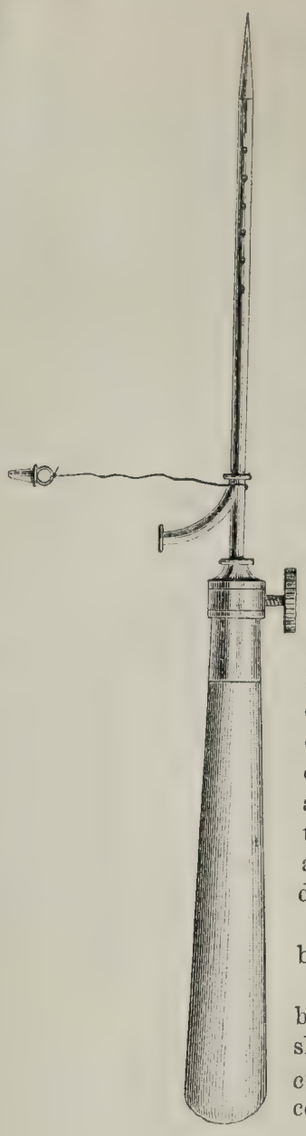
other improvement is in the manufacture of beef-jelly, as the t of which, the contents of a jar of this delicate kind of invalid-remain sweet for a considerable time. It has hitherto been an tion that a jar, once opened, would keep but for a very short This improvement in this very appetising element of diet for ids of feeble digestion is a great advantage. The meat-lozenges, re unusually well flavoured, and have not that hard and gela-s character which is often found to be a source of objection. On whole, we can speak well of the care and skill with which this y is conducted, and of the high character of its products.

LIQUOR EUONYMINÆ ET PEPSINÆ COMPOSITUS.

is an exceedingly well devised and valuable preparation, com-, in a very useful and palatable form, a valuable hepatic and ive agent. It meets a want very often felt by prescribers in the ent of the forms of indigestion and flatulence due to deficient ion of bile, as well as atony of the stomach and insufficient ion of gastric juice. The preparation is likely to be found exceed-useful, and, in practice, we have found it very convenient and ble. It is made by Messrs. Oppenheimer, of London.

AN IMPROVED CANNULA FOR DRAINAGE IN ASCITES, ETC.

By W. Y. Veitch, L.R.C.P. and S.Ed.,
Surgeon to the Middlesbrough Hospital.



In my experience, the full benefit of Dr. Southey's admirable little drainage-trocar is only occasionally attained. The subsidence from its use in ascites, restlessness of the patient, or any slight accidental drag upon the India-rubber tubing, is sufficient to displace the cannula.

It has been my lot to be called upon to repeat the operation within an hour after the first insertion of the trocar, owing to the ease with which the cannula is withdrawn when very great care is not obtainable.

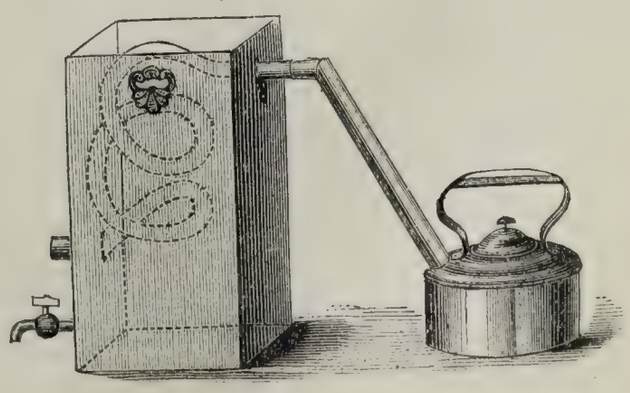
Considerable difficulty is often experienced in fixing the elastic tube to the nozzle of the cannula during the escape of serum, the tubing, on this account, having sometimes to be abandoned, and the bedding being saturated with serum in consequence. With a view of obviating these casualties, Messrs. Wood and Co., of York, at my request, made a cannula according to sketch, with an adjustable trocar, suitable for both ascites and anasarca. This device has answered perfectly.

The India-rubber tubing may be fixed before the puncture is made.

The cannula can be secured in its place by a thin strip of rubber plaster, and the shield is dispensed with. The old form of cannula can easily be altered into the more convenient form.

APPARATUS FOR DISTILLING DRINKING-WATER IN PRIVATE HOUSES.

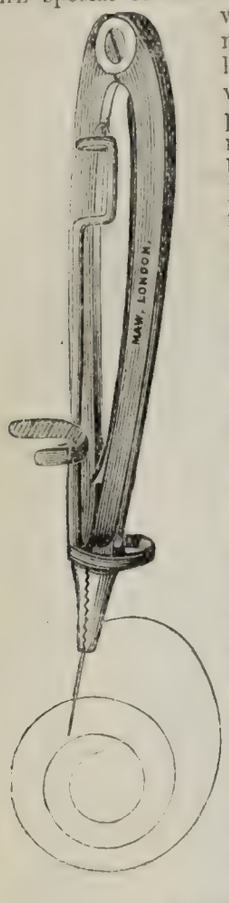
The apparatus, which has been designed by Mr. G. P. Atkinson, of Pontefract, and is represented in the accompanying drawing, consists of a kettle holding one gallon, and having a specially formed tube connecting it with the metallic worm in the adjoining cistern, which is about 21 inches by 12 inches, and made of zinc; all the rest being



formed of the best block tin. The kettle may be heated by an ordinary fire, or by means of a small gas-stove connected by India-rubber tubing with any gas-burner. There is also a further arrangement for withdrawing hot water and renewing the cold; and in addition, a short tube with large perforated nozzle is supplied, to be attached to the kettle-tubing when disconnected from the cistern, in order to fill a room with steam quickly in cases of croup, bronchitis, etc.

NEW NEEDLE-HOLDER.

By JOHN WARD COUSINS, M.D.Lond., F.R.C.S.,
Surgeon to the Royal Portsmouth Hospital.



THE special feature of the instrument consists in the device by which the opening, shutting, and fixing movements are accomplished. The blades of the holder are surrounded by a triangular collar, with rounded off angles, fixed just below their points, and under the control of the thumb by means of a lever. When the holder is grasped by the hand, the collar can be easily rotated. In its long axis the blades are released by a recoil-spring, but by a slight movement they are securely fixed, and the points are brought into close contact with each other.

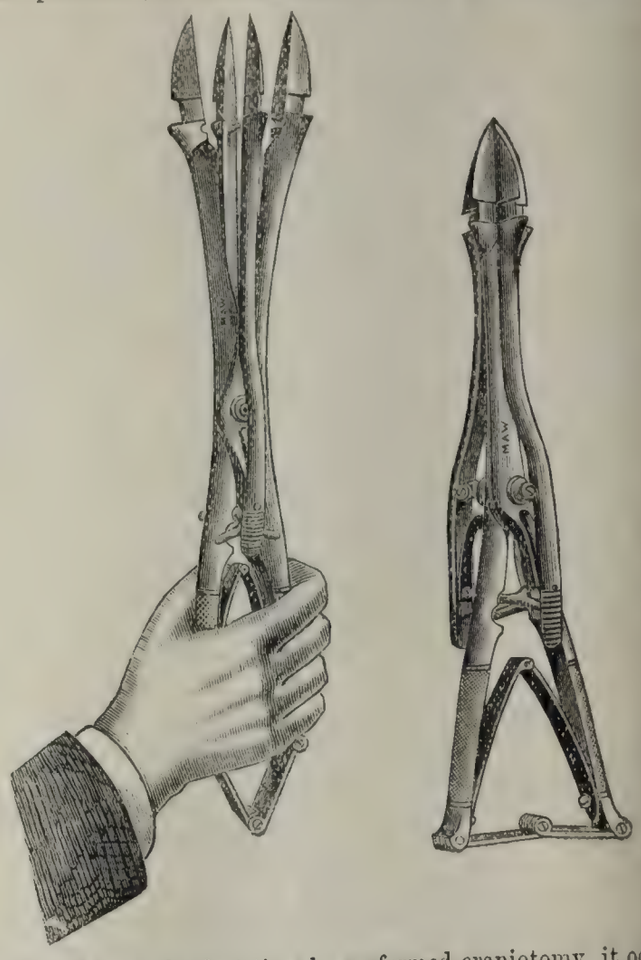
The needle-holder is represented in the engraving carrying a surgical needle and thread. It is made by Messrs. Maw, Son, and Thompson. It is adapted for the introduction of every kind of needle, and it is not liable to get out of order. The pressure at the points can be accurately regulated by the hand of the surgeon, and in this way the risk of breaking needles is greatly diminished. The long lever attached to the thumb-plate is intended to facilitate the insertion of deep stitches in plastic operations. The rotatory action of the instrument is the chief element of novelty, and this marks the difference between it and the holders now in general use. By slight movements of the thumb on the lever, complete control is obtained over the needle. Sir Spencer Wells's short scissor-shaped holder is suitable only for the introduction of large needles; and the ordinary spring-instrument gives no variation of pressure at the points, except the slender accommodation obtained by covering them with soft metal.

SQUIRE'S CONSTANT TINCTURES.

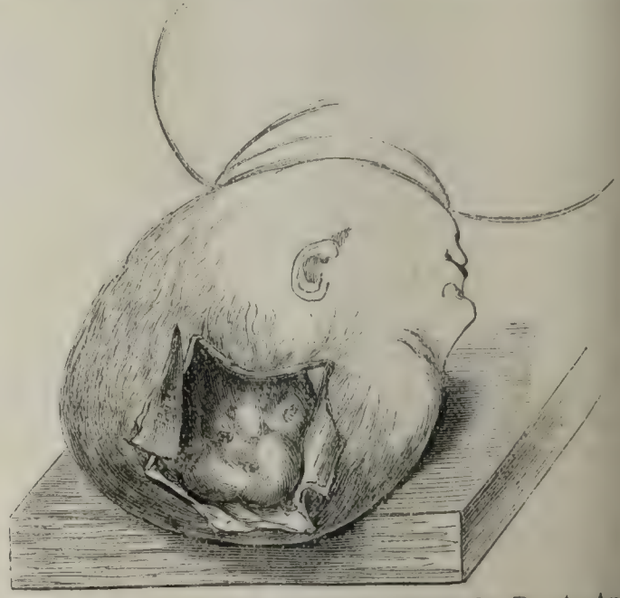
WITH much labour, and after a considerable series of investigations, Messrs. Squire and Co., of Oxford Street, have introduced a number of preparations likely to prove of great interest to prescribers, and to introduce a much needed element of certainty. These preparations, of which the production is no doubt connected with the recent discussions on what is known as the standardisation of drugs, are intended to combine two important conditions: namely, that the alkaloid of a drug does not necessarily represent either the whole constituents of the drug, or the whole of its active principles, and that the alkaloid does not therefore necessarily produce the full and precise action of the drug; and the other, that the crude drug, not having a standard quality, the extracted alkaloid is liable to considerable variations in the ordinary tinctures so much employed. In this new preparation, we have an extract of the whole drug, having the standard strength of its known alkaloid. What has been aimed at is, to ascertain the precise strength of the tincture—of nux vomica, for instance—given by the formula of the *British Pharmacopœia*. This is compared with two or three picked specimens of nux vomica, and, a standard having been arrived at, the tincture of nux vomica is then brought by standard estimation to the strength arrived at from the number of experiments made. Crude drugs vary so much, that it is impossible to standardise the crude root; on the other hand, for those—and they are many—who believe in the importance of precision in prescribing, it will be a great satisfaction to know that, in every case in which they prescribe these constant tinctures, they are prescribing a medicine which represents the whole of the active principles of the drug, and in which the chief alkaloid is invariably at the fixed strength which the *Pharmacopœia* aims at producing. In this ingenious way, an element of precision is introduced into the prescription of tinctures of all the active drugs, which could not otherwise be attained. The idea is ingenious and scientific, and carried out with an exactness which may be depended upon in a house of this reputation. It will no doubt meet with much favour as furnishing a new and valuable element of certainty in the principal medicines which are the physician's armament in the treatment of disease. A long series of the principal drugs is now included in the list of constant tinctures made by Messrs. Squire and Co.

DR. GODSON'S FOUR-BLADED PERFORATOR.

IN the Section of Obstetric Medicine, at the last annual meeting of the British Medical Association, the President (Dr. Godson) showed his new four-bladed perforator, and demonstrated its action on a still-born fœtus.



He explained how, the first time he performed craniotomy, it occurre to him that the ordinary perforator with two blades was a very in perfect instrument, having to be opened a second time in an opposi direction, the result being a very irregular jagged wound. The fou bladed perforator (as seen), after once being opened, produced a lar quadrangular aperture, through which the contents of the cranium



immediately escaped. In a recent work written by Dr. A. Auvar Paris, entitled *De la Pince à Os et du Cranioclaste*, the several ki of instruments employed for opening the skull are figured and scribed—among them, this four-bladed perforator. The orig instrument was manufactured for Dr. Godson by Messrs. Krohne Sesemann.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SCRIPTIONS to the Association for 1885 became due on January st. Members of Branches are requested to pay the same to their espective Secretaries. Members of the Association not belonging o Branches, are requested to forward their remittances to the eneral Secretary, 161A, Strand, London. Post-Office Orders hould be made payable at the West Central District Office, High olborn.

The British Medical Journal.

SATURDAY, FEBRUARY 14th, 1885.

HE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

facts as to the temporary increase in the staff of the medical de- nent of the Local Government Board are not quite accurately d in the daily papers. The inadequacy of the medical staff of State is an old story, dating back to the days of Mr. Simon. essive medical officers have annually harangued their depart- al chiefs on the subject, and successive presidents have, with or less goodwill, endeavoured to coax an adamantine Treasury granting the necessary funds for an increase in the inspectorate. my lords, dimly conscious that the line must be drawn some- , have drawn it in the wrong place, and have never gone further a grudging grant of temporary help. This is the case now. Dr. nan, feeling the growing inadequacy of his staff for the work pon it, has made his strongest allowable appeals to his superiors ditional inspectors. To further his object, he even went so far boldly announce to the world, in his last annual report, that, k of sufficient help, he could not keep watch on the movements olera. We commented at the time on the significance of this and, to outward seeming, cynical admission; but it appears to so far succeeded in its object, that the Treasury have sanc- the appointment of a number of inspectors (temporary, again) rtake the arrears of work in the medical department.

the principle that half a loaf is better than no bread, Dr. nan will, no doubt, accept with due gratitude the help thus im; but we may venture to predict that he would far rather ad even half the number of permanent inspectors that he asked n double or treble the number of temporary helpers that he ploy with the money granted to him by the Treasury. For, if ith must be told, temporary inspectors are both extravagant satisfactory. The personal and travelling fees and incidental s of a number of inspectors run away with an undue propor- the money allotted; and, as soon as the whole staff has got l swing, the purse is empty. The best men for the purpose, n constant work, are not available as temporary helpers; and n as are disengaged have no sooner got into the ways of the ent, than the time for which they were appointed has ex- Health-officers of combined districts, for example, who are, ld be, just the class from whom the ranks of the Central Medi- artment should be recruited, are prevented, by the terms of their appointment, from accepting extra work involving absence from their districts; and, in any case, the Local Government Board, supposed to be responsible for seeing that they devote themselves to their duties, could hardly set the example of luring them away. Hence, while it may be hoped that the congestion in the Medical Department will be relieved by the inquiries which the six new temporary inspectors will make, it would be idle to expect from their labours any permanent benefit.

The fact is that, in the present temper of the Treasury, no adequate central sanitary staff will ever be possible so long as the grant in aid of sanitary officers appears in the Civil Service estimates. The Treasury are accustomed to assess things by rule of thumb, and they cannot be divested of the belief that, because they give so many thousands of pounds a year as part payment of the salaries of medical officers of health, nothing more than a skeleton central health department is therefore necessary.

We cannot now stop to explode this fallacy, nor do we suppose that the Treasury would be much moved by such explosion. They have only been galvanised into consenting to give temporary help by the fear of cholera finding us unprepared to meet it. Accordingly w find, as the first result of the Treasury munificence, that Dr. Blaxall, of the permanent staff, and Dr. De Chaumont and Dr. Davies (junior), temporarily attached to the department, have been charged with the responsibility of examining the sanitary defences of our several ports, and concerting joint action of the central and local authorities in the event of emergencies arising. The other appointments have not yet been definitely filled up, though we hear the names of several medical men mentioned in connection with them.

The detailed and systematic inquiry into the health of inland districts which appears to be forecast in the daily papers is, of course, a misconception. Such a task would be impossible of accomplishment in anything like a reasonable time by the central staff, even if there were not an army of local health-officers already detailed and paid for this express duty. What the new temporary inspectors will do, will be to help in the special local inquiries which excessive prevalences of disease or general sanitary maladministration have shown to be necessary in particular districts. We confess to feeling not oversanguine as to the utility of these inquiries in unskilled hands. The art of compiling a sanitary report fitted to convince a local authority, and to serve as a new starting-point in the health-history of a district, is not one to be acquired in a month or six weeks; and it requires, moreover, quite an education to understand the intricacies of the Public Health Act. We remember to have been told by a medical officer of health of a temporary inspector sent down from London to investigate an epidemic, to whom the provisions of this Act came with quite refreshing novelty. This was no doubt an extreme case; but it indicates the dangers which underlie a reliance upon the expedient of temporary assistance where a department is chronically incapable of overtaking its work.

It is impossible to hope that, whatever changes may occur in local administration, and however much the public health of the country may improve, the work of the Medical Department of the Local Government Board can be expected to diminish in volume, and it most certainly cannot escape increasing in importance. Putting aside for the moment any share in the elucidation of etiological problems of primary sanitary importance, there is enough work before the Department to engage a considerable staff for many years to come. At

present, the work done is fragmentary and unsystematic. Except as to one disease, small-pox, there is nothing like a regular scheme of central inspection and advice; and small-pox is, in view of vaccination, probably the disease of all others that least requires this minute attention.

Now, as Mr. Simon has well observed in one of his reports, "among the many administrative purposes for which central government in this country claims to criticise and influence the action of local authorities, none can be of more national importance than those which relate to the prevention of disease—none in regard of which it can be more essential that local disobedience to positive law should not be tolerated—none in regard of which it can be more desirable that the influence and advice of the central government should be given to promote throughout the country the real intentions of the legislature." And accordingly, Mr. Simon schemed out a system of organised inspection, which was to represent, in effect, a central audit of local death-accounts. Through official objections and disagreements, this admirably reasoned scheme died in its birth, and there seems but little hope of its present resurrection. We are told, however, on what seems to be the same authority as that which promulgated the news about the temporary inspectors for the Medical Department, that the Government have it in contemplation to introduce an amended Public Health Act, which is to largely strengthen the statutory powers for the mitigation of disease. No better means could be devised for doing this than creating and equipping a staff for the "central audit of local death-rates," of the kind and in the way contemplated by Mr. Simon. But this will probably be the last, instead of the first, step that the Government will take.

CHOLECYSTOTOMY.

One of the most remarkable developments of abdominal surgery is the operation of cholecystotomy. The radical cure of dilatation of the gall-bladder from obstruction of its ducts is a bold undertaking; and, as this dilatation and obstruction are generally due to one cause, the operation is intimately associated with the removal of that cause, namely, biliary calculus. Hence, by cholecystotomy, the surgeon usually understands incision of the gall-bladder and removal of calculi. To this must be added, before the operation is declared to be successful and justifiable, full evidence that the biliary ducts are really relieved of obstruction by this proceeding, for to their closure are due all the serious constitutional changes associated with dilatation of the gall-bladder.

On June 8th, 1878, we published an original contribution from the pen of the late Dr. Marion Sims, describing the first case of cholecystotomy, which was performed by himself. The patient was a lady, aged 45, subject for a year to jaundice, white fœtid motions, intolerable cutaneous irritation, and hæmorrhages. The gall-bladder was opened, and part of its walls were removed; its cut edges were then secured by suture to the upper angle of the wound in such a manner as to make a permanent fistula. The patient felt relief from itching and pain; but hæmorrhage from the gums occurred on the fifth, and death, preceded by black vomit, on the eighth day. Langenbuch has since recommended the complete removal of the dilated gall-bladder. The anatomical relations of that structure, however, render such an operation somewhat difficult, and the obstruction may lie in or around one of the ducts, so that the exciting cause of disease may be left behind; nor are results encouraging, since, out of six cases where Langenbuch's operation was performed, three proved fatal. Sir Spencer Wells believes that, after the contents of the gall-bladder have been removed, it should not only be left intact, but returned into the abdominal cavity, after the incision in its wall has been closed by a continuous suture. If it be granted that the cause of obstruction—a calculus or collection of calculi—has been removed, the operation appears at least to be very reasonable. Still further, if it can be shown that dilatation of the gall-bladder causes or keeps up stricture of the common bile-duct through swelling of its mucous membrane, then Sir Spencer Wells's proceeding would be in complete accordance with the principles of pathology. In a case where it was attempted, however, the result was, we understand, unfortunately fatal; and, although every precaution had been taken to prevent the escape of bile into the peritoneal cavity during the operation, and notwithstanding that the incision in the wall of the gall-bladder had been apparently well secured by the suture, a quantity of bile escaped into the abdominal cavity, and set up peritonitis. Mr. Lawson Tait has described a case where, after cholecystotomy, conducted on Dr. Marion Sims's principles, had failed to relieve the patient, a calculus being impacted in the common duct, he re-opened the abdomen an inch to the inner side of the gall-bladder, and crushed the stone by means of a pair of padded forceps applied outside the duct. The was done with great ease. The calculus was about the size of a cherry and after it was broken, the fragments dispersed without further trouble. A somewhat similar case was published by the same surgeon last week. For further details of Mr. Tait's opinions on cholecystotomy we must refer our readers to the Journal of May 3rd and July 12th 1884, and February 7th, 1885.

Dr. Gaston, of Atlanta, Georgia, has published, in Gaillard's *Journal*, October 1884, a remarkable paper on cholecystotomy, an abstract of which we publish this week. The original article contains a long review of anatomical and physiological questions concerning the gall-bladder and biliary ducts, with a consideration of the clinical and pathological results of distension of the former and obstruction of the latter, and the precise relation of the obstruction to the distension, a most important subject. The article likewise includes, as might be expected, a series of criticisms on the practice of other surgeons, more especially Wells, Tait, and Marion Sims, whose different procedures have been briefly described above. Dr. Gaston also gives very full clinical details of several cases which lead him to the conclusion that obstruction of the common biliary duct, and consequent arrest of the supply of bile to the intestine, is the true cause of the really serious symptoms observed in cases of dilated gall-bladder. He notes that it is well known how, when a calculus has passed through the duct so as no longer to obstruct it, all these bad symptoms have disappeared, and that, even when the duct has remained closed, and the calculus has escaped into the intestine through a fistulous communication between the gall-bladder and the bowel, the symptoms have likewise passed away, just as though the bile had reached the intestine through its natural channel. Hence he concludes that relieving the distension of the gall-bladder alone is useless and dangerous. As he also believes that the common duct cannot readily be freed from calculous obstruction by surgical manipulations, and will not necessarily become patent, even after cholecystotomy when the calculi have been found, through the subsidence of swelling of the mucous membrane, he aims at the restoration of the flow of bile into the intestine by artificial means. In other words, he advocates

tablishment of an opening between the gall-bladder and the intes-ie. The *New York Medical Record* has pointed out that Dr. ston's suggestion is not, as he appears to suppose, entirely original. er two years ago, Dr. Winiwarter performed a successful operation occlusion of the cystic duct, attaching the gall-bladder to the on, the case being reported in the *Prager Medizinische Wochen-rift*. On the other hand, Dr. Gaston has not attempted the pro-ed operation on a human subject, but has made experiments upon s, the results of which will be found in the abstract which we lish this week.

rom a brief consideration of the above history of the surgery of the -bladder, in relation to the pathology of obstruction of the common -duct, it seems evident that the operation of cholecystotomy is in f perfectly feasible; and, as Mr. Tait's statistics, published in the RNAL last May, amply prove, thoroughly justifiable as far as im-iate results are concerned. It is equally certain that this opera-, as Dr. Sims and Mr. Tait have performed it, may leave the rtial factor in the patient's malady unrelieved. On this principle, crushing of a calculus obstructing the common bile-duct is an nce in surgery for which credit must be awarded to the latter on, who has carried it into practice. Yet the frequency of ssful results of Sims's operation affords physiological evidence after simple cholecystotomy, bile is once more supplied with-ndrance to the intestinal canal. This would seem to show either biliary calculi manage to escape from the common duct cholecystotomy, or, as has been already suggested, that this ope-t causes subsidence of the swelling of the lining membrane of the If Mr. Tait's lithotrity be really so easy of performance—and to the softness of biliary calculi, it is easy to understand that nay readily be broken down by pressure not sufficiently power-do the least harm to the duct—it is possible that Sir Spencer s suggestion may be acted upon again, for everybody may not with the former surgeon in the necessity for establishing a fistula, and means may be found for thoroughly securing the in the walls of the gall-bladder. It is less probable that Dr. 's views will find general acceptance in this country.

A TEACHING UNIVERSITY FOR LONDON.

Association for Promoting a Teaching University for London," oming within danger of shipwreck by reason of the impracnature of the draft scheme presented at the first meeting, has riously got to work. At its meeting on February 5th, it ap-a Committee to begin a preliminary investigation of the ground covered, and of the difficulties likely to be met with. That ifficulties will be neither few nor slight was fully recognised by speakers, but there seemed to be a sanguine expectation that est desire which animates the distinguished body of men who pported the movement to arrive at some working solution of lem will suffice to this end.

ssociation is fortunate in having secured for its President, in n to Lord Reay, a man of so much ability and eminence as sebery. The mere fact that such men are willing to lend their pport to the movement, augurs well for its ultimate success. e Executive Committee, which at present consists of thirteen, ical schools of London are represented by Mr. John Marshall, M. Ord, Dr. Pye-Smith, and Dr. Norman Moore. This is a presentation than has been accorded to any other faculty, and the four gentlemen chosen will, no doubt, be able to bring the legitimate wants of the medical schools under the notice of the Committee in a definite form. The question has now reached the stage when negotiation and consultation is the first necessity; if the movement is to succeed, those to whom the executive is committed must first diligently seek to learn from all quarters what is wanted, and must then ascertain how much is attainable. The task entrusted to the members of this Committee is as laborious as it is honourable; they will, doubtless, feel it to be their duty to examine with care all the schemes that have been, or may be, propounded by responsible individuals, or interested bodies, and, laying aside personal predilections, will seek to place each scheme and each interest in its true relative position. The public and the professions interested want a clearer view of what is possible and needful. Of the suggestions hitherto made, none appear to be entirely practicable, some owing to inherent defects, others on account of the opposition which they would inevitably arouse among a certain section of the most ardent advocates of a teaching university.

The proposals of the Committee, when they come to be formulated, will, it may be hoped, form a basis for future action. As a first step, negotiations will be commenced with the teaching bodies and legal and medical authorities on the one hand, and the existing University of London on the other. It is impossible to foresee what may be the attitude eventually taken by this latter body; it may, perhaps, present us once more with the spectacle of a house divided against itself. Convocation, keenly alive to the importance of the movement, and apparently convinced of the necessity of reform, wisely believes that the University should take the lead, and so modify its constitution and regulations as to meet the altered circumstances and larger needs of the day. Convocation, however, has a very small part in the conduct of the University, and has learned from long experience that the most reasonable and moderate demands may be ignored by the Senate. Many members of the Senate sympathise with the movement now on foot; but whether their wise counsels will prevail, who can say? Certain it is that no small concessions or tinkering alterations will suffice. The University of London must either consent to descend from the inaccessible position in which she is now ensconced into the arena of every-day life, where every-day needs are filled, or she must be prepared to tolerate the existence of a more liberal and practical-minded rival.

THE President, Vice-President, and Stewards of the Medical Society of London have issued cards for their anniversary dinner, to be held at the Holborn Restaurant on Saturday, the 7th of March.

DR. ROBERT SAUNDBY has been elected Physician to the General Hospital, Birmingham, to fill the vacancy caused by the resignation of Dr. James Russell.

JUDICIAL decisions have been rendered in several different States of America to the effect that, in cases where a physician or surgeon has recovered the amount of his bill by legal process, no suit for malpractice can be sustained, inasmuch as the result of the first proceeding forms a legal recognition of the value of his services.

UNIVERSITY COLLEGE HOSPITAL.

Dr. DUDLEY BUXTON, who for some time has been devoting his attention to the subject of anæsthetics, has been appointed, by the Council of University College, Administrator of Anæsthetics to Uni-

versity College Hospital. The appointment has been made to fill the vacancy created some time back by the death of Mr. J. T. Clover.

APPOINTMENT OF MEDICAL INSPECTORS.

We learn that the Treasury have, at the urgent solicitation of the Local Government Board, sanctioned the temporary appointment of six additional medical inspectors. Four of these inspectors will be engaged in making a general sanitary survey of the inland districts of England and Wales, while the remaining two will be engaged, in company with Dr. Blaxall, in inspecting the port sanitary districts. These inspections are precautionary steps against the infection and spread of cholera should it unfortunately make its appearance in this country during the spring or summer months. Further comments on this appointment will be found at page 337.

THE SPREAD OF MALICIOUS SHOOTING.

At the Central Criminal Court, last week, Baron Huddleston spoke very strongly about the prevalence of the baneful habit, which we seem to have borrowed lately from some other nations, of carrying or keeping revolvers, and using those deadly weapons under slight or wholly inadequate provocation. Our judges must put the practice down with a firm hand. Recently, a case was recorded of a man killing his unoffending housekeeper, by shooting downstairs, out of his bedroom, under the influence of a mistaken notion that burglars were ransacking his house. In Baron Huddleston's court, three cases in which revolvers had been used were heard last week. The severe sentence of fifteen years' penal servitude in one of the cases will serve as a timely warning, and will show that the law regards intentional personal injury by firearms as closely approaching a capital crime.

DEMONSTRATIONS IN OPHTHALMOLOGY.

We learn, with pleasure, that a series of evening demonstrations are being given by the staff of the Westminster Ophthalmic Hospital on the first Friday of each month. The last exhibition of this kind—by Mr. Macnamara and Mr. Frost—was typical of what a collection of cases should be, and could not fail to be of the greatest interest to the general practitioner as well as to the specialist. Among many others, we noted excellent examples of albuminuric retinitis, optic neuritis, optic atrophy, choroiditis, glaucoma cupping, and opaque nerve-fibres. The central position of this hospital renders it desirable that such a course of instruction should be continued.

THE ENGLISH CHOLERA COMMISSION.

In the abstract of Dr. Klein's paper on the Relation of Bacteria to Asiatic Cholera, published in the JOURNAL of February 7th, page 289, there is the following misstatement. In speaking of the evidence to show that water contaminated with choleraic evacuations, and containing, of course, comma-bacilli, did not produce cholera, reference was inadvertently made to the tank examined by Dr. Klein "near the Jelepara Lane." The words should have been, "in the case of the tank in Saheb Bagan." It will be remembered that it was upon an examination of the water of this tank at Saheb Bagan that Dr. Koch's report on this part of the subject was founded (BRITISH MEDICAL JOURNAL, April 12th, 1884, p. 740). In the paragraph numbered 10, in the second column of the abstract, the word "mixed" occurs, by a clerical error, for "missed." The sentence should read, "The small bacilli are never missed in the mucus-flakes."

FRENCH HOSPITAL AND DISPENSARY.

The seventeenth annual dinner in aid of the funds of the French Hospital and Dispensary was given on Saturday last, at Willis's Rooms, when there were present the Lord Mayor, the Consuls-General of France and Switzerland, Sir Wm. Mac Cormac, Dr. Vintras, Dr. Keser, Dr. Blanc, and many distinguished guests. M. Waddington proposed, "The Founders and Benefactors of the French Hospital and Dispensary." The report, which was read by M. Rimmel, showed that the expenditure amounted to about £2,300, accounted for by an outlay of £2,086 in maintenance and £220 on management, while th receipts were £2,616, a falling off from those of the previous year £218. The expenses, however, compared with the correspondin period, showed a reduction of £125, although the number of in-patient (359) exceeded by 13 the figures of 1883. The hope was expresse that liberal contributions would enable them to provide a larger an more convenient building. M. Rimmel read a list of subscription and donations, showing that over £2,000 had been received for th funds of the institution.

THE BABBACOMBE MURDER.

The horrible and unique tragedy enacted in November last, at T quay, has terminated in the conviction, after a lengthened trial, the prisoner, Lee. The evidence, though purely circumstantial, w in the opinion of the presiding judge, Mr. Justice Manisty, altogeth conclusive, and, in the opinion of those versed in criminal tria remarkably clear. Indeed, Justice Manisty spoke of the evidence the police as exceptionally good. We have no intention of dwelli upon the general features of this brutal case. An aged maiden la living in a lonely house with three female servants and a man-serva the convict, was attracted downstairs some time between one three in the morning. On reaching the bottom of the stairs, she felled by blows on the head inflicted by some heavy instrument. throat was then cut, the left carotid being completely severed and cervical vertebræ notched. The body was then dragged into dining-room, waste paper was heaped about it, mineral oil poured and about the corpse, and the room set on fire. The house was also i in four other places, with the unmistakable intention of destroying traces of the crime, and shutting off access from the bedrooms, w his fellow-servants slept, to the scene of the murder. The me aspects of the case were important; and the evidence of the H Office expert dovetailed in with the rest of the evidence, so as to a complete case. On the prisoner's shirt and trousers were stai blood. Observing these, Lee had endeavoured to destroy their evi tial value by purposely cutting his left arm. The positio the stains was, however, inconsistent with their production by self-inflicted cut. He had also brushed a bloody arm over the n dress of a female servant before he cut his arm. A blood-st hatchet was discovered, which was supposed to have been used in k ing down the old lady; a blood-stained garden-knife, used b deceased, wrapped in bloody paper, in the prisoner's drawer, fa its usual situation; and, in the room where the prisoner sl blood-stained oil-can, emptied of mineral oil, were found. Mor on the socks worn by the convict on the night in question were of mineral oil, and some hairs, exactly corresponding in size, ture, and colour, to those cut from the head of Miss Keyes, whic peculiar, and artificial. The almost motiveless character of the is an extraordinary feature in the case. Apparently, a trifling about wages had led Lee to commit an act of dire and cruel re

THE MEDICAL DEPARTMENT OF THE SOUDAN EXPEDITIONARY

Whilst the din of preparations for the extended military ope in the Soudan is resounding on every side, and the Medical D ment of the army is being requisitioned to furnish a large c officers and men for service with the expeditionary force, one fe stinctively, with the example of the expedition of 1882 still one's eyes, that the medical arrangements of the coming ca will be critically examined, and that the Army Medical Depa will be placed upon its trial. It is gratifying, therefore, to be state, as we can upon excellent authority, that the forethought a exercised in the preparations for the expedition now serving un command of Lord Wolseley have well stood the tests to which, actual campaigning, they have been so far subjected. The learnt in 1882 have evidently been well digested, and have ena authorities to avoid some of the mistakes which then occurre of the local hospitals established on the upper reaches of the

bu Fatmeh and Dal, for example, have been recently inspected, with ıe result that they both passed a favourable muster. The consider- ›le field-hospital at Abu Fatmeh, which is under the sole charge of ırgeon-Major L. Corban, has been established for seventy patients, ıd the convoys of sick or wounded from the front, passing down the ile early in January, were fitted out there, and thence sent home. nce Dongola was "disestablished," Abu Fatmeh has been made the ost important and largest hospital on the whole "upper line of mmunication." Major-General Sir Evelyn Wood recently made a ›se inspection of it, as did also Lieutenant-Colonel Maurice, R.A., mmandant of the place. Both officers visited the hospital quite expectedly, so as to see it in its usual condition. They both ex- ssed themselves highly pleased with its state, and with all the angements made for the comfort of the sick. There is another spital, about half the size of the former, at Dal, under Surgeon in. This has also been highly approved by the various inspecting cers. In face of the comments made on the military hospital- nagement in the campaign of 1882, it is agreeable to be able to te these reassuring facts.

THE SENSATIONS OF THE DROWNED.

URIOUS and instructive piece of evidence was given at the Central minal Court on the 4th inst., on the trial of Emily Redstone for mpting to murder two little children—Amy and Maude Weir—by owing them into the river near Kew. Amy, the elder, a bright, lligent child, aged seven years, gave her evidence in a remarkably r and artless manner. She stated that she sank till she felt her touch the bottom, and that she then fell asleep till she found herself pped up in the boat-house. There was no pain beyond the first k of the water. It will be remembered that Redstone was a ser- t, only sixteen years of age, and that, after deliberately smashing kery, she took the children out for a walk, and threw them into river from the towing-path. Had the children died, no doubt the of insanity would have been set up; but no such plea was ad- ed on the prisoner's behalf, doubtless because it was expected on so young a girl a light punishment would be inflicted; whereas, e had been proved of unsound mind, a life's incarceration might followed. A sentence of seven years' penal servitude was passed ne prisoner.

THE EPIDEMIC OF TYPHOID FEVER AT MARKET WEIGHTON.

earn that a severe epidemic of typhoid fever has been for some in progress in Market Weighton, a small market-town of about een hundred inhabitants, in the East Riding of Yorkshire. The eak, which is attributed to contamination of the water-supply, een made the subject of an inquiry by one of the inspectors of ocal Government Board. A fortnight ago, it was currently re- d that there were as many as 73 cases under treatment at one time, hat there had been not a few deaths. An epidemic thus localised country town attracts but little attention, chiefly because the ers involved are small; but the fact that four per cent. of the ation are prostrated at one time by a disease, which is preventable dinary attention to the simplest rules of hygiene, reveals an nt of ignorance and carelessness on the part of the inhabitants less than culpable. It is perhaps worthy of note that the Vicar s parish made himself somewhat conspicuous, a few years ago, terly assailing, in a sermon preached before the University of ridge, the methods by which scientific medicine seeks to solve of the many perplexing problems awaiting solution. Ignorance tolerance not unfrequently go hand in hand. The Nemesis of glect of scientific, that is, natural law, patiently investigated rrectly interpreted, now lies before our immediate vision. The is a severe one, but ought to touch the conscience and awaken mpathies and enlighten the intelligence of the Vicar and his g parishioners.

CRIMINAL LUNATICS: A CONSTITUTIONAL QUESTION.

THE action of the Home Office officials in the case of the Woolwich murder, to which we made brief reference in the JOURNAL of February 7th, has created a profound sensation among the public, and more especially among the members of the legal profession, by whom the course adopted has been pretty generally condemned. The procedure employed is, no doubt, in accordance with the provisions of the Criminal Lunatics Act, but is, nevertheless, unusual. There seems to be no sufficient reason why the ability of the prisoner to plead should not have been made a matter of evidence to be decided by a jury. When a prisoner, before trial for felony, is found to be insane and incapable of pleading, the usual course has been to impanel a jury to try the question of insanity. Evidence as to this is tendered by the Crown from eminent alienists and the gaol-surgeon. The jury at once, according to general experience, return a verdict of insanity, and the judge directs the prisoner to be detained during her Majesty's pleasure. In the case of Frederick Marshall, charged with the murder of his sweetheart, this salutary course has been departed from; and Marshall has been consigned to the society of criminal lunatics, probably for the term of his natural life, on medical evidence of which nothing is known, and on the order of the Home Secretary. The notion of the insanity of Marshall is scouted by the prisoner's friends, and would have been contested, if permitted, by his own counsel. Marshall may be, and probably is, really insane; but he ought, if he, his friends, and his legal advisers, think fit, to have a chance of proving his innocence of the fearful crime with which he has been charged. The case against him is one of purely circumstantial evidence; and, *primâ facie*, it may be admitted that the evidence of his guilt is very strong. Anyone, however, accustomed to our courts of justice, knows how such evidence fails to bring home, without reasonable doubt, the crime charged. In our opinion, no more fatal blow could have been struck at the opinion of alienist experts than the Home Secretary's action in this case. Since the above was in type, the case has been brought under the notice of the Court of Queen's Bench by the Attorney-General, who stated that the power exercised was an old power, created in 1840 by the Act 3 and 4 Vic., with a slight change made by a later Act, 27 and 28 Vic.; the former giving a discretionary power to the Secretary of State; the other making it compulsory, upon the certificates of two medical men and two of the visiting justices, to cause the removal of a prisoner before trial; and, though the power had been constantly exercised, it had not attracted much attention. The object was to see that a lunatic should be properly retained in custody until he should be in a state to appear in court and take his trial. Notwithstanding this explanation of the Attorney-General, we think that the evidence on which a prisoner charged with an atrocious crime is withdrawn from trial cannot be too publicly known. As we now understand the matter, Marshall, in the event of his recovering his reason, must be tried for murder.

CORONER'S OFFICES FOR ST. PANCRAS.

MR. C. C. WHITEFOORD writes to complain of the personal inconvenience to which he was subjected when attending to give evidence at an inquest recently held in the parish of St. Pancras. He states that, when the jury wished to consult together as to their verdict, the court had to be cleared for that purpose; and that witnesses and others had to wait in the street till the re-opening of the court. We find, on inquiry, that the Coroner for Central Middlesex holds inquests at St. Pancras in a room too small for the purpose, known as Crowndale Hall, and where no second or retiring room is available. Inquests in this parish were formerly held in a room provided by the guardians; but, as this room was required for the enlargement of the workhouse, and no other one available, the coroner had to obtain the best accommodation he could elsewhere. We are glad, however, to announce that the Works Committee of the St. Pancras Vestry have very lately recommended to the Board that the plans of a certain architect be accepted and approved. These plans show a complete new range of

mortuary buildings, together with coroner's court, waiting-rooms, etc., so that, we trust, before long the parish of St. Pancras will show that they are not behind other parishes, such as Islington, Clerkenwell, Holborn, and St. Giles, in providing ample and proper accommodation for the reception of the dead and the holding of inquests.

PUBLIC WATER-TROUGHS.

We lately referred to the possible danger of the spread of glanders by public cattle-troughs. We have since learned that, in the year 1880, a correspondence took place between the Metropolitan Board of Works and the Metropolitan Drinking Fountain and Cattle-Trough Association upon this subject; and, although the Association had always taken precautions to avoid any such serious communication of disease, and had good reason for believing that their precautions were effectual, they, nevertheless, fixed, at the suggestion of the Board of Works, a tumbling bay to each trough, by which the water would run off direct into the gully, and increase the rate at which the constant flow of water passes through the troughs. The Association have always kept a large staff of servants constantly at work cleaning out the troughs, and they have never had a complaint of disease being contracted in the way suggested, although not fewer than 200,000 horses are drinking daily at them. In their printed memorandum upon this subject, the Association gives full reasons for their contention that glanders is not transmitted by their troughs. We are very glad to give publicity to these facts, and to recommend the Metropolitan Drinking Fountain and Cattle-Trough Association to the consideration of those of our readers, who are able and inclined to give support to an institution which does much to alleviate and prevent animal suffering, and whose funds, we believe, are by no means flourishing.

AN ADULT HERMAPHRODITE.

Professor Dohrn has described, in the *Archiv für Gynäkologie*, vol. xxii, a remarkable case of extreme hypospadias in a male aged 31, who had been mistaken for a female at birth, christened, and brought up as a girl, and married to a man for six years. After marriage, frequent irregular hæmorrhages from the genitals took place, and coitus was extremely painful, and followed by severe pain in the hypogastrium. The hermaphrodite consulted Dr. Dohrn, who found that the external labia contained a pair of bodies each resembling a well formed testicle and epididymis, and a vas deferens could be traced to the external abdominal ring on each side. The labia minora were quite of the normal female type, but united anteriorly to form a large prepuce to an organ of the size of an infant's penis. A groove ran from the glans along the under side of this penis to the orifice of the urethra, which was very wide, having served for intromission; and vascular growths, the cause of the hæmorrhage, hung from it. On the posterior border of the urethral meatus were three distinct canals; into the left and the median canals a fine bristle could be passed to the extent of half a centimètre, into the right canal it could be introduced more than double that distance. Dr. Dohrn believed that these canals were the prostatic vesicle and the ejaculatory ducts. No prostate, nor uterus, tubes, or ovaries could be detected on rectal examination.

THE EPIDEMIC OF ENTERIC FEVER AT KIDDERMINSTER.

The official report of Dr. Parsons to the Local Government Board upon the recent serious epidemic of typhoid fever at Kidderminster has just been published. The outbreak, it appears, was generally distributed over the borough. Few parts of the town escaped, but the chief sufferers were found in new streets occupying elevated positions, the older, more crowded, and low-lying streets not being specially affected, though these are particularly exposed to the influences of unsanitary conditions. No difference, Dr. Parsons points out, was noticeable in the districts where middens exist, and those which are chiefly supplied with water-closets. One curious fact is mentioned in the report, namely, that women suffered in a greater proportion than men. Out of 1,106 cases in which the sex of the patients was recorded, there were 627 females and only 479 males. This would seem to point to sewage-contamination in the houses, as the women, being more commonly confined to their homes by domestic duties, would be likelier than the men to suffer from exposure to sewage-polluted air. Dr. Parsons, however, does not ascribe the outbreak solely, or mainly, to this cause, though he thinks it may have contributed to the diffusion of the disorder. Another point of interest in the report is the statement made with regard to the sewage farm, which lies outside the borough boundary. This farm, Dr. Parsons states, received the excreta of 1,200 persons suffering from enteric fever, and yet not a single case of the disease occurred amongst the persons subjected to the influence of the resulting effluvia, a striking additional proof, if such were needed, of the deodorising and purifying power of earth upon dangerous matter. The possible causes of the outbreak are minutely considered, but Dr. Parsons does not see his way to pronouncing positively upon them. The analyses of the water of the lower well (at the sewage pumping-station) made by Dr. Dupré for the Local Government Board point to sewage-pollution, but Dr. Parsons comes to the general conclusion that the cause of the outbreak cannot be with certainty assigned. This, he remarks, does not affect the question of what is requisite for the future, and he recommends the provision, with all practicable speed, of an additional well, and the disuse of the lower well, the amendment of the defects in the sewers and house-drains, the provision of abattoirs, and other sanitary works.

THE MENSTRUAL WAVE.

The ancients, as well as many mediæval physicians, attributed menstruation to some great perturbation of the system, some general change, whereof the catamenial flow is but a local manifestion. Abstract reasoning of this kind is not always founded upon nothing more solid than the mental ingenuity of some professor of medicine of a past era. There is strong reason to believe that it is nearer to truth than the theory more prevalent in the nineteenth century, a theory that menstruation is local, and either an essential element in the process of ovulation, or else a sign of certain periodical movements of the Fallopian tube, accompanied by congestion of the tubal and uterine mucous membrane. Ovulation and local congestion are facts, but clinical observation tends to show that menstruation is a constitutional process. Drs. Goodell, Mary Putnam Jacobi, Stephens, Von Ott, and Rabuteau, have all furnished evidence in favour of the old theory. They are supported by the recent researches of Reinl of Franzensbad, published under the title of "Die Wellenbewegung der Lebensprocesse des Weibes," in Volkmann's *Sammlung Klinischer Vorträge*, No. 243. After taking every precaution to avoid fallacy, he took the temperatures of a series of cases, and arranged his observations under certain headings which constituted an artificial division during each menstrual cycle. Taking the "menstrual period" as lasting about four days, he marked off on the temperature-charts four days before the "show" as the "premenstrual period," and four days after as the "postmenstrual period." The remaining division of the cycle, including about sixteen days, was marked off on the charts as "the interval." In eleven out of twelve healthy cases, a perfect menstrual wave displayed itself on each chart, when the temperatures had been carefully marked through two or three cycles. The crest of this wave, in other words the highest temperature, represented the premenstrual period. The temperature was at its lowest during the middle of the first half of the "interval;" it then steadily rose till the second half, when the rise became more rapid, reaching its height at the "premenstrual period." It fell steadily and rather rapidly during the menstrual period, the fall continuing but becoming slower during the "postmenstrual period," and reaching its lowest point in the midst of the first half of the "interval." In cases of operation upon the sexual organs, the after-temperatures tended to rise to their highest point during the menstrual, and not during the premenstrual, period.

inl is not of opinion that the normal fall of temperature during e menstrual period is due to the loss of blood. These changes of nperature, which were calculated morning and evening with great e, hardly ranged over one degree centigrade, yet the records in e healthy cases under Dr. Reinl's observation showed a remarkable iformity.

DIVERTICULUM IN THE FEMALE URETHRA.

OFESSOR SANTESSON, of Stockholm, has described, in the *Nordiskt diciniskt Arkiv*, a case where a pouched condition of the urethra sed severe symptoms. The patient was a middle aged widow, o, after a confinement, suffered from difficulty in micturition. At end of twelve years, this symptom had become very troublesome, . a large swelling filled the vagina whenever she passed urine. atheter could be introduced up the urethra and through a circular ce into the swelling, and then urine mixed with mucus escaped as swelling collapsed. When, on the other hand, the swelling was sed firmly by the finger introduced into the vagina, it emptied the bladder, this manipulation always causing great pain. If the ent were prevented from voluntary micturition, for which she felt sire almost every hour of the day, the bladder emptied itself by a ful spasmodic contraction. After cauterisation of the urethra the removal of three small vascular growths, the patient enjoyed parative comfort for two years, when the sudden involuntary n of the bladder became very frequent. The vaginal wall of the rticulum was destroyed by caustics; after the separation of the ar and healing of the wound, the circumference of the diver- um was reduced by half. For two years the patient remained from incontinence of urine and frequent desire to micturate; these distressing symptoms recurred. The remainder of the al wall of the diverticulum, including the cicatrix, was excised, he edges of the wound united by sutures. The wound partially hed, and did not heal completely for five weeks. The diver- m was now reduced to a mere digital depression, and relief ned complete for four years, when the diverticulum again sed in size, and all the bad symptoms returned. The patient ed from nephritis, cystitis, and dilatation of the urethra, the of which were also œdematous. A syphilitic rash was discovered e trunk and extremities. She was, in fact, in a state quite for any operation, and was sent to an infirmary, where she died ears later, having suffered for about twenty-two years from the iculum, excepting during the intervals of relief due to the ions. Dr. Santesson felt inclined to attribute the origin of the iculum in this case to damage of the urethral walls during cted labour.

MORTALITY IN PRUSSIA DURING 1883.

e were 711,169 deaths registered in Prussia during 1883, not in- g children born dead. The majority of deaths occurred in the of March, and the lowest number was registered in November. st children under 15, there was a total of 371,291 deaths 6 boys and 173,965 girls). Of these, 9,867 died on the first er their birth, 5,618 on the second day, 3,456 on the third day, during the first fifteen days, 66,911 during the first month, a total of 130,872. Of those that survived a month, but were year old, there were 86,359 deaths; from one to fifteen years, ere 154,060; 109 persons exceeded the age of 100. From these s it will be seen that 52.2 per cent. of the total deaths were f children. The most important causes of death were as follows: sions, 109,825; tuberculosis, 88,837; of old age (that is, over 681; diphtheria and croup, 45,890; inflammation of the lungs urisy, 40,525; weakness in children under one, 35,907; from fteen, 22,298; consumption amongst children under fifteen, There were 5,337 suicides, including one boy under ten, 50 d 11 girls from ten to fifteen years of age; 406 persons were d; and 12,287 met with their death from accidents.

HÆMATOSALPINX.

THE cause of hæmorrhage into the Fallopian tube has often been discussed. Many believe that it is entirely due to escape of blood from the vessels under the tubal mucous membrane, but some authorities contend that a large quantity of blood cannot rapidly escape from that source, and that, when the tube becomes suddenly much distended with fluid or clotted blood, the hæmorrhage must have arisen from the uterus. This reflux theory, as it has been termed, has recently been declared by Dr. Otto Alberts, of Berlin, to be a great fallacy, notwithstanding previous physiological and anatomical experiments that would appear to support it. Dr. Alberts states, in a paper on the subject in the *Archiv für Gynäkologie*, that the muscular apparatus of the tube always acts in one direction, that is to say, towards the uterus, whether it transmit an ovum or any other body or substance, liquid or solid. The hæmorrhage, which is the cause of hæmatosalpinx, must, according to Dr. Alberts' theory, always arise from the mucous membrane of the Fallopian tube, which, as numerous researches have demonstrated, is normally the seat of hæmorrhage during the menstrual period. Although Dr. Alberts has seen several cases of hæmatosalpinx, he feels bound to admit, as a direct result of his own experience, that its diagnosis is exceedingly difficult, when it cannot be settled by puncture or abdominal section. Results of inflammation always alter the normal condition of structures surrounding the tube, when the case is chronic, and greatly obscure diagnosis. Dr. Alberts advocates purely expectant measures, and has found that the prognosis of primary hæmatosalpinx is highly favourable.

SCHERLIEVO IN DALMATIA.

THE Vienna *Medicinisch-Chirurgisches Centralblatt* for July 11th contains, in its public health columns, an imperial-royal decree, dated June 1st, 1884, commanding that immediate steps should be taken to suppress the disease known in Dalmatia as "skrljevo," which appears to be raging in that country at present. The journal makes no further reference to the present epidemic of this disease which, written scherlievo in most contemporary works on venereal and cutaneous diseases, is generally considered to be a form of syphilis. State assistance, to the extent of 30,000 florins, was at once supplied for the purposes of erecting and maintaining special hospitals in affected districts, and enforcing sanitary police regulations, in order that persons affected with the disease might be watched, and compelled to submit to proper treatment by qualified and competent practitioners. Scherlievo has evidently attained formidable proportions, and some information on the special features of the recent outbreak would be very acceptable to the medical public.

NEGLECT OF THE WOUNDED IN WAR IN CHINA.

THE *Hong Kong Daily Press* of November 15th, 1844, calls attention to the total want of provision for the Chinese wounded in the unfortunate contest that is being carried on in Formosa and Tonquin; and a correspondent from Tamsui, in Formosa, who has himself done much for the wounded at that place, assures us that, where the fighting has been lately going on, no preparation was made for treatment of the injured. Fortunately for the Chinese soldiers at Tamsui, there was medical help at hand, and we are informed by the Hong Kong newspaper that Dr. Browne, of H.M.S. *Cockchafer*, and Dr. Johansen, of Tamsui, saved a large number of soldiers from a painful death, while they greatly relieved the agony of others. It is terrible to think of the condition of the Chinese wounded who have been left untended and uncared for after the numerous battles that have been fought; and we are painfully surprised to learn that, whilst China has been spending money largely and freely on weapons and ammunition, she has spent nothing on provision for her wounded soldiers, who are sent on to meet the deadly artillery and rifle-fire of the French army. Surely this is a matter on which a little pressure might be brought to bear in the interests of a common humanity. The Chinese have taken

their position amongst civilised nations; their envoys are received in every great European capital; and they claim the privileges of international law. Surely, then, civilisation has a right to expect that they will recognise it as a duty, not only to themselves, but to the nations into whose comity they have entered, to ensure that the horrors of war should not be needlessly increased. They have their trusted foreign advisers; and we hope that, through their means, this painful subject may be brought before the Chinese Government. The expenses connected with engaging a staff of foreign surgeons (the only help available now) would be a mere trifle, when compared with the outlay that the conduct of the war entails; but we would fain do the Chinese the justice of believing that they would not consider the cost, if the good that would result were pointed out to them.

SCOTLAND.

GENERAL COUNCIL OF EDINBURGH UNIVERSITY.

RECENTLY, an association of the General Council of the University of Edinburgh has been formed, and, among its other purposes, it is intended to endeavour to secure a more adequate representation of the Council in the University Court. Last week, a deputation from the Association waited upon the Lord Advocate, and urged the views of the Association upon him. Among other things, it was stated that, of the 5,000 persons constituting the General Council, no fewer than 2,700 were medical men. It was urged, also, that the University Court should consist of fifteen members, of whom seven should be elected by the General Council, and that the court should have the control of the finances of the University. The increase of extramural teaching in the medical faculty was urged, and the extension of the same facility for outside lecturing in the other faculties, where it is entirely non-existent, was strongly pressed. The deputation was thoroughly representative, and among other speakers were Dr. P. Heron Watson, Dr. John Duncan, and Dr. John Smith. The Lord Advocate promised to consider the matter which had been brought before him, and on several points seemed to consider that the Association had presented a good case. It may be mentioned that, although the Association has only been in existence since shortly before the new year, it already has over seven hundred members.

THE SICK CHILDREN'S HOSPITAL, EDINBURGH.

AT the recent annual meeting of the contributors to the Royal Hospital for Sick Children, Edinburgh, presided over by Dr. Angus Macdonald, the report submitted showed that the cases treated during the year were 9,224, of which 601 cases had been treated as indoor patients in the wards of the hospital, while 8,623 had been treated as outdoor patients in the dispensary. Of 601 children treated in the wards, 397 were cured, and 99 relieved. The total income for the year from all sources was over £2,312, and the total expenditure £2,630, which left a deficiency of over £317. Attention was directed at the meeting to the importance of the Sick Children's Hospital as an educational advantage for students of medicine; and a hope was expressed that it would be more largely taken advantage of by medical students in the future. During the year, 200 cases of zymotic diseases had been admitted, of which 101 were scarlet fever, 69 of typhoid fever, 6 of typhus fever, 4 of measles, and 20 of diphtheria; and of these 200 cases, 22 died, no less than 13 of these being cases of diphtheria. Attention was especially directed to the necessity for increased accommodation for cases of whooping-cough. The chairman, Professor T. R. Fraser, and the Rev. Messrs. Walter Smith and Meredith, spoke at the meeting, Professor Fraser stating that the medical faculty most cordially desired that a bond of union should be formed between the Sick Children's Hospital and the Medical School of Edinburgh, which would result in their mutual benefit. It was stated that, since the institution of the hospital, 122,411 poor children had been treated by the medical officers in its wards and dispensary.

ROYAL DISPENSARY, EDINBURGH.

AT the recent annual meeting of the Royal Dispensary, Edinburgh (one of the oldest medical charities in Scotland), presided over by the Lord Provost, Sir George Harrison, there was submitted a report which showed that, during the past year, 8,532 patients had been entered on the books; of these, 5,682 had received advice, and, when necessary, medicine or surgical dressings; while 2,018 had been visited at their own homes, 639 children had been vaccinated, and 193 women attended during their confinement. The Lord Provost, in moving the adoption of the report, stated that the dispensary had existed 109 years. From the financial statement made at the meeting, it appeared that the total income for the year had been over £360, and the expenditure over £353. The meeting elected the Duke of Buccleuch President of the Royal Dispensary, in place of his father the late Duke of Buccleuch; while the Earl of Wemyss, the Earl of Rosebery, and Mr. John Cowan of Buslach, were appointed vice-presidents. One of the vacancies on the Board of Management was filled up by the appointment to it of Councillor Dr. A. Russell.

GLASGOW HOSPITAL FOR SICK CHILDREN.

THE early reports of any charitable institution are always of interest and importance, for unquestionably they afford some clue as to whether the charity has really been called into existence to meet a pressing want, or is merely the expression of some temporary philanthropic interest in a special class of sufferers. Judged by any such test, there can be no doubt that the figures of the last annual report of the Glasgow Sick Children's Hospital shows how much needed the institution was. The city infirmaries have in the past done much for the children of the poor, but they cannot overtake all the calls on them, and they must gladly welcome this new rival in that branch of the work. The patients admitted last year to the Children's Hospital numbered 336, and the average daily number under treatment was 40. The report contains the very gratifying announcement that the recent Fancy Fair, with its drawings and its donations, realised, after paying all expenses, the handsome sum of £20,120, being, without exception, the most successful effort of the kind ever made in Scotland.

DUNDEE SANITARY ASSOCIATION.

THE Dundee Sanitary Association, which has been in operation for nine months, has just held its first annual meeting, which was presided over by Provost Ballingall. The society has now over 190 members, and it has already, by its officers, inspected 109 properties, and reported on them. The recommendations as to alterations and improvements had been carried out. The revenue had been £225, while the expenditure had been £163, not including £46 incurred in preliminary expenses. The meeting considered the report most satisfactory, and the prospects of the society, as a really useful institution, excellent. Special votes of thanks were accorded to Professor Fleeming Jenkin of Edinburgh, and to Professor Ewing.

CITY AND COUNTY OF PERTH INFIRMARY.

DURING the past year, there has been a large increase in the number of indoor patients treated in the City and County of Perth Infirmary, no fewer than 116 more than there were in the preceding year having been treated, the respective numbers being 567 and 451. Fifty cases of fever had been treated, as compared with 25 in 1883; 1[illegible] the surgical ward in 1884, as compared with 62 in 1883; and 3[illegible] the general wards in 1884, as compared with 364 in 1883. In the Dispensary, 480 patients had been treated, 215 cases of slight accidents attended to, and 203 patients had been visited at their own homes. The total of all the cases that received attention was 1,4[illegible] 1884, as compared with a total of 1,274 in 1883, or an increase of [illegible]. At the annual meeting of contributors to the institution, held last week, these statistics were submitted, and the question of continuing to admit patients suffering from delirium tremens was under consideration. The ordinary income for the year was over £2,426, and

penditure over £2,526, the balance against the institution for the ar being nearly £100. This, it is hoped, will be more than made by increased subscriptions; and, considering the great amount of ditional work done, and the much greater amount of aid given to e sick poor, it is a wonder that the deficiency was not much eater.

COOKERY-LESSONS FOR STUDENTS OF MEDICINE.

NSIDERING the important part played by the medical profession in matter of ordering suitable diet for patients, we are glad to observe it, in Edinburgh, medical students have now an opportunity of rning practically how the foods appropriate to the invalid are pre-ed. The Edinburgh School of Cookery has, during the present sion, given four lessons in the preparation of food and drinks in the ge theatre of the Royal Infirmary. The lessons were well attended l highly appreciated. Among other things, the preparation of beef-, beef-jelly, milk-jelly, gruel and milk-gruel, and self-digested na, were shown, and students were invited to examine for them-res practically the various diets ordered for patients. Such a prac-l course should, we think, be almost made compulsory, or, at t, students should be strongly advised to avail themselves of the rse by their professors and lecturers.

REFORMS IN THE POOR-LAW ADMINISTRATION.

some time there has been a feeling, among those conversant with matter, that the present arrangements in connection with pauper tics, where they are placed alongside the ordinary poor, are not gether satisfactory; and that it would be better for this class of ons, as well as a more economical arrangement, if large parochial ds had the power to provide themselves with asylums of their own. h the object of directing the Lord Advocate's attention to this red alteration, deputations from several towns waited on him ntly, and he gave them a very favourable reception. Another rance that was at the same time brought to his notice was the y expense to which many parishes, in which large prisons are ted, were put, for the maintenance of discharged lunatics or sick ners who belonged to other parishes or to other countries. It thought by the deputations that the law of Scotland should be ilated to that of England, by the provisions of which it is ordered the settlement of every pauper is ascertained before a magistrate, his transference franked. The Lord Advocate admitted the exist-of the grievance, and promised to take the earliest opportunity ould of redressing it.

IRELAND.

DUBLIN HOSPITAL SUNDAY FUND.

report of the Committee of Distribution of this Fund for the 1884 has been published. The sum collected in the year — 2 14s. 7d.—exceeded that on any former occasion. A sum of £4,150 was available for distribution, and the Committee deter-l to distribute the sum of £3,900 amongst the sixteen partici-g institutions in consideration of subscriptions received and work with an added bonus of 7½ per cent. to those institutions which provided trained supervision for their nurses. The addition of onus of 7½ per cent. absorbed a further sum of £261 15s. 9d., g the total sum distributed for 1884, £4,161 15s. 9d. In the 879, the Committee were able to distribute £4,125, the highest reached in any year prior to 1884. The following is the result distribution. Sir Patrick Dun's, £265 17s. 10d.; City of a, £632 19s. 5d.; Doctor Steevens', £182 4s. 2d.; Meath, 9s. 10d.; Mercer's, £204 14s. 5d.; Whitworth (Drumcondra), s. 9d.; Coombe (Lying-in), £95 4s. 7d.; Rotunda (Lying-in), 11s. 10d.; St. Mark's (Ophthalmic), £206 13s. 1d.; National and Ea· Infirmary, £131 13s. 10d.; Convalescent Home, £225 7s. 6d.; Cork Street (Fever), £157 5s. 11d.; Adelaide, £908 4s. 4d.; Monkstown, £221 6s. 10d.; Orthopædic (Great Brunswick Street), £135 10s. 5d.; National Orthopædic and Children's, £144 7s.; total, £4,161 15s. 9d.

BELFAST BRANCH OF THE ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

THE forty-second annual meeting was held last week, presided over by the permanent President, Dr. J. H. Purdon. The Honorary Secretary, Dr. Wilberforce Arnold, reminded the Society that he had already expressed his desire to withdraw from the duties of secretary, which he had held for the past ten years, having, in 1875, succeeded the late Dr. Stewart. He regretted that the increasing pressure of professional and other engagements obliged him to retire from the office he held. The following resolution, proposed by Dr. Drennan, was unanimously adopted:—"That, in receiving Dr. Arnold's resignation of the office of Honorary Secretary to this branch of the Royal Medical Benevolent Fund Society, which he has so ably filled during the last ten years, the members of the Society desire to express their sense of the admirable manner in which he has uniformly discharged its duties, and their great regret at now losing the benefit of his services." Dr. Henry Burden was then elected Honorary Secretary. A deputation was next appointed to represent the branch in Dublin at the annual meeting of the Parent Society, to be held in June next. The following office-bearers have been elected for the ensuing year:—*President:* Dr. J. H. Purdon. *Committee of Management:* Dr. Arnold, J.P., Dr. Browne, J.P., Dr. Drennan, Dr. Cuming, Dr. Ferguson, Dr. Murney, J.P., Dr. J. Smith, Dr. Whitaker, Dr. Mc Cleery, Dr. B. Smyth, Dr. Harkin. J.P., Dr. Mc Gee, Dr. Spedding Dr. W. Mc Keown, Dr. Ross, Dr. Walshe, sen., Dr. Hawthorne, J.P., Dr. Jameson, Dr. Mc Clelland, J.P., Dr. Musgrave, J.P., Dr. Higginson, Dr. Mc Donnell, J.P. *Honorary Treasurer:* Dr. F. Beck *Honorary Secretary:* Dr. H. Burden.

ULSTER EYE, EAR, AND THROAT HOSPITAL.

THE fourteenth annual meeting was held last week, presided over by the Mayor of Belfast. During the past year, 1,961 cases were under treatment, and of these, 223 were intern patients. The committee have for some years advocated the partially self-supporting system of hospital-management. Three of the members of the committee of management, being impressed with the desirability of providing additional accommodation, on their own responsibility secured building-ground, and the committee have now decided to take this at the sum paid for it. In consequence of the large amount of operative work at the hospital, and the necessity for the frequent administration of anæsthetics, the committee have appointed Dr. J. C. Smyth for this purpose. For many years, the hospital has not been open to students of the Belfast Medical School, but, during the present session, senior students have been permitted to be present at operations. During the year, 120 important eye-operations, including 60 cases of cataract, 22 for strabismus, and 13 cases of removal of the eyeball, were performed. Mr. McKeown, surgeon to the hospital, has recommended certain improvements, which the committee have decided to adopt. They include two day-rooms, two small wards for contagious cases, two for ear and throat cases, dormitory for an additional nurse, a dark room for oxy-hydrogen light, and open air exercise-ground. These will cost £1,000, and a considerable sum has already been promised towards the necessary funds.

BELFAST ROYAL HOSPITAL.

LAST week a large and representative meeting of clergymen of different religious denominations held a meeting to consider their position and relation to the patients of their respective denominations who might be in the Royal Hospital. The Lord Bishop of Down, who presided, expressed his regret that the very moderate and reasonable resolution agreed upon at the conference between the clergymen and the com-

mittee of management of the hospital had been rejected. Resolutions were adopted to the effect that proper facilities for visiting the patients of their own denominations should be afforded to the clergy of the different churches, and that a committee should be appointed to draw up a statement of the change which they wished to have made in the by-laws of the Royal Hospital, and forwarded to all the members of the corporation for their consideration.

CORK DISTRICT LUNATIC ASYLUM.

From the annual report of Dr. Eames, resident medical superintendent, it appears that there were in the asylum on the 1st of January, 1884, 926 inmates. Two hundred and forty-one were admitted during the year, and the total under treatment amounted to 1,174. Those discharged numbered 145, and the deaths came to 127. The average daily number of patients during the year was 903. The percentage of recoveries of that total number in asylumwas 9.4, on the admissions 34.3. The percentage of deaths on total number in asylum was 10.8 ; on the admissions 51.2. The expenditure for the year amounted to £19,931, which gives a capitation-sum of £22 0s. 8d., being 14s. 2d. per head less than last year.

ROYAL UNIVERSITY OF IRELAND.

At the last meeting of the Senate of this University, the following examiners for medical degrees were reappointed for another year :—In Medicine—Stephen M. MacSwiney, M.D. In Midwifery—John A. Byrne, M.D. ; H. Macnaughton Jones, M.D. In Materia Medica—F. J. B. Quinlan, M.D. ; J. Seton Reid, M.D. In Medical Jurisprudence—Edmund W. Davy, M.D. ; Michael M'Hugh, M.D. The Senate adopted the following resolutions :—"That all graduates of the University who at present hold the diploma in obstetrics be admitted to the degree of M.A.O. upon making application and complying with certain conditions prescribed by the Senate." "That after the year 1885, credit will not be given to any candidate for Botany and Zoology at the First Examination in Medicine, upon the ground of having passed any Arts examination in which these subjects were comprised." The Senate resolved that henceforward certificates of instruction in pharmacy in connection with dispensaries shall not be deemed satisfactory. The Senate also approved certain changes in the courses in Medicine, to come into operation next year, and ordered them to be published in the Calendar. The Senate also laid down the course in Chemistry at the second examination in Medicine, and the course for the diploma in Sanitary Science.

THE MEMBERSHIP OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS.

In reply to the deputation from the College, which waited on the Chief Secretary to the Lord Lieutenant of Ireland, requesting his assistance in placing on the *Medical Register* their new grade of membership (*vide* Journal, p. 194), Mr. Campbell-Bannerman has informed the College that so long as Lord Carlingford's Medical Bill remains undisposed of, he cannot, on the part of the Irish Government, undertake to introduce separate legislation to deal with what he considers to be a part of the subject of the general Bill, namely, the registration of the membership of the College. There are two other licensing bodies in Ireland in addition to the College of Physicians, namely, the University of Dublin and the Royal University of Ireland, that grant qualifications, which, at present, are not registrable. These qualifications are the Master in Obstetrics and the Licentiate in Obstetrics of the former university, and the Diploma in Obstetrics of the latter. In view of the improbability of any progress in medical legislation on the part of the Government during the approaching session, a joint action on the part of the bodies above mentioned, with the object of introducing a private Bill to remedy their existing mutual disabilities, would seem to be indicated.

MEDICAL NOTES FROM THE NILE EXPEDITIONARY FORCE.

[From our special correspondent.]

Enteric Fever.—Dysentery in the Soudan.

January 23rd, 1885.

Space did not permit me in my last letter (*vide* British Medical Journal for January 31st, page 247) to conclude my brief remarks on enteric fever as seen out here. I have had at last a well marked case of hyperpyrexia, occurring on the tenth day of the disease. The temperature at 3 P.M. was 105°. I first tried a large dose of quinine (twenty grains), applying cold water to the head, with cloths repeatedly changed. Towards next morning, the temperature seemed lower, and at 8 A.M. was 103.4°. At 2 P.M. it rose to 106.1°, and coma threatened. I at once resolved on trying cold water, freely applied. With this object, having placed a waterproof sheet under the patient, I poured cold water in a small stream all over his body, from the head downwards, for about ten minutes ; a large towel, thoroughly saturated with cold water, was then laid over the whole length of the chest and abdomen, and was changed repeatedly as required. His temperature fell in about two hours to 102.2° ; and whenever, on subsequent days, the temperature rose unduly, the wet towel soon brought it down. Temporary shivering came on when the temperature began to fall; but there was no sign of cardiac depression, and the shivering passed off at once on the administration of a little warm beef-tea, with a teaspoonful of brandy in it.

I may add that, on the eighth evening of the disease, the patient, having been for some time previously very restless, and inclined to leave his bed and wander about (if allowed), all of a sudden he became quite insensible, and lay in a comatose state, with the eyes turned up, the eyelids half-closed, the lower jaw firmly drawn up and immovable, pupils dilated, but sensitive to light ; no rigidity of limbs, or loss of cutaneous sensibility; face andeyes highly flushed and congested. Pulse 108 ; temperature 102.6°. As his mouth could not be opened, the treatment was simply expectant ; the head was kept cool with wet cloths, cold water was sprinkled on the chest to stimulate respiration, and the urine was drawn off by a catheter. In about twenty hours complete sensibility returned ; and except in the evening, when hyperpyrexia came on, there has been no further threatening of this most alarming head-symptom, which had all the appearance of cerebral congestion, or sudden intracranial pressure ; the explanation of which, however, I must leave to you and your readers. This patient is now convalescent (pulse 84 ; temperature 99°; one natural motion a day), sitting up in bed reading a newspaper, and incessantly craving for solid food.

One word more before leaving the subject of enteric fever. A young soldier, under 20, or thereabouts, suffering from this disease, has very poor chance indeed of recovery ; nearly all succumb. The boy-soldier of 19 or so is not a robust youth, nor an average specimen of English development at that age ; far from it. As a rule, he is a mere weed, a puny stripling, and, like the three-year-old horse, little work can be got out of him for a couple of years. Could we obtain the right stamp of man, the young countryman, hardy and robust, for the army, young soldiers would then be the best. As, unfortunately, we never secure that class now—and more is the pity—I must join the opponents of the system which gives us sham battalions of pale, ill-fed, town-bred lads, the sweepings of manufacturing slums, driven into the army by dire want, as surely as they are driven into the hospitals by premature breakdown before the Queen's uniform is worn on their backs. We are now in the midst of a "naval panic," and millions are being hurriedly voted. Would that I could see a good "military panic." I trust fervently that, when it does come, it will not be too late.

Towards the end of my last letter, I think I stated my intention of sending you a few brief notes on the form of dysentery as seen in the Soudan. The etiology of the disease is, I think, clear enough, and is to be found in the very great diurnal range of temperature, amounting frequently to as much as 40°. A scorching sun by day bathes the body in a very copious perspiration ; then, at sundown, a sharp breeze springs up which, though refreshing enough after a roasting day, puts an immediate stop to the hitherto free action of the skin. Soldiers, though frequently urged, or even ordered, to put on an extra jersey, or another cholera-belt over the one now through with the day's perspiration, very often forget or neglect the order ; nay, even some may be seen with their jackets thrown off, thinking, very naturally, how delicious is the cool breeze after the sweltering day-heat ; and never dreaming that they are exposing

ost vulnerable part to a most insidious and deadly foe. The men rforce have to sleep on the ground, which quickly cools down with rapidly falling thermometer. Towards morning, a downright rp, cutting cold wind springs up, making even the lucky possessor a bedstead and rugs feel chilly. Here we have everything favour- e to dysentery; and as there is, undoubtedly, some slight malarial son lurking about (mild intermittent fever is seen now and again), l if we throw in hardship, exceedingly hard work, rough food, con- nt wetting and exposure, we have all the potent factors of cam- gning dysentery present and in full action.

The type of the disease is, I should say, mild; the patients do not mplain of the same violent tormina and tenesmus, or great febrile urbance, familiar to army-surgeons in India. I am now speak- of dysentery as it comes under our care in the early stages; then most amenable to treatment. Unfortunately, many cases come s from the boats or camel corps—men who, in their anxiety to get he front, have purposely kept at the oar or towing-rope, or jogged well shaken and knocked about, eating salt beef and biscuits, l (like the enteric cases previously noticed) they are unable to go a l further. Our fatal cases come from this class. The patient is n down, that specific or other treatment avails little; even with he resources of a well found hospital—milk, fresh eggs, excellent d, fresh meat and poultry for soup—few have strength to carry n through; or, if they can hold out till the dysenteric symptoms e, extensive bed-sores and exhaustion end the scene.

ne treatment consists of large doses (twenty grains, or even up- ls) of ipecacuanha every six hours, combined with a few grains of ine in each dose. This restores the motions to a natural, though ry appearance, in two or three days; ordinary astringents then plete the cure. I have seen no greater nausea, generally speaking, large than after small doses of ipecacuanha. I prefer the former, ey seem to give, so to speak, a knock-down blow to the disease. he same, it would be a grand therapeutic discovery if some means found of counteracting or obviating the distressing nausea ecacuanha, disguise it how one may.

regards the complications of the disease, our Indian experience l suggest hepatic abscess; yet, strange to say, such grave com- tion seems unknown in the Soudan. Though other conditions rable to liver-affections are apparently present, this complication s to be unknown. At present, I can offer no explanation of this ge, yet fortunate, immunity.

OPOSED TEACHING UNIVERSITY FOR LONDON.

ETING of the Association for Promoting the Formation of a ing University in London was held on Thursday, February 5th, rooms of the Society of Arts. The chair was taken by Lord who was supported by a large number of gentlemen, including entatives of all the teaching bodies in London.

d REAY, in opening the proceedings, observed that the most im- t event which had occurred since the last meeting, had been the tment of a committee by the University of London, to examine heme drawn up by the Association. He considered that the step for the Association to take, at the present time, was to t an executive committee to carry on negotiations with the rsity and with the teaching bodies. After receiving and weigh- suggestions made to it, this executive committee would be able ent a scheme to the general body of members of the Associa- This seemed to be a practical way of dealing with the very t and complicated problem before them. The movement had met with a great deal of support, especially from the press, had almost unanimously spoken in its favour.

-Justice BOWEN formally moved the appointment of an ve committee to carry on the work of the Association, by en- into communication with the Senate and Convocation of the sity of London, with the governing bodies of all teaching in- ns, and with the authorities of the legal and medical professions. aft scheme already circulated could also be referred to this tee. The motion was seconded by Mr. J. E. ERICHSEN, and or WILLIAMSON expressed the opinion that it was very ry to have such a committee, where representatives of all ny interests involved could carefully and calmly discuss in ly spirit the best method of arriving at the result all desired.

esolution was carried unanimously, and the following thirteen en were appointed the committee, with power to add to their : Mr. R. Stuart Poole (British Museum), The Rev. Principal Professor Warr, and Professor Cunningham (King's College), or Carey Foster, and Professor Williamson (University College), Dr. Norman Moore (St. Bartholomew's Hospital), Dr. W. M. Ord (St. Thomas's Hospital), Dr. Pye-Smith (Guy's Hospital), Mr. John Marshall (Royal College of Surgeons), Mr. F. Pollock (Lincoln's Inn), Sir George Young, and the President of the Association.

Some discussion arose with regard to the constitution of the committee. Professor ADAMS thought the teaching element was not sufficiently represented. Professor BENTLEY hoped that the claims of science to be represented would not be ignored. Several speakers thought the medical and scientific faculties of University and King's Colleges were not sufficiently represented.

Sir GEORGE YOUNG urged that a large committee would not be able to get through the work. The committee could appoint special sub-committees to deal with each department of knowledge. He believed that it would be possible to effect the object the Association had in view without interfering with the interests and traditions of those institutions which the scheme designed to bind together.

Dr. JAMES MARTINEAU deprecated the co-existence of two Universities in London, and thought that this part of the question should be, at least, left open for the present.

Lord-Justice FRY observed that the draft scheme published did not bind the committee now appointed. A second University need not be thought of unless the existing University refused to accept the larger duties of the higher sphere, which the Association proposed it should accept.

Mr. F. POLLOCK thought the plan of having two Universities impracticable. He was in favour of the closest possible alliance between the examining University of the present, and the teaching University of the future.

The resolution appointing the Committee was carried unanimously.

Lord REAY announced that his recent appointment to another sphere of duty in a distant part of the empire compelled him to resign the presidency of the Association.

Sir GEORGE YOUNG stated that the Earl of Rosebery had consented to succeed Lord Reay.

A vote of thanks brought the proceedings to a termination.

PROPOSED AMALGAMATION OF DUBLIN HOSPITALS.

SOME weeks ago, we announced in the JOURNAL that the Irish Government were considering the advisability of amalgamating the principal hospitals in Dublin receiving grants from the Treasury. This idea appeared to have originated in the fact that the governors of the House of Industry Hospitals appealed to the Government for a grant in order to improve their condition. Portions of the hospital are so old and dilapidated, and are in such an unsatisfactory hygienic condition, that justice can hardly be done to the patients admitted into certain wards. The Government grants amount to an annual sum of £15,722, of which the House of Industry Hospitals receive £7,472; the Lock (Female) Hospital, £2,600; Cork Street Fever Hospital, £2,500; and Steevens' Hospital, £1,300. Smaller sums, varying from £700 to £100, are given to the Meath, Rotunda, and Coombe Lying-in Hospitals, to the Hospital for Incurables, and to St. Mark's Ophthalmic Hospital.

These grants, which are unusual, and without parallel in the other divisions of the United Kingdom, were given originally, according to some, to meet the wants of the city in consequence of the suppression of the monastic institutions of the country. They have continued now for a great many years, but they have gone through a great many vicissitudes. At one time, the grants were actually discontinued, and a committee of the House of Commons recommended that discontinuance; but a subsequent committee investigated the matter, and reported that they considered that the continuance of these grants should be made, and that the distribution should be rearranged. This report of the committee was followed by a report of a commission, and upon the report of these two bodies the grants, which have now been going on for some years, have continued to be made. The grants were made with the special object of assisting the sick poor of Dublin, and also for the maintenance of two important medical and surgical schools in Dublin, namely, the school then connected with the House of Industry Hospitals, known as the Carmichael School o Medicine, and the school of Steevens' Hospital.

As it was impossible for the Government to increase the grant made to the hospitals in order that the governors of the House of Industry Hospital might be granted the funds they considered necessary for the execution of the repairs and alterations they required, His Excellency the Lord-Lieutenant, on consideration of the matter, came to the conclusion that one of the best plans to adopt would be

to capitalise if possible the annual grants, and so provide money for the erection of satisfactory buildings, and perhaps provide for a different arrangement of the hospitals. With this idea in view, His Excellency put himself in communication with the Lords of Her Majesty's Treasury, and on Tuesday last had an interview on the matter with representatives of the hospitals we have named. His Excellency went very fully into the subject, and placed his views before the deputation that waited upon him. He stated that he wished to see how these grants should be distributed in the best way for the interests of medical science and the poor of Dublin. He proposed that some plan for amalgamation should be submitted to the Government. He did not propose that all the hospitals should be amalgamated under one building, but he thought there would be a certain great advantage in bringing together two or three institutions under one roof. There would be greater economy of administration, better sites might be got, and, further than this, a consolidation of management, even where some of the institutions could not be brought under the one building, might be obtained.

The Lord-Lieutenant suggested that Steevens's Hospital might amalgamate with the Richmond and Whitworth, and the Hardwicke with the Cork Street Fever Hospital, and that all these institutions might be put under one representative management, which would be able with power and force to administer the funds at its disposal, not only for the establishment of the best possible hospital for surgical and medical cases, but for giving facilities for clinical and other instruction, which is such an important object in all questions of this character. Unfortunately, the representatives of the House of Industry Hospitals alone assented to the proposals of His Excellency.

THE COLLECTIVE INVESTIGATION COMMITTEE'S REPORT ON ACUTE PNEUMONIA.

The Report on Pneumonia, which forms the chief part of the second volume of *The Collective Investigation Record*, must be left to stand or fall upon its own merits. Whatever its actual value, it is but bare justice to remember that it is the first undertaking of its kind, partly in the nature of an experiment, and to allow something for the large expectation that was aroused when the scheme of collective inquiry was proposed, an expectation quite unreasonable, and which its first piece of real work was foredoomed to disappoint.

In the space which has been kindly granted me in the Journal, I propose to notice very briefly the chief objections that have been made to the present report; to point out that, in spite of errors and shortcomings, the facts elicited are of real value; and to maintain that the experience gained in the course of this inquiry, far from discouraging collective investigation, furnishes new arguments in favour of that method of research.

Summarily stated, the main objections are these.

1. The contributors to the report are not all reliable observers, and no means are afforded for distinguishing the competent from the incompetent.

2. The pneumonia memorandum and the question-card are ill expressed and ill arranged. Lobar pneumonia is hopelessly confounded with lobular; while information is sought upon points which, from the nature of the case, cannot be conclusively settled by the method employed, such as the influence of climate and soil, variations in mortality, and the results of treatment.

Now, if the first of these objections be valid, no more need be said, for a report which is unreliable is, of course, useless. Before admitting as much, let it be remembered that the reporters in the present case are voluntary contributors, who have responded to an invitation, involving considerable expenditure of time and trouble, by answering a series of questions upon a subject which interested them. If the inquiry-cards had been issued like income-tax papers, and every member of the profession had been under penalty to return them duly filled up, we might fairly question the value of such enforced labour. But the voluntary element in the work gives it the best guarantee of excellence. It not only excludes those who know nothing and care nothing about pneumonia, but it has the higher merit of excluding those who know all about it. The plan which has been adopted brings together, by a self-acting selection, serious students of pneumonia who are dissatisfied with the character of our present knowledge, and willing to take trouble to improve it. To suppose that a number of medical men actuated by such motives, and brought into co-operation owing to a common interest in a widely prevalent disease, should be foiled and cheated of their purpose because, by some spite of nature, the elementary facts of the case were kept hidden from them, is to suppose what is preposterous. But we are not left to supposition; there is proof. The actual particulars furnished by the several reporters (particulars which, for reasons which will appear presently, are not all embodied in the returns) suffice to make it certain that the examples they quote are, with rare exceptions, examples of pneumonia and nothing else.

The recognition of pneumonia is not a matter of amazing difficulty; it is mere pedantry so to represent it. What is difficult, difficult for all, workers and critics alike, is to classify it, and put each case in its place, making the clinical and the anatomical aspects correspond.

And herein lies the answer to a further objection. Lobar pneumonia, it is said, is confounded with lobular and catarrhal pneumonia. But the relationship between these two forms of the affection is one of the points which the inquiry aims at making clearer. It is sometimes very close, and sometimes very distant. From the clinical point of view, indeed, it is often impossible to distinguish the one from the other, especially in the case of children. It would have been easy enough to set up, and signalise by means of definitions, two sorts of pneumonia, to which these names should be attached respectively; easier still to have left the lobular form on one side, and given a pattern of "fresh lobar pneumonia" occurring after the fashion we are pleased to call "typical," and to which all the examples supplied should be required to conform. But this would not be resolving the question, but begging it. One main object of the inquiry—a too ambitious one, I grant—was to define and separate, in the future more accurately and securely than at present, the several forms and varieties of acute pneumonia. Preliminary direction in that regard went as far as it dared in the words of the original memorandum which speaks of "primary acute pneumonia in a previously healthy individual," and adds that "examples of pneumonia occurring as complication in the course of a specific fever are not required." The limitations, for the most part, have been strictly adhered to by the contributors. Thus, while the apprehensions that have been so freely expressed lest these observers should "not know pneumonia when they saw it," are, as I believe, wholly groundless, the complaint that they have not clearly separated the several forms of the disease comes to no more than this, that, having supplied the facts demanded of them, they have not anticipated the conclusions.

And it may be remarked by the way, as matter for surprise, that those who insist so much upon the unworthiness of the agent, as casting doubt upon the value of conjoint work of this kind, do not push their argument to its logical conclusion. Collective investigation, exposed to precisely the same dangers and fallacies as other investigation. The particular scheme which now goes by that name has, indeed, for its special object, the extension of clinical inquiry beyond the hospital-ward, so as to reach a different social class, and obtain fuller opportunity of observation both as regards the earlier stages of disease and the actual circumstances of the patients. So far as it differs at all from other clinical work, it differs in the patients being more intelligent and accurate, the family-history better known, the habits and mode of life brought directly under the eye of the observer, instead of being taken on trust and hearsay. But clinical observation, whether collective or solitary, must be always erring and precarious, depending as it does on a number of facts which cannot be verified. In not a tithe of reported cases do we know anything either of the competence of the reporter or of the veracity of the patient. It is only in the aggregate that testimony of this kind becomes trustworthy; and it does so because, disease being always present among us, the error which is often committed is as often exposed and corrected, and, in the long run, a measure of truth survives and prevails. At the same time, whatever doubts may be legitimately entertained to the reliability of collective investigation must apply all round. The strange thing is to find this sort of distrust, not producing universal scepticism, but rather inclining men to appeal to text-books and old traditional beliefs about disease, as though the truth in regard to pneumonia had once for all been delivered to the faithful, and we had to cherish and preserve some scripture concerning it.

But, to resume, there are other and more valid objections to be met. When, for example, it is alleged that space has been used occupied with questions which the method employed can never settle, it is impossible to deny that there is truth in that complaint. Disputations regarding the influence of climate and season and changes of wind, difficult and laborious as they are to tabulate, must always remain inconclusive. It is the wide range permitted to this pneumonia-inquiry which is here at fault. This, once determined, made it necessary that every topic bearing on the etiology of the disease should find a place. As for the analysis of treatment, although inconclusive too, it is perhaps not altogether without interest, affording gratifying testimony, gathered from many sources, as

lightened practice of to-day in reference to an affection which has ffered so much and so long at the hands of the therapeutist, and hich even now, as the report shows, is not altogether delivered from s eccentricities.

But the cardinal question still remains, What is the use of this neumonia-report, assuming it to be reliable, and admitting that it is edlessly lengthy and diffuse? The answer is both general and par-ular. Speaking generally, it must be remembered that collected servations of this kind are intended, first of all, for the service not mere pupils, but of students at first hand, so to speak—of those, I an, who, in the hope to advance existing knowledge, are in search material to compare with that which exists already and with their n individual experience. In no other way than this does disease defined and systematised. Yet there are many points in the tural history of pneumonia—as of other affections—which, taken ne, must seem to the ordinary observer to be trivial and unimport-, such as its average duration, sudden or gradual end, and days of sis. But all these must be reckoned with before any complete cription can be reached. It is the same with our hospital-records, h case-books, and *post-mortem* books. Such sources of knowledge continually being drawn upon and utilised, and by their aid the tures of disease are gradually made more plain. But they yield y little to casual perusal; they can never take the place of "the st ordinary text-book," and those that consult them in that spirit not unnaturally disappointed.

nd, speaking particularly, it may be said that there are several portant questions concerning the etiology and prognosis of pneu-nia, which the evidence contained in this report helps to determine. ave only space to enumerate them. 1. The evidence adduced in our of a contagious form of pneumonia, evidence much needed to plement that which existed already, but which is scanty so far as country is concerned, and not universally credited. 2. The evi-e in favour of pneumonia of pythogenic origin; and, along with , evidence that enteric fever and acute pneumonia very rarely pre-together. 3. Evidence that pythogenic pneumonia has, on the le, not a higher, but probably a lower, rate of mortality than that exposure.[1] 4. Evidence (inconclusive, no doubt, but sufficiently ing to call for further inquiry) that pneumonia due to overstrain, ther mental or physical, is, next to that of intemperance, the most form of the disease. 5. Evidence that the gravity of pneumonia t in proportion to its extent as a local inflammation, and that ptoms indistinguishable from it may even have no local signs at 6. Evidence in regard to the comparative frequency and com-tive mortality of pneumonia occupying various localities of the , and especially of apex-pneumonia. 7. Evidence showing the ent occurrence of two or more cases of pneumonia in the same ehold.

t it be granted that there is nothing absolutely new in any of points, that some of them may not stand the test of fuller in-, and that they all need further confirmation. That is no more saying that a report of this kind can never be accepted as final; avowedly but a contribution to knowledge, and has reference to has gone before, and what is to follow after. If it can but ad-us a little in precision and definiteness, if it can correct or con-existing knowledge, or suggest new lines of observation, then it lfilled its proper function. I claim for this report on acute nonia that it has done as much as this: its aim and method have in the main right; the accuracy of its conclusions has yet to be .

d here I would gladly end, but there is a word more to be added has been hinted at already, but must be said very plainly. tive investigation has now an experience of over three years to re with its early promise, and it is represented in large part by eport on Acute Pneumonia. And, in so far as the individual rs are concerned, I make bold to say that the fears at first ex-d "lest the harassing avocations of medical men should disin-hem to enter upon a labour of this kind," have not been justi-The result has much exceeded the expectation;. but combined needs general direction and superintendence; and, for full suc-s dependent on good management and judicious disposal, for the individual labourers are not responsible. It is here that we touch the real fault of the report. It has gone too far afield, and attempted too much at a time, instead of confining itself, in the words of Sir William Gull, to questions which were "simple, pointed, and incisive." It has introduced others which, in the circumstances of private practice, hardly admit of reply, such as the precise duration of physical signs and of pyrexia, and the highest point of temperature reached. It has contemplated the whole pathology of pneumonia, instead of confining itself to one or two salient points. And, whatever may be the excuse—haste, overconfidence, ambition, the faults of youth and inexperience, which may perhaps be fairly pleaded—we are in duty bound frankly to admit as much, lest the particular errors of the report should be laid to the wrong charge, and less than justice be done to good and conscientious work. The harvest has been plentiful, but it might have been better garnered.

OCTAVIUS STURGES, M.D.

[1] ppears from the Report (p. 36) that pneumonia, occurring in unsanitary has a lower rate of mortality than pneumonia in healthy houses. The tion has been described as "ridiculous," "*reductio ad absurdum*," and in ke terms, which it cannot possibly deserve, because it is true, being, one of the best assured facts of the Report. And why should it seem Suppose it should turn out that pythogenic pneumonia, like pythogenic typhoid, has a very small mortality amongst children and young people. ot absurd; and, if it should be found true, all the derision which has this passage will have to be taken back.

MAHOMED MEMORIAL FUND.

THE following additional subscriptions have been received.

	£	s.	d.
W. A. Crosse, Esq.	1	1	0
E. G. Dutton, Esq.	1	1	0
A. Withers Green, Esq.	1	1	0
R. L. Knaggs, Esq., M.B.	1	1	0
T. B. Luscombe, Esq.	1	1	0
H. Kellock McKay, Esq., 32nd Pioneers	2	2	0
Laidlaw Purves, Esq.	10	10	0
John Rand, Esq.	1	1	0
Mrs. Henry Roberts, *per* Dr. Arcedeckne Duncan	1	1	0
Dr. Swain Scriven	1	1	0
C. Caldecott, Esq.	1	1	0

A meeting of the Committee will be held very shortly, and the treasurer or honorary secretaries will be glad to receive the names of any gentlemen still intending to contribute to the fund.

ARTHUR E. DURHAM, Treasurer.
JAMES F. GOODHART, W. H. A. JACOBSON, } Secretaries.

MEDICAL MAGISTRATE.—Dr. John Rimington Fothergill has been placed on the Commission of the Peace for the Borough of Darlington.

THE TREATMENT of PHIMOSIS.—The communication which we published upon this subject in our issue for November 8th of last year, and Mr. Berkeley Hill's article in the JOURNAL of January 31st, have called attention to the fact, long known to surgeons, but not generally acted upon, that a contracted prepuce may generally be dilated to its natural size without a cutting operation. We take this opportunity to refer to a pamphlet by Dr. D. Forest Willard, lecturer on Orthopædic Surgery in the University of Pennsylvania, who, from inspection of the genital organs of several hundreds of young boys, has made some practical observations. He has found that, in boys under the age of three years, the prepuce is very frequently adherent to the glans, in which case there is always an appearance of elongation and contraction of the prepuce; that, as a rule, the boy gradually, in the course of years, cures this condition by retracting the prepuce himself, unless the orifice be very small, and even in the latter case self-cure may sometimes be accomplished. In the latter condition, however, he advocates surgical interference, as, otherwise, "the boy's manipulations will tend to establish habits which may prove very injurious afterwards." The surgeon may, in the large majority of cases, produce a cure by stretching. Dr. Willard describes the results of contracted prepuce which he has observed. *Frequent priapism* is a very common result. *Dysuria*, varying from a too frequent desire to tenesmus and pain, sometimes producing a convulsion, or, in severe cases, irritability of bladder, and even cystitis. Another occasional result is *nocturnal incontinence*. He has known a few cases of *pavor nocturnus* or *night-terror*. *Prolapsus ani* and *hæmorrhoids* may be produced by the straining. Very frequently he has noticed the co-existence of *hernia*. *Balanitis* is a natural sequence. Dr. Willard does not support the theory which ascribes caries of the vertebræ and coxitis to this condition, nor does he consider epilepsy to be a result, although occasionally co-existent. In such cases, he has not produced much relief to the epilepsy by uncovering the glans, and he is therefore inclined to believe that the true difficulty is central and not peripheral. He mentions many other evils which have been attributed, without much reason, to phimosis. *Reflex nervous phenomena* sometimes seem to be a result, but the surgeon is cautioned against too readily accepting this view in all cases in which the conditions co-exist. The simple process of stretching may be effected by the instrument figured in the JOURNAL of January 31st, or by simple scissors-jointed forceps, fitted with a screw to maintain dilatation; the former being invented by Mr. Carver of Cambridge, and made by Mr. Coxeter; and the latter devised by Mr. Noble Smith, and made by Messrs. Krohne and Sesemann.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885: ELECTION OF MEMBERS.

Regulations for the Election of Members passed at the Meeting of the Committee of Council, October 12th, 1881.

1. There shall be a standing notice in the JOURNAL every week, of the meetings of the Committee of Council throughout the year; and stating that gentlemen wishing to be elected members of the Association must send in their names *twenty-one days* before the meeting of the Committee of Council at which they wish to be elected.
2. That a list of applicants be in the hands of the Committee of Council *fourteen days* before such meeting of the Committee of Council, and that the Branch-Secretaries be supplied with *several* copies of the list.
3. That no member be elected by a Branch, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Meetings of the Council will be held on April 8th, July 8th, and October 14th, 1885. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary, not later than twenty-one days before each meeting, namely, March 18th, June 17th, and September 24th, 1885, in accordance with the regulation for the election of members, passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
IV*a*. Diphtheria, sanitary.
VI. Acute Gout.
VII. Puerperal Pyrexia.
VIII. Paroxysmal hæmoglobinuria.
X. Habits of Aged Persons.
XI. Albuminuria in the Apparently Healthy.
XII. Sleep-walking.
XIII. Cancer of the Breast.

An inquiry is now issued concerning the general condition, habits, and circumstances, past and present, and the family history of persons who have attained or passed the age of 80 years.

The replies to this inquiry will be most valuable when given by a medical man; but the questions have been so arranged that, with the exception of some on the last page, they may be answered by another person. *Partial information will be gladly received.*

There is also now issued an inquiry as to the occurrence of albuminuria in apparently healthy persons.

The Acute Gout card, which had been found too elaborate, has been made a great deal simpler, and is now re-issued.

Copies of these forms and memoranda are in the hands of all the local secretaries, and will be forwarded to anyone who is willing to fill up one or more of the forms, on application by post-card or otherwise to the Secretary of the Collective Investigation Committee, 161A, Strand, London, W.C., to whom all applications and correspondence should be addressed.

July, 1884.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—C. SIBTHORPE, Honorary Secretary, Madras.

STAFFORDSHIRE BRANCH.—The second general meeting of the present session will be held at the North-Western Railway Hotel, Stafford, on Thursday, February 26th, 1885. The President, Dr. E. T. Tylecote, will take the chair at 3.30 P.M. Papers will be read by Dr. Reid (Stafford) and Dr. C. Smith (Wolverhampton), and a discussion will take place upon Chorea and Acute Rheumatism. Dr. Isambard Owen (London) will be present at the meeting.—VINCENT JACKSON, General Secretary, Wolverhampton, February 2nd, 1885.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the above Districts will be held at the Grand Hotel, Brighton, on Tuesday, March 24th. Charles J. Oldham, Esq., will take the chair. Gentlemen desirous of contributing short papers, or cases, should communicate with the Honorary Secretary, East Sussex District.—T. JENNER VERRALL, 95, Western Road, Brighton.

METROPOLITAN COUNTIES BRANCH.—A general meeting of this Branch will be held at the Royal School of Mines, Jermyn Street, on Friday, March 6th, to consider the subject of University degrees for London medical students. A report of the Council on the subject will be presented. The chair will be taken by the president, Mr. Macnamara, at 8 P.M., precisely.—ALEXANDER HENRY, M.D., and W. CHAPMAN GRIGG, M.D., Honorary Secretaries.

DUBLIN BRANCH: ANNUAL MEETING.

THE eighth annual meeting of this Branch was held on Thursday, January 29th, in the Hall of the King and Queen's College of Physicians in Ireland. There was a full attendance of members.

Report of Council.—The honorary secretary, Dr. RICHARD A. HAYES, read the following report.

"In presenting the eighth annual report, the Council of your Branch have the satisfaction of announcing its continued prosperity and usefulness. During the past year, 33 gentlemen were elected members of the British Medical Association by the Council of the Branch, and 19 members were elected into the Branch. And, although several members have left Dublin, while 5 have resigned, the number now on the roll, namely, 184, shows an increase compared with last year.

"The Branch has to deplore the death of two of their number, namely, Dr. Fleetwood Churchill and Dr. Leslie Maturin, both of whom are deservedly deeply regretted.

"Your Council noted with satisfaction the compliment paid to the Dublin Branch in the election of their representative on the Council of the Association—Dr. G. F. Duffey—to a seat on the Journal and Finance Committee, this being the first occasion on which a member of the Association in Ireland has been so elected.

"During the past year, your Council held five meetings, attendances at which are set out on the balloting-paper.

"In compliance with a request from a Subcommittee who had been appointed by the Council of the Association to ascertain the opinion of the members with regard to the admission and retention of homœopaths as members of the Association, your Council issued a circular to the members of the Branch, requesting replies to the two following questions: 1. Do you approve of the admission of homœopaths as members of the Association? 2. Do you approve of the retention of those homœopaths who are already members? To this circular, 83 replies were received; of these, 10 were in favour of, and 73 were against, the admission of homœopaths; and 38 were in favour of, and 43 against, their retention as members of the Association.

"In accordance with the resolution adopted at the last annual meeting—'that this Branch observes with regret the great block that at present exists in the senior ranks of the Army Medical Department, and the extremely short period of home-service now enjoyed by surgeons-major; and they request the Council of the Branch to take such steps as they deem advisable to attract the attention of the Government to these points'—your Council appointed a Subcommittee to draw up a report on the subject, which is appended. After your Council had received the report, they learned that the authorities were then engaged in the consideration of impending changes in the department, and therefore did not deem it opportune at such a time to take further action upon it. Since the above report was received your Council regret to say that the matters referred to in it have not improved.

"The accounts of the Branch up to the 28th instant have been audited by Dr. J. K. Barton, and show a balance in favour of the Branch of £19 4s. 10d.

"The thanks of the Branch and Council are again eminently due to the President and Fellows of the College of Physicians for the courteous permission to hold our meetings within its walls."

The Army Medical Department.—The report on the condition of the Army Medical Department appended to the Report of Council was adopted by the Council of the Branch on June 30th, 1884, and copies thereof were distributed at the meeting. It showed that the present block in promotion was the result chiefly of the large influx of officers into the department during the Crimean War of 1854, and the Indian Mutiny of 1855 to 1859. Those officers had now come to the top of the list. The average age of 100 of the senior officers on June was 50, and the prospect of promotion to the higher grades was almost *nil*. In 1865, the strength of the department was 1,092. In 1883, the number had fallen to 868, of whom 204 had over 20 years and 418 over 12 years' service. In other words, while in 1865 1 in 11 had over 20 years' service, in 1883 1 in 4 was in that position, and the promotion was becoming worse. Of 135 senior surgeons-major three-fourths had little or no chance of advancement. The report suggested, as a remedy for the existing state of things, that bonuses or extra pensions should be given to senior officers to retire. The pension of £500 a year, it was said, ought to be granted after 25 years' service. Another remedy suggested was that a greater numbe

rigade-surgeons, say 25, should be created. It showed also that the hort period of home-service now enjoyed was due to the great reduc- ion in the number of officers of the department, and the drain upon t for foreign service. The remedies for this, the report pointed out, ere self evident; and it also expressed the hope that the authorities ould see their way to ensure all medical officers a minimum of 3 ears' home-service, on completion of each tour of foreign ervice.

The Report of Council.—Dr. DUFFEY (Vice-President of the College f Physicians) moved the adoption of the Report of Council. He aid that, having been for seven years the Honorary Secretary of the ranch, and connected as he was with its establishment, its increasing rosperity, growing numbers, and financial position, were particu- arly gratifying to him, and showed that the Branch had been a suc- ess, and had fulfilled the objects for which it was formed. Alluding o the admission and retention in the Association of homœopaths, he oped the action taken by the Council on the subject would meet pproval. The question had been introduced into the Council of the ssociation, and was one upon which there was strong feeling, but the ouncil thought it would be unjust to expel men who are homœopaths ho had already obtained membership, but had tried to devise certain afeguards to prevent the election of irregular practitioners in the uture. As regarded the Army Medical Department and its condition, e pointed out that, at the time the report of the Council referred to as adopted, measures were being taken by the Horse Guards to ring about important changes—changes that rendered it rather un- esirable then to press for the consideration of the grievances men- oned in the report. In view of these circumstances, the Council had ought it unwise to take further steps then. But he would now sug- st that the report should be remitted to the incoming council, and at they might be authorised to deal with it as they might be dvised. There would, however, appear to be greater need now than June last for action, for matters were now worse. Out of a strength 800 executive officers, there were only about 200 in the United ingdom, and the consequence of that was that, in many places, vilian medical officers had to be employed. The campaign in Egypt so showed that privates of line battalions, who had no hospital- aining, were called upon to do hospital-work. He expressed regret the unavoidable absence of Dr. Cuming, of Belfast, the President of e Association. Those who had the pleasure of attending it remem- red the success of the last annual meeting of the parent Association Belfast under his presidency, and would have been glad to accord m a hearty welcome. Similar regret was expressed at the absence wing to the death of a near relative) of the President of the College Surgeons, Professor Bennett, who, he (Dr. Duffey) was glad to nounce, had been elected President of the Surgical Section of the sociation at its next annual meeting at Cardiff. In conclusion, he oved the adoption of the report.

Dr. CAMERON (Vice-President of the College of Surgeons) seconded e motion; and, having spoken of the vast power of the Association, bracing as it did nearly 12,000 members, said he did not know of y greater weapon of defence. The Association deserved the warmest pport of the medical men of Dublin.

The report was unanimously adopted.

The Army Medical Department.—Mr. W. I. WHEELER moved that be an instruction to the incoming Council to send the report on the sent condition of the Army Medical Department to the Parliament- Bills Committee, asking them to give it their active considera- n. He thought that the block in promotion would be easily nedied if the recommendation made by the Council were adopted— nely, that the same advantages should be given to the Army dical Department as were given to the Indian Medical Service with ard to the increased pension and the time at which it was given. that were adopted, the block would be got over, because it would worth men's while to retire. The second question—the short iod of home-service—was equally important; and matters were n in a worse state now than they were when the report was com- ed. There was another point of moment, and one that was not uded to in the report. Since the examinations for surgeons-major ome of which were held in Dublin—no report had been made as to successful men at those examinations, and, if he spoke correctly, re had not been announced in the *Gazette* a single promotion since holding of the examinations, which was in November last. Those e points upon which action ought to be taken, and which he ngly recommended to the consideration of the Council and of Parliamentary Bills Committee.

Mr. MOLONY seconded the motion, which was passed.

Meetings of the Branch.—Dr. C. F. KNIGHT, in accordance with ice, moved the following resolution.

"That, in the opinion of this meeting, it is desirable that three or four meetings of this Branch be held during the year, for the discussion of matters of professional interest, in addition to the annual meeting; and that the incoming Council be requested to make the requisite arrangements."

He referred to the fact that, in other Branches of the Association, such meetings were held.

Dr. DELAHOYDE seconded the motion.

Dr. GRIMSHAW pointed out that the sectional weekly meetings of the Academy of Medicine furnished the object sought by Dr. Knight; and that, under the Branch by-laws, a general meeting could be summoned at any time, on the requisition of twenty members.

The motion was rejected, only the proposer and seconder voting for it.

Officers and Council.—The HONORARY SECRETARY then declared the result of the ballot for the new officers of the Branch, as follows. *President:* Lombe Atthill, M.D. *President-elect:* E. H. Bennett, M.D. *Vice-Presidents:* T. W. Grimshaw, M.D.; E. D. Mapother, M.D. *Council:* J. T. Banks, M.D.; J. K. Barton, M.D.; J. H. Chapman, F.K.Q.C.P.I.; A. H. Corley, M.D.; G. F. Duffey, M.D.; E. Hamilton, M.D.; J. B. Hamilton, M.D.; R. McDonnell, M.D., F.R.S.; J. W. Moore, M.D.; Walter G. Smith, M.D.; W. Stokes, M.D.; W. Thomson, M.D. *Representative on the Council of the Association:* George F. Duffey, M.D. *Honorary Secretary and Treasurer:* Richard A. Hayes, M.D.

New President.—The President (Dr. HAMILTON) said he had now great pleasure in vacating the chair in favour of their new President—a man who, by the integrity of his professional life, had won a reputation abroad, and had earned the respect and esteem of his brethren at home.

Dr. ATTHILL then, amid applause, took the chair, and returned his cordial acknowledgments to the Branch for the honour they had conferred upon him in electing him their President.

Vote of Thanks to Outgoing President.—A hearty vote of thanks was then accorded, on the motion of Dr. GRIMSHAW, seconded by Dr. MAPOTHER, to Dr. Edward Hamilton, the retiring President.—Dr. HAMILTON, in appropriate terms, acknowledged the compliment.

President's Address.—The PRESIDENT then delivered his inaugural address, on Medical Reform. It is published on page 317.

Annual Dinner.—In the evening, the annual dinner took place at the College of Physicians. The President, Dr. Atthill, occupied the chair; and among those present were Sir Patrick O'Brien, Bart., M.P.; the Right Hon. Edward Gibson, M.P.; Dr. Lyons, M.P.; the President and the Vice-President of the King and Queen's College of Physicians; the Vice-President of the Royal College of Surgeons in Ireland; Dr. Kidd; Dr. Robert McDonnell, F.R.S.; Colonel Dease; etc. After dinner, an admirably rendered selection of vocal music was given between the toasts.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Influence of Solar Light on the Vitality of Germs.—Lady House-Surgeons and the Municipal Council.—Lunier on Depopulation.—Alleged Cruelty of Two Hospital Nurses.—Prizes.—Death from the Fall of a Nut.—M. Robin.

M. PASTEUR has read before the Académie des Sciences a note from M. Duclaux on the influence of solar light on the vitality of germs or micro-organisms. The author describes his researches, and concludes that solar light is destructive to the vitality of micro-organisms. He experimented on several varieties, and especially on those found in milk. The direct action of solar light is more fatal than is diffused or reflected light.

The question of admitting women as house-surgeons in hospitals has been favourably considered by the Conseil Municipal. For their admission 48 votes were recorded, and 28 against. M. Hamel proposed that a separate living-room should be set apart for female house-surgeons. This proposition was also adopted.

The small percentage of births in France is a subject of great anxiety to staticians, philosophers, philanthropists, and inspectors. Inspector-General Lunier, at a recent meeting of the Académie de Médecine, made a rapid survey of the subject, and added some fresh suggestions. He considers that the Academy should petition the public authorities to facilitate legal marriages, also for rendering fathers of illegitimate children responsible for the welfare of their off-

spring, to award compensation to fathers of families, or lighten the burden of taxation, to perfect the help-organisation for unmarried mothers, to re-establish the deposit-boxes at foundling hospitals, to apply more strictly Roussel's law for the protection of infant-life, and to extend its action beyond the second year. Infant-mortality reaches 40 and 50 per cent. ; and M. Lunier believes that it could be reduced to 10, 8, and 7 per cent. The lives of 130,000 children would be thus saved yearly. M. Lefort states that, in 1872, the population of France was 35,000,000 ; in 1881, 36,672,448. M. Lefort believes it probable that this increase of population is consequent on the new recruiting law, which limits military service to five years. M. Lefort considers that the problem how to establish an increase of population involves many considerations beyond the sphere of action of the Academy of Medicine. Medical men have very little to do with the habits and manners of a nation, which here play an important part. In England, says M. Lefort, marriages are made without a fortune on the wife's side, and the women become mothers ; but in France the object is to well place the daughter and her "dot ;" and she marries to have pleasure and liberty. In Paris, cohabitation, without marriage, increases, and illegitimate births represent a third of the total number ; in London they reach the proportion of 3 per cent. M. Lefort concluded his statements by declaring that the depopulation of France resulted from the national habits, and the remedy would be found in reforming those habits.

A sad instance of brutality has lately been brought under the attention of the authorities of the Necker Hospital. A patient, aged 48, had been for some months under treatment for a disease of the heart. When in bed he suffered such agonising pain, that the medical officer ordered that he should sit in a chair instead of going to bed. The male nurse who attended to him wished to force him to leave his chair and go to bed ; the sufferer reminded him of the direction given; but the nurse was so persistent, that his victim cried out, "Do you want to kill me? I shall not go to bed." A brutal answer was given, and, with the aid of another nurse, the patient was forced to lie down in his bed. The nurses left the ward, and, two hours later, found him dead in his bed. The nurses notified his death without mentioning any of the circumstances attending it, but the other patients in the ward made them known to the physician when he went his rounds. Both nurses have been arrested, and will be tried for manslaughter.

The Académie de Médecine has disposed of the interest of the Monbinne legacy by awarding 4,000 francs (£160) to Dr. A. F. Martin for his work on Sanitary and Civil Administration at Home and Abroad ; 2,000 francs (£80); to Dr. Straus and Dr. Roux for their researches on cholera at Toulon ; 2,000 francs (£80) to Dr. Merris, and 500 francs (£20) to Dr. Amat for their memoirs on the treatment of scrofulous infants by sea-baths.

A gardener, named Croulebois, living at Meudon, has met with his death in a singular manner. He was knocking down nuts from a tree, and, in order to aim with more certainty, climbed into the tree, and kept his face uplifted. A nut suddenly fell on the right eye and crushed it. He was immediately removed to the hospital, suffering intolerable agony. Excision of the eyeball was attempted but found to be impossible ; cerebral congestion set in, and the sufferer died.

The lectures by Professor Robin at the École de Médecine have been suspended, on account of the unseemly conduct of the students. M. Robin has lately been re-elected senator. According to the new electoral law, he is no longer eligible as a professor. M. Robin has claimed his right to retire from professorial teaching.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Rivers Pollution Bill.—Regulations for House-Drainage.—City Mortality.—Vacant Police-Surgeoncy.—The Duke of Argyll on Science.—The Chairman of the Royal Infirmary.—Pathological Society.

OUR Society of Chemical Industry at its last meeting considered very fully the text of the proposed Rivers Pollution Bill, and came to the conclusion that many of its clauses were objectionable and ought to be altered. All were agreed as to the necessity for some such measure, and that early legislation was needed ; but that, if carried out on the lines proposed, the Bill would soon become a dead letter, like its predecessor of 1876, owing to the stringency of its clauses. One point that seemed specially objectionable in the Act, was having one standard of purity all over the kingdom, an arrangement, members thought, which was practically unworkable. To the people of Glasgow this rivers pollution question is one of more than passing interest, seeing that there is at our very doors a river which may be safely said to be the most polluted in Scotland.

The special Committee appointed by the Town Council to take up the consideration of the subject of house-drainage, have lost no time in sending in their report. The results of their recommendations are embodied in ten headings, the adoption of which would considerably increase the power of the authorities, through their Master of Works, in deciding as to the adequacy of the arrangements for drainage and ventilation in all new buildings. It is hoped that the approval of the Lord Advocate will be obtained, and that he will consent to embody them in any new Police Bill that may be brought forward, for the Committee's suggestions are not unreasonable, and if carried out they would be a great benefit to the public.

Our mortality-returns are beginning to show a downward tendency, but the past few weeks have had a high death-rate. That of the last fortnight was 33 per 1,000, any excess, compared with the corresponding week of last year, being due to the deaths from diseases of the lungs. One case of small-pox has been registered in the city, the first that has occurred since July of last year. The disease was, no doubt, contracted in London, the man having been resident there for a fortnight, in a house where small-pox had been. He is unvaccinated, and the attack is a severe one.

The post of casualty-surgeon for the most important of the police-districts of the town has become vacant by the resignation of Dr. Wm. Macewen. It has been decided to promote one of the district-surgeons, according to seniority, provided he is found willing to reside within suitable limits. A difference of opinion has arisen as to the amount of salary to be attached to the post. When the duties and responsibilities belonging to it are considered, the proposed sum of £120 *per annum* appears quite inadequate. It is to be hoped that the views of those who would fix it at £150 *per annum* will prevail.

This winter, our science-lectures have been discontinued. This has arisen from the want of financial success attending them in previous years. Of the value of such instruction as they give, all were at one, and it is a matter of regret that the scheme has been abandoned. During the past week, this branch of education found a powerful advocate in the Duke of Argyll, who, in an address on "What is Science?" gave expression to the view that it was simply a real knowledge of things, not individually or differentially, but in their mutual relationships as parts of a great system in the universe. The idea that there was any antagonism between science and revealed religion was, he thought, a mistake ; and not the least interesting part of his lecture was where he described a personal interview he had with Darwin a year before his death ; the conversation that took place at that time making it clear to his mind that those were in error who believed that that distinguished naturalist had dispensed with God, and eliminated altogether the idea of a personal Creator from the universe.

The recent discussion on the admission of fever-patients to the Royal Infirmary has had more immediate results than the mere settlement of that question. The attitude taken up by the chairman of the directors in reference to the matter made it impossible for him to retain the confidence of those over whom he presided ; and, at the last monthly meeting held, he was not re-elected to the House-Committee, but sits now at the Board in his capacity as Lord Dean of Guild.

There has been a proposal to increase the membership of our Pathological and Clinical Society, and the Council recommended that this should be done to the extent of five new members. At the meeting of the Society held on Monday evening, the proposal did not find favour with the members, and the Council's proposal was lost. It was, however, decided to insist on more regular attendance from existing members, and absence from two consecutive meetings is to entail, in future, loss of membership.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Carbonic Oxide Poisoning at Pendleton.—Annual Meeting of the Hospital.—The Children's Hospital and Burial Clubs.—Serious Illness of Professor M. Watson.

THE investigation of a case of much medico-legal interest was concluded last week, by the acquittal of a woman who was under arrest on suspicion of having caused the death of her father and mother, who were found dead in their bedroom in a back street in Pendleton. The woman stated that she had made a fire of "rattle-jacks," or refuse coke, about nine o'clock in the evening in the common bedroom; the fire burnt badly, and filled the room with smoke, and waking at five in the morning, she found both her father and mother dead. She remained in bed till four or five o'clock in the afternoon, when she

rmed the neighbours of the occurrence. When arrested in the even-
g, it was supposed, on account of her staggering gait and excited
anner, that she was drunk, and as there were marks of violence upon
ıe bodies, her story was at first discredited by the police. The
sults, however, of the investigations of Drs. Cullingworth and Bury,
ıd Messrs. Waters (of Owens College), and Estcourt (Public Analyst),
ıowed that the bruises on the bodies and the broken ribs were not
cent, that a certain amount of callus had been formed on the ribs,
ıd that death in either case was not due to violence; further, the
scera contained no poison; and although the lungs were not con-
sted, or gave any evidence of death from asphyxia, the blood gave,
ıen examined by the spectroscope, the well known carbonic oxide
nds. This of course cleared up the case.

The report presented to the annual meeting of the Eye Hospital
owed that 15,427 patients had been treated during 1884, including
155 in-patients. The average weekly cost of provisions for each patient
ıounted to the remarkably small sum of 4s. 8¼d. It will probably
some months yet before the new hospital, which is approaching
mpletion, will be ready for occupation. The report congratulated
. P. H. Mules, one of the honorary surgeons, on his essay on the
evention of blindness, which had gained the medal and honorary
e-membership of the International Society for the Amelioration of
e Condition of the Blind.

The annual report of the Children's Hospital showed that, in the
spensary Department, there had been 8,918 new patients, 838 home-
tients, and 226 deaths. In the hospital there had been 1,301 under
atment, with 102 deaths. The report called attention to the evil
luence exercised by the almost universal custom which prevails
ong the poorer classes of placing their children in burial-clubs, the
dical officers stating their belief that, in many cases, the placing of
(perhaps illegitimate) infant in a burial-club by its parents, was
ncident with habitual neglect, which, sooner or later, produced the
ired result, the untimely death of the infant. One extremely ob-
tionable feature, which ought to be widely known, is that, in some
bs, where the head office is the parlour of a public-house, it is cus-
ıary to pay a portion of the "benefit" accruing to the friends in
form of whiskey or gin.

extremely regret to hear of the serious illness of Dr. Morison
tson, Professor of Anatomy at Owens College, and Dean of the
dical School. He was taken ill after his demonstration last Wed-
day, and lies in an extremely precarious state. Dr. Watson ap-
red to be ill during his lecture, and apparently forgetful of his
ject. Shortly after he became unconscious, with left hemiplegia
very marked hemianæsthesia, with contracted pupils. Up to
nday evening he had remained semi-conscious. The worst result
eared. He is only 39 years old. It is believed there has been
rge cerebral hæmorrhage.

CORRESPONDENCE.

DR. WALTER'S PORTABLE TRANSFUSION-APPARATUS.

IR,—I have been much interested in the description in the
RNAL of December 20th of this portable transfusion-apparatus.
1 May last, I performed direct transfusion for a man in a very
stage of chronic phthisis; and since that time, I have been en-
d with Mr. Hawksley, of Oxford Street, in devising an instru-
t with which this operation could be done with a minimum of
ger to the donor and the recipient, with the least possible waste of
d and loss of time, and with certainty as to the amount trans-
l.

he result is an instrument so like that of Dr. Walter, that a
parison of the two may be interesting, as showing not only how
minds may come to a similar result without any intercommunica-
, but also by how simple and innocent a process the wrath of an
ntor may be, and no doubt often is, provoked.

efore to-day, I had never seen or heard of Dr. MacDonnell's appa-
s; but I had seen a sketch of an apparatus designed by Mr.
staffe.

enclose a rough sketch of my instrument, which has been, so far
he instrument itself is concerned, in a complete state in Mr.
ksley's shop for some weeks, if not months; but we have been
ually making small alterations, and have been much exercised as
ıe size, form, and contents of the case. For the case to be as
plete as I should wish, the case itself would have to be more bulky
Mr. Hawksley thinks desirable.

hould have described the operation of transfusion as performed with this instrument very much as Dr. Walter does. Shortly, the instructions would be as follows.

1. Bleed the donor to five or six ounces, in a room adjoining that in which the patient is, into a vessel (to be supplied in the case).
2. Whip and strain (defibrinate).
3. Pour the strained fluid into the holder, the clip being in position; and place the holder in a vessel of water at 100°, and put on the cover tightly.
4. Open a vein in the patient's arm, and introduce the silver nozzle into the vein. See that the blood flows out from this nozzle, and then close the free end of the nozzle with the finger.
5. Have the holder brought to you; ease the clip slightly, so that the fluid flows out; remove the finger from the end of the nozzle, and slip in the plug. Note the mark at which the fluid stands.
6. Remove the clip; and, if any force is now required, squeeze the hand-ball gently.
7. After the operation is over, remove the short piece of India-rubber tubing, and burn it. The other parts can be easily, quickly, and thoroughly cleaned.

I have passed defibrinated sheep's blood through this instrument; and, when the nozzle has been thrust into a piece of sponge, with pressure applied to the hand-ball, I have been able to overcome considerable resistance, and have failed to find any clot or deposit in the nozzle afterwards. Without criticising Dr. Walter's apparatus, I think my instrument is, if not simpler, more easy to use. The *vis à tergo*, as applied by the hand-ball, would be more manageable than the *vis à fronte* or *vis in medio*, as applied by his "Higginson enema-apparatus."

Another great point in my instrument is, that there is only a small piece (about three inches) of India-rubber tube between the glass holder and the metal plug. After use, the piece of tube is to be destroyed, and a new piece fitted on. There are no taps. India-rubber is not to be depended upon; it rots, and it is almost impossible to clean a tube of India-rubber. The inner surface is not smooth, and it cannot be seen. Danger from this source in using the same tube twice is thus avoided.

In my trials with sheep's blood, I found that six ounces of blood yielded, when defibrinated, about three ounces of fluid; and I imagine that from two to three ounces of defibrinated fluid would be quite sufficient for one operation. I therefore propose to include in the case with my instrument a vessel marked in ounces, in which, allowing for froth, it will be easy to see when five or six ounces have been taken, and in which vessel the whipping can be done. Lawn strainers, to fit the top of the holder, will also be included, so that the blood will be poured into the strainer with the clot broken up; only the fluid will pass into the holder. Very little blood ought to be lost, and not much time taken up, and the exact amount transfused can be noted. The probe-pointed nozzle, with a hole in the side some way from the point, does not send the fluid out at right angles to the barrel, as is the case on running water through a catheter; but, as soon as a little pressure is put on with the hand-ball, the fluid spirts in a direction continuous with that of the axis of the nozzle, and in a compact stream.

The chance of a bubble of air getting in is certainly no greater with this instrument than it is with the older ones. Only a very small bubble could get in with anything like care, and the authorities agree that a small bubble is of very little consequence. Clot, I am satisfied, would not form.

I must apologise for sending you such a rough sketch; but the appearance of the description of Dr. Walter's apparatus must be my excuse for rushing into print without elaborate preparation.—I remain, sir, yours very truly,

TH. CARMALT JONES,
Surgeon to the Western Ophthalmic Hospital.

Westbourne Street.

THE DUBLIN BRANCH OF THE ASSOCIATION.

SIR,—At the annual meeting of this Branch, I ventured to propose a resolution asking the members present to express their opinion as to whether they deemed it advisable to hold additional meetings during the year for the discussion of matters of professional interest. The members at the meeting seemed quite indifferent on the subject, as only three votes were recorded against the proposition, and two in favour of it; the resolution was thus lost by one vote; but so many not either taking part in the discussion or voting on the subject seems to me to indicate that the majority have been unable to make up their minds on the question, and induces me to state my arguments in favour of more frequent meetings. The object aimed at when Branches were established was to promote scientific investigation and discus-

sion. The North of Ireland Branch meets four times in the year. The South of Ireland Branch held meetings every fortnight during the session from October to May. The West of Ireland Branch holds two meetings in the year; but the Dublin Branch has only one, namely, the annual meeting, when the Council are elected, and the incoming President delivers his address; there is then no time available for the discussion of other subjects, as these matters are barely disposed of at the dinner-hour.

It has been said that more frequent meetings of the Branch would clash with the Academy of Medicine. I am sure pabulum for useful discussion could be obtained without any such result. That no subject was brought forward for discussion at this annual meeting, was due simply to the fact that members are aware of the amount of other business to be performed.

Lastly, my attention has been drawn to the fact that, at any time, a special general meeting can be summoned on a requisition signed by twenty-two members. Surely, sir, such an unworkable method could not have been seriously contemplated by the member who proposed this. I leave the matter now in the hands of the members of the Branch to express their views on the subject, as no opportunity of discussing the matter will probably arise until next year. The number of attached members to unattached in the North of Ireland Branch is five to one; in Dublin, the proportion is two to one.—Very faithfully yours,

CHARLES FREDERICK KNIGHT, M.D.

HAMMERSMITH POLICE-COURT AND THE HABITUAL DRUNKARDS' ACT.

SIR,—Referring to your article bearing the above title, in the JOURNAL of February 7th, I beg to say that, from my experience of retreats for habitual drunkards, the same facility of admission exists in all as that which obtains in the Tower House at Westgate. There are the Colman Hill House, a place conducted on the most liberal system; the Dalrymple Home, very highly spoken of by the inspector; the South Midland Retreat, which is conducted as a home for the upper classes, and only receives four inmates; also Hall Court, and a few others, any of which receives patients either under the Act or privately, though it is a great advantage to the patient to be under the Act, as any publican serving a patient so placed is liable to a heavy fine or imprisonment; but in no case is there the slightest tendency to even the appearance of a prison or asylum.—Your obedient servant,

F. P.

THE TITLE OF DOCTOR.

SIR,—During the past twenty-two years, I have frequently taken part in discussing and upholding the right of the licentiates of the London College of Physicians to use, as a prefix, the title of "Doctor." In all these controversies, many of which were prolonged and bitter, I established, as I thought, and now think, the legal right of my co-licentiates to use it as a distinctive designation. I have, therefore, now neither inclination nor intention to reopen this subject; but I do wish to say a few words concerning the use of the title by licentiates of the Edinburgh College. As to whether they have, like the London licentiates, a common law right to it, I am not going to assert; but that they have been led, by the Edinburgh College and the medical press, to believe that they had such right, is an indisputable and demonstrable fact. So strong was this belief in 1859, that, during this year, one thousand registered medical men, the great bulk of whom were doubly qualified, obtained the licence from the College, not as evidence of their possessing medical knowledge, inasmuch as they were subjected to no medical examination, but simply to obtain the title of "Dr." From that year to the present time, this title has been generally used by the Edinburgh licentiates; and the Edinburgh College have passively, until three years or so since, recognised their right, by addressing them as "Doctor" when communicating with them. That being so, and it being clear that these licentiates believed, as, I repeat, the College and the medical press allured them into the belief, that they had a *bonâ fide* right to use the title, by what process of reasoning can Dr. George W. Balfour show the truthfulness of his statement that the licentiates of his College who use the title make themselves parties to a fraud? If there has been any fraud in the question, has it not been a fraud of the College upon its licentiates, and not of the licentiates upon the public? I have been instrumental in past years, and in recent years too, in sending up to the College some of my medical friends for the sole purpose of their obtaining a supposed right to use, as a prefix, the title of "Dr.," and, as an affix, the absolute right to that of physician. These gentlemen used the first named title. Are they parties to a fraud? I am afraid that Dr. George W. Balfour knows very little of the doings of his College for the past twenty-four years, or he would not have written in our JOURNAL of November 29th last, that his College has never been in the habit of addressing their licentiates by the title of Doctor, unless they held an university degree. From my own personal knowledge, I can correct this statement.

Twenty-four years since, there was a general, and sensible, and exalted feeling in the profession that we should be all known by the public, as far as possible, by one distinctive title, and that the sixty two or more petty and contemptible medical designations we now us to our own disadvantage, in the estimation of intelligent people should be discontinued. This principle was generally, if not unanimously, upheld by the medical press, and it was embodied in Lor Ripon's famous Bill of 1870, for the amendment of the Medical Act 1858. It was adopted by the Edinburgh College in 1859, when the sold the College licences, and the titles (now repudiated) they carri with them; and it was again shown, in 1864, that they had adopt it, and still continued to adopt it, by their sending, officially, to their licentiates, in wrappers addressed to them as "Dr.," the follo ing reprint from the *Lancet* of 1859. This reprint will itself show t object the College had in view when they laid it before their lice tiates; and I hope it will prove to be a sufficient rebuke to Dr. B four for his having charged the licentiates of his College with fraud lent conduct, and a sufficient caution to him not to repeat his sta ments concerning the subject generally.

[From the *Lancet*, August 13th, 1859.]

"The Council of the Royal College of Physicians of Edinburgh just now fighting the battle of common-sense in the profession. Th have taken up the sword for the *plebs;* and, if they wield it m fully, and with frank and valorous mien, there can be no question the result. They have offered to the general practitioner of United Kingdom a means for placing himself on a professional le so far as title and degree can go, with the magnates of the professi It is very right that such a door should be opened, but it is also ri that only those who are worthy, and can approve themselves fit c panions, be admitted. Of the cold exclusiveness which would af that the designation of doctor or physician is inapplicable to general practitioner, we can but express our profound disapproval. is the function and the duty which hallow that title; and to ass that the licentiate of a college, the member of a corporation, or gr ate of an university, robs himself of the right to the name of d or physician by practising the general duties of his profession, ins of confining himself to consulting practice, is an absurdity whi not likely to be ratified by the general voice of the profession, an to which the public will never practically give confirmation. fact is, that the distinctions between graduates, members, and l tiates of the various corporations are very fairly represented b respective letters which these gentlemen are authorised to place their names; and the general term of doctor is one which usage will long continue to bestow upon every member of the m profession. The Council of the Edinburgh College hint at this intelligibly in their explanatory minute. The Council will be out by the great body of the profession in their recent measure, as it tends to bring in unison with them a larger number of thei *frères.* The tendency of the day is towards a general union, a creation of one faculty. Those who aim at eternally perpetu differences and distinctions of an arbitrary nature, do not compr their own interests or those of the profession."

There is one offence against truthfulness a few—a very few, —of the Edinburgh licentiates commit; they use the letters L. only, without attaching to them the letters "Edin." In thi they imply that they are London licentiates, which is not Some Doctors of Medicine, holding unrecognised insignificant degrees, adopt the same objectionable conduct, by placing o door-plates, cards, etc., the letters M.D. only. This leads the to believe that they are London, or Oxford, or Cambridge Do Medicine. It is a punishable offence, and those who commit i to be as much ashamed of themselves as they evidently are unregistrable degrees.—I am, sir, your obedient servant,

Stockwell Road. R. H. S. CARPEN

SHIP-SURGEONS.

SIR,—The JOURNAL of the 6th December publishes a letter geon-Major Evatt, advising the formation of "an association cantile marine surgeons," with the view of reforming the pres satisfactory conditions of medical service on passenger steam of protecting the public from the serious danger consequent Not long ago a similar suggestion was offered by Dr. Domet

:d now, as then, I feel bound to deprecate a proposal which, however eritorious in design, is, for obvious reasons, thoroughly impracticable. The ship-owners appoint and dismiss "their own" surgeons just as ey please, the law only requiring that "the medical practitioner" all hold some qualification as "a surgeon, physician, or apothecary." ıe ship-surgeon, on his part, is dependent for his tenure of office ıon the pleasure of the owner, and, indirectly, upon the good will the captain and other officials; and when discharged, whether for ɔ conscientious performance of his duties (as in the case last reported, *:alth*, October 31st) or otherwise, he has no appeal from the invari- le "reasons for dismissal are never given." Ship-owners resent all :erference in the management of "their own business;" and their :ion towards the medical officers proves beyond doubt that they :end to resist to the utmost whatever may tend to restrict their thority, whether yielded directly by themselves, or deputed to :heir own captains" upon "their own ships." What, then, would the only result of such a movement as that proposed? Clearly, the mediate dismissal of its leaders, and a probable increment of dis- lity among such ship-surgeons as survived the displeasure of their ployers.

The time has come for practical action, if we would break through s iniquitous ring which for many years has sacrificed human life to start arrogance and commercial cupidity. Sufficient has been said, ficient has been written. Your (four) editorials published during nuary and February 1883, cover the entire ground; and since then ry respectable medical journal, in both England and the United tes, has strenuously demanded reform; while the principal medical ieties, in both countries, have endorsed that demand by unequi- al resolutions. The present indication is to thwart the "masterly ctivity" policy of the ship-owners, which confidently awaits the ural demise of a one-sided battle. And this may be done, not by ther complaints to the medical journals, or by further associations hin the profession, since the profession, as a body, has already ex- ssed an unanimous opinion, but by reprinting and republishing the :tling and tangible statements which have already appeared, and so :ing them upon the daily notice of those in authority, of members Parliament and of the public, that official inquiry must ultimately insisted upon, and those responsible, compelled to disprove the rges or admit the necessity of legislative reform. For example, let m have the following concise statement which appeared over my nature some six months ago in the *New York Medical Record*, and er American journals, and append to it my pledge to name the sel, and substantiate the details, whenever authoritively called upon, jointly challenged by the three principal British transatlantic ıpanies.

Having mentioned the circumstances—so far as they could be ob- ned—strongly indicative of gross negligence on the part of the ners, under which a popular "Liner" had, within the previous few nths, carried small-pox on three successive passages to and from port, and spread the disease to Boston, and probably further, I ribed from personal inspection some of the sanitary arrangements oard as follows: "The hospitals for infectious disease were situated he forward part of the vessel, between the decks, opening off, and ilated exclusively into, a covered-in passage, running through first-class saloon the entire length of the vessel. In fact, if the ders had set themselves the task of constructing and locating these pitals so as to disseminate throughout the inhabited parts of the every germ of infection coming from within, such an end could ɔe have been more skilfully attained."

dd to this examples of the so-called hospitals being devoted to r purposes than the accommodation of the sick; mention, for in- ce, the "large Atlantic emigrant-ship which habitually carried a of two more men than could be accommodated in the forecastle, who were allotted by the captain one of the deck-hospitals, h was, therefore, practically unavailable for medical purposes." ribe the medical officers' accommodation, instancing the surgeon's on the magnificent mail-steamer *Parisian*, which "measures t 11 inches by 5 feet 3 inches, is without any window or port- , and is situated below in a narrow thwart-ship passage, the door g opposite to, and within 30 inches of, the door of the passengers' r-closets." Concisely summarise the existing conditions which rt the most competent and conscientious ship-surgeon (and there nany such) in the efficient discharge of his duty: want of assist- , want of accommodation, want of authority, etc.; and, finally, t over and over again, as often as may prove necessary, the un- overted and uncontrovertible statistical proofs that, consequent these conditions, "there is among passengers much more sick- and a far higher mortality than is justified by the necessities of it."

In other words, let us cease whining among ourselves; let us borrow a hint from less worthy agitators, who, by their own efforts, at their own expense, and through the medium of the daily post, insist upon being heard by every legislator, every politician, every person of influence throughout the land. But to do so requires both energy and money. Since December, 1881, when I commenced this agitation, I have devoted to it much time and a considerable sum of money, with but little thanks from those whom it was my first object to serve; and now, although I shall still be glad to co-operate with others, I am beginning to feel that I have done my share.

So much has been gained: professional opinion has been formed, and most emphatically expressed, upon both sides of the Atlantic; the matter has been heard of in Government circles, and an inspector sent out, who has fully confirmed our statements; the public mind has been more or less educated on the subject by some dozen strong editorials in the most prominent British and American daily papers; and, finally, a Bill has been presented to Congress under the auspices of the American Medical Association, which, however defective in details, is distinctly a move in the right direction. But here it rests.

If Drs. Evatt, Stone, and others, will now take up the good work, and carry it to a successful issue, as they undoubtedly can do, let me suggest, as a first move, the formation of a committee of not more than a dozen members (if possible, as a subcommittee of the Parliamentary Bills Committee, which has already done so much in this matter), and the establishment of a fund to defray the cost of printing, postage, and other incidental expenses.

I agree with Dr. Evatt, that nothing can be gained by further interviews with the present President of the Board of Trade, who, on the occasion of the last deputation, showed so little interest in the matter that he allowed himself to become the mouthpiece of a permanent official whose gross misstatements and erroneous statistics upon this subject had been fully exposed by me scarcely six months before (BRITISH MEDICAL JOURNAL, December, 1882).—I am, sir, your obedient servant, J. A. IRWIN, M.A.Cantab., M.D.Dub.

363, Fifth Avenue, New York.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A CORONER ON DELIRIUM TREMENS.

MR. BRIGHOUSE, Coroner for the West Derby District of Lancashire, has recently held an inquest at Ince, near Wigan, on a man who died from inflammation of the lungs and delirium tremens. The man and his friends failed to get medical aid until the day of his death, when on that day he, along with his wife, attended at the surgery of Mr. Hall, who at once saw the danger of his patient, and advised him to get home as soon as possible; this he did, but died on reaching the house. Mr. Hall thought it best not to certify, owing to his sudden death, until the coroner had had a chance of ascertaining whether he should hold an inquest or not. An inquiry was held, and, after the medical evidence, the coroner, following up the remarks of a juryman, said he did not know at first why a certificate of death had not been given by the surgeon, but when he found he had died from delirium tremens, which was an alcoholic blood-poisoning, he determined to hold an inquest. He thought the medical attendant should not certify in a case of death from delirium tremens, because it was death from alcoholic poisoning, but should communicate with the coroner of the district.

This is a new reason for holding a public inquest, and, if it be a correct one, inquests must be increased very largely. We always understood it was necessary to hold an inquiry in cases of sudden death, such as this one, or where there was suspicion of foul play, but not in cases of alcoholic poisoning, unless the deceased had taken it with the intention of poisoning himself, or it had been administered wilfully, either for injury or for amusement.

In a case like the one at Ince, the reasons for an inquiry are apparent. In the first place, the friends might be to blame in not seeking medical aid sooner, or there might have been injudicious treatment on his arrival home.

CRIMINAL ABORTION.

JUST a year ago, we recorded the conviction of a man and his wife named Truman, at the Central Criminal Court, for the manslaughter of a woman by feloniously procuring abortion on her. In October last, an unqualified practitioner, practising under the ægis of a qualified medical man, was also convicted of feloniously procuring the abortion of a married woman. Sprow was the "clever doctor" called in by

the Trumans when their client became dangerously ill. His associate, Thomas, a chemist, was also convicted at the same time. The police and the Treasury have not relaxed their exertions, and, at the last Old Bailey Sessions, another member of the same gang, "Madame Phillips," was convicted of criminal abortion, and was sentenced to fifteen years' penal servitude. A married woman, of highly respectable connections, was put upon her trial with Cayley for aiding Phillips by introducing a female to her with felonious intent. She was, however, acquitted, but received a strong caution as to her conduct from the judge. Phillips is a notorious woman, and has the repute of having operated successfully nine times on a married woman, who was also operated on by Sprow. £5 and £10 seem to be common fees for the procuring of abortion. Sprow's terms were £15 a year for any number of operations required to keep a married woman free from children.

A CIRCULAR.

SIR,—The subjoined circular was handed to me a few days since. I should be glad if you would publish it in the JOURNAL, to let the members know what characters there are in what should be the highest and most honourable of all callings. I think that if some distinctive dress were adopted (as with the clergy), those of physic would both have more self-respect, and not act as shopkeepers, and be more respected by the laity, as I know many respect the man more for his clerical clothes than the individual. This would doubtless bring more public recognition for the whole body, and be a means of marking the black sheep.—Yours, etc.,

HONORIS CAUSA.

"Eirianfa, Llanrhaiadr, Christmas, 1884.

"SIR,—I enclose your account up to January 1st, 1885, and beg the favour of a remittance as soon as possible, so as to enable me to clear off my book-debts forthwith, as it is my intention to take into partnership a qualified man to assist me to carry on my practice in future.

"Thanking you for past favours, I beg to solicit your further support.

"We shall always endeavour to give entire satisfaction in the execution of our duties to the best of our skill and ability.—Yours obediently,

"J. D. WILLIAMS."

*** The unprofessional, and, in our opinion, very objectionable trade-like circular to which "Honoris Causâ" invites attention, needs no editorial condemnation, inasmuch as itself "proscribes" the writer and obvious intent, and, among the independent educated classes, can scarcely fail to teach its own lesson. In the matter of "dress," to which our correspondent makes special allusion, we question the practicability of successfully introducing a general distinctive attire for the faculty as for the clergy. Sumptuary laws are out of date, and lawyers and clergymen are alike disposed to free themselves from them as much as possible. Manners, education, and dress are apt to run together in parallel grooves.

AN OLD GUY'S MAN.—A father is not liable to pay for articles supplied on credit to his child, unless he expressly or impliedly authorised their supply. Medical attendance stands on the same footing. Apparently he did, in your case, authorise his son to pledge his credit to you, and consequently the County Court judge was right. The infant is liable himself to pay for necessaries supplied to him, and your attendance probably was necessary. It would lie on you to prove that it was, but if you did, you would be entitled to judgment. You know best whether the boy could pay if you get judgment against him.

UNQUALIFIED PRACTICE.

SIR,—May I ask if there is any way of stopping a man with no qualification whatever from visiting and acting as a general practitioner? I should be glad to know what could be done in the matter.

Again, is it not an evasion of the law for an unqualified man to carry on a practice under the protection of his qualified assistant, but to make all accounts out in his own name?—Yours faithfully,

ONE WHO WANTS TO KNOW.

*** "One Who Wants to Know" should communicate with the Medical Defence Association, through the secretary, Mr. George Brown, 6, Gibson Square, Islington, N.

ADVERTISING SURGERY HOURS.

SIR,—Will you kindly inform me, through your JOURNAL, whether it is consistent to the dignity of the profession, for a medical man to advertise, in a daily paper, his whereabouts, and surgery hours, etc. To me this seems a very undignified and ungentlemanly proceeding, and one which is not calculated to raise the profession in the eyes of the general public. Your opinion on the matter will greatly oblige,

F. P.

*** "F. P." will see, from the principle laid down in the following rule, extracted from the *Code of Medical Ethics*, p. 27, that the course pursued by his medical *confrère* is regarded as incompatible with the honour and dignity of the profession.

"..... It is alike derogatory to the profession to solicit practice by advertisement, circular, card, or placard; also, to offer by public announcement gratuitous advice to the poor, or to promise radical cures; to publishes cases and operations in the daily press, or knowingly to suffer such publications to be made to advertise medical works in non-medical papers; to invite laymen to be present at operations; to boast of cures and remedies; to adduce testimonials of skill and success; or to do any such like acts. Such are the ordinary practices of charlatans, and are incompatible with the honour and dignity of the profession.

PROFESSIONAL CRITICISMS BEFORE PATIENTS.

SIR,—I should be much obliged if you would kindly request, on my behalf, the Ethical assessor of the Association, to give his impartial opinion of the conduct of Dr. C. in the following case.

Dr. T., practising in this town, was called upon on January 13th, to see Mrs. R., who was suffering from a large phlegmonous inflammation of the left and upper part of the chest. Dr. T. placed the patient under proper treatment, and told her friends that he was to be sent for within two or three days. Dr. T. was called in again on the 17th, and made appropriate alterations in the treatment, informing the patient's friends of the necessity of his having to see Mrs. R. on the morning of the 19th, to which they acquiesced. Dr. T. went to see Mrs. R. on Monday the 19th, as he had promised, and having made a most careful examination of the patient's affected parts, could not find a single point where he could put the knife in; but Dr. T. told Mrs. R.'s friends that it was absolutely indispensable that he should see the patient on the following day, the 20th, because there was a place near the left axilla that, by the frequent application of fresh poultices, might be got ready to be opened next day. On the morning of the 20th, Dr. T. received a message from Mrs. R.'s friends, saying that he was not to call in again until sent for. On the morning of the 21st another message was received, to the effect that Dr. T. was not wanted any more.

The patient's friends, who brought the last message to the chemist's shop where Dr. T. is in the habit of going, spoke of Dr. T. in the most discreditable manner; stating that Dr. C. had seen Mrs. R., had opened an abscess, and had said, stamping on the floor, that the abscess ought to have been opened three days before. Dr. C. is the medical officer for the poor of the little town where Mrs. R. lives, which is about a mile distant from this fortress.

Mrs. R. and family are living in a house of their own, and keep a small groceries shop on the premises; and, therefore, they could well afford to pay Dr. T. 6s. a visit, as they were doing.—I enclose my card, and remain, yours faithfully,

A. J. TRIAY, M.B.

Turnbull's Lane, Gibraltar.

*** In reference to "Dr. T.'s" case, in which it is implied that Dr. C. has spoken of him in disparaging terms, emphasised by an offensive action, we would suggest to our correspondent that he cannot be too cautious in accepting as true invidious statements, said to have been made in reference to a case by a professional brother, or other person; for such reputed remarks are so often either misunderstood, misrepresented, or wilfully perverted, as to give rise to serious disputes, which a personal interview, or courteous note of inquiry would have prevented. In the absence of all direct evidence of the unethical conduct imputed to Dr. C., we necessarily abstain from expressing an opinion on the question submitted.

COLONIAL DEGREES.

SIR,—Will you kindly inform me, through the medium of your "Answers to Correspondents," whether (1) I am entitled to register the colonial degree of M.D. of the Universities of Malta and the Cape of Good Hope?

2. If not, whether I can legally style myself doctor, and place M.D. after my name?

The reason I ask is, because of the following passage in the Royal Charter of Incorporation, and on account of which I took the latter degree, "Victoria, etc. We do by virtue of our prerogative, and of our special grace, certain knowledge, and mere motion by these presents, for us, our heirs and successors, will, grant, and declare, that the degrees of Bachelor and Master of Arts, and Bachelor and Doctor of Laws, and of Medicine, hereafter to be granted or conferred by the said University of the Cape of Good Hope, shall be recognised as academic distinctions and rewards of merit, and be entitled to rank, precedence, and consideration in our United Kingdom, and in our colonies and possessions throughout the world, as fully as if the said degrees had been granted by any University of our said United Kingdom."

3. If I cannot, therefore, legally style myself M.D., is not the Royal Charter an illegal document?

Hoping that you will kindly enlighten me on the above points, and apologising for the trouble I am giving you, believe me, sir, yours faithfully,

NIL.

*** 1. We do not think you are entitled to be registered, but possibly the Medical Council, if applied to, may make an exception in your favour and register you.

2. You may place M.D. after your name, if you also state the University which conferred the degree. If you use the letters, without anything more, you would expose yourself to prosecution under the Medical Act, 1858.

3. You do not tell us the date of the Charter; but, if it is subsequent to 1858, we think it is of no effect within the United Kingdom; if prior to that date the clause you mention is impliedly overruled by the Medical Act.

MIDWIFERY FEES.

SIR,—Will you kindly answer the following query? A patient engages a medical man, for attendance in confinement. The confinement is quickly over with a nurse present. No communication is made to the medical man. Is the patient liable to the medical man for the full fee?—Yours faithfully,

F.R.C.

*** Assuming, from our correspondent's brief statement, that the pre-engagement to attend the lady in her expected accouchement was mutually and distinctly understood, constituting, in fact, a contract, so to speak, there is in our opinion, be no doubt that, under the circumstances related, he is in accordance with professional rule and custom, justly entitled to the obstetric fee.

THURSTON would have done better to have made his arrangements about the fee beforehand. Not having done so, he is only entitled, by law, to claim the tariff. A fair remuneration, under the circumstances, would be, we think, two guineas a day.

MILITARY AND NAVAL MEDICAL SERVICES.

THE REINFORCEMENTS FOR THE NILE EXPEDITION.

MONG the troops ordered for service with the Nile Expedition are ıree battalions of Guards—the 3rd Battalion Grenadiers, the 1st attalion Coldstreams, and the 2nd Battalion Scots. All their medi-ıl officers will probably accompany their battalions. Their names 're : Surgeon-Major H. J. H. Lawrence and Surgeon E. H. Fenn, Grena-iers; Surgeon-Major C. C. Read and Surgeon A. C. A. Alexander, oldstreams (Dr. Magill, of this battalion, is already on service in the ıld, and was, it will be remembered, wounded in the battle at Abu lea on the 17th ultimo); and Surgeon-Major A. B. R. Myers and ırgeon G. S. Robinson, Scots. Of these officers, Messrs. Lawrence ıd Read served in the Crimean war, and Surgeon Fenn in the Afghan ar, but the other gentlemen named have not as yet seen war-rvice.

Drs. Read and Alexander, with a detachment of the Army Hospital ırps, are under orders to embark in the *Ganges*, which has been lected for service as a hospital-ship, and which is to leave for Egypt . the 18th instant. She has been fitted to accommodate 180 sick d wounded.

Many medical officers are volunteering for service. A number of ıspital-nurses on the permanent staffs of the different military hos-tals will go out in the *Arab*. Many of the ladies selected have the edal granted for service during the Egyptian campaign.

The undermentioned gentlemen (the *Times* says) have been ap-inted to the Medical Staff Corps, and are now at the Depôt and aining School at Aldershot, undergoing a course of instruction in 'etcher-drill, and first aid to the wounded on the battle-field. This ıstruction is being pushed forward, so that these officers may be avail-le for active service as early as possible. Surgeons J. R. Forrest, W. Russell, W. R. de Momini, B. F. Zimmerman, A. F. Stace, Stables, J. F. E. McGrath, E. A. C. Smith, G. Moffett, W. M. ıwson, H. A. Hames, J. D. Moir, R. Crofts, F. M. Dobson, A. T. J. lly, R. Caldwell, A. C. Reilly, S. E. Duncan, J. Maher, A. Perry, Cordoys, A. de C. Scanlan, H. W. James, R. Trevor, H. D. Innes, . Turner, and B. O. W. Morton.

CHANGES OF STATION.

E following changes of station among the officers of the Medical ıff of the Army have been officially notified as having taken place ring the past month :—

	From.	To.
geon-General W. Skeen, M.D.	—	Cork.
gade-Surgeon S. B. Roe, M.B., C.B.	Cork	Dublin.
geon-Major E. Wilks	Bengal	Jersey.
„ P. W. Stafford	Aldershot	—
„ R. Keith, M.D.	—	Piershill.
„ F. Lyons, M.D.	—	Brighton.
„ J. A. Anderson, M.D.	—	Preston.
„ J. J. Crean	Birmingham	Newcastle.
„ W. B. Miller, M.B.	Weymouth	Aldershot.
„ J. I. Routh	Glasgow	Edinburgh.
„ E. R. Power, M.B.	Upnor	Chatham.
geon C. W. S. Magrath, M.B.	Chatham	Egypt.
„ R. J. M'Cormack, M.D.	Curragh	Malta.
„ L. R. Colledge	Colchester	Warley.
„ N. Cameron, M.B.	—	Sierra Leone.
„ C. G. D. Mosse	Sierra Leone	C. of Good Hope.
„ R. Porter, M.B.	Cape Coast Castle	—
thecary J. Davies	Portsmouth	Egypt.
rtermaster F. Tighe	Portsmouth	Egypt.
„ J. Hind	Egypt	—
„ J. Strange	Egypt	—
ain of Orderlies W. A. Moss	Aldershot	Portsmouth.

ARMY MEDICAL SERVICE.

GEON-MAJOR J. H. JEFFCOAT has been appointed to be Brigade-geon, *vice* J. G. Faught, who has been promoted. Mr. Jeffcoat ered the service as Assistant-Surgeon, August 5th, 1858; became geon, March 1st, 1873; and Surgeon-Major, April 1st, 1873. He t present stationed at Gibraltar. Mr. Jeffcoat served in the war in hanistan in 1878-80 with the Kuram Field Force, and was present he storming of the Peiwar Kotal (medal with clasp).

urgeon-Major J. Mackenzie, M.D., has been appointed Brigade-geon, *vice* W. H. Muschamp, who has been promoted. The com-sions of Dr. Mackenzie are simultaneous with those of Mr. Jeff-. He was in the campaign in North China in 1860, and has the lal therefor. Dr. Mackenzie is at present Surgeon to the Governor adras, to which position he was appointed November 5th, 1881.

urgeon-Major J. Davidge, whose commissions are also dated the same as those of Mr. Jeffcoat, has likewise been made Brigade-Surgeon, in place of F. E. Scanlan, who has been granted retired pay. Mr. Davidge, who is now at Malta, served in the Bhootan campaign in medical charge of the Royal Artillery from March 1865 to April 1866 (medal with clasp), and in the Egyptian war of 1882, for which he has the medal and the Egyptian bronze star.

Surgeon-Major S. Archer also has been appointed Brigade-Surgeon, in the stead of S. A. Lithgow, who has been promoted. His commissions also coincide with Mr. Jeffcoat's. Mr. Archer, who is now serving in Egypt, was attached to the 101st Fusiliers during the campaign on the North-West Frontier of India in 1863, and was present at the storming of the Conical Hill, and at the destruction of Umbeylah (medal with clasp).

Surgeon-Major P. W. Stafford has been granted retired pay, with the honorary rank of Brigade-Surgeon. He entered the service January 19th, 1860; became Surgeon, March 1st, 1873; and Surgeon-Major, April 1st, 1875. Mr. Stafford served in the Ashanti war in 1873-74, and was present at the battle of Amoaful (medal with clasp), and in the Zulu war of 1879, and commanded the stretcher-bearers at the action at Ulundi (mentioned in despatches); he afterwards served in the Transvaal during the operations in 1879-80 (South African medal and clasp), and was also in the Boer war of 1881.

Surgeons R. Kirkpatrick, M.B., and J. P. Carmody, M.D., are reported to have passed the lower standard test in Hindustani.

Surgeon W. Maunsell-Collins, M.D., Surgeon to the Royal Horse Guards, has retired from the service with a gratuity. Dr. Maunsell-Collins entered the service October 2nd, 1866, and was appointed to the Royal Horse Guards September 29th, 1880. He has not served in any campaign.

Surgeon W. A. Davidson, M.D., formerly of the 65th Regiment, died at Sandown, Isle of Wight, on February 3rd, aged 54. Dr. Davidson entered as an Assistant-Surgeon March 28th, 1854; became Surgeon September 6th, 1864; and retired on half-pay April 5th, 1871. He does not appear to have seen any war-service.

Surgeon-General T. C. O'Leary, M.B., died at Bath on February 3rd, in his 64th year. Mr. O'Leary's commissions were thus dated :— Assistant-Surgeon, August 6th, 1847; Surgeon, February 9th, 1855; Surgeon-Major, August 6th, 1867; Deputy Surgeon-General, April 28th, 1876. He went on retired pay May 5th, 1881, with the honorary rank of Surgeon-General. Mr. O'Leary (says Hart's *Army List*) served with the 68th Light Infantry in the Crimea, from March 18th, 1855, including the siege and fall of Sebastopol. (Medal with Clasp, Turkish Medal, and 5th Class of the Medjidie.)

INDIAN MEDICAL SERVICE.

Surgeon-Major J. Ross, M.B., Madras Establishment, has been gazetted Brigade-Surgeon. He entered the service as Assistant-Surgeon January 29th, 1857. Mr. Ross is at present in medical charge of the Madras Sappers and Miners at Bangalore.

Surgeon-Major G. P. Mackenzie, M.B., Bengal Establishment, Medical Officer of the 4th Native Infantry, has been appointed Medical Officer to the Lawrence Military Asylum at Sunawur, in the place of Surgeon-Major R. T. Lyons, M.D., whose tenure of service in that appointment has expired.

Surgeon R. Ross, Madras Establishment, who has been officiating in medical charge of the 1st Native Infantry at Bangalore, is appointed to the medical charge of the wing and station-hospital at Port Blair.

Surgeon-Major W. J. Hastings, M.D., Madras Establishment, died at Madura, Madras Presidency, on the 16th of October last, in the fortieth year of his age. He entered the service as an Assistant Surgeon, October 1st, 1869; became Surgeon, July 1st, 1873; and Surgeon-Major, October 1st, 1881. He had not seen any war-service.

The *Times of India* announces the death of Surgeon A. G. Collington, of the Madras Establishment, attached to the wing of the 29th Native Infantry, at Sumbulpore. Mr. Collington entered the service on the 31st October, 1879, and was in the 30th year of his age. He had not been in any campaign.

THE NAVY.

Deputy-Inspector-General of Hospitals and Fleets Gordon Jackson, has been placed on the Retired List of his rank. He was appointed Surgeon, July 1st, 1854; Staff-Surgeon, September 30th, 1864; Fleet-Surgeon, August 24th, 1876; and Deputy-Inspector-General, November 24th, 1882. Mr. Jackson served as Assistant-Surgeon of the *Royal William*, in the campaign in 1854, in the Baltic (medal), was in medical attendance of Russian prisoners during a severe out-

break of cholera; was Assistant-Surgeon in charge of the *Teazer*, in the expedition up the River Mellicorrie, on the West Coast of Africa, in 1855; Senior Assistant-Surgeon in the Expedition up the Scarcies River in 1857; was on the staff of the Duke of Connaught during his educational tour in the East in 1865; was Staff-Surgeon of the *Vigilant* during the Abyssinian war (medal); was in charge of the wounded of the *Columbine* in the boat action with dhows in 1872; and was Staff-Surgeon of the *Valorous* during service within the Arctic circle.

The following appointments have been made at the Admiralty during the week:—J. N. Stone, Fleet-Surgeon, to the *Raleigh*; D. O'Connor, M.D., Fleet-Surgeon, to the *Duncan*; E. J. Morley, Surgeon, to the *Raleigh*; D. Lennox, M.B., Surgeon, to the *Hecla*; and P. J. Smith to be Surgeon and Agent at Lowestoft: Deputy-Inspector-General E. S. Mortimer to Haslar Hospital.

OBITUARY.

WILLIAM BRAITHWAITE, M.D.

THE announcement of the death of Dr. William Braithwaite, of Leeds, in his 78th year, will be received with regret by the large circle of friends to whom he was personally known. Dr. Braithwaite commenced practice in Leeds in 1830, and filled the posts of Honorary Surgeon to the Eye and Ear Infirmary, and Lecturer on the Diseases of Women at the Leeds Medical School. Though he had succeeded in acquiring a large practice, he nevertheless found time to add materially to the literature of his profession.

In 1840, he commenced a medical work, which has since become widely known, namely, *The Retrospect of Medicine*, published half-yearly, and which has now reached the 90th volume. It is republished in America, where it is as widely known and as highly valued as here. During the last twenty-five years, his eldest son has been co-editor with him of this publication. The deceased gentleman was an ardent supporter of the Church of England. In early life he was a Whig in politics, but for many years past he has held strong Conservative opinions, though he has never let his political leanings involve him in any public expression of them. Dr. Braithwaite married a daughter of Mr. James Beardoe, of Ardwick Green, near Manchester, by whom he is survived. He also leaves three sons.

CHARLES CULLEDGE BALDING, M.R.C.S.Eng.

MR. CHARLES CULLEDGE BALDING, formerly of Shefford, Bedfordshire, whose death it becomes our duty to announce, was the second son of the late Mr. James Balding, who died in September 1883. He was educated for the medical profession at the Middlesex Hospital, London, and soon afterwards, in the early part of the Russian War, accepted an appointment on the army medical staff for service in the Crimea. He was, with several personal friends, detailed for duty at Eupatoria, where, owing to the failure of the British Commissariat Department, they were subjected to great privations, which told seriously on the health of himself and of those who were quartered there with him. He afterwards served at Trebizond, where he remained until the end of the war.

In more than one instance during his army medical service, notably in the Crimean war, Mr. Balding showed himself possessed of gallant courage and the sterling qualities of a good and zealous soldier.

He commenced practice at Shefford in 1857, where he soon gained the confidence of a wide circle, and his professional work became laborious. About eleven years ago, locomotor ataxy first showed itself, and ultimately quite incapacitated him for professional duties. About two years ago, he retired from practice, and was then presented with a complimentary address, signed by 350 friends and patients, and a purse of 200 sovereigns.

His funeral was attended by all the members of the medical profession in the town and neighbourhood, as well as by most of the principal inhabitants. The deceased leaves a widow, and family of three sons and two daughters.

G. S. LEWIS. M.A., L.R.C.P., M.R.C.S.

WE learn with regret the death of Surgeon G. S. Lewis, Medical Staff, which occurred on the 6th instant, at Davos Platz, after a lingering illness. Born in Tasmania, in 1852, and educated at High School, Hobart, Mr. G. S. Lewis left home, never to return, in 1868. He became attached as a medical student to Guy's Hospital, and subsequently to Gonville and Caius College, Cambridge. During his few years of service, he was stationed at Gosport, Aldershot, and Gibraltar, and finally at Ramleh. The energy with which he devoted himself t his onerous duties during the cholera-epidemic in Egypt probably lai the foundation of the disease to which he succumbed. His kindnes of heart, his generosity, and his genuine cheerfulness, will long b remembered by those who knew him best.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THE Registrar-General's quarterly return, which has just been issue comprises the births and deaths registered in England and Wales duri the last three months of 1884, and the marriages in the third quar of that year. The marriage-rate showed a considerable decline fr that recorded in the corresponding quarter of either of the two p ceding years, and was lower than in the summer quarter of any y since 1880. The birth-rate and the death-rate exceeded their resp tive averages in the corresponding period of the ten preceding yea The weather almost throughout the quarter was favourable to the pul health. The mean temperature exceeded the average; the rain was considerably below the average amount. During the last quart of 1884, the births of 227,277 children were registered in England a Wales, equal to an annual rate of 33.2 per 1,000 of the populati estimated by the Registrar-General to be 27,132,449. The birth-r was considerably above the rate in the corresponding quarter of 18 but below the average of the ten preceding December quarters. rate showed the usual wide divergencies in the various counties, ow chiefly to the different age and sex distribution of the population; while it did not exceed 27.3 in Huntingdonshire, and 27.5 in Rutla shire, it ranged upwards in other counties to 37.4 in Nottinghamsh 38.3 in Monmouthshire, and 38.4 in Durham. In the twenty-e large towns, for which the Registrar-General publishes weekly retu the birth-rate last quarter averaged 34.2 per 1,000, and therefore ceeded the general English rate. The births registered in Engl and Wales during the quarter under notice, exceeded the death 90,047, which represents the natural increase of the population du that period. From returns issued by the Board of Trade, it app that during the last quarter of 1884, 50,958 emigrants sailed from various ports of the United Kingdom, at which emigration officer stationed; of these, 30,135 were English, 3,804 Scotch, and 8 Irish. The proportions of emigrants to a million of the populatio the three divisions of the United Kingdom, were 1,111 from Engl 984 from Scotland, and 1,800 from Ireland. The deaths of 13 persons were registered in England and Wales, equal to an annual of 20.1 per 1,000 of the population, which, although 1.0 in exce the low rate in the corresponding period of the previous year, below the mean rate in the December quarter of the preceding y The death-rate among the urban population of the country, estim at about sixteen millions of persons, was equal to 21.7 per 1,00 the remaining, or chiefly rural population of nearly eleven mil the rate did not exceed 17.6. These rates were both below the spective averages. The rate of mortality at all ages last quarte 2.4 per cent. below the average; the death-rate of infants sho decrease of 0·7 per cent.; that among children and adults aged be one and sixty years, a decrease of 5.1 per cent.; while that amon sons aged sixty years and upwards slightly exceeded the average. 137,230 deaths from all causes registered in England and Wale quarter, included 15,063, which were referred to the principal zy diseases; of these, 3,203 resulted from diarrhœa, 2,793 from m 2,540 from scarlet fever, 2,234 from "fever" (principally en 1,974 from whooping-cough, 1,475 from diphtheria, and 844 small-pox. These 15,063 deaths were equal to an annual rate o per 1,000, which was considerably below the average of the te ceding corresponding quarters. The mortality from scarlet whooping-cough, "fever," and diarrhœa, were below the av while that from small-pox, measles, and diphtheria, showed an

PRECAUTIONS AGAINST CHOLERA.

DR. DAVIES, Local Government Board Sanitary Inspector, has re held inquiries, at Margate, Ramsgate, and Herne Bay, respecting t vision that exists in those places against an outbreak of cholera, that scourge visit this country. The Isle of Thanet Sanitary Au have received a letter from the Local Government Board in re to Dr. Davies's report upon his visit to the Thanet district; a of the precautionary measures recommended for immediate ado

keeping of a sharp look-out by the Coastguard for any dead bodies t may be washed ashore, so that, by proper care being taken, the of infection being introduced by this means may be avoided. Local Government Board strongly urge the local authority to pro- more hospital-accommodation for cases of infectious disease, as ther precautionary measure against the probable visit of cholera. ecommendation of the same character was made personally by Dr. ies to the Herne Bay Local Authorities.

RKSHIRE ASSOCIATION OF THE MEDICAL OFFICERS OF HEALTH.

annual meeting of the Yorkshire Association of the Medical ers of Health was recently held in the Council Chamber of the dhall, York, Mr. S. W. North in the chair.

r. Wilson, Honorary Secretary, read the report of the year's work, ving an increase of members. The Committee expressed regret no opportunity was given during the ordinary session of Parlia- t last year to present the memorial, or the need for the carrying of the dairies and milkshops orders entrusted to the sanitary orities. The experience of the year of outbreaks of disease, cident with milk-supplies, strengthened the arguments which l be offered in support of this change. The supervision of bake- es had been again transferred to the sanitary authorities, and the ying out of the Canal Boats Act had been extended from the few ary authorities first selected as registration-authorities to every ary authority whose district abuts upon any navigable water. e changes, all imposing greater responsibility upon medical rs of health, as the advisers of the sanitary authorities, were evi- e of greater confidence in the principles of local government, and of the fitness of local officers as custodians of the public health. following gentlemen were elected officers of the association for ensuing year. *President:* Mr. S. W. North, York, re-elected. *-Presidents:* Dr. Hime, Bradford; Dr. W. S. Giddings. *Com- e:* Dr. Arbuckle, Thorne; Dr. T. Britton, Halifax; Mr. G. ie, Leeds; Dr. Hardcastle, Rotherham; Mr. A. Roberts, Keigh- and Dr. Mason, Hull. *Honorary Secretary:* Dr. Wilson, Don- r. *Treasurer:* Dr. R. Bruce Low, Helmsley.

e President, in the course of his address, said that there were one o matters which he thought the association might fairly consider. first was that respecting which a memorial was already prepared and ing to be forwarded to the legislature, namely, legislation with regard e sale of milk. During the past ten years there had been accumu- g an overwhelming amount of evidence to show that serious out- s of typhoid fever were traceable to the sale of infected milk, and it ed to him somewhat marvellous that the legislature had not seen vay clear to adopt measure by which the sale of milk might laced under some more immediate and constant control. What association aimed at was that legislation on the subject, which very meagre at present, should be placed entirely on the same as the Public Health Act. The administration of all the regu- ns in regard to milk-shops and dairies should be taken from the s of the police, and placed under the sanitary authorities of each ict, and the supervision of those places should be primarily placed arge of the medical officers of health of the respective districts. ation and inspection of the premises by the sanitary authorities d be allowed, and all milksellers throughout the land should be ed, one condition of the licence being the satisfactory condition premises where they kept food. There was another topic which lieved would soon become more important than it was at present, ly, legislation as to the hospital care and treatment of infectious ses. He believed all other methods and efforts to stem infectious se and prevent epidemics were absolutely useless, unless they were ed with the provision of larger hospital-accommodation, into all classes of the community might be willing to seek ad- on.

ALTH OF ENGLISH TOWNS.—In the twenty-eight large English , including London, dealt with in the Registrar-General's y return, which have an estimated population of 8,906,446 ns, 6,312 births and 3,714 deaths were registered during the nding the 7th instant. The annual rate of mortality, which had 24.0 and 24.5 per 1,000 in the two preceding weeks, declined to ast week. The rates in the several towns, ranged in order from owest, were as follow:—Birkenhead, 15.1; Blackburn, 16.2; d, 16.6; Sheffield, 16.7; Bradford, 19.5; Huddersfield, 19.7; , 19.8; Leeds, 20.2; Halifax, 20.2; London, 20.3; Portsmouth, 20.9; Nottingham, 21.2; Plymouth, 21.3; Hull, 21.6; Oldham, 21.9; Newcastle-upon-Tyne, 22.8; Bolton, 23.2; Leicester, 23.8; Cardiff, 24.2; Birmingham, 24.5; Wolverhampton, 25.0; Liverpool, 25.4; Brighton, 25.9; Sunderland, 26.6; Norwich, 27.5; Manchester, 29.1; Bristol, 30.4; and Preston, 32.2. In the twenty-seven provincial towns the death-rate for the week averaged 23.0 per 1,000, and was 2.7 above the rate recorded in London. The 3,714 deaths registered last week in the twenty-eight towns included 104 which resulted from whooping-cough, 53 from scarlet fever, 53 from measles, 46 from small-pox, 37 from diphtheria, 34 from "fever" (principally enteric), and 29 from diarrhœa—in all, 356 deaths were referred to these principal zymotic diseases, against 370, 372, and 396 in the three preceding weeks. These 356 deaths were equal to an annual rate of 2.1 per 1,000. In London the zymotic rate was 2.0, while it averaged 2.2 in the twenty-seven provincial towns, among which these zymotic rates ranged from 0.4 in Oldham and 0.5 in Blackburn, to 4.0 in Norwich, 5.9 in Cardiff, and 7.1 in Sunderland. The deaths referred to whooping-cough, which had increased in the four preceding weeks from 91 to 141, declined last week to 104, and showed the highest proportional fatality in Bristol and Preston. The 53 fatal cases of measles showed a further decline from those recorded in recent weeks, and caused the highest rates in Cardiff and Sunderland. The deaths referred to scarlet fever were within 3 of the number returned in the previous week; this disease was proportionally most fatal in Sunderland and Wolverhampton. The fatal cases of "fever," which had increased in the three preceding weeks from 28 to 43, declined again last week to 34, but caused comparatively high rates in Hull, Cardiff, Plymouth, and Norwich. Of the 37 deaths referred to diphtheria in the twenty-eight towns, 19 occurred in London, 3 in Liverpool, 3 in Birmingham, and 2 in Manchester. Of the 46 fatal cases of small-pox, 41 were recorded in London (exclusive of 19 deaths of London residents from this disease in the Metropolitan Asylum Hospitals situated outside Registration London), 3 in Birmingham, 1 in Liverpool, and 1 in Cardiff. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 1,009, 1,092, and 1,146 at the end of the three preceding weeks, were 1,144 on Saturday last; 223 new cases were admitted to these hospitals during the week, against 287 and 253 in the two preceding weeks. The death-rate from diseases of the respiratory organs in London was equal to 5.4 per 1,000, and was considerably below the average. The causes of 81, or 2.2 per cent. of the 3,714 deaths last week in these twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.—During the week ending the 7th inst., 829 births and 649 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had declined from 30.7 to 28.5 per 1,000 in the four preceding weeks, further fell to 26.6 last week, but exceeded by 4.8 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 14.9 in Perth, 19.9 in Edinburgh, 20.5 in Leith, 21.1 in Aberdeen, 24.7 in Greenock, 30.1 in Glasgow, 33.0 in Dundee, and 33.4 in Paisley. The 649 deaths registered in these towns during last week included 92 which were referred to the principal zymotic diseases, against 83 and 87 in the two preceding weeks; of these, 34 resulted from whooping-cough, 24 from measles, 10 from diarrhœa, 9 from scarlet fever, 8 from diphtheria, 6 from "fever," and 1 from small-pox. These 92 deaths were equal to an annual rate of 3.8 per 1,000, which exceeded by 1.7 the average zymotic death-rate in the large English towns. The zymotic rates in the Scotch towns ranged from 0.9 and 1.4 in Paisley and Aberdeen, to 5.0 in Perth, and 6.1 in Leith. The 34 deaths from whooping-cough exceeded by 5 the numbers in the preceding week, and included 12 in Glasgow, 7 in Edinburgh, and 7 in Leith. The fatal cases of measles, which had been 20 and 26 in the two previous weeks, declined last week to 24, of which 21 were returned in Glasgow. The 10 deaths from diarrhœa were but half those recorded in the corresponding week of last year. The 9 fatal cases of scarlet fever exceeded by 4 the number in the preceding week, and included 7 in Glasgow. Of the 8 deaths referred to diphtheria, 3 occurred in Edinburgh, and 2 in Dundee. The 6 deaths from "fever" showed a further decline from recent weekly numbers; 2 were returned in Glasgow, and 2 in Edinburgh. The fatal case of small-pox occurred in Glasgow. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 7.8 per 1,000, against 5.5 in London. As many as 91, or 14.0 per cent. of the 649 deaths registered in these Scotch towns last week were uncertified.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 5th, 1885.

Cattell, George Trew, Guy's Hospital.
Constable, Samuel, St. George's Hospital.
Fernandez, Lawrence John Baptist Paul, Medical College, Calcutta.
Goulden, Henry William, Charing Cross Hospital.
Hunter, George Holbrey, University College.
Price, Arthur Edwin, Guy's Hospital.

The following gentlemen also on the same day passed their Primary Professional Examination.

Loades, Walter, Middlesex Hospital.
Queely, John Eugene St. George, Meath Hospital, Dublin.
Sturdee, Alfred Hobart, King's College.

MEDICAL VACANCIES.

The following vacancies are announced.

ATCHAM UNION.—Medical Officer and Public Vaccinator. Salary, £50 per annum. Applications to J. Everest, St. John's Hill, Shrewsbury.

BELMULLET UNION.—Medical Officer, Knocknalower Dispensary. Salary, £110 per annum, and fees. Applications to D. O'Connell, Honorary Secretary, Kilcommon Lodge, Belmullet, up to February 23rd.

FEMALE LOCK HOSPITAL, Westbourne Green.—House-Surgeon. Salary £100 per annum. Applications by February 21st.

GENERAL HOSPITAL, Birmingham.—Assistant Physician. Applications by February 28th.

GENERAL INFIRMARY AT GLOUCESTER, AND THE GLOUCESTERSHIRE EYE INSTITUTION.—Physician. Applications by February 18th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by February 14th.

HURSLEY UNION.—Medical Officer of the Union, and Medical Officer of Health. Salary, £100 and £25 per annum respectively. Applications to Rev. J. Frewen Moor, Ampfield Vicarage, Romsey, by February 17th.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer for the Fever Hospital, Monsall. Salary, £200 per annum. Applications by February 14th.

MIDDLESEX HOSPITAL.—Second Chloroformist. Applications to the Secretary-Superintendent by February 14th.

NATIONAL ORTHOPÆDIC HOSPITAL, 234, Great Portland Street, Regent's Park, N.W.—Physician. Applications by February 18th.

RADCLIFFE INFIRMARY, Oxford.—Resident House-Physician. Salary, £80 per annum. Applications by February 14th.

ROYAL ALBERT HOSPITAL, Devonport.—Resident Medical Officer. Salary, £200 per annum.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum. Applications to John Libby, Honorary Secretary, New Mills, Stroud.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Junior House-Surgeon. Salary, £63 per annum. Applications by February 28th.

YORK COUNTY HOSPITAL.—Honorary Physician. Applications by March 7th.

MEDICAL APPOINTMENTS.

BAUMGARTNER, John Richard, M.R.C.S., L.S.A., A.K.C., appointed Police-Surgeon to the City and County of Newcastle-upon-Tyne, *vice* Septimus W. Rayne, F.R.C.S.Eng., resigned.

CARRINGTON, R. E., M.D., appointed Demonstrator of Morbid Anatomy at Guy's Hospital, *vice* Dr. Mahomed, deceased.

CARTER, Eustace G., M.R.C.S.Eng., and L.R.C.P., appointed House-Physician to the Bradford Infirmary, *vice* H. W. Phillips, M.B., resigned.

COLLIER, William, M.A., M.B.Camb., appointed Honorary Physician to the Radcliffe Infirmary, Oxford.

GELSTON, J. S., L.R.C.S., L.K.Q.C.P.I., appointed House-Surgeon to the Doncaster Infirmary, *vice* J. G. Marshall, M.B.Camb., M.R.C.S., resigned.

HARLE, William J. V., M.R.C.S.Eng., L.S.A.Lond., appointed Resident Dispensary Surgeon, *vice* Carter, promoted.

JEFFERIES, Horace, M.R.C.S., L.S.A., appointed House-Surgeon to the Bridgnorth Infirmary and Dispensary, *vice* E. D. Kirby, M.B., resigned.

LYON, Thomas Glover, M.A.Camb., L.R.C.P.Lond., M.R.C.S.Eng., appointed Clinical Assistant at the Hospital for Diseases of the Skin, Blackfriars.

PHILLIPS, Henry W., M.B., C.M.Edin., M.R.C.S.Eng., appointed Senior House-Surgeon to the Bolton Infirmary, *vice* T. G. Stonham, M.D.Lond., resigned.

ROBERTSON, George J., M.B., C.M., appointed Honorary Surgeon to the Oldham Infirmary, *vice* Dr. McGowan, resigned.

SAUNDBY, Robert, M.D., appointed Honorary Physician to the General Hospital, Birmingham.

VENN, Albert, M.B., C.M., M.R.C.P.Lond., appointed Physician for Diseases of Women to the West London Hospital, *vice* Alfred Wiltshire, F.R.C.P.Lond., M.D.St.And., resigned.

MEDICAL MAGISTRATE.—Mr. R. W. Watkins of Towcester, who has recently retired from general practice, has been nominated a magistrate for Northamptonshire by the lord-lieutenant. This is the third appointment of a medical gentleman to the Commission of the Peace in that county by Earl Spencer. Mr. Watkins and his ancestors have practised medicine in Towcester for more than a century.

DONATIONS.—Mr. George Sturge has given £1,000 Stock, and £750 Stock, in aid of the Samaritan Fund of the Middlesex Hospital, and the Charing Cross Hospital, respectively.—Mrs. Maria Webb has given £300 to the Home for Incurable Children, Maida Vale, as an endowment for an "Ernest" cot, for thirty years.—Major Ernest H. Thurlow has given £100 to the West End Hospital for Nervous Diseases, and 50 guineas to the Mary Wardell Home for Scarlet Fever Patients.—A Lady has given £100, anonymously, to the Belgrave Hospital for Children.—Mr. P. Hambro has given £50 to the Samaritan Fund of the Middlesex Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTH.

DAVIES.—On February 3rd, at Abercarn Fach, near Newport, Monmouthshire, the wife of Francis Joseph Davies, F.R.C.S., of a son.

DOBSON.—On New Year's Day, at Bangalore, Madras, India, the wife of Surgeon-Major A. F. Dobson, I.M.S., of a son.

DEATH.

SMITH.—At Waltair, Vizagapatam, India, on January 5th, Margaret Milroy, beloved wife of James Smith, Surgeon-Major H.M. Madras Army.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Finlay: A Case of Progressive Anæmia in a Man aged 45. Dr. Beevor: Cases of Paralysis Agitans without Shaking.—Royal College of Surgeons of England, 4 P.M. Professor W. K. Parker: On Birds, their Genesis and Structure.

TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. Norman Moore: Cases of New Growth in the Intestine. Mr. Lane: Spondylolisthesis and other Results of Pressure in connection with the Spinal Column. Mr. Sutton: Lung-Disease in Wild Animals. Dr. West: Cases of Mediastinal Tumour. Dr. Percy Kidd; Sudden Death from Infarction of the Trachea by a Bronchial Gland. Mr. Lockwood: Large Malignant Growth of Fore-arm in a Child a Year Old. Mr. Bilton Pollard: Renal Cancer associated with Calculi. Dr. Gulliver: Syphilitic Ulceration with Cicatricial Constriction of the Trachea (card). Mr. Clutton: Large Vesico-vaginal Calculi (card). Mr. Sheild: Blood-Clot from the Surface of the Brain (card).

WEDNESDAY.—Royal College of Surgeons of England, 4 P.M. Professor W. K. Parker: On Birds, their Genesis and Structure.—The Hospitals' Association, 8 P.M. Dr. P. Murray Braidwood: On Hospital-Ships.

THURSDAY.—Harveian Society of London, 8.30 P.M. Mr. J. H. Morgan: On the Operative Procedures in Cases of Cleft Palate, and their Effects upon the Voice. Dr. C. Theodore Williams: Case of Emphysema treated by the Compressed Air-Bath.

FRIDAY.—Royal College of Surgeons of England, 4 P.M. Professor W. K. Parker: On Birds, their Genesis and Structure.—Society of Medical Officers of Health, 7.30 P.M. Mr. William Weaver: Sewer-Ventilation and House Sanitation.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; S. M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, T.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily,

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædi 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Ski F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F.,

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

OPERATION DAYS AT THE HOSPITALS.

)NDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

ESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

EDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.— Samaritan Free Hospital for Women and Children, 2.30 P.M.— Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

URSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.— Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

IDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.— Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M. —East London Hospital for Children, 2 P.M.

URDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

MUNICATIONS respecting editorial matters should be addressed to the Editor, 1A, Strand, W.C., London; those concerning business matters, non-delivery the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, rand, W.C., London.

rder to avoid delay, it is particularly requested that all letters on the editorial siness of the JOURNAL be addressed to the Editor at the office of the JOURNAL d not to his private house.

HORS desiring reprints of their articles published in the BRITISH MEDICAL URNAL, are requested to communicate beforehand with the Manager, 161A, rand, W.C.

RESPONDENTS who wish notice to be taken of their communications, should thenticate them with their names—of course not necessarily for publication.

RESPONDENTS not answered, are requested to look to the Notices to Corre- ndents of the following week.

IC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of alth if they will, on forwarding their Annual and other Reports favour us h *Duplicate Copies*.

ANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

DEATH OF MR. GEORGE FORD,

E are many Fellows and Members of the Royal College of Surgeons of gland who must have heard with regret our announcement, last week, of the th of this worthy old servant of the College, which took place on February , in the 65th year of his age. He was appointed porter to the College, at the ommendation of the late Mr. J. Painter Vincent, in 1841, and held that post his death. Mr. Ford was a man of no mean ability; by self-culture he was e to add, for some years past, materially to his means, by contributing cles to the metropolitan and provincial press. To a Cambridge weekly temporary he wrote interesting notices of sports, particularly cricket-; the annual summary of the latter was a most painstaking notice. hree or four of our daily contemporaries he was a constant and valued con- utor, especially of medical biographies, and statistical notices relating to profession. He was an excellent accountant; his caligraphy was so good, his knowledge so fair, that he was often engaged by the prize essayists of College to transcribe for publication, as also by some members of the ncil, especially the late Mr. J. F. South. Mr. Ford had been a patient rer for the last few months, and was much affected by the loss of Mr. rett, his colleague in the museum, a notice of whom recently appeared in JOURNAL. He was twice married, and leaves a widow and daughter, from m he received the most devoted attention during his last illness; and a e number of friends now deplore his loss.

POISONING BY BISULPHIDE OF CARBON.

Report on Poisoning by Bisulphide of Carbon during the Vulcanisation of a-rubber," made to the Ophthalmological Society, by Messrs. Frost, Gunn, Nettleship, will not be printed in full till the issue of the Society's *Trans-ns* in October next. But a good abstract of it is to be found in the JOURNAL, 1255, page 133.

WHERE SHALL I SEND MY BOYS TO SCHOOL?

Perhaps some of your readers may be able and willing to advise me on the e subject. I want to find a good school, with sound Church views, good al tone, etc., at about fifty guineas a year. Amongst others that I have in nind, is one at Dover, but I forget the name. Any recommendations will ost gratefully received by—Yours faithfully,

A FATHER OF A LARGE FAMILY.

SELF-TUITION IN FRENCH.

M.D. writes: My own somewhat similar situation led me to adopt De Charente's *French Course and Exercises*, as the best book for self-instruction. I would also recommend "X. Y. Z." to read aloud from a French book, every day (preferably a tale or novel). He will find that, though at first this is irksome and slow, when he has perused two or three volumes he will be surprised at the facility he has almost unconsciously acquired in articulating and understanding French. In my own case, after two years somewhat desultory following out of this method, I was able to read, with pleasure and ease, any French book. Too many words should not be looked out, especially nouns, and, if "X. Y. Z." has very little knowledge of the language, the Hamiltonian system would be an excellent beginning for him, so much dictionary-fumbling being avoided. But, in conclusion, let me add that "X. Y. Z." will never learn French thoroughly in this way, but it will form a basis on which, by some months' residence in France, a more or less perfect structure of idiomatic French may be raised.

FRENCH STUDENT suggests the following hints.

1. Books. Cassell's *Lessons in French*. Victor Oger, the *Oxford Local French Examiner*. Mariot de Beauvoisin's *French Verbs*. Noel and Chapsal's *Grammar*. Ball's *Dictionary*.
2. Newspapers. Illustrated or otherwise, from Gerrard Street, Soho. *L'Illustration* is the best.
3. French novels, as of Dumas; also the works of Michelet.
4. French medical journals. Analysis of these is good practice.
5. Attend French plays, reading up the play beforehand, and taking a book of it to the theatre.
6. Constantly to talk French aloud in the study and bedroom, whereby the ignorance of common-place inquiries will become manifest.
7. To engage a tutor from the Ollendorff institution, to talk to in the evenings.
8. To take annual holiday at a French watering-place, and to live *en pension*, avoiding English hotels.

DR. W. STEELE recommends "X. Y. Z." to begin the study of French with *French Without a Master*, published by W. Kent, 52, Paternoster Row. After he has gone through this, and knows it thoroughly, he should take up one or two of the Hamiltonian series, at the same time studying the grammar. With perseverance, he ought, in a few months, to be able to read any easy French book.

*** Beljame's *Pocket Dictionary* is very valuable to the student, as terms used in modern colloquial French are indicated as such. Cruveilhier's *Anatomie*, and Le Bec's *Précis de Medecine Opératoire* (Paris, Baillière) are valuable for the medical French student; the latter work is very cheap, and gives the English reader a clear idea of medical idioms. The *Journal des Débats, Temps, and République Française*, are written in the best literary style; the novels of Daudet, Claretie, and Ohnet, contain good colloquial French. The beginner should scrupulously avoid all comic and light-literature periodicals, which abound in slang words and expressions, and in vulgarisms often treacherously concealed in elegant language.

THE CLIMATE OF COLORADO.

MR. JAMES HUDSON, M.B., will find further information respecting the climate of Colorado in the BRITISH MEDICAL JOURNAL for January 28th, 1882, or by application to G. Allen Norman, M.B., Elkhorn, Larimer, County Colorado, who has expressed his willingness to give information to any member of the profession who desires it.

THE RISK OF CERTIFYING LUNATICS.

SIR,—There are several objections to the form quoted by Dr. R. Neale in the BRITISH MEDICAL JOURNAL of January 10th, 1885, page 108, some of which, with your permission, I will shortly state.

1. Lunacy, from the civil law point of view, is made, in modern times, a statutable offence. When, therefore, the regulating statutes fail to provide all necessary precautions against abuse, or omit to secure protection for *bonâ fide* acting on the part of agents, the Criminal, or Common, Law, may at any time be invoked to set matters right, consequently, to make those who, at one time, may have been right, all wrong.
2. A guarantee given by relatives might be shown to be wrong in substance as in fact, because unqualified parties would be certifying on their belief; and though some precautions might be necessary at a particular time, it is not safe to conclude that those very precautions may not be produced at another as evidence of conspiracy, or even bring the case within the provisions of the statute of frauds. Stamping such agreement at Somerset House would really only be widening the evil by making the loss of the document, or its copy, simply impossible. Wills, we know, for instance, are very often missing. This, however, could not occur with any reasonable kind of registration. Sometimes this kind of missing link may be convenient, but sometimes not.
3. When it becomes necessary to tinker statutes by outside private agreements, we may make quite certain some dilemma will occur; either that the statute utterly fails in its objects, that *ex parte* bribery is being openly resorted to, or that there is some other mishap. In any event, the ostensible objects of justice are defeated. Nor can it be, in such a case, any defence to say some provision must be made for mistakes, irregularities, or especial cases, because such an argument would imply the nation was incapable of framing laws for its own government over individuals.—Yours truly, DAVUS SUM NON ŒDIPUS.

CUCAINE FOR VASCULAR URETHRAL GROWTHS.

SIR,—In the JOURNAL of January 3rd, Dr. Clement Godson reports the removal of a vascular growth from the meatus urinarius, employing a twenty per cent. solution of cucaine. He remarked that a weaker solution would probably answer. Acting upon his suggestion, I have employed a fifteen per cent. solution in a similar case, with the most satisfactory result. The patient had a small vascular growth protruding from the meatus. It was extremely sensitive, the slightest examination causing severe pain. She dreaded its removal, as on a former occasion she had had one removed without the use of an anæsthetic, and the pain had been very great. I applied the solution with a camel's hair brush, and within five minutes I was enabled to remove the growth, with forceps and curved scissors, without the slightest pain. I am inclined to think that a still weaker solution would have answered.—Yours, etc.,

Flaxton, York. ALFRED KEBBELL, M.R.C.S.Eng.

Serum from the Abdominal Cavity.

Sir,—Anent the note sent by Dr. D. Dickinson of the U. S. Navy to the *New York Medical Record*, and copied into this Journal of December 13th (p. 1217), the following may prove interesting. A patient of mine, a married woman, was tapped by me no less than seventy-eight times, the latter four-fifths of these tappings giving never less than fourteen quarts—generally fifteen, but occasionally sixteen. Reckoning as an average, say, twelve quarts, at each operation—a very moderate estimate—we have the following figures.

Times tapped	78	
Average amount	24	pints.
Amount in pints	1872	
Add one-fourth to get weight ..	468	
	2340	lbs.

This is reckoning the serum as of the same specific gravity only as pure water. As 2240 lbs. make one ton, we have, as the weight of the fluid taken out of this poor woman's abdomen, one ton one hundred pounds.

I showed this patient to the members of the Lancashire and Cheshire Branch at the annual meeting of the Branch at Lancaster five years ago, after, I think (for I have misplaced my notes), about the seventieth operation, and three days after the last.—Faithfully yours, sir,

J. Farrar, M.D.

Morecambe.

Ignoramus.—We should not recommend our correspondent to place confidence in any of the remedies proposed.

Thermo-cautery or Knife?

Sir,—A patient seeks my help for the terribly distressing condition of inability to retain fæces at will, owing to a large rent of the perinæum, which occurred a few years ago. The ordinary cutting operation to restore the integrity of the injured parts has always seemed, to me, serious, tedious, and attended with considerable risk of absorption of septic matter. It seems likely, from what I see of the results of my operations with the thermo-cautery, that this instrument might be most advantageously substituted for the knife, if union of burnt surfaces could be rapidly, or certainly in the end, obtained. The advantages all round would be obvious.

Can any reader tell me if this operation has ever been attempted, and, if so, the result? If it has not been done, I think experiments on the lower animals—of course, under chloroform—might be of great value, and give us the required details as to heat of cautery, and other points most conducive to success.—

Alfred Eddowes, M.D.

Yours, etc.,

Market Drayton.

Books on Diseases of Children.

Mr. A. Rankin inquires, whether there is such a thing as an English translation of Rilliet and Barthez's *Diseases of Children*, and where he could find an address by the late Professor Samuel Gross, on "Syphilis, Scrofula, and Consumption," read before the American Medical Association in 1875.

*** The work by MM. Rilliet and Barthez has never been, so far as we are aware, translated into English. The new edition now in course of publication in France is edited by MM. Barthez and Sauné.

S. Edwards should communicate with the registrars of the respective Colleges.

Homes for Invalids.

C. C. S.—We have referred the question to Mr. C. S. Loch, the Secretary of the Charity Organisation Society, who has named the following institutions, either of which it is thought would meet our correspondent's requirement; all Hallow's Hospital, Ditchingham, Bungay, Suffolk; St. Peter's Home, Mortimer Road, Kilburn. There is a Home for Chronic Invalids, Alexandra House, Silver Hill, St. Leonard's-on-Sea; and St. Luke's Home, a small institution managed by Miss Phipps, at 29, Manor Road, Walworth. The payment varies at all these institutions, according to the means of the patient, and also, we believe, to the amount of attention, etc., required.

Errata.

In the Journal of January 31st, page 228, column 1, in line 3 of second paragraph, *for* "diabetic retinitis" *read* "diabetic cataract;" in lines 6 and 7 of third paragraph, *for* "aquæ 3vj" *read* "aquæ Oj." In column 2, between second and third paragraphs from bottom, omit the heading "Hysterical Paralysis;" and at the end of the preceding sentence, after "returned," *add* "being that of hysterical paralysis."

An Appeal.

Mr. Stamford Felce begs to return thanks to those of our readers who have generously responded to his appeal, which we published in the Journal of December 6th, 1884, page 1172. Enough money has now been raised to place the second orphan son of a surgeon who died in New Zealand, in the Wanstead Orphan Asylum, where his brother has been already admitted. The child's grandmother also desires to express her gratitude to our charitable correspondents.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. R. W. Watkins, Towcester; The Secretary of the Pathological Society, London; Mr. J. S. Gilston, Doncaster; Mr. T. M. Macdonald, London; Mr. H. Jefferies, Bridgnorth; Our Dublin Correspondent; Messrs. Vickers, London; Dr. Carrington, London; Our Birmingham Correspondent; Our Edinburgh Correspondent; Mr. Walter Beevor, Cairo; Mr. G. P. Atkinson, Pontefract; Our Manchester Correspondent; Mr. R. Milne Murray, Edinburgh; Dr. K. R. Macdonald, Cupar, Fife; Dr. Charles Denison, Denver; Mrs. Davey, East Dereham; Dr. Ewart, London; The Secretary of the Local Government Board; Mr. Shannon, St. Mary Cray; Mr. W. J. Spence, Bradford; Mrs. A. M. Longshore Potts, London; Mr. Eustace G. Carter, Bradford; The Alexandra Carriage Works; Mr. O. Lowsley, Reading; The Editor of the *Reading Mercury*; Mr. F. R. Fisher, London; Our Cairo Correspondent; Dr. Atthill, Dublin; Mr. Simeon Snell, Sheffield; Dr. E. M. Cosgrave, Dublin; Mr. P. Warner, Woodford; Sir James Paget, London; Mr. H. A. Powell, Beckenham; Mr. Stamford Felce, London; Mr. Arthur E. Barker, London; Dr. W. S. Steele, Torquay; Mr. H. N. Oglesby, York; Mr. W. Galbraith, Gosforth; Dr. Ireland, Prestonpans; Mr. C. J. Power, London; Mr. G. A. L. Green, Portsmouth; Mr. W. B. Wall, Pembroke; Mr. C. F. Rideal, London; Mr. W. Collier, Oxford; Dr. A. Robb, Portsea; Mr. L. Cooke, Wigan; Mr. T. Jenner Verrall, Brighton; Mr. T. C. Brown, Tamsiu, Formosa; Dr. Huggard, London; Dr. Munro, Kilmarnock; Dr. Junker, London; The Secretary of the Parkes Museum; Dr. J. Thorowgood, London; Dr. Morton Smale, London; Mr. A. W. Mayo Robson, Leeds; Dr. J. Sinclair Holden, Sudbury; Messrs. Baillière, Tindall, and Cox., London; Dr. Cranstoun Charles, Streatham; Mr. C. T. Griffiths, London; Dr. W. Campbell Taylor, Todmorden; The Honorary Secretaries of the Mahomed Memorial Fund; Dr. Campbell Morfit, London; Dr. Thin, London; Dr. R. Power, Portsea; Dr. Styrap, Shrewsbury; Mr. Vesey Fitzgerald, Birmingham; Dr. Taylor, Anerley; The Rev. R. A. Dobson, Gipsy Hill; Dr. Norman Kerr, London; Mr. Wm. Cox, Winchcombe; Mr. W. Adams Frost, London; Messrs. Oppenheimer, Brothers, and Co., London; Dr. B. G. Morison, London; Mr. Harry Scott, Manchester; Mr. James Startin, London; Our Rome Correspondent; Messrs. W. H. Bailey and Son, London; The Honorary Secretaries of the Medical Society, London; Dr. Harker, Lancaster; Dr. Jacob, Leeds; Celtic; Messrs. Cassell and Co., London; Colonel Sherinton, London; Mr. J. Philipson, Newcastle-on-Tyne; Mr. E. Downes, Eastbourne; Mr. R. Hallier, Oxford; Mr. James Gibson, Doune, Perth; Mr. Annandale, Edinburgh; Mr. W. Galloway, Dundee; Mr. T. Glover Lyon, London; Mr. W. Duncan, Ottery St. Mary; Mr. John Kendall, Coniston; Mr. H. F. Smyth, Glasgow; Mr. C. B. Keetley, London; Mr. A. De C. Scanlan, Aldershot; Dr. Sheen, Cardiff; Dr. E. T. Tibbits, Bradford; Our Belfast Correspondent; Dr. E. Haughton, Upper Norwood; Mr. S. Edwards, Ludlow; Dr. Balthazar Foster, Birmingham; Dr. T. Vincent Dickinson, London; Dr. Brailey, London; Mr. F. E. Image, Bury St. Edmunds; Mr. Wm. Matthews, Bristol; Dr. J. J. Charles, Cork; Mr. Alfred Kebbell, Flaxton; Dr. Brown, Wansford; The Honorary Secretaries of the Harveian Society; Mr. Percy Newell, Saffron Walden; Mr. J. O'Duffy, Dublin; Mr. J. J. Reynolds, Boxford; Mr. Septimus B. Farr, Andover; Messrs. Poingdestre, Mesnier and Co., London; Dr. Sutherland, London; Dr. E. A. Dingley, Wolverhampton: Mr. H. W. Phillips, Bradford; Mr. H. W. Thorn, Bradford; Mr. Joseph Thompson, Nottingham; Mr. Wm. Berry, Wigan; Our Paris Correspondent, etc.

BOOKS, etc., RECEIVED.

The Medical Annual and Practitioner's Index. London: H. Kempton. 1885.

Louis Pasteur; His Life and Labours. By His Son-in-Law. Translated fr the French by Lady Claud Hamilton. London: Longmans, Green and C 1885.

On Renal and Urinary Affections. By W. H. Dickinson, M.D., F.R.C.P. Three Parts. Part III. London: Longmans, Green and Co. 1885.

The Student's Botany. By E. MacDowel, M.D. Dublin: Fannin and Co.

Cholera. By J. M. Cunningham, M.D. Calcutta: Printed by the Superintend of Government Printing.

One Hundred Years of Publishing, from 1785 to 1885. Philadelphia: Lea Broth 1885.

Practical Manual of Diseases of Women and Uterine Therapeutics. By H. M naughton Jones, M.D. London: Baillière, Tindall and Cox. 1885.

Annals of Surgery. Edited by L. S. Pilcher, M.D., and C. B. Keetley, F.R. London: Baillière, Tindall and Cox.

Aids to the Analysis of Food and Drugs. By H. A. Husband, M.B., C.M. don: Baillière, Tindall and Cox. 1885.

Lectures Delivered at the Hospital for Sick Children, Great Ormond Street. R. J. Lee, M.A., M.D. London: Baillière, Tindall and Cox. 1885.

Contributions to the Topographical and Sectional Anatomy of the Female Pe London and Edinburgh: W. and A. K. Johnston. 1885.

The Sabbath for Man. By the Rev. W. F. Crafts, A.M. London and New Y Fund and Wagnall.

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THE HUNTERIAN ORATION

Delivered at the Royal College of Surgeons of England, Feb. 14, 1885.

By JOHN MARSHALL, F.R.C.S., F.R.S.,

Professor of Surgery in University College; Senior Surgeon to University College Hospital.

JOHN HUNTER—the object of our profound homage to-day—bore a name which, especially when uttered within these walls, excites the remembrance of many great achievements. Whilst, therefore, that name, by itself, forms a most appropriate introduction and close to an oration to be delivered in his honour, it suggests such a superabundance of material for occupying the brief but important hour which lies before us, and so many details wherewith to embellish the sentences which must be fitted in between the Alpha and Omega of this discourse, that even the most skilful and intrepid orator might well quail before the task.

Before, however, I attempt to grapple with the difficulties of the undertaking, I will, in obedience to time-honoured example, express, in terms, I fear, too brief, our common regard for the memory of those recently deceased associates, whose special relations to the College entitle them to attention on this occasion. Not that I would willingly ignore the labours of the many Members or Fellows of the College who, in their respective careers, now closed for ever, have maintained the character of the surgical profession. But the time at my disposal is short, and the claims upon it, as we shall find, are urgent. I must, therefore, content myself with an honourable mention of Robert Druitt, a well known author and earnest coadjutor in surgical educational work, and proceed to linger a little longer on three special memorial notices of Allen Thomson, Cæsar Hawkins, and Erasmus Wilson.

Professor Allen Thomson was a member of the Board of Trustees of the Hunterian Collection, to which office he was appointed in succession to his friend and former colleague in Edinburgh, William Sharpey. Familiar, from his thirty years' occupancy of the chair of anatomy in Glasgow, with the splendid collection, chiefly composed of William Hunter's Museum which was purchased for that University, Allen Thomson felt a special interest in our own collection. His inherited scientific tastes, his intimate acquaintance with anatomy, human and comparative, his devotion to embryological research, and his wide knowledge of physiology, made him a true sympathiser with the work and spirit of both the brothers Hunter.

A better known member of our Board of Trustees was the veteran London surgeon, Cæsar Henry Hawkins, the latest representative of a family whose name is indissolubly connected with the history of this College. His grandfather, Mr. Charles Hawkins, the son of the celebrated surgeon, Sir Cæsar Hawkins, was chosen the first master of the Court of Assistants, when the College was incorporated under the Charter of 1800, and he was re-elected to the same office in 1806. The grandson, the subject of this notice, became a Member of the College in 1821, was enrolled as a Fellow in 1843, was elected into the Council in 1846, and an Examiner in 1849. Twice after that he occupied the presidential chair, namely, in 1852 and 1861. From 1865 to 1870, he represented the College in the General Medical Council; and from the year 1872 to the day of his death he was, as already stated, a Trustee of the Hunterian Collection. Thirty-six years ago to-day he delivered in this theatre an admirable Hunterian Oration, and now it has fallen to my lot to record, on the present occasion, his great usefulness as a councillor, his strict judgment as an examiner, and his exceptional services as twice president of the College.

Begun only five years after John Hunter's death, Cæsar Hawkins's long life of nearly eighty-six years almost bridges over the space of time which separates us from that occurrence. He was partly trained in the famous Hunterian School in Great Windmill Street, and, later in life, himself gave lectures there. At first a pupil, and then for many years Assistant-Surgeon and Surgeon at St. George's Hospital, he was acquainted in the early part of his career with Sir Everard Home, John Hunter's brother-in-law, assistant, and literary executor, and, at a later date, with George Babington, who edited Hunter's treatise on the Venereal Disease. A most distinguished member of a distinguished surgical family, who, like himself, had been connected with Hunter's hospital, and been honoured by holding Church appointments, Cæsar Hawkins was widely esteemed for his experience and diagnostic skill, his calm and excellent judgment, his high principle, even temper, and urbane manner. He was a favourite in society, and an ornament to our profession, and it is both a duty and a pleasure to express here to-day the universal opinion that he was an honour to our College.

As the name of Hawkins has been linked with the annals of the College for nearly the whole of the fast waning century, so the future history of the College will, humanly speaking, be associated for centuries to come with that of Erasmus Wilson. That active surgeon, the incidents of whose life are generally known, received the diploma of Member of the College in 1831, was made a Fellow in 1843, took his seat on the Council in 1870, and was chosen president in 1881. The story of his early humble means and moderate prospects, of his marked intelligence, industry, perseverance, and success, culminating in the acquisition of such vast wealth, and in the exercise of such unparalleled generosity, will, assuredly, attract much notice from posterity, and will probably strike future generations with greater astonishment than it does ourselves. We, his contemporaries, can scarcely realise the importance of his unexampled bounty to our College. Its influence for good lies concealed in the future; and the responsibility of administering so grand and absolutely unshackled a bequest will be felt to be by no means slight. That its transfer to our charge may be long delayed, is a wish we may all express, together with the hope that Lady Wilson may long be spared, to feel pride and solace in the contemplation of her husband's munificence.

It would be selfish and unjust to the memory of this large-hearted man to restrict our regard on this occasion to his splendid donation to the College; for Margate, Epsom, Swanscombe, and distant Aberdeen, will continue in remote times to bear witness to his generous thought; many charitable societies, and countless destitute persons have felt the touch of his benevolent hand; and the whole nation owes to his liberality the actual possession of the great monolith now standing erect on the banks of the Thames. But to revert to what may truly be designated his colossal gift to the College which he loved so well; it may be an idle fancy, but I am fain to imagine that Erasmus Wilson's mind was, consciously or unconsciously, influenced by his familiarity with Egyptian studies, and that he resolved, not indeed to rear an almost imperishable monument for the preservation of his body, but to secure, by what we trust may be an equally enduring design for the benefit of his profession and mankind, the perpetuation of his name and fame.

But what concerning the name and fame of John Hunter? for to that theme it is my business now to turn. Happily, under no conceivable conditions of feebleness or failure in these biennial orations can Hunter's brilliant reputation suffer damage or eclipse; but this does not lighten the responsibilities of the orator, who finds himself embarrassed with a multiplicity of subjects, perplexed by the difficulties incidental to selection, arrangement, and comment, and oppressed by the sense of competition with the eloquent and learned addresses which, dealing with the same topics, have preceded his own.

It might seem easy to pursue the well trodden course of beginning with a sketch of Hunter's career from his cradle to his grave; but, for my part, I have often imagined that there might sometimes be an advantage in reversing the usual order of biographical research and narrative, and, instead of pursuing the downward and smoother course, to follow an upward and more rugged path. As, in tracing the history of mankind, or the origin of things, the historian or the philosopher employs this retrograde method of investigation, so, at least in an inquiry into the history of a single individual, we might pass from the later and better known periods to the earlier less known or even unknown moments of his existence. And again, although, as in the case of a river, so in that of a life, it may be more easy, when it has been fully explored, to glide down its unceasing current, yet, in the upward struggle against the stream, with its halts and delays, we have larger opportunities of becoming familiar with its peculiarities, its shoals and rocks, its rapids and cataracts, its swift strong currents, its gentle windings, its resting-places, and its sluggish pools.

John Hunter's story may, I think, be said to lend itself readily to this mode of treatment, permitting itself to be broken up into successive and variable stages, one very exceptional incident being noticeable even after his death. Thus, just sixty-six years after his lamented decease in the sixty-sixth year of his age, we find his ashes laid, with fitting reverence, in their final resting-place beneath the stones of Westminster's venerable Abbey, in a pilgrimage to which we may read inscribed on perennial brass his distinguishing title, "The Founder of Scientific Surgery." Thence we pass back to the unosten-

tations obsequies held at his parochial church, St. Martin's-in-the-Fields; and then again, by way of his house in Leicester Square, to that sad and tragic scene in St. George's Hospital, where, upwards of ninety years ago, to the dismay of both friends and opponents, he so suddenly expired.

Transferring our views from the inanimate body to the living man, crossing, as it were, the bar between the ocean and the river, we find the last five years of John Hunter's life to be the busiest of all. After the death of Pott, he became the leading surgeon in London, and was responsible, as he reminds us, for exacting official work as Surgeon-General Inspector in the Army. Physically and mentally over-strained, broken in health, ceasing either to lecture or to prepare papers for the Royal Society as previously was his wont, and anxious, with the assistance of Mr. Home, his brother-in-law, to perfect the catalogues of his vast collection, on which he had expended £70,000, and which, after thirty-five years of labour and care, was now practically complete, and constituted his only realised wealth—Hunter still found time to finish his admirable *Observations on Bees*, the result of twenty years of close study, and to begin to arrange his great work on *Inflammation and Gunshot-Wounds*, which he described as the outcome of forty years of investigation and reflection, but the publication of which he did not live to see.

Passing backwards from this brief and tumultuous epoch of his career, we enter upon a decennial period laden with great practical issues. During this time, he contributed ten papers and six Croonian Lectures to the Royal Society, and was awarded the Copley medal; he assisted in founding and supporting a special Medical and Chirurgical Society; he published the *Animal Economy*, containing his essays on Animal Heat and other subjects; his work on *The Venereal Disease;* and the second part of his *Treatise on the Teeth.* It was now that he planned and performed his celebrated operation for aneurysm, and, in his hospital and private relations, attained his full height as a scientific and practical surgeon. Finding that the best apartments of his house in Jermyn Street would no longer accommodate his growing collection, he moved to Leicester Square, where he built, at the cost of £3,000, a new museum and working-rooms, and subsequently exhibited his collection to medical and scientific men, often expounding its contents with evident delight. Amidst all these active pursuits, he enjoyed the calmer pleasures derived from the study of animals and plants, in his country retreat at Earl's Court—a recreation the more welcome as he now experienced not unfrequent derangements of his health.

In the preceding decennium, Hunter delivered two Croonian Lectures, and sent six papers to the Royal Society; besides these, he was much occupied with his researches on animal heat, and on the effects of cold on animals and plants, whilst he also kept up a constant correspondence with Jenner on subjects of interest to them both. Being now full surgeon at his hospital, and regarded as an authority by his professional brethren, he availed himself of the opportunities thus presented to him, and extended his observations from healthy anatomy, human and comparative, to morbid anatomy. Overwhelmed with specimens in each of these departments, he engaged the services of his able assistant, Bell, for ten years, with the result of employing him for fourteen years. It was in this period also that Hunter became a member of the Corporation or Company of Surgeons, from which this College is descended.

The characteristic features of the next antecedent ten years of Hunter's life were the extension of the sphere of his anatomical researches from man to animals, and the awakening of his mind to the many enigmas of living action in the organs and parts which he dissected. Henceforth, handiwork and brainwork went together; and experimental researches, such, for example, as those on "Absorption by Veins," occupied his attention, as well as the structures of "the Ear in Fishes." In this period, too, occurred that important divergent bend in the current of his life, his temporary service abroad as surgeon in the army at the siege of Belle Isle, and afterwards in Portugal; for then it was that he first seriously began those speculations on the dark problems of the inflammatory process, which he gradually matured, and afterwards continued to teach. But, in spite of this, the pure science-fever was upon him, and the mania for anatomical research held him fast; for, on his return, we find him considered worthy of election into the Royal Society, even though he had not presented it with a paper; and, now separated from his brother William, he commenced to form a museum of his own.

In the preceding decennial period, having crossed the border between Scotland and England, John Hunter, at about the age of 20, arrived in London, as yet without a glimmering of anatomical, physiological, pathological, or surgical knowledge. Trained during this period under his brother's guidance, his attention was exclusively devoted to human anatomy, in which science he became highly accomplished, and to which he made some important contributions. During the summer months, and when not engaged in the dissecting-room and the museum, he devoted his time and thought to medicine and surgery, and finally resolved to pursue the latter. Thus early in life, he began, what was quite an innovation, to interweave pure scientific work with practice, and so foreshadowed his future great destiny.

And now we enter upon a longer epoch of twice ten years, throughout which the narrow stream of John Hunter's life becomes most difficult to trace, but in which, at least, it is evident that he made little mark, either as regards intellectual or manual work. His father's death, when he himself was ten years old, divides this period into two. In the latter part of it, controlled only by his mother, the future anatomist and surgeon is said to have been an idler; but he appears once on the surface, as resident with his brother-in-law, who was a cabinet-maker in Glasgow, where he may perhaps have acquired some useful command over his hands. The record of the first ten years of his boyhood is a blank, and so we follow him in silence to his humble cot at Calderwood, the place in which he was born.

In regarding the lives of all great men, we naturally marvel at the extraordinary results which flow from such small beginnings, especially when, standing at their graves, we reflect that, as living and working entities, they exist no more. There also it is that science sees nothing but the lifeless remains, and, divorced from faith, has no further word to utter. But, on the other hand, when science turns her gaze beyond the cradle into the remote past, she perceives an endless chain of living organisms, and, now independent of faith, wonders by what mysterious ordinance—call it creation, call it evolution, call it what men will—an apparently casual protoplastic unit shall grow up to be a man, who, by force of his innate power, and under certain surroundings, should come to exhibit such pre-eminence amongst his fellow-men, and leave so deep an impress on the world.

The physical and mental qualities which enabled Hunter to accomplish more than any member of our profession has done before or since were not attributes or possessions peculiar to him alone, but his success was achieved by the mode in which he used them. Some men take opportunities, and others make them; it may be said of Hunter that he did both.

I do not here propose to analyse the intellectual and moral character of Hunter, or to pass in review his professional, social, and domestic relations. I need not further particularise his work; for this stands revealed in the Museum, or is recorded in the Museum Catalogues, and in his own writings. Neither will I attempt to vindicate his claims as a discoverer, seeing that the task is most difficult in his case, and that very frequently such discussions still remain open to be rediscussed; nor, lastly, shall I endeavour to assert that, in this or that instance, he has anticipated any later views or doctrines, for such suggested anticipations have often to yield precedence to those of some earlier heralds of coming thought.

If it be not too presumptuous a method to adopt, I will rather imagine Hunter to be with us in presence this day; and, judging him by his own deeds and declarations, I would try to point out the men, attitude he would probably assume, in regard to the active work and salient opinions of our own times.

Let me first, with this view, direct attention to the Hunterian collection, for it cannot be doubted that Hunter himself would first wish his way to discover what had become of it. We may trust that he would be satisfied that this College should have become the depository of his fine museum, and would feel gratified at the efforts which have been made for its due preservation and extension. He would appreciate the zeal of its successive conservators and their able coadjutors, in perfecting its special departments, osteological, cranial, and otological, in opening out fresh fields of observation, and in seeking new forms of illustration. He would realise the value of the palæontological specimens added since his day, and the advantage or necessity of arranging side by side extinct with recent animal forms. He would admire the skill displayed in the new articulated and dissected preparations. He would recognise with special thankfulness the labours of our late conservator and his assistants, in the preparation of efficient catalogues of the museum. Nor, finally, can we doubt that Hunter would hail with pleasure the prospect that no considerable portion of the Erasmus Wilson bequest will be devoted to increasing the accommodation for the unique collection, of which his own museum was the foundation. I ask pardon for the simplicity of these assumptions, but we must not forget Hunter's affection for his museum. Remembering this, too, I will add, parenthetically, that the increased number of such collections, and their steady improvement in recent times, would not fail to secure the approval of so great a museum-maker.

peaking of himself, Hunter says, "I do not read many books;" aps, therefore, we might suppose that he would be comparatively hetic as regards the extension of our library; but, nevertheless, ll credit him with the assumption that he would not be wholly fferent to the interests of that department of the College.

we next regard John Hunter as an accomplished human anato-, it needs only briefly to be said that he could have no difficulty in ing pace with whatever advances have been made, since his time, he knowledge of the ordinary structure of the human body, as as of the numerous varieties in arteries, muscles, and other parts, hich it has been shown to be liable.

he immense progress which has been made in the science of com- ative anatomy since Hunter's days, could not fail to excite the liest satisfaction even in his well stored mind. Countless as are facts which have been brought to light by the combined efforts of eeding comparative anatomists, from the time of Cuvier down to present moment, they would all be welcome to him. To one who spent thirty years in this field of study, and had himself dissected described about 500 species of animals, vertebrate and inverte- e, the diversified new forms and structures which would be pre- ed to his notice could not, of course, be accepted by him otherwise as facts. Parts possessing functional significance would be aptly assigned by him to their respective places in his great phy- gical series. Special structures would be studied by him with deeper interest; whilst he would quickly learn to appreciate the y novel and unexpected forms which would lie outside his expe- ce, and even beyond his conception.

, likewise, the wonderful, and, to Hunter, unforeseen revelations nicroscopical researches, the growth of that new department of omy, histology, the insight we have obtained into the origin development of the tissues and organs of animals and plants, and extensive acquaintance which has been made with the existence characters of innumerable minute independent organisms, both in animal and vegetable kingdoms, would fill Hunter's mind with zement and delight. It is true that, although he employed mag- ing-glasses in some of his own investigations, he doubted, and discredited, the results recorded by other observers. Nor is this rising, for, whilst the microscope had even then realised some im- ant discoveries, there were many announcements made which were er perplexing or absurd—the effects of irradiation, diffraction, and ersion being sometimes seriously regarded as indications of minute cture. Besides this, Hunter had so large a field of observation in obvious conformation of the organs of animals open to his reach he aid of scalpel, scissors, and forceps, assisted occasionally by nifying powers, that he could well afford to disregard the less tworthy information afforded by the imperfect microscopes of his

We may be sure, however, that he could not, and, indeed, ld not, resist the evidences of structure and organisation displayed ur powerful and exact modern instruments; and we can easily gine his acquiescence in the truth of a modified cell-theory of the ation of tissues, and in the doctrine of the protoplasmic origin of al and vegetable life.

unter would also find much in modern microscopic discovery h would correct, elucidate, or confirm his own guesses at truth. erning the globules of the blood, he says "that magnifying- es appear to give a good deal of information;" but the different riptions then given of these globules in man and animals confused disheartened him, and he would be glad to have more precise mation concerning these formed constituents of the blood. Never- ss, he was able to conclude, from the facts that these bodies were rless, or, as he believed, absent, in insects, and that the red ules appeared late in the blood of the embryo chick, that these red elements were not so essential to nutrition as the colourless s of that fluid. How eagerly would Hunter have availed himself r present knowledge of the formation and growth of bone (which o closely studied), of the differences in that process in bones ed from cartilage and those formed from membrane (amongst h latter he correctly placed the broad bones of the skull), and, lastly, e exact details of that "modelling" process which he pointed out t take place in growing bones, and on which he dwells so strongly, fording proof of the action of the absorbents! Again, his views he structure and formation of the tooth-enamel, the fibres of h he describes as crystalline, and as the result of a process of tallisation on the dentine, and yet in which he recognised the ence of an "animal mucilaginous matter," would now become e defined; and the then unexplained sensitiveness of the ine would be accounted for by the demonstration of the ngations of nerve-elements into its tubuli. So, too, the site structure of the voluntary muscular fibre, and the changes it undergoes during its contraction and relaxation, as revealed to us by the investigations of still living observers—its serial discs, with their rods and swellings—would have gladdened Hunter's sight, as so strictly coinciding with his prescient conjectures on this difficult subject. "I do suppose," he says, "that a muscular fibre is not one uniform body from end to end, but is made up of parts, which may be called the component parts of a muscular fibre; and I am apt to suppose that a change takes place in the position of those parts during contraction, and this alteration diminishes the extent of those parts in one direction while it is increasing them in the other, but what that alteration is I shall not pretend to determine." Elsewhere he states: "Muscular motion is a uniform approximation and receding in all the parts; the size, construction, and connection of these are, as yet, not known;" and again, "What the difference is in a muscular fibre between its relaxed state and the contracted perhaps may never be known;" and, lastly, he regards the firmness of a contracted muscle as possibly being due to "a particular position of the constituent parts of a muscular fibre, so as to become immovable while in that position." Concerning the structure of the coats of the arteries, on the contractility of which Hunter made so many experiments, he says: "We know them to be muscular only by experiment;" and, on similar grounds, he states that these vessels become more muscular and less dependent on elasticity the further they are removed from the heart. Now, he could be actually shown the involuntary muscular fibres of the arteries and their relative abundance in the smaller vessels. Again, Hunter supposed that the mucous membranes had no cuticle; but how instantly would he accept the demonstration of the epithelial covering of those membranes, and, indeed, would proceed to generalise on the fact. Looking, for example, to the uniform presence of glandular epithelium in all digestive cavities, he would justify his grand conclusion—which he announces with a sarcastic thrust at the various mechanical theories of digestion by trituration and simple solution—that the digestive process must be uniform throughout the animal kingdom, and be accomplished by the action of a similar secretion or juice, which he believed was always acid, as he almost invariably found it to be so. It may also be mentioned here, that Hunter imagined the absorbents to have mouths or openings communicating with the interspaces in the common areolar tissue; and, in describing the inflammatory process, he constantly compared these interspaces with the circumscribed serous cavities. Now, he would find the former idea verified by microscopic research, and the latter comparison strengthened by the discovery of lymphatic pores on the free surface of the costal pleura. Lastly, Hunter's beautiful observations on the development of the chick, would have prepared him to follow with infinite pleasure the delicate demonstrations of modern embryologists. In a word, not only in this respect, but in the entire round of microscopic work, Hunter would be charmed with the triumphs of modern inventiveness and skill.

As a physiologist, Hunter was so zealous, unwearied, and accurate an experimentalist, that we may be assured of his sympathy with the present refined and stringent methods of research. He cogitated new experiments whilst in his carriage; he had recourse to them in almost every inquiry; he spared no expense in their execution; he planned them so carefully, and limited them so in their intention, as to avoid failure or fallacy; he modified them, so as to adapt them to new occasions; and he endeavoured to learn something from them even when they yielded unanticipated results. He proposed himself to perform many experiments which he did not live to undertake; he suggested to others certain inquiries which he thought worthy of being carried out; and, lastly, he declared that no experimental results could be depended upon which had not been obtained by duly qualified observers. In all these respects, he would be in accord with the best investigators of our time. We may read with a smile his simple experiments on the effects of a decoction of bark, opium, or calumba on the coagulation of the blood; and be amused at the pleasure he expresses at receiving Ramsden's small thermometer, "measuring only one-sixth of an inch wide in the stem," for the prosecution of his experiments on animal heat; but we may be sure that he would be struck with admiration at the complex mechanical and electrical appliances, and at the variety of chemical agents, employed in the well furnished laboratories of modern physiologists. That he would approve the sphygmograph, cardiograph, and myograph, the clockwork cylinders, and the clever resources of the graphic method, may be regarded as certain. An ingenious experiment which Hunter devised but never carried out, and which would have led to a negative result, shows us how he would appreciate Helmholtz's demonstration of the changes in the curvature of the crystalline lens, by observing the accompanying alterations in the luminous image of a candle-flame, as seen in the

living eye. Being convinced that the adaptation of the eye to see at different distances could only be explained by the occurrence of a change in the form of the crystalline lens (which he had shown to be fibrous, and which he believed to be muscular), Hunter proposed to test this by taking the lens from the eye of a bullock just slaughtered, placing it in water, so that it might produce an image of a "lucid object," and then watching for any change in that image on the addition of warm water as a stimulus.

It is needless to observe, to those who are familiar with Hunter's writings, that not only as a physiologist, but as a pathologist, he was a great vivisector; and we may here take it for granted that he would rank himself with those who now claim the right of man, for beneficial purposes, or even in the pursuit of knowledge, to attempt to discover the processes of animal life by tests and trials on living animals. Hunter's own numerous experiments certainly threw light on many of these processes. Amongst others may particularly be mentioned those on absorption by the veins, on animal heat, on the effects of heat and cold on animals, on the injection of various solutions into the veins, on artificial respiration with the view of recovering drowned persons, on the ligature of arteries, on the growth of bones, on the division of tendons, on the effects of extirpation of the ovary, and on the transplantation of living parts into other living parts. All Hunter's experiments were necessarily performed without anæsthetics, but we may be sure that he would now approve of their use on every possible occasion. His large views of the unity of the principle of life, and of the community of organisation, and of action throughout the whole animal kingdom, would lead him to disregard the objections of those who insist on the uselessness of experiments on animals, so far as concerns their application to man. On the contrary, I can conceive that Hunter would contend that every fact ascertained concerning the processes of life, whatever the quarter from which it was derived, whether from organisms high or low in the scale, or from animals in health or in disease, must contribute its quota towards the attainment of more perfect knowledge, and that it is to the sum of these efforts at discovery, and not to individual results, that we must look for a scientific justification of this method of inquiry. Hunter distinctly denounces a physiologist who, "like all mere experimenters, is not satisfied with those experiments which are clear and decisive, but multiplies them unnecessarily;" and, he adds, "I think we may set it down as an axiom that experiments should not be often repeated which tend merely to establish a principle already known and admitted, but that the next step should be the application of that principle to useful purposes." It may accordingly be inferred that, whilst Hunter would contend for the fullest right of research, he would not be opposed, either on scientific grounds, or (as he was fond of animals, and certainly not desirous of encouraging cruel propensities amongst men) on moral grounds also, to due restrictions in the exercise of this right.

Lastly, in reference to this subject, it should be stated that Hunter did not spare his own body, but subjected himself to an inoculation experiment of a very grave character, in order to test opinions on a pathological question, and to put to proof the efficacy of certain variations in treatment. As a consequence of this, he was not completely cured until the expiration of three years. Indeed, it is not impossible that he incurred still later injurious sequels.

In referring to Hunter's physiological experiments, it is certainly remarkable to find that he never performed any with the view of determining the functions of the nerves and of the nerve-centres; yet it is in this branch of inquiry that, since his time, physiology has made such great strides, almost exclusively by means of experiments. Nevertheless, Hunter was not unmindful of the momentous questions herein involved. Thus, he clearly distinguished the functions of common and special sensory nerves, as dependent on their origin and connections; and he remarks: "It is more than probable that every sensory nerve, in whatever part an impression is made upon it, always gives the same sensation as if affected at the common seat of sensation of that particular nerve." In his interesting discussions on sympathies, he says: "One part under stimulus or irritation is capable of stimulating another part of the same body into sensation and *action*, etc., which, I think, is the most natural idea or position." He explains, by aid of a diagram, many sympathies by probable communications existing between different nerves; but he adds: "It is possible that sympathy is not effected by the nerves communicating with one another in the body, but from their connections in the brain." He saw in what way this nerve-sympathy might explain the symmetry of disease. He speaks of organic actions and movements occurring in the body which have nothing to do with the sensitive principle; and elsewhere he says: "So that those *involuntary actions of the voluntary muscles arise from a stimulus independent of the will.*" Lastly, he explains the movements of the polypus in search of food by supposing t "the stomach first sympathises with the whole body when it wa repletion; and afterwards, by a reflex sympathy, the body is ca into action, and its little arms are erected."

Notwithstanding the significance of these quotations, I will accordance with my settled plan, refrain from a suggestion of covery or anticipation; but I would ask, Would not Hunter be pared, would he not be delighted, to listen to the explanat which, thanks to Bell, Marshall Hall, Brown-Séquard, and t numerous followers, could now be given him of the mechanism the various forms of cerebral and spinal, sensory and motor r phenomena?

Even as regards the higher manifestations of action of the nervous centres, Hunter makes the following pregnant stateme "Sensation" (by which he evidently understood conscious sensa "is only the intelligence of action;" "a disposition of the ..... entirely arises from some action of the brain, certain position of the parts of the brain takes place, giving the inclination to produce action;" and, after stating that in sens the brain only receives impressions, but "in mind it is active adds, "Mind arises from a peculiar quality in the sensation, expressive of some quality in the body which is the object of s tion, and which gives an action to the brain answering to qualities, as agreeable or disagreeable, with all their different sp as love, joy, hate, anger, etc., which actions of the brain or sta the mind" (using, be it observed, these terms as psychical and m equivalents) "become the cause of further modes of action i body affecting both involuntary and voluntary muscles." H remarks that "reason, by influencing the will, becomes the ca the voluntary actions; and by this connection all these prin can affect one another." Herein, therefore, we see how Hunter grasp the substance of modern physio-psychology; how he accept the classification of the mental processes into sensation, em intellect, and will; how he could separate instincts, the offspr emotions, from rational acts, and so come to speak, as he does, "mind of a bee;" and how, lastly, he could follow the m attempts to unravel those impulses in our nature which, spri from combinations and reactions of different simple mental f are supposed to explain the mysterious evolution of the h faculties of our minds.

But I must next proceed to consider the position that we suppose Hunter to occupy in regard to the zoological, morphol and biological questions and doctrines of the present day.

Although Hunter's comparative anatomy collection was av made in the laborious search after the relations between structu function, and was arranged by him accordingly in a grand logical series, yet he was a practical zoologist, for he had no formed a large separate zoological series of specimens, but, st carefully each subdivision of his collection, he observed not o uses, but the gradations of form, which the various organs ass the different groups of animals with which he was acquainted. how readily Hunter employed his knowledge of the comparati tomy of the digestive, circulatory, respiratory, and repro organs, and also that of the nervous system, in his attempt scientific classification of animals, we may easily conceive would have accepted the more advanced Cuvierian arrangement on wider knowledge than his own, and how truly he would ciate the various modifications of that system found necessary ceeding zoologists.

Regarded as a morphologist, we find that Hunter, very earl career, repudiated "the idea" of confining himself to the des of a single animal; and, as he accumulated his great wealth he handled them, from a morphological point of view, with t ness and ease characteristic of a master. Thus, he not onl freely of the "hearts" of insects, the "lungs" of the snail, a "brains" of both, and compares the "median nerve-chords former to the "medulla spinalis" of the vertebrate animals, writes of there being "ten thousand animals without a b nervous system to one with them; and he furthermore indi possibility of a nervous substance being diffused throughout of the very lowest animals, without any visible aggregated ce traces the digestive apparatus from its most complex stoma wards, in the animal kingdom, to a simple sac; and, in descr comparative anatomy of the fish's ear, he says: "he is in consider whatever is uncommon in the structure of this organ as only a link in the chain of varieties displayed in its for different animals, descending from the most perfect to the perfect, in a regular progression." Again, in his estimate of racter of the strong muscular stomach of the Gillaroo trout

as "difficult to determine the exact limits of the two different es of construction to which the names of gizzard and stomach spe- ally belong, as in any other case to distinguish proximate steps in slow and imperceptible gradations of Nature." From all this, it ry evident that Hunter could not fail to perceive the bearing of multitude of facts pointing to similar conclusions, which have recorded since his time.

ut, further still, there is the oft-quoted passage, written in refer- to his developmental researches on the embryo of the chick, in h he says, "if we were capable of following the progress of ease of the number of the parts of the most perfect animal, as they first formed in succession, from the very first, to its state of full ection, we should probably be able to compare it with some one of incomplete animals themselves, of every order in the creation, g at no stage different from some of those inferior orders; or, in r words, if we were to take a series of animals, from the most im- ect to the perfect, we should probably find an imperfect animal esponding with some stage of the most perfect." Here he has ex- sed, in laboured phraseology, a current doctrine of development. ter elsewhere applies a similar train of reflection to muscular ies; for he says, "in many of the more simple animals there is e else besides those formations or organisations composed of cles," and he quotes a polypus as an example; whilst in subse- nt passages, he points out that there is a "difference of density of cular fibres in a pretty regular gradation from the most imperfect ne most perfect, from the muscles of the medusa to those of the grown quadruped." He further remarks, "that the first rudi- ts of every animal are extremely soft, and even the rudiments of more perfect are similar to the full-grown imperfect, and as they nce in growth they become firmer and firmer." And in connec- with these morphological questions, I may also point out his ob- ation, that in the earliest embryonic condition "the heart is a ty firm manageable part, while every other muscular part of the nal is as tender as jelly."

now pass naturally to the consideration of the view which Hunter ld, I believe, entertain as a biologist, concerning the prevalent rines of evolution; and I will commence by citing what I think be admitted to be some noteworthy passages from his writings.

n the general question of the occurrence of varieties in animals, ter in one place states as a general fact that "nature is found de- ing from general principles." In another place (in reference, how- , to sexual adaptations), he observes, that "an animal has the r of improving its parts, so as to make them susceptible of such uli as are adapted to the disposition of the parts. Again, he states , "as far as my knowledge has extended, there is not a single part animal body which is not subject to an extraordinary formation. her," he proceeds, "is this a matter of mere chance; for it may bserved that every species has a disposition to deviate from nature manner peculiar to itself." It is true that these latter remarks pplied by Hunter especially to deviations which he says are "more ss monstrous;" but he afterwards, as we shall see, qualifies that , and the whole context shows Hunter's genuine appreciation of natural plasticity of animal organisms. More to the present pur- , however, is the following passage: "The propagation or con- ance of animals in their distinct classes is an established law of re, and in a general way is present with a tolerable degree of uni- ity; but in the individuals of each species, varieties are every produced in colour, shape, size, and disposition. Some of these ges are permanent with respect to the propagation of the animal, ming so far a part of its nature as to be continued to the off- g."

ntrasting again, in another place, the phenomena of variation as occur in wild and in domesticated animals, to which he ob- sly paid close attention, Hunter says, "Animals living in a free natural state are subject to few deviations from their specific acter; but nature is less uniform in its operations when influenced ulture. Considerable variations are produced under such circum- ces, of which the most frequent are changes in colour." In a , he adds, "From the variations produced by culture, it would ar that the animal is so susceptible of impression as to vary re's actions; and this is even carried into propagation." Still striking is a note in which, speaking of extreme variations as strous, he reflects, "Perhaps the word monstrous is too strong, ot exactly just;" and then he adds this remarkable passage: "It inly may be laid down as one of the principles or laws of nature eviate under certain circumstances. It may also be observed that neither necessary, nor does it follow, that all deviations from the inal must be a falling off; it appears just the contrary; therefore nay suppose that nature is improving her works, or at least has established the principle of improvement in the body as well as in the mind." Given the additional factor of the advantages bestowed upon individuals by such improvements in the "struggle for existence," and Hunter would have discerned the Darwinian doctrines of "modification in descent," and "the survival of the fittest."

Nor did the question of reversion to the original type, which Darwin so freely discusses, fail to attract Hunter's notice; for, in regard to varieties arising from cultivation, he says, "Whether, if left to themselves, they would, in time, resume their original appearance, I do not know;" and elsewhere he remarks, "I am inclined to think there never is, in the wild state, a variety in any species of animal in in the same country." Furthermore, he makes the important reflection in regard to reversions, that "it would be difficult to prove whether, in many of the gradations, they are progressive or retrograde." Lastly, he alludes to the necessary adaptation of some insects to uniform, and of others to variable climates; and he reflects on the differences of habit which must thus be brought about.

It will be recollected that Darwin employs the term correlation as descriptive of certain constant and associated peculiarities and changes in an animal, which may, or may not, be capable of further explanation; and it is interesting to find that Hunter, without using that general term which, after all, is only a term, points out, as a "general principle," a constant correspondence between the colour of the pigmentum of the eye and the colour of the eyelashes, not only in quadrupeds, but in birds, even when the colour of the skin, hair, or feathers is different. The occurrence of such correlated sexual characters in animals was recognised by Hunter; and his paper on the peculiarities of a hen pheasant which had acquired the plumage of a male is full of reflections and suggestions conceived in the true Darwinian spirit.

The preceding quotations show, at least, that had Hunter lived now, he would have been a staunch evolutionist. We may picture him devouring with eagerness the writings of that school of naturalists, and especially those of Darwin. There is, indeed, in many respects, a similarity between him and Darwin. Thus, Hunter delighted in the minute observation of the habits of common plants and animals—as in the study of the motions of the tendrils of climbing plants, of the "sympathies," as he called them, of the sensitive plant, and of the economy and habits of bees, wasps, eels, toads, lizards, hedgehogs, and bats. He noticed the bee, laden with pollen, entering and fertilising flowers, which, as he says, "have no male parts;" he determined the difference between the pollen on the limbs of the bee and the wax, which he discovered to be a secretion formed beneath the abdominal segments, by the simple method of burning away the one, and melting the other, on the points of needles. "As bees have a sting," he remarks, "so they are endowed with such powers of mind as to use it, their minds being extremely irritable." He describes their honey-bag, and he directs attention to their cleanly habit of evacuating their intestinal canal outside their hive; and, to test this habit, he confined a certain number of them for several days, and watched them in the act of evacuation as they flew away, and, on sacrificing one, he found its intestine loaded up to its stomach. Like Darwin, too, Hunter often drew conclusions from the most trivial facts, as when he infers the existence of bile in the maggot from the bitterness of a bad nut; the imperfect digestive powers of a flea from its excrementitious deposits containing almost unchanged blood; and the dependence of caterpillars on the juices of plants, because he found their little green castings, when soaked in water and unrolled, to consist of minute portions of leaves. It may, indeed, be said that, during the lives of these two great searchers after Nature's laws, the economy of Earl's Court and of Down Cottage bore a certain resemblance; so, in death, it has been the fate of both naturalists to lie in the same consecrated soil.

But it is time that I considered Hunter's mental attitude towards the present conditions of the sciences of morbid anatomy and pathology, and towards that of the modern practice of surgery.

A single sentence will suffice to point out that the comprehensive character of our present morbid anatomy collection, which completely overshadows the thousand and eighty-four specimens which Hunter left, the pains which have been taken to make it illustrative of every known form of disease, the labour of love undertaken by our distinguished colleague, Sir James Paget, towards the completion of the corresponding catalogue, and the promise of future extension of the Museum, would not escape Hunter's appreciative recognition.

Hunter took care to distinguish between morbid anatomy, or the study of diseased structures, and pathology, or that of diseased action, for he correctly defines "pathology" as the "physiology of disease;" and it is needless to say that, in regard to both of these closely allied branches of knowledge, he would admit the important and indispens-

able service rendered by microscopic research. Moreover, I will assume that he would accept as great generalisations some modification of the "cellular pathology," and the still more recent views on the influence of protoplasmic action in the production of disease.

In his brief but interesting discussion on Tumours, Hunter defines a "true tumour" as an "entirely new part," so that to him the terms "new formation," "new growth," and "neoplasia," would be quite intelligible; nor would he be slow to perceive the scope of the term "metaplasia," the title of a paper read by Virchow at Copenhagen, in which Hunter's name received early and honourable notice. Although the clinical distinctions between a "cancer," a "fungated sore" (probably a sarcoma), and a "scrofulous enlargement" were pretty clearly distinguished by Hunter, yet he expresses himself not always able to decide between them, and he would doubtless acknowledge the help afforded by the inspection of a few of our everyday microscopic sections; whilst many of his other pathological difficulties would be as rapidly dissipated.

As regards the complex phenomena of inflammation, which Hunter had so long and so carefully thought out, it may be said, in a word, that the modern microscope, whilst adding so much to his knowledge, would elucidate and confirm almost all his sagacious conceptions. Those important agents in the inflammatory processes, the white blood-corpuscles—though, perhaps, not altogether unknown—were not sufficiently distinguished in Hunter's time. The existence of these being granted, their amœbiform properties, their emigration through the softened walls of the small vessels, their further action on the tissues, their presence in lymph, and their identity with pus-corpuscles, would fill up the details in the Hunterian sketch.

He saw that the increased action of inflammation "most probably takes place in the smallest vessels," but what it was, he confessed, is "not easily ascertained." When suppuration is impending, these vessels, he says, "begin to alter their disposition and action;" and pus itself, with the globules of which he was acquainted, he believed to be formed "by some change, decomposition, or separation, which the blood undergoes in its passage out of the vessels." As to the subjects of the growth of new vessels in exuded lymph, which he called "coagulating," to distinguish it from a merely coagulable substance —the vascularisation of a blood-clot, which Hunter is careful to say "either forms vessels in itself, or vessels shoot out from the original surface of contact into it"—the formation, blood-supply, and subsequent changes in granulations; and, lastly, the process of cicatrisation —these were so dealt with by Hunter that he would simply find them more fully explained, with scarcely any change. But it is evident that he would now modify his view as to the identity of the mechanism of interstitial or progressive absorption, with that of simple superficial ulceration.

As a clinical observer, Hunter would undoubtedly, as occasion arose, avail himself of every modern method, physical or chemical, and of every new instrument or test, employed in the investigation of disease. In the use of the thermometer he was far advanced; thus, he says, "the standard heat of the human body is about 99°;" and, he adds, "I believe that degree is pretty regular." He found that it differed according to the distance from the centre of the body, that it varied between morning and evening, and was diminished at night. He found, in a special case, that local inflammation could raise the local temperature from 92° to 98¾°, or upwards of 6°; but he correctly concluded that this local elevation could not reach "the standard heat of the constitution" at the time, "nor even to it in parts far from the centre." He observed, on one occasion, the fluid of an inflammatory dropsy at a temperature of 104°, and heard. he says, of a temperature of 112° being found in fever. He believed that "nothing can increase that natural heat but some universal or constitutional affection," but he felt that the question was "worthy of inquiry;" and, he added, "our measurement . . . can be brought even nearer to the truth than is absolutely necessary to be known in disease." How interested he would be in the detailed temperature-charts of the present day, as indicating the vicissitudes of the febrile state.

Hunter correctly enough drew a distinction between simple inflammatory fever and specific fevers of all kinds. He perceived clearly that "hectic" fever presented peculiarities, but he disbelieved the opinion that it was due to the "absorption of pus" as its proper cause. He ascribes to severe hectic, and to the grave condition which he calls "dissolution," symptoms so accurately defined by him, that we may recognise the various transitional, and now better understood, forms of pyæmia and septicæmia.

Hunter's list of specific poison-diseases contains a rather incongruous assemblage; for example, scabies and small-pox, the venereal disease in all its forms, and cancer, hydrophobia, measles, whooping-cough, putrid sore-throat, agues, gaol-distemper, and the plague. Scrofula, he thought, was a specific but not a poison-disease. He doubted th specific nature of erysipelas; but he attributes that character to ca buncles and boils. But that he would seize with avidity the exact knowledge of the present day, and thereby extricate himself from th confusion, is quite certain. In speaking of the specific fevers due miasms, he utters this reflection: "It may, perhaps, in time, happe that the human race shall be exterminated by poisons alone; but it more probable that many poisons are extirpated, and that new on may arise in their stead every day." How this sentence chimes with modern questionings as to the recent origin of scarlet fever a typhoid, cholera, and diphtheria! How it suggests the sight Hunter endeavouring to grasp the possibilities of the issues involv in it, gradually gathering up the now well ascertained facts concer ing the organisms which are associated with anthrax and catt plague, with tubercle and cholera; listening to the suggestions as the possible modifiable or self-adaptive nature of these organism hoping for the means by which they may be checked, or, as he sa "extirpated;" and, in short, gazing into that vista of conceival triumphs over "living contagia" which seem to promise such gra prospects for the future of medicine and surgery!

In now taking leave of Hunter as a general pathologist, I can withhold the comment that, as in physiology, so in pathology prop his views passed beyond the apparent limit of his subjects. Indeed, associated the two sciences, and, as it were, blended them at th conterminous borders. He said that disease taught us what health, as well as health informed us what was disease; and he d tinguished a healthy from an unhealthy inflammation. Besides th he included all animal life in his pathological speculations, as wh for example, he speaks of the vessels at work in the process of abso tion having "more of the polypus in them than any other part the body;" and it is certain that he recognised the occurrence morbid processes in plants, as indicated by specimens preserved in Museum, and which he was accustomed to exhibit in his lectu We may be sure that Hunter would approve the close relations wh have recently been established between physiological and patholog investigations, and would applaud any assistance which the Col may hereafter offer towards the establishment of laboratories dev to scientific research.

In the study of one special disease, Hunter showed his usual men, and in spite of the changes and subtleties of modern opin will rank with the foremost authorities of the present time. long and continued study and grave experiment, he adopted the of the unity of the venereal poison, including not only the soft hard chancre, but even gonorrhœa, in its effects; and now, altho the dual theory has for a time held its sway, he would find a st inclination in the minds of many surgeons, to regard the two k of sores, and their markedly different respective consequences different manifestations of one poison, in different states or u different conditions. Speaking of the poison of the lues, which equivalent for syphilis, Hunter says, "it produces fever which the slow kind." "In the first stage of the disease, before it b to show itself externally, the patient has all the symptoms of a proaching fever. These symptoms, continuing for some days often for weeks.....show that there is some irritating which works slowly upon the constitution." "It is then suppos be whatever the invention or ingenuity of the practitioner shall it; but the venereal eruptions.....show the cause, and in degree carry off the symptoms of fever, and relieve the constit for a little time, but this soon recurs." He further suggests tha fever might "exist without the presence of local sympt Hunter, furthermore, describes exceptional cases, more or less bling lues, in which peculiar and aggravated symptoms occur, as extensive and obstinate sores, and falling of the nails, and may even end fatally. These, he says, "show as much as po that new poisons are rising up every day, and these very simi the venereal in many respects, though not in all." In ref again, to syphilitic affections of the bones, he remarks: " sometimes occur in which, after the venereal disposition has corrected, another disease takes place in the bone, the nat which will be explained when we shall consider the effects rem after the disease is cured, and the diseases sometimes produced cure." His explanation is that "new diseases" may arise fro mercury alone, or from "different combinations" of the me irritation, the venereal disposition, and the natural disposition, he assumes may itself not be healthy. In many cases, he s that this natural disposition may be of a scrofulous nature; would not exclude gout.

Considered as a practical surgeon, present with us to-day, would find his capital operation of ligature of an artery high

cure of aneurysm, in some degree superseded by the improved thod of compressing the artery in the same situation. He mentions ring, in one of his cases, tried compression, he does not state where how, but he gave it up, on account of the pain produced by it. s own successive improvements in the actual operation, by the re limited exposure of the artery, the non-inclusion of the vein, l the use of one ligature more firmly drawn, instead of four applied re loosely and with graduated force from above downwards—all ps calculated to minimise the necessary accompanying suppuration, evil effects of which he had to deplore—show how gladly Hunter uld have adopted the non-irritating silk or the absorbable catgut, short and left in a non-suppurating aseptic wound.

As a general rule, Hunter's treatment of wounds was as simple as sible. He employed very few local applications. His advocacy of bbing by the drying up of all superficial sores was one indication of s, for it commended itself to him as arresting the suppurative cess. It is easy to understand how pleased he would be with the dern practice of skin-grafting; and the more serious operations of nsplanting, under aseptic conditions, pieces of bone, and recently n of a whole muscle, from one animal to another, would have struck nter as interesting advances on his own successful attempts to ke the cock's spur grow in the comb, and to transplant human th.

Hunter's view that surgical operations were often a "tacit" admisn of our inability otherwise to accomplish a cure, and that they uld always be approached with "a sacred dread and reluctance," uld assuredly be qualified now, when, in so many new and bold rations, so great a measure of success is obtained, and that with- the suffering Hunter had to witness, destitute as he was of the welne aid of anæsthetics.

The great number of novel operations which have been devised ce Hunter's time would, no doubt, astonish him; but, on the other id, it is interesting to find that some of these would be more or s familiar to him. Thus, in reference to external herniotomy, he ects that, in congenital hernia, the sac should not be opened; he rises the "extirpation" of varicose veins as "very proper, unless disease is too extensive;" of course, the tunica vaginalis was cut n for the cure of simple hydrocele; he describes minutely the ps of an operation for the cure of unyielding urethral strictures, hout or with false passage or urinary fistula, by laying open the tended urethra through the perinæum behind the seat of constricn, then passing a fine probe forward through the stricture, dividing s, and afterwards passing a full sized instrument along the whole al into the bladder. Acting on a belief which is shared by many, t cancer is a local not a constitutional disease, that it is not heredi- y, and only contaminates the system by spreading into it, he advoed, as a duty, the removal of every enlarged and hardened gland ich could be detected in the axilla, in cases of cancer of the mamma, enever that could be safely accomplished, even those which, he ntions, are often detected when some have been taken away; tly, he alludes to lumbar abscesses from which an urinary calus had been removed, thus justifying a recourse to actual nephro- ny.

As is well known, in reference to the operation of ovariotomy, nter says somewhat brusquely, "There is no reason why women uld not bear spaying as well as other animals. It would simply opening the cavity of the abdomen, which we often do without invenience in healthy constitutions." In speaking of peritoneal unds generally, and the mode in which they are healed, Hunter ew upon his experience as a military surgeon, often alluding to the aling of sword-wounds and gunshot-wounds of the abdominal cavity, re especially in cases in which no viscus had been wounded. He vised that the stitches of the abdominal suture should not "pass rough into the cavity of the abdomen, as they would interfere with dering the cavity perfect; for, as these continue, suppuration of the unds will come on, they acting as a seton, by which the exposure the cavity will be greater, though, perhaps," he continues, "from e irritation they would occasion, adhesions would be formed at the ttom of the wound before this suppurates, which might prevent the mission of air." We perceive here the natural dread which Hunter d of that exposure of a wound or compound fracture to the air, nich, his whole experience taught him, led to the dangerous suppuative, instead of that milder adhesive, inflammation which ensued in perfect cavity, or in a simple fracture, or in a subcutaneous or cometely covered wound. The full precautions of the antiseptic method ing explained to him, he would now have less fear of passing sutures rough the whole thickness of the abdominal walls. Supposing supuration of the peritoneal cavity to have occurred, Hunter observes, How far in such cases it might appear desirable to make an opening into the abdomen, and throw in warm water repeatedly, to wash away the matter, I will not at present determine." The whole tendency of Hunter's teaching in regard to wounds being to prevent suppuration if possible, it was evidently a sorrowful confession on his part to say, "It appears very difficult to give a true and clear idea of the whole of the chain of causes leading to suppuration." After mentioning ordinary instances of suppuration following exposure to air, he states "these effects might appear to be due to the influence of air;" but he points out that air in emphysema of the areolar tissue does not do this, unless the skin be wounded, nor does it do so in the air-spaces or hollow bones of birds, unless these are laid or broken open. "Air, therefore," he continues, "is not the cause of suppuration." Yet Hunter was aware that, before the opening of large abscesses, "patients are generally pretty well; but immediately after that time, they become unhealthy and hectic, which continues till death." He recognised that the mischiefs, namely, of hectic and dissolution, that is, of pyæmia and septicæmia, which followed large wounds, compound fractures, and amputations, appeared "more in hospitals than in private practice, more in large towns than in the country," "often without apparent cause," "frequently in the most healthy persons," and were rapidly fatal, a result not "due to the sore as an immediate cause," but certainly assisted by it, as the symptoms never occurred "when the sore is healed." For the cure of such cases, he adds, "I do not find anything that has any effect."

Yet Hunter saw clearly that "air could convey most poisons;" that the air of warm moist places was the most impure," and that "the effects of an impure atmosphere are found in gaol-distempers and hospital-diseases; very few of the former places are ever free from foul air, and most hospitals are more or less affected with it."

If, therefore, Hunter had now demonstrated to him that, whilst mountain-air contains minute organisms in units, country-air in hundreds, town-air in thousands, and hospital-air in tens of thousands, and furthermore had explained to him the relations of organisms of this kind to the fermentative and putrefactive processes, the dangerous or fatal results of the entrance of septic matters from the surfaces of exposed wounds into the blood, and the established efficacy of so-called antiseptics in destroying such organisms, and arresting the decomposition associated with their presence, he would hail the discoveries of Pasteur and the triumphs of Lister with the gratitude they deserve.

In three places in Hunter's writings, I find that he uses the now well-worn term "antiseptic;" twice in reference to internal remedies, and once to external applications. In the treatment of hectic, he says, "strengtheners and antiseptics are recommended. Strengtheners are proposed on account of the debility which has evidently taken place; and antiseptics, from the idea of absorbed pus going into the blood and tending to putrefaction." Again, in connection with the treatment of hectic, he says: "Antiseptic substances have also been employed, such, for instance, as preserve dead flesh; but this is very absurd." The allusion to the external use of antiseptics is in relation to the local treatment of mortification. "Scarifications," he says, "have been made down to the living parts, that stimulant and antiseptic medicines might be applied to them, as turpentine, the warm balsams, and sometimes the essential oils." Such local treatment, however, he regards also as absurd; and, although the agents thus enumerated are all antiseptic, from the point of view of perfect antiseptic surgery, this is true; for putrescence would already have set in. Yet Hunter speaks of tar-water and turpentine as often productive of great good as local applications in certain cases, and laments that these and other remedies "sometimes fail, and that we do not possess a sufficient number for the variety of constitutions we meet with." His felt want could now be easily supplied.

There is one feature of the modern practice of surgery which could not fail to be noticed and commented on by Hunter; and, at first, he would probably disapprove of it, as a departure from the simplicity of the art which he practised. I mean the growth of specialities. But this, he would soon find, is a necessity, as well as a cause, of the immense accumulation of facts and knowledge since his time; and he would become reconciled to it, with all the other special instruments and other appliances which modern ingenuity has devised.

There is, however, one speciality, which, as a great surgeon as well as a great experimentalist, he would be doubly prepared to receive with acclamation—namely, the discovery and use of anæsthetics, as one of the greatest boons ever conferred on sensitive beings, whether animals or man.

There are other topics and suggestive passages in John Hunter's writings on which some comment might here be made, but I have selected those most suitable to my purpose. Others necessarily contain certain erroneous statements and conclusions, due to want of more

full and accurate knowledge, and occasionally to defective reasoning. Nevertheless, there is hardly a chapter from which some information might not be taken, or some benefit derived. It is also evident that the Commentators, in the collected edition of his works published in 1835 (that is, just fifty years since), are not unfrequently in error. These works themselves deserve to be re-edited.

How is it that we can look back over the intervening century since Hunter was in his prime, and find him so at one with us, and ourselves so in harmony with him? This unison neither implies a supreme prescience on his part, nor a standstill in science and practice, continuing to our day. On the contrary, there are hosts of facts, familiar to us, which he did not know, and there have been evolved many opinions and conclusions in advance of his speculations and doctrines. It is, as I have endeavoured to show, because our work and thought to a great extent pursue the lines which he has laid down. The issues in which we join were his; the instruments and weapons may have improved, but the strife and the method are the same. We believe in observation and experiment, and Hunter devoted his whole active life to both; he waited for long years to complete his labours and to mature his reasonings; and, though unfortunately interrupted by his sudden death, the main results of his labour are secured. He followed Nature, and endeavoured to detect her ways, for the benefit of his fellow-men. We, in our time, are aiming at the same great end.

It has often been held as a matter of reproach, in regard to John Hunter's philosophy, that he too palpably personified Nature, looked always for final causes, and attributed to the living organising principle, or principle of life, or even to parts of the body in which it acts, a consciousness of its own actions and intentions. Thus he speaks of the "consciousness of want of power," and "the stimulus of the necessity of being stronger," as the causes of a weakened muscle gaining strength. Speaking of the impairment of a muscle's force when its tendon is injured, he says this arises from a consciousness of the "injured parts being unable to answer to the action of the muscles," and it "comes nearest," he adds, "to human reason of anything in the body." A "deficiency in the power to heal becomes a stimulus to inflammation. The desire to retain and preserve important parts accounts for efforts at restoration and repair;" "the stimulus of perfection" plays a part in causing the descent of the testis; "the stimulus of death" causes the rigor mortis; the "complete recovery of power" in an organ after the cure of an injury is thus explained, because "it may be like the mind, forgetful of injuries." The "consciousness of imperfection" in a diseased part leads to its absorption; and in this process, he says, "the part to be absorbed is alive; it must feel its own inefficiency and admit of absorption; the vessels must have the stimulus of imperfection of this part, as if they were sensible that this part were unfit, therefore take it up. There must be a sensation in both parts."

But surely, when duly considered, the language of these quotations must be regarded as largely figurative, and springing from a craving and a struggle to divine the motives of Nature; and, at all events, they should not be taken as meant for explanations of the vital processes concerned. If, indeed, we consider the most direct evidences of his adhesion to the then prevalent doctrine of "final causes," we discover proof that his thoughts were only partly entangled in the teleological net, and that his mind struck out freely to investigate the modes of action by which the end, or final cause, was to be obtained. If, for example, in his morphological and physiological studies, he sought to explain form by use, and structure by its adaptation to function; and if, in his pathological researches, he accounts for the coagulation of the blood, the occurrence of the adhesive process in inflammation, the formation of pus and its tendency to the surface, the growth of granulations and of new cuticle, the occurrence of eruptions in fever, and other diseased actions, by a reference to their occasionally beneficial effects or salutary ends—all this did not prevent his admitting that not unfrequently these same morbid processes are sadly detrimental in their results, that he often failed to detect what the intention of Nature might be, and that sometimes it would have been better if she had acted differently. Here, again, though he sought diligently for final causes to satisfy one want of his mental constitution, yet he never rested there. He desired to know the "how" as well as the "why," and he therefore occupied himself diligently and constantly in the observation of Nature's ways, and in experiments on her living products and their actions. "It is astonishing," he says, "to see what little curiosity people have to observe the operations of Nature, and how very curious they are about the operations of art;" and he clearly discerned in all his proceedings that no perception of the end arrived at by Nature really afforded any explanation of the processes she employed. His chase after final causes meanwhile gave a zest to his inquiries, but a close acquaintance with Nature's actual work was needed to find food for his intellectual appetite. If, t we reflect on his modesty in the expression of his opinions, as wh he uses such phrases as "I conceive," "I suspect," "I do suppos "I am apt to suppose," and others of a like character, and on horror of definitions, which, he says, "of all things on the face the earth are the most cursed," on his occasional avowal of ignora and candid statement of facts adverse to his opinions, and on his cessant promises to satisfy himself by experiment, I think we n conclude that, in the fields of both science and practice, his mer constitution was as philosophical as the work he performed in world is far reaching and gigantic.

I have now, Mr. President and Gentlemen, almost fulfil the duty assigned to me; but I have as yet said no word of John Hunter's personality. He is described to us having been "about the middle stature, of a vigorous and rob frame, and free from corpulency; his shoulders were high, and neck short; his features were rather large, and strongly marked; eyebrows projecting; his eyes were of a light colour, his cheeks h and his mouth somewhat under-hung. In dress, he was plain gentlemanlike; and his hair, which in youth was of a reddish yel and in his latter years white, he wore curled behind."

In Reynolds's fine portrait, which, as is usual on these occasion placed before you, he is represented sitting, self-contained, abstra from all surroundings, absorbed in pleasurable thought. Lookin his face, we may well agree with the great master of physiogn Lavater, who said, "that man thinks for himself;" and we may that he appears equal to the conception and accomplishment of a actually did.

About a century has elapsed since that picture was painted; Hunter at one time, when engaged in observing the effects of col animals, indulged, like some others, in the fancy that a man mig frozen for a time, and then, as he says, "by getting himself th every hundred years, he might learn what had happened durin frozen condition." "Like other schemers," he adds, "I tho I should make my fortune by it; but this experiment undec me."

I have, to-day, endeavoured to revive him, not in body, bu spirit, conversant with our present position in science and in pra and supposed to be studying a vast crowd of additional facts, co plating fresh generalisations, and putting new methods to the Our acknowledged teacher, he would find much to learn; but true teacher is not eager to be taught? Hunter would be a student, in harmony with us in thought and plan, hand to hand us in work and deed. His fitness to understand all that we have discovered, and to co-operate with us in all our novel doings, c tutes in truth his best claim to the lofty title, recorded abo grave, "The Founder of Scientific Surgery."

And now, let me repeat, before I retire, that I recognis presence here to-day as an act of homage to our great predecess desire also to express the pleasure which I have experienced preparation, and I may add, in the delivery of this oration. Th at my disposal is rapidly expiring; and the moment is at hand the ever on-coming future, traversing the imaginary film of time is the only real present, will be for ever merged beyond it in the and I am well content that my last utterances from this place, between the two eternities, should be the name of that grand bio that illustrious master in our noble craft—John Hunter.

The Earl of Lichfield has been re-elected President, and Lord and Sir Charles M. Wolseley, Vice-Presidents, of the Rugeley I Hospital and Provident Dispensary.

At the last meeting of the Rugeley Local Board, a letter fr Local Government Board was read, complaining that no appoi of an inspector under "The Sale of Food and Drugs Act," ha made; upon which a member remarked, that, as they had done out such an officer for ten years, he thought they might do so longer; and this view was adopted by the other members; so t Act of Parliament is there, as in many other places, ignored.

St. John Ambulance Association.—Mr. John Furley, chairman and honorary director of stores, has recently a meetings and presented certificates at Bognor and Cran and a branch of the Dundee Centre has been opened at Arbro Surgeon-Major George Hutton, who has been examining in the district. One hundred and nine certificates have al presented by Mr. V. Barrington Kennett to Metropolitan officers, who have lately attended classes at Scotland Yard, Street, Carter Street, Blackheath Road, Twickenham, and Street Stations. It is stated that 1,462 members of the police-force are now certificated pupils.

INAUGURAL ADDRESS

ON

E NECESSITY FOR PRECISION AND HE ADVANTAGE OF CO-OPERATION.

Delivered before the Clinical Society of London.

By THOMAS BRYANT, F.R.C.S.,
Senior Surgeon to Guy's Hospital; President of the Society.

TER thanking the members for electing him President, Mr. Bryant :]

he work that the Society has already done has been very good, it is yet allowable to hope that that achieved in the future may till better. Our predecessors have laboured productively for our ntage in various ways. Let us endeavour to improve upon their s, and so add to the sum total of attained results, that the next ration may be able to say like things of us. Let us continue to t—as they have walked—in the paths of patient observation, and recise about our facts; upon these facts and observations let u k closely and consistently; and then, without fear or hesitation, y our reasoning to its legitimate conclusions. Let us, however, ur facts, beware of accepting the false for the true, and so escape reasoning; and let us be sure that the words we use convey r thoughts. Let us, moreover, in our anxiety to be discoverers d against announcing as a novelty some thought or observation ch, though new to us, may not be so fresh to others; remembering he pursuit of knowledge, that our own observations are so mixed with those of others, that our thoughts are so often merely the ome of others' thoughts, our ideas are so constantly no more than assimilation of the thoughts and observations of other men, that to riginal is almost impossible. With respect to the use of terms, for in ce, can we say that, under all circumstances, we are as careful as should be; and that we never deceive ourselves or others by using ases which, from our not being clear as to their meaning, tend in ity either to confusion, or perhaps to something worse? To illus- e my meaning, may I ask what is meant by "strumous" disease n that term is applied to a joint, bone, or other local affection? we all agree as to its meaning? When we apply it, do we feel that re conveying any accurate idea of the case under discussion to our ils or hearers? As a teacher, I unhesitatingly say that, by the n "strumous disease," applied to any local affection, whether of t, bone, or gland, we do not convey any clear thought. Indeed, I say that we do the reverse; we confuse, instead of clearing, ideas. me ask the members of this learned Society what they understand the terms "strumous disease of a joint," "strumous glands," etc.? would be interesting to have in writing the definitions of these ases from the individual members. Would they all agree? Would y even be at all consistent? The answers to these questions would, ar, be in the negative. With such an admission, can we therefore sibly say that this very common term is an intelligible one, or that ught to be retained? If we mean, when we use the term, to con- the idea that the enlargement of the affected tissue is a special caused by struma, may I ask, what is struma? and how does it se the local disease? Or, do we mean that it is an inflammatory ction of some form, in which the inflammatory process is modified a condition of body which may or may not be associated with the osition of tubercle? If the latter be the correct view, as I take it e, why should we not say so? and why should we not call the local ction a chronic inflammation in a strumous subject, or a chronic mous inflammation either of the bone, of the synovial membrane, of both, the inflammatory process being modified by the constitu- al tendency of the individual, in the same way as a chronic inflam- tion in a gouty or syphilitic subject may be modified? It need dly be pointed out that, by this change of expression, much good ld accrue, since the alteration would tend to clear both the patho- ical and the clinical aspects of the case, and help our pupils instead confusing them. At the present time, we hear of strumous, scrofu- a, and tubercular disease of a joint or of bone, as if inflammation nothing to do with the changes met with, and as if any one of the ns carried with it a precise thought.

Again, may I ask—and I do so with some amount of trepidation—what are we now to understand, when discussing the treatment of wounds, by the term "antiseptic precautions?" How, with the diversities of practice encountered, is the expression to be interpreted? Has it, indeed, at the present day, any special significance? One surgeon, when asked the question as to its meaning, will answer, It means, of course, the spray and gauze system, in one or other of its modes of application. A second, with equal decision, will apply it to one of the many forms of antiseptic irrigation, in which the antiseptic in solution is employed either during or after an operation, and some antiseptic gauze or other dressing later on. A third surgeon will use the term as applied to some antiseptic dry or moist dressing. Each one, at any rate, will apply it to his own system, and not to another, the former being in his own sight orthodox, and all others heterodox. Is this confusion of meanings right, or even necessary? Is it not confusing to the seniors of the profession? and if so to them, how much more confusing it must be to our pupils. Why should we not, therefore, when we mean it, say the "aseptic," or "antiseptic spray and gauze system," or "antiseptic irrigation," or "antiseptic dry or other dressing?" Such terms would be perfectly intelligible to all, and would leave the special antiseptic drug employed as detail to be introduced in the description or not, as wished, and at the same time allow the term "antiseptic precautions" to lapse into a general expression as denoting the well established and recognised principle of antiseptic surgery. At the present day, the phrase "antiseptic precautions," as applied to any single case, is absolutely unintelligible as indicative of any special form of practice.

Again, have we not in past times too generally mixed together cases of intestinal strangulation with those of intestinal obstruction—having been led to do so by the fact that bowel-obstruction is a common symptom of both classes of cases? And have we not, by so doing, obscured and rendered difficult of understanding cases concerning which it is very requisite that we should entertain clear views? In past prepathological ages, this confusion of terms was possibly excusable; but, with our present exact pathological and clinical knowledge, are we not obliged to admit that strangulation of the bowel is one thing, and obstruction another? In the former class of cases, the symptoms are all due to the strangulation of the intestine, and but little, if at all, to the obstruction; whereas, in cases of the latter class, all the symptoms are, in a general sense, due to the obstruction, and to the changes brought about by it?—these changes being experienced either at the seat of obstruction; or, when the obstruction is in the rectum or sigmoid flexure, found in the cæcum or ascending colon. Are we not therefore impelled, for the sake of a clear understanding of these two large subjects, to separate the cases, and give to each its own proper place? Shall we not, by so doing, gain clearer thoughts upon each, and thus be able, as teachers, to impart them to others?

Again, is it not most important that we should have very clear views on such general and elementary subjects as repair and inflammation? And yet, may I ask, are our thoughts upon the relations of these two pregnant processes sufficiently clear? Do we, or do we not, in our teaching mix them up inextricably, and by so doing encourage, if not impart, erroneous views? Experience leads me, as an examiner of students, to believe that this confusion of thought is too general, and that "the healing of wounds is still supposed by some to be essentially an inflammatory process," and that even an ankylosis of a joint, the result of disorganising inflammatory changes, is "a formative termination of the inflammatory process itself." As if, indeed, repair and inflammation, from their both presenting in their respective courses certain histological changes which are allied, are on that account to be deemed identical; and as if the union of the articular ends of the bones following a disorganisation of a joint, the result of an acute or chronic inflammation, can be brought about by an inflammation, or by any other process than a reparative one, which does not begin until all inflammation has ceased, which is continued only so long as the inflammatory process is kept in abeyance, and which ends in the desirable result of ankylosis because the reparative process is allowed to go on undisturbed, without either the aid or hindrance of inflammatory action.

In the treatment of a wound, is it not the surgeon's chief object to prevent inflammation, and is not this object, based upon the knowledge that when a wound is undergoing quick repair by primary union, and becomes the seat of inflammation, the repair at once stops, and what may have taken place in the way of repair becomes disrepair—the exposed surface of the wound, if the inflammatory process continues, becoming the seat either of ulceration or of other destructive changes? When ulceration follows a local inflammation, it continues so long as the inflammatory process lasts; when this stops, repair begins, by what is called granulation, and this formative reparative

process continues and ends in cicatrisation, so long as no inflammation reappears to interfere with its progress.

When a granulating wound becomes the seat of inflammation, the reparative process at once ceases, and what had been a granulating, soon becomes an ulcerating, surface. With these clinical facts before us, which are familiar enough to practical surgeons, there should be no difficulty in demonstrating that repair and inflammation are not only not identical, but that, whilst the one is wholly formative, the other is mostly, if not always, destructive; the one is physiological, the other pathological. Is it not, therefore, absolutely necessary that the teachers of students should have clear views upon these points, and not by such terms as "the formative termination of the inflammatory process," and other allied mixed expressions, put into students' minds a cloud of words to cover their own uncertain views? Is it not incumbent upon all teachers to enunciate that repair and inflammation are not only not identical, but that they are incompatible; that repair only begins in a tissue that has been inflamed when the process called inflammation has left it; and continues to complete its work as long as the inflammatory action is kept away; that when inflammation attacks a wound in which repair is progressing the process is at once arrested; and that what was repair then becomes disrepair, if not ulceration.

Allow me for a few minutes to call your attention to some practical points which require looking into; since it seems that, in our general advance in medicine and surgery, we sometimes in special subjects recede to the practice of our ancestors. This may be said to be true in the application of ligatures to arteries in their continuity; for some of our surgical brethren now prefer to tie in two places, and divide between the ligatures, an artery that has to be occluded for any cause, thus following the practice of last century rather than that of more recent times. It is not my intention here to criticise this practice, which I look upon with favour; but it would be interesting if we could obtain during the present session full particulars of the results of this revived method, and thus be able to estimate, from a practical point of view, the relative advantages of the different methods employed.

Again, may I ask, is there any truth in the accusation, which in recent times has been raised against surgeons, that the great successes which they have all round achieved in surgical operations have to a degree encouraged them not only to do, and to do rightly, what they would never have thought of doing a few years ago, but also to undertake operative measures which may with some justice be looked upon as speculative, if not rash? Have our successes engendered an overestimation of our own powers, and led us to attempt and perform operations which past experience has not supported, and which seem to be less founded on scientific probabilities of success than on the sanguine hopes of their performers? Are operations upon the pylorus, or stomach, for cancer to be placed in this last category? Are there other operations which should be so classed? I have no wish to answer definitely these questions; but I do feel that it is very necessary that the principles which have hitherto regulated operative surgery, and which have tended to suppress all experimental work, unless based on a scientific probability of success, should be carefully observed, and that we should avoid even the semblance of an experimental operation.

And here let me express for surgeons generally the satisfaction with which, in our best new surgical work, we greet the kind aid we are receiving from physicians. We are now working, more than we have ever before worked, hand in hand with them to make the diagnosis of disease of the brain, kidney, bladder, and abdomen more certain; and we are thus, with a clearer diagnosis, mutually helping to bring within the domain of scientific surgery large classes of disease which have hitherto been deemed to lie outside its pale, and have consequently been either allowed to drift, or to pass into the surgeon's hands only when the time for effective action has passed or almost passed, and when operative measures can at the best be carried out for purposes of relief, but not of cure.

May I now ask for even more help in this direction, and urge our medical friends to seek surgical conference early, at least in all abdominal cases in which symptoms of intestinal strangulation exist, as well as in all cases in which intestinal obstruction is present, in order that operative interference, in both classes of cases, may not be delayed longer than the scientific diagnosis of the case requires; and that the subjects of these troubles may have a chance of relief from operative measures whilst there is still a reasonable hope of obtaining it. Let us remember that exploratory operations undertaken for diagnostic purposes, but which may be used for curative ends, when the exploratory proceeding shall have cleared up or established a diagnosis (which could not have been made by other means), are as scientific as any other operations, and often more satisfactory.

Let us, therefore, encourage our medical brethren to consider closely with us surgical problems, in order that we may have their efficien help in diagnostic questions as well as their valuable support whe action, by way of operation, is called for; and let us employ the oppor tunity to convince them of the expediency of expediting action as soo as the necessity for action has arrived, and at the same time to demon strate the evil effects of postponing operative interference when suc is demanded for either diagnostic or curative ends. In surgery, as i so many conditions of life, action, to be effective, must be decisiv and not dilatory; it should ever follow closely upon decision.

These remarks which I have thus brought before you, I have bee tempted to make under an impression that they will be generously r ceived, and under the conviction that they have reference to subjects grave clinical importance. Some of the subjects to which I hav alluded are important in themselves; others are important on accou of the principles embodied in them.

Should my observations appear to some too critical, let me say th they have not been made in any captious spirit, but with the feelin that it is always better for us to criticise our own work than to lea such criticism to others; that, as your president, it is as much m duty to point out what I believe to be defects in our work or in o mode of work, as it is to indicate the direction in which we shou travel, and in the hope that, by so doing, I am likely to receive t full support of the members of this Society in what I believe to be t best for the "cultivation and promotion of practical medicine a surgery," objects for which this Society was formed, and which we have so much at heart.

ON OPERATIVE DILATATION OF THE ORIFICES O THE STOMACH:

BEING A SUMMARY OF TWO PAPERS ON THIS SUBJECT, BY PROFESSOR LORETA, OF BOLOGNA.

By T. HOLMES, M.A., F.R.C.S.,
Senior Surgeon to St. George's Hospital.

Signor Loreta, Professor of Surgery in the University of Bolog has lately published (in the *Memorie dell' Accademia delle Scienze d Istituto di Bologna*, Ser. iv, vols. 4 and 5) two extremely interest tracts: the first on Digital Dilatation of the Pylorus, and the sec on Instrumental Dilatation of the Œsophagus;[1] each of them giv the history of two cases, in which the proposed operation had b carried out with perfect success. In the former case, the operatio intended as a substitute for the resection of the pylorus; and, in second, for gastrostomy. Each of them is intended only for cases chronic and non-malignant character—simple or fibrous stricture and, in the case of the œsophagus, also cicatricial contraction a injury.

As I find that the subject is almost unknown to my surgical leagues, and as the notices which have hitherto appeared of Sig Loreta's operations in our medical journals have been very imper I propose to give a summary of his pamphlets. The author's cour has also put me in possession of the subsequent most satisfactory perience of these operations, in the practice of other surgeons in I as well as his own; and a sufficient length of time has elapse enable him to affirm the permanence of the cure so obtained.

1. *Dilatation of the Pylorus.*—The operation on the pyl is best illustrated by the history of the first patient oper on, which is thus abbreviated from the original. He w man, aged 47, named Cecconi, who had suffered from peptic symptoms for twenty years, and had been treate the hospital at Bologna, four or five years before the date of opera for an ulcer of the stomach, near the pylorus (as then diagno The symptoms were relieved, and for a time he returned to work soon relapsed; and, when admitted in August, 1882, was in the stage of emaciation and exhaustion. The only food he could tak milk, in small quantity; every other species of food was at onc jected. Whenever he took any food, he could feel its passage tow the right hypochondrium, whence it returned at once towards left, causing eructations, and frequently vomiting. The man was as as possible, pallid, and with a rough skin entirely devoid of panniculus adiposus. The outline of the distended stomach could be through the abdominal walls, and it felt tense and elastic; the r ance extended from the fifth rib to the umbilicus. The contents stomach, drawn off by the pump, were yellow, containing a few co

[1] This operation would perhaps be more exactly described as "Dilatat the Cardia and Œsophagus."

milk, and decidedly acid. When left at rest, they separated into ıree strata: the upper one mucous, and containing gas; the middle, limpid serum; and the deepest, greyish in colour and pulverulent. icroscopic examination showed no traces of any profound lesion of ıe stomach, no muscular fibres, no sarcinæ, no starch-grains, no ɔedles of the fatty acids. He was relieved by the emptying of ıe stomach, and could better tolerate an examination. This revealed tumour, not well circumscribed, extending from the pylorus towards ıe stomach, smooth, resisting, elastic, and not movable by the hand, ıt following the up and down movements of the abdominal wall. It .d not seem to be affected by the movements of the diaphragm. The ·ea of stomach-resonance was perceptibly diminished after the use of ıe pump, showing that the viscus preserved its contractility. He as kept under observation for a few days, and it was noticed that, hen he did not vomit, and the food remained in his stomach for ten : twelve hours, besides the sensation of an obstacle to the passage of ıe food, which he plainly felt, the epigastric region became swollen ıd tense; there were eructations, and sometimes an acid taste in the ıroat, and the peristaltic movements of the stomach could be seen ırough the walls of the belly.

The diagnosis lay between a relapse of the supposed ulcer, idiopathic enlargement from gastritis, and pyloric obstruction; and, as ıe symptoms pointed to the latter, the further question occurred hether the obstruction proceeded from cancer or from chronic causes, ich as cicatrisation or simple stricture. The long course of the symptoms ıd the persistence of the obstacle seemed to exclude cancer; since, in ıalignant disease, the patient usually suffers from cachexia and ropsy, ushering in death from exhaustion, in a far shorter time, perıps twelve to fifteen months, while this patient had been suffering for ve years, without showing any such symptoms. Besides, though ɔstruction is an early symptom of carcinoma, it generally yields after time, as the cancerous tissue begins to disintegrate.

The operation was performed on September 14th, 1882, after the ɔmach had been washed out with an alkaline solution. The incision as made on the right of the median line for fifteen centimètres (about ve inches), the upper and inner end being about four centimètres elow the xiphoid cartilage, the lower and outer end three centiıètres from the cartilage of the ninth rib. The muscles were divided, nd the hæmorrhage was stopped before the peritoneum was opened. ome difficulty was experienced here, on account of the great omentum eing found folded upwards, thickened, and adherent to the parietal eritoneum, and some care was required to detach the adhesions. he omentum was also adherent to the pylorus and right half of the nterior surface of the stomach; and it was this adhesion and thickning of the omentum that formed the tumour, which was felt hrough the abdominal wall. These adhesions having also been sepaıted, the stomach was set free, and was then drawn out of the ound as far as necessary, and the pylorus was felt to be thickened, nd of a fibrous hardness. The coats of the stomach were then lifted p into a transverse fold, and a cut made through them with trong scissors midway between the two curvatures, about three centiıètres from the pylorus; and it was found necessary to enlarge this ut to six centimètres, on account of the contraction and hypertrophy f the muscular coat. The coats of the stomach bled abundantly, nd this hæmorrhage was repressed by means of hæmostatic forceps of T-shape. Then the right forefinger was introduced, and the pylorus xamined. It was found very hard and prominent, and its orifice ppeared closed. No force that could be safely used succeeded in ilating it, till the left index finger was also introduced and employed o steady the pylorus. When this was done, the end of the right orefinger was gradually squeezed through the aperture. Then the nger was used to hook down the pylorus towards the abdominal ound, a manœuvre which enabled the operator to get the left index lso through the pylorus. But it was still exceedingly difficult to ffect any separation of one finger from the other, so great was the resistnce, not only of the sphincter itself, but also of the coats of the stomach nd duodenum. The attempt at dilatation threw the muscular fibres nto spasmodic action, which quite overcame all the force that could e exerted. Three such attempts were made in vain, but then the ylorus began slowly to yield to the force employed, which was very onsiderable. At length a sensation was experienced "showing that he tissue was so far distended that it could not obey the dilating nger further without being torn." The fingers were now kept apart or a short time, and the spectators noted that one finger was about ight centimètres (more than three inches) distant from the other.

The wound in the stomach was then sewn up,[2] the viscus returned into position, and the abdominal wound united. The whole proceeding lasted thirty-three minutes. The patient felt no inconvenience on waking, except a little burning sensation in the region of the wound, and thirst, which was relieved by giving him small pieces of ice. In the evening, he felt so hungry and weak, that he was allowed the yolk of an egg beaten up with Marsala wine, of which a teaspoonful was given every half-hour. The temperature remained all day at 37° Cent. (= 98.6° Fahr.); pulse 72; respirations 26. He felt comfortable, and had a natural appetite. He was fed for the next few days on eggs and a little wine, on the fourth day he had a little thick soup, and on the fifth day was allowed to eat some chicken. On the eighth day, the abdominal wound was found united by the first intention, and some of the sutures were removed. From this time a meat-diet was allowed. Sixteen days after the operation (September 30th), he got up for a couple of hours, and began rapidly to recover strength and gain flesh. On September 12th (two days before operation), he was weak, lean, wretched-looking, and weighed 51 kilogrammes (112 lbs.). On October 30th, he weighed over 61 kilogrammes (134 lbs.), and his face was cheerful and composed.

Five months after the operation, at the date of publication of Signor Loreta's paper, the man was in perfect health, and doing his ordinary work.

Another similar case is related in the same treatise, the patient being a young man aged 18, who had suffered more or less for seven years. In the following treatise (*On Instrumental Dilatation of the Œsophagus*), Signor Loreta mentions that he had then operated on two other cases; and, in a letter written in the month of January 1885, he informs me that he has operated on two more, and that all the patients have recovered, and remain well up to the present time. As it is now more than two years since the first operation, this seems to render it certain that the dilatation remains permanent. On this point, Professor Loreta says that he relied on his experience of digital dilatation of cicatricial structures of the anus, in which a permanent cure always results if the operation be performed under anæsthesia, very slowly, and the force gradually exercised until the sphincter is dilated to the extreme, by forcing the two fingers either to each tuber ischii, or to the pubes and coccyx. After such slow dilatation, the sphincter will recover its functions, and will not recontract; while, after too rapid dilatation, its fibres will probably be torn, or contused here and there, and the injured part will inflame, causing fresh cicatrisation, as is the case also in urethral stricture after mechanical dilatation. He refers to Dr. Otto Roth as having proved, by microscopic examination, the fact that the muscular fibres, after extreme exhaustion, undergo a degenerative process, and are then reproduced.

This operation, then, is intended to replace the excision of the pylorus in cases where the obstacle is from slow cicatrisation or chronic stricture, which will yield to dilatation.

The diagnosis is one of the most interesting points, and on this head we have the following indications.

The stomach is much dilated, the patient greatly emaciated. This may be due to many causes, but the dyspepsia associated with typhus, puerperal fever, tuberculosis, alcoholism, diseases of the liver and of the heart, may be excluded. Cancer may be excluded, by the length and course of the symptoms. The task remains to distinguish the dilatation which is due to pyloric obstruction from that due to idiopathic gastritis.

In the first place, Professor Loreta calls attention to the fact that the dilatation is not necessarily in proportion to the gravity of the symptoms; but that an enormously dilated stomach may digest in a perfectly regular way, while very ordinary distension may be accompanied by extremely acute symptoms. He attributes little value to the methods for ascertaining the amount of distension, proposed by Wagner, and Ziemssen (that is, to introduce effervescing powders), by Piorry, Canstatt, and Penzoldt (that is, filling the stomach with liquid, and then immediately pumping it out), or the methods of sounding prescribed by Penzoldt, Leube, and Schreiber. Much more value, according to him, is to be ascribed to the chemical and microscopic examination of the contents of the stomach, as proving whether the dilatation is due to mechanical causes, or to a profound structural lesion; which lesion may be idiopathic, or combined with other diseases of the system, or of the stomach itself. The matters rejected, or extracted, from the stomach are to be left in a glass vessel, and soon separate into the three strata mentioned above; an upper, of mucus containing gas-bubbles; a middle, of limpid serum; and a lower, either composed of "a granular humour greyish in colour, or mixed with fine detritus of food imperfectly digested. In the first case, the grey sediment consists of chyme, well elaborated by the digestive activity of a healthy stomach, which also retains its expulsive power, but in consequence of some mechanical obstacle, is obliged

[2] The method of suture, I think, need not be described. In the first case, a method was used which is called that of "Gely," in the second and subsequent cases that of "Appolito."

to empty itself by the œsophagus. In such cases, it is noticed that the other two strata are formed by a very abundant serous liquid and very little mucus floating above it. And further, it will be learned from the patient that, though the dyspepsia causes other sufferings, there are no pains in the stomach, acidity in the throat, nauseating fetid eructations, intestinal colic, or constipation, alternating with diarrhœa. The patient will add that, as soon as he has vomited, he feels appetite, even hunger, so that he eats any food that is given him; he will say besides, that, in spite of eating copiously, his bowels act little and rarely, and that his nutrition and his powers, both physical and moral, are gradually becoming weaker. On the contrary, when the deep layer of the vomited matters contains much detritus of undigested food, and but little chyme, it is noted that the middle serous layer is not limpid, but is rendered turbid by the lighter particles of the undigested food swimming in it, and the superficial mucous layer is abundant, and emits a bad smell. Patients of this sort will relate that they have suffered from pains in the epigastrium, and have been troubled with acid foul eructation, that they suffer often from stomach-ache and diarrhœa, that they obtain little or no relief from vomiting, and finally that they are indifferent to food, or even loathe it. In these patients, on chemical analysis of the vomit, the albuminoid substances are found unchanged or nearly so, and the reaction is usually neutral or alkaline, rarely acid; while in those of the first kind the reaction is always acid, and it is rare to find any trace of albumen or of the peptones. In the mechanical dilatation, the microscope gives negative results, while it displays the residue of incomplete digestion as well as the products of bad digestion, in the idiopathic form, and in those secondary forms which depend on a general infection of the system, wherein the system is so altered as at length to present the characters of the gravest cachexia."

The writer goes on to explain these differences in the character of the contents of the stomach by the fact that, in the simple mechanical obstacle, the coats of the stomach being uninjured, gastric digestion goes on, and the stomach absorbs the peptones, so that the patient wastes much more slowly, and, even when most emaciated, does not present the aspect of real cachexia; nor does the presence of food in the stomach cause pain or colic, or intestinal catarrh or diarrhœa, all which symptoms arise, in cases of the other kind, from bad digestion of the aliment, as it passes into the bowels. And, lastly, the same considerations show why the sufferers from idiopathic dilatation cannot enjoy or tolerate food, while the others preserve a good appetite and a keen taste.

In the idiopathic form, the structure of the mucous membrane and the glands is especially affected, while in the mechanical it is intact, at any rate, for a long period, while the muscular coat is hypertrophied.

It is possible, however, that the mechanical form may give rise ultimately to disease of the glands and mucous coat, so that the mere examination of the vomit, without attention to the history, might lead one into error.

The conclusions to which Professor Loreta comes are as follows.

1. Dilatation of the stomach may be produced by three different kinds of pathological action—by chronic gastritis, by various organic maladies, as well as by many mechanical causes, and by a combination of these processes (idiopathic, secondary, and mixed forms).

2. In the treatment of gastric dilatation, the first step is to distinguish the idiopathic from the symptomatic, and to distinguish, amongst the latter, those cases that depend on obstruction to the passage of the food.

3. When physical, chemical, and microscopical examination gives a positive result, it furnishes the diagnostic signs of the idiopathic and secondary forms which are to be treated by the resources of the *Pharmacopœia;* when the results of such examination are negative, it signifies that the dilatation is simple or mechanical, and curable by surgery.

4. Finally, this mechanical dilatation of the stomach is not so rare a disease as has been believed; nay, it occurs rather frequently. This deduction rests on the consideration of the numerous causes which produce it, and on the statistics of the operations for resection. The affection is worthy, therefore, of the consideration both of the physician and the surgeon.

With reference to the frequency of this mechanical dilatation, Professor Loreta says, in the letter to which I have already alluded, that since his operations, his pupils and assistants engaged in *post mortem* examinations have, on many occasions, discovered that cases diagnosed as carcinoma of the stomach have turned out to be merely instances of a slow inflammatory process in the pylorus, causing sclerosis, rigidity, and stricture.

II. *Dilatation of the Œsophagus.*—The next treatise, published the following year (January, 1884), deals with the instrumental dilatation of strictures occupying the lower part of the œsophagus and the cardia, as a substitute for gastrostomy. In the introduction, he mentions that he had then operated on two other cases of constriction of the pylorus with equally good results. After this follows a short summary of the proposal and history of gastrostomy, showing its almost uniform fatality, and the short period of life which it has procured under the most favourable conditions.

In the course of this narration, he observes that attempts have been made to dilate the œsophageal stricture, when cicatricial, from the gastric fistula, and that one successful case is recorded (in the practice of a surgeon named Bergmann) in which the stricture was thus successfully dilated, the stomach detached from its adhesions to the wall of the belly, and sewn up, and the patient thus radically cured.

He then goes on to relate two cases, one of cicatricial, the other of spontaneous, but probably innocent, stricture of the cardiac portion of the œsophagus, in which he first practised his method of operating. The patient, in the first case, was a young man, L. Bertini, aged 24. In November, 1882, he had by misadventure swallowed a solution containing a caustic alkali, mistaking it for some medicine which he had to take on account of a pulmonary affection. This gave rise to violent inflammation of the œsophagus, lasting about three weeks, and followed by increasing difficulty in swallowing, till, eleven months after the accident, he could not swallow any solid food, and liquids passed very slowly, often causing vomiting. Attempts were made to dilate the stricture by bougies, but they were unsuccessful, and at last it became impossible to pass any instrument. The point at which the sound was arrested seemed to correspond with the fourth dorsal vertebra. At last the patient became entirely unable to swallow, and his emaciation had become extreme. The following operation was accordingly performed in October, 1883, eleven months after the injury. An incision, about fifteen centimètres (five inches) long, was made through the abdominal wall from the xiphoid cartilage downwards, and somewhat to the left. When the lower aponeurosis of the rectus muscle had been reached, the hæmorrhage was arrested, and then the aponeurosis and the parietal peritoneum were opened. Some difficulty was here experienced from the contracted condition of the stomach, and the way in which the liver lapped over it; but the operator at length succeeded in drawing the greater part of the stomach out of the wound, and a longitudinal incision was made through its walls between the two curvatures, having its upper end as near the cardia as possible.

The next step was to find the orifice of the œsophagus, in order to introduce the dilator; but this involved considerable difficulty, and the search was interrupted by vomiting of a considerable quantity of bile, which regurgitated from the duodenum into the stomach. At length, by searching with the left index finger between the concave surface of the liver and the small curvature of the stomach, the end of the œsophagus was found. Then the distended stomach was kept drawn downwards by an assistant while the operator introduced the dilator, guided by his forefinger, into the cardiac orifice, from whence it easily slid past the stricture. This dilator, Signor Loreta says, is something like that which Dupuytren introduced for lithotomy, only larger, measuring about eight inches from the joint to the end of the blades, and so set that the blades would not separate more than five centimètres; with the blades dilated to this extent, the instrument was run up and down the œsophagus four times. Then the wound was sewn up, and the stomach returned into the abdomen. The patient rallied well, and, six hours after the operation, swallowed some soup with the yolk of an egg mixed in it, to his great joy, since it was twelve months since he had been able to do more than swallow by mouthfuls. Recovery was complete in about eighteen days; but on the fourth day after the operation, he was seized with an attack of dyspnœa. The respiration rose to 45 and the pulse to 140, but the temperature never rose more than 2° C. There was an abundant secretion of mucus from the trachea and bronchi, and the patient had to spit it out very frequently, finding some pain in doing so from the sutures which united the abdominal wound. These symptoms lasted till the ninth day, and then ceased. The author doubts whether the symptoms were caused by irritation of the sympathetic plexuses of the œsophagus by the dilating instrument, by paresis of the vagus, or by some exudative hyperæmic process, which latter explanation seems more consistent with their not having commenced till the fourth day.

Twelve days after this first case, he performed the same operation on a young woman who had enjoyed perfect health, except that eight years before, she had begun to experience difficulty in swallowing, with no assignable cause. This had increased to a terrible

xtent, so that no solid food would pass; but she took fluid nourishnent twice a day, and always vomited about the half of what she had aken in about four hours. The vomiting seemed to come from the esophagus, not the stomach; and Signor Loreta believes that the esophagus was a good deal dilated, and that the sojourn of any quanity of food in the tube ultimately provoked the muscular fibres to act, while in the meantime a certain proportion of the fluid had filtered lown. No bougie could be got beyond the stricture, though repeated ttempts had been made during two years. The nature of the disease was quite uncertain; it could not be cancerous, and there were no igns of syphilis. As conjectural causes were suggested, a tumour in he posterior mediastinum; a deviation of the œsophagus, caused by abnormal structure and function of the muscle called broncho-pleuroesophageus; a permanent contraction of the circular muscular fibres, with consecutive fibrous degeneration, or more probably, a hypertrophy of those fibres; a new formation of connective tissue under he mucous membrane, with cirrhosis from low inflammation (Rokiansky's *annular induration of the cardia*); or, finally, the cicatrisation of an ulcer in the cardiac region of the stomach. The only thing certain was, that the obstacle was less than two inches from the stomach, and that possibly the cardia itself was contracted. The girl had fallen into a condition of the utmost prostration, and had quite abandoned all hope of life, till she heard of the former operation, when she was so urgent to be operated on that it seemed necessary to gratify her, though otherwise Signor Loreta would have been glad to await the definite issue of that case. The operation was exactly like the former, and was followed, like it, on the fourth day afterwards, by the same disturbances of circulation and respiration. The symptoms were exactly the same, and lasted just the same time. She recovered completely in twenty days; but the recovery might be said to date from the very day of the operation, on which day, equally to her surprise and delight, she swallowed a considerable quantity (200 grammes = about 7 ounces) of liquid. From that time, her spirits began to return, and she continued from that time to take both liquid and solid food easily. At the date of the paper (three months after the operation), she took food of all kinds with perfect ease, and was quite well. No instrument had been passed by the mouth.

Professor Loreta points out, however, that although there was the best reason to hope for permanent cure, he had not the same confidence in these cases of instrumental dilatation as in those of digital dilatation of the pylorus; since, in the latter, the surgeon's fingers experience a peculiar sensation, which shows him when the muscular fibres have been so far stretched as to have entirely lost their tonicity and power of resilience, in which condition they must necessarily go through a process of fatty degeneration, followed by reproduction. This sensation being of course absent in the case of mechanical dilatation, the effects obtained may be only partial and transitory, the tissue being, in some parts only, imperfectly distended, may recontract and reproduce the stricture. In the first case (that of Bertini), in order to obviate any such recontraction, an elastic bougie had been introduced daily so as to complete the dilatation which the instrumental divulsion had commenced. In such cases, it may also be possible to effect instrumental dilatation from the mouth; and Professor Loreta describes a dilator which he has had constructed for this purpose, and which can also be converted into an œsophagotome, or instrument for incising a stricture in the œsophagus.

The conclusions to which Professor Loreta comes are as follows.

1. Instrumental dilatation of the œsophagus, through a wound in the stomach, seems much preferable to gastrostomy, since the former effects a radical cure, while the latter leaves the stricture uncured, and the patient is in a hardly better condition than he was before, in consequence of the troubles connected with the gastric fistula.

2. Operations on the stomach are of good prognosis, judging both by the results of the other operations, and by the recovery of Bertini, a patient already suffering under pulmonary consumption.

3. May it be possible to substitute electrolysis for dilatation?

After the reading of his paper, Professor Loreta exhibited to the Society two patients—one, Erminia Boschi, aged 26, the second of the two patients whose cases are here related. (The first patient, Luigi Bertini, was unable to attend, being confined to bed with his cough.) She was well nourished, and her face plump, rosy, and animated; her power of deglutition perfect, and her health quite re-established. The other, Elettra Lombardi, aged 21, was still suffering from œsophageal stricture. She was weak, melancholy, pallid, and could hardly swallow—exactly in Boschi's condition before operation. She was operated on shortly afterwards, and recovered completely. Professor Loreta has also operated with equal success in a fourth case, as have two other Italian surgeons: Dr. A. Catani, of Florence, in the case of a lady 34 years old, whom Professor Loreta saw, seven months after operation, in perfect health; and Dr. G. Frattina, of Brescia, on a man, of whom the only record is that the operation was successful.

I ought possibly to apologise for bringing under notice a subject on which I have no personal experience. My excuse must be that the subject is a very interesting and important one; and, as far as I have been able to ascertain, is very little known in this country. If subsequent experience of these operations should be favourable, it must be obvious how great an advance will have been made in what we now call "peritoneal surgery;" and how we shall be able to hold out hope, not only of relief, but even complete restoration to health, in circumstances which are at present entirely desperate. I have no doubt that Professor Loreta's operations will very soon be tested by English surgeons. I have been told that the dilatation of the pylorus has been performed by Billroth, but am not aware that he has published anything on the subject.

FURTHER REPORT OF A CASE OF NON-MALIGNANT CONSTRICTION OF THE PYLORUS: USE OF THE SIPHON-TUBE THROUGH FIVE YEARS.

By JAMES RUSSELL, M.D., F.R.C.P.,
Formerly Physician to the Birmingham General Hospital.

In the British Medical Journal, February, 1881, I reported a case in which washing out the stomach, for the purpose of relieving the effect of constriction of the pylorus, was practised under circumstances of a character unusually favourable for illustrating the beneficial action of that method of treatment. I refer to the case again at the present time, because I am able to report the present condition of the patient, a man now aged 55.

Mechanical obstruction to the natural passage of food from the stomach is so generally of a progressive nature, and often most rapidly progressive, that the period during which this remedy (washing out the stomach) has a chance of exhibiting its beneficial operation is very limited.

In my present case, the obstructing agent, apparently some cicatrix or adhesion, seems to have been stationary during a period of eight years; at least, no evidence of increase in the narrowing of the pyloric orifice has developed itself. As a consequence, the case has been reduced to one simply of retention of food within the stomach, with the result of such changes taking place in the food contained within the viscus, through fermentation of one form or another, that nutrition was so seriously interfered with as to render death by inanition an almost certain and not very remote event.

It does not often happen that we see the effect of pyloric disease, in damaging the nutrition of the body, clearly presented and maintained for so long a time; and seldom that so clear an illustration of the action of the remedy in question, free from complications, is presented. By simply cleansing the contents of the stomach through washing out with warm water, and thereby removing every impurity which could act as a ferment on the fresh food introduced, digestion was restored, and the patient put on flesh with surprising rapidity; and at a later period, by means of the same process, irritative products and fermentive changes were cleared away, severe pain was relieved, and, no doubt, gastritis was averted.

Without noticing the early symptoms caused by the disease which occasioned the pyloric obstruction, I may say that the process of narrowing seemed to have set in between two and three years before the patient came under my care, in the Birmingham General Hospital, in June, 1879. At that time, the stomach was largely dilated and distended, and the patient was suffering under the effects of deficient alimentation, but from no other symptoms of importance. He had lost 54 lbs. in weight. Washing out of the stomach was at once commenced, together with careful adaptation of food, both as regards quality and time of administration; recovery of flesh at once began to take place, and seventy-six days afterwards, when the patient left the hospital, he had recovered 36½ lbs. of his lost weight.

He returned in the following November 34 lbs. lighter, with renewal of his symptoms, in consequence of his having neglected the precautions which he had been directed to observe. Renewal of the treatment again restored the digestive function; he left with improved nutrition, and in the following February (1880) was within 18 lbs. of his normal weight.

The patient had fallen in with the method of treatment by the siphon with perfect readiness, and, after the second day, had performed the operation for himself; on his leaving the hospital, he had been directed to repeat the operation daily. It was his neglect of these

instructions, with his return to ordinary diet, that had occasioned his relapse. He now became obedient, and conducted the cleansing process with regularity daily, or on alternate days, according to circumstances; but he again fell back in May, 1880, and for a time nutrition remained at a low standard. Stricter attention to the washing process was now enforced by the occurrence of severe epigastric pain, which, like the vomiting, was immediately relieved by the use of the siphon; he declared that he could not live without its help.

In May, 1881, when he again presented himself, he was in fair health, and seemed to have nearly recovered his normal state of nutrition; he was washing out every second day, and was taking ordinary diet. In the following May (1882), he was washing out daily, or even twice a day, in order to prevent the occurrence of pain; and, except that he now found it necessary to be particularly careful in his diet, he accounted himself in good health.

In May, 1883, he looked thin and pale; he had intermitted the use of the siphon for a fortnight, but found himself compelled to return to its employment; and his visit was for the purpose of procuring a new tube.

His last visit was in June 1884, the fifth year of his attendance. He washed his stomach every twenty-four hours; he said, "it is the only thing that has saved my life;" he kept the tube always at hand in his office. He had no vomiting, and scarcely any pain. Six months previously, he had weighed 120 lbs. (48 lbs. below his normal). His food consisted of two raw eggs (he could not digest boiled eggs); a quart of milk; a mutton-chop, which he chewed, but spat out the solid remains. He used the siphon generally before his last meal at 6 P.M., the largest meal of the day. His health was good, and he had not had occasion to leave his business for a single day; nevertheless, it will be seen from the report of his diet, compared with that on former occasions, that his digestive force was seriously lessening.

I regret that I cannot make any statement respecting the condition of the stomach as regards dilatation; the disadvantage under which I was placed, in consequence of his making only an occasional brief visit, entirely prevented me from gaining reliable information on this point.

A CASE OF FIBROUS STRICTURE OF THE PYLORUS: ENTEROSTOMY: DEATH.

By G. J. ROBERTSON, M.B., Oldham.

THIS case of fibrous stricture of the pylorus, with dilatation of the stomach, seems worthy of record, from the entire absence, until the disease was far advanced, of symptoms pointing to its true nature, and from the operative treatment conducted with a view to afford relief to the patient. During my attendance, I had the advantage of several consultations with Dr. William Roberts of Manchester.

J. P., aged 47, schoolmaster, was first seen by me on February 1st, 1883. He had been a martyr to indigestion for many years. His chief complaints were, a sensation of fulness and discomfort over the epigastrium, especially after meals; acid eructations; flatulence; constipation; and sleeplessness. It was only after a prolonged fast that he experienced any comfort. These symptoms alternated and varied in severity until within the past six months. Since that time they had persisted and become aggravated, so as to make his life altogether wretched. Without advice, he had come to live almost exclusively on liquid food, and that in very small quantity. He had lost flesh and strength. He had not vomited food for years, had never vomited blood, and was not aware of having ever passed blood by the bowels. He had always been careful and abstemious in his habits, and, with the exception of indigestion, had been free from serious illness.

He was emaciated to a great degree; his complexion was clear; no cachexia or tint of jaundice. The ordinary signs of dilatation of the stomach were well marked. No tumour nor glandular enlargement could be found after careful and repeated examination; no tenderness on pressure, localised or general. The liver-dulness was normal; the urine contained no albumen; there was no blood in the fæces.

During the next three weeks, he continued to lose strength. On the night of February 23rd, he suddenly vomited at least a quart of sour-smelling fluid, which was so absolutely black as to give rise to the belief that the colour was due to carbon: he had eaten charcoal biscuits a fortnight previously. The subsequent character of the vomit decided that it was owing to the presence of blood. For two or three hours afterwards, he frequently discharged, without effort, mouthfuls of fluid. The relief afforded by the vomiting was slight and transient. After a lapse of five days he had a similar attack, but less severe, followed by others every night or alternate night. During this time, the state of exhaustion was extreme; on two occasions he appeared to be moribund.

The diagnosis was obscure. The evidence of dilatation was ample, even before cumulative vomiting occurred. The extreme emaciation and exhaustion of the patient, and the persistence of the symptoms in spite of appropriate treatment, excited strong suspicion that it was not simple dilatation. What, then, was the cause of the dilatation? The colour of the blood in the vomit suggested cancer, but the entire absence of the earlier symptoms that usually mark this disease, such as pain, tenderness on pressure, vomiting after food, "coffee-ground" vomit; and the absence of cachexia and of tumour, notwithstanding extreme emaciation, were unfavourable to this view of the case. Supposing the blood to be altered in colour by delay in the stomach, it might arise from an ulcer situated close to the pyloric orifice, but there was nothing in the symptoms that pointed to ulcer. Moreover at the end of each attack of vomiting, the blood was as black as at the beginning. This fact seemed to denote that the bleeding was capillary—an explanation which left the case as open to doubt as before vomiting occurred. On the whole, the negative character of the symptoms, as referring to cancer and ulcer on the one hand, and the grave and intractable nature of the disease on the other, conduced to the belief that there was non-malignant obstruction at or near the pylorus, to which the dilatation of the stomach was secondary, vomiting some time after meals having been averted by the scrupulous care exercised by the patient, both as to the quantity and quality of his food.

Medicinal and dietetic treatment had failed to bring improvement. It was quite obvious that feeding by mouth and rectum could sustain life but a few days at most; while, in the exhausted state of the patient, excision of the pylorus, even had there been the certainty of obstruction there, seemed a hopeless undertaking, and an exploratory incision was almost sure to be useless, unless that operation could be performed. Under these circumstances, it occurred to me that the small intestine might be secured high up and stitched to the abdominal wall, and an opening made in it, through which food might be introduced temporarily or permanently, as the future might determine. The following considerations appeared to justify the experiment. The operation would make no serious immediate demand upon the patient's strength, either from shock or from hæmorrhage, and the risk of peritonitis would certainly not be greater than in gastrostomy. On its completion, the stomach would still be available for the performance of its functions; and food introduced by the new channel would pass over an extensive digestive tract, and be acted upon by the secretions of the liver and pancreas, as well as by the succus entericus.

It was not easy to decide upon the part of the bowel in which to make the opening. *Cæteris paribus*, the nearer the stomach, the better. Choice had to be made between the commencing portion of the duodenum and the upper part of the jejunum. The former was discarded, from the possibility of its being involved, by inflammatory action or otherwise, in the pyloric disease, because, apart from this, the operation would probably be difficult of performance, and because contiguity of the opening in the bowel to the pylorus would complicate the subsequent operation of excision, should that become necessary. Chiefly from the absence of these objections, and, also, partly because it could be kept in contact with the abdominal wall without dragging, the jejunum was selected. The incision in the abdominal wall was made below the umbilicus, in order to avoid the transverse colon. It was proposed to divide the operation into two stages, as in gastrostomy.

The patient having rallied somewhat, with his full knowledge and consent the operation was performed on March 9th, as follows. An incision, nearly two inches in length, commencing immediately below the umbilicus, was made through the abdominal wall, the omentum was gently drawn to the right side, and the knuckle of bowel presenting withdrawn for inspection. Its characters being noted, the course of the bowel was followed, the left hand withdrawing it while the right replaced it in the abdominal cavity. It was soon my decided opinion, and that of my friends present, that we were proceeding in an upward direction, an opinion which was placed beyond doubt on finding the bowel become fixed in the usual situation of the lower part of the duodenum. The bowel, with its length transverse to the abdominal wound, was attached by means of sutures of fine silk, armed with a straight needle at each end, thus: the bowel being held inside the cavity, eight subperitoneal stitches, half an inch in length, were applied so as to form the overlapping sides of an octagonal space three-quarters of an inch in diameter, the centre of which was opposite the mesenteric border of the bowel. A stitch was also placed in

tre of the space, to serve as a guide in the performance of the nd stage of the operation. The bowel was now replaced in the ominal cavity, and the needles were made to penetrate the parietal toneum at points corresponding to the ends of the stitches in the el, and to pass through the muscular wall, emerging in the wound erneath the skin. By gentle traction upon the free ends of the ires, the bowel was brought into close apposition with the abdominal , and the sutures were tied. Dressing of the wound in the usual completed the operation. The patient rallied from the operation, died from exhaustion eight hours afterwards.

Necropsy.—The stomach was markedly dilated, and contained a ntity of dark coloured fluid; its walls were atrophied. The orus lay in contact with the liver underneath the right lower ribs; as the seat of fibroid thickening, which extended for two or three es along the smaller curvature; its orifice barely admitted an nary pencil. The part of the jejunum attached to the abdominal was nine or ten inches from its upper end; the mucous membrane uninjured by the sutures.

he worth of this operation depends upon the extent to which the ition of the body can be sustained by intestinal digestion. Upon subject, our present knowledge is scanty. It might be tried in e cases in which life is threatened from failure of the stomach ransmit food into the bowel. By experiment on the cadaver, it ld seem that instrumental dilatation of the pylorus could be ted from an opening either in the duodenum or in the jejunum.

n subsequently referring to the literature of the subject, I find enterostomy was first suggested by M. Surmay, who fully con- rs the feasibility of the operation, in regard to physiology and ery, in a paper in the *Bulletin Général de Thérapeutique* of May , 1878 (summary in the *London Medical Record*, 1878, page 329). June following, he performed the operation of jejunostomy, with al result at the end of thirty hours, of which he gives an interest- account in the same journal.

illroth, as a last resource after the operation of resection of the ach, reopened the abdomen, and attached the duodenum, with object of feeding the patient. This answered well, but, owing to ustion, the patient sank (British Medical Journal, April 23rd,). Gross, in the last edition of his work on *Surgery*, says: "I of opinion that gastrectomy for carcinoma will soon fall into etude, and that its details need not, therefore, be described. In east three cases in which it was found impossible, on account of extent of the disease, to remove the stomach, other procedures resorted to. Thus, Langenbuch practised duodenostomy, or ched the first portion of the duodenum to the abdominal wall, as gastrostomy, and opened the gut one week subsequently. The ent, nevertheless, died of inanition ten days later."

THERAPEUTIC MEMORANDA.

CUCAINE IN CANCER.

following may be of interest, showing that the application of ine is of use in the treatment of at least one form of cancer.

n old farmer came to me lately with an epithelioma on the third er of the left hand; it had passed into the fungoid stage, and was ving rapidly, being about the size and shape of a cherry, covered a black leathery crust. As I had before successfully removed e growths by following Dr. Marsden's plan of treatment by nical mucilage, I applied it in this case. My patient was a very cult one to manage; he could neither endure much pain, nor morphia; so that, after two short applications, very little pro- s was made, except that the base of the tumour was becoming med, and that I was able to detach the hard crust. Another and l application was necessary. This he dreaded very much; I there- scraped the tumour down to the raw bleeding surface, and soaked r fifteen minutes in a 4 per cent. solution of the hydrochlorate of ine, and then applied a thick coating of the arsenic. I was sed to find that he had actually no pain for six hours, and was to bear it for six hours more, when he took the lint off, and poul- l; the latter he continued doing for three days, when the tumour e away as a slough, leaving a clean healthy cavity, which is now ling satisfactorily.

his plan of effectually destroying small cancerous tumours is one of at value, and in many respects superior to excision. The only wback is the excessive and prolonged pain; if this can be dimin- d by cucaine, as in the above instance, it will be a very great antage.

J. Sinclair Holden, M.D., Sudbury, Suffolk.

CHOREA TREATED WITH HYDROBROMIC ACID.

By the kind permission of Dr. Sykes, I have recently made use of this drug in two cases of chorea, in which the spasms were very marked, with considerable success. In the first, a girl ten years of age, the usual treatment with iron and arsenic failed to improve the condition in the slightest. The administration of hydrobromic acid, in thirty-minim doses, three times a day, was at once attended with marked benefit; the motor disturbance was quieted, and she gained flesh, and was soon able to be discharged. Bromide of potassium was tried, in varying doses, without effect. In the second, also a young girl, the disease presented itself in a very acute form. She was throwing herself out of bed constantly, and required restraint. On admission, I kept her completely isolated, and ordered the acid in forty-minim doses; in three days, she was much better, and, at the end of a week, was able to feed herself, which she could not do before. About three weeks afterwards, as the improvement continued, and she was able to get about the ward, I discontinued the acid, and ordered liquor arsenicalis, beginning with a dose of three minims. The nurse soon noticed that the patient was becoming weaker, and one day, in a state of unusual disturbance, she threw herself on to the fire. She was again confined to bed, and became very much agitated. I persevered with the arsenic; but, finding no good resulting, I again resumed the treatment with hydrobromic acid. Within two days, the nurse observed that the patient was much quieter, and she rapidly regained the ground she had lost. She is now almost well.

I think that one may fairly attribute the improvement in both these cases to the use of the drug.

J. G. Marshall, M.B.Cantab., M.R.C.S.,
House-Surgeon Doncaster Infirmary.

TOXICOLOGICAL MEMORANDA.

TOXIC EFFECTS OF BELLADONNA.

On January 26th, I was called to a woman said to be dying, and was informed that, five hours previously, on awaking in the night in pain, she had taken by mistake an ounce of belladonna-liniment instead of her medicine, and in about twenty minutes had passed into a state of insensibility. Copious draughts of mustard and water and salt and water had been administered without provoking vomiting. I found her in a state of coma; the extremities were warm; the abdomen was slightly hard; breathing was regular; pulse 70, fairly good. There was inability to swallow; the pupils were natural, and not sensitive to strong light. Three hours later, her condition was not much changed; the coma was not so complete; there was some struggling; there was incontinence of urine; the pupils were unaltered. I injected one-fourth of a grain of morphia subcutaneously. Eight hours later, coma had passed off, and was succeeded by delirium. Subsultus tendinum was present; she could swallow freely.

The next day, all the symptoms had disappeared excepting some dryness of the mouth and throat. It is noticeable that throughout the pupils were unaffected.

Charles Wood, Dover.

OBSTETRIC MEMORANDA.

PROLAPSUS UTERI AND PREGNANCY.

I was hastily summoned by the midwife, late one evening last month, to attend Mrs. W., a multipara, for a miscarriage. I found the patient, who is a weaver, and had been working up to within an hour of sending for me, in a semi-collapsed condition, and the uterus in a state of extreme prolapse; in fact, procidentia; the os uteri ulcerated, and the skin of both thighs, in contact with the surface of the uterus, excoriated through friction. I found that she had been pregnant four and a half months, and that the uterus had been falling by degrees until the third month; and at this time she would not have sought advice, had it not been for a gush of hæmorrhage while working at her looms. Placing the patient in the horizontal position, with some difficulty I replaced the uterus into the normal position, and plugged. She had not felt the child move for some days, and the waters had broken. I directed small doses of ergot, opium, and iron to be given during the night. She spent a fair night, but had snatches of pain during the next day until 6 P.M., when I was sent for, and found that the plug and a large clot of blood had been driven out. The fœtus between four and five months old, was soon born; it must have been dead some time, being horribly offensive. The placenta soon followed. The parts were then thoroughly washed out with a solution of Condy's

fluid; and a good contraction having been obtained, the binder was put on. Iron and quinine were given internally, and antiseptic injections used morning and evening for four days. The temperature kept high for three days, with anorexia and a dirty-brown tongue; but, after the third day, the bad symptoms disappeared, and, on the sixth day, she said she felt better than she had done for years. From the fourth day, when antiseptic injections were discontinued, astringent injections were used until the twelfth day, at which time, the parts looking satisfactory, a large-sized ring-pessary was introduced with good results.

Remarks.—I have thought this case worth recording for three reasons. 1. I do not read in the text-books where pregnancy can go on for such a time, as in the present case, with the uterus in a state of procidentia. 2. The pain, to which she must have become inured, must have been great. When I replaced the displaced organ, she exclaimed "I am in heaven; that pain in my back's gone." 3. The speedy recovery she made, when one considers that the fœtus had began to decompose, is also remarkable.

George B. Masson, L.R.C.S. and P., L.M.,
Walton, Preston.

TREATMENT OF NEGLECTED SHOULDER-PRESENTATION.

I should feel greatly obliged by being allowed to bear testimony to the great utility of the method of relieving neglected shoulder-presentations described in an article in the Journal, about three years ago, by Dr. Donaldson, of Llanidloes. I attended a confinement recently, in which the arm was down, and the performance of version impossible. As the pains were violent, I at once drew my penknife round the arm, just above the elbow, cutting through the skin. I then dissected with my fingers up to the shoulder-joint. I then tore through the joint with my fingers, and drew the arm away; after which, podalic version was a work of comparative ease. In this case, I believe the plan adopted saved the patient's life, as, my house being four miles distant, there was no time to send for evisceration-instruments.

Alex. Shannon, St. Mary Cray, Kent.

CLINICAL MEMORANDA.

ASTHMA CAUSED BY THE SMELL OF A COOKED HARE.

In connection with Dr. Kingsbury's case of asthma caused by the application of a hot linseed-meal poultice to a sore on the leg (British Medical Journal, February 7th, page 278), I may mention the following case.

A gentleman who, from his boyhood, has been liable to attacks of spasmodic asthma, and who is now about 40 years old, enumerates, among various excitors of his complaint, the presence in his room of a hare or its skin. Many persons are affected with asthma in the presence of a hare or a cat, as is pretty well known; but, in my friend's case, a roasted hare is even a more speedy cause of an asthmatic seizure than is the furry coat of the creature; and he has related to me the very severe attack which he once had on meeting a roast hare in the hall, under a cover, on its way to the dinner-table.

John C. Thorowgood, Welbeck Street, W.

SURGICAL MEMORANDA.

THE TREATMENT OF DUPUYTREN'S CONTRACTION OF THE PALMAR FASCIA.

I question if any member of the profession can look with greater interest on this deformity than myself. Forty years ago, the fascia of my left little finger was wounded; since then, it has remained contracted. Twenty years ago, my right little finger became affected, then the ring and middle followed. In 1880, Mr. Adams operated on these three fingers. My hand presented greater difficulties than he had ever met with; before he had half finished, he had to desist, from alarming symptoms appearing after forty minutes' inhalation of ether. As my views of the etiology of this affection were given at the meeting of the Association in Cambridge in 1880, and published in the Journal of December 3rd, 1881, I need not repeat them.

I cannot accept Mr. Noble Smith's explanation as to the alleged causes of the cases observed among the inmates of the three workhouses mentioned. If pressure such as he describes could occasion this hyperplasia, how is it we hear nothing of it among our soldiers, sailors, and sportsmen?

Mr. Fisher's experience and mine agree, as I have never met with a case where the palmaris longus was in any way implicated; and, oddly enough, whilst I have met with scores of cases among the better classes they were all of the same sex. I have never seen a true case in a female.

I have no knowledge of the success attending Mr. Smith's mode of dealing with this affection, but I have of Mr. Adams's plan by careful division of each fasciculus separately, and I must say his work has given splendid results. My own case goes for nothing; it only showed that ether put a stop to his proceedings, and nearly proved fatal to myself. If Mr. Smith's operation prove anything like as successful as Mr. Adams's, I for one should prefer it on account of its rapidity—a few bold strokes with the knife, and the fingers are free; but experience alone can determine this. In 1882, I wrote a letter, published in the Journal, asking the medical officers in our public services to furnish statistics regarding this subject, but my request led to nothing. I would again appeal to them, and ask them to tell us what they know about it. The palmar and digital fascia of most of the men in the army and navy must be constantly subjected to the very kind of pressure one would think most favourable to the development of the condition. Yet, as far as my recollection goes, I only remember one naval officer who had a very slight contraction in the ring-finger of the right hand.

The incomplete operation performed by Mr. Adams has proved of great value to me, and my fingers are now kept sufficiently open by means of a strong cork splint worn occasionally, to enable me to be content with their limited sphere of usefulness.

A. S. Myrtle, M.D., Harrogate.

In reply to Mr. Fisher's note upon this subject, I beg to state that I continued to depend upon as few incisions as possible, for the following reasons. 1. I have found the result of this plan satisfactory. 2. is less formidable than the other. 3. I have seen the deformity very severe condition subsequently to the temporary cure of the hand I have been informed, by multiple incision. I am quite prepared, however, to adopt the more severe operation, when I meet with a case in which the simple plan I advocate has failed; while, if Mr. Fisher will read my remarks carefully, he will find that the case to which I refer as showing the efficiency of few incisions is illustrated (Fig. by the hand that remained contracted—the right hand.

I state that "twenty years ago the *left* little finger was nearly as but that.....the band of fascia broke, and the finger was released, *has never recontracted.*"

As to Mr. Fisher's concluding remark, I beg to say that I do claim originality in proving that Dupuytren's contraction occurs females; but whereas two of our oldest orthopædic surgeons, the in a publication of five years ago, and the other so recently as state that they have never seen the affection in women, I think my statistics and the patients I exhibited are not without some

Noble Smith, Queen Anne Street,

THE TREATMENT OF PHIMOSIS WITHOUT OPERATI

In the Journal of November 8th, Mr. Stephenson Rich describes an instrument for dilating the preputial orifice in ca phimosis. That it may, in numerous cases, be of exceptional I do not doubt; but, judging from a case recently under my c suspect much it will not, as one would willingly have desired, e replace circumcision. Last August, a stout plethoric man, 45 of age, consulted me on account of difficulty in passing urine stated that this first began four or five months prior to my seein that it had gradually become worse, and that now the urin came drop by drop. When, while urinating, he strained, the ceased entirely, and the prepuce became blown up like a bladde linen was ever damp, from the more or less constant oozing urine. On examining the penis, the prepuce was found to b pendulous, œdematously swollen, and with a marked erythe blush. The orifice was extremely contracted and resistant, ad with difficulty a small probe. Formerly he had been able to d prepuce back over the glans. Fourteen years ago, he had Hunterian chancre; eight years ago, he had suffered from lupus face. While performing circumcision, I was struck by the r character of the tissues. The orifice, which, by means of a ten knife, I slit up, in order to allow a director to be passed, was but this was slight in comparison with the leathery, almost c

hardness of the thickened preputial mucous membrane. So re-nt, indeed, was this, that a strong pair of curved scissors failed to through it. After the operation, the patient was able to pass urine full stream.

his case, I think, could hardly have been successfully treated by ching; for, even had one slit up the orifice sufficiently to allow point of the instrument to be introduced, the thickened condition he mucous membrane would have utterly precluded any chance of prepuce being retracted over the glans.

AYMER R. MACDOUGALL, M.B.Ed., M.R.C.S.E.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

HERBERT HOSPITAL, WOOLWICH.

BAYONET-WOUND OF HEART: DEATH FROM INTERNAL HÆMORRHAGE: NECROPSY.

are indebted to Surgeon ANTHONY DODD, Medical Staff, for the wing notes of the examination of the body of Private Brindley, was killed by the sentry on duty at the Woolwich Gun-Cotton azine, on February 8th.

ie sentry stated at the inquest, held on February 10th, that he a man rush out upon him; that, after challenging, he brought ifle, with bayonet fixed, down to the charge; that the man came nd was received on the bayonet. The man, a private, was at removed to the guardroom, and died in three minutes.

ie necropsy was made on February 9th. The shirt, frock, and coat were stained with blood, and were all pierced. The hole in hirt corresponded with a wound in the chest. The body was that well nourished young man. Rigor mortis was well developed. e was froth on the nose and lips. The front of the abdomen, the t and thigh on the left side, were stained with blood. Two es above the nipple, and in the nipple-line, was a triangular id; one side of this wound measured one-third of an inch; the r two sides measured one-quarter of an inch. On following up wound, it was found to pass transversely beneath the pectoral les, and to traverse the third costal cartilage at a point about an inch from the sternum. On opening the chest, large quanti- of blood-stained serum escaped. The anterior mediastinum was of blood-clot, resembling black currant jelly. On the right side ie pericardium was a small wound communicating with a wound ie inner side of the upper lobe of the right lung; the pericardial y was full of blood. The heart had been transfixed; there was a id in the upper and anterior part of the right ventricle; and the on had also passed through the pericardium and into the right beyond, which was completely transfixed. On the inner sur- of the chest-wall, at a point corresponding to the outer extremity ie wound in the right lung, there was a slight wound just below third rib, which was grazed and roughened, but not fractured. the abdominal organs, with the exception of the liver, were thy. On the under surface of the left lobe of the liver was a wish elastic tumour, about the size of a goose's egg. The cyst, h was evidently a hydatid, contained a clear fluid; and within it several smaller cysts, also containing a clear fluid. The inner part he wall of the cyst was white and pulpy; the outer tough, iery, and yellow.

EMARKS BY SURGEON ANTHONY DODD.—This was a character- case of bayonet-injury. The course of the wound was most ptive, as, until the skin was removed, it appeared as if the chest t have been perforated in an antero-posterior direction. The valve- character of the wound, external to the chest, was probably due to fact that the man drew his left arm across the front of his chest, rder to protect himself from the impending thrust. The point at h the costal cartilage was injured, almost to complete division, sponds very nearly with the position of the internal mammary ry, which was found just internal to the wound, uninjured. The ardium was pierced twice, once in the left anterior aspect, the nd of entrance, the wound of exit passing through the right side ie sac, and thence through the right lung. The right ventricle transfixed near the auriculo-ventricular opening, the cavity being freely open. The course of the wound was, therefore, as follows. Piercing the skin an inch and a half above the left nipple, the bayonet passed transversely inwards through the pectoral muscles for a couple of inches; then, taking an antero-posterior direction, split the costal cartilage of the third rib, and entered the chest. The pericardium being pierced at its anterior aspect, the heart was wounded, as above described. Leaving the pericardium on its right side, the weapon transfixed the upper lobe of the right lung, and was finally arrested against the third rib on the right side, midway between the spine and sternum, the rib being grazed and roughened, but not fractured. The pericardium was completely distended with blood-clot, the heart being enveloped in it. Death must have been almost instantaneous. The man never spoke after the receipt of the injury. The length of the wound was about six inches. Although a modern bayonet is a sharp instrument, a considerable amount of force must have been used to drive it through overcoat, frock, shirt, and costal cartilage, in addition to the other injuries.

TUSCHEN DE VRIENDEN HOSPITAL, DEMERARA.

BULLET-WOUND INVOLVING RIGHT LOBE OF LIVER: EXTRACTION: RECOVERY.

(Under the care of W. F. SMARTT, L.R.C.S.I., District Medical Officer, Philadelphia District, Demerara.)

ON November 4th, 1884, Ramtobul, a coolie, was admitted at 6.15 A.M., having been shot by a fellow-coolie with a revolver about ten minutes previously. The revolver carried a bullet eighty grains in weight, and was held at a distance of about three yards.

When first seen at 6.25 A.M., the patient was in a state of extreme collapse, and his shirt was saturated with blood. A wound was found over the sixth rib of the right side, about one inch from the sternum. A probe passed for a distance of about one inch and a half in a downward and outward direction to the intercostal space between the sixth and seventh ribs. Pressure over the epigastrium gave rise to considerable pain, more especially at a point opposite the junction of the cartilages of the seventh and eighth ribs. It was, therefore, concluded that the bullet must have penetrated the abdomen.

Having administered fifty drops of laudanum in an ounce of brandy, Mr. Smartt operated, without an anæsthetic. The patient was placed on his left side, the skin was drawn well down over the edge of the ribs, and an exploratory incision, two and a half inches in length, was made through the skin and subcutaneous cellular tissue, over the edge of the cartilage of the eighth rib. When the finger was used as a probe through this opening, the circumscribed pain above mentioned was much more severely felt. Mr. Smartt cut down through the abdominal wall, and was then able to feel a slight elevation on the surface of the liver. On cutting to about the depth of half an inch into its substance, the knife struck the bullet, which was easily extracted with a small pair of artery-forceps. The wound was then well swabbed out with a 1 in 20 solution of carbolic acid, and its edges were brought together with fine carbolised silk ligatures. Dry iodoform, with a pad of marine lint, was used as a dressing; and a broad bandage was firmly placed round the abdomen.

A pill containing 1½ grains of opium, and half a grain of calomel, was ordered to be given every hour for three doses.

At 2 P.M. the patient was in a state of utter collapse. Enemata of brandy and beef-essence, in arrowroot-starch, were ordered to be given every hour.

At 4 P.M. he had rallied somewhat. He had not passed urine since 4 A.M., and eighteen ounces of high coloured, but otherwise healthy urine, were drawn off.

At 7.30 P.M. he was very restless; the temperature was 100° Fahr., and he complained of pain in the region of the bladder, and inability to micturate. Ten ounces of urine were drawn off, and a pill containing a grain of opium, and 5 grains of camphor, was ordered at once.

November 5th. 6 A.M.—As he was still unable to pass urine, eighteen ounces were drawn off. The temperature was normal, and he had recovered from collapse. The wounds were redressed, and showed no suppuration. Opium and camphor, with eight ounces of brandy, were ordered.

November 6th. 7 A.M.—The bowels had acted thrice after a dose of castor-oil. He complained of pain over the liver, and there was slight tympanites. At 9.45 P.M. the tenderness over the liver and tympanitis had disappeared, and he had, for the first time, passed urine without difficulty.

November 7th.—The wound was redressed; it was doing well, and there was no suppuration.

November 9th.—The operation-wound had united, and the sutures were removed. A slight amount of serous bloody fluid oozed from

the wound by which the bullet entered; but, on November 13th, this wound had scabbed.

On November 19th, the patient was quite well, and doing light work in the hospital. On November 22nd, he was discharged, and returned to his ordinary work.

REMARKS BY MR. SMARTT.—This case is, I think, interesting, if from no other cause, in that it shows the very great utility of iodoform as an antiseptic. This man must have suffered very serious injury, as the bullet, in all probability, traversed a considerable portion of the liver. During the entire course of treatment, extending over a period of eighteen days, there was at no time the slightest trace of suppuration, nor was there any adverse symptom, with the exception of a slight manifestation of peritonitis, which yielded very readily to treatment.

STAMFORD AND RUTLAND INFIRMARY.

GUN-SHOT WOUND: COMPOUND FRACTURE OF RIGHT CLAVICLE: REMOVAL OF PORTION OF THE BONE: GOOD UNION.[1]

(Under the care of Dr. WILLIAM NEWMAN, F.R.C.S.Eng.)

FRANK COX, aged 13, was admitted on May 7th, 1882. At 7.30 A.M. on the day of admission, he was leaning upon a gun, the muzzle touching the chest, when the weapon was discharged. It was loaded with powder and a wad of paper.

When admitted, five and a half hours after the accident, the shock had much gone off. There had been considerable hæmorrhage. A ragged irregular wound was noted on the left side of the chest, midway between the left side of the sternum and the head of the humerus, reaching up to the clavicle, which was shattered at the middle; the pectoralis muscle was exposed, and the anterior front of the left side of the chest was absolutely dull to percussion. There was also a large patch of ecchymosis at the root of the neck posteriorly; between this, however, and the anterior wound, the skin was unbroken, although the tissues beneath were infiltrated with blood. The respirations were 30, and the pulse 110.

For the first two days, the temperature in the morning was 100°, and in the evening 102°, but the general constitutional disturbance was not very marked. Serous discharge, mixed with bloody froth, welled up from the first from the bottom of the wound; soon a large drainage-tube was inserted down to the chest-wall, and a very large quantity of this same discharge came through it.

On May 16th, the ninth day after the injury, a large slough of tissue was cut away from the root of the neck behind, exposing the edge of the trapezius; then the wad of paper, a crumpled mass, came into view, and was removed. This allowed the escape of a quantity of discharge from beneath, partly serous, partly puriform. It was easy now to see from the anterior wound the outer portion of the clavicle, bare and quite movable, fixed only at the acromial end, and tilted backwards. The wound had from the first been dressed with boracic acid ointment, and over this were placed pledgets of prepared oakum.

May 17th. A collection of pus was opened over the insertion of the deltoid.

May 19th. The outer fragment of the clavicle was found to be displaced inwards, so as to press on the main artery, thus interfering markedly with the blood-current; about half an inch of the bone was removed with the cutting-forceps. For the last two days, the temperature had been normal.

On May 21st, the sloughs appeared to have separated, and the wounds looked healthy. The dulness noted above was now replaced by an almost tympanitic resonance over the left front of the chest. The respiratory murmur, though very distant, was audible.

On May 25th, he was doing well; the pulsations of the artery were still to be noticed at the bottom of the wound. The bridge of uninjured integument stretching across the chasm was becoming thicker, and granulations from below were filling up the deeper parts.

June 4th. For the last few days, the oakum and boracic dressings had been replaced by lotio nigra and lotio zinci sulphatis. From the inner end of the clavicle a nodule of granulation projected; and a fragment seemed as if it would separate from the upper surface of the bone. Respiration over the left side was more audible.

On June 24th he was allowed to get up, and on June 26th the fragment of bone, a mere shell, came away. The repair of the wounds was complete on July 30th, and the movements of the arm were fast improving.

August 13th. The expansion of the left side of the chest was limited in measure. Just beneath the clavicle there was increased dulness on percussion, and the respiratory murmur and voice-sounds were distant. The clavicle seemed firmer; it was shortened about an inch in length, widened at the point of fracture, which was marked by a mere point of prominent granulation. The scar, divided in two parts by a broad band of sound skin, had been drawn down much more over the front of the chest, and the upper division lay well above the clavicle. The boy could readily raise his arm up to a right angle with the trunk. The head of the humerus, on the left side, lay abnormally forward, and the scapula, in all upward movements, moved far more than on the right side.

He was discharged on August 22nd.

On April 20th, 1883, he was again seen; the left shoulder was seen to be thrown rather inwards, and on measurement there was a loss of an inch from the left sternal notch to the tip of the left acromion. When the boy stood sideways, it was evident that the head of the left humerus was thrown forwards one and a half inch, as compared with the right side. Looking at the back, the left scapula appeared tilted and drawn upwards. The inferior angle of the bone lay one inch higher than on the right side, and was unduly prominent.

He was again seen on October 6th, 1884; he had grown much, and looked well. The movements of the arm were quite free and unrestrained. The local conditions were not altered; he was in service and had no difficulty in doing all usual house-work.

REMARKS BY DR. NEWMAN.—There are several points of interest to be noted in this history. The subclavian vessels entirely escaped injury. Probably the missile, a wad of paper, directed upwards in the first instance, struck against the under surface of the clavicle, and was then deflected backwards over the edge of the trapezius, to the point where it was ultimately found. It seems likely also that the explosive material tore open the upper part of the left pleural cavity and wounded the lung. The complete repair of the primary compound fracture of the clavicle, and the secondary removal of a small portion of the bone, the subsequent regaining of a most thorough and useful control over the movements of the upper extremity, are points worthy of attention. The boy was very quiet and amenable throughout the whole course of the strict confinement to bed, and to one constrained position. To this it is fair to attribute much of his well doing. In the discussion which followed the reading of the paper, I was asked how the union of the fractured bone was accomplished, whether any band of untorn periosteum had remained. This, on looking back, seems hardly likely. The union more probably was due to the inosculation of the granulations from the ends of the bone.

[1] Read at the Autumnal Meeting of the South Midland Branch.

BOURNEMOUTH COTTAGE HOSPITAL.

BULLET-WOUND OF THE SKULL: RECOVERY.[1]

(Under the care of Dr. DOUGLAS.)

[Notes by T. FRED. GARDNER, L.R.C.P.Lond., M.R.C.S.E., late Resident Medical Officer.]

CHARLES C., aged 28, a labourer, was admitted at 9.30 P.M. August 13th, 1884. A quarter of an hour earlier, he had been wounded by the accidental discharge of a smooth-bored gun, at two yards of his head. A leaden bullet, said to be similar that with which the gun was loaded, weighed three drachms, and of the size of an ordinary playing-marble.

He was quite conscious, able to speak, and was breathing tranquilly. He had a very feeble pulse and cold extremities, and his face was bathed in perspiration. The pupils were normal and equal. There was no paralysis, no loss of sensation, and no impairment of vision. He complained of pain at the wound, which was situated in the left eyebrow about half an inch outside the supra-orbital notch; it was circular with inverted clean cut edges. Dark venous blood escaped from the wound, the flow increasing whenever the patient moved, and especially when he coughed. The margin of the wound was slightly blackened. A small fragment of lead, corresponding to a projection on the sample-bullet from a defect in the mould, was found lying in the wound. This, and a small fragment of bone about the size of millet-seed, were extracted from the wound. Several other small pieces of bone could be felt with the probe. The wound just admitted the little finger. A perfectly round perforation, with sharp edges, could be felt in the frontal bone; and the brain was felt pulsating against the tip of the finger. The bullet could not be felt, nor could any trace of it be found between the scalp and skull. There was no other wound in the head.

A piece of lint, soaked in carbolic oil, was applied over the wound, the patient was put to bed, and an ice-cap applied to the head. During the night, he was restless, and slept only at intervals, and a quantity of blood oozing from the wound at every movement.

[1] Read before the Bournemouth Medical Society.

On the following day, no change had taken place in the patient's ndition. The pulse was 60; the temperature 98.4° Fahr. Towards ning, some effusion appeared under the left upper eyelid.
August 16th. Pain had ceased, the wound was scabbed over, and effusion and swelling of the upper eyelid had almost subsided. e bowels acted after an enema. Towards evening, the patient said felt quite well. The pulse was 60, and the temperature 98.4°.
No change occurred until August 20th, when he became drowsy, and left pupil was seen to be smaller than the right; the pulse was 45, l the temperature 98.4° Fahr. The patient remained in this drowsy ndition, with a slow pulse, until August 24th. During the pre- us night, his bowels, which had remained obstinately constipated spite of treatment, were opened after five grains of the compound terium powder, and he became much brighter. The pupils became ual, and the pulse, which had risen two days before to 54, now rose 60.
On August 27th, the pulse was still 60; there was no tenderness, fluctuation, nor any crepitation about the wound, which remained bbed over. He felt quite well, and wanted to get up; but, on following day, the left upper eyelid was red and swollen, and the pupil more contracted than the right. The morning temperature s 98.4°. The pulse was 84. He had a rigor at 11 A.M., lasting a arter of an hour. The temperature, taken directly after the rigor, s 100.8° Fahr.; the pulse 96. He vomited, and was irritable and tless. At 6 P.M., the temperature had fallen to 98.6°, and the pulse 84. He vomited again during the night. The temperature at P.M. was 101.8°.
August 29th. A little pus escaped from the wound. The tempera- e in the morning was 98.8°, the pulse 96. A director was passed o the wound, and a sinus passing inwards was opened up with a toury. Very offensively smelling pus escaped from the wound during day in very small quantities. He slept well at night, and the vels, which had remained constipated in spite of two doses of the mpound elaterium powder, were freely opened. The temperature the morning and evening was normal; the pulse 54.
August 31st. The wound still discharged an offensive pus, but no ne escaped. The pupils remained markedly unequal.
September 1st. The swelling of the eyelid had gone down. The pils were nearly equal. The temperature was 98.4°, and the se 72.
September 2nd. The pus was odourless, the pupils equal, and the mperature and pulse normal.
He was drowsy for a day after this, but then improved, and was e to get up on September 10th, and to walk in the garden on Sep- mber 20th.
On September 30th, the wound presented a mass of healthy granu- ions. The patient was very excitable at times.
The patient was discharged seven weeks after admission.
On October 13th, he reported occasional attacks of giddiness, similar attacks he had had after sunstroke. The wound was still open.
On December 12th, Dr. Hartford, of Christchurch, wrote that C.'s lth during the past two months had steadily improved. The ex- tability and moroseness of temper then sometimes present had passed ; and, although he suffered occasionally from sleeplessness, still this urred much less often than before. The wound had contracted ich, but, as there was tendency to accumulation of pus between the per eyelid and orbit, he had not encouraged the entire closing of opening made by the bullet; the amount of discharge was only a op or two each day. The intellect was perfectly clear in every nt, and there was not the slightest trace of paralysis anywhere, r of any symptom of irritation of the brain.
REMARKS BY MR. GARDNER.—There seems to be no doubt in this se that recovery has taken place while a pellet of lead weighing ree drachms remains within the skull. The clean cut wound, the le in the frontal bone, the pulsation of the brain seen in the wound, nders this view of the case almost a certainty. The bullet probably nains between the brain and the dura mater, and either lies on the nital plate, or has rolled into the base of the cranial cavity. Mr. ichsen quotes a case in which a bullet, which penetrated the right mple and splintered the bone of the left temple outwards, was not nd on cutting down on the splintered bone, but was discovered after ath lying loose at the base of the skull.

VACCINATION.—The Local Government Board has, upon the report their inspector, awarded a Government grant to Dr. Anthony for icient vaccination in the districts to which he has been medical icer.—Mr. O. Lowsley, of Reading, has received from the Local overnment Board the sum of £72 9s. This is the sixth time an ard has been granted to him for efficient vaccination.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 13TH, 1885.

THOMAS BRYANT, F.R.C.S., President, in the Chair.

President's Inaugural Address.—This will be found at p. 371.

A Case of Myxœdema, with a Post Mortem Examination.—Dr. W. HALE WHITE read notes of this case, which was the same as that previously recorded in the Society's *Transactions* for 1882, p. 98. From that year till June 1884, the patient disappeared from observation. On June 12th, 1884, she was admitted into Guy's Hospital for ascites. There was still some evidence of myxœdema in the hands and face, but it was much less. The speech was slow. The abdomen was tapped, and 5 gallons 5 pints were drawn off; after this she had epileptiform convulsions, passed into a *status epilepticus*, and died. At the *post mortem* examination, there was found a small old hæmorrhage in the left corpus striatum; the vessels of the brain were thick; the thyroid was much atrophied; there was much pigmentation of the peritoneum from chronic peritonitis; the intestines were matted together; there was perihepatitis. The heart, lungs, cervical glands, alimentary tract, spleen, pancreas, suprarenals, mesenteric glands, sympathetic ganglia, kidneys, bladder, genital organs, pituitary body, muscles, and toe-joints were all healthy. Histological examination of the organs gave the following results. Liver: Proliferation of nuclei in the intercellular connective tissue, and much deposit of fat in the centre of the lobules. Submaxillary gland: Slight increase of nuclei between the walls in the connective tissue, which seemed to have a sodden appearance; there seemed to be more of it than natural, and yet there was no multiplication of any of its elements; it had a degenerate look. Thyroid body: Only just the remnants of vesicles were visible; these remnants contained much epithelial *débris;* the connective tissue was degenerate and sodden-looking, although, here and there, there was some evidence of a mild inflammatory condition. Sympathetic ganglia: Nerve-cells and fibres healthy. The condition of the connective tissue was the same as that already described. Spinal and sympathetic nerve-trunks: Normal, except that the connective tissue was like that in the ganglia. No other histological abnormality was discoverable. This histological examination of the organs went to show that the atrophy of the thyroid was the cause of the disease, because all the changes, excepting this, were probably secondary, and due to a myxœdematous affection of the tissues. That the sympathetic was not the cause of the disease was probable from the following considerations: first, in the case in which accessory thyroids were present, no myxœdema followed excision of the gland, although there the sympathetic must have been pulled upon; secondly, the cells and nerve-fibres in the sympathetic ganglia were quite healthy; thirdly, myœdema had never been observed to follow the numerous physiological experiments in which the sympathetic had been cut out. It was hardly likely but that an organ like the thyroid, with four large arteries and six large veins, would have some important function. No opinion as to disease of the sympathetic ought to be expressed from the mere size of the ganglia; this varied much within the normal.—Mr. VICTOR HORSLEY explained that tremors were observed only in the early stages of myxœdema, and disappeared during the last fortnight of life; and, in a case of his own, these occurred during the stage of congestion of the thyroid gland; and the reason why they were not described as common symptoms of myxœdema, was to be found in the fact that patients afflicted with the disease did not usually come under treatment until late in its development. It was an interesting fact that epilepsy was common among cretins. Dr. Hale White's specimens clearly showed the existence of retrogressive fibroid tissue and the embryonic tissue described by him, the latter being absent in the specimens prepared by Dr. Ord. Similar appearances were found in animals subjected to experiments.—Dr. DE HAVILLAND HALL asked on what evidence the convulsions described had been put down to epilepsy rather than to uræmia, the patient being admittedly suffering from albuminuria.—Dr. HADDEN urged that convulsions were undoubtedly of frequent occurrence in the subjects of myxœdema; and, in the certain absence of albuminuria, he considered the microscopic appearance of the kidneys described by Dr. White to indicate a form of cirrhosis. He had lately heard of a patient suffering from myxœdema, whose sister was the subject of exophthalmic goître.—Dr. O'CONNOR asked if the condition of the arteries had been examined in Dr. White's case.—Dr. F. SEMON expressed the gratification he felt at the acceptance of his suggestion as to the relation between myx-

œdema and cretinism; but he pointed out that it was still necessary to obtain information concerning the causes producing thyroid atrophy. He thought it very probable that the onset of myxœdema might be due to cerebral anæmia, the existence of which would suffice to explain the symptoms observed during the anæmic period of the disease, the duration of which stage might vary much; whilst the latter symptoms were possibly due to the degeneration of the thyroid, which itself might be a result of the anæmia of the brain. Mental worry was, doubtless, an important exciting cause of the terminal consequences.—Dr. CARRINGTON thought it would be desirable to go even further than Dr. Semon suggested, and to inquire into the causes of the cerebral anæmia, which he considered would not of itself suffice to explain the phenomena observed.—Dr. GOODHART instanced the resemblance between the structural changes found in the thyroid in myxœdema and the suprarenal body in Addison's disease, since only one special kind of disease of the gland was known to produce the corresponding general affection. He took exception to the statement that the sympathetic system was unconcerned with the production of myxœdema; as the nerve might be at the bottom of the trouble, and yet, after death, exhibit no definite changes. He regarded the connection between goître and myxœdema as pointing to such dependence.—Dr. WHITE was unable to give any explanation of the convulsions. They had been described as epileptic by the late Dr. Mahomed, and doubtless on reliable grounds. The carotid artery was found quite healthy. He considered the absence of well known physiological results of affection of the sympathetic system, in these cases, negatived the hypothesis that it was concerned in the production of symptoms.

Two Cases of Phlegmonous Pharyngitis.—Drs. R. E. CARRINGTON and W. HALE WHITE brought these cases before the Society in the belief that they belonged to a class which hitherto had escaped recognition. Patients were seized with intense dyspnœa, and tracheotomy might or might not be performed. The operation, however, appeared to be entirely useless, the general, and not the local, condition appearing to lead to the fatal issue. The first case was a man, aged 46, who was admitted into Guy's Hospital in the early morning. He had been ill for seven days, somewhat remittently, some days being in bed, on others at work. He was admitted with laryngeal stertor, but no marked dyspnœa. He was placed in a tent with the steam-spray, and watched, but in the course of a few hours he died quite suddenly, before the house-surgeon could be summoned. At the necropsy, all the soft tissues of the pharynx were œdematous, and on the right side, from the tonsil downwards for two inches, the mucous membrane was minutely injected and swollen with purulent œdema; yellow spots of pus pointed here and there. The same condition spread into the tissue of the epiglottis. On the left side the œdema was serous only. There was very little narrowing of the rima glottidis. With the exception of subpleural ecchymoses, there were no other noteworthy points discovered. The second case was that of a medical man, aged 49, who was admitted into Guy's Hospital on November 10th, 1884. He was suffering from dyspnœa, apparently of moderate intensity, but he himself came up to the hospital for the purpose of having tracheotomy performed. He walked up to the ward. He was placed in a tent with a steam-spray apparatus. It was decided, after consultation with Mr. Clement Lucas, to perform tracheotomy three hours after admission. Just as he was about to be removed to the table, he was seized with spasm of the glottis, and the operation had to be performed in the bed. Artificial respiration had to be resorted to, and was so far successful that he began to breathe spontaneously. He was then seized with an epileptiform convulsion, and ceased to breathe again. Electricity, subcutaneous injection of brandy, and other means, were resorted to, and he again began to breathe feebly. He revived so far as to take a draught of milk. All seemed well, and arrangements were made for having him under supervision, when he again ceased to breathe. Efforts were maintained to bring him round for a full hour, but, unfortunately, were not successful.—Mr. CRIPPS described the case of a girl admitted to St. Bartholomew's Hospital for gonorrhœa, who, after recovering from this disease, was one evening attacked with sore-throat, succeeded by swollen face on the following day, which swelling extended to the opposite side, giving to the face a most peculiar and characteristic appearance. Dyspnœa set in, and quickly increased in severity. Anæsthesia was induced, when respiration almost immediately ceased; and, tracheotomy being at once performed, artificial respiration was maintained, but unavailingly. *Post mortem*, no pus could be found; but the cellular tissue of the neck and pharynx was infiltrated with serum, of which a large quantity drained also from the incision made for tracheotomy, during the attempts to set up respiration. Mr. Cripps considered that the danger of spasmodic dyspnœa in such cases should preclude anæsthesia, and lead to the practice of making free incisions in the neck and scarification of the interior.—Mr. HOWARD MARSH was impressed by the importance of such cases, which, though little recognised, had, he thought, been described by Sir George Porter of Dublin under the name of "acute cellulitis of the neck." He could recall three cases at St. Bartholomew's, not including the one mentioned by Mr. Cripps. One of these, treated by incisions, etc., was attended with sloughing, which spread to the anterior mediastinum, and with very fœtid discharge, and terminated fatally. The others were similar in character.—Dr. GOODHART thought the cases quoted by Mr. Marsh were not quite the same as those described in the paper. In the latter there was no diffuse swelling of the neck, nor was there at any time a great degree of severe dyspnœa. He described another case of the kind, in which the patient died quite suddenly, apparently from an asthenic condition of the heart, and not from dyspnœa. The condition of the pharynx was very peculiar; it was brawny, thickened, and the seat throughout of commencing suppuration. The urine was albuminous. The interest of the cases lay in the consideration of their exact relations with diphtheria or scarlatina.—A MEMBER who had himself been the subject of tracheotomy, done for illness that might have arisen from erysipelas, described the symptoms of his case, and the treatment he had undergone. The operation had been done without the administration of an anæsthetic, and he suffering nothing, but had intense and gratifying relief when the tube was inserted.—Dr. F. SEMON was of opinion that phlegmonous pharyngitis, while being a rare disease was, at the same time, a well recognised affection. It was a pity the history of Dr. Carrington's case could not be traced as to its relation with poisoning, pyæmia, or similar cause. He thought Mr. Cripps' and Mr. Marsh's cases might be explained as being due to erysipelas starting at the mucous membrane, and proceeding thence to the outer tissues. He had described a case in which erysipelas caused purulent accumulations in the larynx, joints, etc. In such cases, tracheotomy was the only possible resort.—Dr. O'CONNOR suggested sewer-gas poisoning as a possible causation of the affection.—Dr. CARRINGTON said there was but slight swelling in the cases, which were essentially distinct from cases of erysipelas of either the larynx or pharynx. The inflammation in his case was confined to the pharynx. The glottis was very little affected. Experience showed tracheotomy was useless in such cases.

MEDICAL SOCIETY OF LONDON.

MONDAY, FEBRUARY 16TH, 1885.

ARTHUR E. DURHAM, F.R.C.S., President, in the Chair.

Epithelioma of Penis.—Sir WILLIAM MAC CORMAC related the case of a man, 60 years of age, who had suffered for one year from epithelioma of the penis. Sir William Mac Cormac performed an extensive operation, and brought out the urethra through a perineal wound after splitting the scrotum; the operation had given the man great relief. The operation had been first advised by Professor Thiersch in 1875, and first performed in this country by Mr. A. Pearce Gould.

Progressive Anæmia.—Dr. FINLAY read a paper on a case of progressive anæmia in a man, aged 45. The patient had had attacks of ague about the age of 18, and previously. For two years before coming under observation, he had complained of increasing weakness, with pain in the back, frontal headache, dimness of sight, and noises in the head. He had occasionally lost a little blood from hæmorrhoids. For six or seven months, increasing pallor had been observed, with shortness of breath on exertion, and swelling of the feet and legs towards evening, and he had once brought up half a teacupful of blood without coughing. He was fairly nourished, markedly anæmic, the skin was waxy, and of a faint yellow tinge. The muscles were soft and flabby, and there was slight pitting on pressure over the ankles and shins. The heart's apex was in the sixth interspace, one inch outside the nipple-line, and there was a well marked blowing systolic murmur; there was no enlargement of the spleen or lymphatic glands. The urine was normal, and the blood showed a corpuscular richness of 23 per cent. Under the microscope, the red blood corpuscles were seen to be aggregated in masses; the white corpuscles were not in excess. No retinal hæmorrhages were found. After three weeks' treatment with arsenic, the red corpuscles were found diminished to 21.2 per cent. Three grains of dried sulphate of iron were prescribed, in pill, thrice daily, and from that time he began to improve. In ten days, the blood showed a richness of 47.8 per cent., and the apex-murmur became less marked. A little arsenic was also given in addition, and, on January 16th, the corpuscular richness of the blood had reached 72.8 per cent. The heart's apex was within the nipple-line, the murmur inaudible, the muscles much firmer, and the patient much better. He was then sent to the seaside, and returned in three weeks, feeling quite well with a good colour, and

rtness of breath. A few weeks later, his blood was found to have ched 91.2 per cent., and he has since continued well, and able for work as a wheelwright. Although not progressive in the sense in ich the word was used when coupled with "pernicious," it seemed essary to use a term which would indicate the opinion that it onged to the same class. Although the patient had suffered some- at from rectal hæmorrhage, and brought up some blood, neither s sufficient in amount to account for his anæmia, and both occurred g after the commencement of his weakness, and hence were looked on not as causes, but as consequences. Attention was directed to failure of arsenic to do good, and to the efficacy of iron; and Dr. e-Smith's tabulated cases of recovery were referred to, in seven which arsenic had been successful, in five iron, and in one both enic and iron.—Dr. COUPLAND observed that this case clearly onged to the same category as those to which Dr. Addison had led attention, and which commonly ended in death. No hard-and- t line could be drawn between the cases of anæmia which recovered l those which progressed to a fatal termination; cases of apparent overy frequently came again under treatment, and finally suc- nbed. Arsenical preparations and dry ox-blood sometimes appeared be of use.—Dr. KINGSTON FOWLER had found the iron-treatment ommended by Niemeyer of great use—the administration of pills taining two grains and a half of sulphate of iron and two grains l a half of bicarbonate of soda; in this way the carbonate of iron s presented in a recent state.—Dr. W. H. WHITE described a case anæmia in a woman treated with Niemeyer's pills, and subse- ently by arsenic, without benefit.—In reply to Dr. Sansom, Dr. SLAY said that he had not noticed any conspicuous difference in the e of the red blood-corpuscles, such as was to be noted in some cases. Dr. SANSOM observed that in some cases some of the symptoms med to point to the existence of a septic process.—Dr. W. M. ORD ked upon progressive pernicious anæmia as a diseased condition ich did not commonly own the same cause. In some cases, the gment of the blood-corpuscles appeared to be different, but the ctrum was the same. The corpuscles were frequently, as Dr. San- n had observed, very various in size; they ran into masses, and ily became distorted. Very little was known of the chemistry of e blood in these cases. Some cases presented variations of tem- rature, which appeared to support the idea advanced by Dr. San- n that there might be some septic element in the production of the ease.

Paralysis Agitans without Shaking.—Dr. C. E. BEEVOR showed four es presenting symptoms of paralysis agitans, but without any tre- or. Case I was a man, aged 49, who had felt weakness in the left arm e years earlier, followed by weakness in the leg and right arm. The itude was fixed, the neck rigid, and the power of looking up limited; e countenance was expressionless; movements were slow, and de- ed; the voice was monotonous, the utterance mumbling, effected movements of the lips only. The position of the hands was typi- l; the finer movements of the hand were lost. He complained of at and restlessness, and stated that he had retropulsion. Case II s a man, aged 62, who, eight years earlier, began to walk with short ps; subsequently, stiffness about the neck and general weakness veloped. He presented the characteristic fixed attitude, expres- nless face, monotonous speech, and slow movements of the nds, which had lost their fine movements. He rose slowly from s seat, walked with short steps, and had propulsion and retropul- on. Case III was a man, aged 47; weakness began five years earlier, th weakness of the left hand, with fine tremors, followed by weak- ss of the left leg and stiffness of both limbs. Two years later, the ght leg and arm became affected, and one year later, rigidity of the ck and neck came on. He presented the typical fixed attitude, alked with short steps, and had retropulsion; the face was expres- onless, the tongue slightly tremulous, and the speech characteristic. n looking to the right or left, the eyes moved first, and the head fol- wed after a short interval, a symptom not previously noted in aralysis agitans. The man had still very slight tremor of the flexors nd extensors of the elbow on the left side, but not in the hands. ase IV was a man, aged 73, who had first been troubled by fine tre- ors of the left hand a year ago, and weakness of the left hand. he attitude was fixed, the walk was slow, there was difficulty in sing from the chair. The left hand was in the position characteristic f paralysis agitans, with a loss of the finer movements. There as stiffness of the arm and leg, and slight ankle-clonus on the left de. The diagnosis, in this case, was not quite so clear as in the thers, but there were no symptoms of disseminated sclerosis or his- ory of hemiplegia. In commenting on these cases, Dr. Beevor said hat M. Charcot had published two cases of paralysis without shaking, nd Dr. Gowers had met with one. Dr. Buzzard had also published one case in his *Diseases of the Nervous System*. In one of the cases, Dr. Beevor had watched the man for five years, and not the slightest tremor could be detected. In another case, the disease had been present for eight years; in another, for five, and the patients stated distinctly that no tremor had ever occurred. These cases seemed to show that paralysis agitans might run its whole course without any tremor being ever present.—Dr. W. B. HADDEN asked whether there was any history of injury, as traumatism seemed to play some part in the production of paralysis agitans.—Dr. W. M. ORD referred to the case of a man who presented the attitude and expression of a patient with paralysis agitans; he had what were called "propulsion" and "retropulsion." He had tremor on exertion, but not when at rest. He thought, in this case, there was disseminated sclerosis.—Dr. BEEVOR said, in reply, that there was no history of injury except in one case, a blacksmith, who had received a blow on the arm of the opposite side to that on which the disease subsequently commenced.

Necrosis of the Labyrinth.—Mr. WALTER PYE read a paper on a case of necrosis of the labyrinth.

OBSTETRICAL SOCIETY: ANNUAL GENERAL MEETING.

WEDNESDAY, FEBRUARY 4TH, 1885.

HENRY GERVIS, M.D., President, in the Chair.

Specimen.—The following specimen was shown: Two Dermoid Cysts removed during pregnancy, exhibited by Mr. Thornton.

On the Prevention of Ophthalmia Neonatorum and of its Ravages.—Dr. MCKEOWN, of Manchester, read a paper on this subject, in which he pointed out that the text-books and lectures on midwifery should deal fully with the etiology, progress, and treatment of ophthalmia neonatorum, and that midwives should be taught and required to understand their duties with regard to the disease. Infective matter present in the genital passage of the mother was a frequent cause; it had been stated to be the only cause, and hence attempts had been made to prevent the disease by treatment applied (*a*) to the vagina before delivery, (*b*) to the child's eyes immediately after birth. It was alleged that, by vaginal injections, the frequency of the affection had been diminished, and, by some, that, by treatment of the eyes of newly born infants, the disease had been prevented. Abolition of the disease was stated to have been obtained by Credé, in 499 cases, by washing the eyes with pure water, and then applying a 2 per cent. solution of nitrate of silver. At the Vienna Maternity, by Credé's plan, a large reduction in the frequency had been effected by the nitrate of silver treatment in the wards of Professors Carl and Gustav Braun, where, of more than 3,000 births, only 1.93 per cent. were affected; whilst of 1,887 born at the same time, but not similarly treated, 4.34 per cent. were affected; by Professor Olshausen, who, by washing the eyes with a 1 per cent. carbolic solution, reduced the percentage from 12.5 to 6 per cent.; and in the practice of Professor Simpson, by the nitrate of silver treatment. Of 2,266 births in the practice of Dr. Abegg, who washed the eyes immediately after birth with pure water, only 3 per cent. were affected. Reduction in the frequency had also been obtained by Bischoff, who, by vaginal carbolic injections, and washing the eyes with salicylic lotion, reduced the percentage from 5.6 to 2.0; and by Credé, by vaginal injections (carbolic and salicylic). These results warranted an extensive series of investigations in order to determine to what extent the occurrence of ophthalmia neonatorum might be prevented, and what methods of treatment yield the best results. These points could be settled only by those in obstetric practice. Inquiries were needed regarding (1) the influence of cleansing and disinfection of the genital passage of the mother previously to delivery; was this a plan of treatment which might be adopted as a routine-practice in every case of labour? and (2) the influence of simple cleansing and astringent treatment of the eyes immediately after birth. The entire treatment of the eyes should be in the hands of members of the profession, and investigations should be made in the various lying-in hospitals of the country by the resident medical officers of those institutions.—Dr. GRAILY HEWITT remarked that, although our knowledge of this disease had greatly improved, the difficulty of diffusing this knowledge among those entrusted with the early management of infants remained. To this end, the Obstetrical Society was able to contribute largely. Some years ago, the Society drew up a most valuable code of instructions for the management of infants, which had proved most useful, and was sold largely by Messrs. Longmans at a nominal price. He suggested that a paragraph should be added to these "Rules," containing the necessary information with regard to ophthalmia neonatorum, this paragraph being drawn up by the Council. The main object was to emphasise

the danger of the disease, as well as the necessary preventive measures. Students attending cases of midwifery should also have their attention drawn to it.—Dr. CLEVELAND proposed that a copy of these "Rules" should be sent to every Fellow with the next volume of the *Transactions*. This was seconded by Dr. ROPER.—Dr. WILLIAM DUNCAN said that the great majority of the cases occurred among the lower orders. He had made a rule at the Middlesex Hospital that all cases of ophthalmia neonatorum occurring in the maternity department should be sent at once to the ophthalmic surgeon. He strongly deprecated students and midwives being encouraged to treat these cases.

Collective Investigation.—The PRESIDENT said he had been requested to call attention to the series of questions on puerperal pyrexia published by the Collective Investigation Committee in the BRITISH MEDICAL JOURNAL of the preceding week, and to ask the co-operation of Fellows.

Business.—Certain changes in the laws were then explained by the President, and adopted by the Society, as were also the various reports of the officers. The list of officers and councillors proposed by the Council was declared by the scrutineers of the ballot to have been adopted by the Society.

The Annual Address.—The PRESIDENT then delivered the annual address. He spoke in congratulatory terms of the flourishing condition of the Society. During the past year, 67 new Fellows had been elected, a considerably larger increase than the average of many preceding years; and although the losses by death were 10, and those by erasure and resignation 31, the total amounted to 722, a larger constituency than that of any other London society, excepting the Royal Medical and Chirurgical Society, if, and only if, its non-subscribing Fellows were included. The Pathological Society came next, with 684 members. The attendance at the meetings of the Obstetrical Society had, during the past session, been everything that could be desired; and on more than one occasion in the summer, when there were great attractions elsewhere, the loyalty of the Fellows was such that no falling off occurred in the numbers present. The President expressed his gratification at the regularity with which so many senior Fellows of the Society, including nearly all those who had filled the chair, attended the meetings. After long years of splendid work and service, when temptations to ease became somewhat strong, still, evening after evening, they had encouraged the younger Fellows by their presence, and assisted them by their knowledge and experience. The report of the treasurer included the gratifying intimation that, after payment of all liabilities, and the investment of nearly £100, the year was closed with a balance of £237, and with the amount of £1,400 in Consols. The report of the honorary librarian was also highly satisfactory. A library of 3,406 volumes was no small addition to the equipment of a society, and the advantages offered by the Society's rooms in Berners Street could hardly be surpassed. In comfort and convenience, they approached, indeed, those establishments which recently a great statesman spoke of as temples of luxury and ease. As regarded the midwifery examinations, the report of the Chairman was highly encouraging. The Society's diploma was becoming increasingly popular, and no fewer than 63 candidates presented themselves during the past year for examination, of whom 49 passed, raising the total number of midwives in possession of the certificate to 247. Among the numerous claims which the Society had on the profession—and in twenty-five years, few societies, if any, had established greater—not the least was the impetus given through its Midwifery Board to the higher education of midwives. The President then reviewed the work of the past year, speaking briefly of the papers which had been read before the Society, and also referred to the losses by death of several members, namely, Drs. Hickinbotham and Hall Davis; Mr. Richardson, of Rhayader; Dr. Cuolahan, of Bermondsey; Dr. Westmacott, well known as the skilled artist who for twenty-five years had drawn the woodcuts and plates which illustrated the *Transactions;* Mr. Sharman, of Birmingham; Dr. H. A. Aldred and Mr. Wykeham Lydall, both of London; and, lastly, Dr. Lanchester, one of the President's personal friends, a full obituary of whom appeared in the JOURNAL of January 17th, page 156. After expressing his thanks to the Fellows, the Council, and its officers, for the kindness and forbearance which they had ever shown him, the retiring President congratulated the Society on the acceptance of the office of President by Dr. Potter, who was known to all as a graduate of a famous university, as the Obstetric Physician and Lecturer on Midwifery at one of the London schools, and as having been for the three years during which he had held office the most admirable treasurer to the Society. In yielding this seat of honour to him, Dr. Gervis felt assured that he would be followed by a gentleman who was an experienced obstetrician and gynæcologist, who had an accurate knowledge of the affairs of the Society, and who had its interests thoroughly at heart. In quitting the chair that night, Dr. Gervis carried with him a hundred pleasant reminiscences.

The Retiring President.—A vote of thanks to Dr. Gervis, the retiring President, was proposed by Dr. GRAILY HEWITT, seconded by Dr. PLAYFAIR, and carried unanimously. The speakers referred to the unfailing urbanity and courtesy with which Dr. Gervis had presided over the Society, which had been a matter of common remark. This was combined, when necessary, with firmness, both in the Society and in the Council. The remarks of the speakers were most cordially received.

The Retiring Officers of Council.—The proceedings terminated with votes of thanks to the retiring Treasurer (Dr. Potter, President-elect), and the retiring Vice-Presidents and members of Council.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

MONDAY, JANUARY 12TH, 1885.

GEORGE BUCHANAN, M.D., President, in the Chair.

Lamella of Bone removed by Forceps from the Left Ventricle of the Larynx of a Man.—Dr. DAVID NEWMAN showed the specimen, and gave notes of the case. The patient was seen eight hours after the accident, with the usual symptoms of a foreign body in the larynx but the irritation was so great that a laryngoscopic examination could not be made. After six applications of a 20 per cent. solution of cucaine at intervals of half an hour, a laryngoscopic examination could be made; the bone was seen, and removed by Schrœtter's laryngeal forceps. No bad symptoms occurred after the operation, and Dr. Newman spoke of the great benefit to be derived from cucaine in such operations.

Foreign Body extracted through a Tracheotomy-wound from the Larynx of a Child.—Mr. MAYLARD showed the specimen, described in detail the symptoms, and remarked upon the case. The patient was a child aged 13 months, who was admitted to the Western Infirmary on September 1st, 1884, with croupy symptoms in his breathing, and on the supposition that he had some foreign body in his trachea. Nothing could be discovered on admission; and, on the evening of the day after admission, as the respiratory troubles were becoming serious, Mr. Maylard performed tracheotomy. When this had been done, a small piece of metal was found impacted in the larynx, which was removed through the wound by enlarging it in an upward direction. The child recovered well.

Tumour, connected with the Omentum, removed from the Abdominal Wall of a Lady aged 55.—Dr. DAVID N. KNOX showed the specimen and stated that it had commenced in May last as a small nodule about the size of a pea, at the lower margin of the umbilicus. It grew rapidly, but without pain. On September 16th, 1884, Dr. Knox saw it in consultation with Dr. Walker of Pollokshaws, when it was the size of a small orange, the umbilicus being stretched over it; its deeper relations could not be made out. In removing the tumour it was necessary to open the abdominal cavity, as a large portion of the omentum was incorporated with it. This was ligatured and cut through. The wound healed well, and the patient was all right in about three weeks. Within the last few days, symptoms of return of the wound and in the liver had manifested themselves.

ADMINISTRATION OF BROMIDES.—Dr. Erleumeyer has recently advocated the employment of a combination of the bromides of potassium (2 parts), sodium (2 parts), and ammonium (1 part), in cases where bromide of potassium has hitherto been used. He has found the effect on the nervous system to be more marked and permanent, and the tendency to bromic acne much less (if not entirely absent) than when any one salt is given by itself. The treatment should be persevered in until the appearance of toxic symptoms, such as drowsiness, unsteadiness of gait and speech, &c.

DONATIONS AND BEQUESTS.—The Swansea Hospital has received £1,000 anonymously.—Mr. George Sturge has given £500 to the Royal Hospital for Children and Women, to form the nucleus of a Samaritan fund for assisting those who have been in-patients with three months of their discharge.—Mr. William Charles Jones, of Manchester, bequeathed £500 to St. Mark's Hospital, and £100 each to Earlswood Asylum for Idiots, the National Hospital for the Paralysed and Epileptic, and the Royal Hospital for Incurables.—Mrs. Elizabeth Ann Daly, of Randolph Gardens, Maida Vale, bequeathed £1,000 to the Home for Incurable Children at Maida Vale, contingent upon her father dying in the lifetime of her husband.—The Richmond (Surrey) Hospital has received £100 under the will of Mrs. Frances Susan Seagar.—Miss Mary Ann Jelley has given fifty guineas to the Metropolitan Convalescent Institution.—Mrs. Sedgwick has given fifty guineas to St. Mary's Hospital.—The Middlesex Hospital has received a Bank of England note for £50, anonymously.

REVIEWS AND NOTICES.

ERSUCHUNGEN ÜBER DIE SEMIOLOGIE DES HARNS. Ein Beitrag ur Klinischen Diagnostik und zur Lehre vom Stoffwechsel. Von)r. W. ZUELZER.

order that the chemical investigation of the urine should become of the most regularly employed means in medical diagnosis, it is y necessary to prove that it affords a deeper and clearer insight) the processes of life than is to be obtained in any other way. s the author has attempted, and, we think, with much success. Ie first discusses the varied relationships between the organs and ues of the body and their waste products; but while, as he con- es, the direct relationship between certain of the urinary con- uents and the tissue-waste has been subjected to frequent inves- tion, yet the results are far from satisfactory. The difficulty con- s in the assignment of the specific source; but the assumption seems d that where the tissue-changes have, for example, concerned scle chiefly, the same proportionate relationship will exist between nitrogen and the mineral constituents of the urine as exists in the scle itself. In some tissue-decompositions, for one part of nitrogen earing in the urine there will be a larger proportion of sulphuric a smaller proportion of phosphoric acid; but, in the changes of a tissue as nerve-substance, for one part of nitrogen appearing in urine, there will be a much larger proportion of phosphoric acid, of the remaining mineral constituents in correspondingly increased o.

series of experiments are detailed, which show how much the l quantity of the urinary phosphoric acid is affected by food, and ticularly by diseased conditions. The excretion of the acid appears e diminished in febrile conditions, but increased when the brain or ney is involved; also, after prolonged chloroform-narcosis, a great ease occurs, from which it would appear that marked decomposi- -changes are produced in the nervous tissues, the same also being ed in dementia.

ables are also given showing the results produced by different kinds ood on the composition of the urinary solids.

he influence on the urine of nerve-stimulation, irritation, and on, is next discussed, as also that produced by special drugs, foods, tric currents, and by certain pathological alterations and condi- s. A few of the cases given in illustration will be referred to; as the relation between the nitrogen and phosphoric acid is ex- ssed in percentages, according to the formula $N : P_2 O_5 = 100 : x$, must be carefully borne in mind, as, for the sake of brevity, only value of x will frequently be quoted.

Part of the cerebral hemisphere of a small dog was destroyed; in urine of the 24 hours previous to the operation, x was equal to 12.6, in the subsequent 30 hours to 18. 2. In a strong dog after several s' starvation, $x = 23.9$; ligature of the left carotid and section of h vagus nerves were performed; the following day, $x = 44.8$, and day subsequently, $= 23.4$. 3. A man, aged 63, had an apoplectic ure, with paralysis of the left side. Half an hour after the attack, $= 4.1$; 2 hours later, $x = 3.1$; 8 hours later still, $x = 20.4$. Here, he immediate result, the relative quantities of the phosphoric acid l potassium were diminished at first during the stimulation-period, then greatly increased after this stage had passed.

I. In consequence of the action of such depressor nervines as chloro- n, ether, morphia, chloral, etc., we find the relative proportion of total phosphoric acid, as well as of the glycerine phosphoric acid, rkedly increased. 1. In four patients, before chloroform-narcosis, relation of the nitrogen to the phosphoric acid in the urine—that the value of x, taking N as before $= 100$—was respectively 17.1, , 13.7, and 15; and after, respectively 27.3, 15.0, 17.7, and 24.6. Into a large dog a grain and a half of morphia was injected; before operation, $x = 11.2$; after, $x = 15.3$. The same relative increase the phosphoric acid also occurred in other dogs similarly treated; l similar results were obtained with chloral, ether, potassic mide, and alcohol in large doses.

II. *Effects of Strychnia and Alcohol.*—1. A small dog was subcu- eously injected with 0.03 grain strychnine; in the urine, pre- usly to the injection, $x = 16.2$; during the resulting cramps, $x =$; the following day, $x = 9.4$, increasing up to 14.2 and 16.9. 2. a strong healthy dog, $x = 12.9$; three and a half drachms of abso- e alcohol mixed with water were injected into the stomach; in urine removed ten minutes afterwards, $x = 13.3$; half an hour er, $x = 8.2$; two hours later, $x = 8.6$; and several hours after, = 12.9.

IV. The application, for several hours, of a constant current (six Bunsen elements) from the parietal bone to the nape of the neck, produced an evident increase in the relative proportion of the phosphoric acid. 1. As the result of observations in certain cases of epilepsy, it was noticed that, in the periods between the fits, the proportion of phosphoric acid was lower than normal, but rose markedly immediately after a fit. 2. In the cases of brain-tumour observed, the relative value of the phosphoric acid appeared, on the whole, to be increased, the same also being the case with the earthy phosphates, this last pointing probably to an increased excretion of the bone-earth phosphates. 3. In a case of syphilitic paralysis, it was noted that the relative value of the phosphoric acid was lowered, but increased again under treatment with potassic iodide. 4. In the urine of tabes dorsalis, passed during the night or before breakfast—that is, when directly unaffected by the diet—the relative values of the phosphoric acid and lime, as well also as of the glycerine-phosphoric acid, were increased.

V. The continued excessive engorgement of the stomach with starchy matters has been found to increase the discharge of the urinary phosphates. This may possibly be due to a great development of lactic acid, for, when this acid is given in excess, similar results ensue.

VI. By establishing fistulas, or otherwise causing a loss or rapid discharge of the bile, it has been discovered that the proportion of sulphur in the urine, and particularly that of the unoxidised sulphur, is lessened. The relative value of the sulphuric acid in the urine of the twenty-four hours, taking the nitrogen as 100, is on an average equal to 20. In addition to this, the urine contains of incompletely oxidised sulphur an amount corresponding at most to about 20 per cent. of the sulphuric acid. Now the sulphuric acid of the urine diminishes in proportion as the secretion of bile is increased and rapidly discharged. In general, also, it is found that, when the flow of bile is obstructed, an increase occurs in the urine in the relative quantity of the total sulphur, particularly in the incompletely oxidised form. In fevers, the amount of sulphuric acid has a specific indication. The diminution in the biliary secretion during the period of rise of temperature leads to a corresponding increase in the relative proportion of sulphuric acid present, but the latter sinks again immediately with the fall of temperature of convalescence.

VII. In a patient, aged 50, the subject of aneurysm of the aorta, with much dyspnœa, while the amount of nitrogen in the urine gradually but irregularly increased, that of the phosphoric acid nearly proportionately diminished; thus, the value of x varied on successive days as follows: 11.2, 13.2, 8.3, 3.4, 8.5, 2.5, 2.7, and 2.2. 2. In a man, aged 55, affected with chronic bronchitis, while the relative proportion of phosphoric acid diminished somewhat irregularly, that of the sulphuric acid proportionately increased. 3. In paroxysmal hæmoglobinuria, the value of x was high; in one case from 19 to 22, and in another from 11 to 31.8 in the urine passed before breakfast; and 26 to 54.5 respectively in that passed towards night, the proportion of nitrogen being greatly diminished. 4. In contracted granular kidney, while the volume of the urine was much increased as compared with the normal, the solids were less—$x = 15.5$, as compared with 23.4 in the healthy urine, thus indicating a marked retention of phosphoric acid in the organism. 5. In leukæmia, $x = 16.3$ to 16.9, as contrasted with 20.2 in a healthy man, made the subject of comparison, the relative value of the sulphuric acid being 17.2 to 17.4 (12.8 in the healthy individual).

There is a great deal more of most valuable material in the book under notice, of which the above forms but a comparatively small part. For the data given, as well as the conclusions and suggestions offered, the book is well worthy a careful perusal by the scientific physician.

IN WAR-TIME. By S. WEIR MITCHELL, M.D. Boston: Houghton, Mifflin, and Co.

In War-Time is a novel from the pen of the eminent American physician, Dr. WEIR MITCHELL. It is not often that a popular and skilful physician is found treading the "flowery path" of literature. The duties of a large medical practice, and the absorbing and onerous nature of its engagements—although they are not inconsistent with the cultivation of literary tastes—are usually found incompatible with any considerable effort in the way of literary production. The author of this volume, however, has not only found opportunity of enriching the special literature of his own profession with contributions of much value and originality, but he has published a volume of verse, which we have had the pleasure of reading, full of true poetic fire, adorned with graceful imagery, and flowing with melodious rhythm.

Now Dr. Weir Mitchell has presented the world with a novel! As might naturally be expected, it is a medical story, the hero being a young medical man who fails in life, not from any want of intellectual or scientific training—of which, indeed, he has more than the common share—nor from any want of mental power, but from a certain feebleness of character and absence of moral stamina, so that he is indolent and self-indulgent, where he should be energetic and self-denying, and his sense of duty is so feeble, that he is constantly allowing small things to occupy him when large things are waiting to be done.

The pressure of events, to which every one of us is more or less exposed, bears rather hardly on Dr. Wendell, for that is this unheroic hero's name. At the commencement of the tale, an accidental occurrence opens for him a fortunate road to substantial success in practice, upon which, however, he subsequently loses his hold, for want of a little force of character; and so matters go on, from bad to worse, till his career ends in a climax of criminality and disgrace.

By meanly attempting to shield himself, in a bedside-accident of great gravity, he loses the affection and respect of an admirable woman, who had been captivated by the æsthetic and attractive side of his character and person, and who had accepted him even after she had learnt (by what we cannot, however, help thinking was a mean and unworthy disclosure) that more than a suspicion of cowardice on the field of battle weighed upon him.

It will be seen that the end of this story is tragic and painful, and the logic of events is allowed to have its way with a sternness which reminds us of George Eliot.

The time of the story is that of the civil war between the North and the South, and many of its scenes take their colour and spirit from that exciting period, the opening scene being laid in a military hospital. We shall not disclose the plot of the story, but leave our readers to make personal acquaintance with Dr. Weir Mitchell's novel, assuring them that it will well repay perusal, for the story is full of life and vigour, and the epigrammatic reflections, in which it abounds, are full of a wise insight into human nature.

Dictionary of National Biography. Edited by Leslie Stephen. Volume i. London: Smith, Elder and Co., 15, Waterloo Place. 1885.

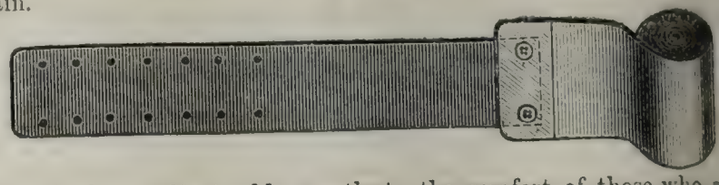
In this volume we welcome the commencement of a great undertaking which already fulfils all the conditions of assured success. A dictionary of national biography is wanting in our literature, and on the scale on which this enterprise is planned requires an energy, courage, and vast outlay, which only a publishing firm of the first order would undertake. This *Dictionary* will probably extend to some thirty or forty volumes, and will take its place beside the great encyclopædias and the great dictionaries of biography on which we have been wont to rely for foreign authors. Due attention will be given to medical biography. Among the list of contributors in this volume we see already the names of Dr. Norman Moore and Dr. J. F. Payne. All the great medical libraries should be furnished with the book, and no one who aspires to completeness in biographical knowledge, or whose bibliographical interest leads him into the direction of forming a library, will willingly be without it.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

IMPROVED FASTENING FOR ELASTIC BANDAGES.

All who have used Martin's bandages must have experienced considerable inconvenience from the method of fastening generally adopted, consisting of tapes sewn on to the webbing, which simply pass round the leg and tie. Not only is this insufficient to keep the bandage properly in position—the two or three turns below the top generally becoming loose, and hanging down—but it induces the very state of things the surgeon is trying to remedy. That is, it fixes the saphena vein against the head of the tibia, and compresses it by an inelastic ligature, thereby causing venous congestion of the leg and foot, and this quite as effectually as a leather garter worn below the knee.

It is evident that the essential of a proper fastening is, that it should be elastic. A ready way to accomplish this is to do away with the tapes, and attach hooks to the webbing, and to fix eyes to a piece of leather sewn on to the bandage about thirteen inches (corresponding to one turn) from the end. There is, however, this objection, that the strain on the stitches after a while tears the India-rubber at this point, and splits the bandage. Moreover, in cases where it is necessary to wear a knee-cap as well, the pressure of the where it overlaps the bandage drives the hooks into the skin, which unpleasant, and, if the fastening happen to be over the bone painful. Messrs. Statham have, at my suggestion, adopted very simple plan, which seems to obviate all these disadvantages. This is merely to fasten two shirt-buttons on the webbed end, and supply with each bandage a piece of fine red rubber, about fifteen inches long, with a double row of holes punched out at each extremity. One end is fastened over the shirt-buttons, and may remain so permanently (when the circumference of the leg is gauged, etc.); the other, in fastening, passes round the leg, and is brought over the button again.



This little expedient adds greatly to the comfort of those who are obliged to wear bandages continually for varicose veins, for which purpose they are greatly superior to stockings; for, though they may while new fit very well, the stockings are generally continued in use until their value as supports is little better than that of ordinary cotton ones; and as often as not they are worn until an extra piece of elastic cord, sewn in at the top, to "keep the stocking up," is necessary, which brings their remedial value down to a *minus* quantity. The bandages have also this additional advantage, that the pressure can be nicely graduated from below upwards.

G. S. Mahomed, M.R.C.S., Bournemouth.

PHYSICIAN'S EMERGENCY CASE.

Mr. H. Colman, L.R.C.P., of Kew, has designed a small pocket case, which is so constructed as to contain most of the articles and drugs needed on an emergency in medical practice. Thus, in addition to a clinical thermometer and hypodermic syringe, the case can contain ether, pilocarpin-solution, and morphia, as well as discs of apomorphia and ergotin, and digitalin-granules, among remedies for subcutaneous injection, and compartments for pills of nitro-glycerine, croton-oil, pilula plumbi cum opio, pilula opii, pilula colocynthidis cum hyoscyamo, pulvis Doveri, and calomel in powder. It also contains urinary test-papers, namely, litmus, indigo (sugar-test), and picric acid (albumen-test).

NEW SPECULUM FORCEPS.



Having experienced considerable difficulty in removing from the grasp of the old form of speculum forceps wadding used in mopping the os and cervix in cases of endometritis, cervicitis, etc., I was led to design the instrument, of which the accompanying woodcut gives a faithful representation.

The instrument is a cross action, has a smooth bite, and the pressure of the thumb and fingers on the sides of the handle is sufficient to open the blades; the wadding can then be grasped by releasing pressure. When it has been used, the wadding is easily disengaged by similar pressure on the sides of the handles, or, if necessary, by a brisk jerk as well. The more the wadding becomes saturated with discharge, the easier it is to shake it off. This shows a marked difference from the old form of speculum forceps, where the serrated surface of the points held the saturated wadding most firmly.

It is now some years since I had my forceps made, and having since used the instrument almost daily I can testify to its value, if only as a saver of time, which is certainly a consideration in dispensary work. The double lines in the woodcut represent the instrument as opened (as pressed on at the sides of the handle), ready to grasp the wadding on release of pressure. The makers are Messrs. Fannin and Co., and D. E. Corcoran.

Alexander Duke, M.K.Q.C.P.I.
Obstetric Physician to Dr. Steevens' Hospital, Dub

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 21st, 1885.

VIRES ACQUIRIT EUNDO.

The movement on foot to improve and extend university education in London, appears to be gathering force and strength even more rapidly than, not long ago, even the most sanguine could have expected. It has found supporters among all the learned professions, but by none has it been more warmly welcomed, and more effectively helped forward, than by the profession of medicine. In the present stage of the question, however, the fact that such a movement has been so widely and influentially supported outside the medical profession, is, as a mere question of policy, a most important element.

The convocation of the University of London, the only body that can be taken as representing, in any true sense, the real wishes of the general body of members of the University, has eagerly grasped at the present opportunity of bringing about some of those changes which, a generation past, it has been its enlightened policy to promote. Owing, probably, in great part, to the tenour of the report, published in a leading contemporary, of the meeting of Convocation of January 13th, the impression seemed to have gained ground that the members of the University regarded the present movement with aversion, if not modified by fear. Most of those who were present at that meeting must have clearly perceived that these were not the sentiments which led to the unanimous appointment of a committee to consider the proposals of the Association for Promoting a Teaching University. This committee has met once, and has adopted a resolution expressing the opinion that "the objects of the Association for Promoting a Teaching University for London would, if carried into effect by this University, contribute to its usefulness and importance." At a special meeting, to be held on February 24th, this resolution will be moved by Lord Justice Fry, seconded by Sir Joseph Lister, and Convocation will be asked to reappoint the committee on a permanent footing, in order that it may confer with the Senate, with the Association for Promoting a Teaching University, and with such other bodies as may appear desirable.

An indication of the attitude which many thoughtful members of the medical profession in London are prepared to take, and of their determination to look, as we have frequently suggested, to the existing University, in the first place, to effect the alterations which have become necessary, is afforded by a report recently prepared by the Council of the Metropolitan Counties Branch of the British Medical Association. This report is an able compilation of the facts with regard to the present condition of medical education in relation to university degrees in the United Kingdom and Ireland; and the arguments in favour of a more reasonable and liberal treatment of London students are stated in moderate language. The value of the report is much enhanced by the statistical tables appended to it. The argument of this report may be shortly summarised as follows. One of the duties of the University of London, as defined by its charter, is to promote "the improvement of medical education in all its branches." The Senate, containing a large majority of members who have no practical acquaintance with the needs of the medical schools, and of the possibilities of medical education, unfortunately took the view that they best discharged this duty by encouraging the presumably higher education of the few, rather than by raising the general standard of the education of the many. The result has been disastrous for the growth of the medical schools in London, and unjust to the large majority of the students of those schools, who were deprived of the opportunity of obtaining the degree of Doctor of Medicine—a legitimate aspiration for the medical student, and, under existing social customs, a valuable possession for the medical practitioner. The insignificance of the number of students who graduate at the University of London is to be chiefly, if not entirely, attributed to the severity of its preliminary examinations—a severity due in part to bad and inelastic regulations, in part to the diffusion of energy over the large number of subjects required, and in part to the high standard of knowledge demanded in certain of the subjects.

To remedy these defects, the report proposes that the medical schools should be represented on the Senate of the University by elected members; that the matriculation examination should be so modified, that boys coming straight from school might be reasonably expected to pass it; and that a modified examination in preliminary science should be held at least twice a year. It appears to be clea that the subjects of this examination in science ought to be arranged with a view to the future career of the students, and that such an amount and kind of knowledge should be required as would afford an useful introduction to the more purely medical sciences. Botany and physics, for instance, should be taught, not with the idea of creating a race of specialists, but of affording an introduction to, and a foundation for, the study of physiology; and so with the other sciences. This is a point which we may expect to have brought prominently forward at the general meeting of the Branch, to be held on March 6th, though it is one not specifically raised by the report of the Council, which will then come up for discussion.

The significant silence of the report with regard to the later examinations of the University, in purely medical and surgical subjects, obviously points to the conclusion that they share the opinion held by many of those who are practically acquainted with the requirements, that these examinations are not unreasonably severe, though doubtless capable of improvement. The Senate of the University, however, has undoubtedly erred in exacting an amount and a variety of knowledge, or rather of apparent knowledge, in preliminary subjects; apparent knowledge, for true knowledge it is practically impossible to attain in the time. To quote the trenchant words of the late Dr. P. M. Latham: "If all medical students had fifteen or twenty years at their disposal, and could dedicate them all to professional education, we might pardon a little innocent declamation in displaying the rich and varied field of knowledge" in which they might expatiate wide, and gather much that might be of use; "it is a truth,"

he adds, "that the whole circle of the sciences is required to comprehend a single particle of matter; but the most solemn truth of all is, that the life of man is threescore years and ten."

THE SURGERY OF THE STOMACH.

Mr. Holmes' interesting contribution, which we publish this week, on Professor Loreta's somewhat original method of treating certain diseases of the stomach by operative dilatation of its orifices, is a fresh testimony of the rapid progress of operative surgery, which has been such a marked feature in the history of our profession during the past five years. The introduction of new technical terms may be considered by many as a great evil, but every new operation requires a denomination, and thus the recent addition of a large number of unfamiliar words ending in "tomy" is a proof of surgical activity, rather than of pedantic literary expedients for the classification of medical terms. Much as it may be advisable to employ plain English whenever possible, our language does not lend itself to the production of any words equivalent to the half-Greek "enterectomy," "gastrostomy," or "duodenostomy." These terms have come into use because they were required, and the most fastidious will consider them preferable to nomenclature based upon the names of operators. At the London meeting of the International Medical Congress, there was much discussion about the operations which render these terms necessary. Then followed, in November 1881, a debate at the Clinical Society, based upon a paper by Mr. Golding-Bird, on gastrostomy as a remedy for cancer of the œsophagus. In the Journal of July 29th, 1882, we published a valuable paper by Mr. Southam, of Manchester, describing a case of excision of the pylorus for cancer of the œsophagus, a contribution that may be said to have become classical, since we have found that it has been quoted far and wide, and the clearness and accuracy of the portion which describes the details of the operation have been universally commended. Since that date, we have had to record Mr. Treves' researches on the allied subject of excision of the intestine. In all the above operations, not only have the usual difficulties of abdominal section to be faced, but the alimentary canal has to be laid open. In gastrostomy and duodenostomy, it is brought and held in contact with the cutaneous surface of the abdomen; in excision, the continuity of the alimentary tract is broken in the course of the operation, and the severed ends, left after the removal of the diseased segment, are united by suture, and returned into the abdominal cavity. All these proceedings demand great manipulative skill, as the application of sutures to intestine is more difficult than the closing of an abdominal wound. The further consideration of these innovations in surgical practice, by reference to the papers which we have quoted, will show that they are all operations of considerable difficulty and of very great risk. Thus, according to Mr. Henry Morris' statistics in the fifth volume of Ashhurst's *International Encyclopædia of Surgery*, six out of twenty-nine cases of pylorectomy, or partial gastrectomy, have recovered from the operation, but in two of the successful cases the patient had suffered from gastric ulcer of a non-malignant type. Gastro-enterostomy consists in opening the stomach, and also the upper part of the small intestine, and uniting the two artificial apertures by sutures. It is performed when a pyloric tumour cannot be removed; and, if successful, it allows the free passage of food, that has been submitted to gastric digestion, into the intestine, and the mingling of bile and pancreatic juice with that food. This operation is decidedly difficult of performance; and, though successful in one case, in the practice of its originator, Dr. Wölfler, it failed on the second and last recorded occasion, when Professor Billroth operated.

Professor Loreta, of Bologna, has introduced another operation on the stomach, which is perhaps somewhat easier than those to which we have referred, and is certainly less dangerous. It is applicable, unfortunately, only to simple or fibrous stricture of the pylorus and cardia and to cicatricial stricture of the cardiac end of the œsophagus; but as these are intractable and harassing affections, any surgeon who can devise a fair remedy for them is in no small way a benefactor to humanity. Nor must it be forgotten that the advocates of excision of the pylorus, especially Czerny, Gussenbauer, and Winiwarter, deliberately encourage the future application of pylorectomy to cases of simple stricture. Professor Loreta first distinguishes dilatation of the stomach produced by idiopathic or secondary causes, such as chronic gastritis, changes in the tissues composing the coats of the viscus, or diseases of other organs involving dilatation, from the form of distension purely and essentially mechanical, and due to contraction of those orifices which he proposes to dilate. The first class is amenable to therapeutic treatment; the second or mechanical type is far more frequent than is generally supposed, and too often mistaken for malignant disease. We publish this week a paper, by Dr. J. Russell, of Birmingham, on a case which shows the value of the siphon-tube as a remedy in dilatation, although the case itself was, according to the author, a severe instance of stationary constriction of the pylorus, the mechanical form, in fact, for which Professor Loreta prefers operative to therapeutic measures.

In this mechanical dilatation from non-malignant contraction of the pylorus, which he diagnoses chiefly through a very careful examination of the fluid ejected from the patient's stomach, Professor Loreta avoids the difficulties and dangers of excision of the structures around that valve, by making an incision, about two inches long, on the anterior surface of the stomach, near its pyloric orifice, introducing the two index fingers into that structure, and forcibly dilating it. In the course of this manipulation, which resembles a practice well known in rectal surgery, the chief difficulty lies in the powerful resistance offered by the muscular apparatus of the stomach and pylorus. Five months after the operation, the first patient who underwent it was in perfect health, and five more cases have been successfully treated in the same manner by the same surgeon.

Professor Loreta has, in two other cases under his care, successfully applied the same principle to simple contraction of the œsophagus. Gastrostomy is not a highly successful operation when performed in cases of malignant contraction of the cardia, but then the constitutional condition of the patient is highly unfavourable, the more especially as he seldom submits to interference of this kind until the malady has reached an advanced stage. For simple contraction of the cardia, gastrostomy is a somewhat severe measure. It is, therefore, highly satisfactory to find that Professor Loreta's practice is encouraging as regards that affection. Four more successful cases of operative dilatation of the cardiac end of the œsophagus are recorded in Mr. Holmes's paper, two having been performed by Loreta, and the remainder by two other Italian surgeons.

An entirely opposite line of treatment has been followed by Dr. J. Robertson, of Oldham, in a case of fibrous stricture of the pylorus, full details of which are published in the Journal this week. The

s great dilatation of the stomach, and the patient was in an ad nced stage of emaciation and exhaustion. Excision of the pylorus 'n had there been the certainty of obstruction there, seemed, to the erator, a hopeless undertaking; and an exploratory incision appeared less, unless that operation could be performed. It occurred to Dr. bertson that, under these circumstances, the small intestine might secured high up, and stitched to the abdominal wall, and an open- made into it, through which food might be introduced. The eration appeared to make no serious demand on the patient's engtli, and the risk of peritonitis would not, according to the rator, be greater than in gastrostomy. On its completion, the mach would still be available for the performance of its functions; l food introduced by the new channel would pass over an extensive estive tract, and be acted upon by the secretions of the liver and ncreas, as well as by the succus entericus. M. Surmay had pre- asly performed this operation, which in principle resembles gastro- erostomy. It was proposed to divide the operation into two stages n gastrostomy. Unfortunately, the patient sank from exhaustion ew hours after the first part of the operation had been performed. inding the upper part of the small intestine, after making the ab- inal wound below the umbilicus, in order to avoid the transverse on, the operator does not seem to have met with any insurmount- difficulty. Dr. Robertson also suggests that dilatation of the orus might be effected through an opening made in the duodenum. fessor Loreta's method appears, however, to be far easier and r.

n conclusion, it would appear reasonable to advocate the mildest edy likely to be of any avail in any of the above cases. If wash- out the stomach prove beneficial, when continued for months or s, that practice should alone be deemed sufficient. If non-ma- ant stricture of the pylorus exist, and washing out the stomach to give relief, it would seem better to undertake the operation advo- d by Professor Loreta than to deprive a man of his pylorus. Yet advocates of so serious an operation as pylorectomy cannot be ied for urging its early performance, should malignant disease be onably expected to exist.

THE HUNTERIAN ORATION.

publish at page 363 the full text of the oration in honour of John ter, delivered on Saturday last, at the Royal College of Surgeons, Ir. John Marshall. The opportunity presented by the periodi- occurring occasion has been utilised variously by successive ors. With some, the chief theme has been John Hunter and his ; with others, the great anatomist and surgeon has been men- ed with comparative brevity, though always with admiration and ration, while the mass of the discourse has consisted of an ex- ion of the orator's views on professional education, on the recent ress of scientific medicine and surgery, or some such interesting

r. Marshall's oration may be described as thoroughly terian. Having paid a just and graceful tribute to the ories of Allen Thomson, Cæsar Hawkins, and Erasmus Wilson, Marshall asked, "But what concerning the name and fame of Hunter?" and hence, to the end of the oration, Hunter was r left out of sight. He began with a sketch of Hunter's career, h he treated on the principle of that "retrograde method of investigation" which is followed by the historian or the philosopher in tracing the history of mankind or the origin of things, tracing his history back through successive periods to his early days; and then, entering on the main part of his oration, he indulged in the poetical idea of imagining Hunter to be present in spirit, and of pointing out, so far as could be judged from his own deeds and declarations, what would probably be his opinion on the work and doctrines of the present day. Mr. Marshall then proceeded to show with what appreciation Hunter would regard the work done in the enlargement of his museum; in the expansion and modification of his views on structure through the use of those instruments of research which were but imperfect or altogether unknown in his time; in the extension of physiological knowledge, especially with regard to the nervous system; in the modern comprehensive doctrines of evolution and correlation; in the recent advances in pathology; and in the improvement of clinical research and the advances of surgery. In all these matters, Mr. Marshall pointed out, there is much that would have delighted Hunter, as fulfilling his hopes and developing lines of research suggested by him; much that would have surprised and at the same time gratified him; and much that he would have received in the truly philosophical spirit of a great teacher, always ready to be him; self taught. The orator's conception of what Hunter's attitude towards modern progress in science and practice would probably be, was a happy one. Its prosaic form would be, the relation between Hunter's work and his opinions, as expressed in his writings, to modern discovery and progress. How close that relation was in many points, the perusal of the oration will indicate. Hunter's fame may be celebrated, and his claim to our respect and veneration indicated, by polished eloquence confined to himself and his own work; but a more instructive course could scarcely be followed than that adopted by Mr. Marshall, in pointing out how modern scientific and practical observers have been, in regard to many matters, working on the lines laid down or suggested by "The Founder of Scientific Surgery."

NEW ANIMAL-PIGMENTS.

Since the well known observations of Kühne on the colouring matter of striped muscle, it has been generally held that the red colour of both the cardiac and the voluntary muscles is due to the presence of hæmoglobin in these tissues. New light has, however, been thrown upon the subject by a communication of very great importance just made to the Physiological Society, by Dr. Charles A. MacMunn, of Wolverhampton, a gentleman whose name is well known in connection with spectroscopic research. He has been engaged for several years in carrying out an extended series of investigations on the spectra obtained from the muscular tissues and from the organs generally. These investigations have resulted in the discovery of a new muscle-pigment, which Dr. MacMunn terms "myo-hæmatin," and also of a new class of tissue-pigments to which the name of "histo-hæmatins" has been provisionally given. These pigments have hitherto been overlooked. "Myo-hæmatin" appears to be very widely distributed, both amongst vertebrate and invertebrate animals. It has been found in the cardiac and voluntary muscles of all the mammals, birds, reptiles, amphibians, and fishes examined; also in the muscles of insects and spiders, and in the hearts of the snail, slug, lobster, crab, crayfish, etc. No reagent is required for its demonstration. A small piece of the tissue to be examined is put into a very simple instrument, termed a "compressorium," and there squeezed out into

a thin stratum; this stratum is then observed with a micro-spectroscope, an incandescent Swan lamp being often used for illumination. The spectrum of "myo-hæmatin" is very remarkable, its bands being of extreme narrowness. These bands are five in number; three of them are strongly defined, the remaining two are much more faint. Of the strongly defined bands, one occurs before the Frauenhofer line D; it extends from λ 613 to 596. The second band occurs between the Frauenhofer lines D and E; it extends from λ 569 to 563. The third band also lies between D and E; it extends from λ 556 to 549. The two faintly marked bands are situated near the violet. These bands do not belong to hæmoglobin or to any artificially prepared decomposition-product of hæmoglobin. Dr. MacMunn regards myo-hæmatin as a respiratory pigment concerned in the internal respiration of the tissue; and he advances a similar view with reference to the "histo-hæmatins," which have a wide distribution amongst the organs of both the vertebrate and the invertebrate type.

Another statement of a highly suggestive and most important character is the announcement of the occurrence of reduced hæmatin (hæmochromogen) in the medulla of the suprarenal body. This organ Dr. MacMunn assumes to be concerned in the destructive metamorphosis of effete hæmoglobin. The importance of this question in its bearings upon the association of suprarenal lesions with the peculiar conditions making up the clinical features of Addison's disease, may be readily conceived.

The whole subject of these new animal-pigments requires, of course, much fuller elucidation, but enough has been advanced to indicate that a very important addition to our knowledge of the subject has been recently made.

BRITISH ASSOCIATION.

We understand that Professors Struthers, Nicholson, and Brazier, have been offered the offices of vice-presidents of certain sections, at the ensuing meeting of the British Association in Aberdeen, and that they all have declined the appointment.

FEVER IN LONDON.

The fever-returns laid before the Asylums Board at the last meeting gave a small increase in the number remaining under treatment; but the full facts could not be accurately ascertained, as the returns from the Eastern Asylum had not made their appearance when the statistical returns were given. But one fact stood out very clearly, and that was the appearance of typhus fever. This had appeared in the South-Western and South-Eastern districts, the latter asylum having received fourteen cases, and the former three. The sudden influx of these cases affords unmistakable indications that overcrowding and ill sanitary conditions are present in force in the South-Eastern and South-Western districts of London. There were 299 cases of scarlet fever in the five asylums, and 71 cases of enteric fever, in all 387 cases, an increase of eight upon the number left the previous fortnight.

THE EMPLOYMENT OF PATIENTS.

The Local Government Board has given its assent to the employment of patients in the camp at Darenth, and no objection will be raised by the central authority to the assignment to the patients so employed a reasonable money-payment for their services. The managers have thought it necessary to get this explicit declaration on account of the enormous amount of work thrown upon them by the "discoveries" made by Mr. Lloyd Roberts, the auditor. The medical officer of one asylum has ordered tobacco to be served to certain of the working patients in the imbecile asylum, and has given diets of bread and cheese and beer. The auditor insists that he cannot find any justification of the distribution of tobacco, and he insists that in the extra diets the steward should enter the individual names of all who receive them. To do this would entail an enormous expense in clerkly labour, and to have clerks to carry out the auditor's suggestion would cost more than diets.

DR. DALLINGER ON A NEW SEPTIC ORGANISM.

At the meeting of the Royal Microscopical Society on February 11th Dr. Dallinger gave his presidential address on a new Septic Organism. Dr. Dallinger has acquired a high reputation for his microscopical researches, more especially for his laborious work with reference to the life-history of monads. The septic organism in question was a new monad, which he had observed in an infusion of rabbit in which a piece of cod-fish had been macerated. It was a very small ovate organism, with six flagella, two on each side, and one at each end, measuring about $\frac{1}{10000}$th of an inch in length, and about half that in breadth. It could be seen sweeping and destroying putrescible matter, increasing at the same time very rapidly in number. Besides dividing by fission, it also multiplied by producing spores, after apparent conjugation of two individuals. One individual became applied to the other, and the two gradually became fused together. The resulting organism was swollen; its protoplasm soon became broken up into minute granules. It still continued to swim about, however, but after a time, its motions became slower, and it could be seen to drop a continuous stream of granules, the spores, and ultimately to die and disappear. The development of these granules into the adult monad could also be traced.

APPOINTMENTS AT THE LOCAL GOVERNMENT BOARD.

We are able to announce the following list of the medical inspectors temporarily appointed under the authority of the recent Treasury minute, in connection with the sanitary survey, and in the consideration of precautionary measures against cholera. The inspectors employed (or to be employed) have been Mr. Davies, junior, son of Mr. Davies, Medical Officer of Health, Bristol; Professor de Chaumont; Mr. Arnold Royle, C.B., who has visited Market Weighton, Yorkshire, as to enteric fever; Dr. Sweeting, of the Fulham Hospital; Dr. Simpson, Medical Officer of Health of Aberdeen (who made an excellent voluntary report on cholera in Damietta in 1883, which the Foreign Office issued as a Parliamentary paper); and Dr. Gresswell, of the Physiological Laboratory of St. Bartholomew's Hospital. Several of these inspectors are employed in work which is essentially temporary, and the selection, so far as we can judge, does not necessarily imply that their services will be available, or that they will be retained, for the whole period to which this Treasury sanction relates. The appointments of the engineering inspectors are also temporary; but one of them must, we believe, be regarded as in succession to the late Captain Hildyard, R.E., whose death was announced a few weeks ago.

ARSENICAL FLOORS.

Although the use of arsenical colours in wall-papers has not yet been legally prohibited in this country, the exertions of a small band of sanitarians have been so far successful that it is now possible to obtain papers of every description and colour perfectly free from any dangerous pigment; but the need that there still is for legislative interference is strikingly shown by Sir Edmund Beckett in a letter published in the *Times* of the 16th instant. He states that, as Chancellor of the Diocese of York, he has been asked to grant a faculty for a chancel, of which the joists and concrete under the floors are actually to be "washed with a solution of arsenic out of a watering-pot," with a view to preventing "dry rot." The architect is so fully aware of the dangerous nature of the preservative solution, that he warns the builder to put on "gloves and a veil while he is performing the op

n ;" and we can only imagine that he supposes that, when the ter has evaporated, the arsenic will remain fixed in the wood, and fectly innocuous. But the most elementary knowledge of che- stry would have taught him that arsenical compounds are noto- usly volatile, and that the poisonous fumes will rise, sucked up by warm air of the church. Probably he trusts to the comparatively pervious character of the tiles overlying the concrete ; but, if the urch in question be warmed, as most churches are now, by hot water or am-pipes beneath the floor, the gratings through which the warm rises will afford a ready exit for the arsenical vapours evolved by high temperature of the pipes. We gather from Sir Edmund's er that he will refuse the faculty until this item is withrawn from specification ; but it is well that all persons in similar positions uld be reminded that the so-called "preservative solutions" or emical applications," used for the purpose of preventing this form ecay, owe their efficacy to arsenic, or to the still more poisonous equally volatile corrosive sublimate, as in the process known as nising. "Dry rot," so called, is a fungus which prefers a damp confined atmosphere, and may be avoided by the use of well oned timber and free ventilation of the foundations ; but, if any nical preservative be desired, the choice should be restricted to sote or some other of the products of the distillation of tar.

COLLECTIVE INVESTIGATION IN GERMANY.

results of the attempt to obtain information by means of an organ- on similar to the Collective Investigation Committee of the British ical Association, under the auspices of the Medical Society of in, have been published, and they certainly show that the medical titioners of scientific Germany are, if anything, less easily aroused rticipation in such work than their brethren in practical Eng- . The inquiry, which extended over twelve months, related to in points in the history of phthisis, and these have received ate reports. In all, 200 replies were received, of which 38 were ss. The first report is on the heredity of tuberculosis, by H. ndorff. The facts recorded are not specially striking, concerning, ey do, only 24 cases of phthisis. The second report, by Meyer- is on the contagiousness of phthisis, and concerns 40 individuals, f whom were husband or wife. Contagion appears to be most communicated just before death. One case became phthisical using the milk of a tuberculous cow. Leyden and Fraentzel re- on the curability of phthisis, relying on 57 replies. The greatest er were cured between the ages of 20 and 30. In 9 cases, both s were affected. In 37 cases, there was no special treatment, the patients had been once or more to winter or other health- s. Kalischer reports on 8 instances of pneumonia passing into sis. In 6 of the cases, the pneumonia pursued a typical course. ugh the immediate scientific results of this method of collecting nation may not be great, the indirect educational value of the isation is immense, and, if persevered in, must lead, first, to a wider st in scientific problems ; and, secondly, to a much more exten- nd intelligent co-operation in the work.

THE SMALL-POX EPIDEMIC IN LONDON.

long-continued epidemic of small-pox in London shows no om of abating. In those districts where the local authorities pine relative to vaccination, the inhabitants suffer. The returns before the Asylums Board on Saturday presented a deplorable f things in regard to small-pox, inasmuch as the numbers under ent had risen from 1,112 a fortnight ago to 1,240, and, more- it was stated that 55 of these had come in on one day of the last 13 of the number coming from Islington. In all, 481 fresh cases me into the hands of the managers' officers during the fortnight ; l died in the same period, 253 had been discharged cured, and remained, as stated, 1,240 under treatment. The chairman that it was time when the local authorities should be called upon to give attention to the evils which the neglect of vaccination was inflicting upon the inhabitants of the metropolis, and not only to take care that vaccination was performed upon infants, but that children and adults should be encouraged to be revaccinated. Sir E. H. Currie seconded the motion, and remarked upon the comparative immunity of Kensington from attacks of small-pox, and said that there was no doubt that this great benefit to the community was obtained by the house-to-house visitation which had been instituted there by the Rev. Darby Reade's colleagues in Kensington. The Rev. Darby Reade also spoke of the benefit which had accrued from the house-to-house visitation, in order to ensure the vaccination of the infants, and the revaccination of the adults and the children from whom the protective effects of vaccination had passed off; and the motion was unanimously carried. Of the patients under treatment, 767 were in the camp at Darenth, 363 in the hospital-ships, and the other 110 were in the seven asylums in the suburbs of London. Of 44 cases admitted to the South-Eastern Asylum, no fewer than fifty per cent. died soon after admission, a proof of the severity of the type of disease prevalent in this quarter of the metropolis.

THE FRENCH MEDICAL SERVICE IN TONQUIN.

THE complaints which were made in the English newspapers against the medical arrangements of the expeditionary army in Egypt in 1882 are now being repeated in a portion of the French press, with regard to the administration of the sanitary service of the French army in China ; with this difference, however, that if the deficiences in the medical *personnel* and equipment, supplied to the French forces, are correctly reported, the complaints regarding them have a solid foundation ; while, in the case of the British expedition, they were proved to be baseless. The *Progrès Militaire*, a French newspaper of considerable authority on military topics, recently published a letter from a correspondent, dated Hanoë, December 14th, 1884, describing a complete dearth of everything connected with the hospital service. There was not only a deficiency of surgeons, but of hospital attendants; and although the general in command had been making requisitions for additions to their number since the month of October, the transports from France had arrived without bringing any of the needed accessions to the hospital establishments. Certain medicines, such as quinine and bismuth, which had been distributed as preventives of disease, were on the verge of being altogether expended. The articles of bedding for the ill-developed hospitals were quite insufficient, while there was a scarcity of everything in the linen stores. "Our surgeons," writes this correspondent, "have proved their devotion beyond all praise ; they have multiplied themselves, as it were, in their work, and have shown great ingenuity in improving the condition of the wretched barracks which serve as hospitals ; but all their efforts cannot make up for the absence of suitable material means of assistance." The official surgical establishment supplied to the British expeditionary army in Egypt in 1882 is quoted by way of contrast with the surgical strength of the French force in Tonquin. "For the military operations which preceded the battle of Tel-el-Kebir, the English sent to Egypt 162 army medical officers. Our effective force in Tonquin is larger than that of the English army in Egypt, and of naval and military surgeons together we count at the most 60 practitioners, and of these, 15 have not attained their doctorate." From all the facts reported, the *Progrès Militaire* is led to conclude that it is not merely a few surgeons and hospital attendants that are required, but that several fully constituted field-hospitals, with adequate establishments of hospital *personnel*, ought to be at once dispatched to Tonquin.

THE SALVATION ARMY AND HEALING MIRACLES.

SOME faith-healing miracles, in connection with the Salvation Army, are reported from Hanley. "Major" Pearson, who professes a power of restoring the blind, the deaf, and the lame, held services on Sunday in the Tontine Street Circus, Hanley. Many thousands of persons

attended, including over one hundred invalids of all ages, some of whom were brought to the circus in Bath chairs, being unable to use their lower limbs. After the ordinary service, the faith-healing ceremonial commenced. The "major" and his subalterns threw off their outer garments, and descended into the arena. A lad, who had been a cripple from an early age, was first operated upon, and while the major vigorously rubbed the disabled limb, his followers and the congregation, at the request of the major, engaged in prayer. They prayed earnestly and long, and finally the lad was induced to rise and walk about a little. The major proclaimed that the Almighty had answered their prayers. Before this result was brought about, the major's followers had dispersed themselves over the hall, each detachment surrounding one of the many who had come to be healed. They prayed vigorously, and the scene, which lasted until midnight, is said to have been of a most exciting character. An old woman, who represented that she had been deaf for forty years, stated that she had regained her hearing, and a young woman, who went to the building stone deaf, testified to her cure. Another young woman, a confirmed invalid, who was taken to the circus in a Bath chair, was prayed for, and finally staggered to her feet, and walked a yard or two, and a few moments afterwards another woman walked feebly across the building, her Bath chair being hoisted over the heads of the people, the throng shouting "The Lord be praised," and making use of ejaculations expressive of their astonishment. Several persons ascended the platform and publicly testified to their cure, and the congregation joined in thanksgiving for these miraculous recoveries. There should be no difficulty in settling the question as to whether the above cases have really received the benefit reputed to have been gained; the lame and the deaf might, at any rate, be easily tested. We fear, if this were done, by anyone who might care to take the trouble, that it would be found that the cures were not so pronounced as the report states; and that the whole transaction is but another instance of the power of mind over body, even to the point of absolute self-deception, particularly when the body has been enfeebled by illness.

THE COST OF THE GENERAL MEDICAL COUNCIL.

The work of the General Medical Council and its Branches is not carried on without the expenditure of a good deal of money. The total amount expended, during the past year, by the General Medical Council alone, independently of the Branches, was £5,242 10s. 4d. To this is to be added £896 2s. 9d. expended out of the Dental Fund, and the expenditure of the Branches. The English Branch Council expended £759 10s. 10d.; the Scottish £597 3s. 1d.; and the Irish £485 2s. 4d. The expenditure for the year 1884 reached the grand total of £7,980 9s. 4d.; in addition to this, over £2,500 was invested, and substantial balances were still left to the credit of each Branch Council. About half of the total sum expended was paid to members of the Council; each member receives a fee for each attendance, whether at the General Medical Council or at the Branch Councils, and in addition, expenses—"Travelling," "Hotel," and "Additional,"—are paid with no grudging hand. In this way, £2,926 7s. was paid for the attendance of members at the General Medical Council, £494 11s. for attendance at the Executive Committee, £117 12s. for attendance at the Pharmacopœia Committee, £86 2s. for attendance at the meetings of the English Branch Council, £65 2s. for attendance at the meetings of the Scottish Branch Council, and £136 10s. for attendance at the meetings of the Irish Branch Council. The total sum expended in fees and other expenses of attendance at meetings of the General Medical Council, its committees and Branches, was £3,826 4s. This sum was thus distributed: £1,470 was paid to the twelve English members (£900 18s. to the eight London members, and £569 2s. to the four Provincial members), £1,226 8s. was paid to the six Irish members, and £1,129 16s. to the six Scotch members. These sums were not, of course, equally divided among the members, but were assessed in proportion to the number of attendances and the number of journeys; thus, the lowest sum received by an English member was £95 11s., while the highest was £178 10s.; th lowest sum paid to a Scotch member was £155 8s., the highes £327 12s.; the lowest sum paid to an Irish member was £161 14s., th highest £336. There is a considerable difference between the sum expended in fees by the Branch Councils; the English Branc Council expended in this way, £86 2s., or an average of £7 3s. 6 to each member; the Scottish Branch Council thus expended £65 2s or an average of £10 17s. to each member; while the Irish Branc thus expended £136 10s., or an average of £22 15s. to each membe It would thus appear that the expenditure of the Irish Branch this way is, proportionally, three times as great as the English, a twice as great as the Scotch. The number of registrations, on t other hand, is smaller in Ireland than in the other two countri The number of registrations in England was 1,419, in Scotland 56 and in Ireland 416. The total expenditure of the Scottish Bran Council during 1884 was abnormally large, owing to the presentat of an honorarium to the late registrar; if this be deducted, expenses of the Scottish Branch Council fall considerably bel those of the Irish Branch Council.

CLINICAL SOCIETY OF LONDON.

At the meeting of this Society held on Friday, the 13th instant, recently elected President, Mr. Bryant, gave his inaugural addr which will be found printed *in extenso* at page 371 of to-day's Brit Medical Journal. After some preliminary remarks, he urged u the members the necessity for precision in the observation of fa and in the use of surgical terms, urging that it was extremely diffi for men to be original now-a-days. As to the common use of unm ing phrases, he pointed to the term "strumous" disease of any ti as being very confusing, as it altogether dropped allusion to "inflammatory" process which was the basis of the malady. He liked, too, the phrase "antiseptic precautions," since it conveyed definite meaning of the actual method employed during oper procedures, or in the subsequent dressing of a wound, every sur being apt to employ the term for his own special particular Again, cases of intestinal obstruction should be carefully sepa from those of intestinal strangulation; and the processes of repai inflammation should not be confused, as was now too often done conclusion, he greeted with much satisfaction the increased ten between physicians and surgeons to draw together in their hi work. Dr. Glover moved a vote of thanks to the President fo address, which, he thought, would tend to lead the members to g precision in their work. He approved also of the increased jus of physicians and surgeons in their labours, and was glad tha Bryant was so hopeful as to the future of the Society. Mr. Pi seconding the vote, remarked that he should be pleased to see the meetings of the Society set apart for the discussion of the s "struma." The vote was carried unanimously, and Mr. Brya returning thanks, thought the council of the Society would gi suggestion of Mr. Pick their careful consideration. An inte discussion on myxœdema, and another on phlegmonous phary followed the President's address.

CASE OF CÆSAREAN SECTION PERFORMED BY THE PATIENT HE

The following remarkable case was related by Dr. von Gugge and the patient exhibited, at the last annual meeting of Bo physicians at Tetschen. On September 28th, 1876, he was sum at two in the morning to see a woman, who was said to have cu her abdomen. He found the patient lying in a miserable ho a wretched and dirty bed, exhausted and bloodless, and only of making affirmative and negative signs. On removing a dirt coat which covered her, an incised wound was seen on the rig of the abdomen, passing downwards and inwards, from which what large coil of intestine protruded, the greater part of

ered with dried blood, rested upon a dirty blood-soaked straw sack. morrhage seemed to have ceased from every part of the wound, the uterus was contracted to the size of a child's head. A fully veloped, but dead, male child lay between the patient's knees. an linen was procured from a neighbouring house, and, with a ce soaked in oil, the protruded intestines were carefully wiped and rned, and the wound sewed up, the peritoneum being included h the skin. The incision was about 3½ inches long, and slightly aped. It was dressed with a five per cent. carbolic solution, fixed h strapping, and the abdomen was carefully bandaged. By the rnoon, the patient was able to speak, and next day the history taken. She had had seven children previously, four of whom been born without medical assistance, two with forceps, and one r craniotomy. The pains began between September 24th and 25th, ed in the afternoon, and came on again on September 26th, when midwife stated that she felt the presenting head on vaginal nination. On September 27th, convulsions came on, according to patient's account, accompanied by agonising pain and great nsion of the abdomen, the movements of the child ceasing. pain and distension became so severe that the patient determined erform Cæsarean section, of which she had heard. She, therefore, a razor, and divided the skin slowly; she then made a second a third incision; and finding the child not yet appearing, made her cut, which caused a large jet of blood to escape, and exposed placenta; this she removed. One foot of the child came into , which she seized and pulled upon until the whole of the body through the wound, the head requiring the exertion of all her . She divided the umbilical cord, laid the child (which she ved to be dead) beside her on the bed, and threw the placenta on loor. She had passed neither urine nor fæces since September The progress of the case was very good; urine was passed on fternoon of September 28th, but the first stool not till October The pulse reached 120 on the day after the operation, but was again so frequent; the temperature is stated to have been not high; and, although there was a considerable amount of exuda- from the wound, it had united by October 3rd. The patient returned to work, and has been ever since in perfect health.

OPHTHALMIA NEONATORUM.

well known that excellent results have followed from Credé's ylactic measures against purulent ophthalmia in new-born en, so that in the Dresden Lying-in Hospital the appearance of lisease is now very rare. Drs. Leopold and Wessel have made igations for the purpose of proving whether this form of almia be due to a specific poison. The prophylactic measures therefore, suspended in the case of eighteen children. One of was attacked by ophthalmia, and the mother of this infant very slight vaginal discharge, in which, however, gonococci ound. On the ninth day of treatment, the conjunctival secretion und to contain as many of these micro-organisms as at first. e other infants remained free from ophthalmia, including l whose mothers were suffering from granular vaginitis, and ococci could be found in the vaginal secretions of any of the een parents. This appears to prove the specificity of oph- a neonatorum. Hence, it would appear that either the pro- tic measures of Credé should be enforced at lying-in hospitals, that the vaginal secretion of every mother in such institutions be microscopically examined. The paper which we quote will d in the *Archiv für Gynäkologie*, vol. xxiv, part 1.

HISTORY AND DIAGNOSIS.

ORMAN MOORE, who has already discussed, with great skill, estion of the true cause of death of several historical characters, mmunicated to the *Athenæum* of January 31st, his opinion on eged death, by slow poisoning, of Queen Catherine of Aragon. Contemporary historians believe that that pious and unfortunate princess really died by foul means; but Dr. Moore points out that the embalmer of her corpse made the following note. "He had found all the internal organs as healthy and normal as possible, with the exception of the heart, which was quite black and hideous to look at. He washed it, but it did not change colour; then he cut it open, and the inside was the same. Moreover, a black round body stuck to the outside of the heart." Comparing this description with a specimen of melanotic sarcoma of the heart in the Museum of St. Bartholomew's Hospital, Dr. Moore considers that it tallies with what any man ignorant of that disease might write, if called upon to describe an actual specimen. Though there is a tendency, even now, amongst the inexperienced to call anything in a sick man or in a corpse "black" that is darker than usual, it must be admitted that the "black round body" is very suggestive, and the symptoms of the royal patient also support Dr. Moore's theory, that she died of melanotic sarcoma. It has been suggested in a later number of the same periodical that Dr. Moore may have been perfectly correct as to his surmise of the existence of melanotic sarcoma, but that the Queen's death was, at least, hastened by ill-usage.

CATS AS MEAT.

A WOMAN named Ann Little, 54 years of age, was charged on Tuesday last at the Gateshead county police-court with stealing one game-cock and two cats, and was sentenced to three months' imprisonment. In the course of the evidence it was stated that for some time past the prisoner has been in the habit of stealing cats, skinning them, and selling them to her neighbours as Scotch hares. About a fortnight ago, information to this effect was given to the police; and on the prisoner's house being searched, the remains of several cats were found. In and about the house were discovered no less than forty cats' skins, some of which have been identified by neighbours as the remains of their favourites. When charged with the offence, the prisoner replied, "I have sold several, and we have eaten several ourselves; they are very like a rabbit when cooked."

THE SUPPOSED RIGHT TO POLLUTE WELLS.

AN interesting and important point, as to the right of one of two owners of wells having a common source of supply from underground water to restrain the neighbouring owner from so dealing with his well as to cause the water which the other owner pumped out of his well to be polluted, has recently been decided by the Court of Appeal in the case of Ballard *v.* Tomlinson, all three judges agreeing to set aside the judgment of the court of first instance. It appeared that the plaintiff drew his water from a well sunk to a depth of 222 feet into the London clay, and bricked around. From the bottom of the well, a pipe was carried through the Thanet sand into the chalk, to a depth of about 300 feet from the surface. From the sand and chalk, which were water-bearing strata, the water found its way by natural pressure into the well, from which the plaintiff raised it by pumping. About 99 yards from the well, the defendant had another well of similar construction, and going down to about the same depth in the sand and chalk; but the surface of the ground was about 10 feet higher than at the plaintiff's well. Both wells were supplied from the same subterranean water. The defendant, having ceased to use his well, made a drain by which sewage was discharged into it. The plaintiff complained that the sewage had polluted the water in his well; and he claimed an injunction to restrain the defendant from so using his well as to pollute the water in, or coming into, the plaintiff s well; and also claimed damages for the pollution. It was argued for the plaintiff that, although there can be no property in underground water flowing in natural undefined channels, and, therefore, that a landowner may so deal with such water as to deprive his neighbour of it, yet he cannot so use his well as to prevent his neighbour from drawing pure water. It was also said that the de-

fendant's well and pipe were artificial channels, so that he was responsible for the consequences of allowing sewage to flow into the well. For the defendant, it was argued that he had not polluted any water in which the plaintiff had any property; and that, if the plaintiff chose to draw the water from the common supply, he must take it as he found it. In giving judgment, the Master of the Rolls—Lord Justices Cotton and Lindley concurring—held that the defendant had polluted the common reservoir of water by collecting sewage in an artificial shaft; and that no one has at any time any property in water percolating below the surface of the soil, even while it is under his land; every one has a right to appropriate such water, and may prevent it from going on to the land of others. One neighbour may actually cause the water of his neighbour to come upon his own land, and deprive him of it, with impunity; every one has a right to appropriate the whole percolating water, since this is a common reservoir or source, in which no one has any property, but from which any one has a right to appropriate any quantity. As to the question whether any one of those who have that unlimited right of appropriation has a right to contaminate the common reservoir, or whether he is bound not to do anything which would prevent any of those persons obtaining the value of their right, the Court held that, inasmuch as every one has a right to appropriate the common source, he has a right to appropriate it in a natural state, and no one has a right to contaminate the common source. As to the point that the pollution would not have been caused, if the plaintiff had not used artificial means by pumping, and, therefore, that it must be taken to have been his act, that was not a true proposition. So long as a person does not use any means which are unlawful, as against his neighbours, however artificial those means may be, he has a right to use them. The question of natural and unnatural user only goes to this, that, although a defendant does contaminate water which goes on his neighbour's land, yet, if that act is only what has been called the natural user of the land, and although by that act the neighbour is injured, the defendant is not liable, because, otherwise, he could not use his land at all. The question did not depend upon the persons being contiguous neighbours; it signified not how far the plaintiff was distant from the defendant if it was shown that the defendant contaminated the common source of water. Summarily, no one has any right in percolating water; which, as it comes from a common source, every one has a right to appropriate; but, equally, no one has a right to injure. This decision, reversing the previous one of Mr. Justice Pearson, is a highly satisfactory one.

THE BOWER AND KEATES CASE.

As inquiries have been made in regard to the settlement of this case, the Honorary Secretary (Dr. R. W. Burnet) asks us to state that the plaintiffs having obtained motion for a new trial, and having as yet taken no further action in the matter, the Committee cannot issue a statement until the case is finally settled.

SCOTLAND.

PROFESSOR OGSTON offered his services to the Government, in connection with the Soudan campaign, and a goodly number of medical students volunteered to accompany him. We understand that the War Office, while thanking Dr. Ogston, intimated that they will not require the services of civilians.

COMPLETION OF NEW UNIVERSITY BUILDINGS.

TOWARDS the fund now being raised for the completion of the new university buildings, Edinburgh, the Society of Accountants has voted the sum of two hundred guineas; while, towards the same object, the Royal College of Physicians of Edinburgh has voted the sum of five hundred guineas; and Mr. Cox, of Gorgie, has intimated a subscription of two hundred and fifty pounds.

AMBULANCE-CLASSES IN SCOTLAND.

AT Lockerbie, in Dumfriesshire, an ambulance-course has be arranged for women, and another for men. The course was co menced in the Drill-Hall, Lockerbie, by Dr. Maclachlan, on Frida in the women's class there were fifty, and in the men's class nea one hundred. The course is in connection with the St. Jo Ambulance Association. At Dumbarton, on Monday night, branch of the St. Andrew's Ambulance Association was formed. Beatson of Glasgow, with a detachment, attended, and explained nature and objects of the Association; he also demonstrated, as far possible, the work which the ambulance-corps has to undertake. proceedings were highly successful, and a committee was appointed, w the Provost as president.

GENERAL COUNCIL OF GLASGOW UNIVERSITY.

WE understand that an association, similar to the one spoken o last week's JOURNAL as existing in Edinburgh, is also in proces formation in connection with Glasgow University. Its objects s identical with those of Edinburgh, namely, transference of the ex tive and administrative powers of the University to a body repre tative, in large measure, of the General Council; and, secon material alterations in what is considered the present monopol teaching, so as to extend to all the Faculties the same privileg are now given to extramural lecturers in medicine. The associa is to be called the University Council Association of Glasgow, a to have power to correspond with similar associations elsewhe Scotland, and to act along with them for the advancement of ends which are common to all the general councils. Since the visional Committee approached by circular the different membe the Council, very gratifying proofs of support have been forthco

ADULTERATION OF MILK.

A FARMER has been fined six guineas by Sheriff Balfour, at Gla for supplying a dairyman with 3 gallons of sweet milk, contained 20 per cent. of added water, and 2½ gallons of skimmed which contained 18 per cent. of added water.

THE DETECTION OF ADULTERATED MILK.

LOOKING to the importance of milk as an article of diet, especi the poorer inhabitants of our large towns, it is incumbent sanitary authorities to exercise continued vigilance over the supply of their respective districts, so as to ensure its puri genuineness. Several recent prosecutions in Glasgow, in all of convictions have been obtained, ought to help materially to some of the absurd ideas with which the retailers of that com appear to have become imbued, and which they apparently th be to the interest of their customers. One unsatisfactory about these cases of prosecution, is the somewhat startling pancies that are from time to time brought out by different from examination of portions of the same sample of milk. In the above cases, at Glasgow, it was specially noticeable; the tion stating that 31 per cent. of skimmed milk had been added, for the defence, it was stated that it only amounted to 10 p If different processes of analysis give such grave differences results, it would be important for analysts to arrange son method as the test for settling all disputes in the law-courts a quality of milk.

GLASGOW UNIVERSITY UNION.

ENCOURAGED, no doubt, by the success that has attended th ment in Edinburgh, the students of Glasgow University ha mined to establish among themselves a social union. Its a promote friendly intercourse among the students, past and of the University, and, also, to act as a central body represe students' interests, of which the providing adequate accom for the various college societies is to be specially kept in view

inary meeting was held in the Bute Hall on the 14th instant. re was a large attendance of students, and good progress was made utting the proposed project on a satisfactory footing. A committee wenty students and ten ex-students was elected to take all neces- steps for the establishment of the union, and they were authorised aise funds for the erection of suitable premises, as well as to pro- temporary accommodation. There was a strong feeling that the mittee should be allied with a general board representative of the ents of each year in the several faculties, and this was agreed to. h proper organisation, and appreciation of their duties and sphere ction, such an union as is contemplated ought to be a very power- factor in the relations between the students and the governing of the University.

EDINBURGH EYE, EAR, AND THROAT INFIRMARY.

he annual meeting of the contributors to the Edinburgh Eye, and Throat Infirmary, held there recently, it was stated that, ig the past year, 1,365 cases of disease of the eye had been treated e Infirmary, and, of these, 19 had been indoor patients. During ast year, 700 cases of ear-disease had received treatment, while umber of cases of disease of the throat had been steadily increas- ince this class of cases was added to the diseases treated at the ution. It was stated that, since the reopening of the Eye In- ry thirty-four years ago, no fewer than 29,802 individuals had for advice to it; and that, since 1875, no fewer than 4,238 of ear-disease have received treatment; while the indoor patients ye-diseases have, during the past thirty-four years, numbered and these have been accommodated, for longer or shorter ls, as their cases required. The financial statement showed the ie for the year to have been £135, and the expenditure £103. neeting cordially thanked the medical officers for the work they one, and reappointed them for the ensuing year.

ASSOCIATION FOR INCURABLES, EDINBURGH.

ADY the accommodation at the disposal of the Committee of gement of the Edinburgh Association for Incurables, is felt to ufficient, as is evidenced by the large number of applications ed from those suffering from incurable diseases by the Com- , and which it is unable to entertain. During the last twelve s, 14 male and 15 female patients had been admitted to the of the hospital. During the year, 21 patients had died, and 6 ft of their own accord; at the end of the year, there remained hospital 24 males and 28 females. The income for the year, , showed a falling off of over £50, as compared with 1883. nds of this institution are raised largely by volunteer lady- ors, of whom 366 in the country districts collected nearly in 1884.

RESULT OF THE FANCY FAIR AT GLASGOW.

sult of the Fancy Fair held at Glasgow in aid of the Glasgow al for Sick Children has been officially announced, and a most uble one it appears to be. The sum drawn at the Fair amounted £17,000, and this, with donations announced from the platform Fair for the same purpose, brings the sum total to the cent figures £21,492 1s. 4d. The necessary expenses amounted 29 18s. 4d., thus leaving a balance in favour of the institution ,062 3s. Further sums, amounting to about £100, are still d. It is also stated that about £4,000 will be required for the d dispensary in connection with the hospital should the l be carried out.

DENTAL HOSPITAL, EDINBURGH.

ell equipped and officered Dental Hospital, Edinburgh, con- to increase its usefulness as an institution for relieving the g poor in their dental troubles, and also as a valuable educa- nstitution. The number of patients treated during 1884 num- bered 6,279, of whom 3,163 were males and 3,116 were females—a wonderfully near approach to equality in numbers of the sexes. The increase, as compared with the number of the previous year, was 681. The increase in patients, and the necessity for providing proper teaching accommodation, had compelled the dental staff to consider the propriety of enlarging the present premises, or of looking for larger premises elsewhere; and in the report at the annual meeting of the supporters of the hospital, held recently, the staff suggested the advisability of appointing an administrative committee to make the necessary inquiries, with a view to having the hospital established in a more commodious building. The financial report brought out a very exact, though small, balance in favour of the institution, the income for the year having been £347, and the expenditure £346.

IRELAND.

His Excellency the Lord-Lieutenant has appointed Dr. Conolly Norman, of Castlebar Lunatic Asylum, to be resident medical superintendent of Monaghan District Lunatic Asylum.

CORK STREET FEVER HOSPITAL, DUBLIN.

Dr. St. George Ashe has been elected a temporary physician to this hospital, in succession to the vacancy caused by Dr. Redmond's promotion to the post of visiting-physician, consequent on the retirement of Dr. J. W. Moore, on the completion of his septennial term of office. Dr. Ashe is the efficient medical officer of the dispensary district (High Street) adjacent to the hospital.

VACCINATION PROSECUTIONS.

The Omagh Guardians, having directed their medical officers of the several dispensary districts to institute proceedings against defaulters under the Compulsory Vaccination Act, have been informed by the Local Government Board that the relieving officers or the clerk of the union are those who should institute proceedings. The medical officers are merely required to attend the prosecution of the cases in order to give evidence, and it would be manifestly undesirable that they should be placed in such a position towards the persons whose children they have to vaccinate.

HEALTH OF BELFAST FOR 1884.

The statistics for the past year show that this town has been in a satisfactory sanitary condition; indeed, the general death-rate has been lower than for the past seven years. The death-rate from all causes was 3 per 1,000 less than in 1883, and 2 per 1,000 under that of 1882; while in zymotic diseases, it was more than one-half less than in the year preceding. The mortality from scarlet fever was less by 197 deaths than in 1883, and 132 fewer deaths occurred from whooping-cough; while there was not a fatal case of small-pox during the year. There was a considerable increase in the number of deaths from diarrhœa, as compared with the previous year. The birth-rate was equal to 32.5 per 1,000.

SKIBBEREEN DISPENSARY.

In the Queen's Bench Division this week, an application was made, on behalf of Dr. John Levis, to have a conditional order made absolute, directing the Skibbereen Dispensary Committee to declare him duly elected as their medical officer. On November 1st, an election for a medical officer took place, when Dr. Levis received twelve votes, and two other candidates eight votes each. A fresh election took place on November 15th, but, previously to it, the guardians disqualified two members of the committee who were favourable to Dr. Levis, and substituted two others, who voted against him. At the election, on November 15th last, Dr. Levis received fourteen votes, and his opponent, Dr. Jennings, a similar number, and the election

was declared void. Mr. Justice Lawson pronounced the judgment of the Court that Dr. Levis was entitled to the *mandamus* establishing his election on November 15th. He said that, with respect to the two gentlemen who were removed previously in order that two others might be put in their places who would vote in a particular way, the guardians had no power to manipulate the constitution of the committee in that way. They only had power to supply vacancies that occurred in the interval between the regular elections.

MERCER'S HOSPITAL, DUBLIN.

In the JOURNAL of November 22nd of last year, p. 1024, we referred, with regret, to an unpleasant occurrence at this hospital, and commented upon the disagreement among the members of the visiting staff. Unfortunately, matters, instead of improving, appear to have become worse; and we are sorry to say that a strong partisan spirit of contention has been aroused among the students attending the hospital, which has exhibited itself in a very unbecoming manner. A meeting of the past and present students was summoned, at which, it is stated, twenty-two persons were present. The number of present students actually on the books for the current session who attended it might, it is alleged on the same authority, have been easily counted on the fingers of one hand. At this meeting, certain resolutions reflecting upon changes in the working of the hospital sanctioned by the governors, and protesting against the appointment of a house-surgeon being made without notification by advertisement or otherwise, were adopted. A deputation of four was appointed to wait upon the board of governors at its next meeting, and a request was published that all students—past or present—should attend the hospital at a specified time to support the deputation. As an Irishman would naturally say, there was "the makings of a fine row" in all this. Such proved to be the result, and a more unseemly exhibition than what subsequently took place would be hard to imagine. "The entire of the front hall and adjacent rooms," according to a newspaper-report, "were filled by an excited throng of students, who manifested, in a very decided manner, their disapproval of the action which had been taken by the board." The governors declined to receive the deputation, and, when this was announced to the students, they expressed their determination not to leave the hospital until the governors did. These gentlemen did not seem anxious to come out and face the storm that apparently awaited them outside the board-room, which was kept in a state of siege for six hours, until the students, becoming tired of watching, left the hospital in a body about four o'clock P.M. It is hard to conceive how such proceedings, which are described as being for a time "as amusing as a pantomime," could occur in a hospital. The fact of their having done so is a public disgrace, which every one connected with the governing body of this institution should feel. If the governors have permitted the institution they are responsible for to sink to such a position as that it now occupies, and are unable to retrieve it, they should certainly be called upon by the public to give an account of their stewardship. There is a balance against the hospital of nearly £2,000; its subscription-list is declining; and "it is in contemplation to reduce the daily average number of beds, owing to the crippled state of its funds."

DEARTH OF THE MEDICAL STAFF IN DUBLIN.

In addition to the civilian practitioners already employed in the Dublin garrison, the following gentlemen have been appointed, with the approval of the Director-General and as a temporary measure, to do duty from the 14th instant: Messrs. W. G. Connor, attached to the Royal Infirmary; G. Kennedy, in charge of staff-departments; J. C. Watson, attached to Island Bridge Barracks; G. Cowen, attached to the Royal Barracks; J. A. C. Penny, attached to the Pigeon House Fort. The medical staff of the garrison, when those officers belonging to it who are under orders for foreign service have left, will only number, we believe, four surgeons-major, and the surgeon of the Grenadier Guards. The usual number of the medical st doing duty in Dublin is about eighteen. It is also stated that the are now only four non-commissioned officers of the Army Medi Corps in the whole Dublin garrison, and not one at Beggar's Bu Barracks or Portobello.

REPRESENTATION OF THE ROYAL UNIVERSITY OF IRELAND.

A SCANTILY attended meeting of the graduates of this University held in Dublin last Tuesday, for the purpose of taking steps to u on the Government the claims of the University to have a par mentary representative. Dr. Lyons, M.P., presided. The gradua claimed that the University should not be ignored in the redistribut scheme now before Parliament on the grounds, 1, of simple equa with regard to other universities; 2, that it represented all cla and shades of opinion in Ireland, without distinction of sex, or cl or religious denomination; and that the number of candidates examination in the autumn of 1884 was 2,129; 3, that upon dissolution, after an existence of thirty years, of the Queen's versity, its graduates were transferred to the Royal University, wh therefore, thus enjoys continuance and succession for a period of th four years; 4, that, judged by the standard of the number o members, the Royal University stands on exceptionally st grounds. As compared with the University of London, on the n of which the constitution of the Royal University was framed constituency of the latter in 1884 was 2,714, while that of the fo was 2,390. It is noted that the number of those on whom de are annually conferred in the Royal University has progressed increasing ratio for the last four years, so that it has been calcu that, at the same rate of increase, the constituency will, in years, exceed that of any university entitled to the parliamentary chise. It is also stated that this increase is certain to continue, at an augmented rate, since the Royal University has been accep many classes hitherto unprovided for in regard to higher educatio resolution was adopted in furtherance of the object of the meeting a deputation was appointed to bring the claim of the Univ before the Government and Parliament.

COLLECTIVE INVESTIGATION.

LIST OF RETURNS RECEIVED DURING JANUARY 1885.

THE Committee desires to acknowledge the following returns re during the month of January.

Border Counties Branch: VII, X, Thomas Beaufoy Green.
Lancashire and Cheshire Branch: Bolton District: X, De Vere Hunt (3
Metropolitan Counties Branch: I, Francis J. Allan, M.D.; IV, Maurice M.D.; Va, Francis J. Allan, M.D.; X, D. H. Cullimore, M.D.; Francis J M.D. (6); Maurice Davis, M.D. (6).
North of England Branch: X, J. Coatsworth Watson, M.D. (2).
South-Eastern Branch: East Surrey District: I, John H. Galton, M.D.; H. Galton, M.D. (2); H. G. Plimmer (4).—West Surrey District: I, A. W man, M.D. (3); X, William A. Thomson (6).
Southern Branch: Wilts District: XII, H. J. Manning.
Worcestershire and Herefordshire Branch: III, H. R. Ker, F.R.C.S. (2).
Yorkshire Branch: III, J. W. Ridley; VII, J. T. Windle, M.B.; X Allan, M.D. (5).

BEQUESTS AND DONATIONS.—The annual report of the gove the Tunbridge Wells Hospital announces the receipt of £1,00 the will of Sir William Siemens, and £1,000 under that of Jones Gibbs; also that the latter bequest has been supplemen donation of £700 from Mrs. Jones Gibbs, to enable the gove erect a children's ward, to be called "The Jones-Gibbs M Ward."—The British Home for Incurables has received £1,(duty, under the will of Miss Robinson.—The Viscountess O has given £150 to the Newark Hospital and Dispensary. Thurlow has given £105 to the Royal Hospital for Diseases of th —Mr. John Rawson, of Brockwell, Sowerby, has given £10 Halifax Infirmary.—Mr. Charles F. Cundy (per Dr. Powell), an Crosse and Blackwell, have each given £52 10s. to the M Hospital.—The Clothworkers' Company have given £50, ad to the Charing Cross Hospital, £50 to the Surgical Aid Soc £40 to the Middlesex Hospital.

UNIVERSITY DEGREES FOR LONDON MEDICAL STUDENTS.

e Council of the Metropolitan Counties Branch of the British lical Association appointed a subcommittee on July 22nd, to con- r the subject of university degrees for London medical students. report of this subcommittee was drawn up by Dr. Gilbart Smith, Honorary Secretary, and was adopted by the Council on January h, 1885.

he report points out that, during the last seventy years, the ad- ce made in medical education has been great. Medical students now ergo what is, in fact, an university training in medicine, at medi- schools which are the equivalents, as respects medicine, of the eges of Oxford and Cambridge in relation to arts. There is a ural desire to obtain degrees conferring titles, and to acquire the l right to the designation of "doctor," applied from time im- norial by the general public, and associated, in the public mind, a higher status of professional education. The title conferred he degree of M.D. has a special value in this point of view; it is gitimate object of ambition on the part of a young medical man, ought to be within reach of any man of average ability who ses to work for it, and receives his education at any of the medi- schools of the country. It is for this reason that, in spite of the reputation maintained by the Royal College of Physicians and Royal College of Surgeons, men are no longer satisfied with the ession of the diplomas of L.R.C.P. and M.R.C.S.

acilities exist for obtaining degrees in the provinces, in Scotland, in Ireland, but not in London. In order to obtain degrees ents have, with few exceptions, either to leave London to finish education at an university town, to seek a degree from a foreign ersity, or to remain without such degree. It is not surprising, efore, that there should be an annual diminution in the number tries in London, concurrently with an annual increase in the ies at the universities of Edinburgh, Durham, Manchester, and r places. A table is appended showing that there has been a ly decrease in the number of students entering at the London ical schools ; the number in 1879 was 731, and in 1883 605, whilst ntries at the Scotch schools exhibited a steady increase. The es at the Scotch schools in 1883 were 596, or practically the same t the metropolitan schools. This the Council consider "an alous position when the respective populations of the two tries, and the relative advantages, as regards facilities for instruc- are considered."

udents in London do not graduate at the University of London t in small numbers. The medical schools are not represented in governing body of the university, which is thus not in sympathy the medical schools.

e University, though professedly anxious to promote a general tion of the standard of medical education, has so framed its inations, that but few achieve final success ; the result has been, o raise the general standard, but to educate a few highly. The trar of the University, writing officially in 1881, distinctly stated "to increase the number of those who might seek the degrees of University, has been, in the estimation of the Senate, quite dinate to the maintenance of the high qualification of its gra- es."

dical education, however, is not advanced by excluding 90 per of the students of metropolitan and other medical schools from dvantages of medical degrees. The preliminary examinations sed are so vexatious and difficult, that few students present selves for the matriculation or preliminary scientific examinations, ut a prolonged course of "cramming ;" for these and cognate ns, most students do not aim at obtaining a London degree. The xaminations above mentioned involve two years of hard study roportionate outlay ; it appears that the majority of rejections at these examinations.

e University of London is, in reality, less the University for the politan schools than are the Scotch and Irish Universities. The ations as to curriculum and residence at the Universities of Cam- e, Durham, Victoria, and Oxford, are inseparable obstacles to ass of metropolitan students. That many students who origi- register as students in England, eventually take their degrees in and, is shown by the fact that, while the total number of qualifi- ns registered in Scotland in the years 1876 to 1880 was 1,059, umber of degrees granted by Scotch Universities was 1,536 ; one- of the graduates, therefore, of the Scotch Universities during eriod had migrated to Scotland for those degrees.

at the medical education given in Scotland is not better than that provided by English schools, is shown by the results of the examinations for commissions in the medical departments of the army and navy. At the examinations held in February and August, 1884, there were 119 candidates from Scotland, of whom 61, or 51 per cent., failed, and 97 from England, of whom only 36, or 37 per cent. failed. Yet, if the number of persons holding degrees in England, Scotland, Ireland, the services, and abroad, be analysed, it is found that 7 per cent. derive their degrees from the University of London, while 64 per cent. derive them from Scotch Universities.

A comparison of the population and the number of practitioners in the three kingdoms, with the number of students educated at the medical schools of the three kingdoms, shows that a far larger proportion of medical students and graduates in medicine are trained and produced by Scotland than is required for the use of the population of that country.

Of the 16,192 practitioners in England, only 5,219, or 32 per cent., possess M.D. or M.B. degrees ; of the 2,206 practising in Scotland, 1,557, or 70.6 per cent., possess degrees ; of the 2,430 practising in Ireland, 925, or 38 per cent., possess degrees. A still more striking difference appears on further analysis, for only 20.6 per cent., of the 5,219 who in England possess university degrees have obtained those degrees from an English university, while, in Scotland, 98.7 per cent. have obtained the degree from a Scotch university ; and, in Ireland, 72.6 per cent. have obtained the degree from an Irish university ; 62.7 per cent. of the degrees held by practitioners in England, and 26.3 of the degrees held in Ireland, were obtained at Scotch universities.

Of the officers of the public services, 42.4 per cent. possess degrees, but only 4 per cent. obtained them in England. Among the practitioners resident abroad, 43 per cent. possess degrees, but only 5 per cent. obtained them in England.

The Council have adopted the opinion that London needs a representative medical university, which shall have the same kind of relation to the medical schools of London, as the universities of Cambridge, Edinburgh, Manchester, Durham, Glasgow, Aberdeen, Oxford, and Dublin have to the medical schools of those towns, and that the best and most legitimate remedy for existing defects in medical education in the metropolis, lies in the University of London.

The Council therefore propose to lay before the Senate of the University the following suggestions :

1. The medical schools of London should be adequately represented in the Senate of the University, the members for the schools being elected by the schools.

2. All students, save those who have already matriculated at other universities, might be required to pass the Matriculation Examination of the University of London previously to entering at the London schools.

3. The Matriculation Examination might be modified, so as to cover such a range of knowledge as might reasonably be expected from boys on leaving public schools, without compelling them to resort to the most objectionable system of "cramming."

4. The severity of the Preliminary Scientific Examination might be considerably diminished.

5. The Preliminary Scientific Examination might be held at least twice a year.

6. Students should be permitted to present themselves for examination at any periodical examination after matriculation.

In view of the fact that many medical practitioners have sought degrees from foreign universities after having been for some time in practice, and of the natural desire on the part of a certain number of practitioners to obtain degrees, it is further recommended that the Senate of the University be requested to take into consideration what arrangements, if any, could best be made, without detriment to medical education, whereby facilities to obtain degrees should be afforded to medical practitioners of certain standing and repute.

A general meeting of the Metropolitan Counties Branch, to consider what steps can be taken to carry into effect the objects specified, will be held at the Royal School of Mines, Jermyn Street, on March 6th, at 8 P.M.

THE QUESTION OF TYING THE UMBILICAL CORD AFTER LABOUR.—Dr. John T. Booth, of Wyoming, Ohio, has contributed to the *New York Medical Record* the history of a case where an illegitimate child was born and the cord was cut but not tied. The probable object was to let the child bleed to death. Instead of this it did well, there being no hæmorrhage. Dr. Booth raises the old query whether tying the cord is necessary. Some have said that it is not ; and undoubtedly in many, if not in most cases, there will be no hæmorrhage if the physician wait until the child has breathed a few times. But the present practice of tying is both safe and wise.

THE PARKES MUSEUM OF HYGIENE.

UNDER the presidency of the Lord Mayor, who had the support of the Duke of Cambridge and of many distinguished promoters of sanitary science, a meeting was held in the saloon of the Mansion House on February 13th, with a view to raise a fund to place the Parkes Museum of Hygiene on a sounder footing. Among those present were General Bateson, who accompanied the Duke of Cambridge; Earl Fortescue, Lord Mount-Temple, Sir Nathaniel de Rothschild, M.P.; the Hon. A. Yorke, Sir Curtis Lampson, Mr. J. S. Gilliat (Governor of the Bank of England), the Sheriffs of London and Middlesex, Mr. Edwin Chadwick, C.B., and Sir Robert Rawlinson.

A statement had been prepared describing the work that had been carried out for the last eight years. The Museum is open free for a part of every day in the week. A large number of practical demonstrations and lectures, including courses of special free lectures for the benefit of the Working Men's Club and Institute Union, the Institution of Builders' Foremen and Clerks of Works, and the metropolitan building societies, had been given in the Museum, which had also been placed at the disposal of teachers of hygiene; classes had attended from St. Bartholomew's Hospital, King's College, University College, Guy's Hospital, the Royal Engineers, and the Young Men's Christian Association. The rent of the present premises, £320 a year, was a great tax on the income of the Museum; and if the council were enabled to pay a premium of £750, a renewal of the lease could be secured for fifteen years at a rental of £200 *per annum*. In addition to the £750, a considerable sum was needed for providing proper accommodation for the books presented from the library of the International Health Exhibition.

The proceedings were briefly opened by the LORD MAYOR, who expressed his sympathy with the objects of the institution.

The Duke of CAMBRIDGE said that he would not have hesitated to be present, if only because the Museum had been founded in memory of a man who had done so much for the Army; but he was there also as a citizen and an Englishman, knowing that the question under consideration had a great bearing on the social happiness and prosperity of millions in every part of the country; it did not affect one class only. Hygiene might be looked upon, more or less, as a new science, and the more the population increased, the greater was the importance of extending this knowledge. The effort resulting in the foundation of this Museum had a small beginning. It was through the instrumentality of University College that the Museum was commenced; subsequently the society took special premises, and had since carried out its objects to the best of its ability. Its work, however, could not be successfully continued without means—not very large means, but substantial means. There were two considerations which presented themselves to his mind. In the first place, the premises now occupied must be re-engaged; and, in the second place, the institution must be put on such a footing that its utility would be widely increased. He concluded by moving the first resolution: "That the statement which has been circulated affords conclusive evidence that the Parkes Museum of Hygiene is meeting a great educational want, and is worthy of increased public support."

Mr. J. E. ERICHSEN, in seconding the resolution, dwelt upon the necessity for such knowledge of the laws of health as this institution sought to disseminate, as a means of counteracting some of the evils which civilisation, by fostering the agglomeration of great masses of people in cities and in other ways, tended to produce. He appealed for unstinted assistance, and a national recognition of the services of this beneficent institution.

Mr. GEORGE GODWIN, F.R.S., supported the resolution, and urged that the premises in which the Museum was now housed were too small for the work which the institution might accomplish. More room was wanted to extend the instruction which could there be given to those qualifying themselves for the duties of medical officers of health, and sanitary inspectors, and to builders, plumbers, and others connected with the building trades. The way in which building had been done had been a disgrace, and had led to death, and to loss enormous in amount in a merely monetary point of view.

Lord MOUNT-TEMPLE moved: "That it is essential to the permanent efficiency of the Parkes Museum that the number of annual subscribers be increased." He observed that the Museum afforded individuals instruction not otherwise obtainable, and urged the importance of getting all persons to unite to carry out the great work of sanitary improvement. It was not scientific men only who were occupied with the consideration of such matters. Parliament dealt with sanitary questions, cabinet ministers must attend to them, and it was the object of the supporters of the Parkes Museum to diffuse sanitary knowledge widely among the people.

Dr. J. RUSSELL REYNOLDS, in seconding the resolution, recalled a saying of the late Dr. Edmund Parkes, addressed to students who were preparing themselves for medical duties in the army and navy:—"Never think of your life, but take care of your health."

Mr. ERNEST HART, speaking in support of the motion, observed that it seemed strange that, in so great and practical a city as London a subject so practically important as health should receive so little attention. Nearly the whole of the donations about to be announced had come from the West-end, and very largely from medical and other professional men. The Parkes Museum had served as the model for similar institutions at Washington, Paris, Turin, and Yokohama. All those museums had been largely subsidised by the Governments of the countries in which they were established. As yet no such recognition had been extended to the Parkes Museum, which was, indeed, little more than the skeleton of what such an institution should be. They had no laboratory, and they wanted adequate provision for lectures, and a demonstrator. He showed that financially the vigorous support by the City of sanitary progress was a practically wise step and an urgent duty.

Earl FORTESCUE hoped that a museum of health, in a country which had shown an example of efficient sanitation to the civilised world, would not succumb for want of adequate support.

The resolution was adopted.

Captain DOUGLAS GALTON read a list of subscriptions, which included sums of £20 each from the Duke of Cambridge, Mr. Thomas Twining, Sir Robert Rawlinson, Dr. Parkes, and Dr. Langstaff; £50 each from Mr. S. Morley, M.P., Mr. Joseph Gillot, Sir N. Rothschild, M.P., and Mr. Ernest Hart; £100 from the Duke of Westminster, and £100 from the Duke of Northumberland, the total amount being a little over £1,000.

Dr. CRAWFORD, Director-General of the Army Medical Service, moved, and Mr. EWAN CHRISTIAN, President of the Royal Institute of British Architects, seconded, a vote of thanks to the Lord Mayor, and the motion having been put to the meeting by the Duke of CAMBRIDGE, and received with acclamation, the proceedings terminated.

THE CANCER-INQUIRY OF THE COLLECTIVE INVESTIGATION COMMITTEE.

THE Collective Investigation Committee has just completed its surgical card—an inquiry into certain points in the etiology of cancer. The points which are taken are the influence of inheritance, the influence of residence or locality, and the effect of diet. It is proposed that the inquiry shall be limited, for the present at least, to cancer of the breast, in order that there shall be as little doubt as possible regarding the nature of the primary disease.

Although most surgeons are perfectly agreed on the general question of the inheritance of cancer, and many of them believe that the influence which is exerted by it is very considerable—second, perhaps, to none—yet the facts on which the theory of inheritance rests are not nearly so complete as might be desired. The mere circumstance that two members of the same family, not always very nearly related, suffer from cancer, is not a strong proof of the influence of inheritance, and is capable of explanation in more than one way. Mr. Hart showed, in an interesting paper, a few years ago, that, taking into account the number of persons who annually die of cancer in the United Kingdom, it is only to be expected that cancer should attack two or more members of the same family in a large number of instances. Even the occurrence of a very large number of cases of cancer in one family may, perhaps, be explained by the action of some other cause than inheritance. The cancerous members have perhaps been subjected to the same physical or mental strain, to the effects of irritants of a like kind, to the influence of the same locality, which combined may be much more powerful than the influence of inheritance. The Committee, therefore, desires to place the theory of inheritance on much stronger evidence than that on which it at present; and, for this purpose, would enlist the sympathy and the experience which general practitioners throughout the country can bring to bear upon it. Naturally, not only positive, but negative evidence is sought; and it is hoped that replies will be received from those who have observed cases of cancer of the breast in which inheritance appears to have played an important part, and from those who have observed cases in which the patient was the only member of the family who suffered from cancer.

Hitherto, the possible influence of locality or residence on the production of cancer has scarcely been taken into account. Lately, however, statistics have appeared to show that cancer is more prev

leys than on hills or mountains, and that the valleys which are versed by rivers which are subject to seasonal overflow are particularly affected by cancer. The statistics on which these statements rest, are not free from reproach; for they are, for the most t, founded on the deaths which occur in the various districts. It obvious that, if they are to afford reliable proof, they should refer the locality in which the first appearance of the disease takes ce; for it is notorious that a large number of patients with cancer not die in their own homes, or in the locality in which the cancer t appeared, but in hospitals or distant towns to which they have orted for operation or for other treatment. Here, again, the experience of the general practitioner may serve to correct the fallacies he present statistics and, still more important, to furnish information which general statistics are wholly deficient in. And here, again, s of the utmost importance that information should be given, not y by those practitioners who see many cases of cancer, but by those see few or who do not see any. If there are districts in which cer is never observed, it is of vast importance that they should be wn, and that their physical characters should be carefully studied. he replies to the questions relating to diet, may be open to the ction that the evidence is not so direct as that which relates to ritance and locality. It must rest, to a large extent, on the ements of the patient or the patient's friends; and, to say nothing he pleasure or pride which many persons have in declaring that are very small eaters, and still smaller drinkers, there is such a wide difference of opinion regarding what may be considered to rge eating and drinking. Still, it is by no means impossible that y practitioners, seeing much of the intimate lives of their patients, be able to furnish evidence on this point of more value than has erto been obtained.

aving in view the steadily increasing death-rate from cancer, and horrible nature of the malady itself, every question relating to its ogy cannot fail to be of interest. This fact alone should make resent inquiry popular, and the Committee may fairly hope that ill elicit a large number of replies. In order to increase its larity, and to induce practitioners in all parts of the kingdom to it up, each one of the three points has been dealt with separately, the questions relating to each are as few and as simple as possible. wers will be gladly accepted to any of the three sets of questions rately, and negative evidence is eagerly sought after.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885: ELECTION OF MEMBERS.

Regulations for the Election of Members passed at the Meeting of the Committee of Council, October 12th, 1881.

re shall be a standing notice in the JOURNAL every week, of the meetings of e Committee of Council throughout the year; and stating that gentlemen ishing to be elected members of the Association must send in their names *enty-one days* before the meeting of the Committee of Council at which they ish to be elected.

t a list of applicants be in the hands of the Committee of Council *fourteen ys* before such meeting of the Committee of Council, and that the Branch-cretaries be supplied with *several* copies of the list.

t no member be elected by a Branch, unless his name has been inserted in e circular summoning the meeting at which he seeks election.

etings of the Council will be held on April 8th, July 8th, and er 14th, 1885. Gentlemen desirous of becoming members of ssociation must send in their forms of application for election e General Secretary, not later than twenty-one days before each ng, namely, March 18th, June 17th, and September 24th, 1885, cordance with the regulation for the election of members, passed e meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

ES VALLEY BRANCH.—This Branch will meet on Wednesday, February t the Griffin Hotel, Kingston-on-Thames. A discussion will take place on natism, in which the Secretary of the Collective Investigation Committee e part. Meeting at six, and dinner at seven, o'clock.—A. ROBERTS LAW, ary Secretary.

ORDSHIRE BRANCH.—The second general meeting of the present session held at the North-Western Railway Hotel, Stafford, on Thursday, February 85. The President, Dr. E. T. Tylecote, will take the chair at 3.30 P.M. will be read by Dr. Reid (Stafford) and Dr. C. Smith (Wolverhampton), and ssion will take place upon Chorea and Acute Rheumatism. Dr. Isambard London) will be present at the meeting.—VINCENT JACKSON, General Secre-Wolverhampton, February 2nd, 1885.

GLOUCESTERSHIRE BRANCH.—The next meeting of the Branch will be held, under the presidency of Dr. Needham, in the Board-room of the County Infirmary, Gloucester, on Tuesday, February 24th, at 7.30 P.M. This special meeting is called, in pursuance of the resolution passed at the last meeting of the Branch, to consider the present position of the Society, and to receive suggestions for making the meetings more generally interesting to the members.—RAYNER W. BATTEN, G. ARTHUR CARDEN, Honorary Secretaries.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the above Districts will be held at the Grand Hotel, Brighton, on Tuesday, March 24th. Charles J. Oldham, Esq., will take the chair. Gentlemen desirous of contributing short papers, or cases, should communicate with the Honorary Secretary, East Sussex District.—T. JENNER VERRALL, 95, Western Road, Brighton.

METROPOLITAN COUNTIES BRANCH.—A general meeting of this Branch will be held at the Royal School of Mines, Jermyn Street, on Friday, March 6th, to consider the subject of University degrees for London medical students. A report of the Council on the subject will be presented. The chair will be taken by the president, Mr. Macnamara, at 8 P.M., precisely.—ALEXANDER HENRY, M.D., and W. CHAPMAN GRIGG, M.D., Honorary Secretaries.

NORTH WALES BRANCH.—The intermediate meeting of this Branch will be held at the Bull Hotel, Llangefni, on Tuesday, March 10th, at 2 P.M. A discussion on "Chorea" will take place, to be opened by Dr. Isambard Owen, of London, and taken part in by Dr. O. T. Williams, Holyhead, and others. Gentlemen desirous of reading papers, or taking part in the discussion, should communicate with the Honorary Secretary at once.—W. JONES-MORRIS, Honorary Secretary, Portmadoc.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

THE Fifty-third Annual Meeting of the British Medical Association will be held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28th, 29th, 30th and 31st, 1885.

President: JAMES CUMING, M.D., F.K.Q.C.P., Professor of Medicine in Queen's College, and Physician to the Royal Hospital, Belfast.

President-elect: W. T. EDWARDS, M.D., F.R.C.S, Physician to the Glamorgan and Monmouth Infirmary, Cardiff.

An Address in Therapeutics will be delivered by W. Roberts, M.D., F.R.S., Consulting Physician to the Manchester Royal Infirmary.

An Address in Surgery will be delivered by John Marshall, F.R.C.S., F.R.S., Professor of Surgery in University College, and Senior Surgeon to University College Hospital.

An Address in Public Medicine will be delivered by Thos. Jones Dyke, F.R.C.S., Medical Officer of Health, Merthyr Tydvil.

SECTION A. MEDICINE.—*President:* S. Wilks, M.D., F.R.S., London. *Vice-Presidents:* T. D. Griffiths, M.D., Swansea; Byrom Bramwell, M.D., Edinburgh. *Secretaries:* W. Price, M.B., Park Place, Cardiff; E. Markham Skerritt, M.D., Richmond Hill, Clifton.

SECTION B. SURGERY.—*President:* E. H. Bennett, M.D., President of the Royal College of Surgeons in Ireland, Dublin. *Vice-Presidents:* P. R. Cresswell, F.R.C.S., Dowlais; Edmund Owen, F.R.C.S., London. *Secretaries:* G. A. Brown, M.R.C.S., Tredegar; Thomas Jones, F.R.C.S., 96, Mosley Street, Manchester.

SECTION C. OBSTETRIC MEDICINE.—*President:* Henry Gervis, M.D., London. *Vice-Presidents:* S. H. Steel, M.B., Abergavenny; W. C. Grigg, M.D., London. *Secretaries:* A. P. Fiddian, M.B., 6, Brighton Terrace, Cardiff; D. Berry Hart, M.D., 65, Frederick Street, Edinburgh.

SECTION D. PUBLIC MEDICINE.—*President:* D. Davies, M.R.C.S., M.O.H., Bristol. *Vice-Presidents:* E. Davies, M.R.C.S. M.O.H., Swansea; J. Lloyd-Roberts, M.B., Denbigh. *Secretaries:* Edward Rice Morgan, M.R.C.S., Morriston, Swansea; Herbert M. Page, M.D., 16, Prospect Hill, Redditch.

SECTION E. PSYCHOLOGY.—*President:* D. Yellowlees, M.D., Glasgow. *Vice-Presidents:* G. J. Hearder, M.D., Carmarthen; G. E. Shuttleworth, M.D., Lancaster. *Secretaries:* C. Pegge, M.R.C.S., Vernon House, Briton Ferry, Glamorgan; A. Strange, M.D., County Asylum, Bicton Heath, Shrewsbury.

SECTION F. OPHTHALMOLOGY AND OTOLOGY.—*President:* Henry Power, M.B., F.R.C.S., London. *Vice-Presidents:* E. Woakes, M.D., London; D. C. Lloyd Owen F.R.C.S., Birmingham. *Secretaries:* J. Milward, M.D., 54, Charles Street, Cardiff; A. Emrys-Jones, M.D., 10, St. John Street, Manchester.

SECTION G. PHARMACOLOGY AND THERAPEUTICS.—*President:* T. R. Fraser, M.D., F.R.S., Edinburgh. *Vice-Presidents:* J. Talfourd Jones, M.B., Brecon; W. Murrell, M.D., 38, Weymouth Street, London. *Secretaries:* Evan Jones, M.R.C.S., Ty Mawr, Aberdare; J. H. Wathen, L.R.C.P., Coburg Villa, Richmond Hill, Clifton.

Local Secretaries: Alfred Sheen, M.D., Halswell House, Cardiff; Andrew Davies, M.D., Cadiz House, Cardiff.

TUESDAY, JULY 28TH, 1885.

2.30 P.M.—Meeting of 1884-85 Council.
3.30 P.M.—General Meeting. Report of Council and other business. Adjourn at 5 P.M.
8 P.M.—General Meeting. President's Address, and any business adjourned from meeting at 3.30 o'clock.

WEDNESDAY, JULY 29TH, 1885.

9.30 A.M.—Meeting of 1885-86 Council.
11.0 A.M.—Second General Meeting. Address in Therapeutics.
2 to 5 P.M.—Sectional Meetings.
8 P.M.—A *Conversazione* will be given by the President of the Association and the South Wales and Monmouthshire Branch.

THURSDAY, JULY 30TH, 1885.

9.30 A.M.—Meeting of Council.
11 A.M.—Third General Meeting. Address in Surgery.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner.

FRIDAY, JULY 31ST, 1885.

10 A.M.—Address in Public Medicine.
11 A.M.—Sectional Meetings.
2 P.M.—Concluding General Meeting.
8 P.M.—Reception by the Mayor of Cardiff.

SATURDAY, AUGUST 1ST, 1885.

Excursions.

ANNUAL MUSEUM.

THE nineteenth annual exhibition of objects of interest in connection with medicine, surgery, and sanitary science, will take place in the Public Hall, Queen Street, Cardiff, during July 28th, 29th, 30th, and 31st, 1885. (Floor-space, 9,000 feet.)

The Museum will be divided into the following sections.

SECTION A.—Preparations, diagrams, casts, and models of anatomical and pathological objects, microscopes and microscopical preparations. (Secretary, W. M. Hier Evans, Esq.)

SECTION B.—Surgical and medical instruments and appliances; other instruments for scientific investigation; new medical works. (Secretary, A. Plain, M.B.)

SECTION C.—Foods, drugs, chemicals, and pharmaceutical preparations. (Secretary, Maurice G. Evans, M.D.)

SECTION D. SANITARY SECTION.—1. Books on sanitation. 2. Ambulances and appliances for carrying or moving sick and wounded. 3. Recent improvements in hospital furniture. 4. Personal hygiene, as clothing, beds, educational appliances, domestic appliances, filters, and arrangements for softening water; disinfectants and disinfecting apparatus. (Secretary (1, 2, 3, 4), E. Seward, A.R.I.B.A.) 5. Sanitary appliances, including drawings, models, and apparatus illustrative of the ventilation, lighting, draining, etc., of hospitals, public buildings, and private dwellings. (Illustrations of defects usually found would be of great interest.) (Secretary, E. M. B. Vaughan, A.R.I.B.A.)

In Sections A and D a printed name and description must be attached to each exhibit.

In Sections B and D, and with microscopes in Section A, exhibitors must send a printed list, with the name, number, and price of each article, and a corresponding number on each exhibit.

Unless these instructions are carried out, the exhibits will be declined.

The medical, surgical, and scientific instruments and sanitary appliances must be genuine noveltics or improvements on those in common use.

EXHIBITION OF INSTRUMENTS AND APPARATUS.

It is intended to arrange for the exhibition of complete series of instruments, electro-therapeutic apparatus, instruments for physical diagnosis, and appliances relating to sanitary science and public health.

Facilities will also be afforded, when requested, for the display of instruments and apparatus in action.

CATALOGUE.—It is intended to print a catalogue of the exhibits in the Museum, and lithograph-plan. Descriptions should be sent in as early as possible, not later than June 20th, 1885.

TO ADVERTISERS.—The catalogue of the Museum will be one of the best advertising mediums of the day. The following will be the scale of charges for advertisements: One page, £1; half-page, 12s. 6d.; quarter-page, 7s. 6d.

TO EXHIBITORS.—All expenses of carriage to be prepaid, and all risks to be borne by the exhibitors; but the committee will exercise every care of the articles entrusted to them. A card bearing the name and address of the exhibitor, with the name of the instrument, etc., to be enclosed in each package, ready to be fixed on the outside of the exhibit.

All communications with reference to the museum and advertisements for the catalogue to be addressed (prepaid) to C. E. HARDYMAN, Esq., 42, Crockherbtown, Cardiff.

GLASGOW AND WEST OF SCOTLAND BRANCH: ANNUAL MEETING.

THE annual meeting of the Branch was held in the Western Infirmary, Glasgow, on Saturday, January 31st; Dr. MUNRO, of Kilmarnock, the President, in the chair. There was a good attendance of members.

President's Address.—Dr. MUNRO delivered an address on the Scientific Basis of Medicine. He began by referring to the old superstitions as to disease and its causation and treatment, and quoted an interesting passage from Adamnan's *Life of St. Columba*, in which the freedom of Scotland from the plague which prevailed in England was attributed to the presence of the saint. The witch-mania, the belief in the philosopher's stone and elixir vitæ, and homœopathy, were also commented on. The changes which set in with the revival of learning were noticed; and the President proceeded to delineate the scientific principles underlying the medical art, and linking its various instruments and appliances with the ascertained truths of natural science. He summed up in the following conclusions.

1. The keen, persevering, critical, and deep insight cultivated by trained observers, in the study of natural phenomena, and their bearing on the various phases of organic life, is fast extending to medical science; and already, not only have its methods of investigation been improved and extended, but many of its antiquated cobwebs have been brushed aside. Hence, many of the past medical landmarks, though professedly founded on observation confirmed by experience, and backed by the authority of great names, have been found, when subjected to the searching light of modern research, to have no foundation in fact, and are consequently rejected. All the phenomena of disease are connected with material causes; and must, therefore, be referred to the same biological laws which regulate organic life in health. Diseases are as much the product of natural laws as health. 2. One of the first fruits of this far-reaching philosophy is the foundation of the science of preventive medicine, which aims at the discovery and destruction of the physical causes of disease, as it were, in embryo, and the benefit already conferred on humanity by its legislative enactments, in the actual saving of life, is incalculably greater than all the other achievements of scientific medicine; and yet it is the one department of the medical profession whose students are most neglected, and for whom there is no adequate remuneration. 3. The specific province of the physician, however, is not the prevention of disease, but its treatment. This necessitates, as a mere preliminary step, not only an accurate knowledge of the normal phenomena of the human body, cellular, nutritive, and chemico-vital processes, and the functions of its various organs, and how far the operation of one organ relieves that of another, but also a corresponding acquaintance with the abnormal symptoms excited by the various diseases, their primary causes, progress, duration, and natural termination, the therapeutic and physiological action of drugs, and the processes by which poisonous and foreign elements are eliminated out of the system. The object of treatment is to assist the curative efforts of nature; and the prudent physician must be rationally satisfied, under the full light of scientific investigation, that his plan of interference is not opposed to that nature, or, if so, that it is superior to it, and will be for the ultimate good of the sufferer. Treatment may be directed towards a variety of objects, as the removal of causes, palliation of suffering, establishment of favourable hygienic conditions, and the stimulation of the function of one organ, or the abatement of that of another, etc., according to circumstances. One poisonous element is removed through the skin, another through the lungs, kidneys, or bowels, and a third may be counteracted or destroyed by drugs. The discovery of remedial agents is greatly assisted by a knowledge of the nature and properties of the injurious substances to be removed; hence the trial of suggested remedies, within safe limits, is to be commended in proportion to their scientific reasonableness. As an illustration, we would say that experiments, directed towards the discovery of a remedy for small-pox, would be more likely to be successful now than when we were ignorant of the fact that this disease is due to a specific micro-organism. Without, therefore, altogether rejecting this suggested, or rational, form of empiricism, it must be acknowledged that, to whatever extent it may be carried, all treatment founded upon it should ultimately be explained by natural laws. 4. If it be true that scientific medicine is dependent on a knowledge of the laws and phenomena of the immediate and collateral sciences which regulate human life, it follows that the field of study for medical practitioners is almost illimitable. It not only affords abundant scope for all kinds of manipulative research in physiology, pathology, and therapeutics, but involves the consideration of the

ductions requiring the exercise of the highest intellectual faculties. ascertain and describe the exact influence of a given drug on a ghly developed organism, like the human body, is, in my opinion, e of the most profound problems that can be submitted to the genuity of man. The power of observing correctly is a logical ulty which, when applied to the complex phenomena of life in alth or disease, requires much training, knowledge, and experience. a marked defect in medical education on this point, and the pro- bial proneness on the part of the public to believe in sensational es, must be ascribed most of the defects, pretensions, impostures, l quackery still prevalent in the medical profession.

Communications.—The following communications were made:

1. Dr. A. Patterson showed Photographs of interesting Surgical ses; also rare specimens of Calculi, and a case of Malignant Dis- e of the Testicle and Spermatic Cord, etc.

2. Dr. H. Cameron spoke on the Operative Treatment of Empyema, l showed some cases, and also some cases of Psoas Abscess connected h disease of the vertebræ in the adult, cured and in process of cure.

3. Professor G. Buchanan's house-surgeon showed a case of Herma- odism, on which an operation had been performed.

4. Professor Gairdner showed a well marked case of Leprosy. The e was one of peculiar interest, the tubercular, macular, anæsthetic, mutilating forms being well illustrated in the patient.

Dinner.—Thirty-one members dined together at McLean's Hotel.

Report of Council.—From the reports of the Secretary and Treasurer, Branch appears to be in a flourishing condition, there having been, ing the year, a considerable number of new members added to the

SPECIAL CORRESPONDENCE.

CAIRO.

[FROM OUR OWN CORRESPONDENT.]

Egyptian Sanitary Service.—Drainage of Cairo.—The Victoria Hospital.—Ovariotomy.—Visit of Dr. Farquharson, M.P.

foreboded in my last letter, Dr. Sandwith has been obliged to n his appointment of Subdirector of the Egyptian Sanitary Ser- Pressure was brought to bear upon him from high quarters, and icles were thrown in the way of every administrative action which ndertook, so that he found it useless to retain his post. He remain in Cairo, and continue his private practice. He has been eeded by Surgeon-Major H. R. Greene, who has had considerable rience in sanitary administration in India and elsewhere. He from Wady Halfa to take his new appointment. Surgeon-Major ne has a good knowledge of written Arabic, which he will find uable in the difficult post on which he has just entered. No changes in the *personnel* of the service have yet been made, but will probably be some before very long. It is indeed reported Ismail Pasha Yousey is discontented with his new post of Director e Service, and intends to leave it as soon as he can. Who will ed him is mere matter of conjecture, but it is at least certain there is no Egyptian suitable for the post. It may be questioned ier there is any need for two directors. Probably much more n would be achieved if the English director were alone, but such ple and inexpensive mode of administration cannot be hoped for the present control.

ommission is shortly to sit on the subject of the drainage of The difficult problem of what to do with the ancient and t sacred "khalig" will be the primary subject of consideration. halig is a deep canal, dry in summer, which carries Nile water the elevated part of Cairo during the inundation. It receives ainage of the houses it passes in its course, and is, consequently, better than an open, almost currentless, sewer. Its yearly g, at the rising of the Nile, is the subject of a popular festival, ich, for many centuries, a virgin victim used to be sacrificed. It en proposed, on one hand, to cover it in, and, on the other, to it permanently dry, and convert it into a road. The former would be too expensive, and the latter would interfere with al prejudice. As regards the general question of removal of , there is no doubt that no system of drainage will be successful, at the system of dry removal is the only one suitable to the ar conditions of Cairo. The commission originates with the ment of Public Works, of which Colonel Moncrieff is head. Dr. y Bey and Mr. Hooker represent the Sanitary Service, a third r is a French engineer, and a fourth the subgovernor of Cairo. commission itself we can take no exception, but the question occurs, Will anything be done in consequence of it? Surgeon-Major Greene has a scheme for providing all the provincial mosques with a double system of removal of sewage, the dry part being carried away to sewer-farms, the wet being allowed, as now, to sink into the ground, or run off into canals and pools. It is to be hoped that funds may be found for carrying out this and other reforms. Unfortunately, the surplus £10,000 which stood over from a previous year, and was to have been applied to reforms during this year, has been lost to the Sanitary Service through not having been appropriated before the close of last year. This is another illustration of the haphazard way in which Egypt is at present ruled.

The new Victoria Hospital, supported by the communities of the four Protestant nations—England, Germany, Switzerland, and the United States—is completed, but has not yet been formally opened. It is nursed by the Kaiserswerth Protestant Sisterhood, which institution refuses to allow any but Protestants to be members of committee of the hospitals it takes in charge. By inadvertence, several Roman Catholics were appointed on the committee of the Victoria Hospital, and only recently did it become known that their appointment was against the rules. Although their retiring was not insisted on, much ill-feeling was aroused by the knowledge of the intolerant regulation. An amateur musical and operatic performance was about to be given at the time, and the proceeds were to have been devoted to the Victoria Hospital; but, on account of this unfortunate misunderstanding, they were diverted to the native hospital. The performance was very successful, and it is expected that more than £500 will be handed over the Kasr-el-din Hospital.

Mr. Milton, the resident medical officer, recently performed ovariotomy at this hospital. The operation was done under full antiseptic precautions, and appeared to be wholly successful. The patient rallied, and was doing well for two or three days, when she unexpectedly died. *Post mortem*, all the parts involved by the wound were found to be doing well; but a nest of lumbricoid worms was found in another part of the peritoneal cavity, which had set up peritonitis, from which, presumably, the patient died. No aperture was found through which the worms might have perforated the bowel.

Dr. Farquharson, M.P., has been visiting Egypt for the last three or four weeks. He will reach England in time for the opening of Parliament. He will have much to tell the Government of the sanitary requirements of this country.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Deoxidising Blood in Living Animals.—Acids and Hæmoglobin.—The Influence of Sex on Caries of the Teeth.—The Depopulation of France.—Food.—Cremation.

In 1868 Claude Bernard attempted to determine whether, by injecting pyrogallic acid into the blood, its oxygen was removed. In 1868 M. Personne asserted that pyrogallic acid is toxic. Since then, some German authors have made the same assertion. Quite recently, M. Quinquand has made a series of experiments which lead him to conclude that oxygen can be removed from blood, but has not yet arrived at an appreciation of the process by which this modification in the constitution of the blood is effected. At the necropsy of the animals, the viscera are observed to be brown in colour. Claude Bernard erroneously believed that the lungs only presented this alteration, which he attributed to the contact of the pyrogallic acid with the air. In fact, all the organs present these lesions when the necropsy is effected in a vacuum. This pathological condition provokes a series of symptoms: the temperature is lowered, the pulse is quicker, respiration is more hurried, then becomes irregular, and presents all the variations which characterise Cheyne-Stokes respiration. The entire mass of blood is methæmoglobinised. Carbonic acid does not accumulate, there is less of it produced. If the blood be analysed, before and after it passes into the capillaries, it is easily ascertained that a much smaller quantity than usual of oxygen is used in oxidising the blood, and a much smaller quantity of carbonic acid is given off; the nutrition of the substance of the tissues is impaired.

M. Loze and M. Brouardel, in a communication to the Biological Society, on the destruction of hæmoglobin by carbonic acid, stated that, if a certain quantity of blood be submitted to the influence of a current of carbonic acid, the respiratory capacity is greatly lessened. There is evidently a partial destruction of hæmoglobin. When the acidity of carbonic acid is increased, the phenomena are still more pronounced.

M. Galippe has already said that the density of women's teeth is inferior to that of men's. Dental caries being more frequent in the one sex than in the other is explained by the relation of density with caries. The acidity of the saliva is also an important factor.

The last word has not yet been said concerning the depopulation of France. M. Lunier, at the last meeting of the Académie de Médecine, reminded M. Lefort that he had made an incorrect statement at the preceding meeting of the Academy, when he stated that the population in 1872 reached 36,728,210. The correct figures are 36,102,921. If the population increased by 802,867 inhabitants from 1872 to 1876, from 1876 to 1881 the increase was less considerable—766,260. M. Hardy declared that the population in France would never increase in a degree comparable to that of neighbouring countries, but doubted if it was an evil to be deplored. Overpopulation does not make a nation. He cited England as an example of a nation with a moderate population, and yet powerful everywhere. Is not, he asked, England more powerful than Russia with her 80,000,000 inhabitants? And Switzerland, with only 3,000,000 inhabitants, holds her own in stormy times. M. Hardy declares himself a disciple of Malthus, who, he says, is ill-used and misunderstood. If the human species multiplies to a degree out of proportion to the means of living within its reach, poverty and misery are inevitable; therefore Malthus enjoined moral constraint. M. Hardy considers immigration, and lessening the mortality by hygienic precautions, as attainable means of increasing the population. The immigrants are foreigners, but their children are French subjects. Carelessness and ignorance of the simplest laws of hygiene increase the infant death-rate among the poorer and working classes; the proportion of deaths in children of one year of age is excessive, whereas among the richer classes such deaths are rare. If education were more wide-spread, infant-mortality would decrease. It is not a question, M. Hardy says, of France having more children, but for parents to know how to take care of those they have.

M. Decroi, formerly an army surgeon, has made experiments on diseased animals to ascertain their effect when utilised for food. He has swallowed portions from animals attacked with charbon, rabies, glanders, and trichinæ; he believes, when times are difficult, such meat, now condemned as unfit, ought to be utilised as food; that it is harmless when thoroughly cooked. He also considers that the food-inspectors at the Paris markets are too severe, and condemn meat that would serve to feed the hungry. These opinions are embodied in one of the prize essays of the Académie de Médecine, in which the author strongly recommends a more general use of horse-flesh. It is now sold in all the principal French towns. In Paris, 13,000 donkeys, mules, and horses have been consumed in one year.

The Prefect of the Seine has sanctioned that, after the necropsy of hospital patients, if the remains be not claimed by relatives, they may be cremated. An engineer has been sent to Italy to study the different methods of cremation; the Gorini method is considered to be the best, and is employed at Milan. The apparatus necessary for this method has been constructed at Paris by a M. Bineau. The expense of the crematory will be defrayed by the City of Paris.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

Vivisection.—Effect of Cucaine in relieving Pains from Scalds.

A HIGHLY important order has just been issued by Herr von Gossler, Prussian Minister of Education and Medical Matters, founded on answers received from the Medical Faculties of all the German Universities concerning the question of Vivisection. The Minister says, that the reports he has received "have strengthened his conviction that experiments on living animals have been resorted to, and performed at the German Universities in a moderate and permissible manner; and that, side by side with the interests of scientific inquiry and academic teaching, the demands of humanity have been duly observed." But, in order to avoid all doubts in this direction for the future, the Minister for Education has laid down the following regulations.

1. Experiments may only be made on living animals for the purposes of serious inquiry or for giving instruction of importance.

2. Experiments on animals are only permissible during lectures, so far as they are necessary for the lecturer to explain his subject-matter.

3. The operative preparations for the lecture-experiments are, as a rule, to be made before the commencement of the demonstration, a in the absence of those attending the lecture.

4. Experiments on animals may only be performed by the Profess and Lecturers, or on their responsibility.

5. Experiments which can be made on the lower animals, with essential prejudice to the result required, are only to be performed these, and not on the higher animals.

6. In all cases in which it is not absolutely incompatible with object of the experiment, the animals must be put under the influence of anæsthetics, in such a manner that the effect of the a thetics will last for a sufficient time.

Commenting on the subject in an article entitled "Vivisection Science," in the last number of the *Deutsche Medicinische Woc schrift*, the editor of this paper points out that the question whe vivisection-experiments were an indispensable means for scientifi quiry, which could not be dispensed with without essential injur medical science, was unanimously answered in the affirmative by medical faculties of the German universities. The faculties asked, secondly, if lectures with vivisection could be abandoned tirely, or partially, without injury; and, with the exception of they all replied in the negative. It has, moreover, been shown the number of animals used for this purpose is relatively extre small, and that in by far the majority of cases, the operative pre tions have been hitherto made before the lectures, and anæsthetics have always been used except where their applic would have been prejudicial to the object of the experiment; last of all, no case of deliberate and wanton infliction of pain be brought forward. The author of the article says that the m faculties of Germany, Austria, and Switzerland, are unanimo this point, and he concludes as follows.

"We have already pointed out that the prohibition to exper on animals, now become law in England, despite the testimony those questioned on the subject, has injured biological science in the most perceptible manner in the few years that have since this prohibition became the law of the land. The discuss the last two years, on the etiology of infectious diseases, has with special explicitness, that the English are so far behind the of inquiry of other nations in this field, that English physic and pathologists who occupy themselves with the question, longer even in a position to apply a criticism that is at all point."

This opinion, however strongly put, justifies the sente your article in the BRITISH MEDICAL JOURNAL of January "Owing, however, to the efforts of antivivisectionists, the researches begun with so much promise to science, have been in England." Antivivisectionists number several supporters many amongst persons of great influence, and endeavours ha made in the daily press, by distorting facts, to utilise all th of pathetic oratory to work upon the feelings of the public Minister of Education in Prussia had a difficult task to collect material, and his decision has shown that he is determined to the interests of science.

The following case, illustrating the effect of cucaine, I take *Wiener Medicinische Wochenschrift*. On December 25th Weiss, of Vienna, was called in to Professor S., who had sca eyes, forehead, nose, cheeks, and upper lip, owing to an exp the apparatus during an inhalation; pain was very severe. ordered linen, soaked in oil, to be laid on, and oiled bandage top of these. Then he ordered the application of carron oil, per cent. solution of hydrochlorate of cucaine. As soon as th spots were painted with the above-named solution, the appeared at once, and did not return.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

The Charge against the Management of the Netherfield Fever —The Suffocation of Infants.—Libel Case: De To Pennington.—The Eye and Ear Infirmary.—Free Play-g City Children.—Northern Hospital Ambulance.

A VERY full inquiry has been instituted into the alleged ca on the part of the authorities of the Netherfield Insti Infectious Diseases, in discharging scarlet fever patie desquamation has ceased. The investigation was con Drs. Davidson, Caton, and W. Williams, representing t Institution, and Dr. A. M. Bligh, appointed to represent Committee of the City Council. None of these gentleme

esponsible for the internal management of the Institution, that in the hands of two visiting physicians and a resident medical . The gist of the published report of the subcommittee is as s:—In accordance with the rules of the hospital, no patient is ismissed until the resident medical officer has ascertained, by al examination, that the desquamation has entirely ceased; customary precautions were fully carried out in the cases of the n Asylum children; that, in the cases complained of, a secondary mation probably occurred: and so far from patients being dis- d too soon, the medical staff have frequent complaints and pro- both from private persons and from institutions, against the ts being kept so long as they are at present. The result of the y may thus be regarded as entirely satisfactory. The matter how extremely difficult it is, in many cases, to trace the exact of infection. I have myself seen a good deal of the Netherfield al; and have always been struck by the extreme care exercised prevention of the spreading of infection.

s of suffocation of infants, owing to the carelessness of drunken s, have become so alarmingly frequent that it has been felt le to obtain a definite judicial opinion on the question, in order ome steps may be taken to deal with a growing evil of such ude and importance. A suitable case occurred a week or two The circumstances were particularly revolting; the evidence was lly clear; and, consequently, the coroner was enabled to direct y to bring in a verdict of manslaughter against the mother of ld. It would appear, however, that, in the present state of the thing can be done towards punishing the delinquents; for, on se being tried at the assizes last week, the judge stated ie law drew no distinct line between what was criminal nce and what was not; and the jury gave a verdict of "not

her case, of especial interest to medical men, has just been tried An unqualified practitioner, named De Tomanzie, commonly as the "Indian doctor," brought an action against Mr. T. R. gton, a surgeon, to recover damages for libel. The hearing of occupied two days, the libels being of a most vile and gross er. However, it appears to have been an instance of mistaken , for Mr. Pennington proved, to the satisfaction of the court, had had nothing whatever to do with the matter, and of verdict was recorded for the defendant. Mr. Pennington's ate bearing during the trial, and his leniency towards the in the matter of costs, have been most warmly commended. ie's counsel, Mr. Charles Russell, stated, in the course of the at his client was a native of British Burmah, and had prac- edicine in that country, where he held "some kind of local or certificate." He has practised here for some years, h he does not possess any qualification that is recognised in ritain. Some time ago he was prosecuted for a breach of the Acts, and fined £5; and, later, he was sentenced at the City to two months' imprisonment for giving a certificate of

hadford Walker, having completed his term of fifteen years as y Surgeon, has been appointed a Consulting Surgeon to the l Ear Infirmary. The Committee of the hospital passed a ote of thanks to him for his valuable services during that Two of the honorary assistant-surgeons are candidates for the thus caused. One of these gentlemen, Mr. Stone, has re- evoted himself entirely to ear-practice. The Committee have that, so long as he holds his present views as to the working stitution, which are that the two branches should be sepa- distinct, proposals which would entirely revolutionise the pon which the hospital has hitherto been worked, and found er well, his appointment would be disadvantageous to the rests of the charity. Mr. Stone has consequently withdrawn cation, and has also resigned the post of Assistant-Surgeon, has held for some years.

iverpool Kyrle Society has presented a memorial to the School sking that the playgrounds of the board-schools shall, under gulations and restrictions, be thrown open to all children at not school-hours, from light to dusk, both during school- holidays. The request is still under consideration by the of the School Board. As this arrangement is already carried ondon and Birmingham, it certainly should be practicable

orry to hear that fears are entertained that the Northern ambulance-wagon will have to be given up for want of it is to be sincerely hoped that this will not prove to be ne- for this ambulance has done, and is doing, most valuable

CORRESPONDENCE.

THE CASE OF DR. DAVID BRADLEY.

SIR,—I have pleasure in informing you that I have been able to secure 166 signatures of practitioners resident in Birmingham to a memorial to be presented to the Home Secretary in favour of a reconsideration of the verdict in Dr. Bradley's case. At a meeting of the Birmingham and Midland Counties Branch of the British Medical Association, held on February 12th, the following resolution was proposed by myself, seconded by Dr. E. B. Whitcombe, Superintendent of the Borough Asylum, and carried unanimously: "That this meeting, having heard a statement of the case of Dr. David Bradley, recently convicted of felonious assault at the Leicester Assizes, desires to express its opinion that this case is eminently one in which a reconsideration of the verdict of the jury is demanded. This opinion is based upon a consideration of the following facts: 1, That the complainant has been admittedly the subject of epileptic fits since childhood; 2, That such persons are specially liable to be subject to erotic delusions during and after a seizure. It is, therefore, of the utmost importance that the corroborative evidence in such a case should be decisive, whereas in the case of Dr. Bradley it seems to be singularly defective."—I am, sir, yours, etc.,

7, The Crescent, Birmingham. LAWSON TAIT.

THE TITLE OF DOCTOR.

SIR,—As some letters have lately appeared in your JOURNAL, questioning the legality of non-university men taking the above title, allow me to state that it has been authoritatively decided in the Court of Exchequer, in the case of Ellis *v.* Kelly, before the Lord Chief Baron, Mr. Baron Bramwell, Mr. Baron Channel, and Mr. Baron Wilde, on November 14th, 1860, that "if a man is registered, he may call himself what he pleases."

The particulars of the above case are reported in the *Hospital Gazette* of July 17th, 1875.

Now that the corporations have decided to grant no more single qualifications, it is time that attention should be called to the universities. They should have their teachings and degrees put on a par; for it is exceedingly unfair, in what I may call non-classical universities, to have university medical degrees granted to men without making them take a degree in Arts of B.A.; unfair to the men of Oxford and Dublin Universities, who have to take the Arts degree before being granted the medical one; and unfair to the corporation man, who has passed as stiff an examination in Arts, and probably a stiffer one in medical subjects—the L.R.C.S.I. and the L.R.C.P.L. being harder than those of some universities. A look at the examination papers will prove this. But while the university man can dub himself "Doctor," his brother of the corporations can only call himself "Mr."

To the public, an university degree means a sound classical and mathematical education; consequently, the non-classical university man is walking about in borrowed plumes—feathers which can only be worn by Oxford and Dublin University men at present.—I am, sir, yours faithfully, D. M.

SIR,—In fairness to the Edinburgh College of Physicians, allow me to state that, rather more than twenty years ago, my late father, when invited to take the L.R.C.P.Ed., wrote asking if it conferred the title of Doctor, and was informed it did not. He therefore decided not to take it, and subsequently obtained the M.D. St. Andrew's.—Yours truly, A. PHILLIPS HILLS, M.R.C.S.

Battersea Park, S.W.

SIR,—I can corroborate Mr. E. M. Grace and others on the fact that the Edinburgh College of Physicians have, until lately, addressed their licentiates as Dr.; but I fail to see how this entitles the holder to accept the title. I am glad that they are now forbidding its use. By so doing, they join issue with the London and Dublin colleges.

I should like to see the London college draw a distinction between their licentiates who have obtained the diploma after the full curriculum and complete examination, and those men whom they admitted by a modified examination, as they had been in practice before 1861, some of these only as L.S.A., and that by a modified examination. This would be only just to the better men, for so they must be.—Yours, etc., L.R.C.P.EDIN.

THE GLASGOW ROYAL INFIRMARY.

SIR,—I wish to put your Glasgow correspondent right as to the chairman of this Infirmary. Mr. M'Ewen, the Dean of Guild, had retired from the office a month before the question about the admission of enteric fever was settled in November. At that time, he was acting only temporarily at the unanimous request of his co-managers. At the opening of the School of Medicine in October, he announced in public that he was not going to seek re-election; and in proposing the list of the House Committee, he intentionally did not put in his own name. His retirement was quite voluntary on his part.—Yours truly,

Royal Infirmary, Glasgow. M. THOMAS, Superintendent.

INTRAFUSION.

SIR,—The success which has followed Mr. Le Page's treatment of two cases of hæmorrhage, attendant on parturition, which are reported in the BRITISH MEDICAL JOURNAL of November 29th, has led him not only to attach undue importance to "intrafusion," but also to indulge in theories irrelevant to the question.

Clearly, the treatment of hæmorrhage, from whatever cause arising, is, first, arrest of the bleeding; and secondly, if the hæmorrhage have been so great as to endanger life, replenishment of the loss.

With regard to replenishment, I have repeatedly insisted, and particularly before the International Medical Congress last summer, that, in one group of cases, the introduction into the vascular system of a small quantity of any harmless fluid—say five, ten, or more ounces—is quite sufficient to meet the exigency; but that in another class, so small an amount of fluid would be insufficient to attain its object.

It is true that the bandaging of the extremities produces (temporarily) a result identical with the intravenous injection of fluid, equivalent to the amount of blood expressed from the limbs by the bandages. But after the bandages are removed, the blood returns to the limbs, the vital centres again become anæmic; and, out of several cases so treated, many would terminate in dissolution. Therefore, *cæteris paribus*, "intrafusion" cannot be so satisfactory as saline intravenous injection.

It being a fact that saline fluid can be substituted with impunity for blood, up to a certain definite ratio of the body-weight, it follows that, if the amount of blood lost by hæmorrhage be less than this quantity, the intravenous injection of saline fluid is indicated; but, if the hæmorrhage have exceeded this limit, then, to prevent death, the transfusion of blood is indispensable.

Those who are interested in the subject will find that the evidence in support of these propositions is overwhelming; and I can adduce, as demonstrative of their accuracy, two out of a series of experiments which were performed, at the suggestion of Sir Spencer Wells, at Ghent.

EXPERIMENT VIII. July 29th, 1884.—Performed to test the value of establishing an artificial circulation to restore life after chloroform-poisoning. 2 P.M. A grain of morphia was injected subcutaneously into a terrier, weighing 14-38 lbs. avoirdupois. 3.34, Chloroform was administered. The tongue and epiglottis were drawn forwards with ligatures, to prevent the animal from dying from asphyxia; and the anæsthetic was pushed till the heart stopped (as judged by auscultation, and by examination of the femoral pulses) at 3.51; respiration having ceased at 3.46.[1]

A little more than twenty ounces of saline fluid at 90° Fahr., with ten minims of liquor ammoniæ, were injected into the right external jugular vein, free depletion being simultaneously practised. Artificial respiration was maintained, and normal respiration returned at 4.2. The normal circulation was re-established before the respiration; in fact, very shortly after the injection of the saline fluid was commenced.

The experiment was pushed so far, and such an excess of blood over the saline fluid injected was drawn, that it was clear that the dog, which recovered from the poisoning, could not live long, but would die from hæmorrhage. The experiment was performed by Professor Boddaert and myself. At 6 P.M., it was reported to me that the dog had been dead (from hæmorrhage) about fifteen minutes. The body was warm; and, in addition to the absence of signs of animation, the fore legs were stiff. I injected half a minim of liquor ammoniæ, with twenty minims of water, directly into the left ventricle through the chest-wall; and the operation was immediately followed by a return of pulsation. The tongue and epiglottis were drawn forwards; and the laboratory-porters were directed to perform artificial respiration whilst I boiled some distilled water, and prepared a simple saline solution. On exposing the left external jugular vein, it was found much collapsed, and nearly twelve and a half ounces of saline fluid were injected therein. At 6.30, the legs and pelvis of the animal were firmly bandaged, to drive the blood towards the vital centres, and the animal was placed before a stove. Half a drachm of brandy, half a drachm of water, and 1-120th of a grain of atropia, were injected subcutaneously. At 7 P.M., the respirations were 6, and the pulse 96, per minute. The dog lived till 10 P.M.

Necropsy, made on July 30th by Dr. Boddaert and myself. The left ventricle was firmly contracted. Not much blood—still fluid—was found in the vessels. There was a small extravasation beneath the visceral pericardium, which had been caused by the point of the syringe. Death evidently occurred from paucity of blood, and could not have been prevented either by "intrafusion" or by the intravenous injection of saline fluid.

EXPERIMENT XV. August 4th.—One grain of morphia, and afterwards six minims of liquor ammoniæ, with water, were injected subcutaneously into a dog weighing 27.09 lbs., at about 11.35 A.M. Liquor ammonia was exhibited in order to maintain the blood in a fluid condition. Chloroform was administered at 11.49. The pulse became intermittent at 11.53, and ceased at 11.56. Respiration ceased at 11. The intravenous injection of saline fluid (altogether, nine ounces, with three-quarters of a minim of liquor ammoniæ to each ounce, at Fahr., were injected), with simultaneous depletion, was commenced 12.4. Artificial respiration was also performed. Pulse returned, 12.5' Normal respiration returned, 12.5' 35". At 12.35, the pulse was and the respirations were 20 per minute. After this experiment which Dr. Imschoot kindly assisted me, the animal weighed 25.77 that is, it had lost 1.32 lbs.

The dog had lost so much blood, that it seemed improbable that would live long; and, accordingly, transfusion of blood and saline fluid was decided on at 4 P.M. The animal was now shivering, mucous membranes were blanched, and its pulse still only 36. and saline fluid were transfused into the left femoral vein, the being supplied from the right jugular vein of the donor. The experiment was conducted under anæsthesia, with the assistance of Prof. Boddaert. At its termination, the receiver weighed precisely what did before the first experiment—namely, its original weight, 27.0 The giver weighed, before the experiment, 30.396 lbs., and only .55 lb.; for, after blood had been transfused from it, a considerable quantity of saline fluid was injected. Both these animals recovered.

Both these experiments were performed partly to elucidate certain points with reference to transfusion for hæmorrhage, and partly to demonstrate a plan of treatment for anæsthetic poisoning which I foreshadowed in the BRITISH MEDICAL JOURNAL (1884, pp. 802, 810), and to which I now beg to draw special attention.

Contrasting my own observations with those which Dr. Richardson made the subject of a communication to the Royal Society in 1865, I incline to attach greater practical value to the maintenance of an artificial circulation, under certain circumstances, than he; and I here very gratefully acknowledge information with which Richardson has liberally supplied me on the subject.—I am, sir, faithfully, CHARLES E. JENNINGS, M.S., F.R.C.S.

Park Street, Grosvenor Square, W.

[1] Dr. Ringer has pointed out to me that, for small animals, the only certain test of arrest of the heart's action is the cessation of the oscillations of a long needle, with an index, inserted into the heart, through the chest-wall. But, for a dog of the size of the subject of this experiment, I believe the indication afforded by the pulse to be sufficiently satisfactory.

UNSEAWORTHY SHIPS AND SAILORS.

SIR,—A special commission is about to be held, to take into consideration the important subject of unseaworthy ships, and the means to be adopted to diminish the loss of life at sea; but it seems to me that one most important branch of the subject is very likely to be entirely overlooked and ignored altogether, that is, the [illegible] aspect of the question.

No doubt it is quite true that ships have been lost through being overladen or undermanned, or sent to sea in a rotten condition; but have no ships been lost through the unsound condition of the men? Most captains know, to their cost, the losses and inconvenience that may arise through their men being often shipped in a broken-down and debilitated state of health; sometimes far gone in consumption, often laid up with a large bubo; or suffering from primary or secondary syphilis, or incapacitated through heart-disease, or chronic rheumatism. The 10th section of the Merchant Shipping Act, which provides that the Board of Trade may appoint a medical inspector of seamen at any port, and that the owner or master of any ship may apply to him to have his crew examined, is, like most permissive legislation, practically a dead letter, and never carried out. Would it not be well that the Shipping Commission should consider the advisability of rendering this section of the Act compulsory?

Again, a radical change is imperatively called for in the system of ding sailors. Some people on shore would scarcely believe that, in present day, our sailors are often fed on scarcely anything but salt f and pork, hard biscuit, flour, and peas; yet such is the case. It true that some of the larger and more sensible shipowners have pted a more liberal scale of diet, including vegetables, preserved ats, oatmeal, rice, marmalade, pickles, etc.; but these liberal- ded men are the exception, not the rule—"rari nantes in gurgite to." In the majority of cases, the old bad system still prevails; l, in many ships, Sunday is the only day on which the crew vary their notonous and indigestible diet with a fresh mess. In the present ; when preserved meats and vegetables of all kinds, and of "infi- variety," are abundant and good in quality, there is positively no use for this state of things. It is a most shortsighted policy; and result is the reverse of economical.

f there is one fact that is now firmly established in medical science, that scurvy is caused by a deficiency of vegetable food; and yet it uite the exception for vegetables, either fresh or preserved, to form ntegral part of the sailor's diet. The law provides that one ounce lime-juice shall be served out to each man daily, as a substi- for vegetables; but surely, with such a proper dietary scale as ow within the reach of all, this should not be necessary. Not- standing this, however, it is unfortunately a fact that scurvy is far more prevalent in the merchant service than it ought to be, and whole crews are sometimes incapacitated by this perfectly pre- able disease. This is a scandal to the nineteenth century.

ow, it is perfectly true that lime-juice, if given regularly, will, in absence of vegetables, often prevent scurvy; but I can positively t that in many instances it will not do so—at least, in the tity of one ounce per day. I have held inquiries into some scores utbreaks of scurvy, and have ascertained that in the majority of cases lime-juice has been served out and taken by the men in quantity prescribed, and that the lime-juice came out of bond, and of fair quality. The conditions that nearly always prevailed , first, a long and often rough passage; and second, a nearly total ivation of vegetable food. In most instances, those who first red from the disease were persons in a debilitated condition of h (often from syphilis) when they joined the ship, but frequently who were previously quite well succumbed in their turn. This ly proves the necessity for a thorough change in the present m of feeding the merchant sailor.

will not trespass further on your space, but will merely express a that these important subjects will not be lost sight of in the in- gations of the Shipping Commission, which I am sorry to see does nclude a medical man.—I am, sir, your obedient servant,

erpool. L.R.C.P.Lond., M.R.C.S.

MEDICO-LEGAL AND MEDICO-ETHICAL.

FEES TO MEDICAL WITNESSES IN IRELAND.

CIL C. WESTROPP, medical officer of the Derrylin Dispensary District, writes k to what fees he is entitled for attending to give evidence at an inquest, ing a *post mortem* examination, and for reattendance at the adjourned est.

The scale of fees allowed for witnesses at inquests held in Ireland, as well e mode of payment, differs considerably from the usual scale applicable to t Britain. The coroner for the district in which the above inquest was held nunicates to us as follows.

beg to state that it is not the custom in Ireland to pay the doctor's fees the presentment has been made at the assizes following. For the *post m* examination, held at the workhouse, Lisnaskea, Dr. Westropp will re- from the Grand Jury the sum of two guineas, and for his attendance on ay to which the Court was adjourned, he will, I believe, receive a further of one guinea for giving evidence as a witness."

our correspondent receive the further sum of one guinea for the adjourned st, he is better off than his English brethren, to whom the sum of two as alone is payable for the first inquiry, and is inclusive of any number of rnments.

CORONERS AND MEDICAL WITNESSES.

M.R.C.S., Leamington, asks us the following question: "Has a coroner the to appoint a medical man (who has never seen the deceased person alive) ke a *post mortem* examination on a case which is the subject of an inquest, ference to the medical man who attended the case during life?"

inquiry was held respecting the death of a young woman who was ex- g her confinement, and, whilst cleaning a grate, either had a fit, or fell on bars of the grate, and when found was insensible, her hair partially , with two small wounds on the head, probably caused by the fall, and one burn on the top of the head about the size of a shilling. Fits of an epi- nature followed; and, in twenty-four hours after the fall, labour was effected by means of the forceps. The woman lived seven hours after her confinement, and then died, never having recovered consciousness.

"M.B., M.R.C.S." states that she evidently died from exhaustion, as she had at least sixty fits during the short time of her illness. He attended her from the time of the occurrence till her death, and, upon an inquest being held by the coroner, found that "another medical man was ordered to make the *post mortem* examination, although he himself was subpœnaed to attend. At the inquest, the evidence of the gentleman who made the *post mortem* examination was taken, and satisfied the jury that the death was due to exhaustion. Our correspondent was then informed that his evidence was not required, and that no fee for attendance was payable to him.

*** If "M.B., M.R.C.S." was duly summoned by the coroner to attend the inquest, he is no doubt entitled to the usual fee, and the coroner is bound by Act of Parliament, which is applicable to Great Britain only, to advance and pay the same immediately after the termination of the inquest. By the Act 6 and 7 Will. IV, cap. 89, it is enacted "that, whenever it shall appear that the deceased person was attended at his death or during his last illness by any legally qualified practitioner, the coroner may issue his order, in the form marked (A) in the schedule, for the attendance of such practitioner as a witness; and if it shall appear that the deceased was not attended at or before his death by any legally qualified practitioner, the coroner may issue his summons for the attendance of any legally qualified medical practitioner in actual practice in or near the place where the death has happened; and the coroner, either in his order for the attendance of the medical witness, or at any time between the issuing of such order and the termination of such inquest, may direct the performance of a *post mortem* examination, with or without an analysis of the contents of the stomach, etc."

As in this case "M.B., M.R.C.S." had attended the deceased during her last illness, he was undoubtedly the proper medical witness to be called by the coroner; and doubtless his evidence, without a *post mortem* examination, would have satisfied the jury as to the cause of death. If the cause of death had not been satisfactorily explained by the medical witness in attendance, the jury could have requested the coroner to call further medical evidence; in which case, ample provision is made for the payment of the medical witnesses.

There may have been some special reason which induced the coroner to depart from the usual practice of summoning the medical man in attendance to give evidence. We should advise "M.B., M.R.C.S." to communicate with the coroner, and possibly he may afford an explanation of the departure in the proceedings, of which our correspondent justly complains.

MILITARY AND NAVAL MEDICAL SERVICES.

THE REINFORCEMENTS FOR THE NILE EXPEDITION.

A COMPLETE list of the officers on the staff of the Suakin Expeditionary Force has been issued. Among them are Deputy Surgeon-General O. Barnett, C.I.E. (Principal Medical Officer), Brigade-Surgeon G. L. Hinde, and Surgeon-Major W. J. Fawcett, M.B. Of these gentlemen, Mr. Barnett has already seen service in Egypt, where he was Principal Medical Officer at Ismailia during the recent war; Mr. Hinde served in the Russian war in 1855, and in the Boer war in 1881; and Mr. Fawcett has yet to win his record of war-service.

The first embarcation of reinforcements from Portsmouth, for the Soudan, took place on Wednesday, on board the *Queen*. Among the officers who go out in her, we find the names of Brigade-Surgeon W. Tanner, Surgeons-Major T. W. Patterson and R. Tobin, and Surgeons E. R. Cree, J. D. Davies, and C. J. Holmes, M.D. Mr. Tanner has already seen service—in the Baltic during the Russian war in 1855, and in the China war of 1860; Mr. Patterson was engaged in the Afghan war in the years 1878-80; but the other gentlemen mentioned are without personal experience of war.

In the official despatch ordering the raising, at Aldershot, of a large Medical Staff Corps force, the detail given was six warrant officers, forty sergeants, and 250 rank and file. This force will be formed into two bearer-companies and four field-hospitals. Large supplies of surgical appliances will, it need hardly be said, be sent with this force.

The committee of the Volunteer Medical Association have placed a bearer-company of the Volunteer Medical Staff Corps at the disposal of the Director-General of the Army Medical Department. The company, which consists mostly of medical students, numbers sixty men, systematically trained in bearer and field-hospital work.

ARMY MEDICAL SERVICE.

SURGEON J. S. FORRESTER has been appointed Surgeon to the Royal Horse Guards, in the stead of W. Maunsell Collins, M.D., who has retired. He entered the service on September 30th, 1874, and is at present serving at Chatham. He has not yet seen war-service.

Apothecary R. G. Sampson, who dates from April 14th, 1868, has been granted retired pay. He is not credited in the Army Lists with service in any campaign.

Surgeons C. B. Hill and J. L. Hall have been permitted by the Commander-in-Chief in India to exchange places on the Indian roster of service.

Surgeon R. J. Geddes, M.D., on arrival from England, is directed to do duty at the Station Hospital at Secunderabad.

Surgeon A. E. J. Croly, doing duty at the Station Hospital at Wellington, is directed to do duty at the Station Hospital at Bellary, to assume charge of the 2nd Battalion Hampshire Regiment at Bangalore from Surgeon-Major Andrew L. Browne, M.D., and to accompany it.

Surgeon F. B. Maclean, doing duty at the Station Hospital at Bellary, has been ordered to do duty at the Station Hospital at Wellington.

Honorary Assistant-Surgeon F. Spurrell, the resignation of whose commission in the 2nd Volunteer Battalion of the West Kent Regiment was notified on the 6th ult., is permitted to retain his rank, and to continue to wear his uniform.

Surgeon and Honorary Surgeon-Major George B. Barron, M.D., has resigned his commission in the 13th Lancashire Volunteers, and is allowed to retain his rank, and to continue to wear his uniform.

Honorary Assistant-Surgeon R. N. Mitchell, M.D., has likewise resigned his commission in the 2nd Volunteer Battalion of the West Kent Regiment (late the 3rd Kent) Volunteers, with permission to retain his rank and uniform.

Mr. W. R. Tytheridge has been appointed Acting Surgeon to the 12th Middlesex (Civil Service) Rifle Volunteers.

Acting Surgeon C. W. Philpot, M.D., has been promoted to be Surgeon to the 1st Volunteer Battalion of the Queen's (Royal West Surrey Regiment), till recently known as the 2nd Surrey Rifle Volunteers.

Telegraphing on the 12th instant from Korti, Lord Wolseley includes among the wounded who had arrived at that place, and were reported as doing well, the name of Dr. Magill, of the Coldstream Guards, who was engaged in the action at Abu Klea on January 17th.

In a telegram from Lord Wolseley, dated Korti, February 17th, he says that Colonel Talbot, who was in command of an escort of sick and wounded, from Gubat to Abu Klea, especially reports upon the excellent work done by Surgeon-Major B. B. Connolly.

Surgeon G. A. Smyth-King, M.D., died at Kensington on the 14th instant, at the age of 63. Dr. Smyth-King was appointed Assistant-Surgeon, May 18th, 1849; and Surgeon, June 29th, 1855. He served successively in the 96th and the 14th Foot, and retired from the service, May 1st, 1867. Hart's *Army List* informs us that Dr. King served in the Russian war in 1854-55, up to the end of March, and was engaged in the battles of the Alma and Inkerman, and at the siege of Sebastopol, and had the Crimean medal with three clasps, and the Turkish medal.

INDIAN MEDICAL SERVICE.

THE services of Surgeon-Major D. N. Martin, M.D., Bengal Establishment, are temporarily placed at the disposal of the Chief Commissioner of the Central Provinces.

Surgeon C. P. Lukis, Bengal Establishment, has been appointed to officiate as Medical Storekeeper at Allahabad, *vice* Brigade-Surgeon J. Browne, M.D., who is proceeding on leave.

The services of Surgeon-Major A. Barry, M.D., Bombay Establishment, Medical Officer of the 2nd Bombay Cavalry, and who has been officiating as Obstetric Physician at the Jamsetjee Jejeebhoy Hospital, Bombay, have been replaced at the disposal of the Commander-in-Chief.

Brigade-Surgeon W. H. Kirton, Bengal Establishment, has retired from the service, which he entered on August 4th, 1856. He attained the rank of Brigade-Surgeon, December 20th, 1883. He has no war record.

Brigade-Surgeon John Jones, M.D., Bengal Establishment, has also retired. He entered the service, February 20th, 1856, and became Brigade-Surgeon, April 1st, 1882. Dr. Jones served in the Indian mutiny campaign in 1857-59, and was present at the action at Narnoul, at the capture of Bareilly, and in the operations in Oude (medal).

Brigade-Surgeon W. P. Partridge, Bombay Establishment, has retired from the service, which he joined on July 3rd, 1854. His commission as Brigade-Surgeon dates from November 27th, 1879. Mr. Partridge served with the Persian Expeditionary Force in 1856-57, and was present at the landing at Hallilah Bay, at the capture of Bushire, and at the bombardment of Mohumrah (medal with clasp). He also served in the Indian Mutiny in 1858-59, and was in the action against the rebels in the Thur and Parkur districts, and in the engagement at Nuggur Parkur. During the Abyssinian war, in 1867-68, he had medical charge of the hospital ship, *Star of India*, and received the medal granted for the campaign.

THE NAVY.

Fleet-Surgeon A. B. Messer, M.D, has been promoted to the rank of Deputy-Inspector-General of Hospitals and Fleets. Dr. Messer entered the service on the 28th of August, 1852, became Staff-Surgeon, August 30th, 1861; and Fleet-Surgeon, January 27th, 1874. He served as Assistant-Surgeon of the *Duke of Wellington* in 1854, and of the *Centaur* in 1855, in the Baltic during the Russian war, and has received the Baltic medal.

The following appointments have been made at the Admiralty during the past week:—G. M. Cuffe, Surgeon, to the *Raleigh;* H. W. A. Burke, Surgeon, to the *Excellent;* R. A. Mowll, Staff-Surgeon, to the *Naukin;* W. G. Ridings, Fleet-Surgeon, to the Royal Marine Artillery at Portsmouth.

Fleet-Surgeon J. J. Martin died on the 13th instant, at South Kensington, in the 64th year of his age. His commissions were dated:—Surgeon, January 22nd, 1842; Staff-Surgeon, February 22nd, 1853; and Fleet-Surgeon, March 21st, 1867. He retired on the 1st of April, 1870.

ARMY MEDICAL EXAMINATIONS.

SIR,—I must apologise for requesting space for another letter on the subject of the army examinations, but I have noticed, in some of the letters appearing in the medical papers lately, that many unfair charges have been brought against the examiners, in many instances, I fear, by writers not sufficiently acquainted with the examinations, nor with the high characters of the examiners, to be qualified to express their opinions so freely. Fearing that a very erroneous opinion may be formed of the knowledge in Ireland on this subject, and to express the high opinion held by those who have studied the matter, regarding the good faith towards all the candidates, irrespective of nationality, shown by the examiners, I am constrained to take up the subject, and point out some of the inconsistencies of the examination. I have made it my special study for the last four years, during which period I have prepared many candidates, thirty-five of whom at present hold commissions in the service.

In some letters, I observe the proportioning of the marks has been questioned. This I consider a very groundless objection, as the marks, as at present divided, are such as would be suggested to any examining body, especially those on anatomy and physiology. I do not consider them excessive, being in strict accordance with the latest opinion of examining boards; the general tendency being to attach special importance to those subjects which are the groundwork of all true professional study, and which, if not fully understood at the time of examination, will never afterwards be acquired. With respect to the examination, I, however, must say, there are many abuses to be considered, and I regret to state that some of these are so grievous, as to eventually result, if not at once seriously considered by the authorities, in reducing the efficiency of the Army Medical Service, by deterring the higher class students from presenting themselves.

Foremost, I must call attention to the extreme uncertainty of the examination as a means of selecting those best qualified by ability and professional attainments for appointments. To prove this, it is only necessary to refer to some cases which have come under my personal observation at the late examinations. The two last Surgical Travelling Prizemen of the University of Dublin, who, therefore, were thus individually acknowledged to be the students best qualified in this branch of their profession, on presenting themselves for the army examination, failed to obtain commissions, although fellow-students who had not obtained any university distinctions were successful. I may also add that other distinguished students of this university have of late been unsuccessful. Speaking lately to one of the Professors of the university, I incidentally mentioned the name of one of those who failed at the last examination; the Professor replied that he was greatly surprised to hear this, as the gentleman referred to, in his opinion, should be certain of passing any medical examination. It may be said that those candidates had prepared their surgery at the expense of the other subjects required for the army examination; but, in answer to this, I must call attention to the case of a candidate from the Royal University, who obtained honours and second place at his final examination, being examined on all the subjects required for the army examination, but who was refused a commission; while, at the same examination, a fellow-student obtained a high place on the list of successful candidates, who, to my knowledge, was unable even to obtain his degree in the Royal University, being twice unsuccessful. Many other graduates of the Royal University were also unsuccessful at the same examination.

From the foregoing facts, it is apparent that the opinions of the two universities examining boards and the army examiners, as to what constitutes a good knowledge of the present medical sciences, must be at variance; while, to help us to a conclusion as to which is most likely to be right, I beg to call attention to the fact that, at the last two army examinations, the candidates (both Englishmen) who obtained the first places were both among the unsuccessful candidates six months prior to their brilliant successes. Can six months' reading make such a difference in a profession which occupies five years to obtain a general knowledge of it?

I also observe that the gentleman who, at the February examination, obtained first place for the Indian Service, and who, I am informed, was considered one of the most able students who ever passed through the Netley School, where he obtained extremely high marks, and took three out of the four prizes offered there for competition, actually, six months previously, was not considered sufficiently educated to receive a place on the list of successful candidates.

Now we come to the question as to what is the cause of such a highly unsatisfactory state of affairs. That it is not due to any bias on the part of the examiners, all will, I think, on reflection agree with me; but, in my opinion, it is due to want of selection on the part of the authorities, who appoint gentlemen, no doubt eminent in one branch of their profession, to examine on another branch in which they possess no special qualification. For example, I do not consider a quarter of a century's study of tropical diseases a good preparation for examining on anatomy and physiology.

I must also call attention to the physical impossibility, on the part of the examiners, to read over, not to say mark, the papers placed before them, in the time usually allowed to elapse before the marks appear. Each examiner receives the papers of, on an average, one hundred and fifty candidates, who are allowed three hours' writing each; and, as the examiners are occupied most of the day with the *viva voce* examination, how is it possible to conceive this immense volume of writing being read over and corrected by the examiners within four days after the termination of the *viva voce* examination?

This whole question, however, I consider to be one which strikes deeply at the root of the medical sciences as now taught in the United Kingdom. These sciences are generally considered, and rightly so, to be governed by hard and fast rules, the result of deep scientific research. I therefore feel the subject is one which should not be approached by an individual, and feel most acutely the apathy which has caused the licensing bodies of the United Kingdom to neglect question which affects them so deeply.—I am, etc.,

F. Tydd Heuston, M.D., M.Ch., F.R.C.S.I., Lecturer on Anatomy and Registrar, Carmichael College, Dublin.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

Health of English Towns.—In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 6,352 births and 3,571 deaths were registered during the week ending the 14th instant. The annual rate of mortality, which had been 24.5 and 21.8 per 1,000 in the two preceding weeks, further declined to 20.9 last week. The rates in the several towns, ranged in order from the lowest, were as follow:—Birkenhead, 13.5; Salford, 15.1; Derby, 15.1; Brighton, 16.8; Huddersfield, 18.5; Bradford, 19.0; Leeds, 19.4; London, 19.5; Leicester, 19.5; Birmingham, 19.8; Bristol, 19.9; Portsmouth, 21.3; Nottingham, 21.7; Wolverhampton, 21.7; Bolton, 21.8; Sheffield, 22.0; Halifax, 22.3; Hull, 22.7; Blackburn, 22.7; Liverpool, 24.8; Oldham, 24.8; Manchester, 24.9; Plymouth, 25.4; Newcastle-upon-Tyne, 26.2; Norwich, 27.5; Preston, 28.1; Cardiff, 32.3; and Sunderland, 32.5. In the twenty-seven provincial towns the death-rate for the week averaged 22.1 per 1,000, and was 2.6 above the rate recorded in London. The 3,571 deaths registered last week in the twenty-eight towns included 398 which were referred to the principal zymotic diseases, against 397 and 356 in the two preceding weeks; of these, 112 resulted from whooping-cough, 53 from measles, 53 from scarlet fever, 41 from "fever" (principally enteric), 40 from small-pox, 35 from diphtheria, and 26 from diarrhœa. These 398 zymotic deaths were equal to an annual rate of 2.3 per 1,000. In London the zymotic rate was 2.1, while it averaged 2.5 in the twenty-seven provincial towns, among which these zymotic rates ranged from 0.0 in Brighton and in Plymouth, to 5.1 in Norwich, 6.0 in Huddersfield, 6.5 in Cardiff, and 11.2 in Sunderland. The deaths referred to whooping-cough, which had been 142 and 104 in the two previous weeks, rose again to 112 last week, and showed the greatest proportional fatality in Bristol, Preston, and Nottingham. The fatal cases of measles, which had steadily declined in the first seven weeks of the year from 88 to 53, rose again to 91, and caused the highest death-rates in Cardiff, Huddersfield, and Sunderland. The deaths referred to scarlet fever corresponded with those recorded in the preceding week; this disease was proportionally most fatal in Newcastle-upon-Tyne, Leicester, and Preston. The 41 fatal cases of "fever" exceeded by 7 the number in the previous week, and showed the greatest prevalence in Norwich. Of the 35 deaths from diphtheria in the twenty-eight towns, 16 occurred in London, 9 in Liverpool, and 2 in Nottingham. Of the fatal cases of small-pox in the twenty-eight towns, 34 occurred in London (exclusive, however, of deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside Registration London), 3 in Birmingham, 2 in Sheffield, and 1 in Liverpool. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 1,146 and 1,144 at the end of the two preceding weeks, rose to 1,223 on Saturday last; 255 new cases were admitted to these hospitals during the week, against 287, 253, and 223 in the three previous weeks. The death-rate from diseases of the respiratory organs in London was equal to 4.9 per 1,000, and was considerably below the average. The causes of 84, or 2.4 per cent. of the 3,571 deaths last week in these twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

Health of Scotch Towns.—In the eight principal Scotch towns, having an estimated population of 1,269,170 persons, 768 births and 609 deaths were registered during the week ending the 14th inst. The annual rate of mortality, which had steadily declined in the five preceding weeks from 30.7 to 26.6 per 1,000, further fell last week to 25.0, but exceeded by 4.1 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 15.8 in Edinburgh, 16.6 in Perth, 22.0 in Paisley, 22.8 in Leith, 23.9 in Aberdeen, 26.8 in Greenock, 28.0 in Dundee, and 29.6 in Glasgow. The 597 deaths registered in these towns included 95 which were referred to the principal zymotic diseases, against 87 and 92 in the two previous weeks; of these, 29 resulted from whooping-cough, 25 from measles, 13 from diarrhœa, 12 from scarlet fever, 10 from "fever" (principally enteric), and 6 from diphtheria. These 95 deaths were equal to an annual rate of 3.9 per 1,000, which exceeded by 1.6 the average zymotic death-rate last week in the large English towns. The zymotic rates in the Scotch towns ranged from 1.7 and 2.8 in Edinburgh and Greenock, to 4.9 in Glasgow, and 5.1 in Dundee. The 29 deaths from whooping-cough showed a decline of 5 from the number in the preceding week, and included 7 in Glasgow, 5 in Dundee, 5 in Leith, and 4 in Greenock. The 25 fatal cases of measles showed a slight increase; 17 occurred in Glasgow, and 5 in Dundee. The deaths referred to scarlet fever, which had been 5 and 8 in the two previous weeks, further rose to 12, of which 10 were returned in Glasgow. The 10 fatal cases of "fever" exceeded by 4 the number in the preceding week, and included 7 in Glasgow, and 2 in Edinburgh. Of the 6 deaths from diphtheria, 3 occurred in Glasgow, and 2 in Dundee. The mortality from diseases of the respiratory organs in these Scotch towns considerably exceeded that recorded in the corresponding week of last year, and was equal to 6.2 per 1,000, against 4.9 in London. The causes of 80, or 13.1 per cent. of the 597 deaths in these Scotch towns were uncertified.

Health of Irish Towns.—In the week ending February 7th, the number of deaths registered in the sixteen principal town-districts of Ireland was 544. The average annual death-rate, represented by the deaths registered, was 32.9 per 1,000. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000:—Armagh, 20.7; Belfast, 29.0; Cork, 31.8; Drogheda, 46.5; Dublin, 35.1; Dundalk, 26.2; Galway, 13.4; Kilkenny, 29.6; Limerick, 41.8; Lisburn, 19.3; Londonderry, 21.4; Lurgan, 35.9; Newry, 21.1; Sligo, 14.4; Waterford, 76.4; Wexford, 29.9. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 2.2 per 1,000, the rates varying from 0.0 in ten of the districts to 18.5 in Waterford—the 33 deaths from all causes registered in the last named district comprising 5 from measles and 3 from diarrhœa. Among the 122 deaths from all causes registered in Belfast were 1 from scarlatina, 2 from simple continued and ill defined fever, and 3 from diarrhœa. In the Dublin Registration District, the deaths registered during the week amounted to 245. Twenty-one deaths from zymotic diseases were registered in Dublin during the week, being 13 below the average for the corresponding week of the last ten years, and 4 under the number for the week ending 31st ultimo. There were 83 deaths from diseases of the respiratory system registered, being 25 over the number for the preceding week, and 18 in excess of the average for the fifth week of the last ten years: they comprised 56 from bronchitis, and 14 from pneumonia. The deaths of 23 children (including 15 infants under one year old) were ascribed to convulsions. Five deaths were caused by apoplexy; 5 by other diseases of the brain and nervous system (exclusive of convulsions); and 11 by diseases of the circulatory system. Phthisis or pulmonary consumption caused 18 deaths, mesenteric disease 7, and cancer 4. Three accidental deaths were registered. In 38 instances, there was "no medical attendant" during the last illness. Eighty-two of the persons whose deaths were registered during the week were under 5 years of age, 42 being infants under 1 year. Two women were stated to have been aged 90 and 100 years respectively.

Health of Foreign Cities.—It appears from statistics in the Registrar-General's return for the week ending the 7th instant, that the death-rate recently averaged 34.4 per 1,000 in the three principal Indian cities; it was 25.2 in Bombay, 33.4 in Calcutta, and 51.9 in Madras. Cholera caused 27 deaths in Madras, 8 in Calcutta, and

6 in Bombay; "fever"-mortality was exceptionally excessive in Calcutta and Madras. According to most recently received weekly returns, the annual death-rate per 1,000 persons estimated to be living in twenty-three of the largest European cities was 29.7, and exceeded the mean rate during last week in the twenty-eight large English cities by no less than 7.9. The death-rate in St. Petersburg was 29.4, but showed a decline from that which prevailed in the previous week; the 523 deaths included 14 from "fever," and 3 from small-pox. In three other northern cities—Copenhagen, Christiania, and Stockholm—the death-rate averaged 24.5, ranging from 20.2 in Christiania, to 25.4 in Stockholm; diphtheria and croup caused 10 and 9 deaths respectively in Christiania and Stockholm. In Paris the death-rate was equal to 28.3, and showed a further increase upon the rates of recent weeks; the deaths included 41 from diphtheria and croup, 38 from measles, and 12 from typhoid fever. The 208 deaths in Brussels were equal to a rate of 26.9, and included 6 from diphtheria and 3 from "fever." The rate in Geneva was equal to 29.9, but no zymotic fatality was reported. In the three principal Dutch cities — Amsterdam, Rotterdam, and the Hague—the mean death-rate was 34.5, the highest rates being 33.7 in Rotterdam, and 37.2 in Amsterdam; the 262 deaths in Amsterdam included 15 from scarlet fever, and 15 from whooping-cough. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 28.6, and ranged from 23.2 in Berlin, and 27.2 in Breslau, to 32.4 in Prague, 35.0 in Munich, and 40.2 in Trieste. Small-pox caused 26 deaths in Trieste, 9 in Vienna, and 2 in Prague. Diphtheria-fatality was considerable in Berlin, Hamburg, and Dresden. The death-rate averaged 31.6 in three of the principal Italian cities, and was equal to 27.8 in Rome, 32.0 in Venice, and 36.0 in Turin; small-pox caused 21 deaths in Turin, 6 in Venice, and 5 in Rome; 4 deaths from typhoid fever were also reported in Turin. The 412 deaths in Madrid included 19 from diphtheria and croup, and 15 from "fever." The rate in Alexandria was 34.8, and 5 of the 142 deaths resulted from "fever." The recorded death-rate in four of the principal American cities averaged 24.6, and ranged from 20.4 in Brooklyn, to 27.4 in New York. Diphtheria showed fatal prevalence in New York, Brooklyn, and Philadelphia; and, in the last mentioned city, 14 deaths were also referred to typhoid fever.—It appears, from the statistics published in the Registrar-General's return for the week ending the 14th instant, that the death-rate recently averaged 33.2 per 1,000 in the three principal Indian cities; it was 23.7 in Bombay, 34.4 in Calcutta, and 48.3 in Madras. Cholera caused 37 deaths in Madras, 21 in Calcutta, and 9 in Bombay. "Fever" continues to show the largest proportional mortality in Madras. According to the most recently received weekly returns, the annual death-rate in twenty-three of the largest European cities averaged 30.8 per 1,000, and exceeded by no less than 9.9 the mean rate last week in the twenty-eight large English towns. The death-rate in St. Petersburg was 35.7, showing a marked increase upon the rates in previous weeks; the 635 deaths included 13 from "fever," and 10 from measles. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 28.5, and ranged from 23.5 in Copenhagen to 36.1 in Stockholm; diphtheria and croup caused 10 deaths in Stockholm, and 7 in Christiania; and 5 deaths from measles were also returned in Stockholm. The death-rate in Paris was equal to 28.1, and all but corresponded with that in the previous week; the 1,220 deaths included 38 from measles, 24 from typhoid fever, and 31 from diphtheria and croup. In Brussels, the 233 deaths were equal to a rate of 29.9, 8 resulting from measles, and 6 from diphtheria. The 42 deaths in Geneva gave a rate of 30.7, and no death from zymotic disease was reported. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 35.8, the rate being 37.4 in Rotterdam, and 38.0 in Amsterdam; scarlet fever caused 15 deaths in Amsterdam, and 5 in Rotterdam; and, in the former city, 10 fatal cases of measles and 9 of whooping-cough were also returned. The Registrar-General's table includes nine German and Austrian cities, among which the rate averaged 29.5, and ranged from 23.8 and 25.6 in Berlin and Dresden to 35.2 in Munich and 43.3 in Trieste; small-pox caused 17 deaths in Trieste, and 8 in Vienna; and diphtheria showed fatal prevalence in most of these German and Austrian cities, especially in Berlin, Hamburg, and Trieste. In Rome, Turin, and Venice, the death-rate averaged 31.7, and was equal to 28.0 in Rome, 33.3 in Turin, and 36.0 in Venice; small-pox caused 22 deaths in Turin (as well as 6 from diphtheria), 10 in Venice, and 4 in Rome. The 409 deaths in Madrid included 22 from diphtheria and croup, 16 from measles, and 3 from small-pox, and gave a rate of 44.9. In Alexandria, the rate was 34.8, and 6 of the 142 deaths were referred to "fever." The recorded death-rate in four of the principal American cities averaged 23.7, the rate ranging from 16.5 in Baltimore to 26. in New York; diphtheria caused considerable mortality in each o these American cities, and typhoid fever caused 10 deaths in Phila delphia.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

IPSWICH.—The completion of the first decade of work under th Public Health Act has afforded Mr. Elliston the opportunity examining, so far as his own district is concerned, the extent to whic it has influenced the death-rate, and whether the money and labo expended in sanitary improvements have effected any real saving life. He shows that for the 30 years, from 1841 to 1870, the avera death-rate in Ipswich was 22.0 per 1,000; that during the next 10 ye it rose to 22.7 per 1,000; and for the last four years, from 1880 to 188 the average fell to 19.7 per 1,000. This reduction of 3 per 1,000 mea that, had the death-rate during the last four averaged the same as t preceding ten years, 150 more persons would have died in each ye Mr. Elliston assumes, therefore, that, in addition to the 600 lives sav in the four years, there were 3,000 fewer cases of sickness, as for ea death there are at least from four to five cases more that end recovery. There is little doubt but that this marked improvement the public health during this time was due to something more th chance or a succession of favourable seasons, for it was the period wi the town was beginning to reap the benefit of some of its la measures for sanitary improvement, such as the sewerage, refu removal, and hospital; and there seems every reason to believe t the improvement will be progressive. The report contains thoughtful analysis of the mortality-statistics of the year. Th were, on the whole, extremely favourable to the town, the birth- having increased, whilst the death-rate (19.2 per 1,000) was, with exception, the lowest ever recorded. The deaths from zymotic ca (97) also were not only under the average of the previous ten ye but less in proportion during 1883 than in the rest of the country.

WEDNESBURY.—Mr. J. C. Garman records several points of inte in connection with the prevalence of disease as observed by hi this district during 1883. Thus, in chronicling a large morta from pulmonary complaints (which accounted for 130 deaths out total of 489), he observes that a form of pneumonia prevailed considerable period as an epidemic of a contagious character, w continued from February to August, whilst its ally, bronchitis, tributed to the death-list every month of the year. Many of diseases developed an amount of blood-poisoning of a serious an usual type. Scarlatina became epidemic in September, and destr 13 lives. Diphtheria assumed a serious attitude at the clos the year. It was concurrent with scarlet fever of a malignant especially where the throat became invaded, proceeding in some to diphtheritic croup. Whooping-cough, which was scarcely absent the district at any time, accounted for 19 deaths. Mr. Garman exception to the plan of regarding diarrhœa, fatal in 21 cases disease of a zymotic origin. "It is true," he observes, "tha etiology of infantile diarrhœa is not reduced to a certainty, b appears unfair that a zymotic death-rate should be encumbered an infantile disease which is known to be influenced chiefly by which parents and those having the care of infants are most a control, such as deprivation of breast-milk, bottle-feeding, err diet, drugging, impure air, bad nursing. Diarrhœa as a zymot been described wisely as a filth-disease, having a choleraic ori nidus; but these conditions, I consider, do not apply to in diarrhœa." Small-pox, which, in the previous year accounted many as 50 deaths, continued to hover about the district in a sp form until September, and was responsible for 10 deaths. The lity from typhoid fever was below the average, which Mr. Garman butes to the progress in sanitary works. From the seven pr zymotic causes the death-rate was equivalent to 3.6 per 1,0 against 4.9 in the previous year, the general rate of mortality estimated at 19.9.

SHIPLEY.—A very satisfactory feature in Mr. Ellis's report fo is the extremely low rate of zymotic mortality, which was only 1,000. The general death-rate (18.6 per 1,000) shows a slight i upon that of last year or the year before. This increase, M explains, was due to the intense cold in the early part of th The infantile mortality was equivalent to 12.5 deaths to every h births, while 36.05 per cent. of the total deaths occurred in c under 5 years of age. The district was fortunate in escapin comparative immunity from the wave of scarlet and continue which passed over the whole neighbourhood. What threaten

centre of an outbreak of scarlet fever in the Shipley Fields Road, s prevented, Mr. Ellis states, by the medical man in attendance ging the removal of the patients to the Bradford Fever Hospital, d so checking any further spread of the disease. "There is no ubt," Mr. Ellis adds, "that as prejudices against such institutions ar off, this method of checking epidemics in the bud will become neral." Of continued fever, there were 7 cases in Shipley, none of ich, happily, terminated fatally. In endeavouring to trace the rce of the outbreak, special attention was given to the question of lk-supply, as foot-and-mouth disease was very prevalent at several ms which depended upon Shipley as an outlet for their milk-pro-e, and although Mr. Ellis was unable to trace the disease, he ex-sses his opinion very strongly that there was some connection ween the two.

ABERDEEN.—Dr. Simpson wields the pen of a ready writer, and report may be read with equal profit and pleasure. During 1883, rdeen was fifth in order of healthfulness among the large towns of kingdom, showing a death-rate of 19 per 1,000. Dr. Simpson usses at length the causes which have led to this favourable posi-n. He is of opinion that the marked absence of epidemic diseases, ch are the principal factors in the variation of a death-rate, may tly be interpreted as in a large measure due to activity in sanitary ters; and the details of the year's work support this opinion. ecial regard was had to the immediate removal of infectious per-s, and the compulsory notification of cases of this kind proved of nense utility. This system was particularly useful during an out-k of typhus fever, and it was due to the early information obtained it that a serious epidemic was checked. From typhoid fever, there e 56 cases and 16 deaths, which arose, without exception, either from defective drainage, (*b*) residence at country farms or country houses ing summer holidays, (*c*) direct contagion, and (*d*) contaminated k. School-influence played an important part in the spread of latina, measles, and whooping-cough; and it is noteworthy t no fewer than 63 deaths happened from this last disease, or more n half the total number recorded from the principal zymotics. action taken for preventing the spread of infection was of a very plete character. Disinfection was actively carried on, and as y as 369 notices were sent to school-authorities, giving the names cholars known to be suffering from infectious disease. The patients oved to the hospital numbered 127. In no case was it necessary esort to compulsion, and Dr. Simpson thinks it worthy of record , notwithstanding the large number of removals (420) which have n place since the opening of the hospital in August 1881, on only e occasions has it been necessary to apply for a magistrate's order. , however, important that the hospital should be provided with a er and effective disinfecting apparatus, and there is a pressing for the provision of a horse-ambulance in place of the present rivance, which is nothing more than a stretcher with a mackin-cover. Dr. Simpson also recommends the erection of a public *oir*, and makes a plea for the establishment of public baths and houses.

GUISBOROUGH COMBINED DISTRICT.—This small combination, h was formerly under the charge of Mr. A. E. Keith, includes the l and urban districts of Guisborough, and the local-board divi-of Loftus, Skelton, and Brotton. In preparing his first two rts, Dr. Stainthorpe, who did not commence work until the middle 82, has failed to give any general statement summarising the mor-y statistics and the sanitary aspect of the combined area as a e. As in other mining districts, the death-rate amongst young ren was excessive, ranging, in 1882, from 50.0 per cent. of the mortality to 60 per cent (at Skelton). Generally speaking, the h-officer attributes much of this mortality to improper feeding, in some instances he holds improvident marriages to be re-sible. While Skelton had the largest mortality amongst children, general death-rate (14.97 per 1,000), was, with one exception, the t in the combination. Referring to the prevalence of zymotic ders, the details of which are difficult to arrive at, owing to the ce of any complete table, Dr. Stainthorpe suggests the trial of a itary system of notification, which, as he observes, will do much, gh there must be isolation in addition. For 1883, the death-rate equivalent to 17.09 per 1,000. In the early part of the year, an mic of measles passed over the district, causing nineteen deaths, f which occurred in infants under one year. The fatality from hœa exhibited a considerable decline; while, on the other hand, eaths from phthisis rose from thirty-three in 1882 to fifty-seven, h Dr. Stainthorpe thinks may have been due to the wet and severe weather experienced in the spring and summer months. The account of the performance of sanitary work is not so full or complete as could be wished.

DURHAM RURAL DISTRICT.—In investigating the introduction and subsequent spread of small-pox in this district during 1883, Mr. Blackett discovered a terrible state of ignorance and prejudice. He observes: "I cannot help remarking on the utter carelessness and total indifference evinced by at least half of the people to this loathsome malady. Their social intercourse, instead of being lessened, seems rather to have increased, either from sympathy or reckless curiosity. A sort of fatalism seems to exist: and what is fate cannot be prevented, is the prevalent opinion. In one instance, where death resulted, the house was visited by many friends while yet the corpse lay there. Despite the facts and figures brought out constantly, of the benefits of vaccination and revaccination, and that small-pox rarely ever proves fatal to persons who have been vaccinated, there are at least 50 per cent. of people in pit-villages who declare they would rather have their children run the risk of small-pox and its hideous results than have them either vaccinated or revaccinated. It is not surprising, therefore, to learn that all the deaths from the disease occurred in unvaccinated persons. There was some prevalence of measles and of scarlet fever, few details of which, however, are given by the health-officer. The death-rate from all causes was equivalent to 19.39 per 1,000. The report contains a copy of a correspondence between the Registrar-General and Mr. Blackett in regard to the proceedings of unqualified practitioners, which shows that the present system of death-registration is capable of improvement.

READING.—In his report for 1883, Dr. Shea touches upon the principal sanitary reforms which have been accomplished in this borough during the previous ten years, and adopts the usual plan of testing the value of the work performed by the general rate of mortality. Dividing the ten years 1874-83 into two equal cycles of five years each, the average death-rate, for the first five years, was 18.84; but, for the last five years, only 17.32. The rate for the year 1883 itself showed a still further diminution, being but 15.90. When it is considered with what rapidity the population has increased, these statistics cannot be regarded otherwise than satisfactory, and may be accepted as a fair indication that the labours of the sanitary officials have not been in vain. Scarlet fever and summer diarrhœa were conspicuously absent during 1883, and the only disorders attended with any great amount of fatality were whooping-cough and measles. The deaths returned under the head of diphtheria—16 in number—give, at first sight, some ground for alarm; but Dr. Shea explains that, owing to the changes of opinion which have taken place of late among medical practitioners with regard to croup, several cases that would formerly have been returned as croup have been classed as diphtheria. Taking the seven chief zymotic diseases together, they showed a death-rate of 2.1 per 1,000.

RIVER TYNE PORT.—Mr. Armstrong's report for 1883 furnishes several notable illustrations of the way in which infectious disease may be introduced into adjoining riparian districts. It appears that, during the month of February, two seamen, residents of Newcastle, arrived in the Port by two different vessels trading between London and the Tyne, whilst suffering from small-pox, and proceeded thence to their homes, from which they were removed to the Newcastle Small-pox Hospital. The first of these, we are told, had come from the Isle of Wight, by way of Portsmouth, to London, having been discharged at the first-named place from his ship, because he was ill and unable to work. From London he travelled as a deck-passenger to Newcastle, "with the eruption of small-pox copiously out upon the face and the rest of his body." He died in hospital. The officers of the vessel by which he journeyed from London to Newcastle were questioned, and stated that they saw each passenger, but did not observe anyone ailing. The second case was that of a seaman who came to the Tyne from London by the steamship *Ida*. He left his ship owing to illness, but the eruption of small-pox did not appear until after he came home. In both of these cases, infection was apparently contracted in Newcastle; and they illustrate the necessity of having coasting vessels questioned as to the health of their companies. Had it not been that the medical officer of health is also medical superintendent of the Newcastle Small-pox Hospital, the circumstances above given would not, in all probability, have been traced or reported. The total number of cases of illness recorded during the year was 98, in 11 of which the disease was of an infectious nature.

TORQUAY.—If for no other reason, Mr. Karkeck's report for 1883 would be extremely interesting, owing to the account which he gives of the several cases of typhoid that came under his notice during the year. Among others, may be mentioned a case, where the person attacked resided in a house consisting of two rooms only, the lower portion being used a shop, and the upper as sitting-room, kitchen, and bedroom combined, and which communicated direct with an old-fashioned, defective, and dirty water-closet. The bulk of the cases appear to have been caused indirectly by a tremendous rainfall, as much as one 1½ inches falling in about two hours. It would seem as if the inhabitants of some houses became fever-proof. Many heavy rainfalls have occurred at Torquay, and no one was ever ill in a particular house in the Middle Warberry Road; and yet, as soon as a new set of servants were subjected to precisely the same influences as their predecessors must have lived in, they succumbed at once. The moral, Mr. Karkeck continues, is this. "Test and examine the sanitary conditions of each house on every change of occupants. This conclusion may not be based on strictly scientific grounds; but I have had occasion to notice the peculiarity of the fact in several instances." Reference should be made to yet another case, that of a servant, who had gone to the infirmary, and, owing to want of space, was placed in a ward in which were a mother and two children suffering from typhoid. She had been cured of her ailment and sent home, but, a few days later, was taken ill with what ended in typhoid, This case, in Mr. Karkeck's opinion, pointed distinctly to the infectious nature of typhoid, a fact sometimes overlooked. The total deaths during the year, 414, or 16.9 per 1,000, were 22 in excess of the average. Zymotic diseases accounted for 33 deaths, of which as many as 15 were referable to whooping-cough, a complaint that was exceptionally fatal.

HARTISMERE RURAL DISTRICT.—Although Dr. Barnes' report is brief, it contains a record of the principal events of the year. He congratulates his authority upon the fact that the death-rate of 1883, 14.2 per 1,000, is lower by 2.0 per 1,000 than any recorded during the past 13 years, that the fatality from zymotic causes exhibited a decrease, and that the rate of infantile mortality is satisfactorily below the average of previous years. Scarlet fever prevailed during the year in a mild form, more or less, throughout the district, and was a continuation of the epidemic of 1882. In one instance the origin of the fever was traced to a visitor from London, but in the majority of cases the infection was conveyed from one house to another, and notably, in others, by contact at school. It occurred in 61 houses, attacked 141 persons, and caused five deaths. There were eight outbreaks of diphtheria, and three of typhoid fever, which, for the most part, were found in association with sanitary defects. Speaking of the sanitary condition of his district, Dr Barnes is convinced that it is better than in any former year, although he admits that each inspection reveals much work to be done in order to obtain a really satisfactory state of things.

HASTINGS.—The town council of this place have reason to congratulate themselves upon the purchase of a sunshine-recorder, since it showed, when compared with all other British meteorological stations possessing similar instruments, that Hastings was visited, during 1883, with the greatest amount of bright sunshine; and particularly so during the winter months, when, of course, it is most valuable for consumptives and other sufferers. Read side by side with the statement that the general death-rate (15.85 per 1,000) and the zymotic rate (0.76 per 1,000) were both below the annual average, it is clear that Hastings is not likely to lose its *prestige* as a pleasant and health-giving resort. Nearly half the zymotic deaths were, moreover, caused by diarrhœa, the outcome of ignorance and neglect. Of the 16 deaths registered from this disease, 12 occurred in infants under one year, who had been hand-fed. During the year, 68 cases of scarlet fever were reported, several of which were the children of parents who had let lodgings to convalescents from the disease. The rest occurred in groups of cases, three or four arising together, chiefly among school-children. Forty-six of the sufferers were removed to the sanatorium, 40 of whom were discharged cured, four died, and two remained under treatment on January 1st, 1884. Phthisis accounted for 112 deaths, 32, or 28.57 per cent., being those of visitors; indeed, not less than 32.98 per cent. of the total deaths amongst visitors were due to this one disease. Bronchitis was fatal in 51 cases, pneumonia in 22, and heart-disease in 62. Whilst congratulating his authority upon the completion of their magnificent waterworks, Mr. Knox Shaw animadverts upon the present system of house-refuse, and advocates, in the place of objectionable private slaughterhouses, the erection of a public abattoir.

DUMFRIES WATER-SUPPLY.

SIR,—Some of your readers may remember that, towards the end of last summer, public attention was attracted to the unhygienic condition of Dumfries water-supply, by the BRITISH MEDICAL JOURNAL, in an article entitled "Inviting the Cholera." For many years Dumfries has drawn its water from a lake known as "Lochrutton." In August, 1884, Dr. Crichton Browne, of London, had the Lochrutton water analysed by Drs. Dupré, P. F. Frankland, and Mitchell Bruce; and examined microscopically by Dr. Klein, whose scientific statement on the subject was popularly explained by Dr. Lauder Brunton. These inquirers were unanimous in condemning the water for dietetic purposes. Dr. Mitchell Bruce described it as a constant menace to the health of the town; and Dr. Brunton said that, if cholera should visit the country, the use of such a water should be shunned like poison. Professor Douglas Maclagan, acting for the Scottish Prison Board, also censured the character of the water-supply, and several other competent observers made similar reports.

When the free publication of such alarming statements had given the town of Dumfries an unenviable notoriety, the Water Commissioners requested a civil engineer to report on the causes of this impurity of the Lochrutton water and to make suggestions as to how a good water-supply might be ensured. This gentleman attributed the chief source of the organic matter found on analysis, to the circumstance that a bog, of 363 acres in extent, is drained into the lake. This marsh includes one-ninth of the whole drainage-area; the remaining eight-ninths consist of highly cultivated land. He hesitated to recommend any operations on the lake itself, and advised the Commissioners to take their supply from a certain upland stream, on account of the purity and abundance of its water. The Water Commissioners postponed the consideration of the schemes until January, 1885, and on January 6th they again delayed discussion on the reports until August next.

Meanwhile, they propose to cut off fourteen acres from a shallow part of the lake, and, during the necessary operations, to supply the town from two small rills. No engineers or analysts of eminence have sanctioned the proposal to supply Dumfries with water from Lochrutton; they have stated that no attempts to improve the existing source are likely to be successful, and that the water is essentially bad. Yet the proposal to cut off fourteen acres at the head of the lake is avowedly an experiment to see if the present water cannot be made to serve the purposes of the community permanently. A stream draining a large quagmire, is acknowledged to be the chief source of contamination; nevertheless, the Commissioners propose to cut off only fourteen acres of a shallow part of a shallow lake, and leave the bog to drain into the reservoir. While this work is being executed, they contemplate supplying the town with water from two small ditches, incapable of yielding more than one-third the quantity sufficient for the wants of the community, and, in quality, unfit for dietetic use.

One of these ditches, the so-called North Park Burn, starts from the dung heaps of a hamlet and farm, and runs down one field into a swamp, where it is joined by a land-drain, and is, from this point, intended to be conveyed by a six-inch pipe into the filtering beds. The other, the Lochtown Burn, arises from a spring on a hillside, and flows for a hundred yards to a corner of Lochrutton parish churchyard. In this cemetery, many interments still take place. The water out of the burying-ground must fall into the "burn;" it is a physical impossibility that it could go elsewhere, because of the dip of the dense rock substratum. Close by the church is the manse, the sewage of which is conveyed in an unglazed, badly jointed pipe to a cesspool, built of rubble stone, with mortar, and having an overflow-pipe towards the burn, this whole sewage system not being more than thirty yards from it. Lochtown Burn then crosses a road, and immediately receives on each side a drain, one from the stabling of the Glebe Farm, not fifteen yards distant, the other from a pigstye, standing on the very bank of the stream. Thus contaminated, it runs through one field of marshy land, where it is joined by an almost stagnant ditch which drains a swamp, and has its source a few yards higher up, in a farm dunghill.

Those brooks, the Commissioners propose to convey by pipes into the filter to supply the town of Dumfries next summer. Such a proceeding seems to me nothing less than a menace to the health of the community, an extension of an invitation to cholera; and not affecting Dumfries and Maxwelltown alone, but extending even to the inhabitants of the surrounding counties; for aërated waters manufactured in Dumfries find their way into many of the villages and hamlets in the south-west of Scotland.—Yours, etc.,

D. LENNOX, M.D.

Dumfries.

CALCULATION OF MEAN AGE AT DEATH.

M. O. H. asks: In calculating the mean age at death, as what are the deaths under one year of age reckoned? Thus, supposing there are 150 deaths at all ages, and of these, 50 are under one year of age, would it be correct to add the various ages of the 100 above one year together; to reckon the 50 under one year as units, and divide the sum by 150?

*** According to the English life-table, the mean age at death of infants under one year of age is 4.6 months. Four-tenths of the number of children dying under one year would give the number of years lived by these children. This added to the sum of the years lived by those who were aged upwards of one year at death, would give an approximately correct total of the years of life lived, for division by the total number of deaths.

PAUPERS IN HOSPITALS.

SIR,—I am obliged for your replies to my queries, and quite agree as to the deficiency of decent provision for sick-paupers in this union, but am quite at one with you as to the guardians being the delinquents. As a necessary consequence of admitting paupers into the infirmary in question, it seems to me the governors have no claims for honorary services from any medical practitioners, the duties of medical officers deriving pecuniary advantage, direct and indirect, from it, therefore, being paid officers.

With your permission, I will now say a word on the question you raise as to the medical provision for paupers. The cause of the deficiency in this provision is, in my opinion, the eagerness with which medical practitioners seek the appointments; to argue that the guardians should increase salaries, when the greatest difficulty is to decide which candidate shall have a certain appointment is useless.

So long as medical practitioners lead the guardians and the public to suppose these appointments so valuable—and from what has come un-

own observation in this union, I believe the guardians would have a candidate, even if one of the appointments were offered without any salary—so long will the salaries be absolutely inadequate. Again, if a practitioner take such an appointment unwittingly, his plain duty is, if he find the salary inadequate, to resign, not to neglect the paupers.

It must not be assumed that newly fledged practitioners are to blame; and, as an encouragement to them to avoid the common fallacy that such appointments are advantageous, I would say that, so far as my observation goes, the most successful practitioners are those who have done without such aids to practice. I could say the same of clubs at two shillings and sixpence per member; and in these instances, as well as in union appointments, I have stood aloof, and witnessed my seniors rush in.

Let the profession look these questions fairly in the face, and recognise that help must come from within, not from without. Let all those who recognise their appointments to be such that they must neglect their duties to the sick, or be out of pocket, summon up their courage, and take the proper course of resigning. Let those just entering the profession have the opportunity of learning from the example of their seniors that such appointments are not worth seeking; then there would be some probability that the guardians would raise their salaries, the clubs their sick-pay.

Holding appointments without sufficient direct remuneration leads to various shifts and subterfuges being adopted to make up the deficiency indirectly; and supplying paupers with medical necessaries at the expense of a voluntary charity is an instance in point.

The remedy is, I fear, out of reach of all my energy; therefore, it is not possible for me to adopt your suggestion.—I am, yours, etc., W. B. W.

OPERATIONS ON PAUPERS.

a,—As a district medical officer to an union, I had lately to remove a malignant growth from the lip of an old man—a permanent pauper. I sent a bill for a guinea to the guardians. I had a reply to the effect that "they could not see their way to pay me the amount."

Will you, sir, kindly say whether I did right in sending such a charge? and whether the guardians should not pay me, counting the operation as being one of the unscheduled ones of the by-laws of the Local Government Board?—Yours truly, MEDICAL OFFICER.

*** We consider that it was an injudicious procedure on the part of our correspondent to have sent a claim of £1 1s. for the operation referred to, as it will be found, by reference to the ninth edition of Glen's *Consolidated Orders*, p. 164, that operations involving as much, if not more, trouble at the time, and subsequently, are specially excepted from all payment. The proper course to follow when any operation has been performed, not scheduled in the list (*vide* page 163) is to send to the board a description of the operation, and of the difficulty (if any) experienced in the performance of the same, and to ask whether the board will, under the circumstances, grant a fee. It would then be competent for the guardians to allow the same, subject to the approval of the Local Government Board, without whose sanction the auditor would surcharge the guardians. This has been done by the auditors of the Central Department, as we know from experience, and therefore the local board gave the only reply they were empowered to make, when a bald claim had been made upon them.

PHA.—1. It would be your duty, on request from the guardians, to report to the medical officer of health all cases of infectious disease occurring in your practice as poor-law medical officer. As regards your private practice, compliance with the guardians' request would, of course, be a matter for your own discretion.

2. We think that our correspondent should claim £1 1s. for attendance, and also travelling-expenses.

ENTERTAINMENT AT THE WESTMINSTER WORKHOUSE.—Our contemporary, the *Westminster and Lambeth Gazette*, in its issue of the 14th instant, describes an entertainment that was given by Mr. Joseph Rogers, the Medical Officer of the Workhouse of the Westminster Union, assisted by Mrs. Rogers and friends, to the aged inmates of that establishment. The entertainment consisted of comic and other readings, of music, and singing—the latter being of a high order, as several artists had voluntarily lent their aid. The large dining hall, capable of accommodating some hundreds, was completely filled, the audience consisting of the inmates, the members of the board, and many friends. At the meeting of the board of guardians held on the 13th instant, the entertainment was referred to, when it was proposed, and unanimously carried, "That the best thanks of the guardians be, and are hereby, accorded to Dr. Joseph Rogers, Mrs. Rogers, and the ladies and gentlemen who assisted them, for their great kindness in providing an entertainment for the inmates of the Poland Street Workhouse on Wednesday, the 11th instant, and which was so heartily appreciated and enjoyed by them." Although the provision of such an entertainment does not come within the obligations of a medical officer, we commend Dr. Rogers's action to gentlemen holding similar appointments. The medical officer is almost the only official who can, if he be so inclined, mitigate the dull and dreary lot of the inmates of a workhouse, many of whom have become such through no fault of their own, but solely through the pressure of unavoidable circumstances.

HOSPITAL AND DISPENSARY MANAGEMENT.

BELFAST ROYAL HOSPITAL.

THE annual meeting of this charity was held on November 17th, the Mayor (Sir David Taylor) presiding. The committee's report showed that the hospital was never in a more efficient condition, the number of patients treated in the wards and at the extern department being much in excess of the number ever hitherto treated. But this increased demand on the hospital had told considerably on the funds. At the beginning of the last financial year, there was a balance against the hospital of £724 13s. 4d. This deficit has increased to the sum of £1,791 10s. 1d. during the present year. It is hoped, however, that the bazaar, which will shortly be held, and which is being most warmly taken up by all classes in the community will wipe out this deficiency. During the past year, there has been a considerable falling off in the amount received from bequests and donations, and a slight decrease on that received from general subscriptions, and at the church collections; while, on the other hand, there has been a substantial increase on the amount subscribed by the working-classes. This sum, in the past year, amounted to £1,692. The Hospital Saturday annual collection, which was started for the first time on last August, promises to be a substantial means of raising funds for the institution. The medical staff reported that one hundred and sixty-eight students had attended the hospital during the winter and eighty-eight during the summer months. This decrease was accounted for by the new regulations of the Royal University.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 12th, 1885.

MacGillycuddy, Neill, University College.
Maude, Arthur, St. Bartholomew's Hospital.

MEDICAL VACANCIES.

The following vacancies are announced.

ATCHAM UNION.—Medical Officer and Public Vaccinator. Salary, £50 per annum. Applications to J. Everest, St. John's Hill, Shrewsbury.

BATH GENERAL OR MINERAL WATER HOSPITAL.—Resident Medical Officer. Salary, £100 per annum. Applications by March 5th.

BELMULLET UNION.—Medical Officer, Knocknalower Dispensary. Salary, £110 per annum, and fees. Applications to D. O'Connell, Honorary Secretary, Kilcommon Lodge, Belmullet, up to February 23rd.

BIRMINGHAM BOROUGH ASYLUM.—Resident Clinical Assistant. Applications to E. B. Whitcombe, Superintendent.

DEWSBURY AND DISTRICT GENERAL INFIRMARY.—House-Surgeon. Salary, £100 per annum. Applications by March 3rd.

FEMALE LOCK HOSPITAL, Westbourne Green.—House-Surgeon. Salary £100 per annum. Applications by February 21st.

GENERAL HOSPITAL, Birmingham.—Assistant Physician. Applications by February 28th.

HALIFAX INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary, £50 per annum. Applications by March 26th.

METROPOLITAN CONVALESCENT INSTITUTION, Walton-on-Thames.—Medical Officer. Salary, 70 guineas per annum. Applications to Mr. Charles Holmes, 32, Sackville Street, W., by March 2nd.

MILE-END OLD TOWN GUARDIANS OF THE POOR.—Medical Superintendent. Salary, £250 per annum. Applications by February 25th.

NAVAN UNION.—Medical Officer, Navan Dispensary. Salary, £155 per annum and fees. Election on February 25th.

NORTH DEVON INFIRMARY, Barnstaple.—House-Surgeon. Salary, £100 per annum. Applications by March 7th.

ROYAL ALBERT HOSPITAL, Devonport.—Resident Medical Officer. Salary, £200 per annum.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Salary, £65 per annum. Applications to the Honorary Secretary to the Medical Staff by March 3rd.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum. Applications to John Libby, Honorary Secretary, New Mills, Stroud.

UNIVERSITY OF GLASGOW.—Examiners in Physiology and Pathology, Medicine and Clinical Medicine, Surgery and Clinical Surgery. Fee, £40 per annum. Applications by March 2nd.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Junior House-Surgeon. Salary, £63 per annum. Applications by February 28th.

WINDSOR ROYAL INFIRMARY.—Dispenser. Salary, £35 per annum. Applications by March 4th.

YORK COUNTY HOSPITAL.—Honorary Physician. Applications by March 7th.

MEDICAL APPOINTMENTS.

BLUMER, W. Percy, F.R.C.S.E., appointed Honorary Surgeon to the Sunderland and North Durham Eye Infirmary, *vice* E. Allan Maling, M.R.C.S., J.P., resigned.

HARDYMAN, Charles E., F.R.C.S.Ed., appointed Surgeon to Her Majesty's Prison at Cardiff, *vice* H. J. Paine, M.D., resigned.

HARRIS, Thomas, M.D.Lond., appointed Assistant-Lecturer and Demonstrator in Pathology at the Owens College, Manchester, *vice* Robert Maguire, M.D.Lond., M.R.C.P., resigned.

LEE, Charles G., M.R.C.S., L.R.C.P.Lond., appointed Honorary Surgeon, Liverpool Eye and Ear Infirmary, *vice* T. Shadford Walker, M.R.C.S., made Honorary Consulting Surgeon.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTH.

WRIGHT.—On the 15th instant, the wife of Francis James Wright, M.D., of Northumberland House, Finsbury Park, N., of a son.

MARRIAGE.

LLOYD-ROBERTS—PARRY-JONES.—On the 12th instant, at St. Mary's Church, Denbigh, by the Rev. J. Myddleton-Evans, Vicar of Esholt, Yorks., uncle of the bride, the Rev. Edward Roberts, vicar of Harborne, Staffordshire, uncle of the bridegroom, and the Rector of Denbigh, John Lloyd-Roberts, President-elect of the North Wales Branch, and Vice-President of the Public Health Section of the Association, second son of the late Rev. R. J. Roberts, rector of Ysceifiog, and formerly rector of Denbigh, to Margaret, eldest daughter of the late J. Parry-Jones, Esq., of Plas Clough, Denbighshire.

DEATH.

GOUGH.—On the 16th instant, at Epsom, Sergeant D. Gough, in his 67th year; for twenty-seven years Drill-master at the Royal Medical College, Epsom.

CARBOLIC ACID INJECTION OF PILES.—Dr. Wm. F. Fleet writes to the *Therapeutic Gazette*, that he has been using the hypodermic treatment for piles for the past four or five years, and with universal success. The second case he had was a physician from Middlesex County, Virginia. He attacks only one pile, and where there are five or six piles, it sometimes happens they are relieved by injecting every alternate one; but it is safest to attend to each one in turn, and thus effect the entire removal of all. In this case, the patient had had a bad prolapsus of the rectum, and had used sundry instruments and appliances to remedy his trouble, but none of them afforded him any relief. The rectum was promptly relieved at the last operation, and he returned home at the expiration of a week a sound man, so far as his piles and prolapsus of the rectum were concerned. He reported himself about twelve months afterwards as still relieved, with no return whatever of hæmorrhoids or prolapsus. In very large tumours, it may be necessary to inject them two or three times before the circulation is cut off. Dr. Fleet varies his prescription a little, according to the case for treatment.

THE Derby guardians have increased the salary of Dr. Charles A. Greaves, Medical Officer to the Workhouse, from £105 to £125 *per annum*.

THE Earl of Harrowby has been re-elected President of the Staffordshire General Infirmary, Stafford.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Royal College of Surgeons of England, 4 P.M. Professor Frederick Treves: On the Anatomy of the Peritoneum and Intestinal Canal in Man.—Medical Society of London, 8.30 P.M. Dr. Felix Semon: Electric Illumination of Different Cavities of the Human Body (Mouth, Pharynx, Larynx, Nose, Ear, Vagina, Rectum); Faradisation, Galvano-cauterisation, and Electrolysis by Means of Pocket-Accumulators, chargeable at Home. Mr. Hurry Fenwick: Cucaine in Vesico-urethral Practice.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Ormerod: On Hereditary Locomotor Ataxy. (Some cases will be exhibited to illustrate Dr. Ormerod's paper.) Dr. Samuel West: Fatal Hæmoptysis: the Statistics of the last Fifteen Years of the Chest Hospital, Victoria Park, with Remarks upon Profuse Non-Fatal Hæmoptysis.

WEDNESDAY.—Royal College of Surgeons of England, 4 P.M. Professor Frederick Treves: On the Anatomy of the Peritoneum and Intestinal Canal in Man.—Hunterian Society. Dr. Pye-Smith: Presidential Address. Dr. Stephen Mackenzie: On the Connection between Erythema Nodosum and Rheumatism.

FRIDAY.—Royal College of Surgeons of England, 4 P.M. Professor Frederick Treves: On the Anatomy of the Peritoneum and Intestinal Canal in Man.—Clinical Society of London, 8.30 P.M. Dr. Hughes Bennett: A Case of Locomotor Ataxy, without Disease of the Posterior Columns of the Spinal Cord. Dr. Seymour Taylor: A Case of Arrested Rickets. Mr. Charters Symonds: A Case of Nephrolithotomy. Mr. Henry Morris: A Case of Nephrolithotomy. Dr. Hadden: A Case of Obliterative Disease of Vessels (living specimen).—Quekett Microscopical Club, 8 P.M. Mr. Buffham: On the Conjugation of Rhabdarema Arcuatum.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 1.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S. 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu.,

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, T F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12. Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Thro Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Edi 161A, Strand, W.C., London; those concerning business matters, non-deli of the JOURNAL, etc., should be addressed to the Manager, at the Office, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the edit business of the JOURNAL be addressed to the Editor at the office of the JOUR and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MED JOURNAL, are requested to communicate beforehand with the Manager, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, sh authenticate them with their names—of course not necessarily for publica

CORRESPONDENTS not answered, are requested to look to the Notices to C spondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Offic Health if they will, on forwarding their Annual and other Reports favo with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

Droitwich or Nantwich.

rs Inquirer asks for experience as to efficacy of the hot brine baths of r of the above places, in cases of chronic cystitis and enlarged prostate; also h of the two is to be preferred.

* We have no knowledge of the waters of Droitwich or of Nantwich having employed in chronic cystitis or in enlarged prostate, nor do we know that lar salt waters have been used in their treatment. But a certain amount enefit may be derived from baths of almost any hot water, if judiciously

Fragilitas Crinium.

Can any of your readers suggest any treatment for this troublesome condi- ? I have a case under notice, where it has suddenly set in in a thick black stache, and is threatening its speedy disappearance.—I am, sir, yours,

M.B.

A Dirty Tongue.

have a patient, a gentleman, who, six months ago, suffered from gastro- tinal catarrh. He is now in good health, and enjoys his food, but has rs a very dirty tongue, which nothing seems to clean. Can any of your rs suggest anything?—Yours truly,

G. W.

al Officer.—The question of albuminuria is indissolubly connected with ubject of kidney-disease; consult, therefore, any current text-book on ine or on diseases of the kidneys. The presence of albumen in urine is, elf, not likely to produce any evil effects, but it is a symptom that must be disregarded. Dr. Bristowe, in his *Theory and Practice of Medicine*, iers that the use of opium in all varieties of Bright's disease is fraught danger. Your other query is answered in our Public Health column.

Dr. Casse's Apparatus for Transfusion.

paratus is composed of a graduated glass cylinder, containing about five s of fluid, and connected at its lower end with an India-rubber tube, which e put in communication with a cannula. The operation is performed in llowing way. The donor's blood is whipped during a quarter of an hour, ie clots of fibrin are removed. While this is being done, the cannula is luced into the recipient's vein. A funnel covered with flannel, and placed glass cylinder, is then filled with defibrinated blood, which filters into linder, passes down the India-rubber tube, and soon appears at the end. ıbe is put in communication with the cannula, and the blood flows slowly, own weight, into the vein, as long as the glass cylinder is held at a higher han the recipient's arm. This method appears to be devoid of danger, as r clot nor air can enter the vein. The red corpuscles preserve their y, and the operation seems to give very satisfactory results.

Permanganate of Potash.

should like to record an incident which coincides with the experience of mms, in his letter on the local action of this drug, in the Journal of ary 7th.

dy under my care, who has derived no little benefit from a course of one- ablets of the permanganate, and was increasing the frequency of the dose, n the 6th instant, an extra tablet at night, five hours after dinner, swal- it, as usual, with bread. No sooner, however, had it reached the sto- than she was seized with a violent localised burning pain, accompanied by light collapse. I was sent for at once, and induced her to take a copious ıt of warm water, which was followed by emesis and great relief.

ng the whole of the next day, there was sufficient local pain and tender- emaining to compel her to limit herself to a very bland diet, after which dually returned to her customary food, and has lost all ill effects.—I re- yours faithfully,

H. A. Powell.

enham.

ving often used permanganate of potash during the last two years, I can Dr. Simms that I am in the habit of relying on it as an emmenagogue uestionable activity, and am grateful to Drs. Ringer and Murrell for their ıction of it into general practice.

ses where the menstrual flow has been checked by chills or other trivial a five or six days' course of permanganate of potash pills almost in- y suffices for a cure. Of this I am so convinced, that, should this treat- rove unsuccessful, I examine for phthisis, over the amenorrhœa of which permanganate of potash has little control.

gh it is better to administer the drug just before the menstrual period be expected, I have had cases in which a copious flow has been produced a week following vicarious hæmorrhages and other evidences that the nial epoch had gone by.

Dr. Simms, I have known pills pass through the body unchanged; but ıen an improper and indissoluble excipient has been used, such as those l resins which have a higher melting point than the temperature of the Kaolin-made pills are readily dissolved.—I am, sir, obediently yours,

Henry N. Oglesby.

Diabetes Mellitus in Children.

ave read with interest Mr. Edward's case of diabetes mellitus, published British Medical Journal of February 7th. It had not occurred to me eading the paper that diabetes was a disease so uncommon in young as it is there stated to be. From remembrance of my own medical owever, I quite agree that such is really the case. Your correspondent ubtless be interested to hear of another case, a very young child. In d, I was consulted as to a little boy, aged 2 years, the child of stalwart parents. From being a healthy plump child, he had lately become thin , and at the same time fretful and weak. I could not immediately dis- y cause for this change; and, as the infant passed urine in considerably uantities than normal, I obtained a specimen, and discovered that the as suffering from diabetes. The persons who nursed him had been in t of giving him bread and butter thickly spread over with coarse brown ar. This I ordered to be discontinued, and the child's milk-porridge not eetened, and animal-broths to be given. Benefit was also, I think, de- on the medicines prescribed, namely, at first morphia, to relieve the ss and restlessness, and to check the excessive urinary secretion; and is strychnia, as a nervine tonic. Of course, these remedies were cau- administered. The child recovered.—I am, etc.,

John Harker, M.D.

Temperance Medical Speeches.

Sir,—Our Dorset medical men are rather astonished at a curious speech made by Dr. J. H. Aldridge, of Southampton, at Weymouth, on February 6th. The occasion was rather an important gathering of the Church of England Temperance Society. Dr. Aldridge took up, as he often does, the influence of intemperance on the death-rate, and astonished some of his hearers by his extraordinary statements. He argued—on Dr. Farr's authority, he said —that man might live to 150, but drink apparently made such a patriarchal extension of life impossible. Those of his hearers who are total abstainers and the children of total abstainers may, I suppose, hope to live out their days, and reach the end of a second century. This, however, is a matter of opinion. The really objectionable part of the speech was his contention that the death-rate is increasing, and the duration of life greatly diminishing, and the chief factor was in the main intemperance. Surely Dr. Aldridge must know that the enormous annual excess of births over deaths, and the rapid increase of population, are proofs that his statements were incorrect.

Dr. Aldridge's speech, reported at great length in several newspapers, will be quoted and requoted by many temperance-advocates, and truth will not be promoted. Is it too much to hope that Dr. Aldridge, whose eminence and integrity all his friends acknowledge, will candidly admit that he has gone a little too far, and said more than he meant?—I am, etc.,

A Member of the Association.

Noises in the Head.

Dr. Leslie Phillips (Birmingham) asks for a hint on the treatment of noises in the head. The following is an example. C., aged 55, tailor, for eighteen months has had a noise, like a clock striking, in the head. He refers it to the region of the right ascending frontal convolution. The striking is always synchronous with pulse-beat. He can make the note louder by pressing on the bone just below the right mastoid region. No symptoms of gross lesion exist. No local condition of the ear can be made out, or gouty or syphilitic history obtained. There is no atheroma of the radials, but he is sleepless, and dreams badly. A blister to the noise-region led to slight temporary benefit. Iodide and bromide of potassium, ergot, and remedies for gout, produced no good result.

The Climate of Colorado.

Sir,—In answer to Dr. Hudson's query, in your issue of January 31st, as to the suitability of the climate of Colorado in phthisis, I have much pleasure in giving my observations, gained during a short stay there a few years ago. Colorado springs or Maniton may be taken as the central or typical resorts of this district. The former is situated on an open plain, at a height of 6,000 feet above the sea, and directly faces the immense and grand range of the Rocky Mountains, the base of which is only about six miles distant. The air is exceedingly dry and invigorating, with a mean annual temperature of 9.44° C. (49° F.). Thus, though this place is at a greater altitude than Davos, it has a more temperate climate. The population is growing rapidly, as the medical practitioners of the eastern States are sending large numbers of their phthisical patients to this elevated table-land with the very best results. The accommodation is now very good, both here and at Maniton.

Dr. Denison has proved a great amelioration to take place in consumptives who have stayed in these places sufficiently long to give them a fair trial. He attributes this to the diathermancy of the air, that is, the difference between sun and shade temperatures, which is one degree greater for every rise of 235 feet. This is due to (1) the rarefaction of the air, and (2) the diminution of moisture held in suspense.

Maniton is situated at the very base of Pike's Peak, one of the highest points of the range (14,336 feet); it is about six miles from Colorado Springs, and is a more interesting place in itself. The mineral springs here, which are very highly charged with carbonic acid, are said to resemble those of Ems; and there is no doubt, with their aid, that this place will become a national watering-place and health-resort, so good and healthy is its position, so beautiful are its surroundings, and so many are the natural attractions of the place, and the excursions that may be taken therefrom. Unlike the mountains in Switzerland, these are quite accessible, little snow remaining even on the highest peaks during the summer. Indeed, this chain of mountains forms such a natural barrier to storms, etc., that but little rain or snow falls in the plain to the east of them, on which Colorado Springs, Denver, etc., are situated.

Denver, the capital of the State, is scarcely as healthy, I should say, nor as interesting, as the places I have already mentioned. It is situated at a considerably greater distance from the base of the mountains, on an open bare plain, and is, therefore, very hot and dusty in summer, and not so protected in winter.

The following are some statistics Dr. Denison gathered as to the results he has obtained in his practice.

		Improved.	Percentage.	Stationary.	Worse.
First stage....	75	 74	 99	 0	 1
Second stage..	42	 28	 67	 6	 8
Third stage ..	85	 37	 44	 17	 36

Before closing this imperfect account of this beautiful and health-giving State of Colorado, I cannot omit a saying among the Americans which demonstrates their conviction of the healthiness of the climate; for they say that, in one sense, those who go there dying of consumption are nearly always disappointed, for they go expecting to die, and they "can't do it."—Yours truly,

Todmorden. H. Coupland Taylor, M.D.

Royal Colleges of Physicians and Surgeons: Conjoint Examination.

The following were the questions of the Examining Board in England, by the Royal Colleges of Physicians and Surgeons for the first examination in elementary physiology on January 29th. Candidates were required to answer at least four of the six questions. 1. Name the tissues shown under microscopes A, B, C. By what characteristics do you recognise them? 2. What is serum, and how may it be obtained? Can serum be made to furnish a clot; and, if so, by what means? 3. Give the composition of saliva, and the average amount secreted daily. 4. Contrast the characters of the two sounds of the heart. What views are held regarding their production? 5. Explain by what means heat is lost by the body. 6. Give the mechanism of tranquil and of forced expiration.

Lunacy Reform.

Celtic.—The details of the Lunacy Reform Bill are not known beyond the limits of the Lord Chancellor's confidence. They are not supposed to apply to Scotland.

CROTON-OIL AND CHLOROFORM IN TÆNIA.

SIR,—I see, in the December number of the *Midland Medical Miscellany and Provincial Medical Journal*, that Dr. Bernard Persh, of the United States Army, is in the habit of prescribing, in obstinate cases of tapeworm, when the usnal doses of male fern, etc., have failed, the following remedy, which he states is most efficacious, namely, he suspends one drop of croton-oil and a drachm of chloroform in an ounce of glycerine—this to constitute a dose.

The dose is given in the early morning, no preparatory treatment being required, except half an ounce of rochelle salt on the preceding evening. He states he omitted the saline purgative on many occasions, without interfering with the cure. Would any brother practitioner kindly say if he has been equally successful with the above remedy; and if a drachm of chloroform may be safely administered, in the manner described, with impunity? The dose, to myself, seems a large one; but, having a case in which all the usual remedies have failed to effect a happy result, I am anxious to try the new remedy.—I am, sir, yours very truly,

A. B. GREAT-REX, M.D.

Lawton Villa.

*** The doses of all the remedies included in this prescription seem to be quite large enough. Chloroform, however, is given, in the United States, in much fuller doses than those in which it is commonly prescribed in Great Britain. In one of our best posological tables the dose is set down as from one to ten minims, but much larger doses than a drachm have been administered, without ill effects. Of glycerine, too, the dose is usually stated to be from one to two drachms.

GERMAN.

SIR,—I am anxious to learn German by self-teaching. I would feel grateful to any member who would kindly recommend the best and quickest method, and also the books recommended?—I am, etc.,

MEMBER.

*** Although the German language is exceedingly difficult to write correctly, it can be learned for purely literary purposes with comparative facility; and, as a large number of simple words in common use are very similar in English and German, it is not difficult for the Briton to make himself understood, even in remote parts of Germany. The best grammar is that of Otto, where the more difficult rules of syntax are very clearly explained; it contains exercises. Grimm's *Mährchen*, or Popular Fairy Tales, are perhaps the easiest specimens of good literary composition for the beginner. The medical tyro in German should procure a copy of Hyrtl's *Lehrbuch der Anatomie* (Vienna; Braumüller, publisher), and translate passages, with the assistance of Dr. Fancourt Barnes's *German-English Dictionary of Medical Words* (Smith and Elder). Most of the German classics are somewhat difficult; and, although the German daily papers are as a rule highly respectable, they are written in a style unsuitable for the beginner.

BRITISH MEDICAL BENEVOLENT FUND.

SIR,—I have great pleasure in informing you that a vote of thanks for the services you have rendered to the Fund was unanimously passed at the annual meeting of subscribers.—I am, sir, faithfully yours,

18, Clifton Gardens, W. EDWARD EAST, Honorary Secretary.

FOOTBALL: ITS REGULATION AND ABOLITION.

SIR,—In your issue of January 10th, you comment upon the fact that the committee on athletics at Harvard University, U.S., have passed a resolution to request the Faculty to put down football at that place; and then proceed to classify that game with bull-baiting, cock-fighting, etc. I quite agree with you that American football does deserve to rank with these other so-called sports, for the game as at present played there resembles closely that formerly played in the old English villages and country districts before the days of the Rugby Union.

It is essentially different from the game as at present played in this country, and which does not seem to me, I must say, so brutal or rough in its nature as you think. Accidents, of course, do happen, but not more so than in hunting, bicycling, or any other sport. Nearly all the worst accidents happen in games played under the Association rules, and I will grant that the "charging" in that game is dangerous; but with regard to the game under Rugby Union rules, as, for instance, in the annual international match between England and Scotland, I think few finer displays of true athletic power and grace are to be seen anywhere. I do not see where the rules could be amended, nor, indeed, where they want amending; and, finally, I decidedly consider the game "worth the candle."—I am, sir, yours truly,

EWEN GRANT.

15, Pall Mall.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. T. Harris, Oxford; Dr. Dalton, London; The Secretary of the Clinical Society, London; The Secretary of the Royal Medical and Chirurgical Society, London; Our Dublin Correspondent; Mr. J. Vesey Fitzgerald, Birmingham; Dr. J. W. Moore, Dublin; Mr. C. G. Lee, Liverpool; Our Edinburgh Correspondent; Mr. G. C. Karop, London; Our Birmingham Correspondent; Mr. B. Snell, Ashford; Mr. Boyd Joll, Liverpool; Our Aberdeen Correspondent; Mr. R. H. Russell, Shrewsbury; Mr. A. E. Harris, Sunderland; Mr. Jeffreys, Chesterfield; Mr. J. Powell, jun., Weybridge; Mr. G. Stead, Hednesford; Mr. W. A. Buchan, Plymouth; Mr. W. S. Wade, Wakefield; Mr. A. Kebbell, Flaxton; Mr. C. E. Hardyman, Cardiff; Mr. C. E. Purslow, Birmingham; Dr. Handfield-Jones, London; Dr. Thorne Thorne, London; Mr. J. H. M. Williams, Southport; The Honorary Secretary of the Hunterian Society; Messrs. Street and Co., London; Dr. G. K. Poole, Upper Norwood; Dr. Willoughby, London; Dr. E. Hooper May, Tottenham; Dr. Fränkel, Berlin; Mr. George Rendle, London; Dr. J. B. Hamilton, Rathmines; Mr. Mordey Douglas, Sunderland; Dr. W. Curran, London; Mr. George Parsons, Hawkshead; Dr. Braidwood, Birkenhead; Dr. Yarrow, London; Our Berlin Correspondent; Mr. J. C. Carden, Milnthorpe; Dr. Macpherson, London; Mr. S. Coates, Ashton-under-Lyne; The Secretary of the National Food Reform Society; Dr. Nor Kerr, London; Mr. J. C. Voigt, Bury; Mr. A. H. Martin, Evesham; Whitla, Belfast; Mr. Peter Tytler, Manchester; Our Liverpool Correspond Mrs. A. M. L. Potts, London; Mr. H. de Méric, London; Dr. W. E Peterborough; Mrs. Ellen Bowman, Wath-upon-Dearne, Rotherham; Mr Phillips Hills, London; Dr. Lownds, Egham Hill; Mr. J. M. Ferg Hounslow; Dr. F. T. Bond, Gloucester; Mr. C. C. Whitefoord, London; James Wilson, Glasgow; Mr. Henry P. Leech, Woolpit; Dr. J. St. John sons, Bristol; Mr. H. C. Burdett, London; The Honorary Secretaries o Hospitals Association; Dr. Danford Thomas, London; Hon. Brigade-Su Stafford, Wexford; Mr. F. C. Bryan, Littlehampton; Dr. B. H. Allen, tings; Mr. V. E. Sutcliffe, Bury; Mr. John Welpton, Leeds; Mr. E. Trin London; Mr. Nunn, London; Librarian; Dr. M. Thomas, Glasgow; Thomas Marsden, Bridgwater; Mr. W. Stainton Stanley, Wellow; Dr. A Wright, London; Our Belfast Correspondent; Mr. C. A. Morton, Car Mr. Shirley F. Murphy, London; Mr. G. A. Wright, Manchester; Mr. Maclaren, London; Dr. J. Wilkie Burman, Ramsbury, Hungerford; Secretary of the National Provident Institution, London; Mr. W. J. B Stockton-on-Tees; Mr. A. R. McDougall, Chesterfield; Messrs. Essinge Neuburger, London; Mr. J. Hutchinson, London; Dr. Gairdner, Crieff; R. Weston, Bristol; Dr. Bate, Hackney; Dr. J. Livy, Bolton; Mr. Heywood, Manchester; Mr. J. G. Marshall, Doncaster; Mr. E. Dwyer London; Dr. Balthazar Foster, Birmingham; Mr. J. Croft, London; Sinclair, Dundee; Dr. E. Downes, Eastbourne; Messrs. Gilbert, Woo Co., London; Dr. Junker, London; Mr. Henry Fox, Bristol; Mr. Art Barker, London; Dr. Tripe, London; Mr. J. Parry Jones, Denbigh; Mis don, Tiverton; Mr. H. Stewart Jackson, Antigua; Mr. R. D. S. Swe London; Mr. J. Payne Massingham, Woolstanton; Mr. T. D. Cook, Du Mr. W. H. Battle, London; Dr. H. L. Snow, London; Mr. John Deans combe; Mr. James Middleton, Redcar; Dr. Charles Workman, Munich Edward Cotterell, Bicester; Messrs. Baillière, Tindall, and Cox, Londo T. Palmer Stephens, Emsworth: Dr. Brailey, London; Mr. Treves, Lo Mr. R. F. Woodcock, Wigan; Dr. R. E. England, Dover; Mr. George London; Mr. J. Goodwin Shea, Chesterfield; Dr. C. M. Campbell, Lo Mr. J. Edwards, Leeds; Mr. John Taylor, Ticehurst; Mr. B. Clarke, Lo Dr. Joseph Rogers, London; Dr. Champneys, London; Mr. A. Duke, D Dr. Walford, Ramsgate; Mr. G. M. Dartnell, Liverpool; Dr. Daly, Pitts Mr. Horace S. Hovell, London; Dr. J. Lindsay Steven, Glasgow; Mr. Graham, Brussels, Canada; Dr. Myrtle, Harrogate; Mr. E. Bellamy, L Mr. Makuna, Ystrad, Rhondda Valley; Mr. Barnish, Wigan; Dr. Batten, Gloucester; Dr. Frances E. Hoggan, London; Dr. Simpson, Abe Mr. Hinton Bateman, York; Dr. Fussell, Eastbourne; Mr. J. Howell T Wellingborough; Mr. J. F. Dixon, Bournemouth; Dr. Hull, Alford; Dr. Phillips, Birmingham; Surgeon-Major MacCormack, London; Mr. Evans, Manchester; Mr. Lawson Tait, Birmingham; Mr. E. H. Haydon ton; Mr. R. Smith, Dublin; Mr. Howard Downes, London; Mr. H. C. Nottingham; Mr. W. E. Hyde, Leominster; Dr. Smith, Pershore; Mr. Jackson, Market Weighton; Mr. Bernard Roth, London; Our Man Correspondent, etc.

BOOKS, ETC., RECEIVED.

Robert Boyle. A Biographical Sketch. By Lawrence Saunders. Lond bert, Wood, and Co. 1885.

The Training of the Instincts of Love. By F. B. Money-Coutts. With by the Rev. E. Tring, M.D. London: Kegan Paul and Co.

On Acne, Acne Rosacea, Lichen, and Prurigo. By Tom Robinson, M.D. H. Kimpton. 1884.

The Elements of Pathology. By E. Rindfleisch, M.D. Translated b Mercur, M.D. Revised by James Tyson. London: H. Kimpton.

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LECTURES
ON
HE ANATOMY OF THE INTESTINAL CANAL AND PERITONEUM IN MAN.

Delivered at the Royal College of Surgeons of England.

By FREDERICK TREVES, F.R.C.S.,
terian Professor at the Royal College of Surgeons; Surgeon to, and Lecturer on Anatomy, at the London Hospital.

Lecture I.

President and Gentlemen,—The account of the intestinal l and peritoneum in man, that I have the honour to bring before is derived from the systematic examination of one hundred fresh es. Through the kindness of my colleagues, Drs. Sutton and ner, the pathologists to the London Hospital, I was enabled to , before the performance of the usual necropsy, all the bodies of nts that had died of other than abdominal disease. The bodies, efore, were quite fresh, and, in many instances, still warm. I long been convinced that a study of this part of anatomy was ered liable to many fallacies when conducted in dissecting-room ects in whom decomposition had advanced, and in whom one l expect, for various reasons, some displacement of parts.

rtain questions as to vascular-supply I have followed out in in- d preparations. I have also derived considerable information the dissection of a number of fœtuses of various ages.

oreover, through the kindness and courtesy of Mr. Beddard, the ector to the Zoological Society, I have been enabled to make a de- d examination of the viscera of many of the mammalia, the ination including the dissection of forty different species. latter work has been of the greatest service in throwing light many obscure points in human anatomy.

te first question that may be considered is that which concerns the h of the intestinal canal in the human subject. I have made ul measurements in every instance, but the results, although minous enough, have been somewhat barren in interest. I find the average length of the small intestine in the adult male (be- n the ages of 20 and 50) is 22 feet 6 inches, the extremes being et 10 inches in one case, and 15 feet 6 inches in another. The ge length of the same part in the female is 23 feet 4 inches, the mes being 29 feet 4 inches and 19 feet 10 inches respectively. average length of the colon, in the same set of subjects, is t 8 inches in males, and 4 feet 6 inches in females, the measure- being taken from the root of the appendix or tip of the cæcum e point where the meso-rectum ended. The extremes were, for sexes, respectively 6 feet 6 inches and 3 feet 3 inches. I have inced myself that the length of the bowel is independent, in the at least, of age, of height, and of weight; nor is the ratio be- n the measurements of the small and large intestine constant. ry long small intestine may be associated with a very short , or *vice versâ;* or both segments may be unduly long or unduly . Moreover, advancing age appears to have no influence upon ngth of the intestine. The measurements of the bowel in sub- above the age of 50 years, are practically identical with those have been just detailed.

hink, therefore, that it must be allowed that the differences in ngth of the intestine—differences that, in the lesser bowel, may lly reach to no less than 15 feet—depend upon physiological, ot upon morphological, data. It is not unreasonable to assume the nature of the food, the vigour of the digestive process, the ity of the abdominal nervous centres, will have more concern in mining the length of the bowel than will the height and age of dividual; and it may be that a time will come when physio- s will be able to express the value of certain alimentary func- in feet and inches. A study of the comparative length of the tines in animals certainly seems to support a belief in the phy- gical bias.

e history of the growth of the bowel in infancy presents, how- some features of more definite interest. In the fœtus at full the length of the intestine, and especially of the colon, is larly constant. The average measurement of the small intestine is 9 feet 5 inches; and of the large, 1 foot 10 inches. So regular are these measurements, that the greatest variation I have met with in the lesser bowel amounted only to 2 feet, while in the colon it was as little as 5 inches. During the first month after birth, it may be reckoned that the small intestine will grow about 2 feet; and a like rate of growth may usually be recorded at the end of the second month of extra-uterine life; but after that period, the development of the lesser bowel proceeds in a most irregular manner. Thus, in a child of one year, the small intestine measured 18 feet; while in another, aged two years, the length was only 13 feet 8 inches. Again, in one subject, aged six, the lesser bowel was no less than 21 feet in length; while in another child, eleven years of age, its length attained merely to 14 feet. It will be needless to observe that this growth of the small intestine has no concern with the general growth of the body; nor does it bear any relation to the weight of the child. Growth is intimately associated with activity of function; and the diet of young children among the poorer classes is often so unsuitable and erratic, that one must expect that the developing intestine is exposed to many fluctuations of fortune, and to many vascular vicissitudes. In one instance, the nature of the nourishment may lead to an apathetic, dull, and anæmic condition of the bowel; while in another case it may foster a perpetual intestinal tumult. It is impossible that such opposite conditions can have no effect upon growth; and, when it is remembered that all children start life with practically the same length of intestine, it is difficult to ascribe the extraordinary variations in growth that are conspicuous in the bowel during the early years of existence to other than physiological influences.

With regard to the growth of the colon, we may anticipate less conspicuous fluctuations. The functional activity of the large intestine is infinitely less than that of the small; indeed, the colon is little more than an internal receptacle, provided in order that fæcal matters may be voided at intervals; and, in a certain physiological sense, the real anus is at the ileo-cæcal valve. The length of the colon in the fœtus at full term is 1 foot 10 inches. When I came to examine my notes as to the length of the colon in infancy, I found that the measurement of this segment of the bowel at the age of one month was 1 foot 10 inches; at the age of two months, it was still the same; nay more, at three months, and even at four months, it was still the same—1 foot 10 inches. After this period, it grew steadily and regularly. In a subject a year old, it measured 2 feet 6 inches; at six years, it was about 3 feet; and at thirteen years of age, it was about 3½ feet in length. The absence of growth in the colon for at least the first four months of extra-uterine life is certainly remarkable. It is remarkable in this sense: in the fœtus, the sigmoid flexure forms an enormous loop; it measures no less than 10 inches; while the rest of the large intestine measures a foot. Now, after birth, the sigmoid flexure rapidly ceases to be so exceedingly conspicuous; it soon begins to conform to the condition met with in the adult body; and, indeed, by the fourth month this segment of the bowel has relatively all the characters of the loop in the full grown individual. When measurements came to be examined, I found that the main part of the colon was growing at the expense of the sigmoid flexure; so that, in a subject that had reached the age of four months, this flexure measured only 6 inches, while the rest of the colon had acquired the length of 1 foot 4 inches. During this period of time, therefore, there had not been growth in length, but merely a readjustment of parts—a compensatory arrangement in subtraction and addition. It is peculiarly interesting to note that this rearrangement takes place without conspicuous disturbance of the investing serous membrane.

The Duodenum.—The length, course, and relations of the duodenum are singularly constant, and exceptions to the condition detailed in the familiar account of this portion of the bowel are exceedingly rare.

In the anatomical text-books, the duodenum is said to describe a single large curve of an almost circular shape, and is divided into three portions—an ascending, a descending, and a transverse. The first portion extends upwards, backwards, and to the right, to a point just beneath the neck of the gall-bladder. The next segment passes downwards as low as the second or third lumbar vertebra, while the third division crosses the column obliquely from right to left in front of the second lumbar vertebra. The end of the duodenum is thus clearly to the left of the spine. The first portion is invested by peritoneum, like the stomach; the second portion is covered by the serous membrane on its anterior surface only; while the third part receives a partial investment upon the same surface.

If the jejunum be considered to commence at a spot where the gut receives a complete investment of peritoneum and a distinct mesentery, then to the above description of the duodenum should be added

a fourth, or second ascending part. This fourth portion is practically constant. When the bowel has reached the left side of the column, it ascends vertically by the side of the spine. This vertical portion —which is covered entirely in front, and partly at the sides, by peritoneum—I have never found to be less than one inch in length. One anatomist (Dr. Bruce Young, *Journal of Anatomy and Physiology*, 1884, page 100) has recently described this terminal vertical portion, and insists that it is a constant feature in the normal duodenum. In one body, that of a male adult, I found this vertical portion so extensively developed, that the end of the duodenum was carried far up on to the under surface of the transverse meso-colon. The relatively small size of the duodenum, and its relation to the serous membrane, are points that are distinctive of the bowel in the higher mammalia. Speaking generally, it may be said that, in mammals, the duodenum forms a large loop, describes a regular and well-rounded curve, and is provided with an extensive meso-duodenum. In the primates, the meso-duodenum begins to disappear. In the ringtailed Lemur, there is a small but distinct meso-duodenum. In the common Marmoset, this fold is but slightly represented; while, in the fourteen different species of apes that I have examined, the peritoneum had practically the same relation to the gut that it has in man. The curve of the duodenum, however, varies greatly in monkeys. One extreme is represented by the simple angular horizontal bend met with in the Bonnet monkey and Barbary ape (Fig. 1 A), and another by the extensive vertical loop which I find that the duodenum describes in the Spider-monkey (Fig. 1 B). It is important to recognise that the end of the



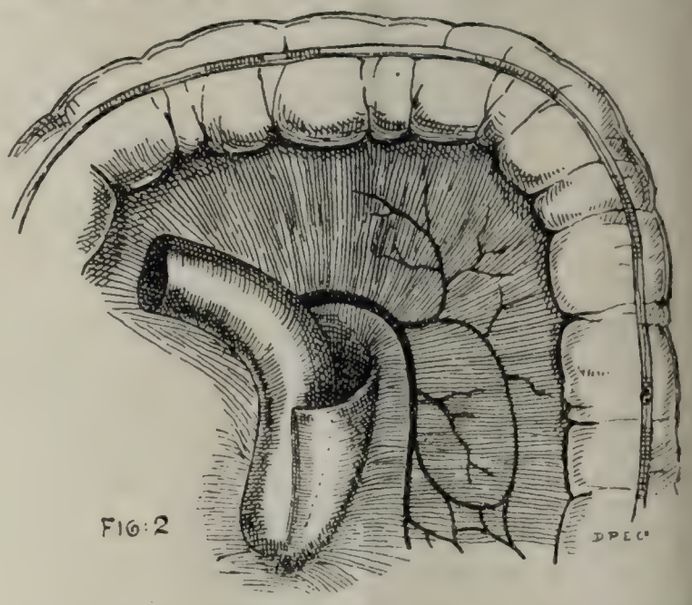
FIG. 1

duodenum is very firmly fixed in its place by the musculus suspensorius duodeni. This name has been given to a fibrous band, that contains, according to Treitz, some plain muscular fibre, and that descends to the vertical part of the duodenum from the left crus of the diaphragm, and the tissue about the cœliac axis.

The points about the duodenum to which I would direct especial attention, concern the fossa duodeno-jejunalis. This fossa has received little notice at the hands of anatomists, although it possesses great anatomical interest. It deserves attention, also, as being the seat of origin of retroperitoneal or mesenteric hernia, a form of rupture of which nearly fifty examples have been placed on record. If the transverse colon be thrown upwards, and the small intestine be drawn well to the right, the termination of the duodenum and commencement of the jejunum will be clearly displayed. The terminal part of the duodenum is covered in front by peritoneum. This covering is continuous above with the under layer of the transverse meso-colon, and below with the peritoneum covering the front of the lumbar spine, and passing down into the pelvis. On the left side, it is continuous with the serous membrane that invests the kidney and descending colon; while, on the right, it joins the mesentery of the small intestine.

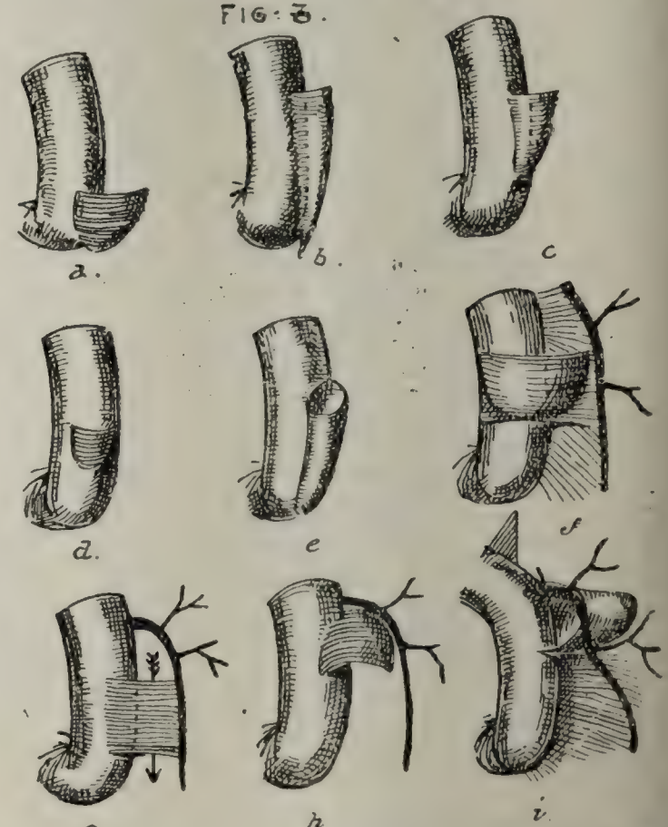
When the fossa exists, a fold of serous membrane will be seen to pass from the parietal peritoneum, just to the left of the terminal part of the duodenum, and to be attached, in a vertical line, to the anterior surface of this portion of the bowel (Fig. 2). This fold, which is called the plica duodeno-jejunalis, forms above a free crescentic margin, which looks directly upwards; while, on all other sides, it is continuous with the peritoneum on the duodenum and posterior parietes. The fold is clear and translucent, is singularly free from fat and blood-vessels, is composed of two layers of the serous membrane, and forms a well defined pouch or pocket in the peritoneum.

The lateral attachment of the plica on the left side very commonly corresponds to the inferior mesenteric vein. It may come off between the vein and the duodenum, but never, so far as I have seen, from the peritoneum to the outer side of this vessel. To the bowel the plica is attached vertically, and nearly always along a line that separates the middle third from the left hand third of the gut. It may be attached nearer to what may appear to be the centre of the bowel, but it is significant to note that, in any case, the line of attachment, if followed up on to the jejunum, will be found to be opposite to the line of attachment of the mesentery. The pocket, or fossa, formed by this fold, is of triangular outline, with its base above. The


FIG. 2

opening of the fossa looks directly upwards. Its apex extends below the bend of the duodenum, a fact of significance in connection with the development of the fossa. The anterior wall of the pocket is formed entirely by the fold; the posterior wall is formed by the posterior parietes and part of the duodenum both covered by peritoneum. The capacity of the fossa varies greatly. In well marked specimens, it has a vertical depth of 1½ inches; and will lodge the thumb up to the first joint. It will often take only the point of the little finger, and, in some instances, will readily receive two fingers as far as the first joints. The fossa normally lodges the duodeno-jejunal bend; and the production of a retroperitoneal hernia, by the protrusion of additional gut into this pouch of peritoneum, can be readily understood.

FIG. 3.



The plica and its pouch, although not constant, are met with with equal frequency in both males and females, and in individuals of all ages. Among the specimens selected as typical was one from a m

tus at full term, and another from a woman aged 82. In the 100 lies examined, I found 48 examples of this fossa duodeno-jejunalis. nong the variations met with in the fossa, the following may be ted.

The pouch may be very shallow, on the one hand (Fig. 3 A), or very g, narrow, and deep, on the other (Fig. 3 B). It may be placed at ne distance from the duodenal bend (Fig. 3 C). It may be reduced a very minute pouch of serous membrane limited to the duodenum ne (Fig. 3 D). Its opening may be in the form of a distinct ring, it in the specimen depicted would just admit a No. 12 catheter g. 3 E). The pouch may be of remarkable breadth, and lodged in onspicuous transverse fold running from the inferior mesenteric n to the right hand border of the duodenum (Fig. 3 F). And tly, the lower part of the pouch may be deficient, and the plica be resented by a simple transverse band running between the usual nts of attachment (Fig. 3 G).

Before discussing the origin and mode of formation of the plica odeno-jejunalis, it may be convenient to consider the relation that ears to the inferior mesenteric vein. Although this vessel is closely ociated with the plica, and although it is well known that many itoneal folds are caused by the blood-vessels, yet I would venture xpress a belief that this particular vein has nothing to do with formation of this particular fold. It is well known that this n is somewhat uncertain in its mode of ending, but the 100 speci- ns that I have examined show that the presence or absence of the a is in no way influenced by the mode of ending or the disposition he vein. In the human subject, the vein may end in one of three s: 1, it may enter the superior mesenteric vein precisely at its ction with the splenic (Fig. 4 A); 2, it may enter the former vein ome distance from the splenic (Fig. 4 C); 3, it may enter the nic vein at a right angle (Fig. 4 B). In 100 specimens, the vein disposed as follows: condition 1 = 44 per cent.; condition 2 = per cent.; and condition 3 = 18 per cent. In the remaining two s, the vein took a remarkable course. It ran vertically upwards ront of the splenic vein, passed between the layers of the trans- e meso-colon, parallel with and two inches from the bowel, and, ing described an extensive curve, entered the superior mesenteric n on its right side (Fig. 4 D). This is not unlike the course adopted

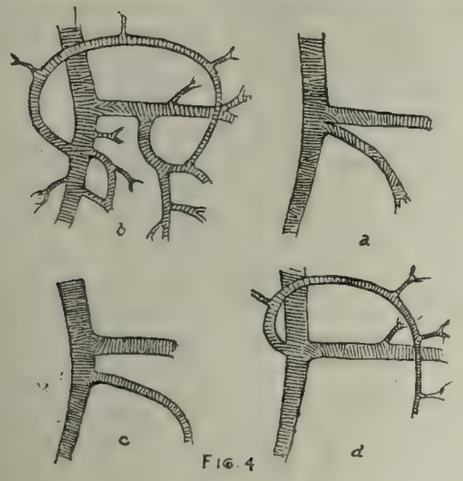


FIG. 4

he vessel in some animals, and the abnormal trunk was no doubt to an enlargement of the communicating branch between the in- r and superior mesenteric veins, that normally runs in a curved ner along the transverse meso-colon. The ending of the inferior nteric vein in the splenic would appear to be a feature in the er development of animals. In the mammalia below monkeys, nferior mesenteric artery is a branch of the superior mesenteric, the vein that accompanies the former vessel enters either the trunk e superior mesenteric vein, or at the point where that vessel joins splenic. In none of the mammalia below monkeys have I found nferior mesenteric vein ending in any other way. In the last ed class of animals, the inferior mesenteric artery comes off from orta, and the companion vein ends most usually in the angle of ion of the superior vein with the splenic. It may enter the k of the superior mesenteric vein some distance below the termi- n of that vessel. In only two instances, namely, in a Bonnet- key and in a Silvery Gibbon, did I find the inferior mesenteric discharging itself into the splenic.

man, the inferior mesenteric vein takes a sharp curve before it ends, ially when it terminates in the superior vessel. It passes under the lower border of the pancreas and behind the end of the duodenum. Before it is hidden by the pancreas, it often draws the serous membrane into a fold, near the free edge of which the vessel runs. This fold will be concave downwards, and will limit a fossa of varying dimensions that may pass up, as a kind of pocket, behind the lower edge of the pancreas. The fossa is sometimes large enough to conceal the thumb up to the root of the nail, and looks directly downwards. It often co-exists with the fossa duodeno-jejunalis, which it then serves to deepen; and is most usually met with when the inferior mesenteric vein ends either in the superior mesenteric, or at the point where that vessel joins the splenic (Fig. 5 B). Two quite unusual forms of this pouch are shown in Figs. 3 H and 3 I.

I believe this pouch to be of no practical importance, to have no interest either with regard to development or comparative anatomy, and to be in no way concerned in the production of internal hernia. I take it to be simply of the same nature as the folds that are frequently formed in the peritoneum by blood-vessels. Good examples of such folds are found about the cæcum, and a striking instance from the peritoneum near the descending colon is shown in Fig. 5 A. To

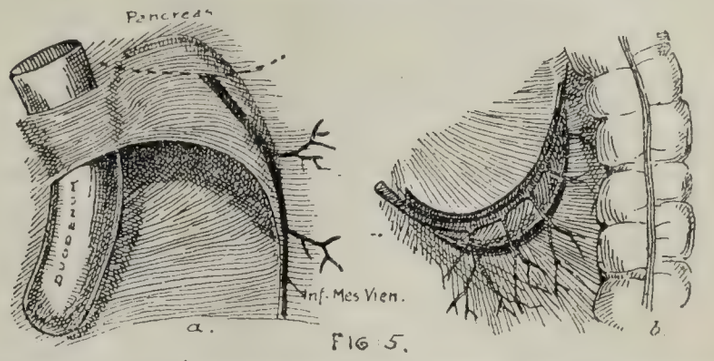


FIG. 5.

these vascular folds, and especially to the latter, I shall have occasion to allude later on.

The mode of formation of the fossa duodeno-jejunalis may now be considered; and, to render the account of its formation intelligible, some reference must be made to the general development of the intestinal tract. In its most primitive condition, the alimentary canal appears as a simple vertical tube, running down in the middle line, and connected to the spine by a simple vertical fold of peritoneum. (Fig. 6 A.) In a little while, the upper part of the tube enlarges, and becomes bulbous, and the rudimentary stomach is produced. The lower part of the tube retains its primitive connection with the spine, and retaining also very nearly its original vertical direction, becomes the descending colon and rectum, including a part also of the transverse colon. In fact, it persists as all that segment of the large intestine that is supplied by the inferior mesenteric artery. The intermediate part of the primary tube increases rapidly, and soon forms a large loop, which projects out of the still shallow abdominal cavity, and from which the intestine from the pylorus, to about the middle of the transverse colon, is ultimately developed. There is at first nothing to indicate the separation of the large intestine from the small; but soon a bulging takes place, at a point just behind the apex or middle of the loop; and this, in process of time, developes into the cæcum and its appendix. This large loop has a common mesentery, continued from the original vertical mesial fold of serous membrane that connected the primary intestinal tube with the spine. The loop has a narrow neck, formed above by the duodenum, and below by that part of the large intestine that subsequently becomes the right extremity of the transverse colon. Between these two segments of gut, at the neck of the loop, the superior mesenteric artery runs to supply the bowel. As it runs in the mesentery, it gives off branches from its right or upper side to supply the small intestine, while from its left border arise the vessels for the cæcum and ascending colon. (Fig. 6 B.) The intestine in the loop grows rapidly, and the mesentery increases in a corresponding ratio. That part of the membrane, however, that lies at the neck of the loop does not grow at the same rate. Thus it is, as Professor Flower has well pointed out, that the duodenum and the right end of the transverse colon never lose their primitive relation, in spite of the many subsequent changes that take place in the position and growth of the viscera. They continue to limit and bound the neck of the mesentery; and, as growth proceeds, this neck or root becomes proportionally narrower, while through it still runs the trunk of the superior mesenteric artery. In time, the great loop is withdrawn into the abdomen, and becomes twisted upon itself in a remarkable but definite manner. This twisting is due, in the main, to unequal growth in the two sections of the loop; for, while the small intestine has been

increasing in length with great rapidity, the colon has comparatively grown but little. Just before the twist takes place, the cæcum will probably be lying about the umbilicus, and will be placed, together with the rest of the large intestine, wholly to the left of the middle line.

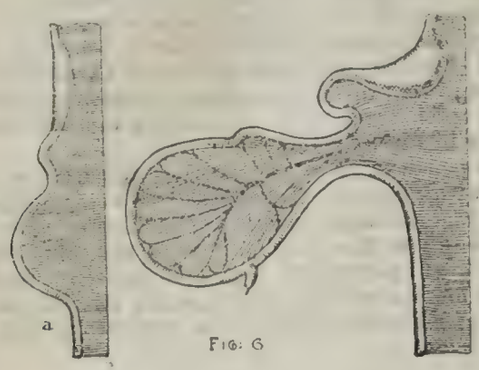


FIG. 6.

When the change in position occurs, the cæcum mounts up towards the right hypochondrium; it passes in front of the loop of the duodenum, and ultimately descends to its final resting-place in the right iliac fossa. As a result of the twisting, the small intestines are turned towards the left side; what was originally the right side of the mesentery becomes the left side; and the vessels to the small intestine are seen to come off from the left border of the superior mesenteric artery, instead of from the right. The mesentery has been rotated, in fact, half a circle. At the narrow neck of the great loop, the changes are less conspicuous. The right end of the transverse colon has passed in front of the duodenum; but they still form the boundaries of the narrow neck of the mesentery, and between them still passes the superior mesenteric artery. As development proceeds, the bowel grows somewhat out of proportion to the peritoneum about it, and this disproportionate growth is well marked in the two segments of bowel that form the neck of the great intestinal loop. As they grow, they become too large for these serous coverings; they to a great extent grow out of them, and thus it happens that the duodenum and transverse colon are brought nearer and nearer together, until at last their relations are very intimate, although their mutual positions have become modified. The development of the duodenum itself may now be considered. This part of the gut forms a loop of its own; a loop that starts from the pylorus, and ends where the gut becomes fixed by the musculus suspensorius. Its termination, therefore, is at the neck of the great general intestinal loop, and close to the trunk of the superior mesenteric artery. The duodenum, which is at first comparatively of large size, has its own meso-duodenum, which is attached vertically to the middle line, being a part of the original mesial mesentery. When the pylorus moves to the right, the loop of the duodenum moves with it, so that the left layer of the meso-duodenum becomes anterior, and the right layer posterior. When the twist takes place in the intestinal loop, the duodenum has no share in it. The general position of the loop remains unchanged. The end of the duodenum is dragged across the middle line from the right side to the left, the superior mesenteric artery passes over it instead of by its side, the dragging produced by the upward movement of the colon causes the terminal part of the duodenum to become vertical, and a sharp twist is formed in the gut where the duodenum and jejunum meet. The meso-duodenum and the mesentery are no longer continuous in the same plane. In time, the duodenum loses its mesenteric fold, partly because it grows out of proportion to the peritoneum, and partly because developing viscera in its neighbourhood draw the serous covering from it, and ultimately it actually acquires a large non-peritoneal surface.

The question now arises, as to the origin of the fossa duodeno-jejunalis; and that question can be best considered by leaving for a while the development of the parts in the human fœtus, and picking up the thread among some of the lower mammalia. What has been said of the development of the intestines in man will apply equally in all general points to the rest of the mammalia. We are, however, especially concerned now with the duodenum. In nearly all mammals—with the exception of the monkeys—the duodenum retains its mesentery. This fold is often very extensive; it is not in the same plane with the mesentery of the small intestine; it is attached vertically along the middle line, and its posterior or right layer is continuous above with the corresponding layer of the gastro-hepatic omentum. It persists, in fact, as a part of the original primitive vertical serous fold. The duodenum ends, as in man, to the left of the middle line, or rather to the left of the trunk of the superior mesenteric artery, and where it ends the bowel undergoes a very abrupt and pronounced twist. As a fairly typical example of the condition of parts, I have selected the duodenum of a hyæna, and the drawing is from a dissection of an adult female (*Hyæna striata*), Fig. 7. It will here be noticed that from the terminal part of the duodenum a vertical fold comes off, which is attached precisely along the middle line, and which, indeed, arises from the same line as the descending meso-colon.

So far as I can ascertain, this fold has been barely noticed by anatomists, although it is almost constant where a meso-duodenum exists. The fold is singularly free from blood-vessels, and is attached to the duodenum along a line precisely opposite to the attachment of the meso-duodenum. It ends below in a free fold that is concave downwards. I have seen a like fold in a small human fœtus, in whom the meso-duodenum had not yet been obliterated. The fold is evidently nothing more than the continuation back to the spine of the meso-duodenum. The terminal part of the gut has been drawn up between the folds of the serous membrane, partly by the effects of its own growth, partly by the traction of the rapidly developing small intestine. The free edge of the fold represents the inferior limit of the meso-duodenum before the terminal part of the gut has become vertical. Owing to the enormous development of the duodenal loop as compared with that of the lower colon, the meso-duodenum, that was originally above the meso-colon and in the same vertical line with it, has descended by the side of the latter until the two have at last become parallel. They are, indeed, fixed together at the spine. In many animals, owing, I imagine, to continued growth of the meso-colon, this duodenal fold has been carried with the latter from the spine; so that in such cases it appears to be inserted in a vertical line to the right layer of the descending meso-colon at a certain distance from the column. I venture to think that it is from this fold that the plica duodeno-jejunalis is produced.

In the first place, I may state that I have found no trace of this plica, nor of the fossa it produces, in any one of the animals I have dissected. In two of the carnivora, namely, in a Puma and in a Cape hunting dog, I found a fossa in the peritoneum, at a point where the meso-duodenum and the mesentery met. The fossa was placed transversely, was at some distance from the spine, was apparently due to the rotation of the bowel, and had no resemblance to the duodenal fossa in man. It would appear that the fossa follows upon the obliteration of the meso-duodenum. This obliteration depends, in part, upon the growth of the duodenum itself, and, in part, upon the rearrangement of the peritoneum during the progress of development. The proportion of peritoneum to intestine is much greater in the lower animals than it is in man. In most of the mammalia, there is an extensive mesentery and a meso-duodenum, the ascending colon is free, the transverse colon supplied by a liberal fold, and the descending colon attached by means of a large meso-colon. In man, on the other hand, the ascending colon has usually a large non-peritoneal surface. It has outgrown its serous covering. The descending colon, moreover, has been removed far to the left of the middle line, and very commonly has no meso-colon. Even when such exists, it will be no longer attached along the middle line in the place of the original fold. In most apes, the descending meso-colon, which is always present, is still attached practically along the middle line. In the Gibbon its attachment is transferred to the inner edge of the kidney, but in no ape that I have so far seen has the peritoneum been encroached upon to the extent that is so noticeable in man. In the human fœtus, the meso-duodenum is probably obliterated by the downward growth of the cæcum. This part of the colon, as it develops, would drag up the peritoneum, and would tend to obliterate all folds. More peritoneum is required by the cæcum and ascending colon, and it is obtained from that of the posterior parietes, and, in great measure, by the unfolding of the meso-duodenum. By such unfolding, the posterior layer of the meso-duodenum is dragged away from the loop which now lies with its hinder surface bare; and what was once the posterior layer comes to line the adjacent part of the parietes below and to the outer side of the duodenum. The anterior layer of the meso-duodenum remains. It will be seen that, by such unfolding, the vertical fold from the duodenum (Fig. 7) will become obliterated, and the condition may thus be brought about that is met with in many apes, and in such human specimens as are marked by the absence of the plica duodeno-jejunalis. But the dragging of the peritoneum is not all in one direction. The left part of the colon is making almost equal claims upon the serous membrane, and is tending to drag it from the posterior parietes towards the left side. In this way, the vertical fold would be carried towards the left, and be moved in an upward direction; and would persist, if the demands upon the peritoneum

ease, as the plica duodeno-jejunalis. The free edge of the plica will orrespond to, although it will not be identical with, the free edge of he vertical fold. It is not necessary to assume that the duodenum noves with the shifting serous membrane. Repeated illustrations re afforded elsewhere, to show that peritoneum can be readjusted ithout involving equivalent displacement of the viscus that it overs.

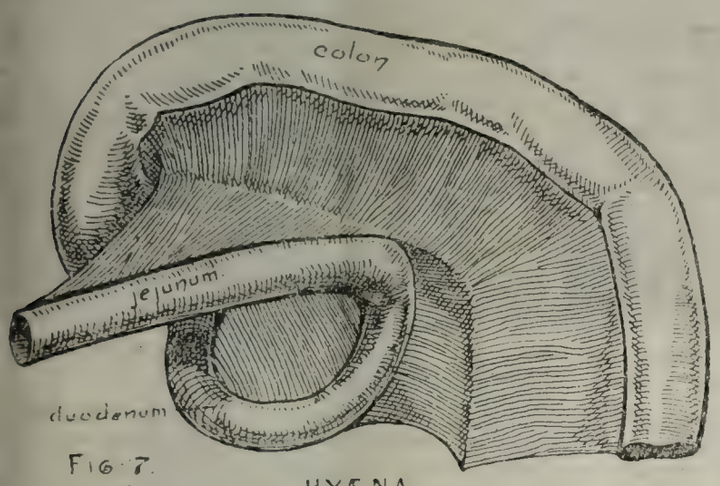


FIG 7.

HYÆNA.

It is significant to note that both the plica and the vertical fold e attached to the same part of the duodenum, and along precisely e same line. They are both, moreover, conspicuous by their thinss, and by the absence of visible blood-vessels.

Several instances have been reported in which, as the result, probly, of intra-uterine peritonitis, the intestines have continued to upy in the adult the position assumed in early fœtal life. In such es, the colon is found wholly to the left of the middle line, while small intestines occupy the right side. The bowel has not been ated in the usual manner, and the vasa intestini tenuis still se from the right side of the superior mesenteric artery. The duonum is quite to the right of the spinal column. Abnormalities of s description have been noted by Sir James Simpson (*Edinburgh Medi- and Surgical Journal*, 1839, p. 26), Dr. Hilton Fagge (*Guy's Hosl Reports*, vol. xiv), Mr. Lockwood (BRITISH MEDICAL JOURNAL, . ii, 1882, p. 574), Professor Chiene (*Journal of Anatomy and siology*, 1868, p. 15), Dr. John Reid (*Edinburgh Medical and rgical Journal*, 1836, p. 70), and Dr. Bruce Young (*Journal of atomy and Physiology*, 1884, p. 98). In the description of the ts given by the last named observer in a very able paper, this sigcant passage occurs: "Extending downwards from the inner side apex of this curve of the duodenum, in the vertical antero-pos or plane, was a membranous layer, about two inches broad and one n long, which lay two inches to the right of the middle line of the omen, and was attached below to the upper surface of the mesen-." Dr. Bruce Young thinks that this fold was a morbid adhe; but one cannot fail to be struck with its resemblance to the ver- l fold met with in animals, and which one would expect to find in particular abnormality of the bowel.

t has been already said that the fossa duodeno-jejunalis has been lited as the cause of retroperitoneal hernia. If such a rupture a, the pocket becomes enlarged, and lodges more and more of the ll intestine. The bowel finds its way behind the peritoneum; in a complete case, such as that described by Sir Astley Cooper, whole of the small intestine, with the exception of the duodenum, idden from view, and occupies a large sac that is formed in the dle of the abdomen, and surrounded by the large intestine.

ir Astley Cooper described, however, another form of retroperito- hernia, to which he gave the name of the mesocolic. In this ure, the small intestine was contained within a sac that formed a our to the left of the middle line, and that had been evidently loped at the expense of the peritoneum leading to the descending n. There are three significant facts about the form of hernia that ire notice. In the first place, the orifice of the sac was some way ved from the duodenal bend; in the next place, the commence- t of the jejunum was not involved in the rupture; and thirdly, a ch of the inferior mesenteric artery ran along the free anterior gin of the orifice of the sac. Now, Treitz and others have en- oured to show that this form of hernia also is developed from the lenal fossa. If such were the case, it is hard to understand why rifice should become so much displaced, and why the commencement of the jejunum, that is theoretically the first segment of the gut to enter the sac, should be entirely free of it.

Treitz and his followers endeavour to explain this mesocolic hernia by asserting that the duodenal plica is often turned to the right, and its fossa to the left. To aid the explanation, they describe certain remarkable arrangements of the "horns" of the plica.

With regard to these statements, which are faithfully repeated in all accounts of these retroperitoneal herniæ, I can only say that I have never found the plica or its fossa turned either to the right or to the left, nor have I ever met with the remarkable arrangements of the fold that have been so carefully described as essential to the production of some varieties of this hernia.

My statement is based upon a careful examination of forty-eighth plicæ, of each of which a drawing was made as the parts lay exposed *in situ*. In no instance was the upper margin of the plica other than horizontal, and all the chief deviations from the typical arrangement I have already described. I venture to think that the mesocolic hernia of the type described by Cooper, may be readily explained by a reference to Fig. 5 A, which was taken from the body of a female fœtus at full term. It will here be seen that a deep pouch has been formed in the parietal peritoneum, leading to the descending colon by a branch of the inferior mesenteric artery. The mouth of the pouch is directed upwards. Such a fossa could readily engage a loop of small intestine, more readily even than the duodenal fossa; and, when a retroperitoneal hernia so originating had been fully formed, then the three features that I have already alluded to would be clearly marked; that is to say, the orifice of the sac would be some way from the duodenum, the commencement of the jejunum would not be involved, and a branch of the inferior mesenteric artery would be found skirting the orifice of the sac on its anterior aspect. Folds and pouches such as this, formed by blood-vessels, would appear to be not uncommon. I have met with two such in the mesentery of two fœtuses at full term. They were in both instances formed by the ileo-colic artery, and in both examples the fold of the serous membrane bounded a not inconsiderable fossa, the mouth of which was directed downwards.

THE BROWN LECTURES
ON
PATHOLOGY.

Delivered at the University of London, December, 1884.

BY VICTOR HORSLEY, B.S., M.B., F.R.C.S.,
Brown Professor of Pathology to the University.

LECTURE III.—TRAUMATIC FEVER: PYREXIA FOLLOWING SIMPLE FRACTURES.

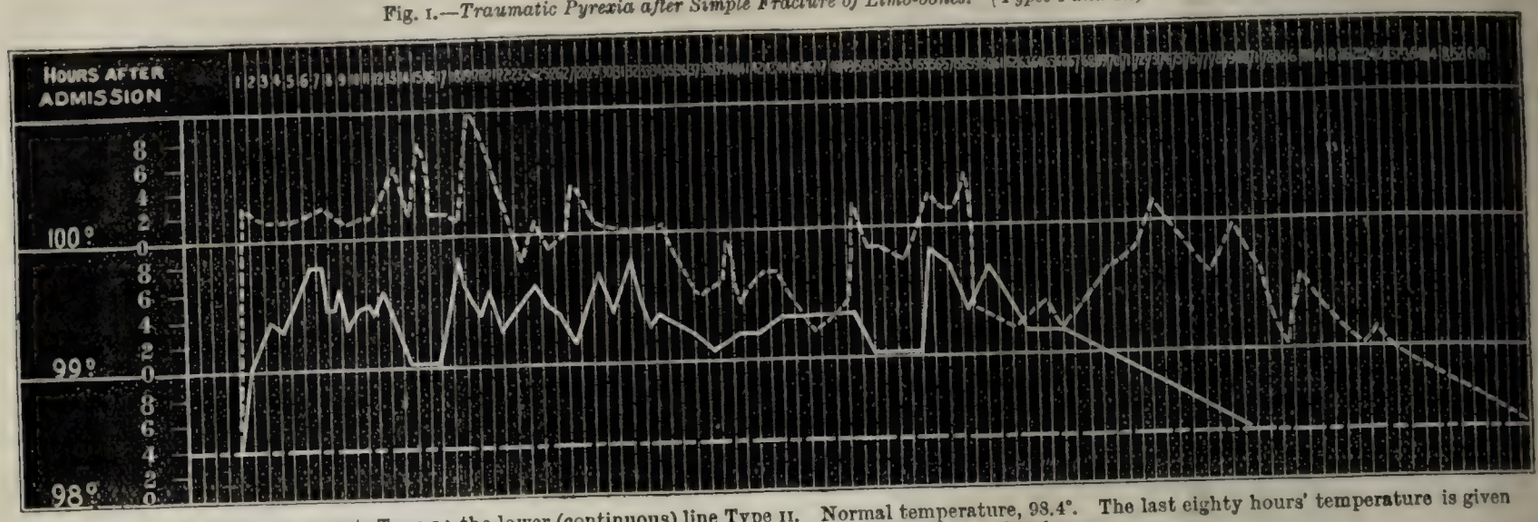
ACCORDING to received notions, as far, indeed, as they are comprehensible, numerous kinds of fever, of utterly different natures, have for many years been grouped together under the term surgical or traumatic fever. Putting aside the first term, surgical fever, which has nothing in the world to recommend it, and everything to lead us to get rid of it, let us examine the second, as it has formed the subject of many monographs, to the substance of which I shall have to refer in describing my own observations.

The expression traumatic fever has invariably been employed to denote the febrile state which usually follows an injury to the body, with or without a lesion of the skin or mucous membranes. Now, if this febrile state were always the same, that is to say, if it invariably succeeded the injury at the same interval of time, and ran a course of the same character, although it might be of different degrees of severity, then we might justly say that here was a condition which might be termed traumatic fever, subject, of course, to certain considerations to be enumerated directly. But, at present, the term embraces fevers of widely different incubation-periods, and varied modes of progress and conclusion. This is easily comprehensible when we find that, in a paper written as lately as a few years ago, Lucas Championnière describes puerperal fever, pyæmic fever, that of septicæmia, and urethral fever, all under the same title, namely, traumatic fever.

The most recent scientific work on this and kindred subjects (Erichsen's *Science and Art of Surgery*, 8th edition, 1884) divides the septic and urethral fevers from the pyrexia following a simple injury under the headings septic, traumatic, and urethral fevers respectively.

Now, at the outset, I venture to suggest that the term traumatic fever should be restricted solely to those instances in which it can be

Fig. 1.—*Traumatic Pyrexia after Simple Fracture of Limb-bones. (Types I and II.)*



The upper (dotted) line represents Type I; the lower (continuous) line Type II. Normal temperature, 98.4°. The last eighty hours' temperature is given at intervals of four hours, not hourly, as in the first eighty hours.

shown that a well marked pyrexia follows a simple injury to the body, and when such injury is absolutely uncomplicated by septic or other possible sources of fever.

A definition of the term simple injury is clearly required, if an attempt is to be made to separate one class of clinical observations from another, by using it as a basis of classification. The general notion of a simple injury is a disruptive lesion of a tissue without exposure to the exterior; and this obviously will include all possible cases in which such an accident may occur without lesion either of the skin or of the mucous membranes; indeed, one might, to borrow an illustration from embryology, assert that it was solely a solution of continuity in the mesoblast.

This mode of viewing the subject will compel us to classify all fever following injuries, whether simple or compound, under the following headings, namely:

1. *Traumatic Fever*, defined as above.
2. *Aseptic Fever*, pyrexia which follows the infliction of a severe wound, the treatment of which is carried out strictly antiseptically, and a condition in which there are none or very slightly marked constitutional symptoms.
3. *Septic Fever*, or fever following decomposition in the seat of injury. This must be subdivided under the headings of:

a. Saprœmic Fever, in which the septic poisoning is due simply to absorption of the chemical substance sepsin, the product of albumin catalysis.

b. Septicœmic Fever, in which the septic pyrexia follows infection with a poison which does not cause diffuse inflammation.

c. Pyœmic Fever, in which the poison causing it is also capable of producing foci of suppuration in different parts of the body.

4. *Neurotic Fever*, or pyrexia, apparently caused by some disturbance of the central nervous system, such disturbance being excited by direct stimulation of the nerve-centres or of the peripheral nerve-trunks.

Of all these varieties, we have, at present, only to do with the first and last, but passing reference must be made to the second, or aseptic fever, since Volkmann (*Sammlung Klin. Vorträge*, No. 121) has constructed a very definite theory concerning it, and has adduced evidence to support it from the very class of cases that shall presently be laid before you. Briefly, his theory imagines that, whether by subcutaneous rupture or by antiseptic incision, a pyrogenous or fever-causing stuff is developed from the injured tissue, which, absorbed into the circulation, gives rise to the same fever. It seems to me that this theory does not fall within the category of those which rest on a basis of scientific experiment; for, apart from the fact that the state of the tissues after a simple fracture is not identical by any means with that after an amputation (which is his most striking example), we have, in the deliberate operation, an obvious complication, namely, the application to the tissues of a powerful chemical reagent, carbolic acid. Although the conflicting evidence on the toxic influence of carbolic acid appears to point to the probability of its lowering the temperature of the human being in most cases, it adds a new element for consideration, which renders comparison uncertain.

It was this uncertainty concerning the pathology of simple traumatic fever which led me to investigate the subject, keeping in view the definition before stated; and I shall now lay before you the result of my observations. As material, I have accumulated in the surgical reports of University College Hospital, during the last two years, abstracts of the cases of simple fracture in which there was no lesion of the skin, of which cases notes were taken during the last two years under my supervision, and, for two years previously to that under Mr. Stanley Boyd. Consequently, the evidence in support of my proposition is purely clinical.

In the tables before you, each case is very briefly abstracted, while the temperature is fully recorded, with the interval of time since admission at which it happened to be taken. From these cases, 168 in number, it has been possible to construct several composite charts of the course of the pyrexia, each of which forms a distinct type and, consequently, might have been presupposed to possess a different clinical history, and such we shall find to be the case.

But now, grouping the cases together, out of the 168 I find that during the years 1881-82, 91 per cent. showed distinct fever, and during the years 1880-83, 92 per cent. This agreement is remarkable, since Volkmann and Genzmer (*loc. cit.*), who only examined 11 cases, found the low percentage of 78.5 per cent., while Anger (*Klin. und Exper. Untersuch. über die Resorp. von Blut. Extravasat*, 1879) gives an even lower figure, namely, 70 per cent.; but he, again, only examined 10 cases. Stickler, of New York (*New York Medical Record*, February 11th, 1882), found that, of 13 cases, 12 showed a febrile state, which gives a percentage of 92, which exactly agrees with my observations. Possibly, this marked discrepancy might be explained by differences of racial characteristics, such as Chauffard believes in (*La Fièvre Traumatique*, 1873); or, more likely, that the German authors included cases of slight injury. However this may be, in the absence of fuller statistics from abroad, we must leave the cause of this difference undecided.

From the cases of which I have abstracted the details published in my reports, it has been possible to distinguish clearly between two classes of cases, namely, those in which there was a rapid rise of temperature and little or no swelling; and those in which there was a slow rise of temperature, with a very marked swelling. It will be better, since the etiology of these two types differs, to describe the course of the pyrexia in each instance, and afterwards to discuss the pathology of the condition.

I will take the first group of cases, namely, those in which we find a rapid initial rise of the temperature, with very little swelling. On the chart (No. 1), which illustrates this group, you will see two temperature curves figured, which are composite, and constructed from 60 cases, the upper one representing a severe degree, and the lower one a mild degree of evidently the same kind of pyrexia. The probable explanation of the differences will be given directly, but attention is drawn to the fact that we have to deal with an exceedingly sudden rise in hour to a high point, and still continued gradually to a higher level during the next twenty hours. The temperature then very gradually falls to normal in about 160 hours, or, in other words, nearly a week.

In the second variety of this group, it will be noted that, while the fever lasts, it is more constant; but, at the same time, it is much shorter in duration, lasting, on the average, three and a half days, or half the time.

Now, etiologically, these two varieties of the same group differ somewhat. Thus, from the accompanying table, you see that those individuals in which the severer symptoms occur are

ounger, averaging below thirty years of age, while, in the second type, ney average 34 years; more than twice the number of cases in Type being below 35 years of age, while, in Type II, this condition of ings is reversed, and more cases are over thirty-five than under it; that, as far as the age of the patient goes, we find a difference that ight have been suspected from *a priori* reasoning, since we are all miliar with the ease with which a rise or fall can be produced in e temperature-curve of a child or young person; and the same ason also accounts for the fact of the curve in Type I rising to twice e height of that in Type II.

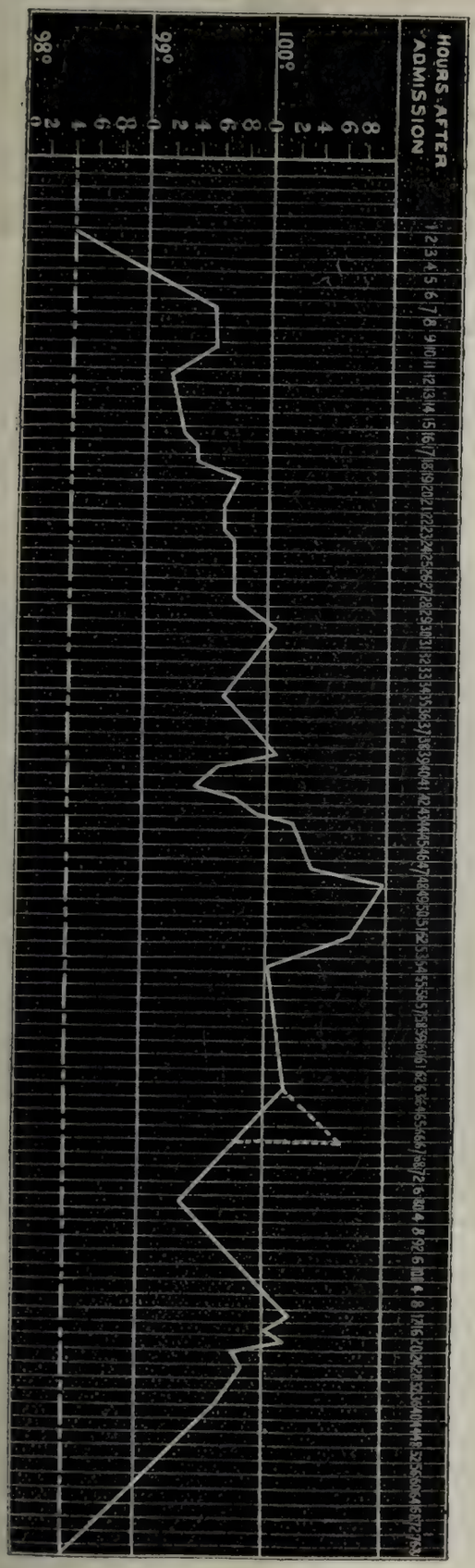


Fig. II.—*Traumatic Pyrexia after Fracture of Limb-bones.* (Type III.

the absence of further data, it is impossible to compare the nogenetic changes in these two types; but, considering that the diet in these cases is not, as a rule, reduced at all, we may perhaps see, in the differences of the so-called febrile reaction, another instance of the diminished activity of tissue-metabolism in more advanced life.

So much for those cases in which swelling is usually conspicuous by its absence. We will now examine the pyrexia in those instances in which swelling is the most marked feature, and determines the characteristic shape of the temperature-curve.

From this chart (Fig. II), you see that, just as in Type II, there is in Type III a rapid rise nearly to 100° within four or five hours after the accident; and no doubt this initial rise is due to the same cause in the two cases; but (reserving that point for future discussion) the curve steadily rises for two days (with slight remissions and acceleration towards the end of the second day) to 101°; and in one instance I noted a temperature of 102.4°. From this point, it more rapidly falls to the eightieth hour, when it almost reaches 99°; but this return to the normal, although constant and well marked, is soon followed by a second rise, usually above 100°, but never, or very rarely, reaching 101°. This second rise is very peculiar and constant, almost invariably occurring at the hundred and twelfth hour, nothing like it existing in the other curves. From the second acme, the temperature reaches the normal in a very variable time, but usually in two or three days more.

The total duration of this third type of pyrexia averages seven and a half days, but very frequently is prolonged to the tenth or twelfth day.

As to the etiology of this type, as one might, perhaps, have expected, the ages show that, on the whole, it is the younger and the oldest individuals who suffer most, those in middle life escaping, the majority being below 35. One is inclined to attribute this simply to the fact that those who are most helpless will probably suffer the severest injuries; and it will, of course, be conceded that, other things being equal, the note of "considerable bruising and swelling" which marks these cases in my tables of abstracts means simply that the amount of damage inflicted is more severe than in the types previously described. And at the same time, of course, there is another factor not to be lost sight of—namely, the greater liability to damage, causing the above mentioned anatomical changes of the tissues of individuals whose age approaches either extreme of life.

With this preliminary outline of the clinical features of the different types, which I believe one is justified in constructing from the cases before you, it will be necessary to complete the description of the etiology of traumatic fever, as I understand it, before attempting to explain its pathology.

At the outset, I stated that 91 to 92 per cent. of all the cases showed a so-called febrile reaction. It will be interesting to glance for a moment at those instances in which there was absolutely no pyrexia, to see if there is any obvious explanation for this very exceptional condition. Unfortunately, although we might have expected to gain some clue as to the causation of the febrile state by studying the absence of it in such cases, I have not been able to draw from them more than the following facts.

In the first place, the average age, 39¼ years (nearly forty years) is very high; in fact, there was only one case below 10 years of age out of twelve, in which there was no pyrexia. In half the cases, there was sufficient swelling to call for special attention, and the seat of fracture varied directly with the proportion of *probable* injuries; thus the femur was fractured three times (always in the lower third), the tibia three times, both bones of the legs five times, the fibula once. Of the twelve patients, all with one exception (gout) appeared to enjoy good health, and two were definitely alcoholic; so that, as far as the latter point goes, there is no evidence that the well known effect of alcohol, ether, or chloroform played any part in the prevention of pyrexia in these cases.

Considering the less degree of fever in Type II as compared with Type I, both being degrees of the same character of cases, it seems to me possible that the only constant factor in the etiology of these apyretic cases is the average age; and thus, from the above explanation of diminished pyrexia, we easily understand the occurrence of apyrexia. Such an explanation can only be taken for what it is worth in the total absence of experimental fact; and the extremely interesting fact remains, that a certain proportion of cases showed no fever at all.

I now propose to discuss briefly the condition of the part which is the seat of injury, and at the same time will refer to the clinical history where it is required to supplement the description of the pathological appearances.

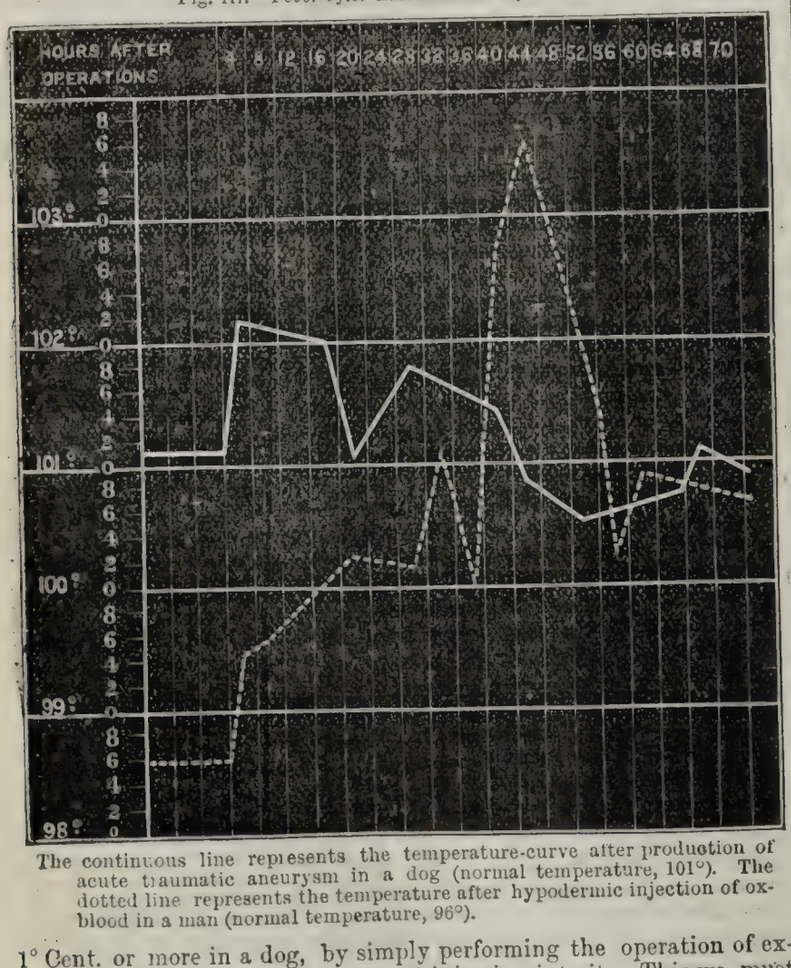
In the group of cases which includes my first two types, and in which you may remember there is little or no secondary swelling and

œdema, we have the bone broken, and the sharp ends of the fragments irritating the torn branches of nerve and ruptured muscle. At the same time, there is more or less extravasation of blood; and we must admit theoretically the possibility in each case of more or less direct absorption of fat from the damaged marrow in the veins and lymphatics. Thus there are three possible exciting causes of a rise of temperature, namely (1) moderate stimulation of an afferent nerve; (2) absorption of extravasated blood; and (3) so-called fat-embolism. These possible causes examined in detail show us how little substantial work has been expended on this fundamental subject, and consequently how impossible it is to come to any definite conclusion.

Severe stimulation of an afferent nerve causes, as is well known, a decrease of temperature, the decrease varying with the intensity of the stimulus, and, on the other hand, gentle stimulus of an efferent nerve has been shown (Albert and Stricker, *loc. cit.*) to cause a rise of temperature in the part supplied by it.

But the question really amounts to this: are there centres in the brain and spinal cord, reflex irritation of which, by stimulation of the kind suggested, is followed by a general rise of temperature, that rise being maintained for several days? Although, as I shall have occasion to show in my fourth lecture, on Urethral Fever, there is good ground for believing in such heat-centres, I am not aware that the crucial test has been put to the above theoretical explanation, by producing a fracture in a limb which is the seat of motor and sensory paralysis. We will put aside, therefore, the idea of a neurosis, and take up the possible cause, namely, the extravasation of blood. A good deal has been written on this point, and it has been shown by Angerer (*loc. cit.*) that the artificial production of a hæmatoma is followed within four hours by a marked febrile reaction. Before further discussing Angerer's very valuable work on this point, we must confess that Albert and Stricker (Ueber Wundfieber, *Mediz. Jahrbücher*, 1871, p. 39) have proved the possibility of causing a rise of temperature of

Fig. III.—*Fever after Extravasation of Blood.*



The continuous line represents the temperature-curve after production of acute traumatic aneurysm in a dog (normal temperature, 101°). The dotted line represents the temperature after hypodermic injection of ox-blood in a man (normal temperature, 96°).

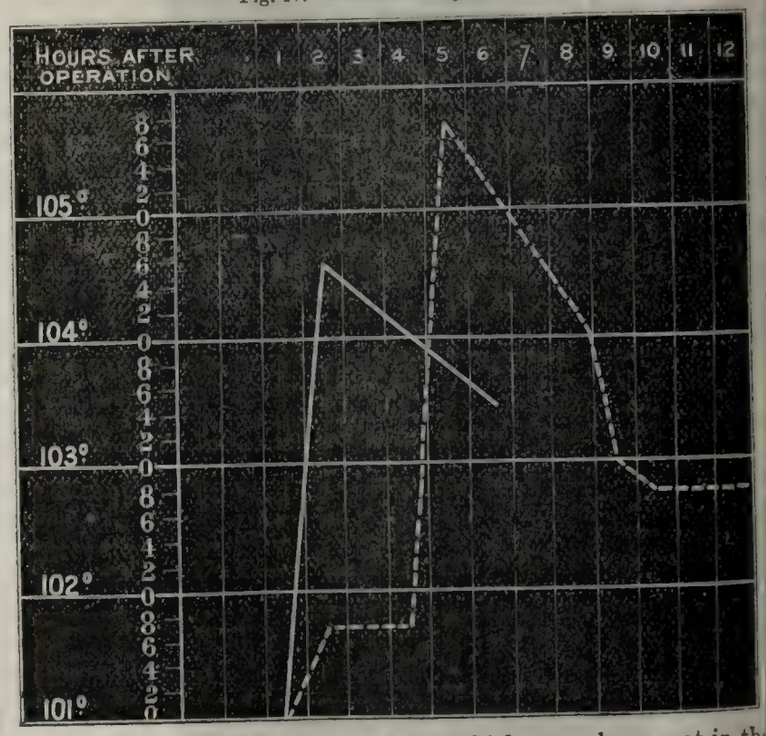
1° Cent. or more in a dog, by simply performing the operation of exposure of a vessel for the purpose of injecting into it. This we must regard as a combination of the first two of the possible causes of traumatic fever, namely, irritation of nerve-fibres, coupled with some absorption of extravasated blood, etc.

Further, not to have occasion to refer to it again, this is partly the notion of Volkmann and Genzmer (*loc. cit.*), that the extravasated blood and the torn tissues together supply a fever-exciting substance, which is absorbed into the general circulation. In passing, let me draw your attention to the pyrexia produced by (1) simple transfusion, (2) the injection of leucin into a vein (Fig. IV).

With these provisos, we will now examine Angerer's methods and results. Of the latter I have drawn up a chart (Fig. III), to show the rise of temperature in his experiments. In the uppermost curve is seen the fever following the subcutaneous division in the dog of the great blood-vessels just above the elbow, with a large hæmatoma as the result; and he is inclined to attribute the rapid rise of the temperature, 1° Cent., to the absorption of the products of the extravasation. However this may be, the condition is either not comparable to the ecchymosis of a simple fracture, or that lesion is not the sole cause of traumatic fever; for, as I have demonstrated, the average length of the pyrexia is a matter of several days, usually a week. It may be admitted that the initial rise in traumatic fever is due to a combination of the two circumstances just mentioned, and that the maintenance of the pyrexia is effected by some cause or causes unknown; but it seems to me more likely that the rapid initial rise in his experiment, with a consequent gradual fall, is due to the same cause as that imagined by Albert and Stricker, namely, anything but the absorption of a pyrogenous substance.

Granting that we cannot admit it to be a neurotic fever following the disturbance produced by the laceration of nerve-filaments, there remains the possibility of the symptoms being produced by fat-embolism. Although fat-embolism is said by some German writers to occur with great frequency, and to show itself by the appearance of oil in the urine, I must confess that, with the exception of two obvious cases in which I detected fat-globules in the expectoration, and in which there were definite lung-symptoms, my investigation of the urine in simple fracture, even with the aid of osmic acid, has not yielded confirmatory evidence of these statements; consequently, one is driven back to the neurotic theory.

Fig. IV.—*Traumatic Pyrexia.*



Now, there is a pathological condition which may play a part in the causation of traumatic fever, through the intermediation of the nervous system; a condition which, so far as I know, has not been credited with influence in this direction, namely, tension. Every surgeon is familiar with the fact that a few drops of pus pent up in dense connective tissue, richly supplied with nerves, will cause a rise of three or four degrees above the normal. Now, in such a case, it is impossible to conceive the absorption of pyrogenous stuff to be an adequate explanation of this symptom; and from the fact that, from the moment the tension is relieved, the fever falls, the conclusion is almost inevitable that the centripetal stimulation was the cause of the febrile rise.

Indeed, it is hard to conceive the possibility of any other explanation when the fact of so-called idiosyncrasy is brought to mind. Taking, for example, these cases of traumatic fever, I showed you that the only possible tendency towards an apyretic state which could be discovered was the influence of age on the parenchymatous tissues

while the conditions of injury were precisely the same as those observed in the most severe cases of pyrexia, namely, large bones broken; and I may now add that, in half the instances of apyrexia, swelling was noted either as simply present, or as very considerable. And, again, the tendency of some individuals to develop a pyretic state is a fairly ascertained scientific fact.

It is useless to speculate in the absence of experiment, especially as I shall have occasion to refer to this point in my fourth lecture. I shall, therefore, proceed at once to the third type of traumatic fever; namely, that in which there is marked swelling of the part, and the type in which the temperature rises slowly, and shows a double-pointed composite curve.

I may again point out that, after the initial rise in four hours, the pathology of which I have just discussed, the highest point is reached at about the forty-eighth to the fiftieth hour. It would seem to be a justifiable assumption that, if the temperature rises in this steady way for two days, the cause producing it is developing during that time, and reaches its height a few hours before the temperature-curve attains its acme. Now, it is interesting to observe, clinically, that this is the actual behaviour of the œdema, or, as I have roughly termed it, the swelling, which sometimes follows a simple fracture, and which was a constant feature of the cases we are now considering.

I, therefore, consider I am justified in attributing the peculiar character of this type to that particular complication. In confirmation of this belief, let me show you this tracing of the temperature-curve in an experiment performed by Angerer upon his colleague, Dr. Fehleisen (the dotted line in Chart III). Under the skin of the forearm of Dr. Fehleisen was injected sufficient defibrinated perfectly fresh ox-blood to cause a tumour of the size of an apple; this gradually disappeared in a few hours, and was succeeded by a secondary swelling of the arm, together with severe constitutional symptoms of fever.

It will be seen from the chart that the temperature-curve in this case is parallel to that of my third type; and, it seems to me that the pathological process in both is practically the same, namely, the development of acute œdema, thus causing severe tension in the part. I am, of course, quite aware that this view may have to undergo considerable correction as soon as I shall have had the leisure to examine it experimentally; and, moreover, I desire that it should not be thought that in these cases, where the amount of œdema-fluid was very considerable, I deny the possibility of the symptoms being due to the absorption of pyrogenous stuff. It was only in the instance before cited that I considered it to be practically inconceivable.

Having reached this point, we must review the pathology of the condition of simple fracture coupled with œdema. From the fact of the œdema commencing around the seat of fracture, and invading the distal parts first, it is probable that two causes are at work. In the first place, the walls of the blood-vessels in the neighbourhood of the fracture must be damaged by the injury, and, so damaged, will allow the transudation of œdema-fluid; further, from the same cause, we may have, in many of the veins, thrombosis; and from the action of these two factors, coupled with the pressure of extravasated blood, the occurrence of œdema is very comprehensible. But, if we admit the first of these causes, at the same time, we practically allow that the process is inflammatory; and such a conclusion appears to be inevitable, since we now regard inflammation in a vascular tissue "as a destructive process," causing injury to the walls of the blood-vessels, with the transudation of fluid and corpuscles as a consequence. Most pathologists would admit that the temperature-curve obtained by Angerer's second experiment is an instance of so-called inflammatory fever, and yet not admit that the state of the tissues around a simple fracture is inflammatory. Is it not rather discussing terms than processes when we see that certain stages are absolutely identical, those stages being: 1, application of some irritant force; 2, dilatation of vessels, followed by active congestion; 3, œdema?

The exudation of corpuscles varying directly with intensity and extent of action of the irritant, it would seem that such exudation is merely complementary, and that we can apply the term inflammation to the early stages alone with perfect accuracy.

I have dwelt somewhat at length on this point, being perfectly conscious that it touches upon the question of the origin of callus; but, beyond admitting that responsibility, there is no time to enter further upon it.

I have endeavoured to substantiate my statement that two distinct kinds of fever follow a simple fracture, and are due to different pathological causes. I have purposely abstained from entering into a detailed examination of the theory which attributes all rises of temperature to irritation of the central nervous system; partly because I must go at some length into that question in my fourth lecture, and partly because a great deal more work on the subject is wanting.

I would suggest, in conclusion, that I have shown cause why the term traumatic fever should be restricted to cases of simple injury, without any exposure to the exterior or other complication.

ON CERTAIN NEW METHODS IN THE TREATMENT OF DISEASES OF THE SKIN.

Lupus: Pyrogallic Acid: Croton-oil Treatment of Ringworm: Lichen Ruber.

By GEORGE THIN, M.D.

(Concluded from British Medical Journal, *December 20th, 1884.)*

Lupus.—If the number and variety of therapeutic measures advocated in the treatment of a particular disease be any indication of the futility of treatment, that of lupus must be considered as being still in a very unsatisfactory position. During recent years, a great amount of literature has been devoted to the treatment of lupus; yet, at the present time, it is probably correct to say that there is no approach to unanimity as regards the methods which can be considered as generally applicable in the management of this affection. It was only the other day that the treatment of lupus by scarification, introduced by Mr. Squire, and for a time enthusiastically adopted by the physicians of the Hôpital St. Louis, in Paris, seemed to have secured the adhesion of those who had the advantage of large experience in the treatment of the disease. M. Besnier, who himself extensively practised it at that hospital, laid down precise rules for the operation, and taught the method to a great number of French and foreign medical men, but he has already found it necessary to supersede it by another method of treatment, which is recommended with a confidence equal to that which was, a few years ago, given to scarification. He makes it a reproach to the latter method that patients must be kept continually under treatment, fresh foci of lupus must be attacked in the cicatrix, and that years pass without, in many cases, obtaining anything like a true or final cure. Not only so, but he more than once hints that it is possible, by scarification, to favour an auto-infection in the patients; to augment the number of lupus-patients who become phthisical, or to favour and render active an infection which has already taken place; that is to say, M. Besnier looks on the treatment of lupus by scarification as being practically a failure. For my part, in my own very much more limited experience, I must confess that I have been disappointed. It is no doubt true, as I have found, that a limited lupus of the face may be cured by systematic and frequently repeated scarifications; but in several cases, in which I was enabled to persevere for an unusually long period, although, with one exception, great amelioration took place, a complete cure was not attained. The foci of new growth, which continually reappear, require, as a rule, more energetic treatment than simple scarification.

The new method which M. Besnier recommends is what he calls "interstitial and discrete cauterisation" by the thermo-cautery. In a paper published in the *Annales de Dermatologie et de Syphiligraphie*, vol. iv, p. 377, he remarks that, at the present time, the galvano-cautery and the thermo-cautery are the exclusive agents which he employs in the treatment of all the forms of lupus. In their application, he has recourse to delicate instruments, which are varied according to the different indications which require to be fulfilled and suited to each individual case. The advantages which he claims are smooth and pliant cicatrices, and destruction of the neoplasm, whilst the minimum of destruction of sound tissue is attained. M. Besnier figures a variety of simple and multiple needles for the galvano-cautery. He lays it down as a rule that, whether the thermo-cautery or the electro-cautery be employed, it is essential that the platinum should only be heated to a dull red heat, and never to a white heat, for two reasons: in order to prevent the operation from being bloody, and also to enable the operator to see distinctly the parts which are to be cauterised. When the affected part is of small extent, as is often seen in lupus vulgaris of the cheek, or in isolated discs of lupus erythematosus, he makes, with a fine point of platinum reddened by heat, a series of punctuated applications, the points being separated from each other for about the distance of a millimètre, so that the patch is literally tattooed. If the electro-cautery be in the form of a fork, or be multiple and pointed, the operation can, of course, be executed more rapidly. M. Besnier considers that this treatment, if his instruments be used, is applicable to every kind, form, and variety of

lupus; that it is not only the most certain method of cure of this affection, but is also the most rapid and the most inoffensive of all those which can be applied to local tubercular affections.

Professor Schwimmer (*Wien. Med. Wochenschrift*, Nos. 20, 21, 22, 1884; extract in *Journal of Cutaneous and Venereal Diseases*, vol. ii, No. 9), having tested all the known methods on some hundreds of lupus patients, has found none which, when employed singly, can be pronounced suited to every case. He considers pyrogallic acid to be an acquisition of decided importance within a limited sphere. Applied in the form of a ten to fifteen per cent. ointment, three or four times daily, it transforms the morbid growth into a pulpy, dirty grey substance, the removal of which renders the further employment of the acid difficult. The total destruction of the lupus-infiltration was found to be very rarely possible by the sole agency of pyrogallic acid; but the employment of plaster mercurial, in conjunction with pyrogallic acid, he found to give surprising results in some instances, gratifying in most others, and unsatisfactory only in a few. When the suppuration produced by the pyrogallic acid is at its height, instead of promoting a healing action by means of simple cerates or antiseptic ointments, he employs the mercurial plaster, either immediately after the removal of the acid or on the following day, and thus almost always succeeds in satisfying the requirement which the former agent leaves unfulfilled.

The treatment, as practised in twenty cases of most malignant forms of lupus, was as follows. After removal of scabs, etc., by application of vaseline for several days, a ten per cent. pyrogallic ointment was applied from four to six days, being renewed twice or thrice daily. Then vaseline was applied for one day, after which mercurial plaster was used. Healing began in most places in from ten days to a fortnight, but isolated nodes and tubercles could still be detected in the cicatrised integument. Pyrogallic acid was again applied for three or four days, but sometimes, on account of the pain produced on the second day, mercurial plaster had to be at once substituted. The plaster was allowed to remain (being changed once, twice, or thrice daily, according to the amount of suppuration) until cicatrisation was complete, which sometimes required four weeks. When the complaint was peculiarly indolent and obstinate, the same process was gone over for a third time, but treatment never extended further than this.

Professor Schwimmer (whose exceptional opportunities for observation render his opinion specially valuable) states that a speedier and better resolution of the morbid growths was found to occur under this treatment than could have been brought about by the united agencies of scarification and the thermo-cautery.

Unna (*Monatshefte für praktische Dermatologie*, vol. iii, Nos. 2 and 3), who has devoted considerable attention to the literature as well as to the treatment of lupus, prefers, when possible, to anæsthetise the patient and use the Volckmann's spoon. The after-treatment consists in applying several times daily a five to ten per cent. solution of the sulpho-ichthyolate of potash. If there is reason to believe that the scraping has left some foci behind, one to five per cent. solution of corrosive sublimate can be added to the above solution without detriment to the healing. If the patient refuses to undergo anæsthesia and scraping, Unna recommends a muslin-plaster containing one to two per cent. of corrosive sublimate, and ten per cent. sulpho-ichthyolate of potash in each roll.[1] As soon as all the lupus nodules are broken down by suppuration, the after-treatment consists in the application of the solution above referred to.

Dr. Hahn (*Centralblatt für Chirurgie*, No. 15, 1883), in a case of lupus of the nose and arm, which had resisted treatment by scrapings, scarifications, and different caustics, again scraped the lupus of the arm, and immediately applied skin-grafts. The result was satisfactory, and the author reports that he has used the same method in five other cases, and each time with a like success.

Dr. G. H. Fox, of New York, on the other hand, found the lupus-nodules reappear after actual cautery and thermo-cautery, but found the treatment by scraping and the application of pyrogallic acid ointment, of the strength of 20 per cent., successful, and states that he found punctures and linear scarifications inferior in their results to the spoon and caustics.

There would not be much advantage in multiplying references to recent papers on the treatment of lupus. It to a large extent remain true that "that which is best administered, is best." The object o all rational treatment of lupus must be to destroy as effectually a possible the morbid tissue. The methods above referred to will, taken in conjunction with the directions to be found in standar works, afford useful hints in the selection of methods which may b found suitable to particular cases, and to particular parts of th body. A fundamental point must not be forgotten. Recently it ha been shown that tubercle-bacilli are present in the lupus-tissue— fact that cannot fail to exercise a predominating influence in th future, in regard to the treatment of this disease.

Pyrogallic Acid.—As treatment by pyrogallic acid has been r ferred to, and as this acid is recognised as one of the most valuab agents in the treatment of psoriasis, it should not be forgotten th its use has been several times attended by severe symptoms poisoning, which in more than one case have ended fatally. The legit mate inference from what happened in these cases is, not that its u is necessarily dangerous, but that it should be used with caution.

In prescribing pyrogallic acid ointment for psoriasis, which I ha frequently done, I always limit the extent of surface to which it is be applied. If the disease be extensive, I select a certain number patches for treatment by pyrogallic acid, prescribing for the othe some other recognised form of treatment; and as the patches und pyrogallic acid recover, the other patches receive the benefit of it their turn. Nor do I find it always necessary to use a strong oin ment; even a 5 per cent. ointment I have found effectual.

Croton-oil Treatment of Ringworm.—If the constant a vocacy of new methods of treatment in lupus is an indicati of the unsatisfactory results hitherto attained, *a fortiori* d the statement hold good for the treatment of ringworm. Scarc a month elapses in which some new application for ringworm is n vaunted as being better than anything yet tried. Nevertheless, th are few practitioners who have not occasion to experience that th are cases of ringworm which drag on, little affected by any mode treatment. It is not my intention to discuss the question of t treatment of ringworm, but I wish to say a few words regarding treatment by croton-oil liniment. It is long since the treatment ringworm by croton-oil was advocated in France. Latterly, its u under certain restrictions, has been advocated by able and experien observers in this country. That croton-oil frequently cures ri worm is indisputable; and that there are cases in which the temp tion to use it is very strong, must be freely admitted. Some ye ago, a boy, who had been twice sent home from school on account ringworm, and whose career from consequent inability to pass an trance examination was likely to be injured, was brought to me by relatives, and the task was given to me to cure the ringworm quick by any means, painful or not. I had entertained a prejudice aga the croton-oil treatment, but this seemed a case in which a trial justifiable; and by its use the disease was, in this instance, rapidly cu Other cases encouraged me to believe that I had overrated the of baldness attending its use. I am sorry to have to say that I not now of that opinion.

I find, in the *Journal of Cutaneous and Venereal Diseases* for J 1884, M. Brocq writing thus from Paris in regard to the treatm by croton-oil. "This procedure was formerly experimented with at St. Louis Hospital, and, after numerous trials, it was rejected as efficacious and dangerous: dangerous, because a suppuration of hair-follicles may determine an incurable alopecia."

It has been my lot to witness two examples of partial baldness duced by croton-oil; one in the case of a boy, aged eight years, in w the resulting bald patch was somewhat larger than a shill although the disease in other parts of the head was not cured; other case was that of a young married woman, who brought two children with ringworm, and who herself suffered from a patc ringworm on the top of the head. Ringworm of the scalp, in adult, is exceedingly rare. In this case, the diagnosis was verifie microscopic examination of the stumps. The patch was care painted by myself with croton-oil liniment; suppurative inflamma of the hair-follicles ensued, and the patch has remained permane bald. From my experience of these two cases, I consider myself tified in warning practitioners that, in using croton-oil in the t ment of ringworm, they can never be certain that they will not baldness, and in expressing my doubts as to whether it shoul employed in any case whatever. Fortunately, we have other mea which, if not always rapid, are yet, in the long run, efficac The principle to be followed in the treatment of ringworm, is th of an agent which is not only antiparasitic, but which is, at the time, gently stimulating; and the choice of an agent, and the stre in which it is used, must be determined by the practitioner for

[1] A "roll" contains a surface 1 mètre long and 20 centimètres broad = ½ of a square mètre. Since the publication of my previous paper, Dr. Unna has been good enough to point out to me that the formula for the preparation of the muslin-ointments and plasters is published in a pamphlet entitled *Das Ekzem im Kindesalter* (Verlag der *Deutschen Medizinal Zeitung*, Berlin, 1884). The basis of a muslin-plaster is a thin layer of gutta-percha spread on muslin. On this layer the prescribed medicated mass is evenly spread, along with a necessary quantity of India-rubber dissolved in benzole and oleate of alumina. For further details, pharmaceutists are referred to Dr. Unna's pamphlet.

individual case, care being taken that, while a certain amount of irritation is set up in the hair-follicle, the irritation shall not be allowed to pass certain limits.

LICHEN RUBER.—I cannot conclude without referring to Unna's treatment of lichen ruber by external remedies.[2] For some time past, it has been considered that the only valuable treatment in lichen ruber was that by the internal administration of arsenic. Unna, however, has found that this disease can be cured without arsenic, by the application of an ointment containing bichloride of mercury and carbolic acid. His formula is: Unguenti zinci benzoati, 500 ; acidi carbolici, 20; hydrargyri bichloridi, 0.5 to 1.

Dr. Unna reports that he had cured six cases of lichen ruber by his treatment. It evidently requires, however, to be practised with a certain degree of caution. He states that carbolic acid appeared in the urine on the second, and that there was slight transitory depression on the third or fourth day of the treatment. He recommends his treatment in severe cases, which are attended with much itching and depression, as being the speediest means of procuring alleviation and cure.

That lichen ruber can be cured by external remedies alone, is a fact which has a more than merely therapeutic value, as it can hardly fail to suggest that the disease has more of a local character than has been hitherto considered to be the case. Latterly, I had under my care a case which I could only consider as being an example of lichen planus of the glans penis. There was a horseshoe-shaped patch on the top of the glans, involving, at the corona (which corresponded to the base of the horseshoe) about half the circumference. The eruption was formed by flattened papules, slightly darker in colour than the rest of the glans. There was no pain ; the irritation was exceedingly slight ; and the affection chronic. There was no breaking down, and no hardness, and nothing to justify the idea that the affection was syphilitic. Arsenic was prescribed, but had to be discontinued, as it set up an irritation of the prostate, which had been quiescent for five years, and caused a slight urethral discharge, and pain—these symptoms disappearing with the cessation of the arsenic. Actuated by my knowledge of Unna's experience in lichen ruber, I prescribed frictions of soft soap, and the application of white precipitate ointment—a treatment which led to the gradual disappearance of the papules.

It is worth noting how in this case the stimulating, may we not say destructive, influence of arsenic upon epithelium was shown by the inflammation which it set up in the prostatic portion of the urethra.

[2] *Monatshefte für prakt. Dermatologie*, 1882, No. 1.

THE OPERATION OF SHORTENING THE ROUND LIGAMENTS FOR REMEDYING UTERINE DISPLACEMENTS.

BY WALTER RIVINGTON, F.R.C.S.Eng., M.S.Lond.,
Surgeon to the London Hospital, and Lecturer on Surgery at the London Hospital Medical College.

In looking over some back numbers of the JOURNAL in 1884, which I had failed to peruse, I lighted on papers by Dr. Lediard, Dr. Reid, and Dr. Elder, on the "Alexander-Adams'" procedure of shortening the round ligaments for uterine displacements. Dr. Lediard referred to a paper by Dr. Alexander in the *Medical Times and Gazette* for April 1st, 1882 ; and, on turning to the paper, I find that Dr. Alexander observes : "It seems to me rather surprising that such a simple, rational, and effectual operation had not been thought of before." The fact is, that the operation was thought of and suggested by myself about fifteen years ago, and I have been advised that I ought to unearth a demonstration on the dead subject which I made in 1869, and published in the *Medical Press and Circular* in 1872. In the course of anatomical teaching and lecturing, it had occurred to me that relaxation of the round ligaments must be an important factor in uterine displacement, and especially in prolapse ; and in describing the structures, I always insisted upon their value in retaining and replacing the uterus in its normal position. An opportunity presented itself for testing my views.

A woman, 45 years of age, was admitted into the London Hospital on May 12th, 1869, in a very exhausted state, with a strangulated left inguinal hernia ; and, though there was small prospect of her recovery, was obliged to relieve the constriction. The gut was found to be perforated and gangrenous, and the operation, as I anticipated, did not succeed in rescuing her from death. Apart from the condition of the intestine, the patient was very stout, and an unfavourable subject for surmounting so serious a lesion. In reporting her case in the *Medical Press and Circular* in 1872, I appended the following remarks. "The patient was afflicted with prolapsus uteri, and the womb having descended nearly to the vulva, Mr. Rivington thought it a good opportunity to test the share taken in prolapsus uteri by loss of power and stretching of the round ligaments. It had previously occurred to him that their relaxation might be an efficient factor in the causation of the complaint. Exposing the round ligaments in their canals, he found that, by drawing on them simultaneously at the external rings, the uterus returned readily to its place. There are some who deny the existence of prolapsus uteri, maintaining that the affection so designated is an elongation of the cervix ; but there could be no doubt here of the reality of the prolapse, nor of the effect of shortening the round ligaments on the position of the uterus."

As the subjects of prolapse rarely come into the surgical wards, but congregate in the obstetrical out-patient department, I brought the matter under the notice of the assistant obstetric physician, now deceased, and suggested to him that the operation might be found useful in certain cases not amenable to simpler treatment. He was not favourably impressed with the proposal, and I abstained from taking further steps to promulgate my suggested operation, solely for fear that it might be attended at that time with more harm than good. These were times when Listerian principles and practice had not taken root in the metropolis, and when the fear of peritonitis oppressed the surgeon far more heavily than it does now. I was afraid that cases would be met with in which it would be difficult to find the ligaments, others in which the canal of Nuck might be patent ; and that, in such cases, there would be risk of wounding the peritoneum, and perhaps inducing fatal peritonitis. That this fear was not chimerical, is shown by Dr. Alexander's testimony. "Experiments on the dead subject," he observes in the paper above quoted, "have shown me that danger may arise from incautious operators."

Since I became a disciple of Professor Lister, I have waited in vain for a case in which I could put my suggestion into practice; and while I have been waiting, others have stepped down before me. The irony of fate is in the habit of supplying cases before the times are ripe for dealing with them, and carefully withholding them when the physician or surgeon is anxious to introduce some new and feasible method of procedure. Experience of this kind is, doubtless, as familiar to others as it has been here and in other instances to myself. When Esmarch's bandage was introduced, it at once occurred to me that it might be employed in the treatment of aneurysm of the limbs, but no case was forthcoming till long after it had been employed successfully for this purpose. I suggested its use to a colleague, but he at once decided that it would be a very disastrous procedure.

On the present occasion, I am consoled by the circumstance that there is a record of the conception and suggestion in printers' ink on which the finger can be laid, and which can be accepted as evidence of truth. In calling attention to it, I have not the smallest wish to detract from the merits either of Dr. Alexander or Dr. Adams of Glasgow in planning and introducing the operation. The success which has attended it is gratifying, and I am glad that the idea sprang up in the minds of those who had opportunities for proving its efficacy. But very possibly some prior claimant may yet appear on the scene ; for it is the lot of man to make observations and discoveries which have previously been made by somebody else. Dr. Gowers aptly observes : "There are very few observations in medicine regarding which it is not obvious that they would have been made by some one other than the actual observer ; that it was very much of an accident that they were made by certain individuals." (*Diagnosis of Diseases of the Spinal Cord*, p. 11.)

In times of feverish activity and competition like these, delays in publication are essentially dangerous ; and, if I may poach on the domains of my colleague Mr. Jonathan Hutchinson—or, as he would put it, "plough with his heifer"—I would strongly inculcate the wisdom of the sacred proverb, "The slothful man roasteth not the meat which he took in hunting, but the substance of the diligent man is precious."

BEQUESTS AND DONATIONS.—The Worcester Infirmary has received £1,098 19s. 11d. under the will of Mr. J. Green, of Halesowen, and £100 under that of Mr. Martin Howse, of Wyre Piddle.—The Rev. William Albemarle Bertie Cator, Rector of Carshalton, has bequeathed £1,000 to the City of London Truss Society, in order that his parishioners may receive benefit from that institution, and £1,000 to the Croydon General Hospital, in the hope that his parishioners may benefit thereby.—University College Hospital has received £115, additional, from the People's Contribution Fund, making £500 for the year.—Mr. George Sturges has given £250 to the New Hospital for Women, Marylebone, to form a Samaritan Fund.

ON THE OCCURRENCE OF A DIASTOLIC MURMUR OF AORTIC ORIGIN APART FROM AORTIC INCOMPETENCY OR ANEURYSM.

By JAMES FINLAYSON, M.D.,

Physician and Lecturer on Clinical Medicine in the Glasgow Western Infirmary; Physician to the Glasgow Hospital for Sick Children.

In discussing the diagnosis of cardiac disease, I have been in the habit of insisting very strongly on the gravity and importance of a diastolic murmur, contrasting it with the comparative uncertainty of systolic murmurs, which are not unfrequently of but trivial import. The diastolic murmur seemed, however, to be always due to important organic disease, and to be diagnostic of aortic valvular incompetence, except in those cases where it was due to aneurysm, or dependent on pericardial friction. A theoretical provision had also to be made in favour of incompetency of the valves of the pulmonary artery, and perhaps of some other pathological rarities. With these exceptions, a diastolic murmur (as I believed) invariably indicated regurgitation through the aortic orifice into the left ventricle.[1]

Some years ago, in conversation with Dr. Gairdner at a clinical examination, I gathered that my way of putting the case was somewhat stronger than the actual facts warranted; but, although I expressed myself more guardedly after this, nothing had occurred under my own observation, till last winter, to impress me with the danger of relying on this sign. Curiously enough (although such chances are common in medicine), I came across a second case within a few months; and, warned by the recent experience, I was not so far misled the second time.

The first case was one of extreme dyspnœa, with symptoms of the angina type, and very marked evidence of enlargement of both sides of the heart. There was likewise albuminuria, but scarcely any dropsy. The patient was a seaman, and was 47 years old. There was no history of acute rheumatism—only some vague pains for the last three years, which never laid him aside from work. There was no indication of aneurysm, nor did the history suggest such a thing. When, therefore, I found a very loud double murmur, audible all down the sternum, I concluded at once that we had to deal with the well known aortic regurgitant disease. The urine was albuminous; but this seemed very likely a secondary phenomenon, or at least a merely concurrent disease. The notes bore that there had been frequency of micturition, and that the quantity was supposed to be a little greater than usual. Unfortunately, the amount was not measured. The specific gravities varied from 1015 to 1020, and it was specially noted that there was no lumbar pain.

The dyspnœa and orthopnœa became more extreme; remedies had but little effect, and before death the excitement and delirium of the patient almost amounted at times to mania, such as I have seen several times in cases of the uræmic poisoning of Bright's disease.[2] The patient frequently took off his clothes almost completely, climbing up on the windows and mantlepiece, thinking, apparently, he was on his steamer; he was often completely beyond the control of the attendants. He died ten days after admission, the whole illness being stated by him as only of about three or four months' duration. The lungs seemed but little implicated on admission, a few dry *râles* being only noted. Occasionally, the rhythm of the respiration assumed the Cheyne-Stokes character.

Unfortunately the pulse-tracings of his case were lost, and no note of them was entered in the journal. After death, I could not rely on my memory in describing their character.

The *post mortem* examination showed that the diagnosis was essentially wrong. The heart was, indeed, notably enlarged (27¾ oz.), the hypertrophy involving the left ventricle more than the right; but the primary mischief seemed to be in the kidneys, both of which were contracted and granular, with abnormal development of the connective tissue. In the pelvis of the left kidney, which was distended, a pretty large calculus was found, and the atrophy of this kidney was much more considerable than that of the other. The aortic valves were examined very carefully, and tested with water poured into the aorta; and the perfect apposition of the curtains, as seen from a somewhat enlarged aorta, without the slightest indication of any chance of regurgitation, was most striking. There was no indication of disease in the valvular structures. The aorta was dilated, and the surface rough and atheromatous. The muscular tissue of the hea seemed normal to the naked eye, but, on microscopic examination l Dr. Steven, there seemed the earliest possible indication of fat change in the central parts.

Here, then, we had cardiac murmurs, most strongly suggestive aortic incompetency, without the least indication of such a defect the *post mortem* examination. The murmurs were very plain, a were used by Dr. Samson Gemmell and myself in our demonstratio of typical cases of cardiac disease. How far, then, are we entitled trust to this sign?

Dr. Gee,[3] in his admirable text-book, recognises the existence of diastolic murmur apart from aortic incompetency as well establishe but he says that such cases have always been associated with distin disease in the aorta itself. The gravity, therefore, of a diastolic m mur still remains as an evidence of organic disease; but we must clude along with aneurysm, amongst possible causes of the murmu dilated, or rigid, or atheromatous condition of the aorta.

Dr. Bellingham[4] seems to have been the first to call attention this murmur from disease of the aorta, apart from valvular lesion and he explained it as due to the onward passage of the blood agai the dilated, rigid, and diseased aorta during the systole of the hea and to the regurgitation of the blood over the same surface, com from the large branches into the rigid tube of the aorta, prior to closure of the semilunar valves. Hence, we may have, according him, a systolic murmur, or a systolic and a diastolic murmur, in s cases, much in the same way as we may have single or double m murs from aortic aneurysm, apart from any imperfection in the ao valves themselves.[5] This view of Dr. Bellingham's has not been o looked, but does not seem to have gained general acceptance. Hayden, for example, says he has never met with a case in point.[6]

Dr. Law communicated to the Dublin Pathological Society[7] a of double murmur without aortic incompetency; and, in discussing subject, he adheres to Dr. Bellingham's views. Dr. Cockle,[8] likew gives an instance of double murmur in a case of diseased aorta, but the valves apparently quite intact. At a meeting of the Societ Biology of Paris, a somewhat doubtful specimen was shown in il tration of this subject; but some of the speakers seem to have with cases leading them to believe that double murmurs might dep on disease of the aortic wall without valvular lesions.[9]

Dr. Austin Flint[10] has taught for many years that disease of aorta may give rise to what he calls a "prediastolic" murm "caused by the retrograde movement of the column of blood, latter caused by the recoil of the arterial coats directly the sy ends, and which produces the closure of the aortic valve. If there aortic insufficiency, this murmur is lost in the aortic regurgitant mur. The name prediastolic denotes its occurrence just before aortic sound. It is preceded by a systolic murmur, referable to aorta." This statement may be regarded as essentially confirm Bellingham's views, although differing in the naming of the mur and in insisting on its preceding the second sound. Dr. Wal refers somewhat doubtfully to this subject, and quotes Skoda as lieving that a diastolic murmur may be due to the friction of the against a roughened aorta before the closure of the aortic valves duces the accentuated second sound.

The second case occurred in my wards three months later, whil attention was still being directed to the subject. The patient w man, 44 years of age, an upholsterer, admitted with conside dyspnœa and angina-like suffering. He had never had rheuma and there was no history of strain, or of venereal sores. The phy signs gave no evidence of aneurysm, although a slightly increased ness in the upper part of the sternum, with booming second sou the aortic cartilage, suggested the idea of dilated aorta. The h action was heaving, and its dulness extended unduly both to the and left. At times, it was very irregular, and a very marked rec

1 This sentence expresses the opinion of the late Dr. Hilton Fagge. See his article on Diseases of the Valves of the Heart, in Reynolds's *System of Medicine*, vol. iv, p. 647.

2 "Illustrations of Epileptic Mania and of the Automatic Phenomena of Epilepsy; likewise of Maniacal Attacks following, and also taking the place of, Uræmic Convulsions." (*Glasgow Medical Journal*, December, 1880. See also Raymond, *Archives Générales de Médecine*, Mars, 1882.)

3 *Auscultation and Percussion.* Second edition. London, 1877. P. 283.

4 *A Treatise on Diseases of the Heart.* Dublin, 1853. Part i, pp. 152-154.

5 The occurrence of such murmurs in aneurysmal disease, apart from va defects, is stated by eminent authorities to be much rarer than my own exp would have led me to suppose. I find, however, that M. Marey alleges t many cases of aneurysm, he has found such murmurs where the necropsy s no valvular defect; and he proposes the indications of the cardiograph—sh the very sudden filling of the ventricle—as a new sign of aortic insuffi (*Gazette Médicale de Paris.* 1868. P. 548.)

6 Hayden: *Diseases of the Heart.* Dublin, 1875. P. 845.

7 *Proceedings of the Pathological Society of Dublin*, vol. iii, p. 263. Dublin,

8 *Contributions to Cardiac Pathology.* London, 1880. P. 12.

9 See abstract report in *Edinburgh Medical Journal*, vol. vi, p. 470; Nov 1860, taken from *Gazette Médicale de Paris.*

10 *Clinical Medicine.* London, 1879. P. 237. The quotation here given i this volume; the subject is also discussed in his *Practical Treatise on the Dis Pathology, and Treatment of Diseases of the Heart.* Second edition. Philad 1870, p. 213. One of his cases bears the date 1866.

11 Walshe: *Diseases of the Heart.* Fourth edition. London, 1873. P. 10

tion of the first sound, as heard to the left of the xiphoid cartilage, is often present. An interesting fact was noticed repeatedly, namely, e disappearance of the reduplication while the patient held his breath, hough he could only do so for a very short time, owing to the spnœa from which he suffered. Occasionally, he had suffered from acks of bronchitis. During his stay, the respiration approached times the Cheyne-Stokes type ; he had no hæmoptysis. The urine s albuminous and scanty. The patient's face was habitually florid, t appeared unduly congested. When, with all this, the limbs began swell, as they did soon after admission, the idea of mitral disease s most strongly suggested to the mind. But the murmur, instead being systolic or presystolic, was obviously diastolic ; a pretty long, t, or whiffing murmur, running off from the second sound, which ld still be heard at the aortic cartilage with a booming quality. e murmur itself was audible both at the aortic cartilage and at the ry tip of the xiphoid cartilage, perhaps most plainly at the lower half the sternum. The idea of mitral disease, and the improbability of tic incompetency, were so strongly impressed on my mind, that I sidered again and again if this murmur could not be the diastolic rtion of a prolonged murmur of mitral stenosis ; but its complete sociation from the first sound seemed to negative this conclusively. trying the pulse critically, both with the finger and with the sphygraph, no characteristics of the aortic regurgitant pulse were found. e idea of its being due to disease in the aorta, similar to the case eady reported, next suggested itself ; although it was a very unely occurrence to have another such case so soon after the first, it s discussed with the students in attendance. In this second case, wever, we had only one murmur—not two as before—and it was of stolic rhythm. Now, so far as I had seen the records of the kind cases referred to, there had always been two murmurs found ; or if only existed, it was systolic ; and the explanation offered by Dr. lingham and others, as to the production of the murmur, rendered ery unlikely that a diastolic murmur could be produced by a rough ted and rigid aorta without a systolic murmur being present also. th this in view, I listened again and again for a systolic murmur the base, but had to enter in the notes that no such murmur ld be heard. The patient lived about six weeks in the ward, with reasing dyspnœa and dropsy ; this, indeed, became extreme. The al duration of the illness was about six or seven months. He died denly, apparently from syncope.

The *post mortem* examination showed the heart greatly enlarged, right side even more than the left ; weight, 20 ounces. Before ning the organ, the aortic valve was tested with water, and found fectly competent. The valvular structures were not thickened anyre, but the mitral and tricuspid orifices were enlarged. The aorta much dilated, and highly atheromatous, with calcareous plates deposits of fibrine. A large thrombus occupied the right auricle, etrating into the auricular appendage. Hæmorrhagic infarctions e present in both lungs. The spleen, liver, and kidneys had the earance of chronic congestion.

These two cases afford, to my mind, conclusive evidence of the tence of a double murmur, and particularly of a diastolic murmur, ortic origin, apart from aneurysm and apart from valvular incomncy. Of course, it may be contended that, with a dilated aorta, valves were inadequate to prevent regurgitation during life. In y to this, I can only say that the valves and aortic orifice appeared the pathologist and myself, during the testing, so completely pted to each other that, with every desire to do so, we were un to admit such an explanation.

THE VALUE OF QUININE AND SOME OF ITS CONGENERS AS PARTURIENTS.

d in the Section of Obstetric Medicine at the Fifty-second Annual Meeting of the British Medical Association.

By ANDREW MULLAN, M.A., M.D., Ballymena, Co. Antrim.

has been said that, as civilisation advances, labour, on account he more complex and artificial mode of living, from being a nal and physiological, tends to become more and more a ological process. Whether this be so, it would be very cult to prove, as many factors come into play, many of a opposed to each other. However it may be, most medical in large midwifery practice have met with many cases more or tedious, yet without complication, which lost them much time cost them anxiety. Active interference by any of the agents usually described, medicinal or instrumental, was contraindicated, and the medical man would fervently re-echo the wish of the patient or her friends that something could be done for her, without knowing how or with what it was to be done. If the medical man be near home, he may leave the patient, with directions that he should be sent for when labour has fairly set in. But if he be many miles from home, and the patient be a multipara, he will feel difficulty in deciding to do so. If he return, he will be anxious as to how the patient is getting on. Of course, the medical man has no right to do anything which might endanger the patient for his own convenience, but this delay is often as bad for the patient as inconvenient for the doctor. The patient becomes exhausted with hope deferred and with frequent resort to various homely devices for quickening labour which have little power to effect it.

The causes of delay in the cases to which I refer are, in primiparæ chiefly, some rigidity of the os or cervix, which I would call firmness, in contradistinction to the other term, which suggests greater degree of condensation of tissue, and, in multiparæ, want of contractile power in uterus from loss of tone (1) caused by bad health, or want of rest ; (when the latter is very markedly the cause, a dose of opium or chloral, and some hours' rest are indicated) ; (2) from anxiety or timidity ; (3) inertia, cause undiscoverable.

In some of these cases, Barnes's dilators are of service ; but anything that looks like instrumental interference, especially in an early stage, and when not urgently required (in their eyes, at least), would be received with much distrust by very many, and, in fact, would not be permitted ; in other cases, they would not seem to be suited—certainly not so well as the means I propose.

It is generally accepted that ergot is contraindicated until the os is two-thirds dilated, and certainly if there be any rigidity. Now, here was a case, which I take from my note-book, a typical case, but resembling more or less closely a vast number I have met with.

CASE I.—I was sent for at 7 A.M. to see Mrs. B., primipara, a strong healthy young woman, who had labour-pains during the night. The patient lived four miles from my house. The os admitted the tip of the finger ; the vagina was rigid. I left at 12 noon, and was sent for again next morning. The patient had pains during the night, now few and weak. I gave a hot enema. The os remained rigid. At 1.15 P.M., I gave five grains of quinine in powder ; pains soon came. In half an hour, I repeated the dose ; strong pains set in ; the os dilated ; the head descended to the perinæum ; but the pains failed somewhat. A third dose of quinine was given ; the pains improved. The child being very large, the delivery was completed with forceps. All went well. Now, in this case, ergot was absolutely inadmissible ; had it been used, one result of it, from what I have had too good reason to know of its action, would have been the death of the child. The use of Barnes's bags would have been very difficult.

CASE II.—Mrs. C., in her second confinement, had had pains off and on for a week ; she had little sleep at night. The pains were now (12 o'clock at night) few and weak. The vagina was not relaxed ; the cervix was a tough or semi-rigid tube, admitting two fingers. At 1.40 A.M., five grains of quinetum were given, and two like doses at intervals of three-fourths of an hour. Pains set in strongly ; the os gradually dilated. When the distended bag of waters began to press on the perinæum, the pains slacked a little, and the patient asked for another dose of the medicine. I did not give it, but completed delivery by the vectis, about 7 o'clock. The uterus contracted well. What would have been the result of giving ergot here ? On first seeing the patient, I had much debate with myself whether I should not have given opium or chloral to produce sleep, and then have had to wait many hours, or to go away with some anxiety of mind.

CASE III.—Mrs. W., multipara, in her eighth confinement, was a strong woman, but excitable and fanciful. At 9 P.M. labour was slow ; the pains were inefficient. The head was at the brim ; the membranes were whole ; the os was of the size of a florin, dilatable. At 1 A.M. five grains of quinetum were given ; in twenty minutes strong pains set in, which brought the head well into the pelvis. The child being large, delivery was completed by forceps.

CASE IV.—Mrs. M., in her eighth confinement, was a thin, anæmic creature. Labour had been lingering for four days ; the pains were few and inefficient. The membranes were whole ; the cervix was tubular, admitting two fingers. At 3.30 A.M., eight grains of quinetum were given ; good pains started ; the dose was repeated after some time. When the head was on the perinæum, I gave ergot. She made a good recovery.

I could give other cases, showing that quinine or quinetum strengthened, where ergot failed ; but it is better to state the conclusions derived from its administration in many cases during the last seven years.

On account of cost I tried muriate of cinchonin, but it produced

headache, and few or no pains. I tried quinetum, and found it answer well.

1. Quinine or quinetum in doses from four grains and upwards, in powder, will start pains afresh in twenty or thirty minutes. Repeated at intervals of half an hour or an hour, it will maintain them strong.

2. It produces no headache—hardly ever a trace of the cinchonism caused by similar doses under other circumstances—nor sickness, the bitter taste being the only disagreeable circumstance connected with it.

3. The pains it produces are not continuous, like those of ergot, but intermittent, like those produced by normal labour, and evidently not the result of a special stimulus exerted over the uterus only, but of a tonic effect exerted over the whole economy. The patient often feels stronger.

4. The action produced, when ergot is given alone, in cases where the patient has been exhausted, seems often to be spent in the delivery of the child, leaving the uterus in a state of exhaustion, unable to contract upon and expel the placenta, allowing hæmorrhage, and necessitating extraction. Such is not the case when quinine is properly used, either alone or before the ergot.

5. It can be used where ergot is absolutely contraindicated, with perfect safety both to mother and child. In one case, five or six hours intervened between the giving of the first dose and the onset of pains and the delivery of the child, yet all was right. Except in one case, I do not remember a child having been born alive, when more than two hours elapsed between the administration of ergot and delivery. Contrast with some of those cases the following, which I met with before I found out the use of quinine.

Mrs. C., a healthy looking, fairly strong young woman, was in her first confinement. Labour was tedious; the pains were few and weak all night. At 9 A.M., the head being well down on the pelvis, and the os well dilated, a drachm of ergot in fresh infusion was given. There were no pains at all. At 10.30, I gave forty grains of ergot in infusion. Some pains appeared. At 11 A.M. I applied the forceps. The pains almost ceased, I believe from the fears of the patient. For family reasons, she was most anxious to have a child; yet, from the first, was most apprehensive of it. She was delivered in about half an hour or three-quarters. The child, a large one, was born dead.

In such a case I would not now think of giving ergot, but I would give the quinetum, in full confidence that pains, more or less efficient, would be produced by it, and certainly that no harm would be done.

In short, we have in this agent effective means of dealing with tedious uncomplicated labour, which may be briefly described as *tuto, cito, et jucunde.* The good is not confined to the delivery of the child, though that is the point with which I wish to deal; but I believe I have also noticed the antipyretic and antiseptic influence of quinine in the more satisfactory recoveries than I used to have. I can confidently recommend it to my brethren as an invaluable addition to their obstetric *armamentarium.*

HOW TO MAKE ANTISEPTIC GAUZE.

By CHARLES WILLIAM BROOKS, L.P.S.I.,
Apothecary to the Adelaide Hospital, Peter Street, Dublin.

The manufacture of carbolised gauze, on a slightly different plan from that suggested some time ago in the British Medical Journal, has been undertaken with great success by the surgeons of the Adelaide Hospital, Dublin, with a result which is said to be highly gratifying; so much so, indeed, that a large space, fitted with tessellated tiles and supplied with a suitable apparatus, has been set apart for the production of this article in large quantities.

The advantages of this home-made gauze over that of commerce are manifest; it is produced at a cost, a mere fraction over its market-value; the strength of the acid (which is of the purest kind) is calculated carefully, and maintained all through the process with mathematical precision; after having been used as a dressing, it can be remade; it is so tenacious, in consequence of the extra amount of wax and resin compounds used in its manufacture, that air is completely excluded from any part to which it is applied; it forms a most elegant and comfortable mould when used for displacements of any kind, and requires no sticking-plaster to keep it in position. These facts, added to its high antiseptic properties, make it a dressing of extreme value. It can be made by any amateur; and the cost of the necessary appliances is very trifling indeed.

It may be stated here that the surgeons of this hospital are of opinion, having tested its powers on many patients, that antiseptic surgery has been materially benefited by a guaranteed article, which has not been rendered septic either from motives of economy or from careless stowage. It is not by any means an uncommon occurrence to see so-called antiseptic gauze lying exposed to the dust and dirt of shop-counter; and, as a natural consequence, the carbolic acid allowed to volatilise—an accident that may be altogether obviated by a method which we claim as original. A large air-tight tin box is to be roughly lined with absorbent cotton-wool, strapped to the sides of the box by means of some soap-plaster; and this padding should be charged with carbolic acid, the constant escape of which makes up for any loss that may result from a too frequent exposure.

It cannot be doubted that such a reliable description of gauze is worthy the efforts of any hospital. In any institution, whether it be large or small, where the best results of surgery are sought for, no better example of a germicide could be exhibited. The great simplicity of every detail connected with the making of it, and the wholesome appearance of wounds treated in this way, help us to claim for it antiseptic properties which certainly do not exist to the same extent in other preparations of this nature, nor are they within such easy reach of the surgeon; therefore, a trial of the method, which is now to be explained, may not be out of place.

If a reference be made to the Journal from which the original notion of home-made carbolised gauze was copied, the exact shape and dimensions of the apparatus required will be found, together with the proportions in which the ingredients are to be used; but, in addition to the necessary plant suggested for this purpose, there must be a very fine copper sieve, fitted loosely to the inner chamber in which the prepared gauze is placed. It should be raised about two inches from the bottom by means of wooden supports, in order to leave sufficient room for the superfluous wax and resin to float about freely; and, this way, to prevent these compounds from being absorbed by the gauze, which has been already abundantly charged with this fluid, its passage downwards. This little improvement made itself apparent to us after many failures. Without the sieve, every batch of gauze was so supersaturated with sticky materials, as to render its application to operations of any kind quite impossible. There is much reason to think that a preliminary trial, without the previous knowledge of help of these additions, would be most likely to bring discredit on whole process; indeed, it may be said that a second attempt would scarcely more hopeful than as a last resource—certainly not to be lowed by a third effort in this direction. A little turpentine added assists in the solution of the paraffin, wax, and resin, and all it to be more easily distributed to every part of the gauze in equantities. It need scarcely be mentioned that this gauze, in order sustain its high character as an antiseptic dressing, must be kept fectly free from everything that would contaminate it—such, for ample, as bed-clothes, soiled hands, etc.; and should only be withdrafrom the pure atmosphere of the box which I have described required for immediate use. These precautions are scrupulously served at this hospital; and, in truth, are amply rewarded by results which the most sanguine antiseptic surgeon could otherwise scarcely expect.

PERIOSTITIS FOLLOWING TYPHOID FEVER.

By EDWIN JACKSON, B.A.Lond., M.R.C.S.Eng., Wha
Range, Manchester.

In an article bearing the above heading in the Journal of Jary 3rd, p. 16, Dr. Hayward reports a case of periostitis of tibiæ following an attack of enteric fever.

I am reminded of a case which occurred in my own practice years ago. Mr. T. D., aged 42, was first seen by me (in connec with the attendance referred to) on Sunday, November 17th, having been seized with distinct rigors on the previous afternoon. During the ensuing week he developed the usual symptoms of enteric fever, which ran a severe and unusually protracted course. The temperature reached its highest point, 104.8°, on the evening of the fifteenth day, and became normal, for the first time, on the morning of the thirty-fourth day.

On the following day, the thirty-fifth, came a relapse, the temperature being, morning, 100.4°, and evening 102.0°, with a return, in due course, of all the symptoms. The temperature reached its highest point, 104.2°, on the twenty-first day of the relapse, the fifty-fifth of the attack, and the evening temperature became finally normal on the twenty-sixth day of the relapse, being the sixtieth day of the attack.

The patient left home for the seaside on March 3rd, and, in a letter written to me on the 18th, reported himself well, with the

eption of pain in the front of the chest on the left side. He re-inded me, at the same time, that he had often felt a soreness there uring the use of the stethoscope towards the end of the time when e was in bed.

On April 22nd I examined him, but was unable to detect anything eyond slight thickening at the point indicated; there were no con-itutional symptoms, and the patient had grown stout. On June rd there was an obscure, non-fluctuating, slightly reddened swelling ver the front of the third rib. On July 3rd the swelling had become ell marked, tender rather than painful, of a dusky red colour, and iere was doubtful fluctuation.

During the following week, suppuration became evident; and, at the id of that time, pus began to discharge itself, a process which con-nued for several weeks, the wound finally closing about Novem-r 5th; a deep depressed scar marked the spot when I last saw the tient a month ago.

Sir James Paget, who saw the case on July 5th, directed my atten-on to some observations of his own, published in vol. xii of the *St. rtholomew's Hospital Reports*, "On some of the Sequels of Typhoid ver," namely, "phlebitis, periostitis, with or without necrosis, pecially periostitis of ribs, local paralysis of muscles."

It is common to all these sequels of typhoid fever, he says, that ey appear when the patient is considered to be "well of his fever," d is beginning to move about, and becoming stouter and stronger. e tibia is said to be the most frequent seat of the periostitis; in e case, it was symmetrical on the lower parts of the shafts of the iæ; but, with this exception, he has not seen it on more than one ne in the same person. Necrosis followed in some cases, but not in . He has seen several cases in which the ribs have been the seat of periostitis, but in none has necrosis followed. The general health es not appear to be seriously affected by the abscesses, unless in sons of naturally feeble health.

With regard to etiology, Sir James Paget says, "I do not feel com-ent to deal with the question whether each fever has, as seems y probable, its own proper sequels, and is in this sense, though per-s in less degree, as specific as in its fever-period; but, excepting phlebitis, I have not yet seen any of the diseases I have enunciated er any other than typhoid fever, and I have not seen after typhoid corresponding number of cases of large lymph-glands, diseased its, or other diseases of mere debility, such as may follow any te illness."

A CASE OF MYXŒDEMA.

By W. B. MILLER, M.A., M.D.,
Surgeon, Army Medical Staff, Aldershot.

E patient was Mrs. T., aged 38, a barrack labourer's wife, residing Woolwich.

he stated that, in 1872, she was confined in the Female Hospital, olwich, of a male child, and had severe flooding. After being in pital one month she was discharged; but shortly afterwards she was dmitted with general debility, and was under treatment for two ths. She had not menstruated since her confinement in 1872. r that she used to swell very much, and she had been, from time ime, an out-patient of Guy's and other London hospitals. Owing feeling of numbness coming over her, she frequently fell down, in 1876 she had a fall down some stairs, which shook her a good . After that, a rash, like drops of blood, came out from the loins he feet; her gums also bled. This returned once or twice, but she been free from it for a considerable time, until ten days before ission, when her gums bled freely, but that had again passed y under treatment. The beginning of winter of each year caused nse of weakness along the spine, a feeling of continual throbbing. frequently had fits of giddiness. When sitting, her chin dropped o her chest. She had a dread of going into open spaces by her-She was afraid of falling down. If she fell, she could not raise elf. She was troubled with unpleasant dreams. Each succeeding made her more infirm. Her urine had a very offensive smell, she suffered from constipation of the bowels.

istory of the Present Attack.—Symptoms of weakness became pro-ent in November 1883. She came under my care in January . Until very recently, she had been unable to leave her bed. She very much swollen, and presented the symptoms described above. he autumn of each year, a further feeling of fulness appeared to lop; she also felt a sense of enlargement at each period of four s. She said that this swelling seemed to begin in the abdomen, afterwards appeared in the legs, face, eyes, and hands. Her walking power was very imperfect, and there was a general want of co-ordination.

She enjoyed very good health until her marriage, in 1869. Her father was living. Her mother, who was twice confined for unsoundness of mind in an asylum, died from cancer of the breast. A brother and sister were living. Her twin sister died shortly after birth.

She was able to get food and clothing. She had had three children; one was living, one died from convulsions, and one from "tabes mesenterica." She had been worried and troubled by a husband, until lately, very much addicted to drinking. She had never had syphilis, as far as was known.

When she came under my care, her weight was 10 st. 11 lbs. Five years ago she weighed 10 st. 6 lbs., and before marriage 10 st. She was poorly developed. She was of ordinary height. She had lost nearly all her hair, and what now remained was very friable. Her muscles were soft and flabby. She sometimes had twitching of the temporal muscles and of the eyelids. Her face had lost expression, from the general swelling and from blurring of the features. The integument was shiny, sallow, dry, and translucent. There was a slight blush over the malar bones. The temperature of the axilla was 95°; of the mouth 95.6°. She did not perspire. She had no eruptions or tumours. The joints and limbs were fairly normal. There was atrophy of the thyroid gland.

Nervous System.—Motion was imperfect, and she stumbled in walking; sensation was slow but well marked; she could not remember recent events; speech was distinct, but articulation was slow and measured; the sense of sight was as good as ever, but she could not hear, smell, or taste, as well as formerly. Her ears had soldered lobes. She was fairly intelligent; she slept badly, and was troubled with headache.

The Respiratory System was fairly normal.

Circulatory System.—The veins were, to a certain extent, visible; the pulse was weak, but fairly regular; the blood, examined by the microscope, showed no very grave defect.

Digestive System.—The back teeth were defective; the bodies of the front teeth were in part worn away. She had an imperfect appetite; digestion was imperfect. She did not vomit; her intestinal system was irregular.

Genito-urinary System.—She micturated with normal frequency; the urine was sometimes very acid; the specific gravity varied between 1010 and 1020; the appearance was normal, as also the chemical tests. Microscopic examination showed the presence of micro-organisms.

The diagnosis was that there was a condition of general debility, more especially of the nervous system, with a deposit in the body generally, giving a condition at present described as myxœdema. There was no immediate prospect of a fatal termination, although the prognosis appeared to be bad.

The treatment consisted of general and nervine tonics, alteratives, and alkaline mixtures. Symptoms were treated, and she took liquor ammoniæ acetatis and water, and from this she appeared to derive considerable benefit.

SURGICAL MEMORANDA.

GONORRHŒAL RHEUMATISM IN AN INFANT, THE RESULT OF PURULENT OPHTHALMIA.

I AM not aware that any connection between ophthalmia neonatorum and synovitis has ever been observed or described; but there seems no just reason, if, as is generally supposed, the synovitis of gonorrhœa is the result of absorption of morbid products from the urethral mucous membrane, why the conjunctival mucous membrane should not offer an equally favourable absorbing surface. I have seen not a few cases of purulent ophthalmia in infants, but my memory can recall no previous instance in which this affection was associated with synovitis; still, the number of cases of purulent ophthalmia coming under my observation is to the cases of gonorrhœa, perhaps, not more than as one to a hundred, and the proportion of gonorrhœal rheumatism to gonorrhœa is not great. Hence it is not unlikely that my experience has hitherto been too limited for the observation, rather than that the association of the two affections should be accidental and unrelated.

The following case was brought among my out-patients on Thursday, February 12th, 1885, and was referred to me by my colleague, Dr. Horrocks. The mother, who brought the infant, stated that this was her seventh child, and that the patient and one other were born of a second marriage. When seen, the child was eighteen days old

and was suffering from purulent ophthalmia of both eyes, for which it had been treated with lotion to be applied every hour.

The mother stated that, about a fortnight before delivery, she became the subject of a thick purulent discharge from the vagina, and there cannot be the slightest doubt that the child's eyes were inoculated during delivery. It was on account of the condition of its joints that the case was referred to me. The mother had noticed that the left knee was enlarged, and that the infant dropped the left hand, and cried when these were touched or moved. On examination, it was found that the left knee was swollen, and that there was effusion into the joint, whilst the cause of the dropping of the hand was found to be a synovitis of the wrist, which was swollen, and creaked when moved. It is scarcely probable that the inflammation of these two joints could be referred to any other cause; and, in my own mind, there exists no doubt whatever that this was a case of gonorrhœal rheumatism, consequent upon absorption from the conjunctival surface.

R. Clement Lucas, B.S., F.R.C.S.,
Senior Assistant-Surgeon to Guy's Hospital.

CASE OF SUBASTRAGALOID DISLOCATION OF FOOT INWARDS.

The rarity of this dislocation must be my apology for publishing particulars of the following case. A labourer, aged 30, was filling bags of coal upon a raised platform about three feet high, when the supports gave way, and he fell, his right foot coming into violent contact with the ground. He was brought to the infirmary immediately, and arrived here about half an hour after the accident. Upon examination, the right foot was seen to be greatly distorted; the outer edge of the foot was resting upon the ground, the sole looked inwards, and the inner side upwards. The external malleolus was very prominent; the distance between this projection and the head of the astragalus was normal. No fracture of either malleolus could be detected. As there was little or no swelling, the position of the bones could be readily made out, and the displacement was evident. The normal connection of the astragalus with the bones of the leg was undisturbed, while the os calcis and scaphoid, together with the remaining bones of the foot, were displaced inwards. Reduction was easily effected by traction on the foot, with the leg flexed at the knee. The pain, which had been very acute, disappeared immediately, and there was very little local disturbance. The after-treatment consisted of perfect rest by means of back and side-splints; and an evaporating lotion was applied to the affected parts.

William James Spence, L.R.C.P., etc.,
House-Surgeon Bradford Infirmary.

FOREIGN BODIES IN THE ŒSOPHAGUS.

Case I.—Henry P., aged 34, came to see me on October 27th, 1872, stating that he had swallowed a metal plate with two false teeth attached. He awoke about 4 A.M., and felt his throat sore. The pain went off, however, and he slept again; and, on rising and looking for his teeth, he could not find them. They were searched for while he went for a walk; and, on his return, he "thought he must have swallowed them," and came to me. He complained of much pain at the upper part of the sternum; the throat was not red or inflamed; he had a difficulty, but could swallow fluids; I could not feel anything with my finger, nor could I reach the teeth with curved forceps. An œsophageal bougie passed into the stomach without encountering any obstruction. Emetics of sulphate of zinc produced no satisfactory result. I advised him to keep quiet, and to take farinaceous diet. He continued to complain of his throat till about November 8th or 9th, when a tooth (which the patient was satisfied was his own) was found in a neighbour's yard, where the patient had been on October 26th. He now thought he could not have swallowed them, and I confess I thought so too, though I was convinced that he had a foreign body in his œsophagus, from the continuance of the dysphagia and localised pain. He went on till November 14th, when he was eating some "trotters," and got a bone in his throat; and, in endeavouring to "hawk it up," the plate and teeth also made their appearance, having been in the œsophagus seventeen days. He had no further trouble beyond a little soreness of the throat when swallowing.

Case II.—William D., aged 36, sent for me, at 12.30 A.M., on November 1st, 1880. His wife heard him making a peculiar noise, and awoke him. He could hardly breathe, and had swallowed two false front teeth, with a metal plate. I found him in great pain, making constant efforts to vomit, and in much anxiety. I could not feel the plate with my finger; but, after a great deal of trouble, I succeeded in grasping it with long curved forceps, and, with considerable difficulty, dislodged it. A large quantity of bloody saliva fo lowed the extraction, the flow of saliva soon ceased, and the pai subsided. The patient lost his voice entirely, and was unable swallow for some days. I ordered him to suck ice freely, and th was followed by speedy relief, and he was soon about his usu avocations. He had no doubt drawn the teeth into his throat duri a long inspiration, while lying on his back, having retired to re while intoxicated.

Joseph Thompson, Consulting Surgeon to the Nottingham Dispensary.

THERAPEUTIC MEMORANDA.

TINCTURE OF BENZOIN IN INFLUENZA AND CATARRI

The great value of the tincture of benzoin, in the treatment of influen and common nasal catarrh, I do not find mentioned in any works medicine that I have searched. The tincture should be inha directly from a bottle containing it. Long inspirations should made through each nostril separately, the finger being placed over opposite one. If this be done at the commencement of the complai at the time when the nares and soft palate feel so uncomfortably and stuffy, relief is speedily obtained, the nostrils become cool a clear, and the mucus takes the character of that which is or narily expelled at a week's end when the disease runs its course. I ha now used the tincture for about three years, and, in my own personal perience, I never knew it to fail but on one occasion, when the cata was of unusual severity, and then the symptoms were much mitigat I quite accidentally discovered its value when dispensing in my surgery, suffering from a catarrh at the time; and, having a lik for the smell of benzoin, I took several long whiffs, and found sho after, to my surprise, great relief to the unpleasant symptoms. successful treatment of so simple a complaint may appear hardly wo notice; but those who suffer repeatedly from it will be ready to almost any treatment which is likely to give relief. I hope that th who may feel inclined to give this remedy a trial will publish th experience.

Alfred Kebbell, M.R.C.S.Eng., Flaxton, York

CUCAINE IN CORYZA.

The action of cucaine in acute coryza is striking and immediate. fortnight ago, I tested its value upon a lady who was suffering severe frontal headache, copious lacrymation, and entire stoppag both nostrils. I inserted into each nostril a piece of cotton-w soaked in a 4 per cent. solution; upon withdrawing these, afte interval of two or three minutes, the greatest relief was experien both passages being entirely free; the relief, moreover, was per nent. A few days later, having myself commenced with a sin attack, I injected into each nostril a few drops of the solution, h ing the head well back, and inserted at the same time one drop each eye; the relief obtained was almost instantaneous, and la throughout the day. As there was a slight recurrence in the even I repeated the application, with the same satisfactory result; in the cold disappeared.

Judging from the manner in which the congestion of the mucous membrane is thus relieved by the drug, and its general a thetic effect, I am very hopeful that it may prove the most effica remedy yet discovered for that most troublesome complaint, fever. I trust that all sufferers will, during the coming season, it a fair trial. Applied to the nares, as above mentioned, and painted over the fauces, I think it cannot fail to give consider even if only temporary, relief. I should also expect that a weak tion (not sufficiently strong to cause inconvenient dilatation of pupil) dropped into the eye, would alleviate that most intense ite of the lids, which is a very prominent symptom in most of hay-fever.

W. S. Paget, M.D.Lond., M.R.C.P., Great Crosb

CUCAINE AS A LOCAL ANÆSTHETIC.

Having occasion, the other day, to perform circumcision, Surg Major Muir suggested that I should try the hypodermic injectio cucaine as an anæsthetic. I accordingly injected 5 minims of a 4 cent. solution of the hydrochlorate of cucaine into each side o prepuce, and painted the mucous surface over with the solution. patient complained of the pain caused by the introductions o hypodermic needle, but the operation of circumcision only eli

m him the complaint that it "ached." So soon as the sensibility the part returned, which was in little over half-an-hour, he again nplained of pain.

J. M. FERGUSON, M.B.,
Station Hospital, Hounslow Barracks.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

SAMARITAN FREE HOSPITAL.

ASE OF CHOLECYSTOTOMY FOR DILATATION, DUE TO IMPACTED CALCULI: SUTURE OF THE INCISION IN THE GALL-BLADDER.

(Under the care of Mr. MEREDITH.)

.OLINE F., aged 59, first came under notice in the out-patient de ment in August, 1882. She had always enjoyed fairly good health l about eighteen months previously, when she began to suffer from sional severe attacks of pain over the region of the liver. Her lly-history was good; and she had never, to her knowledge, passed gall-stones, nor had she been jaundiced.

n physical examination, a freely movable body was detected in the t hypochondrium; it had a somewhat elongated and flattened e, with rounded borders, and was, altogether, very suggestive of a ing kidney. The tumour could be readily grasped, and pushed ards and backwards beneath the costal arch and towards the loin, ownwards and forwards in the direction of the umbilicus, but l not be drawn across the middle line. It was not markedly er on pressure, although stated to become painful at times after h handling. The urine appeared normal, and there were no spe- symptoms referable to the bladder or kidneys.

ter attending for a week or two, the patient was lost sight of, and not again come under observation until the following January, n she was admitted. Her condition was then as follows. The our, which had increased considerably in size, was now quite fixed, could not be defined as separable from the liver-dulness above. as somewhat oblong in shape, extending downwards and forwards inch or more below the umbilical level. It was firm and re- nt on palpation, and extremely tender when handled. The sur- of the swelling was smooth, and uniformly dull on percussion, nt along its lower and inner margins, which were overlapped by nded intestine (ascending colon). No resonance was obtainable e right loin. There was no evidence of any enlargement of the itself. The urine was abundant, but pale and watery; the re- n was neutral, or barely acid; the specific gravity varied from to 1015; no albumen was found. Microscopic examination ed a few hyaline casts, but no blood or cell-growths of any kind. ipation was not complained of, and the stools were normal in urance. The patient's complexion was rather sallow, but there no discoloration of the conjunctivæ. She stated that she had n steadily worse during the past four months. The attacks of which formerly recurred only at intervals of a week or more, had ly much increased in frequency, and were accompanied by nausea omiting. Pain, referred to the seat of the swelling, and thence ing through to the back and loin, as well as downwards towards roin, had become more or less constant in character, while re- ng subject to exacerbations on muscular exertion of any kind. s stated to be always more severe when standing or sitting than lying down; and any effort made when kneeling, a posture only necessitated by her occupation as a charwoman, invariably ed a severe paroxysmal attack. Her appetite was failing, and as emaciating rapidly.

fact of being thus entirely incapacitated from earning a liveli- made her most anxious that something should be attempted for lief.

operation was performed on January 30th, 1883, at 9.30 A.M. tical incision, commencing about two fingers' breadth below the arch, was prolonged downwards over the outer edge of the right muscle for an extent of three inches. On opening the peri- cavity, the dilated gall-bladder was at once recognised protruding beneath the margin of the right lobe of the liver. The under- e of the liver was readily explored by the introduction of two fingers, and the presence of a calculous impaction in the neck of the distended sac ascertained. Carbolised sponges having been inserted around the tumour, with a view to prevent protrusion of omentum or intestine, and also to protect the peritoneal cavity (an object which, unfortunately, was not thereby attained), the gall-bladder was tapped with a fine trocar, and evacuated as thoroughly as possible. During this process, the patient, who took methylene very badly, was constantly retching and straining, making it impossible to prevent some of the fluid, which consisted of dark inspissated bile, from soaking into the sponges, whence, as afterwards shown, it found its way into the peritoneal cavity. The partially collapsed sac having been drawn well forward through the abdominal wound, the cannula was removed, and the tapping-puncture enlarged vertically to the extent of an inch. The interior of the gall-bladder was then sponged out dry, and three gall-stones, impacted in the opening of the cystic duct, were removed by means of ring-forceps. (The calculi, which weighed collectively 1 ounce 26 grains avoirdupois, are now in the Museum of the Royal College of Surgeons.) After careful exploration of the ducts, in order to make certain that no further obstruction existed, it was decided, at the suggestion of Sir Spencer Wells, who was present, to close the incision in the gall-bladder, and to return it without drainage, so as to avoid the inconvenience of a biliary fistula. This was accordingly effected by means of a continuous suture of fine carbolised silk, inverting the edges of the peritoneal investment, with a view to ensure speedy union. The sac was then dropped in; and, after removing the sponges, the abdominal incision was closed in the usual manner.

The patient rallied quickly after the operation, but, in a few hours' time, complained of a return of her former colicky pain over the seat of the gall-bladder. This was relieved by a hot flannel, followed by the administration of a dose of atropine and morphia mixture. During the course of the afternoon and evening, the pain returned at intervals; but when seen at 10 P.M. she was quite comfortable. The temperature was 99.8° Fahr., and the pulse 90; the skin was acting well; the urine, amounting to nine ounces since the operation, was clear and pale, and free from albumen.

At 10 A.M., on January 31st, twenty-four hours after the operation, the condition was noted as follows. "There have been occasional returns of colic during the night, but the patient is now free from pain, with the exception of slight tenderness on pressure over the seat of the gall-bladder. There is no fulness or distension of the abdomen generally; the skin is dry; tongue moist and furred; no sickness; temperature, 101.4° Fahr.; pulse, 116, small and weak; respiration, 28, shallow and hurried. The urine, during the past twelve hours, amounting to seven ounces, is high coloured, with dense deposit of purple urates, and contains about one-fifth of albumen. There is marked irritability of the bladder." At 4 P.M. the temperature was 101.6° Fahr.; the pulse 120; there was no return of colic, and no sickness; the tongue and skin were dry; eight ounces of urine had been passed in six hours, no longer depositing urates, but showing great increase in the quantity of albumen, which now amounted to nearly one-half. An ice-cap was put on, and a poultice applied to the loins. At 11 P.M. the temperature was 102° Fahr.; the pulse, 140; the tongue was dry and brown; the pupils contracted; the face pinched and anxious; the skin moist and clammy; there was no abdominal distension; four ounces of urine, obtained by the catheter after 4 P.M., were found laden with albumen. The patient died next morning, exactly forty-eight hours after the operation, barely an ounce of urine having been excreted during the nine hours immediately preceding her death.

The following notes of the *post mortem* examination were recorded by Mr. Alban Doran.

The operation-wound, situated 2½ inches to the right of the middle line, and extending from 2 inches below the costal border to somewhat below the level of the umbilicus, had united by first intention. On laying open the abdominal cavity, the omentum first appeared; it was deeply bile-stained as far as its lower free border; on raising it, a quantity of bile was found lying free among the coils of the small intestine, and gravitating to the upper surface of the mesentery. The intestines were empty and flaccid. There was no evidence of any peritonitis, and no trace whatever of irritative changes in the parts immediately exposed to the extravasated bile. The liver, after removal, weighed 3 lbs. 8 ozs. (with 4 inches of duodenum and 2 inches of pancreas attached); its substance was healthy, and contained no excess of bile. The gall-bladder measured 5 inches in length, and contained nearly half a pint of very thick fluid bile. An incision, about 1½ inches long, seated in its anterior wall, was thoroughly closed by suture, and no bile exuded from it when the bladder was firmly compressed. The commencement of the cystic duct was sacculated. No calculi were found either in the gall-bladder

or in the ducts. Bile could be freely passed from either the cystic or the hepatic duct into the common duct, which was not dilated or obstructed in any way. There was no abnormality of the pancreas; the duodenum contained a large quantity of bile. The spleen was normal in size and consistence. Both kidneys were somewhat undersized, with very adherent capsules; their substance was toughened, and showed evidence of acute recent congestion. The bladder was thin walled and dilated, containing less than a drachm of blood-stained urine. The thoracic organs were healthy.

REMARKS BY MR. MEREDITH.—The case seems worthy of note as being the only one at present on record in which, after removal of impacted calculi, the incision in the gall-bladder has been closed at the time of operation without making any provision for drainage of the sac. The condition of the kidneys revealed *post mortem* appears sufficient to account for the unfortunate termination of the case, although it must remain a question to what extent their failure may have been due to the attempted elimination of the extravasated bile. The facts, however, as clearly proved by Mr. Doran's examination, that no escape of bile could have occurred subsequently to the closure of the incision in the gall-bladder, and that no trace of peritonitis existed, invalidate one main argument advanced against the procedure here adopted, in an able article on the subject which appeared in the JOURNAL on February 14th, 1885, page 338.[1]

The excellent results which, in Mr. Lawson Tait's practice, have followed the plan of uniting the gall-bladder to the margins of the abdominal incision, and inserting a drainage-tube, speak so strongly in favour of the method adopted by him, that one hesitates to recommend any other. Nevertheless, the procedure above described seems well worthy of consideration as justifiable in cases where, after removal of an evident impaction, the operator can thoroughly satisfy himself that no further obstruction exists either in the cystic or in the common duct. The difficulty, however, of ascertaining with certainty the absolute patency of the ducts in any given case, undoubtedly furnishes a strong argument against the frequent adoption of this method.

HUDDERSFIELD INFIRMARY.

SUPPURATIVE PYELITIS: NEPHROTOMY: RELIEF.

(Under the care of Mr. SAMUEL KNAGGS.)

EMMA T., aged 28, was admitted on July 4th, 1884. She came of a healthy family, was married, and had five healthy children. Five years before admission, she had a severe attack of rheumatism in all the joints. Since the birth of her last child, who was twelve months old, she had not menstruated. Four months before admission, she began to suffer from pain in the abdomen and round the loins, worst on the right side; for a fortnight, she was very ill; the urine was thick, was passed every half hour, and she experienced pain during the whole act of micturition; the pain was rather worse towards the close.

When admitted, she was a healthy looking woman, but stated that the micturition continued to be painful and frequent; she could hold her urine for about an hour, sometimes more, but there was a good deal of scalding. The urine was found to contain pus and albumen, but no crystals, casts, nor blood. A sound passed into the bladder revealed nothing abnormal. There was nothing abnormal about the uterus or pelvis. There was nothing very marked about the abdomen; but, on making firm and deep pressure, with one hand on the abdomen and the other opposed to it in the right loin, a body could be felt, not very hard or nodulated, but tender, and like the lower inch and a half of a kidney. It was more noticeable on the right side than the left, and the tenderness seemed confined to the right side; there was no tenderness anywhere else in the abdomen. She was ordered to remain in bed, and to take the following mixture three times a day. ℞ Potas. bicarb. gr. xv, tinct. hyoscyam. ʒss., olei cubebæ ♏ v, decocti uvæ ursi ʒj.

July 17th. She had very little pain, and could hold her urine about two hours. The quantity of pus passed in twenty-four hours was about four ounces.

August 19th. No further improvement had occurred, and the urine was alkaline, and pus was abundant. She was ordered the following mixture three times a day. ℞ Olei santali ♏ vii, tinct. cubebæ ʒi, tinct. hyoscy. ʒii, infusi. buchu ʒi.

August 23rd. There was no pain, but she had a hectic flush, and the temperature ranged between 98° and 101° Fahr. The urine contained one-eighth pus. The right kidney was less tender, but seemed distinctly larger; it was easily felt. She had now been under careful treatment in hospital for seven weeks, during which the temperature was generally over 99°, often 100° and 101°; the daily discharge of pus was large, and increasing, and the vital power was becoming more feebled.

On September 1st, Mr. Knaggs cut down upon the right loin, about half an inch below the last rib, until the kidney was reached. The surface gave an evident elastic impression; and, on passing in a small aspirator, the syringe was readily filled with pus. With scissors a good opening was made in the lower part of the kidney, by cutting through a thick and apparently healthy looking cortical part till the pelvis was reached, when between two and three ounces of pus poured out. The index-finger was passed along the dilated pelvis till it reached the upper part of the kidney, but no calculus could be detected in any part, nor nodules of disease; the whole organ seemed tumid, and the pelvis large. A large-sized drainage-tube was passed through the opening to the upper part of the kidney, and the organ was very thoroughly cleansed with carbolised water. The incision was well packed with boracic lint; a large surface of the surrounding skin was painted with a solution of gutta-percha in chloroform; the drainage-tube was brought through a circular opening in a piece of oiled silk; and the whole was covered with salicylic silk, and bandaged. The dressings were removed twice daily, and the washing continued through the tube. The application of the gutta-percha solution was most useful, as there was no soreness of the skin produced by the urine, which passed abundantly from first to last. The salicylic silk was not sufficiently absorbent, and was replaced by wood-wool, which answered much better. large pads of this wood-wool were made up in gauze, and gave great comfort, being very absorbent, as well as antiseptic. There was no bleeding of any consequence. Some little pain in micturition was relieved by washing out the bladder by a morphia-wash (a drachm of liquor morphiæ in warm water). This was discontinued, however, because the patient became drowsy afterwards.

September 10th. Progress had been satisfactory. The dressings were replaced by the following ointment: ℞ Creasoti ♏ iii, unguenti resinæ ʒj.

September 17th. The abscess-cavity in the kidney seemed to be closing, and there was little or no pus.

September 24th. The wound was healing, and looking well. The urine was of specific gravity 1025, and contained about half a drachm of pus in twenty-four hours. The pus was found to be mixed with blood-cells, epithelial scales, granular and epithelial casts, and oxalate crystals.

September 25th. Much of the urine still passed through the wound; she micturated by the urethra three times in the day, and twice in the night.

November 10th. There had been another rise of temperature from November 2nd, reaching at first up to 102°, but, for the last few days ranging from 98.6° and 101° Fahr. The pulse was 87; the respirations 21. One pint of urine was passed from the bladder in twenty-four hours; its specific gravity was 1021, and it contained albumen, few pus-cells, and urates. For a few days, micturition had been frequent. The wound was granulating, and in a healthy condition. The drainage-tube passed about two and a half inches, that is, about an inch into the kidney; a quantity of urine still passed through the wound. The enlarged kidney could still be felt distinctly, when the patient was turned on her left side; it extended three inches below the edge of the ribs, and forwards, apparently, to within two and a quarter inches of the middle line.

REMARKS BY MR. KNAGGS.—I can scarcely at present tell what will be the ultimate issue of this case. The recurring rises of temperature seem to point to small abscesses breaking out from time to time in the structure of the kidney; but, except when under the influence of these aggravations, her general health has greatly improved. Whether the kidney will ever recover itself sufficiently, or whether it may be advisable to remove it by nephrectomy, will be for future consideration; but, so far as it has gone, the case is interesting, and shows that an apparently almost hopeless case of suppuration of the kidney may speedily be relieved by direct surgical interference.

MANCHESTER ROYAL INFIRMARY.

TUBERCULOUS KIDNEY AND BLADDER: NEPHROTOMY, CYSTOTOMY AND NEPHRECTOMY.

(Under the care of Mr. G. A. WRIGHT, Assistant-Surgeon.)

THOMAS S., aged 17, who had always been healthy, and came of healthy stock, first noticed, in January 1883, a pain in the left loin after a cold bath; the pain was limited to the region of the kidney. The attacks lasted for half an hour to two hours at a time, and were occasionally very severe. Soon after the first attack, there was

[1] The case under consideration had previously been noted, without details, in an exhaustive paper on Cholecystotomy, by Drs. Musser and Keen, in the October number for 1884 of the *American Journal of the Medical Sciences*.

passing urine, both above the pubes and in the perinæum, sometes during micturition, sometimes afterwards, at varying times. In rch or April, he first passed blood, apparently pure, after his ne; and once in the summer he passed a foul decomposed coagulum. gravel ever came away. There was frequent micturition, gradually oming worse; but the urine was never very thick.

n admission, on January 30th, 1884, he was a delicate-looking lad, complained of pain above the pubes, at the root of the penis, and ttle in the left side. He passed urine every ten minutes during the ht, and every hour and a half or two hours during the day. There tenderness over the left kidney, both in front and behind, but no ess. He often passed blood. The urine was of specific gravity 9, faintly acid, and contained a slight amount of albumen, and e muco-pus.

.e was sounded on February 1st; no stone was felt; the bladder rough, contracted, and very tender, bleeding easily.

n February 17th, he was much the same. He had had lithia, scyamus, and camphor, and hyoscyamus suppositories, as well as phia. There were no casts in the urine. The pain was chiefly he end of the penis. The bladder was washed out. On the folng day there was some pain in the right loin, and much pus in urine. The temperature was high, and he was not improving.

n February 21st, the left kidney was explored by lumbar incision, punctured in various directions, but neither stone nor pus was d. Examination by the rectum revealed some enlargement of the vesicula seminalis.

r the next two months he went on always with more or less pain, ly in the perinæum and penis, but sometimes in the loin and ; the general condition was low, and his urine always con-d more or less pus.

April 17th, fulness and deep fluctuation were felt over the left ey. The old wound was reopened, and a needle pushed in; as pus ed, a free incision was made into a sacculated cavity, and a age-tube inserted.

y 2nd. He had pain in the perinæum, and passed urine about half-hour, except at night when asleep. There was more pus in urine, and more pain in micturition. The general condition ot so good. Nothing wrong could be found in the right loin.

May 8th, median cystotomy was performed, to relieve the pain cturition. It had some, but not much, effect in giving relief.

e 11th. As it was found that the presence of the lithotomy-tube sed his distress, it was removed. The wound in the loin was lischarging. He had to take opium constantly.

gust 18th. He had not lost ground, and had little pain. The came both through the penis and the perinæum. He took food well, and slept well. The temperature was about 101°. The ur wound was still open. On August 30th, he was sent to the lescent hospital; while there, he passed two small calculi from ethra. He improved considerably at one time, but again lost d.

was readmitted to the infirmary on December 1st. He was very and had lost flesh. The wounds were unhealed; some urine d from the loin. The urine was of specific gravity 1015, alkand contained one-third albumen; a fair quantity was passed.

December 11th, the lumbar wound was reopened, and enlarged nsverse incision; the kidney was found much diseased, and ed. It shelled out readily, and the only difficulty met with was turing the pedicle, on account of the depth of the wound. The was shrunken, the cortex almost gone, and no healthy struc- all left, except at one small spot; there was much pus in it, stone.

r the operation his pain was relieved; he passed a fair quantity e, though it was impossible to measure it, because probably ssed into the bed through the perineal opening. The amount erent days was estimated to vary between about 18 ounces and ces. He slowly sank, and died on December 20th.

opsy.—There were a few tubercles in the lungs. There was itonitis, and the kidney was satisfactory, except that at the part an imperfectly drained abscess was found by the side of The stump of the pedicle was quite as it should be. The right was somewhat large, and there was pyelitis, with several small id calculi in the pelvis, and one small abscess-cavity in the itself. The bladder was contracted and thickened, and the extensively, indeed almost universally, ulcerated. No tubercle sent elsewhere in the abdomen.

ARKS BY MR. WRIGHT.—Though this case is in many ways tly unsatisfactory, it is at present desirable that all cases of ctomy should be recorded. It was at first thought probable e case was one of renal calculus rather than tuberculosis, and in many ways this was borne out by the subsequent course of the case. The most unsatisfactory part is the comparatively little relief afforded by any of the four operations. This, no doubt, depended mainly upon the condition of the bladder. Nephrectomy was performed at last, with the hope, by preventing irritating discharge from passing into the bladder, of allowing it rest and relieving pain.

Several interesting points in the case will be noticed in the report, for which I am partially indebted to Mr. V. Wigglesworth. Examination of the urine, and of the discharge from the lumbar wound, for tubercle-bacilli, gave negative results.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEBRUARY 17TH, 1885.

J. S. BRISTOWE, M.D., F.R.S., President, in the Chair.

Cases of New Growth in the Alimentary Canal.—Dr. NORMAN MOORE read a paper on this subject. The first case was one of carcinoma of the cæcum spreading to the duodenum by direct contact, in a woman aged 44, who was under Dr. Moore's care in St. Bartholomew's Hospital. There was ulceration over an extent of four inches in the cæcum, and the ileo-cæcal valve was invaded. A deep opening led from the inner part of the colon to the sixth inch of the duodenum through some firm adhesions; this part of the duodenum was also infiltrated. The vermiform appendix was adherent to the cæcum, and also infiltrated. The subjacent organs were not affected. Only one small gland, near the front of the cæcum, was diseased. The patient had been ill since January 1883, and wasting from October till April 1884. Pain in the right side, vomiting, diarrhœa, anæmia, and a slightly movable tumour lying between the ribs and iliac crest, were the symptoms and signs noted. In two months, the tumour became a little larger, and rather less movable. The only constant symptom was general diarrhœa. There was no melæna. She died suddenly in August, and an adherent clot was found in each pulmonary artery. The second case was one of carcinoma of the descending colon, spreading in direct continuity to the stomach, in a woman aged 46, who was under the care of Dr. Gee. The new growth affected the middle part of the descending colon, and it was ulcerated at its base. The stomach was affected for about three inches, and there was a very large ulcerated hole in the stomach leading directly into the descending colon. The cancer was adherent to the parietes, and the fascia had begun to be penetrated. There were no secondary deposits. There had been pain in the left lumbar region since August 1884, and the swelling appeared soon after, and continued to increase till death, in February 1885. Anæmia, slight melæna, and diarrhœa, and occasional sickness, were the signs noted. Both these cases were remarkable as carcinoma spreading by direct continuity only, and both illustrated the difficulty of exact diagnosis in such cases. The age of the patient and the characters of the tumour were similar in each case, as were also the slight rise in temperature and the intense anæmia. Extension by direct continuity was only seen in six instances out of twenty-four *post mortem* examinations of cancer of the intestines made from cases in the medical wards of St. Bartholomew's Hospital during the past three years. In one case, the new growth had opened from the transverse colon to the stomach. The third specimen was one of sarcoma of the descending colon, taken from a man aged 25; the symptoms were those of obstruction. There was a ragged new growth, which included the whole intestinal wall of the upper part of the descending colon. It was a round-celled sarcoma of loose structure, and seemed to have grown in from the peritoneum. There were no secondary deposits. The illness lasted but a few weeks. The fourth specimen was one of sarcoma of the descending colon and ileum, spreading by direct continuity, taken from a man aged 40. The new growth began about the middle of the colon, and there protruded as a pink and white mass without ulceration. The peritoneum and rectus abdominis were penetrated, and a sinus opened externally. The ileum was adherent to, and penetrated by, the new growth. No glands and no remote organs were affected. The patient was under observation for one year. The sinus was due to surgical treatment. Death was due to acute peritonitis. These two cases of sarcoma of the intestine resembled one another in the fact that both terminated in peritonitis, due to the rupture of the loosely formed growth. In their continuous infiltration, their natural history was similar to that of the two cases of carcinoma. These were the only two cases of sarcoma out of twenty-six cases of new growth of the intestines recently examined

by Dr. Moore. These specimens showed that a new growth might spread by continuity only, irrespective of its pathological nature. They illustrated the difficulty of determining in what direction, and over what area, any new growth might spread.—In reply to the PRESIDENT, Dr. Moore said that, by the phrase direct continuity, he meant that the growth spread along a right line, irrespective of difference of tissue, or the direction of the lymphatics.—The PRESIDENT observed that sarcomatous tumours of the intestine were extremely rare, but he had seen two cases almost identical with the cases of carcinoma recorded by Dr. Moore. In one case, a woman, the tumour was at first movable, and resembled a floating kidney; in the other, a man, the tumour was somewhat lower down, and from the first was clearly connected with the cæcum. In both cases, the tumour was punctured to clear up the diagnosis; in both, gas and fæcal matter escaped, and in both a superficial abscess formed, and hastened the fatal termination. No secondary growths occurred in either case, the tumour spreading by continuity only. He had seen two cases in which a new growth, commencing in the colon, led to the establishment of a connection between the colon and stomach.

Spondylolisthesis.—Mr. ARBUTHNOT LANE described some of the changes produced by pressure on the spinal column. He referred to a paper on spinal deformity produced in labourers by carrying heavy loads (*Med.-Chir. Trans.*, 1884), and showed that, in most of these cases, the weight was supported in great part by the much enlarged and thickened lumbar spinous processes, which articulated with one another by broad surfaces, surrounded by a capsule. The weight was supported also by the articular processes, which increased in size, and articulated by flattened extremities, with deep depressions in the opposing laminæ, especially in the case of the sacrum and last lumbar vertebra. As there was little tendency to forward displacement, the articular surfaces were simply flattened, and retained their inward and outward direction. In many cases, osteophytic growth took place from the adjoining posterior margins of the sacrum and lumbar vertebræ. This might touch the enlarged sacral articular process, and sometimes almost obliterate the intervertebral foramen, probably causing irritation or destruction of the fifth lumbar nerve. In other cases, especially in those that were produced by carrying weights on the back, there was a marked tendency to forward displacement of the lower lumbar vertebræ, the fifth more particularly. In early cases, this produced an alteration in the direction of the articular processes from a lateral direction to one looking forwards and backwards. The reason of this was obvious. The articulation between the body of the fifth lumbar vertebra and sacrum was rendered loose, so that by pressure forwards displacement could be produced. In more advanced cases, besides increased changes in the articular processes, permanent forward displacement of the fifth lumbar vertebra or spondylolisthesis ensued. In some cases, there was an articular cavity between the two bones, while in others their opposing surfaces were irregular and were connected by dense ligamentous tissue. In these, by the approximation of the laminæ of the fifth lumbar and the posterior margin of the sacral facet, the intervertebral foramina were encroached on or obliterated, and the fifth nerve more or less destroyed. He showed two well marked cases of spondylolisthesis produced in this way. One, in which there was no synovial space in the lowest fibro-cartilage, presented synostosis of both sacro-iliac articulations, distinctly caused by pressure. He had shown a similar specimen last year. He referred to two other instances of spondylolisthesis, which he had described in the last volume of the *Transactions*. In the dissecting-room, this condition was not unfrequently met with in the early stage. Dr. Neugebauer collected descriptions of seventeen specimens from various Continental museums, one of which, "Bassin de Praqua," closely resembled three of those that he (Mr. Lane) had described. This condition was certainly not so rare as Dr. Neugebauer supposed.—Dr. SHATTOCK remarked that some of the specimens shown were very important, as showing that other conditions were capable of inducing spondylolisthesis than those enunciated by Dr. Neugebauer, as a result of his researches. Dr. Neugebauer concluded that the displacement implied a congenital arrest of osseous union between the arch and body of the fifth lumbar vertebra, which allowed the body of that vertebra, with the superimposed portion of the column, to glide forwards under the influence of pressure and other causes. In at least one specimen of Mr. Lane's, this congenital defect existed, but in others it was plain that the mere atrophy of the osseous tissue, occurring in old age, was sufficient to allow a similar displacement, which, if not so extreme, was at least sufficient to merit the name of spondylolisthesis.

Pulmonary Diseases in Wild Animals.—Mr. J. BLAND SUTTON made an elaborate communication, in which he gave a general account of the zoological distribution of certain forms of lung-disease among wild animals dying in the Zoological Society's Gardens dur the past three or four years. The opinion held by the medical p fession and the world at large that wild animals, in captivity, d from pulmonary tuberculosis, lacked foundation, and was certai erroneous. The conclusions drawn were founded on the follow series of cases. From October, 1881, to December 31st, 1884, total number of deaths was 2,779, made up of 583 mammals, 1, birds, and 788 reptiles. Of the 583 mammals, there were 303 qu rumana, including 7 anthropomorphous apes. Of these mammal died from pulmonary tuberculosis; namely, a tree-porcupine, e kinkajou, lagotis, and an agouti; only one case of general tubercul was seen, and that was in a coatimondi. It was remarkable tha these tuberculous animals came from South America and the trop portions of North America, a region named by zoologists the " tropical region." It differed from all the great zoological division the earth's surface by the almost unequalled extent and luxuriance its forests, its delightful climate, and the richness and variety o animal life. It was also the home of the guinea-pig. Pneum phthisis had been seen in 12 cases, of which 5 were monkeys, and rest carnivora. Even if these cases, by the utmost elasticity of term tubercle, were included, tuberculosis was a very unfrequent c of death in wild animals. The lungs, in many of the case tubercle, were examined by Dr. Heneage Gibbes for bacilli, an found them present, not in thousands merely, but in millions. Gibbes had worked out some very important facts in connection these micro-organisms, but this part of the research was left ent in his hands, and the results would be published in a separate p Since mammals in confinement did not die from tuberculosis, it be necessary to give an account of their fatal diseases. It migh broadly stated that each group of animals had certain forms of c affections common to the group. Thus primates, excluding suffered from bronchitis, atelectasis, and lobular pneumonia. nivora were exceedingly liable to double pleurisy, lobar pneum and bronchitis; whilst ruminantia had the peculiar disease kno perlsucht (the so-called bovine tuberculosis), bronchitis, and w bronchitis. It would be seen that bronchitis, zoologically spea was widely diffused, and this was to be accounted for by the vi tudes of the English climate, in contrast to the tropical clima which many of these animals were accustomed. Although birds been excluded from this report, so far as tuberculosis was conce yet there was one pathological condition peculiar to them which great interest. It was well known that, in birds, the bronchia in communication with a series of membranous cavities known a sacs. It happened, with especial frequency in water-fowl, tha lining membrane of these sacs inflamed, giving rise to exud This inflammatory matter coagulated, and often formed a co half an inch in thickness, which formed an excellent nidus w the mould, penicillium, might luxuriate and form a thin throughout the entire series of these air-chambers. Hunter, Müller, Robin, and others, had noted the presence of mould i air-sacs of birds, but they all seemed to have overlooked the tion. The interest of this condition lay in the fact that this did not confine itself to the air-sacs, but even permeated the capillary air-spaces of the bird's lung, which corresponded alveoli of the mammalian lung. In view of these facts, was matter for wonder that, in the human lung, vegetable organi fraction of the size of the spores of penicillium, requiring simila ditions for existence, occurred, such as were recognised und name of bacilli? It was impossible to narrate all the details numerous cases of pulmonary affections which were to be obs The "field of work" such an inquiry opened up to those who h leisure and opportunity was immense.—Dr. CARRINGTON t that, before any conclusions could be safely drawn from the cla tion adopted of tubercular and other diseases, more details of a kind were wanted.—A conversation ensued, and Mr. SUTTON's to the various questions put to him may be summarised as f He had used the presence of tubercle-bacilli as the test criminate cases of tubercle and phthisis from those of pneum doubtful cases. In 303 quadrumana, the proportion of death pulmonary disease alone was about 30 per cent. He considered tuberculosis to be a distinct disease from human tuberculo lesions and ultimate effects being very different from those man. Dr. Klein had shown that the bacilli in the bovine fo fered, not only morphologically, but in their distribution, fr tubercle-bacilli of Koch. Dr. Heneage Gibbes inclined to th view. "Worm"-bronchitis was a recognised affection in a frequently seen in young calves; it had obtained the n "hoose" disease. It was caused by an immature worm, a gyle," getting into the trachea, and ultimately finding its w

e pulmonary alveoli. It caused often distinct bulgings of the ura, which felt like small knots, and was now and then mistaken tubercle. Up to the present time, the bacilli had been found to ur with greatest frequency in cases of pneumonic phthisis. When paper was published in the *Transactions* of the Society, full tistics of the pulmonary diseases would be appended. All the nclusions set forth in the paper had been drawn with great care, d if there were any error in discriminating between the cases, too ny had been classed as tuberculous rather than the reverse.

Caseous Gland impacted in the Trachea, and causing Sudden Death. Dr. Percy Kidd showed a specimen, which came from the body of oy aged 7. He was observed to have a croupy cough and some- at stridulous breathing during life. No physical examination had n made. One night, after running about in the daytime, and ring complained of no urgent symptom, he suddenly awoke, eaming, coughing, and struggling for breath. He died in about minutes. At the necropsy, the mediastinal glands were all en- ged and caseous; the enlargement was most marked in those nds lying in front of the trachea. The lower end of the trachea blocked up by an oval, partially softened, caseous gland, which been extruded through an ulcerated opening in the anterior wall the trachea, just above the origin of the left bronchus. The per- tion led into an encapsuled space in front of the trachea, which tained caseous *débris* and traces of gland-tissue. The lungs con- ed a few miliary tubercles in the upper lobes, but were otherwise lthy. The heart was firmly contracted, and practically empty; it quite healthy. All the other viscera were healthy. It was remarkable t, although the child evidently died of asphyxia, there was no dis- ion of the right side of the heart after death.—Dr. Goodhart that he had seen a similar case in a child of 2½ years, who had attacks of dyspnœa occasionally for six months, and who died denly in a fit, choked. The necropsy revealed a caseous condition he mediastinal glands, and a gland had ulcerated into the trachea above the bifurcation of the bronchi, and plugged it. He eved that he knew of a second case where a child suffering from a e bronchitis died suddenly, apparently choked, probably from a ilar cause; but in this case no necropsy was made.

Malignant Tumour of Forearm.—Mr. Lockwood showed a specimen, n from a child twelve months old; it grew rapidly, and the child died hæmorrhage three days after rupture of the new growth. The our appeared when the child was six months old. There were no ndary growths. The tumour seemed to grow from the interior of radius, and was stated to have been at first movable. It con- d of embryonic tissue.

Carcinoma of Kidney.—Mr. Bilton Pollard showed a specimen of inoma and dilatation of the kidney, from which he had oved a large number of calculi during life. The patient was an aged 40, who had had symptoms of renal colic for six ths, and had lost flesh. When first seen, there was a our in the left lumbar region, in one part of which fluctua- could be detected, and the urine had an acid reaction; it contained but no blood. The kidney was sounded from the loin, but no e was detected; nephrotomy was, however, performed, and forty- calculi removed, together with a quantity of purulent urine. Much f followed the operation, but the general condition of the patient not improve, and the renal tumour did not shrink, as would have expected if it had been merely dilated. Malignant disease was efore suspected, and all idea of nephrectomy abandoned. The pa- died of exhaustion two months after the operation. The left kid- was enlarged, due to cancerous infiltration of it and to dilatation cortical substance into numerous cystic cavities. In these cysts erous calculi were found. The specimen was shown partly on ac- t of the rarity of carcinoma of the kidney, and partly on account bearing on the etiology; the calculi appeared to be the primary ological product, and the carcinoma a secondary one, probably re- ng from irritation. The frequent absence of profuse hæmaturia in growths in the kidney was insisted upon, and attention was drawn e failure of an attempt to feel the calculi with a needle introduced the loin, notwithstanding the great number of the calculi. The implication of the lymphatic glands, and the extension of the ary growth beyond the kidney, showed that any attempt to remove ntire diseased structures would have been futile and unwarranted. . Hadden had made necropsies of three or four cases of malignant se of the gall-bladder, in which calculi were present and appeared ve induced the disease.—Dr. Goodhart said that there seemed but little doubt that cancer of the liver could be caused by gall- s. In the *Pathological Transactions*, cases of this sort had been ded, and also one of cancer of the bladder by Dr. Fagge, where rritation of a stone seemed to be causative. Frequent catheterism was also alleged as a cause of cancer of the bladder.—The President said that the existence of an association between renal and biliary calculi and cancerous disease of the viscera was well known, but a causal connection had not been established.—Dr. Norman Moore thought there must be some other factor in the production of the disease. There was chronic inflammation of the bile-passages and neighbouring intestines, but nothing like cancer, in a chronic case of gall-stones which he had observed.—Dr. Longhurst made some remarks on the relation of direct irritation to cancer of the lip and elsewhere.—The President said that, in the case shown, the lining membrane of the kidney still remained intact; the cancer appeared to infiltrate the whole organ; there was no prolonged history of renal colic.—Mr. Butlin said that there was a difference between the direct irritation causing cancer of the lip and tongue, and that of a calculus acting on the tissue of the liver or kidney. In the latter case, the seat of the irritation was at some distance from the point where the cancer first appeared.—Mr. Bilton Pollard, in reply, said that the cancer apparently commenced at that part of the kidney from which the calculi had been removed during life. It seemed certain that the calculi preceded the cancer; probably the tumour was almost solely pyonephrotic until the time of the operation.

The following card specimens were shown:—Dr. Gulliver: Syphilitic Ulceration, with Cicatricial Constriction of the Trachea. Dr. S. West: Specimens of Mediastinal Tumours. Mr. Clutton: Large Vesico-vaginal Calculi. Mr. Sheild: Blood-clot from the Surface of the Brain. Mr. D'Arcy Power: Typical Adenoma of Breast. Dr. Hale White showed a recent Specimen of Suppurating Hydatid Cyst about the Liver, and also a Hydatid Cyst in Process of Healing, which opened into the duodenum, as well as externally through the abdominal wall.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, February 24th, 1885.

George Johnson, M.D., F.R.S., President, in the Chair.

On Hereditary Locomotor Ataxy. By J. A. Ormerod, M.A., M.D. Oxon.—The symptoms which distinguished the so-called hereditary ataxy from ordinary tabes, were stated to be as follows. The disease occurred in many members of one family; the onset took place early in life, it was uncomplicated at first by pain, or by other of the multiform symptoms of tabes; later in the disease, disorder of speech and nystagmus occurred. In one family of seven children, the mother had had fits, the mother's sister was insane, and her father was probably ataxic; three cases from this family were given. Case I.—A girl; the onset was accompanied by choreic movements. Then ensued unsteadiness in walking, increasing till she could not stand alone, occasional fainting fits, and finally some muscular weakness of the legs, rigidity of the ankles, and club-feet. Case II.—A boy, presented slowly increasing unsteadiness of gait, a few giddy attacks, and finally slight affection of speech. Case III.—A young woman, in whom the onset was much the same as in Case I; other symptoms present were lateral curvature of the spine, slight ptosis, and occasional squint. In the other family of nine children, where no nervous disease could be discovered in parents or grandparents, there were three, or possibly four cases, two of which were described. Case IV.—A female, aged 20. Unsteadiness of gait had been noticed since the age of 13; it had been worse since an attack of low fever two years ago. She was now unable to walk without support; slight muscular weakness of legs; shooting pains last year; speech doubtful. Case V.—A female, aged 16; her case was similar to her sister's, but less advanced; there was no muscular weakness, nor pains. Some anæmia was present, and attacks of headache with vomiting had occurred. The patellar tendon-reflex was absent in all four cases, and apparently in some other members of the family as well. The paper, in conclusion, contained some remarks on the etiology of the disease. Other nervous diseases which attacked families were compared with it, and other factors which might assist in its development were noticed, especially puberty and the occurrence of an acute disease.—Dr. Althaus thought the disease was properly separated from locomotor ataxy by Dr. Ormerod. Strictly speaking, the disease was not hereditary, for the parents did not suffer from it; it was best spoken of as Friedrich's disease. The pathological lesion was a sclerosis of the central grey matter of the spinal cord, of the lateral columns, and, in some cases, of the anterior columns. The two diseases were also clinically distinct. In Friedrich's disease, affections of sensibility were hardly ever noticed, except towards the end of the malady; there were no lightning-pains, no hyperæsthesia, no numbness. He thought that the two diseases also differed in their etiology. He believed that alcoholism in the parents, especially in the father, was a

potent element in the production of the disease.—Dr. BUZZARD quite agreed with Drs. Ormerod and Althaus in looking upon this disease as very different from ordinary progressive locomotor ataxy; cases of this disease often, he thought, escaped diagnosis. He had been struck by the fact that it was the motor system which was almost exclusively affected. In a case recently under his notice, he had noticed the influence of an acute disease in determining the onset of the disease. In progressive locomotor ataxy there appeared to be some tendency to family predisposition, though less marked than in Freidrich's disease. He had recently seen, at the request of Dr. Playfair, a lady, aged 26, who had been placed under his care because she was supposed to be hysterical. She had to be supported in the erect posture, and alleged she could not stand. It was noticed that the arms were affected with distinctly ataxic movements. There was extreme lateral curvature. The diagnosis of the case was difficult; there was no anæsthesia. The plantar reflex was perfect, but the patellar tendon-reflex was absent on both sides. The patient had not walked far since 12 years of age. She had complained of great weakness at the age of 17; and since an attack of typhoid fever when 21, had been unable to stand. Great efforts had, at various times, been used to induce her to walk, under the impression that she was hysterical. The family history threw no light on the production of the disease. When only 5 or 6 years of age, she was noticed to tumble about, and at the age of 10 or 12, when learning to dance, this was very marked. Her speech was of a marked toxic character; in speaking she slurred her words, speaking slowly.—Mr. R. W. PARKER inquired whether the patients, as infants, were suckled. There seemed reason to think that they might have been ricketty; in that case, the ataxic condition might be a perpetuation of the nervous conditions to be noticed in rickets.—Dr. J. KINGSTON FOWLER had met with three cases of this class in a well-to-do family. Three members of one generation were affected; two boys, aged 14 and 5 respectively, and a girl, aged 9. In all the cases, the symptoms followed the course described by Friedrich. In none had the onset of symptoms been preceded by any acute disease, but, in all, came on quite gradually. In none was there any affection of the pupil. The mother was very healthy. It was reported that the father was intemperate, and died of cancer, and some of his friends said that his gait was peculiar. The eldest boy, at the age of 9, exhibited marked erotic tendency, and had recently suffered from lightning-pains; in the girl, there was marked wasting of legs. The patellar tendon-reflex was absent in all the cases. There was no impairment of special or ordinary sensibility. There were two other girls in the family; the younger, aged 7, presented slight symptoms of ataxy.—Dr. ORMEROD said that there was more evidence than Dr. Althaus appeared to incline to admit that the disease was hereditary. Since writing his paper, he had met with a third family where two members of this generation both presented symptoms of Friedrich's disease. In this family, the mother was paralysed, though the patellar tendon-reflex was retained; she stated that her father had suffered in exactly the same way as her children. The pathological anatomy was not distantly related to that of locomotor ataxy. As in all the cases, the posterior columns were sclerosed, and were, apparently, the first part to suffer. One of the patients, whose history he recorded, had suffered from the mistake mentioned by Dr. Buzzard, as, in the early stage of her disease, she had been supposed to be suffering from hysteria.

Fatal Hæmoptysis: the Statistics of the last Fifteen Years of the Chest Hospital, Victoria Park; with Remarks upon Profuse non-fatal Hæmoptysis. By SAMUEL WEST, M.A., M.D.Oxon.—These statistics were confined to hæmoptysis in the limited sense of the term, and all cases were excluded which were due to the rupture of one of the large arteries, other than the pulmonary, into the trachea or bronchi, or through the lung, as in the course of thoracic aneurysm or new growth. 1. The cases numbered 26, 20 males and 6 males. 2. There was no special liability at any age. 3. Men were more frequently attacked than women, in the proportion of about three to one. 4. Chronic phthisis was the predisposing condition of the lung, and that often where there were but few clinical evidences of the disease. 5. Fatal hæmoptysis was rare in subacute cases of phthisis, and perhaps never occurred in acute phthisis. 6. The cause was ascertained in 17 out of 2 cases. In 11 it was aneurysm, and in 6 ulcerated vessel. 7. The distinction between aneurysm and ulcerated vessel was probably only one of degree. 8. The lesion was on the left side about twice as often as the right. 9. The source of the hæmorrhage was not necessarily found on the most affected side or in the most affected part. 10. Any cavity, whatever its origin or shape, might be the source of the hæmorrhage, provided it were chronic. 11. The favourite seat was in the middle of the lung near the periphery. 12. Certain facts about pulmonary aneurysms with regard to size, origin, shape, number, contents, and rupture, were referred to, an their pathology discussed. The causes of non-fatal and of fatal hæmo ptysis were probably the same, there being evidence to show that bot pulmonary aneurysms and eroded vessels might heal spontaneously.— Dr. PERCY KIDD said that he had had the opportunity of makin necropsies in thirty-five cases of fatal hæmoptysis. In thirty of thes cases, death had been directly produced in a very short space of time; i the other five, the patients had survived for periods varying from one t twelve hours. In thirty of the cases, death was due to rupture of a aneurysm. In one other case, several vessels were ulcerated; i another, ulceration of a bronchus into the pulmonary artery ha occurred; in one case, thehæmorrhage had occurred in connection wi the rupture of a hydatid cyst; in another, only an unruptured aneurys could be found. In nine cases where during life there had been hæmoptysis, he had found aneurysm of the pulmonary artery aft death. His figures did not agree with Dr. West's as to the side which the aneurysm was most often found. He had found it in nin teen cases on the right, and in twenty-one cases on the left side. the question of site, his experience was also somewhat at variance wi Dr. West's; the aneurysms in his cases occurred most often in t lower two-thirds of the lung, and were not very uncommon even at t base. Some explanation of this might, he thought, be seen in t fact that this part of the lung moved most in relation with t diaphragm. He had met with multiple aneurysms in eleven case there were as many as twenty-two in one case, six in another, three another, and two in eleven cases. Of the forty cases of pulmon aneurysm mentioned in his remarks, thirty-three had occurred in m and seven in women. Of the thirty-five cases of fatal hæmoptys twenty-eight were males and seven females. The ages of the patie varied from ten to fifty-six or fifty-eight years. He agreed with West so far as to believe that the cavity in which the aneury formed was nearly always chronic; but not always, for he had with three cases where the cavity was acute; all these cavities were the base of the lung, This fact lent further support to the theory t the increased mobility due to the movements of the diaphragm favou the formation of aneurysm; in more than half the cases, the aneur was not in the peripheral part of the lung. The size of the aneury he had observed, varied from that of a hempseed to a small oran With regard to the process of formation of these aneurysms, he thou that it was not due to propagation of change from the wall of cavity, for he had observed that the endarteritis, which was the prin lesion, was only present on the exposed side, and did not affect the w circumference of the vessel; this favoured the theory that the duction of the aneurysm was to be attributed to mechanical ca As to form, the aneurysms were generally sacculated, but some were fusiform. He found that thrombosis very commonly occur One case he had met with showed that hæmorrhage might be arre by pressure set up by laminated clot in the cavity outside the aneurys Dr. EWART made some remarks on the influence of alterations, em sematous and fibroid, of the lung, in producing alterations in pressu the pulmonary system, and so favouring the formation of aneury —Dr. C. T. WILLIAMS sketched the history of the discover pulmonary aneurysms, referring to the work of the late Dr. Pea and stating that Dr. Quain had brought forward the first specim England. Dr. Cotton was also one of the pioneers in this inq He thought Dr. West had failed to establish a direct sequence bet the cases of non-fatal and fatal hæmoptysis.—Dr. WEST, in reply, that he had desired to give only the statistical results of his experience, and had therefore not referred to the history of the in gation of the question.

MEDICAL SOCIETY OF LONDON.

MONDAY, FEBRUARY 23RD, 1885.

ARTHUR E. DURHAM, F.R.C.S., President, in the Chair.

Electric Accumulators in Surgery.—Dr. FELIX SEMON read a on electric illumination of the various cavities of the human faradisation, galvano-cauterisation, and electrolysis, by mea pocket accumulators chargeable at home, and illustrated it b monstrations of the constituent parts of the apparatus and the sary manipulations. The fundamental part of the apparatus little accumulator, four inches high, three inches broad, and quarters of an inch in thickness; the weight of it, when filled fluid, was eleven ounces. Such accumulators could be easily ch by means of a few Bunsen cells; several might be charged taneously; when charged, they retained sufficient electricity for ing purposes for from ten to fourteen days. The uses of the app were various; in the first place, for the illumination of the cavi

body—the mouth, pharynx, larynx, nose, ear, vagina, and rectum. this purpose, a convenient handle had been constructed, the lamp ıg fitted to the stem by means of a bayonet-joint. The instru- ıt did not get hot when in use. The intensity of the light was ılated by means of a small resistance-coil fitted to the handle of instrument. In the stem, a laryngoscopic or rhinoscopic mirror ıd easily be fixed. The accumulator could also be connected with ıall coil for faradisation, the batteries now in use for the purpose g thus superseded. Thirdly, the coupling together of three or accumulators, in the manner of an ordinary battery, enabled the titioner to carry out minor galvano-caustic operations at the pa- t's own house. Finally, the electro-motive force of one of these mulators might be made use of for electrolytic purposes. Dr. on also showed a small primary battery, not yet perfect in its de- , which might perhaps, at some future time, supersede the accu- ıtor.—The PRESIDENT congratulated Dr. Semon on the success of ıpparatus.—Mr. STOKER showed a small lamp for laryngoscopic ıoses, supplied by batteries direct.—Dr. SYMES THOMPSON and Dr. M. ORD bore testimony to the practical value of Dr. Semon's instru- t.—Dr. GILBART SMITH had met with great difficulty in warming nirror.—Dr. THUDICHUM preferred three or four Grove's cells to the mulator for ordinary purposes. He kept the arrangements for ection and graduation under his foot.—Dr. SEMON, in reply, said he thought Mr. Stoker's lamp too large. The great advantage ıe accumulators was their portability. He referred to Dr. Mac re's paper, describing a similar apparatus. The mirror could be ıed in one of the ordinary ways before attaching it to the handle

HARVEIAN SOCIETY OF LONDON.

FEBRUARY 5TH, 1885.

THOMAS MORTON, M.D., President, in the Chair.

se of Labour complicated with Ventral Hernia.—Mr. W. H· ·s read notes of this case. The hernia was situated in Douglas's h, and had gradually increased in size. Labour occurred at full ; and the tumour protruded with each pain. In an interval of Mr. Evans reduced the hernia, and terminated the labour by ps. The patient did well.—Dr. ALDERSON mentioned a case r his care, in which a tumour in Douglas's pouch had been dia- ·d as hernial, but proved to be cystic.—Mr. POWER and Dr. SIL- also made remarks.

rulent Ophthalmia in Infants.—Mr. COWELL's paper on this sub- ıad for its special aim to show that the large amount of blind- due to this disease could be avoided if (1) the people could be ıcted as to its dangers, and if (2) medical men universally recog- the futility of only temporising measures. The action of the halmological Society and their recommendations for checking the se were a move in the right direction ; but their appeal to the dents of the Poor-law Board had not been successful, owing to practical difficulties of time and cost. It seemed, therefore, that ·urden of the fight against this evil must fall upon the members e profession. This object could best be attained by unremittingly, ·y every means, endeavouring to diffuse a knowledge of the dis- ıd of its dangers, through the dispensaries, the clubs, the lying- stitutions, and the visitors of the sick poor. Prophylaxis was ext important duty. In respect of treatment, the first essential hat no time should be lost. The indications were (1) to remove onjunctival discharge as rapidly as it formed, (2) to relieve ten- (3) to watch and treat the complications. In addition to the rules of treatment, Mr. Cowell recommended that the affected should be cleansed every quarter of an hour with weak antiseptic n, and the conjunctivæ painted with solution of nitrate of silver to six grains to the ounce) daily in severe cases, twice or thrice a in mild ones, the free solution being washed away with anti- c lotion. When there was much discharge, alum or boracic might be added to the lotion. The *cul-de-sac* under the upper d required careful washing out. The ablutions might be less fre- t during sleep, and gradually diminished as the discharge les- L. Where severe chemosis occurred, early scarification was neces- —Mr. JULER inquired whether severe cases could be diagnosed from milder ones. He quoted some investigations of Dr. Wid- : (*Revue Générale d'Ophthalmologie*, September 1884), in which ty-two cases of purulent conjunctivitis had been examined (four ts, and eighteen infants). Bacteria, described as gonococci, were l in the majority in the fluid, in the pus-cells, and in the epi- al cells. In the adults, he discovered gonococci in the urethral tion; and in the infantile cases, in the urethral discharge of the ıer. The gonococcus was absent in six of the infantile cases, which ran a mild course. The antiseptic lotion used for the ablutions should be weak (0.5 per cent. carbolic or boracic acid). The conjunctivæ, if severely swollen, should be freely scarified ; and, if eversion of the upper lid were impossible, the outer canthus should be divided.—Mr. H. POWER said that, when due to gonorrhœa, cases were likely to do badly unless they received skilled treatment early. On a wide average, cases, if seen in the first week, would recover ; if in the second week, they would run a dangerous course ; if in the third week, they were hopeless.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

FEBRUARY 6TH, 1885.

J. H. BELL, M.D., President, in the Chair.

Specimens.—Dr. JAMES ALLEN showed a section from a Concretion in the Kidney, exhibited at the last meeting, the structure being true bone. He also showed sections of Osseous Plates from the Membranes of the Brain.

Dr. EDDISON showed a specimen of Microsporon Furfur from a patient in whom the growth took the unusual form of rings.

Dr. GRIFFITH showed a series of specimens illustrative of various forms of Malignant Infiltration of the Liver, including carcinoma and lympho-sarcoma. He also showed a series of specimens of intestinal ulceration.

Dr. N. WILLIAMS showed a case of Hydatid of the Liver treated by opening and drainage ; also a case of Popliteal Aneurysm in a man, treated by ligature of the femoral artery.

Dr. JACOB showed a case of Tumour of the Vocal Cord by means of a new electric light, in which the lamp was attached to the laryngeal mirror. This instrument, and another form of electric lamp for surgical purposes, were lent by Messrs. Reynolds and Branson.

Lead-poisoning.—Dr. CLIFFORD ALLBUTT spoke briefly on two cases of lead-poisoning. In the first case (a man, aged 60), an indefinite cachexia alone existed, with much general debility. There was no definite colic nor constipation, and no relative weakness of the extensors. The gums were devoid of teeth. A sudden attack of lead-colic in the son betrayed the cause, and the source of the poison was found in the water-supply. In the second case, a man, aged 50, had been long treated for hypochondriasis. An estimate of urea proved the renal excretion to be very deficient ; and, on renewed attention being given to the urine, fleeting traces of albumen were discovered. A faint lead-line was found on the gums, and traced to his occupation. Dr. Allbutt inquired whether, in plumbism, there might be a stage of defective nitrogenous excretion preceding the signs of organic renal disease.

Estimation of Urea.—Dr. CLIFFORD ALLBUTT showed Squibb's apparatus for the estimation of urea, and spoke highly of its ready usefulness, urea being by its means easily estimated in the course of an ordinary consultation.—Dr. JACOB referred to the various forms of this apparatus, and the practical accuracy of the process without consideration of temperature and pressure ; he also referred to the rarity of cases of plumbism in Leeds.—Dr. Little, Dr. Hellier, and Dr. Chadwick joined in the discussion.

Glaucoma.—Mr. HEWETSON showed a girl aged 18, in whom an attack of acute glaucoma occurred in one eye in October last. When first seen, the attack had lasted five days. All the symptoms were those of an ordinary attack of acute glaucoma, accompanied by almost entire loss of vision. After the instillation of eserine, an iridectomy resulted in a rapid diminution of intra-ocular pressure, and consequent improvement of vision. At the end of a week, after the operation, she was able to read Jäger 1 fairly well. He remarked on the rarity of glaucoma in one so young, and the necessity of early iridectomy.—Mr. HARTLEY doubted whether an eye, which presented no abnormal appearances save as the result of an iridectomy, could be said to have been the site of an ordinary acute glaucoma. There was no evidence of any of the ordinary pathological phenomena of glaucoma having taken place, and it was not likely that any sudden transudation into the vitreous body should have as suddenly subsided as to allow the vision to improve as it had done in this case.—Mr. PRIDGIN TEALE had seen a case of subacute glaucoma in a girl about 16, fifteen years ago.

Abscess between Diaphragm and Liver.—Mr. PRIDGIN TEALE related a case of abscess discharging through the lung, originating between the diaphragm and liver, which was cured by incision and drainage through the pleural cavity. Within six months of the operation, the patient was in vigorous health.—Dr. C. J. B. JOHNSON had seen the case, and had followed out the after-treatment. The principal difficulty arose in the occurrence of severe dyspnœa after the

operation, through admission of air to the pleura, the other lung being, at the time, partially solid. This was obviated by covering the wound with absorbent wool, and that by adhesive plaster. Recovery then was uninterrupted.—Dr. JACOB referred to the use of India-rubber suction-balls in similar cases, as had been recommended in cases of empyema.—Dr. BARRS spoke as to the absence of bad symptoms when the chest was opened in empyema.—Mr. MAYO ROBSON remarked on the difference between a healthy pliable pleura and one thickened by disease, as in empyema.—Dr. CLIFFORD ALLBUTT drew attention to the "anginiform" pains experienced, among other pains, by the patient. He reminded the meeting that a condition of intense orthopnœa and anginiform agony might be caused by diaphragmatic pleurisy, which could be inferred from the entire absence of any pneumocardiac signs.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

FEBRUARY 12TH, 1885.

W. A. GARRARD, M.R.C.S.Eng., President, in the Chair.

Perihepatitis, causing Strictures of Biliary and Pancreatic Ducts and Cystic Enlargement of Pancreas.—Dr. BANHAM exhibited a specimen showing strictures of the cystic and common bile-ducts. The pancreatic duct opened into the diseased portion of the common bile-duct, so that both pancreatic and biliary secretions had been shut off from the duodenum, with the effect of causing considerable cystic enlargement of the pancreas (the organ being fully twice its normal size) and dilatation of the hepatic ducts. The liver was enlarged and indurated, and there were marked evidences of old attacks of perihepatitis. The chief symptoms had been jaundice, distressing itching of the skin, and rapid emaciation. The morbid conditions were supposed to be due to syphilis.

Feeding of Parturient Women.—Mr. BALDWIN made a few remarks on the feeding of patients immediately following lying-in, suggesting full diet of meat and light wine, even on the day of confinement. He brought forward 234 consecutive cases in which this treatment had been adopted without the loss of a patient, with very little necessity for any further medicine, and with marked relief to the constipation of the first week; the women being physically stronger at the end of the usual lying-in period.

Charcot's Joint-Disease.—Mr. C. ATKIN showed a case of Charcot's joint-disease occurring in the practice of Mr. A. Jackson, at the infirmary. The patient, a joiner, aged 37, with a previously healthy history, applied, some months ago, with a painless swelling of the left knee-joint. As moist sounds, etc., were to be heard at the apices of the lungs, it was at first diagnosed as hydrarthrosis in a tubercular subject. A fortnight ago, the state of his pupils attracted attention, and all the commoner symptoms of locomotor ataxia were discovered. The relaxation of the ligaments of both knees was best shown by laying the patient down, pressing the thigh against the couch, and then bending the leg forwards on the thigh. This was less marked in the right knee, but more so in the left, where there was also free lateral movement. Mr. Atkin considered that this case, as well as the one brought forward by him two years ago, effectually negatived the "friction traumatic theory." The joint-lesion, in the first case, came on whilst lying in bed, with a "nerve-cyclone;" in this one, the arthropathy preceded the ataxy.

Thoracic Aneurysm.—Dr. PORTER exhibited a case of thoracic aneurysm. An engineman by occupation, 48 years of age, had had a good deal of heavy lifting. There was no history of syphilis or rheumatism. Fifteen years ago, the patient received a severe injury to his head by the fall of a trap-door, and a scarf-pin, which he wore at the time, was driven into his chest for an inch and a half. For the last two or three years he had complained of pain behind the sternum, and of attacks of dyspnœa and palpitation; and, for three or four months, of neuralgic pain down the left arm. The aneurysmal tumour was visible to the left of the sternum, in the third or fourth intercostal space; and a loud, rough, double murmur was audible over it. There was considerable cardiac hypertrophy, and high arterial tension; but there was no inequality in the pulses of opposite sides, or of the upper and lower limbs. There were no marked signs of venous engorgement, or other pressure-symptoms. The patient had a troublesome cough, and the respiratory murmur was deficient on the left side, with some dulness and moist *râles* at the left base. Dr. Porter alluded to the unusual situation of the tumour to the left of the sternum. He concluded that it was a sacculated aneurysm, springing from the concavity of the ascending arch.

Treatment of Phthisis.—Dr. HUNT read this paper, and argued that the disease was a modern one, and pointed out that the countries most free from the disease were the northern and colder regions. He strongly recommended the selections of such countries for the cure of phthisical patients. Dr. Hunt expressed himself very sceptical on the medicines as remedial agents, and strongly repudiated the course of certain authorities in recommending them as cures. He had extensively employed antiseptic inhalation, but without any marked success, and was disposed to rely very little upon its potency. Iodoform was another remedy that had been tried, but the results were not such as to warrant him in recommending it in the disease. Dr. Hunt closed his paper by expressing the opinion that, in the future, the treatment of phthisis would come more under the domain of surgery than it had done in the past. The time, he thought, would come when the drainage of a lung-cavity would be as recognised as the drainage of an abscess of the hip.—Mr. Browning, Mr. Baldwin, Dr. Banham, and Dr. Dyson joined in the ensuing discussion.

MIDLAND MEDICAL SOCIETY.

FEBRUARY 4TH, 1885.

T. H. BARTLEET, F.R.C.S., President, in the Chair.

Inversion of the Uterus.—Dr. MALINS described a case. The patient, aged 19, was confined with her first child on June 1st, 1883, after an easy labour, attended by a midwife. She had tedious convalescence, owing to continued hæmorrhage, and became anæmic and weak. She was admitted into the General Hospital on October 24th, several attempts at reduction having previously been made. The uterus was found to be dense, completely inverted, and involuted, the vagina tense and capacious. Under ether, an attempt was made by taxis, steady pressure applied for an hour, without any impression being made in reducing it; a further trial was also made about a week later. On November 20th, the abdomen was opened in the middle line, a strong silk thread passed through the fundus into the vagina, and a button fastened on the distal side. Considerable traction was made on this ligature, with counter-pressure by one hand, without any yielding; this was persisted in for nearly an hour. The wound was closed. There was much shock, the temperature going up to 104°, and the pulse becoming quick for eight or nine days—120 to 140. On December 21st an elastic ligature was put round the base of the uterus in the vagina. On January 1st, the uterus was detached; the stump healed well; there were no bad symptoms, and the patient was discharged cured January 14th.

Syphilitic Gummata about Knee.—Mr. J. W. TAYLOR showed a case of congenital syphilis in an adult, with gummata around the left knee-joint. These, which had been noticed from childhood, and at one time seriously interfered with locomotion, had greatly diminished in size under prolonged treatment; the tumours remaining had probably undergone changes preventing further absorption. Some syphilitic symptoms had been observed in children of the third generation.

Muscular Atrophy due to Lead.—Dr. SUCKLING showed a case. The patient, a man aged 41, had been a gas-fitter. The interosseous and extensor muscles in both upper extremities were wasted, and the *main en griffe* was present in both hands. There were no electrical alterations. Dr. Suckling considered that the case was one of simple muscular atrophy, and not progressive, for the following reasons: 1, the weakness was far in excess of the atrophy; 2, there had been marked improvement under the administration of iodide of potassium; 3, the paresis came on somewhat suddenly.

DONATIONS AND BEQUESTS.—The Eastern Counties Asylum for Idiots at Colchester, has received £500, additional, from "An Anonymous Friend," and one hundred guineas each from "A Friend," (per Mr. W. Millard), Mr. Arthur Woolton, Messrs Gurney and Co., and Messrs. Lacon and Co., towards the enlargement fund. Mr. Matthew Whiting has given £500 to King's College Hospital.—The Great Northern Central Hospital has received £500 under the will of Mr. George Vaughan, of Westbourne Terrace. —Mr. Barbour, of Bolesworth Castle, bequeathed £500 to the City General Infirmary.—Mrs. Elizabeth Lewis, of Clevedon, bequeathed her shares and interest in the local Gas Light Company to the Dispensary, and all her shares, stock, and interest in the local Water Company, to the Cottage Hospital.—Mr. Benjamin William Bevan, of St. Leonard's Terrace, Chelsea, bequeathed £100 to the London Hospital. The Rev. E. Wyndham Gooden, of Compton, bequeathed £100 to the Yeatman Hospital, Sherborne.—"P. S. P." has given £100 to the Royal Hospital for Incurables; "M. G. S." has given £100 to the Earlswood Asylum for Idiots.—The Goldsmith's Company have given £100, additional, to the Middlesex Hospital, and £100, additional, to the Great Northern Central Hospital.

REVIEWS AND NOTICES.

e Science and Art of Surgery. A Treatise on Surgical Injuries, Diseases, and Operations. By John Eric Erichsen, F.R.S., LL.D., .R.C.S., Surgeon Extraordinary to Her Majesty the Queen, Ex-resident of the Royal College of Surgeons of England, etc. Eighth dition; Revised and Edited by Marcus Beck, M.S. and M.B.Lond., .R.C.S., Surgeon to University College Hospital, and Professor of linical Surgery in University College, London. Two volumes. lustrated by 984 Engravings on Wood. London: Longmans, reen, and Co. 1884.

he case of a text-book of over thirty years' standing, treating of a ect so essentially progressive as Surgery, every new edition de-es notice and invites criticism in the pages of medical periodicals. nis instance, a new edition can never be a mere reprint; it is ıtially a new book. Compare "Erichsen" before the days of low with "Erichsen" after the publication of Bigelow's work, or pare the editions of the *Science and Art of Surgery* before with after the promulgation of Pasteur and Lister's theories and ice. Putting aside these very obvious changes due to great dis-ies, it must be admitted that every subject in the text-book re-s revision in every new edition.

the preface to the present edition, Mr. Erichsen says that, feel-hat the labour demanded by such a complete revision of his book s necessary to bring it on a level with modern surgery was er than he could now undertake single-handed, he sought and ned the co-operation of Mr. Marcus Beck, of whose competency ıe task the pages of the work bear ample testimony.

e two volumes (exclusive of indexes) have been increased from nd 997 pages, the number in the seventh edition, to 1130 and pages.

will point out briefly some of the principal changes that have introduced.

the first division, that on First Principles, we find more copious ions for making incisions than in the previous editions. Next, is a description of the means of preventing hæmorrhage during tion, including a history of the tourniquet, and instructions for pplication of Esmarch's elastic apparatus. Directions are also for the manual compression of various arteries.

the chapter on Amputations, Mr. Erichsen has added an interest-ummary of the history of the operation, and of the different ods of performing it, and has expanded the practical directions performance. The causes of death after amputation are more etely discussed than before; and special attention is drawn to fluence of the development of septic disease, and to the influence antiseptic method in reducing especially the mortality from ia.

description of the pathology of Inflammation has been greatly ed; it has, in fact, been rewritten. The section on the causes ammation has also undergone a thorough revision and expan-and the action of the chemical products of putrefaction and of genic organisms is fully discussed. At the end of the chapter lammation is added a section of about two pages on Catarrhal ımation, or that form of inflammation which affects mucous ranes and other surfaces covered with epithelium.

chapter on the Process of Repair has been enlarged to double mer size; and the phenomena which take in the healing of s are thoroughly described, some drawings of microscopic struc-eing introduced.

the second division, that on Surgical Injuries, in the r on Gunshot-wounds, the application of antiseptics in y surgery forms the subject of some practical remarks, founded on the experience of Bergmann and Reyher.

he chapter on Poisoned Wounds, two sections on Malignant e and on Glanders have been introduced.

chapter on Injuries of Nerves, Muscles, and Tendons, has been enlarged, especially with regard to the treatment of injured and of traumatic neuritis. A description of nerve-stretching is

he chapter on Injuries of the Head, the practical application of etrine of cerebral localisation, founded on the researches of and Ferrier, is made; and the rules which should guide the n as to the point where he should apply the trephine, as laid by Lucas-Championnière, are given.

the third division, that on Surgical Diseases, the chapter on Diseases arising from Septic and Infectious Processes in Wounds has undergone much modification; and special sections on Wound-diphtheria and on Spreading Traumatic Gangrene have been introduced.

The chapter formerly headed "Pyæmia" is now entitled "Septicæmia and Pyæmia;" and includes a summary of the results of the most recent researches as to the pathology, course, and treatment of these affections.

Considerable additions have been made to the chapter on Diseases of Bone, or, as it is now entitled, Inflammation of Bone and its Effects; and the various forms of periostitis and osteitis are adequately described.

In the chapter on Diseases of Joints, we find a fuller description of white swelling, and rheumatoid arthritis, and a section on Charcot's "Arthropathies."

In the chapter on Diseases of the Mouth and Throat, the sections on Diseases of the Tongue have been expanded, and descriptions of psoriasis or ichthyosis of the organ and of tubercular ulcer are given. In describing the methods of removing the tongue, a notice of Whitehead's method of excising it by scissors is introduced.

In the chapter on Operations on the Air-tube and Chest, the surgical treatment of empyema is more fully described than in the previous edition, and a section on tapping pulmonary cavities has been added.

Several pages of practical remarks on the chief sources of danger in operations on the abdomen, namely, septic peritonitis and septicæmia, shock, and hæmorrhage, are prefixed to the description of hernia. In the description of the radical cure of hernia, notices of Spanton's and other recent processes are introduced.

In a subsequent chapter, a series of sections on operations on the abdominal viscera—namely, enterectomy, colectomy, excision of the pylorus, operations on the liver and gall-bladder, extirpation of the spleen, and on diseases of the umbilicus, have been introduced.

A new chapter, entitled Surgical Operations on the Kidney, has been added to the work. It contains descriptions of stone in the bladder, calculous pyelitis, tubercular and scrofulous kidney, and other affections of the organ; and of the operations of aspiration of the kidney, nephrolithotomy, nephrotomy, and nephrectomy.

Among other additions may be mentioned the descriptions of Sir Henry Thompson's method of removing tumours of the bladder, and of Bigelow's operation of litholapaxy or lithotrity at one sitting.

The chapter on Ophthalmic Surgery, which appeared in recent editions, has been judiciously omitted, the author having felt that "it would be better to omit so very limited a part of ophthalmology as that which concerned only its operations, when the diseases for which they were practised could not be described."

After what has been already said, it is scarcely necessary to remark that Mr. Erichsen has paid regard to all recent improvements and researches, great or small. He has also attended to the rejection of error and effete practices. Here, however, we meet another question. Science is fertile; the birth of new researches exceeds the death-rate, as we may term it, of old ideas; and so it is also with practical surgery. This fact greatly influences medical literature, for it follows that new editions tend to grow too bulky. Emigration is the remedy for overpopulation, and it would be advisable if the authors of text-books on the practice of surgery, or even on the science of surgery, would henceforth encourage their younger readers to emigrate to special works on pathology, rather than to attempt the study of that now complicated science in their own pages. A very large majority of students, it is well known, invest their money in special text-books on pathology, although they already possess general treatises, including the *Science and Art of Surgery*, where much pathology is mingled with clinical surgery.

The treatise under consideration is truly an admirable new edition, replete with essentially surgical teaching. It is bulky, but the student must master it if he desire to possess a fair knowledge of his profession. Though the first volume contains seventy pages less than the second, we believe that it might with advantage be yet further reduced in size, by the omission, for instance, of engravings fully explaining the application of drainage-tubes, and much of the purely pathological matter concerning germs and tumours the volume contains. It is scarcely necessary for us to note that the passages on the clinical aspects of septic diseases are excellent. The inclusion of purely scientific details need not be considered a disadvantage to the practitioner, who does not care to encumber his shelves with new works on pathology and antiseptics. To him this work is a *multum*, not exactly *in parvo*, but at least within two volumes.

The new illustrations, which have been increased in number from 862 to 984, reflect credit on the writer who selected them, as well as

on the artist who executed them. We are glad to note plenty of engravings of instruments and appliances, and only hope to see more in a future edition; thus, a sketch of a surgical sole for flat-foot would be of more value in Mr. Erichsen's pages than drawings of oxalate of lime crystals, or of micrococci in erysipelatous tissues; nor need our author fear an abundance of illustrations explaining minor surgery, bandaging, and dressing. How much benefit has been done to suffering humanity by the author's lucid and freely illustrated directions for the application of the starched bandage in fractures! That is the kind of knowledge which the learner seeks in a text-book on surgery, and that is precisely what a text-book can teach him. We must add under this category the passages on operations, which are as perfect as verbal descriptions possibly can be.

To conclude: Mr. Erichsen's *Science and Art of Surgery* is thoroughly up to the mark as a sound practical guide, and as such should be in the possession of every student and of every surgeon. The author may be congratulated on the efficient manner in which his desire to improve his book has been carried out by Mr. Marcus Beck, Mr. Meredith, and other gentlemen whose assistance he has obtained.

THE INTERNATIONAL ENCYCLOPÆDIA OF SURGERY: A Systematic Treatise on the Theory and Practice of Surgery, by Authors of Various Nations. Edited by JOHN ASHHURST, jun., M.D. Illustrated with Chromo-Lithographs and Woodcuts. In Six Volumes. Vol. v. London: Macmillan and Co. 1885.

THE fifth volume of Dr. ASHHURST's great *Encyclopædia* is a production that we can contemplate with satisfaction, and criticise with approval. It is a great improvement on several of its predecessors, which include vast stores of information generally of value, but not always arranged in a manner suitable either for serious study or for casual reference. In this volume, as in those previously issued, many of the articles are distinct works in themselves, often exceeding in bulk an average manual on any special subject, but in none is there any excess of matter, and all teem with details of interest. It is restricted to authors of British or American nationality, containing not one single article that is written by a native of the continent of Europe. Out of the total fourteen, half the contributions are from the pen of American surgeons, in four cases the author is an Englishman, in two a Scotchman, and in one an Irishman. Of the general appearance of the work it is unnecessary for us to speak, since we have repeatedly criticised the same in reviewing earlier volumes; moreover, the external appearance of the *Encyclopædia* must be familiar to our readers. The woodcuts are, on the whole, better than in the earlier issues, but still leave much to be desired; and, as before, some of the chromo-lithographs are neither instructive nor artistic.

Dr. Nancrede, of Philadelphia, takes the lead in the fifth volume with his essay on "Injuries of the Head." It contains copious references, and some excellent original clinical reports, especially in the department relating to cerebral abscess. He attaches importance to cerebral localisation, but considers that the chief advantage to be gained at present from our improved knowledge of cerebral topography, is that it will direct the surgeon in many cases when to withhold operative interference. In treating of the use of the trephine, Dr. Nancrede insists on the uselessness of acting upon the terrible statistics of Fritze, Otis, Pirogoff and others, laying great stress on Mr. Walsham's valuable investigations, which prove that, in many of the too numerous instances of death after trephining, the fatal result was due not to injuries of the head, but to lesions of structures within the cavities of the trunk. Dr. Nancrede is in favour of early trephining, yet believes that it is never too late to operate, since a sufficient number of cases have recovered after trephining for cerebral abscess, the most unsatisfactory affection for which the operation is ever performed. Of 150 cases of preventive trephining collected by Walsham, Briggs, and Dr. Nancrede, only 33, or 22 per cent., proved fatal; whilst 66 deaths followed 125 operations performed after the supervention of symptoms indicative of brain-disease produced by injury to the skull, a mortality of 52.8 per cent. In many of the preventive cases, the evidence that deadly results would have followed expectant treatment is very strong.

At the operation, Dr. Nancrede places the instruments in a five per cent. solution of carbolic acid, and the sponges in corrosive sublimate, one part to two thousand of water, with which solution the wound also should, he considers, be kept more or less constantly irrigated. The scalp, according to his recommendations, is cleansed by a solution of two parts of turpentine in fourteen of alcohol.

Mr. Treves contributes a chapter on "Malformations and Diseases of the Head," including observations on erysipelas, hæmatoma sebaceous cysts, and other affections of the scalp, and some interestin paragraphs on fungus of the dura mater. The article on "Injurie and Diseases of the Eyes and their Appendages," is, relatively to a average contribution in the *Encyclopædia*, somewhat brief. The autho is Dr. E. Williams, Professor of Ophthalmology in Miami Medic College, Cincinnati. His style is very clear and concise, and w regret that he is obliged to admit that his space will not allow fu details on diseases of accommodation. The evils of neglected hyperm tropia and astigmatism are passed over in silence, and the article w written before the days of cucaine. Dr. Buck, of New York, has co tributed a more complete monograph on "Injuries and Diseases of th Ear." It is illustrated by some of Politzer's plates, representing th different appearances observed in diseases of the membrana tympan on exploration with the aural speculum.

To Dr. Lefferts, of New York, the *Encyclopædia* is indebted for very complete article on "Diseases and Injuries of the Nose and Accessory Sinuses," decidedly one of the best in the whole fi volumes, and invaluable for purposes of reference. Dr. Post, of N York, has written a good chapter on "Injuries and Diseases of t Face, Cheeks, and Lips." We must give the author an honoura mention for the care with which he has collected and given f reference to modern contributions on division of branches of the fi nerve for the cure of neuralgia, and for his good and copiously ill trated description of cheiloplastic operations.

It is needless, even would space permit us, to dwell on Mr. Chris pher Heath's "Injuries and Diseases of the Mouth, Fauces, Tong Palate, and Jaws." His authority on the subject is universally rec nised, and his views, as embodied in the *Encyclopædia*, are well kno from his previous writings. Dr. Kingsley's paper on the "Surgery the Teeth and Adjacent Parts" is short, and not adorned by any ill trations. We cordially endorse the author's observation that "th is no preparatory training which the general surgeon could add to other necessary acquirements at all comparable to a mastery of operations in dentistry." Dr. G. H. B. Macleod, of Glasgow, written the chapter on "Injuries and Diseases of the Neck." includes some valuable passages on bronchocele, and other tumours this part of the body.

Dr. J. Solis-Cohen's "Injuries and Diseases of the Air-Passages one of those large treatises, bearing the proportions of a distinct w with which we are already so familiar in this *Encyclopædia*, and i one of the best of those ambitious productions. It is impossible to it full justice in these columns; we must content ourselves bestowing special praise on the author's tables of complete laryngo mies, including and supplementing those of Mackenzie, Foulis, Bl and Burow, and on his remarks on tracheotomy and morbid grow of the larynx. The illustrations of instruments, phonatory appara etc., are especially useful.

Ireland is worthily represented in this volume of the *Encyclop* by Dr. E. H. Bennett, who has undertaken the department w treats of "Injuries of the Chest." This article is brief, as the su involves many questions discussed in other contributions. Thu speaking of the treatment of pleural effusions, Dr. Bennett refe the article on "Excisions" when referring to resection of the ri cases of empyema. Mr. Annandale's chapter on "Diseases of Breast" is, for similar reasons, somewhat limited in its proport We should have liked to have seen more of the author's opinions, could well have spared the only drawing, a remarkably gaudy uninstructive chromo-lithograph.

We must bestow some special consideration on Mr. Henry Mo "Injuries and Diseases of the Abdomen," which bears the characters as Dr. Solis-Cohen's contribution, to which we have referred, and deserves equal commendation. It takes up a hun and sixty pages, and teems with useful information. With rega articles of this class, we must express considerable regret tha index to each volume of the *Encyclopædia* is not more com Thirty-nine pages of Mr. Morris's monograph are devoted to th portant subject of penetrating wounds of the abdomen, includ brief sketch of those that are made by the surgeon. The autho displayed great industry in collecting literary records of injur special viscera, such as the instructive case of Archbishop Affre received a fatal injury to the left ureter from a gunshot-wound d the Revolution of 1848 in Paris; nor are certain injuries that, their great rarity, must practically rank as curiosities, entirely lected. Thus allusion is made to two recorded cases of wounds thoracic duct, and a case of real surgical and physiological inte noted under the heading "Wounds of the Suprarenal Capsule." patient in this instance lived four weeks with a bullet in th suprarenal capsule, without any shock at the outset, nor any

quent symptoms of profound impression on those great nerves so timately associated, as Kölliker has shown, with the capsule. Passg over some interesting pages on fistulous passages in the abdominal all, we come to an elaborate section on "Abdominal Abscesses." We e glad to find that the author substitutes the scholarly adjective perinephric" for the barbarous bilingual term "perirenal," which is a par with such words as "hypersecretion," a noun substantive to found in several parts of this volume of the *Encyclopædia* (for exnple, p. 418), and in many current samples of medical literature on th sides of the Atlantic. Mr. Morris dwells on the hydrolpinx and pyosalpinx question at considerable length, giving the ell known statistical tables of his colleague Dr. Fowler, and strongly pporting the practice and opinions of Mr. Lawson Tait. Cysts of the dominal viscera are also carefully described; and, as might be pected, Mr. Morris's paragraphs on renal surgery are of the highest lue. As this surgeon's opinions on the subject are well known, and ve frequently and recently been made public in our columns, is needless for us to criticise them here. We are very glad to find at he does not advise precipitate operating for the relief of floating dney. Lastly, Mr. Morris speaks of the new operations to which we cently alluded in a leading article on the Surgery of the Stomach ebruary 21st, 1885); and, as a proof that he is well up to time, ofessor Loreta's practice of digital dilatation of the pyloric and car- ac orifices of the stomach is not overlooked.

The last article, on "Hernia," is from the pen of Mr. John Wood, d this is sufficient to assure the reader of its value and excellence; r would any review of the author's well known opinions be of vice, even if space permitted it. The subject of the radical cure of rnia has very recently been made prominent in the JOURNAL. Mr. ood states that the limits of his article do not allow him to consider numerous ways in which a permanent cure has been sought for, d contents himself with describing those methods which his own perience has found to be most favourable for the desired end.

In conclusion, we must repeat, after a searching criticism of the ny merits and few defects of Dr. Ashhurst's colossal literary ven- e, that the fifth volume of the *International Encyclopædia of Sur- y* is a work of the highest value. When reviewing the second ume, we expressed our hope that the title "International" would more justified in the remaining parts, and that hope has been lised. We have also more than hinted that better engravings uld be advisable, and in Volume v we certainly find fewer bad ones. look forward with great interest to the sixth and concluding ume, earnestly hoping that the editor, whose task merits the dial approval of every English-speaking surgeon, will pay some iely regard, if not already too late, to the woodcuts, will spare us more chromo-lithographs, and will conclude his labours with a duction as replete with valuable monographs as that which we e here reviewed at length.

EASES OF THE SPINAL CORD. By BYROM BRAMWELL, M.D., ecturer on the Principles and Practice of Medicine, Extra-Academical School of Medicine, and Pathologist to the Edinburgh oyal Infirmary. Second edition. Edinburgh: Young J. Pentand. 1884.

AT this work should have reached a second edition so soon after appearance of the first, is alone a proof of its popularity and esteem it is held in by the profession. This has been further denced by its translation into the German, French, and Russian guages, which shows the appreciation of the book in other countries des our own.

Nearly three years ago (May 20th, 1882) we expressed our opinion the first edition of this work; and our views of the second, now re us, are, if possible, more favourable, owing to the addition of se improvements which experience and the advance of knowge have suggested. We then stated that the work of Dr. AMWELL brings before its readers a complete summary of all the nt investigations on the subject of which it treats, and may be , in a word, to lay before the profession, within moderate limits, the knowledge we at present possess concerning the pathology of spinal cord. In the new edition, while the original plan of the k has been, as far as possible, adhered to, every page has been iected to careful revision. The sections devoted to the pathology ndividual lesions have been placed under the special diseases, the tional affections have been more fully considered, while a conrable space has been given to the important and difficult subject ncussion of the spine, and the method of examining railways.

THE BRADSHAW LECTURE ON THE PATHOLOGY OF CANCER. By W. S. SAVORY, F.R.S. London: J. and A. Churchill. 1885.

MR. SAVORY believes that much confusion is caused by want of clear understanding as to the precise meaning of words. In the debate at the Pathological Society, the word "constitutional" was used in very different senses by various speakers of authority.

Cancers are made up of primitive elements of normal (non-specific) type. This primordial character of the elements explains the behaviour of cancers. Throughout the animal and vegetable kingdoms, there is an antithesis between growth and development; and we find the innocent tumours limited in their growth, composed of highly organised bodies, while cancers and sarcomata, which grow indefinitely, are formed of the simplest tissues. Even cells vary in their development; they may be specialised and fully developed, or primitive indifferent corpuscles. The cells of an epithelioma are much more specialised than those of a cancer of the breast, and are correspondingly less malignant.

The infectiousness of cancer cannot be explained by any of the current theories, but may be understood by recognising this peculiarity of the cells, an inherent vital peculiarity which distinguishes them from typical embryonic cells, whose tendency is to organise. If we distinguish these classes of tumours, (1) innocent, (2) sarcomatous, (3) cancerous; in the first, we find the elements resembling those of the adult body; in the second, those of various stages in its growth; and in the third, the quite rudimentary elements of the primitive embryo.

In order to estimate fairly the character of a firm tumour, we should know (1) the family and personal history of the patient, (2) his age and period of life, (3) the physical character of the tumour, (4) its relation to surrounding structures, (5) its place and previous history, (6) its rate of growth, (7) its disposition to affect neighbouring parts.

The seat of a tumour has a great deal to do, within certain limits, in determining its course; thus the serious history of most cases of epithelioma of the tongue is probably due to their position in a vascular mobile organ, exposed to cons tant irritation. Tumours may be compared to parasites, but differ from them in not being inoculable. They are again comparable to hypertrophies, and no hard and fast line can be drawn between hyperplastic hypertrophy and tumours; but the true mode of origin of the latter is shrouded in mystery, which can be only penetrated when we have gained the key to the problems of normal growth and development.

NOTES ON BOOKS.

Gunshot-Wounds of the Small Intestines. By CHARLES T. PARKES, M.D., Professor of Anatomy in Rush Medical College, Chicago. Pp. 67. Cowdrey, Clark and Co. 1884.—This pamphlet gives the address of the Chairman of the Section on Surgery and Anatomy, read at the meeting of the American Medical Association, held in Washington, May, 1884. The subject-matter of this able contribution on abdominal surgery, and the lines followed by the author in his investigations, were suggested by the lectures of Dr. J. Marion Sims, published in the BRITISH MEDICAL JOURNAL in 1882. Dr. PARKES is a strong advocate of operative interference in cases of penetrating gunshot wounds of the abdomen, and his views in favour of laparotomy and against the expectant treatment, are supported by the recorded results of a series of carefully observed experiments on animals. This little work will be found useful by those likely to be engaged in active surgical work, whether in military or civil practice.

Leçons de Clinique Chirurgicale, faites a l'Hôpital Necker. Par le Dr. CHARLES MONOD, Agrégé a la Faculté de Medécine, Paris. Pp. 123. A. Delahaye and E. Lecrosnier. 1884.—This pamphlet contains full reports of six clinical lectures delivered at the Hôpital Necker, Paris. These lectures deal with tubercular disease of the testis, cancer of this organ in infancy, perforating ulcer of the foot, cancer of the breast, Estlander's operation, and the treatment of hare-lip. Each of these subjects is discussed very ably; and Dr. MONOD, in his remarks on the many points of practical interest suggested by his cases, has applied, in association with his own wide experience, a full knowledge of the recent work of English and German surgeons. The lecture on the Prognosis and Treatment of Cancer of the Breast is a lucid and very useful statement of the latest views on these questions, and the observations on Estlander's operation constitute an addition of some importance to our small knowledge of this procedure.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

DR. GORDON'S CLAVICULAR APPARATUS.

THE accompanying woodcut represents Dr. Gordon's clavicular apparatus, applied outside the dress. It consists of a body-plate and artificial clavicle or rod, riveted to a front arm-splint. To the anterior border of the latter is attached the second arm-splint. The



body-plate rests against the side, fore, and back part of the thorax. Anteriorly and internally, it has two knobs, and a screw affixed. The rod or artificial clavicle internally has a slit, which enables it to move inwards or outwards to accommodate itself to the varying size of individual patients.

NEW FORM OF SURGICAL CLAMP.

FOR the past year, I have been using in surgical practice the subjoined form of clamp, and can recommend the instrument for its simplicity, usefulness, and rapidity of action, when well handled. Messrs. Wright and Co., of 108, New Bond Street, W., are the manu-



facturers. The crushing or clamping is immediately effected by the powerful "Lion forceps" handles, and pressure can be indefinitely maintained or relaxed by the thumb-screw travelling on a quick thread.

I have used this clamp in many cases of hæmorrhoids, varicocele, radical cure of hernia, castration—in short, whenever soft structures have to be firmly held without any fear of their slipping out of grasp.

RICHARD DAVY, M.B., F.R.S.E., Surgeon to the Westminster Hospital.

MILK-TESTING.

WE have received recently an instrument, newly invented for this purpose, by Dr. Bond of Gloucester, together with a paper on the subject. As the subject is one of great interest to public analysts and to medical men generally, we will take the opportunity of making a few remarks regarding it. The specific gravity and the percentage of fat are two items peculiarly adapted for judging the quality of milk. Milk, as sold by farmers and dealers, is, with very few exceptions, the mixed yield of a number of cows, and the specific gravity of such an article in its natural state varies between 1030 and 1034 (water = 1000), and should never fall below 1029. The addition of any appreciable quantity of water will make itself perceptible by lowering the specific gravity, whilst, by the abstraction of cream, the specific gravity will be raised. But the last-named adulteration will be found out with greater certainty by determining the percentage of fat. As the amount of fat in milk varies in rather wide limits, it is difficult to fix a standard. In general, it may be said that milk naturally poor in fat is poor, too, in its other constituents. Skimming off the whole or part of the cream will, of course, diminish the percentage of fat in a noticeable degree; and adding water to milk will bring down the fat, as well as the other component parts.

It is therefore of considerable importance and interest to know the amount of fat present in milk, and the want of an easy means of determining it has long since been felt. The circumstance that the opacity of milk is due chiefly to the minute fat-globules, gave rise to the construction of instruments by means of which the degree of opacity could be determined, and which were called "optical milk-tests," or "lactoscopes." A good many lactoscopes have been brought out successively, the latest being that invented by Dr. Bond, of Gloucester.

Dr. Bond's patent milk-tester consists of a glass dish, about three inches and a half in diameter, and one inch in depth. A measure holding one ounce is to be filled with water and emptied into the glass dish. The milk is sucked up into a dropping-tube, and added to the water drop by drop, under continual stirring or mixing, until a pattern of parallel lines at the bottom of the dish ceases to be visible. The approximate percentage of fat is then found by comparing the number of drops required with the data of a table.

In a paper "On Milk as a Manufactured Article," read before a conjoint meeting of the Chamber of Agriculture and of the Sanitary and Economic Association at Gloucester, Dr. Bond says, when speaking of the optical tests, that "the more fat milk contains, the more opaque it is." This assertion, which is the principle and basis of all the optical tests, is fallacious. Setting aside other influences, it will easily be seen that it is not the quantity of fat, but the number of fat-globules, which cause a more or less high degree of opacity. The fat-globules in milk are of very varying size, and the proportion in which the different sizes are present in different kinds of milk is by no means always the same. Supposing two samples of milk contain quite the same percentage of fat, but the latter be present chiefly in globules of larger size in the one sample, and in globules of smaller size in the other; in this case, the former sample would appear poorer than the latter, when examined by means of a lactoscope. Again, differences in the kind and strength of light, and still more the optical faculty of the observer's eye, influence the results to a very great extent.

Dr. Bond thinks his own invention an improvement on the lactoscopes of Vogel, Feser, and Heeren; but this we cannot admit, as the first, and certainly the second, named instrument, is far superior. But, the principle of all the lactoscopes being wrong, neither Dr. Bond's nor Feser's can be recommended. Feser himself, when carrying out his fundamental experiments, found differences of .5 per cent. and the frequent occurrence of differences quite as large as that was confirmed by other investigators. The circumstance that the differences are sometimes on the *plus* and sometimes on the *minus* side makes them still more serious. It helps but little to find, for instance, 3 per cent. of fat indicated, if one may expect that 2.5 or 3.5 per cent. are actually present. Dr. Bond seems to feel something of the little satisfaction the lactoscope is able to give when he says: "If there is any doubt about the indication, recourse should then be had to the only exact method—namely, the separation of the butter-fat from the milk;" and he then recommends the lactobutyrometer as an instrument which is easily manageable, and can be used outside the chemical laboratory. Now, the doubt as to the indications of the lactoscope is, as we think to have sufficiently proved, present in every case. We therefore prefer the use of the lactobutyrometer, which, with scarcely more trouble, gives results which, in all ordinary cases are absolute, or almost identical with those obtained by chemical analysis.

MUNIFICENT BEQUEST.—Mr. Abner Coburn, Ex-governor of Maine, has bequeathed 100,000 dollars (about £20,000) to the Maine General Hospital.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 28th, 1885.

THE ROYAL COMMISSION ON THE HOUSING OF THE POOR.

E are by this time accustomed to official denials in most depart-nts of the State. If a premature announcement of any sort or kind made, one looks, as a matter of course. for an authoritative contra-tion ; and, equally as a matter of course, for a substantial corrobo-ion of the original story, when in the fulness of time the publica-n of the actual facts can be no longer delayed. Of such is the icle in a recent number of the *Standard*, professing to give a summary he recommendations upon which the Commissioners appointed last ion to inquire into the Housing of the Poor, have "practically eed." The Secretary of the Royal Commission is promptly in-cted to deny that the Commissioners have practically agreed to thing, the inaccuracy of the information being suggested rather n actually stated in plain English. It is admitted, however, that article is founded on a draft report which has been submitted to Commission ; and those who know anything of Royal Com-ions, and of the way in which their reports are compiled, will erstand from this admission how nearly to the truth the *Standard* come. No doubt, the final report of the Commission, when it ars in print, will be found to differ sufficiently from our contem-ry's version of the draft, to warrant in some sort the official al; though this will by that time have been, in all probability, ean forgotten as it is now discredited.

sperate as the *Standard's* offence against official propriety may t must be confessed that it has nothing very startling or novel ll us. We seem to have heard most of the suggestions of the missioners before, not enunciated, perhaps, with the dignity befits Her Majesty's delegates, but in language plain and un-kable nevertheless. The Commissioners say that what is wanted more legislation, but more will and energy in working what ly exists. They point to the power given to local authorities of ng by-laws as to houses let in lodgings, as one much more ired in the breach than in the observance. They recommend he sanitary law of the country, and especially of the metropolis, d be consolidated and codified. To go no further than our own ns, these suggestions have already been anticipated and reiterated s of times. But the Commissioners have forgotten that Acts of ment will not work themselves. We may have the most per-ad complete code of sanitary law ever devised, but if there be no motive power to work the machinery, how is it to be made to perform its functions? Recommendations of this kind look very well in print, but, by themselves, are in reality not in the least helpful, unless very stringent powers be vested in the central authority to enforce the fulfilment of the statute law, and the making and loyal carrying out of local by-laws.

There are too many instances on record of sanitary boards being captured by small property-owners, jerry builders, and other unscrupulous people, to warrant us in looking with a particle of hope to mere legislative patchings.

We need not discuss, at any great length, the financial side of the question. A great deal is made out of the possibility of lowering, by seven shillings and sixpence, the rate of interest at which advances can now be had from the State for erecting workmen's dwellings. If the Government have, as would appear to be contemplated, the general security of thec orporation or local board asking for the loan, as well as that of the land, and the artisans' dwellings erected thereon, then the Treasury can safely make the reduction suggested ; for most corporations can themselves borrow money in the open market at a trifle over 3½ per cent. ; but no reference of the financial question will be complete without a consideration of the problem of housing the very poor, those who live from hand to mouth, and have no regular employment. These are the people to whose case the Commission should and must bend their chief attention. The decent artisan in regular work, the labourers' dwellings companies and private enterprise will sufficiently well look after, without much troubling the Treasury. But are we, as a nation, to blind ourselves, by quibbles about a fraction of interest, to our grave responsibility for helping to more wholesome surroundings the miserable, the degraded, the shiftless of the community? And, be it remembered, the squalor of these poor wretches is not wholly their own affair. Infectious diseases strike indifferently the rich and the poor alike. The sickness of Lazarus may be the direct cause of the death of Dives. To think or hope that the nation can do its duty by its weakest brethren in this respect, and turn an honest penny into the bargain, is absolutely childish. If we would remove from our midst the standing menace to the public health and the public safety implied in the neglected aggregation of thousands of human beings in foul and pestiferous surroundings, then we must be prepared to pay, and pretty smartly, for it. This may be scouted as questionable political economy ; but a world governed on purely politico-economical principles would be a sorry place in which to live.

There is one point related to this matter about which we are sorry to find the Commissioners have not plucked up courage to be firm. Perhaps the most melancholy result of our legislation for the clearing away of rookeries has been the exorbitant amount of compensation which owners of condemned property have succeeded in squeezing out of the ratepayers. As has been forcibly pointed out, we do not allow compensation for the destruction of food unfit for human consumption. Why should we for houses unfit for human habitation? In democratic New York, they have got as far as this ; though, if the *Standard* is to be believed, Mr. Chamberlain is "particularly averse to the extension of such rigorous principles to house-property" in this country. The only suggestions the Commissioners find themselves able to make are that the law should recognise, as it does not now do, that overcrowding puts a premium upon property, and that opposition to the confirmation of a provisional order should be confined

to the grounds that the area is not an unhealthy area, or that the site is not really required for the scheme. The draft report sorrowfully admits that, even with these improvements, the system will still be very costly, compared with what is done in other countries.

Excellent in their way, but not calling for comment at our hands, are the suggestions for the simplification of the transfer of house-property, the appointment by the local authority of a committee for the transfer of land and tenements, the enlargement of the powers of trust-funds in cases where land for artisans' dwellings is concerned, and others in which the land-question is more or less involved. We are, probably, within measurable distance of a thorough and radical reform of our land-laws generally, and these suggestions would more properly come up for consideration when legislation in that direction is attempted. About the metropolis, the report comes, of course, to the inevitable conclusion that a reform in its local government is essential. As regards alterations in detail of the Public Health Act, the report proposes that increased powers should be given to the ground-landlords of leasehold premises to have effective control over sanitary improvements; and that authorities should be able to proceed against the fee-simple owners, or any other of those who hold intermediate interests between the owner and the actual occupier, for sanitary neglect. It is, further, strongly recommended that powers to impose penalties for the non-abatement of nuisances should be more rigorously and generally applied; that it be made punishable to own property not in a habitable state; and that an owner should be held civilly liable for any death or sickness that may be caused through his neglect, and summary procedure be provided for the recovery of damages in such cases.

The report recommends that the residence of medical officers of health should be within the limits of their respective districts. This principle would need much qualification before it could be accepted. In the metropolis, for example, it would appear almost wholly unnecessary. And again, how are the health-officers of large areas to manage? The Report does not go so far as to advise that private practice should be positively forbidden to medical officers of health, but thinks that it should be discouraged as much as possible. Not only is an increase in the number of inspectors recommended, but also a more careful selection, so that these officers may be efficient and acquainted with the character of their duties. More ample provision should be made for mortuaries, so that dead bodies should not be a source of contagion; and the prisons of Pentonville, Coldbath Fields, and Millbank, should be cleared away to provide sites for workmen's dwellings. Railway-companies should be required to rehouse persons displaced by demolitions, and should also be precluded from using the dwellings so substituted for any other purpose, without the consent of the local authority. Finally, the Report throws out some suggestions to the Board of Trade for extending the services of workmen's trains; and powers are sought on behalf of the local authorities to supervise gipsies and dwellers in vans and tents, and to apply the provisions of the Health Act to localities visited by hop-pickers.

All these suggestions are excellent so far as they go. But do they go far enough, and are they sufficient to cope effectually with the great and crying evil to which the national conscience awoke in the autumn of 1883? We think not, and trust, therefore, to see, in the final report of the Commission, recommendations more adequate to the purpose.

IS A CHOLERA-HOSPITAL A SOURCE OF DANGER TO THE NEIGHBOURING POPULATION?

This is a question which, by the latest accounts to hand, is agitating the minds of the community of Bombay. The extent to which cholera has prevailed in and about the city of Bombay of late years has much awakened the attention of the local Government. We hope we are not uncharitable when we express a suspicion that the conscience of the Government has been stimulated by the interest taken in this matter by powerful European nations who look to the safety of their own people, and, regarding Bombay as India's chief outpost seaport, in almost daily communication with Europe, are more and more inclined to watch the action of the authorities in India, as to cholera, as an international [illegible]land, unless they see a determination on the part of the Government to do more than they have yet done to stamp out the disease in its native *habitat*, will certainly have recourse to measures of quarantine, which, however futile as regards the propagation of the disease, will certainly prove ruinous to the commerce of Bombay. Until fears of this kind arose, it is, to say the least, wonderful with what equanimity the powers that be put up with the yearly ravages of this pestilence among the people for whose health and well-being they are responsible. In the fifty-two weeks of the past year, cholera was registered in Bombay in every week but two, the deaths, according to the returns before us, ranging from one to twenty-six per week. We are far from saying that nothing has been done for the sanitation of Bombay; but the fact remains, that the Sanitary Commissioner, a Government officer, "still classes Bombay among dirty cities." Now, in the climate of India, any city, within or without the so-called endemic area of cholera, that can justly be so classed is a danger to the community, and a disgrace to the Government that permits it.

Common sense points clearly, one would say, to the duty of wiping out this reproach, cost what it may. Bombay, far from being a poor city, is perhaps the richest in India; and it is notorious that its wealthy inhabitants, being the most litigious people in the East, spend yearly in the law-courts, mostly in frivolous suits, enormous sums of money, which would be better spent in cleansing the city, where they live and prematurely die. Be all this as it may; if the Government do not feel disposed to grapple with the question in the way indicated above, they have resolved to build a cholera-hospital, and to plant it in close proximity to the European General Hospital. This it is which has raised the question at the head of this article. The inhabitants of London and its neighbourhood are not, in the matter of small-pox, strangers to fears of this kind. We all know the bitter war that has raged on the question of the establishment of small-pox hospitals in populous places. As regards the propagation of the disease in this way, in the case of cholera, the case is not very clear. There is, in Bombay, a conflict of medical opinion on the subject, much to the embarrassment of Government. The Surgeon-General of the Bombay Army is clearly against the measure, on the ground that the location of a cholera-hospital in the immediate neighbourhood of a large general hospital would be a most unwise, and indeed dangerous, procedure; unwise, inasmuch as the introduction of a disease like cholera, which the general community regard with such dread and alarm, would, from the moral effect produced, act detrimentally in the interests of the hospital, by deterring the class of people who generally frequent it from attending; and dangerous in bringing a sup-

fectious disease in the immediate vicinity of convalescents, who, well known, are much more susceptible to infection than others in und health. He expresses his dissent from the proposal of appointing e Resident Surgeon at the European General Hospital to the charge the proposed cholera-hospital; intimates that the plan proposed in opposition to all principles hitherto laid down for the prevention the spread of cholera; and strongly urges the expediency of abanning a project, the very nature of which is clearly fraught with nger and risk to life, and which, if continued in, will probably terinate in calamitous results.

The opinion of the European community seems strongly to support at of the Surgeon-General; and the fact that twenty medical pracioners out of a hundred and thirty-nine engaged at Naples under White Cross Society, in attendance on cholera-patients, died, is luced as proof of the contagiousness of the disease, and the consent danger of placing the hospital in the proposed situation.

The whole question appears to turn on methods of management and asures of prevention. If the excretions of the patients be perted to enter drains having a communication with the General spital and the neighbouring houses, or to reach the water-supply, vever disinfected, the danger is undeniable. If, on the other hand, y be destroyed by fire, the danger, if any, will be reduced to a nimum. This is a precaution which, in all places, should be pted. If vigorously carried out, it would go a long way, in Indian es and elsewhere, to restrain the propagation of the disease. Be all as it may, the Government of Bombay, strongly supported by Sanitary Commissioner and Dr. Blanc, have resolved to carry out r own view of the question, and to build the cholera-hospital in position so much objected to.

s the decision is one of great importance, not only to those imiately concerned, but to communities elsewhere, we give the lution *in extenso*, and shall watch the result with much rest.

This is a matter in which there is a direct conflict of opinion on part of medical officers of long experience and high professional ding. The Surgeon-General considers that the location of a cholera-ital in the immediate vicinity of the European General Hospital ost undesirable, and would be a measure 'clearly fraught with ger and risk to life,' which, if carried out, would 'probably termi in calamitous results.' On the other hand, the Sanitary Comioner apprehends no evil consequences from the adoption of the ect. He states that one of the few points regarding cholera which been clearly established by modern research, is that the disease ot contagious; and he contends, quoting high authority in sup of his argument, that experience has shown that persons attending era-patients are not liable to be attacked by the disease, simply use they are brought into close and constant contact with the rers. *A fortiori*, therefore, it is argued, persons suffering from r diseases undergoing treatment in a distinct building some dise from the cholera-hospital would not incur any risk of being ked by cholera, merely because the cholera-hospital was not far ved from the general hospital. This view is apparently concurred the medical officer in charge of the European General Hospital, approved of the suggestion for the establishment of a special ra-hospital in the neighbourhood of his hospital.

The experience of the past is in favour of the view thus enterd by the Sanitary Commissioner and Dr. Blanc. During the years 1880-1882, 325 persons suffering from cholera were treated e cholera-ward of the Sir Jamsetjee Jejeebhoy Hospital; but g the same period, only two patients suffering from other ses, who were inmates of the general wards of that institution, attacked with cholera. In the five years 1879-1883, 221 cases olera were admitted into the Gokuldas Tejpal Hospital; but only persons in the general ward, of whom two were suffering from laints other than cholera, and one was an hospital-servant, wer attacked with cholera whilst in the hospital. These facts appear sufficiently to refute Dr. Beatty's contention that the existence of a cholera-hospital in the vicinity of the European General Hospital is likely to be attended by disastrous consequences to the patients in the latter institution, and tend to show that the fears expressed by him have no solid foundation.

"The returns called for show (1) that the proximity of a cholera-ward has not in fact been injurious to patients under treatment for other diseases in the hospital, and (2) that the proportion of deaths from cholera to attacks is very much higher in Bombay than elsewhere. During the present year, more than three-fourths of the persons attacked by cholera in Bombay have died, the proportion of deaths to cases being far in excess of that reported even in such unsanitary cities as Naples during a violent epidemic. It is for consideration to what cause this result is to be attributed, and how it happens that, in a city like Bombay, where the most skilled medical aid is procurable, a higher proportion of cholera-patients dies than in the districts where medical assistance is either not to be had at all, or, if obtainable, is often of very inferior quality. The Governor in Council can only presume that this is the case because, as the Sanitary Commissioner observes, persons who are attacked in Bombay have to be carried long distances before they can be treated. If this be so, it is very necessary that a cholera-hospital should be established near the Fort and the harbour; and, in insisting that such a hospital should be situated far from human habitations, the Surgeon-General virtually proposes that persons attacked by cholera should be deprived of their only chance of life.

"In these circumstances, no adequate cause has been shown for any modification of the orders already issued on this subject by Government."

LUNACY TRIALS.

THE papers have been teeming with lunacy trials, the end of which, in these days of Appeal Courts, is so often postponed, that it is by no means an easy task to ascertain at what time it is fair and right to make public comments upon them. This remark is especially applicable to the important proceedings which have occupied the Divisional Court of Queen's Bench for the last three or four days on an application for a writ of *certiorari*, to bring before the Court an order of the Mayor of Lewes and another magistrate, for the removal of one Charles Hillman to the County Lunatic Asylum, on the ground that he was a lunatic not under proper care and control. We observe that already some journals have allowed themselves to comment on the injury inflicted on Mr. Hillman by having been placed in confinement as a lunatic, he being of sound mind. The question, however, has not hitherto been raised in court whether Hillman was, or was not, of sound mind when he was sent to the Sussex County Asylum; the only question hitherto discussed having been the highly important, though preliminary one, as to whether the investigation upon which the order for detention was made out, was or was not in accordance with the provisions of the statute; the purpose of the proceedings so far having been to set aside the order of the magistrates as not having been given within their jurisdiction, in accordance with the provisions of the statute. The Court of Queen's Bench having now made a rule absolute for a writ of *certiorari*, it is probable the persons concerned in trespass, assault, or imprisonment, will be liable to proceedings in which, no doubt, Mr. Hillman's state of mind at the time will be carefully investigated.

The preliminary proceedings, however, have been most instructive, containing, as they do, a new and most important judicial interpretation of the statute as it applies to the combined investigation of magistrates and medical men into the supposed condition of lunatics. The section in question is the sixty-eighth of the Lunatic Asylums Act, which directs how persons deemed to be lunatics shall be dealt with (whether they be paupers or not) who are found wandering at large, or persons who are not under proper care or control, or who

are cruelly treated or neglected. It is a very long section and a very intricate one, dealing with each of these three classes of lunatics, sometimes separately, sometimes conjointly; and it is perhaps a good thing for the public that the magistrates of Lewes have allowed themselves great laxity of procedure, and have thus led to a judicial investigation and interpretation of this important and complicated enactment.

In this particular instance, Mr. Charles Hillman, the alleged lunatic, was not wandering at large, not cruelly treated, nor neglected, but was supposed to be not under proper care or control. The manner in which the Lewes magistrates proceeded to place him under proper care and control, as they supposed, will no doubt have become known to our readers, from the columns of the daily press. They are not particularly interesting to us, although it may be remarked that they are not quite so far removed from the laxity which has hitherto prevailed in this and other parts of the lunacy law, as the judges would fain believe. That which is most important to all who are concerned in the administration of the lunacy laws, is the instruction we have now received from the judges, as to the real purport of this enactment.

The judges point out that, with regard to persons deemed to be lunatic, and not under proper care and control, or cruelly treated or neglected, there are two stages of the procedure. The first may be called the stage of information; the second, that of investigation and order. In the first stage, a constable, relieving officer, or overseer, or any person whomsoever, may give information upon oath that a certain person is not under proper care or control, or is cruelly treated or neglected; and this information must be made in writing, and must be sworn to. This sworn information having been given, the justice shall then either himself visit and examine the alleged lunatic, and make inquiries into the subject-matter of the information, or he shall, under his hand and seal, direct and authorise some medical man to do so, and to report in writing to the justice his opinion thereupon. This is the first stage, or that of information.

If to the justice, thus informed, it shall appear that the person is a lunatic, and is not under proper care and control, or is cruelly treated or neglected by any relative or person having the care or charge of him, he (the justice) may then give an order under his hand and seal to any constable, relieving officer, or overseer of the parish, to bring the alleged lunatic before two justices; and these justices shall call to their assistance a physician, surgeon, or apothecary; and shall examine and make such inquiries relative to the alleged lunatic as they shall deem necessary. On this stage of the proceedings, the Court of Queen's Bench make the most important remark, that the assistance of the medical man clearly meant that the examination of the alleged lunatic is to be the joint examination of the magistrates and the medical man. This joint court of inquiry thus constituted, the two justices, with the assistance of the medical man, shall examine the alleged lunatic, and may make such inquiry as they deem necessary; and they may take "other proof" besides the examination, which other proof the Court explained as meaning "such proof as the law regards as proof"—that is to say, "evidence capable of being preserved and considered." If by this investigation the justices be satisfied of the lunacy, and of the want of proper care and control, etc., and their medical assessor shall sign a certificate of lunacy, then it shall be lawful for the justices to make the order for detention in the county asylum; or, if the asylum be full, then into some registered hospital or licensed house.

The provisions of "this carefully framed enactment," as the Justices of the Queen's Bench call it, were not observed by the magistrates of Lewes; a neglect for which they are likely to be held heavily responsible. But, as it was urged in their defence, the statute had in a similar manner been disregarded for seventeen years past; and it will be a matter of surprise to the public that an enactment so carefully framed for the protection of persons erroneously "deemed to be lunatic" should be as it were discovered in the discredited laws of lunacy at this late date. The fact is, that this carefully framed enactment has been rarely put in force, because other contemporaneous enactments, which are not carefully worded, facilitate the incarceration of lunatics to such a degree, that the painstaking inquiry above described has, in most instances, become a needless and superogatory task. Perhaps the repeal of these easy methods, and the adaptation of this carefully framed enactment to the case of all persons "deemed to be lunatics," who are to be deprived of their liberty, would be a sufficient and satisfactory reform of the law, as it affects the incarceration of her Majesty's subjects on the ground of insanity.

Meanwhile, it is to be remarked that the law, as it has now been interpreted by the Court of Queen's Bench, is daily and hourly broken. Indeed, the ordinary method of sending a pauper lunatic to the county asylum is but a simplification of the carefully framed enactment which is applicable to lunatics not under proper care and control, the words of the statute being equally that the justice acting in the case "shall call to his assistance a physician, surgeon, or apothecary;" and the schedule equally providing that the justice shall make an order after "having called to my assistance a physician, surgeon, or apothecary, and having personally examined," etc. Therefore, if the interpretation of the statute by the Justices of the Queen's Bench be right in case of lunatics not under proper care and control, the interpretation is equally applicable to the case of every pauper lunatic sent to an asylum, and action can only legally be taken after a joint examination made by the magistrate and the medical man. After this joint examination, the medical man may sign a certificate, and the magistrate may sign an order for reception into an asylum. How frequently this method of procedure is departed from, is a matter of notoriety; indeed, it may perhaps be put more strongly, that it has not hitherto been known that this method of procedure is legal and needful. It is, however, the interpretation of the law by the highest authority which has, as yet, pronounced an opinion.

Dr. M. Sullivan, Professor of Surgery in the Kingston Medical School, has been recently appointed a senator of Canada.

Dr. Mackey, we learn, has been appointed assistant-physician to the Sussex County Hospital, Brighton.

The laying of the corner-stone of the new medical school being erected in Caxton Street, Westminster, in connection with Westminster Hospital, will be performed on Saturday, February 28, at three o'clock, by His Grace the Duke of Westminster, K.G.

We hear, with much satisfaction, that the Senate of the University of London have accepted the recommendation of Convocation that a preliminary M.B. scientific examination should be held twice annually. The subject has been referred to the Medical Committee to make the necessary arrangements.

We have been informed that a deputation from the Association of ellows of the Royal College of Surgeons of England will meet the ubcommittee on Charters and By-laws of the Council of that College, n Tuesday next, March 3rd, at 4 o'clock in the afternoon. This ill be done in reply to an invitation on the part of the Council.

In our columns devoted to the Military and Naval Medical ervices, last week, it was inadvertently stated that Surgeon J. S. orrester, whose appointment as Surgeon to the Royal Horse uards was announced, had not yet seen war service. We learn at Surgeon Forrester took part in the Egyptian Campaign of 1882, here he held the rank of Surgeon to the 24th Company of the Royal ngineers; and was awarded the medal and Khedive's star.

THE ENGLISH BRANCH COUNCIL.

HE English Branch Council have been engaged during the first three ys of the present week, in considering the recommendations of the neral Medical Council, chiefly in reference to education. It is lieved that no essential alterations have been made in these recom-endations, which have to be submitted to the next meeting of the neral Medical Council.

THAMES VALLEY DRAINAGE.

SCHEME has been submitted to the joint board and to the Local vernment Board for the drainage of the lower Thames Valley dis-ct on what is known as the Shone hydro-pneumatic system, and the purification of the sewage by utilisation on barren lands at sley. It is proposed to erect the necessary air-compressing machinery se to the river side at Thames Ditton, and to drive the sewage by eumatic power in three successive lifts to Bisley Moor, which is d to consist of sandy peaty soil, resting upon gravel of such a porous ture that it would be impossible for a drop of any volume of vage which might be poured upon it to reach a river without ering through miles of soil, any six feet of which would be sufficient purify it. The scheme is estimated to cost £392,800, or about 0,000 less than that of Sir Joseph Bazalgette.

THE INDEX MEDICUS.

e regret to learn that the *Index Medicus*, after a career of six years, been discontinued. An article signed by the editors, Dr. J. S. lings and R. S. Fletcher, and published with the annual index pleting the sixth volume, states that the late Mr. Leypoldt, the blisher, notwithstanding a heavy loss at the outset, and a but slowly inishing annual deficit, maintained the undertaking with spirit l zeal. The efforts made by his successors to raise the number of scribers sufficiently to place the *Index* on a self-supporting basis e been unsuccessful; and therefore the time has come when neither lous friends nor generous publishers can be allowed to make ther efforts or sacrifices.

THE GENERAL HOSPITAL, BIRMINGHAM.

the annual meeting of the governors of this hospital, which was l last week, Dr. James Russell was unanimously appointed to the e of consulting physician, in recognition of his services to the city as one of the honorary physicians for the long period of twenty-years. The annual report of the hospital showed that 47,560 ents were treated in the hospital during 1884, of which 3,451 were atients. There was a considerable increase in the out-patients, ing from the large number of diarrhœa cases which had received ntion during the summer and autumn. The accounts showed a iency on the general account of £3,620, of which £3,000 had ued during the past year. It was stated that an endeavour would ade to get the new suburban hospital, which was given by Mr. ay, ready for opening in connection with the musical festival in the mn.

THE HEALTH OF KIDDERMINSTER.

THE recent epidemic prevalence of enteric fever at Kidderminster gives a special interest to the annual report of the medical officer of health for the borough upon the sanitary statistics of the town for the past year. In his report to the Town Council for 1884, Mr. D. Corbet states that the total number of deaths in that year was 504, of which no less than 180 were attributed to zymotic diseases, namely, typhoid fever, 108; small-pox, 8; scarlet fever, 3; diphtheria, 4; diarrhœa, 57. Notwithstanding the large number of deaths from these diseases, the death-rate for the year was the comparatively moderate one of 19.764, compared with 18.857 in 1883. Mr. Corbet estimated that besides the 1,500 cases of enteric fever, and 108 deaths, there had been 1,000 other people more or less affected from the same cause. Dr. Parsons, in his official report to the Local Government Board, cast some reflections on Mr. Corbet for not having reported the outbreak of enteric fever more promptly; but it appears, from Mr. Corbet's report, that on the same day on which he became aware of the epidemic, he saw the Town Clerk on the subject, and arranged for a special meeting of the Sanitary Committee to be called next morning.

MEDICAL VOLUNTEERS FOR THE SOUDAN.

THE Committee of the Volunteer Medical Association have placed a bearer-company, 60 strong, of the Volunteer Medical Staff Corps, at the disposal of the Director-General of the Army Medical Staff. The offer, as might be anticipated, received the hearty acknowledgement of the Director-General; but it is at present doubtful how far it may be necessary for the authorities to avail themselves of it. It is understood, however, that the corps, as consisting of trained men, will have priority, and that, even if not employed at once, their services may be welcome at a later date. A similar offer has been made by the Committee to the National Aid Society, and it is possible that a few, probably six, men may be required. We understand that arrangements are now in progress to give the Volunteer Medical Staff a complete organisation, modelled on that of the Army Medical Staff. The plan has already, we believe, received official sanction, and will take effect so soon as the sanction of Parliament is obtained.

SCATTERING DISEASE BY RAILWAY.

WE are unwilling to obtain too much credit for the origination and development of "scares," and therefore almost hesitate to offer a few remarks upon the most recently discovered mode of disease-distribution. Duty, however, compels us to point out that few more effective agencies for the scattering of *materies morbi* could be found ready to hand than the railway-system, with its crowded carriages and waiting-rooms, wherein sick and sound, the infected and the susceptible, are brought into particularly close contact. A few days ago, public attention was excited, and the seeds of terror and scandal sewn, by the recital of a narrative of very commonplace facts. Several members of the family of a station-master were reported to be suffering from a malignant type of scarlet fever, and it was suggested that the station should be closed, and the public put on its guard. This was followed by a statement to the effect that the family of a master of a Highland railway-station had been infected by means of a box of clothes delivered by rail, and left at the station. For aught we know, other stories have contributed to the cause of alarm. In any case, there is abundant opportunity for a striking series of sensational paragraphs; and it is likely enough that full advantage will be taken of the opportunity that offers itself for "improving the occasion." To what does it all come in the end? Simply this, that the fault lies not with the railway-companies or their official in any special degree—for they cannot possibly be expected to inquire into the health of the passengers—but with the public generally. A station-master having an infectious disease in his family is assuredly responsible for taking all such measures as can be taken to prevent the communication of the disease to passengers and others using the station. This is self-evident; but what, in the name of common-sense, is

to be said of the stupidity and the culpability—we can use no less expressive terms—of those who, having been infected, and being in a condition to propagate infection, travel or send articles of their clothing by rail? When we come to follow this question of disease-distribution to its extremest point of detail, it is evident that the secrets of "stamping out" and of "health-preservation" are distinctly personal. Public authorities and officials may do much by the enforcement of judicious rules and regulations, but it is in the observance of these rules, and in the working out of their principles into detail by individual effort and responsibility, that the secret of success lies. If the units of the population be honest and true, the sum total will be sound; but if the integers be defective, no ingenuity of the sociologist—practical though he be—can secure a satisfactory result.

UNIVERSITY EDUCATION IN LONDON.

THE meeting of Convocation of the University of London adopted the recommendations of the Committee appointed to examine the Scheme of the Association for Promoting the Formation of the Teaching University in London, by a very large majority. The only objection raised was by a few members who objected to the "diversified and indefinite objects of the Association." The objects of the Association are diversified, because a very large field has to be covered, and the draft scheme put forward was most indefinite, and, as we urged, quite premature. It is very much to be hoped that we have now heard the last of this unfortunate draft scheme, which has done the movement for promoting the extension of the university system in London a great deal of harm, and nearly caused the complete shipwreck of the Association. If there be some members of the Association who do not know what they want, or are inclined to set off on a Quixotic quest for the unattainable, there are others—and they form, we believe, the majority—who do know what they want. A little business-like discussion between a few practical men representing the existing University and the teaching bodies, would soon lead to the formulation of a scheme which, by laying down the inevitable minimum, would afford a real basis for discussion and future elaboration in detail. For the time, this is the most urgent work for the various Committees now in existence to do. Meanwhile, all will await with some anxiety the decision of the Senate of the University of London. Will that composite body listen to the wise and enlightened counsels of some of its most eminent members, and grant with a good grace the concessions demanded by the teachers in London and by the graduates of the University assembled in Convocation, or will it continue to be a stumbling-block in the way of the higher education in London?

THE CASE OF DR. BRADLEY.

ON July 31st, 1884, Dr. Bradley, M.D. and M.Ch. of the Queen's University, Ireland (to whose case Mr. Lawson Tait has already directed attention in the JOURNAL), was making up a bottle of medicine in his surgery for Eliza Swetmore, a collier's wife, at Whittington Moor, near Chesterfield. While so doing, he heard a peculiar sound, and, turning, found his patient was about to have a fit. Having nothing else at hand, he held the stopper of the bottle, containing liquor ammoniæ fortior, to her nose, and provoked a faint murmur from the patient of "Oh, Doctor, don't!" The fit seemed to have been arrested by the stimulant, and the Doctor went into the next room for assistance. Whilst his back was turned, Mrs. Swetmore walked into the street, called at a neighbour's house, and said that the Doctor had committed a rape upon her; and that she had screamed, and cried, and fought, and struggled, but failed to attract attention, although there were numerous persons within sight and earshot. It can be proved that she was not in Dr. Bradley's surgery for more than five minutes, and that the door which opens on to the street was at least six inches ajar during the whole time. It can be proved that her dress and her hair were not disarranged, as stated for the prosecution; that there were no marks of violence on her person, and there were no stains upon the linen, which undoubtedly would have been the case had intercourse taken place, either with or without consent. It can be proved that the prosecutrix's father has been confined in a lunatic asylum, and that she herself has been subject to epileptic fits, more or less severe in character, since eleven years of age. Dr. Bradley's person and dress showed no marks of resistance, or any evidence of struggling; and his conduct throughout appears to us glaring proof of his innocence; for, firstly, he allowed the woman to walk out of the surgery without any attempt to detain her; then, secondly, he remained in the neighbourhood, although he might have at any time forfeited his bail; thirdly, he sternly forbade any attempts at compromise, for which the thanks of the profession are specially due to him. Dr. Bradley was tried, last autumn assizes, at Leicester; and it was so abundantly evident that the statements of the prosecutrix could not be true, that the jury at once found him not guilty, but were induced to find him guilty of an attempt, whatever that may mean. Thus it happens that Dr. Bradley at the present moment is undergoing a punishment which could only be fairly inflicted for rape, a crime of which he was found not guilty; and he was found guilty of an offence for which he was not tried; and this—shameful to relate—on the sole uncorroborated testimony of a woman whom the jury refused to believe. It has seldom been our lot to comment upon a more painful or deplorable case. Dr. Bradley was a young man of great promise, with the highest testimonials; and he leaves a young wife and child to deplore what is worse than his loss. Every effort is being made by the practitioners in his neighbourhood to secure a reversal of the sentence. Memorials have been largely and influentially signed in numerous towns, and, we have no hesitation in saying, ought to be signed by every practitioner in the kingdom; for what has happened to him might happen any day—aye, many times a day—to any one of us. The following resolution was passed at a meeting of the Birmingham and Midland Counties Branch of the British Medical Association, held on Thursday, February 12th; the President, Dr. Nason, being in the chair: "That this meeting, having heard a statement of the case of Dr. David Bradley, recently convicted of felonious assault at the Leicester Assizes, desires to express its opinion that this case is eminently one in which a reconsideration of the verdict of the jury is demanded. This opinion is based upon a consideration of the following facts: first, that the complainant has been admittedly the subject of epileptic fits since childhood; secondly, that such persons are specially liable to be subject to erotic delusions during and after a seizure. It is, therefore, of the utmost importance that the corroborative evidence in such a case should be decisive; whereas, in the case of Dr. Bradley, it seems to be singularly defective." The resolution was carried unanimously.

THE MEDICAL SOCIETY OF LONDON.

A GENERAL meeting of the Medical Society of London will be held on Monday, March 2nd, 1885, for the election of the officers and Council. The following Fellows will be nominated for office by the Council. *President:* William Miller Ord, M.D. *Vice-Presidents:* Richard Douglas Powell, M.D.; Sydney Jones; John Langdon Down, M.D.; Samuel Cartwright. *Treasurer:* Arthur Edward Durham. *Librarian:* William Henry Allchin, M.B., F.R.S.E. *Honorary Secretaries:* James Kingston Fowler, M.D.; John Henry Morgan, M.A. *Secretary for Foreign Correspondence:* Felix Semon, M.D. *Council:* Thomas Lauder Brunton, M.D., F.R.S.; Smith Houston Davson, M.D.; Sir Joseph Fayrer, K.C.S.I., M.D., F.R.S.; David W. Finlay, M.D.; Alfred Pearce Gould, M.S.; F. De Havilland Hall, M.D.; Francis Mason; Edmund Owen; Isambard Owen, M.D.; George Richard Turner Phillips; Thomas Pickering Pick; Walter Pye; Joseph Pecke Richards; Arthur Ernest Sansom, M.D.; Charles Brodie Sewell, M.D.; William Heath Strange, M.D.; T. Tillyer Whipham, M.A., M.B.; William Henry White, M.D.; Charles Theodore Williams, M.A., M.D.; Alfred Wiltshire, M.D.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE annual general meeting of the Royal Medical and Chirurgical Society will take place on Monday next, March 2nd, at 8.30 P.M., when the President will deliver the customary address. On March 25th, a discussion on cholera at this Society will be opened by Dr. George Johnson, F.R.S.

PROFESSOR HYRTL.

THE fiftieth year since the celebrated anatomist, Professor Hyrtl, obtained his degree of Doctor of Medicine in the University of Vienna, will be completed in March. We hear that the Senate of the University, and other learned bodies in Vienna, are making arrangements for celebrating the event, and congratulating their venerable colleague.

ELEMENTARY MECHANICS: A REBELLION.

THE ukase of the General Medical Council, issued last October, laying down that all students, before being allowed to inscribe their names on the *Students' Register*, should exhibit a knowledge of the "elementary mechanics of solids and fluids, comprising the elements of statics, dynamics, and hydrostatics," has drawn forth from Trinity College, Dublin, a reply couched in somewhat sarcastic terms, and signed by Dr. Samuel Haughton. "The Provost and senior Fellows," having considered the matter for three months, express the "opinion that the knowledge of mechanics guaranteed by the examination proposed by the General Medical Council would not be worth possessing. The ideas involved in elementary mechanics, such as mass, inertia, velocity, momentum, vis viva, and energy, are difficult in themselves, outside the range of school-studies, acquired slowly even by those who ultimately grasp them, and such that many highly educated men may pass their whole lives without once having had a clear conception of them." The University of Dublin has its own way of teaching elementary mechanics; and "the Provost and senior Fellows prefer this mode of teaching mechanics to that proposed by the General Medical Council, which, in their opinion, would be quite inadequate." Rebellion—flat rebellion!

THE NEW REGIUS PROFESSOR AT OXFORD.

THE new Regius Professor of Pastoral Theology at Oxford, the Rev. Francis Paget, Vicar of Bromsgrove, is a son of Sir James Paget, Bart. Born in 1851, he had a distinguished career at Oxford, where, in 1871, he came out in the first class in Moderations, and in the same year obtained the Hereford Scholarship for Latin verse, and, two years later, took a first-class degree. He was senior student of Christ Church in 1873. Mr. Paget was very popular with the undergraduates at Oxford, and his return to the university will be warmly welcomed by many friends.

BATHING IN THE PARKS.

CONSIDERING how few facilities there are in London for open-air bathing, especially since our once noble river has become, below lock, little better than a sewage-duct, it is a pity that any obstacles beyond reasonable restrictions should be laid in the way of the utilisation for this purpose of the lakes and ponds in our parks; and it is disappointing to learn that the Commissioners of Works, in response to a request from Lord Brabazon that bathing might be permitted in what is known as the Ladies' Pond, Battersea Park, have stated that they are not prepared to accede to the suggestion. This appears the more unreasonable, as the lakes in Victoria and Hyde Parks have long been used for bathing, at certain hours, without complaints from the frequenters of the parks or the residents in their neighbourhoods. At this season of the year, most persons are compelled to take their morning dip at home, or within the shelter of the covered swimming-bath, though it is said there are a hardy and heroic few who trouble the waters of the Serpentine throughout the winter; but in the summer-time, open-air bathing is a luxury to all who can enjoy it, and a necessity to the health of many thousands whose domestic means of ablution are limited to the circumference of a wash-hand basin. Is there any logical reason, we would ask, why what is decent and commendable at Brighton or at Trouville should be immoral and objectionable in London? and why, with suitable dresses and dressing-sheds, bathing should not be permitted in our parks, even to persons of both sexes? We can hardly hope that a plunge in the Serpentine will ever become as much a *sine quâ non* of fashionable existence in dusty June as a ride or saunter in the Row; but we would plead for those who can seldom visit, and are often unwelcomed at, seaside watering-places, and whose means of healthful and innocent recreation are sadly limited.

THE DEVELOPMENT OF THE ARTERIES OF THE ABDOMEN, AND THEIR RELATION TO THE PERITONEUM.

A MEMOIR, bearing the above title, was read at a recent meeting of the Royal Society by Mr. C. B. Lockwood, Demonstrator of Anatomy at the Medical School of St. Bartholomew's Hospital, and cannot fail to prove of interest to all who have attended Mr. Treves' lectures delivered at the Royal College of Surgeons during the past week. The author endeavours to elucidate the course and relations of the abdominal blood-vessels on developmental grounds. The earlier stages of the development of the mid-gut and its mesentery are first described; and it is shown that vessels extend, at very frequent intervals, from the dorsal aorta to the intestine, reaching the latter by way of the mesentery. The gastric artery is shown to be one of the original arteries of the mesentery; the peculiarities in its course are accounted for by the effects which the various alterations in the position of the stomach have upon its blood-supply. It is also shown how both the spleen and the splenic artery are developed between the layers of the meso-gastrium; evidence is brought forward to show that this vessel, even in the adult, reaches its destination by passing through the meso-gastrium—a fact that, in Mr. Lockwood's opinion, determines the relations of the artery to the greater and lesser cavities of the peritoneum. As the omentum is simply the elongated meso-gastrium, it is argued that its remarkably long arterial loops represent the original vessels of that fold. In the process of protrusion of the rudimentary liver from the mid-gut, one of the original arteries of the mesentery, running close to that portion of the mid-gut whence the liver grew, becomes the hepatic artery—a fact which explains the relations of that artery to the peritoneum and foramen of Winslow. As the hepatic artery originally supplied the bowel, so branches still run from it on to the bowel when it has developed as the artery chiefly supplying the liver. The pancreas is developed from the duodenum, and extends along the meso-duodenum into the meso-gastrium, where it impinges upon the spleen and its artery; this accounts for the course of the arteries which supply it. The unfolding of the peritoneum, between the meso-gastrium and the original mesentery of the transverse colon, before that portion of the large intestine becomes related to the great omentum, is shown to account for the manner in which the pancreas becomes situated behind the peritoneum. The course of the colicæ dextra and sinistra are readily explained, that of the middle colic is discussed at some length in relation to its development, and the question is disputed as to whether the transverse meso-colon consists of four layers (as Haller maintained), or of two, as Mr. Lockwood believes. The author summarises his memoir by the conclusions that the arteries of the abdomen, including the splenic and hepatic, were originally derived from the dorsal aorta for the supply of the mid-gut; that they reach their destinations by passing through the mesentery; that they participate in all the changes which the mesentery undergoes; and that, if an organ be developed in the mesentery, or from the gut, it will obtain part at least of its blood-supply from the vessels of the mesentery or gut, and that these will conform to the preceding rules.

A MYSTERIOUS CASE OF POISONING BY STRYCHNINE.

AN important trial for murder took place at the Somerset Winter Assizes, held in January last at Taunton, when a farmer, named Day, was indicted for the murder of his wife's aunt by strychnine. The

prisoner, Day, was acquitted, no purchase of poison having been traced to him, and the evidence tendered as to motive being signally weak. The circumstantial evidence was remarkable and singularly instructive. The prisoner, Mr. Day, and his wife lived at a farmhouse at Lympsham, with their two young children, a nursery-governess, Miss Stallard, and a nephew aged 16, who was from home, however, on the day in question. No servant was kept; but on the day of the decease a charwoman, named Mary Sperring, and her daughter, Martha, a dressmaker, were working in the house. Mrs. Hicks, the deceased, occupied two rooms on the first floor, taking her meals alone, and paying an annual sum for her board. Shortly before six on the evening of November 6th, Stallard was alone in the kitchen, making, according to her daily custom, some gruel for Mrs. Hicks. Mr. Day came into the kitchen from the farm, sat down on the settle, and asked Stallard to draw him a glass of ale. At this time she had just finished making the gruel, and had poured it into a blue basin standing on the table. Stallard left the kitchen for a couple of minutes, and returned with the ale. Meantime, Martha Sperring, who had passed through the kitchen into the adjacent scullery, came into the kitchen, and saw Day standing at the table stirring the gruel. He continued stirring it for about half a minute, and then reseated himself on the settle, where he was on Stallard's return with the ale. Stallard then lighted a candle, took up the basin, and carried it upstairs into Mrs. Hicks' room, which was lighted by the fire only. Stallard having deposited her candle on a table on the landing outside, she then returned downstairs to take the children to bed. When Stallard again went upstairs shortly afterwards, she found Mrs. Hicks on the landing examining the gruel, and complaining that it burnt her throat. Stallard denied that she had put anything unusual into the gruel, and took it downstairs. It was then seen by the prisoner, Mrs. Day, and Martha Sperring. All, including the governess, observed something red in it; Mr. Day said clotted blood, but the others said a red powder. The prisoner told the charwoman to wash the remains of the gruel away, and he himself superintended the operation. Mrs. Hicks died about twenty minutes after the gruel was taken up to her. She had tremblings; but there is no history of any distinct strychnine-convulsion. After death, the medical men, Messrs. Bayliffe and George Smith, found opisthotonos, and the usual stiff and curved condition of the extremities. It is probable that the deceased, who was 73 years of age, died in the first, or at all events in an early, general tetanic spasm. Mr. Day, on the arrival of Mr. Bayliffe, urged him to give a death-certificate. This was of course refused; and Mr. Bayliffe, with praiseworthy good sense, searched the pump-trough where the gruel had been thrown away, and succeeded in recovering a little of the remains. These, the viscera, and the oatmeal from which the gruel was made, were submitted to the County Analyst, Dr. Alford, and portions were also sent to Dr. Stevenson. They both found strychnine in the viscera and in the remains of the gruel; none in the oatmeal. The other articles of which the gruel was made were partaken of by others on the evening of the tragedy, and produced no untoward results. The poison was thus clearly traced to the gruel. The fact that the deceased was the first to direct attention to the state of the gruel, precluded the supposition of suicide. The gruel was never, for one moment, left in the sight of one person only, except the governess and Mr. Day. No red strychnine was found on the premises; but a blue vermin-killer, containing strychnine, was found unconcealed in a drawer. The colouring matter of this powder was ultramarine: a pigment which is destroyed by the acid of the gastric juice, and would be destroyed even by the lactic acid developed by the souring of the milk in the gruel previous to analysis. As the red substance was seen in the gruel by several witnesses, it is improbable that this blue powder was the source of the strychnine used. Neither was an unlabelled powder (nux vomica), also found in the house, a likely source, for no brucia was detected either in the viscera or in the gruel. In the end, the source of the red powder in the gruel remained entirely unexplained. Singularly enough, a vermin-killer, the basis of which is strychnine, is sold in Somersetshire; and it is known that a quantity of red strychnine, intended for the New South Wales market, not long ago found its way into the hands of an itinerant vendor of vermin-killers who frequents the West of England. Nevertheless, the Lympsham tragedy remains shrouded in mystery.

SCOTLAND.

ABERDEEN PHILOSOPHICAL SOCIETY.

A PAPER on "The Influence of Our School System on the Eyesight of the Children," was read by Professor Dyce Davidson. He pointed out that the number of myopes in Germany steadily increased from the lower to the higher schools and universities, and stated that the highest estimate of myopes in Aberdeen University was 12 to 16 per cent. In Germany, this condition was partly due to Gothic type, peculiar writing, and bad paper. In speaking of preventatives, he referred to the importance of the type being neither too small, too long, or too little "leaded." The blue tinted paper of the *editions de luxe* was the best for the eye. The influence of proper illumination, desks, attitude, and other conditions, was referred to in detail. Some of the members attributed the growing myopia to the imperfect conditions under which the lessons have to be learned at home.

IMPORTANT DECISION REGARDING FEVER PATIENTS IN EDINBURGH.

THE committee which was appointed by the Court of Contributors to the Edinburgh Royal Infirmary, in January, to inquire into the subject of the responsibility for the treatment of fever cases occurring in Edinburgh, has completed its consideration of the subject, and has given to the public the result of its labour in the form of a long report, which is signed by the Chairman, Lord Shand. The report is interesting reading, as it enters exhaustively into the subject of the treatment of infectious diseases in the Royal Infirmary, Edinburgh, and the relation of the Infirmary to the civic authorities in the matter. For many years the managers of the Royal Infirmary have kept a large number of beds for the treatment of fever cases, and now they maintain a separate hospital for the purpose; the expense of this hospital last year amounted to £3,000. This was felt by the managers, and especially by the Court of Contributors, to be a heavy burden on the expenses of a charitable institution, especially when it was considered that the expense of the hospital-treatment of epidemic diseases should properly be met by a civic rate, and that the contributions to the Infirmary should not be used in such a way as to merely relieve ratepayers, at the expense of the charitably disposed public. This view of the case was previously brought forward, but certain of those in authority seemed to think that, if the Infirmary insisted on the city relieving it entirely of infectious cases, there might be a serious falling off in contributions. This point is fully entered into in the report, and the Committee are strongly of opinion that there is no fear of any such result, but much the contrary; and they instance the condition of the funds of the Royal and Western Infirmaries, Glasgow, and Sick Children's Hospital, Glasgow, which now receive no cases of infectious disease, and in which city cases of such disease are received into and treated in municipal fever-hospitals. The conclusion of the Committee is, that the Edinburgh municipal authorities now being in possession of a properly equipped hospital of their own, should undertake the treatment and expense of all such infectious diseases; and they trust that this will be done by July 1st, in order that the Infirmary may be lightened of so heavy a drain on its not too large income. It may be mentioned that at present, by an arrangement with the Town Council, the Infirmary managers maintain 74 beds for the treatment of cases occurring in the city; but the report considers this merely a temporary arrangement, and as by no means binding on the successors of the managers who, nearly ten

years ago, made that arrangement. There can be no doubt as to the value of the report of the Committee, and to us it appears that the case they have presented is a complete one.

UNIVERSITY OF EDINBURGH.

On Saturday last, the new Principal of Edinburgh University, Sir William Muir, was formally installed in office. The ceremony was strictly private, being limited in its audience to the Senatus Academicus. On Monday, February 23rd, Sir William Muir presided at a meeting of the University Court, at which Dr. Frederick Page, Surgeon to the Infirmary, and joint Lecturer on Clinical Surgery, Newcastle-on-Tyne, was appointed additional examiner in Clinical Surgery in the University of Edinburgh, the appointment being for one year, but renewable annually for five years. The Committee on University Accounts, 1883-84, gave in a report, in consideration of which the following votes of the Senatus were, among others, approved: that examiners for degrees in medicine be paid at the rate of £75 *per annum*, as compared with £50 previously; and that the examiners in arts and preliminary examination for students of medicine be paid £120 instead of £100. It was reported that Dr. James T. Carter was recognised as a teacher of medicine in Glasgow whose lectures should qualify for graduation in medicine in Edinburgh University. On consideration of a minute of the Senatus, containing regulations under which they proposed to institute a clinical lectureship, or lectureships, on the Diseases of Children, the Court consented to the opening of a class, or classes, by the persons to be appointed lecturers, and fixed the fee at one guinea for a course of three months.

PROPOSED SCHOOL OF MEDICINE AT LEITH.

At the annual meeting of the supporters of the Leith Hospital and Dispensary, held on Friday, February 20th, a matter of considerable importance was introduced by Mr. Robert Tod, who suggested that the teaching element might be introduced into Leith Hospital, and said it would not only be most beneficial to the patients but of great advantage to the institution itself. There was a great pressure of students elsewhere, and a beneficial co-operation might be effected with the Edinburgh Royal Infirmary; this, he thought, would meet with the entire approval of the medical profession. Mr. W. J. Ford observed that the subject had been before the directors, but their opinions were not yet matured. One difficulty was the distance of the hospital from the Medical School in Edinburgh, but that was not an insuperable objection. A medical school in an hospital secured the greatest possible attention to the patients, and the public of Leith need be under no fear that harm would accrue to the inmates. He had no doubt the directors would give the subject their careful consideration. At the meeting, the annual report submitted showed that the number of patients treated had been greater than last year, the increase being chiefly in the dispensary department, and amounting to an increase of 1500. No fewer than 104 cases of typhus fever had been admitted to the hospital, as compared with 18 in 1883; only one case of small-pox had occurred. Altogether 6,405 patients were prescribed for and visited at the hospital, and 3,842 at their own homes. The average mortality in 1882 was 1 in 17; in 1883, 1 in 12; in 1884, 1 in 9. A report was also submitted regarding experiments that had been made in the ward by lining the walls 4ft. 6in. from the floor with slate slabs, and painting the walls with duresco, the advantages being cleanliness, durability, and avoidance of danger from infectious principles. For this work Mr. Richard Raines had generously come forward and defrayed the cost, and the ward in future would be called Raines Ward. At the request of the directors, the Sanitary Association had inspected and reported upon the drainage-system of the institution, and the sanitary arrangements were now in a perfect state. The ordinary income for the year had been £2,642, and the expenditure £2,811, showing a deficiency of £169. At the close of the year the funds at the credit of the institution amounted to £23,335. From the trustees of the late Mr. A. Blackwood, the sum of £200 had been received, and a donation of £200 from Mr. Raines.

IRELAND.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BELFAST.

At the second annual meeting of this institution, the Committee were able to report that it was in an efficient condition, and of great benefit to the poor of the town. It exists as a dispensary hospital, but efforts are being made to provide a few beds for temporary occupation when any cases of severe illness might come before the medical staff demanding constant attention. During 1884, 715 new cases came under treatment, including the following diseases: phthisis, 244; bronchitis, 663; catarrh, etc., 117.

THE DENHAM TESTIMONIAL.

We are glad to say that the subscription to this fund, from the professional friends of this highly respected obstetrician, upon his retirement from practice, has reached the sum of £370. The subscription-list is now about to close, and as there must still be many old pupils and friends of perhaps the most popular Master the Rotunda Lying-in Hospital has yet had, who would like to have their names attached to the address to be presented to Dr. Denham, it is hoped they will send in their subscriptions at once. Dr. George H. Kidd, 58, Merrion Square, Dublin, is the Honorary Secretary and Treasurer of the fund.

CORK FEVER HOSPITAL.

The annual meeting was held last week, presided over by the Mayor of Cork. During the past year, the admissions for typhus and enteric fevers equalled the whole of the admissions for every other form of disease; they supplied a death-rate of 4 per cent. The mortality from all diseases combined was, for males, 11.5, for females, 7.9 per cent., giving an average death-rate of 9.7 per cent. One hundred and twenty cases of typhus fever were admitted, of whom 12 died; also 20 cases of enteric fever, with a mortality of 3. Pnuemonia gave a death-rate of 3.1 per cent., but the highest mortality occurred from meningitis and diphtheria. The hospital not being large enough to meet all the demands made on it for accommodation, the medical staff appeal for additional funds to support an institution which has been the means of saving so many valuable lives. They also desire observation-wards built on the pavilion principle, in connection with the male and female wards. Subscriptions, donations, etc., produced a total of £2,441 7s. 8d., of which £1,600 was a presentment from the corporation. It is satisfactory to learn that the debt on the hospital has been reduced from £800 to £500. The physicians and house-surgeon having been re-elected, the proceedings terminated.

MAHOMED MEMORIAL FUND.

The following additional subscriptions have been received or promised.

	£	s.	d.
Sir Thomas Acland, Bart.	10	0	0
R. T. Bedford, Esq.	1	1	0
W. Crosbie, Esq.	1	1	0
E. Montague Day, Esq.	1	1	0
Dr. Walter Edmunds	2	2	0
Dr. A. L. Galabin	5	5	0
Dr. Longstaffe	2	0	0
F. G. Larkins, Esq.	1	1	0
Henry Moon, Esq.	15	15	0
Dr. T. Morton	2	2	0
R. T. Pye-Smith, Esq.	1	1	0
Dr. H. Sutherland	1	1	0
Frederick Wallace, Esq.	1	1	0

The treasurer or honorary secretaries would be glad to receive the names of any who still wish to contribute to the fund, inasmuch as a meeting of the Committee will shortly be held, at which it is desirable to present as full a statement as possible.

Arthur E. Durham, Treasurer.
James F. Goodhart, } Secretaries.
W. H. A. Jacobson, }

THE PARLIAMENTARY BILLS COMMITTEE.

A MEETING of the Parliamentary Bills Committee of the British Medical Association was held at the offices of the Association, 161a, Strand, on Wednesday, February 18th. The following members were present: Mr. Ernest Hart (Chairman); Mr. T. W. Crosse (Norwich); Dr. A. Henry (London); Dr. A. Macmillan (Hull); Dr. W. Orange (Wokingham); Dr. H. H. Phillips (Reading); Mr. W. D. Spanton (Hanley); Mr. H. Stear (Saffron Walden); Dr. E. Whittle (Liverpool).

Letters of apology for absence were received from the President of the Council, Dr. Henry Barnes, Dr. G. F. Duffey, Dr. B. Goff, Mr. Arthur Jackson, Mr. O. E. Owen, Dr. C. Orton, Mr. J. Prankerd, Dr. A. Sheen, Dr. T. W. Thursfield, Dr. R. Tiffen, and Dr. J. Wright.

The minutes of the last meeting were read by the Secretary, and confirmed.

The CHAIRMAN said, taking first what arose out of the minutes, it would be seen that, at the last meeting, they considered, among other things, the provisions of the different local Bills dealing with the notification of infectious diseases, and with the Burgh Police and Health (Scotland) Bill. With respect to the latter, they had been successful in bringing about its abandonment, and when the Bill came again before Parliament, he hoped they would be able to prevail upon the Lord Advocate to modify its objectionable clauses. In respect to the Brighton Bill, they had succeeded in obtaining Lord Redesdale's consent (previously withheld) to the withdrawal of the clauses imposing upon medical men a compulsion to notify.

Private Bill Legislation for 1885. *Summary of* 42 *Bills.*—In watching private Bill legislation, and the introduction of sanitary clauses, which was a matter the Committee had to watch very carefully, he had obtained copies of forty-two Bills. These had been all examined, and, as Chairman of the Parliamentary Bills Committee, he had published in the BRITISH MEDICAL JOURNAL a summary of all the clauses relating to sanitary matters, and called the attention of the practitioners in the various towns to the particular sanitary clauses in those Bills affecting their interests. Eight corporations, namely, Eastbourne, Hastings, Mossley, Ramsgate, Southport, Sunderland, Wakefield, and Wigan, had asked for compulsory notification powers. All these places had been communicated with by him, and, in some cases, considerable correspondence had passed, and specific information had been asked for as to what could be done, which he had the pleasure of furnishing. The following was the present state of things in respect to six of these towns.

Ramsgate.—He (the Chairman) had received a reply from Ramsgate to the effect that the corporation had decided to withdraw the entire Bill. This Bill, it might be stated, had contained the model clauses of Mr. Sclater-Booth's Committee, which had been inserted without consultation with the medical officer.

Sunderland.—The Sunderland Bill remained practically unaltered. The notification clause, as it stood, asked the medical man only to notify when called on to do so by any person living in the house, and for this notification no fee was to be given. The attitude of the profession in Sunderland in respect to this Bill appeared to be very divided and uncertain. In the first instance, it appeared, the medical men of the town approved of the "model clauses" as recommended by Mr. Sclater-Booth's Committee, and a petition was afterwards signed by a number of the profession, disapproving of compulsory notification by the medical man. It was further stated that an important clause had been introduced into this Bill, dealing with the present disgraceful state of many of the new streets.

Wakefield.—From Wakefield, the Chairman stated he had received a reply to the effect that no alteration in any of the clauses was contemplated.

Eastbourne.—The Eastbourne Bill, it had been ascertained, had been rejected, and it was thought that the sanitary clauses would not be revived. They had there a system of voluntary notification with which the medical officer professed himself quite satisfied, and which, it was thought, would not be disturbed.

Wigan.—At Wigan there had been a successful opposition to the dual notification, and the clauses had been dropped.

Southport.—Southport, which had originally decided to take notification powers, had since decided to withdraw those clauses.

Mossley.—In the case of Mossley, he (the Chairman) had received communications from a leading practitioner of the town, asking to be furnished with a summary of the facts and arguments against compulsory notification. This had accordingly been done, and a memorial had been drafted upon that basis, and presented to the local authorities, who thereupon agreed to expunge the clauses from the Bill.

Hastings.—In the case of the Hastings Bill, a meeting of the medical profession was held on January 16th, and a deputation was then appointed to confer with the Town Council (see BRITISH MEDICAL JOURNAL, January 24th, 1885), the result being highly satisfactory. The Town Council passed a resolution to the effect that the deputation of medical practitioners be informed that the corporation would recommend the withdrawal of the objectionable clauses, and he (the Chairman) had just received a letter from Dr. Humphreys, stating that these clauses had been withdrawn.

The memorandum on the sanitary clauses in private Bill legislation, which he had drawn upon and published in the JOURNAL, in the name and on behalf of the Committee, calling the attention of practitioners to these clauses, had thus had an important effect, and he had received many letters of thanks, from the medical profession in the various localities, for the effective assistance rendered, which he now laid upon the table, together with the voluminous mass of correspondence which he had conducted on the subject, in order to attain the objects in view.

Dr. MACMILLAN thought that the attention of the profession in Sunderland should be called to the unsatisfactory nature of the notification clauses in their private Bill.

The CHAIRMAN suggested that they should bring the matter before the attention of the Branch.

And the following resolution, proposed by Dr. WHITTLE, and seconded by Dr. MACMILLAN, was unanimously adopted:—"That this Committee regrets that the profession in Sunderland have not more energetically opposed the suggestion that partial compulsion should be imposed upon the medical man contained in a clause of the Sunderland Corporation Bill, which makes it the duty of the doctor to notify only when requested to do so 'by such inmate or any adult inhabitant of the house or building in which the inmate is so suffering,' and that this resolution be communicated to the Council of the North of England Branch, through its representative on this Committee, Dr. Philipson."

Mr. SPANTON (Hanley) said an attempt had been made at Hanley to bring about enforced notification, which, however, had been stopped by the strong medical opposition.

Mr. CROSSE stated that in Norwich they had adopted the dual form of notification for about five years, and it had worked well.

Dr. WHITTLE stated that a very great deal depended upon the medical officer himself.

Pharmacy Bill.—The CHAIRMAN said they would remember that at the last annual meeting, the subject of a new Patent Medicines Bill was discussed (a subject which had been frequently dealt with in the JOURNAL), and it had referred it to this Committee to take some steps in the matter. He would read the following memorandum prepared at his request by Dr. Murrell, which would explain how the matter stood.

To the Chairman of the Parliamentary Bills Committee of the British Medical Association.

Sir,—I beg leave to remind you that, at the concluding general meeting of the British Medical Association, held at Belfast on August 1st, 1884, the following resolution, sent up by the Section of Pharmacology and Therapeutics, was adopted and referred to the Parliamentary Bills Committee, in order that such steps might be taken to bring the matter under the notice of Government as might seem to them necessary.

"That, in the opinion of the Section of Pharmacology and Therapeutics of the British Medical Association, it is highly desirable that the Patent Medicines Stamp Act should be repealed, for the following reasons:

"1. It is unjust to impose a tax on medicines.

"2. The Act, as recently interpreted, promises greatly to impede the importation and use, especially in hospital-practice, of medicines of foreign origin.

"3. The Government label issued under the Stamp Act is taken advantage of by patent medicine manufacturers to give the appearance of Government endorsement to their productions, and lead the public to suppose that the properties of the medicines are sanctioned by authority."

I may mention that the subject was very carefully considered by the Section, the resolution being moved by Professor Hay (Aberdeen), seconded by Professor Leech (Manchester), and carried unanimously in a crowded meeting.

The following points are, I think, deserving of attention.

1. The tax was imposed in the year 1804, at a time of great financial difficulty. "Passed originally as a means of raising revenue for carrying on the war against Napoleon, the Stamp Act is a survival of the days when the Government were more exercised in finding taxable matter than concerned about the principles of political economy" (the *Times*, August 13th, 1884).

2. Other taxes passed at the same time, and with the same object, have long since been repealed. "This piece of protection remains simply because reformers have entirely overlooked it" (the BRITISH MEDICAL JOURNAL, July 19th, 1884).

3. A misleading and delusive endorsement is afforded by the medicine stamp-tax to various quack medicines and nostrums. "Its baleful effects in giving a quasi-Government sanction to many worthless preparations, and thus bolstering up a nefarious traffic, cannot be too strongly condemned, more especially as the poor and the ignorant are the chief sufferers" (Dr. Balthazar Foster in the *Times*, August 13th, 1884).

4. The law is so loosely worded as to class—in the same category with quack medicines, legitimate chemical and pharmaceutical preparations. "If a medicine be good, it is assuredly unjust to raise its price by a tax; while, if it be deleterious, or if it does not possess the properties which its makers advertise, it is wrong that it should bear Government label which may mislead the buyer" (the *Times*, August 13th, 1884).

5. The Act states that all medicines manufactured out of the country are liable to stamp-duty, crude drugs only excepted. It is well known that many preparations are inert unless manufactured from the fresh drug; and, as the majority of these are of tropical origin, and cannot be grown here, we are precluded from using them. Dr. Balthazar Foster has pointed out that the Act, "under its most recent interpretation, threatens to cripple commercial enterprise, and obstruct scientific inquiry."

6. Any quantity of poison can be purchased without question or restriction, under the guise of a patent medicine.

7. England is the only country in the world where the stamp-tax on medicines is now enforced. Our Act, curiously enough, applies only to England and Scotland, Ireland and the Channel Islands being exempt from its operation.

8. The tax is a great hardship on the poor. On this point Mr. R. Sims says: "Some day, people will awaken to the fact that the Government stamp is an oppressive burden to the sick, an encouragement to quackery, and a stigma upon legitimate medicine."

I would venture to suggest for the consideration of the Committee:

1. That an influential member of Parliament should be invited to ask the Chancellor of the Exchequer if he has yet received from the Board of Inland Revenue those Reports on the medicine stamp tax which, in the House of Commons on August 7th, he undertook to "study with care" (vide *Times* and other papers, August 8th); and so, what action he purposes taking in the matter.

2. That Mr. Childers should be requested to appoint an early date for receiving a deputation on the subject from the British Medical Association.

3. That a form of petition should be inserted in the JOURNAL for signature by members.—I remain, sir, your obedient servant,

WILLIAM MURRELL.

38, Weymouth Street, W., February 16th, 1885.

The CHAIRMAN suggested that this statement be received as the basis of a report which this Committee should make; that first the questions in the memorandum be put, and that Mr. Childers be then asked to appoint a date for receiving a deputation; and that in the meantime a petition be drafted, and copies sent to each of the branches of the British Medical Association for signature.

Mr. SPANTON proposed, and Dr. WHITTLE seconded, the resolution, which was carried.

Indian Medical Officers and Charge Pay.—The CHAIRMAN said, that on behalf of this Committee, he had been much in communication, from time to time during the last year, with Indian medical officers and members of Parliament, and had caused questions to be put in the House, on the subject of a particular hardship under which the medical officers suffered in respect to "charge pay," and he proposed to address the following further letter on the subject to Lord Kimberley, the Secretary of State for India.

To the Right Hon. the Earl of KIMBERLEY, Secretary of State for India.

My Lord,—The Parliamentary Bills Committee of the British Medical Association, in approaching your lordship to make a respectful representation on behalf of both medical services serving in India, have to say that the great Association they represent, now numbering 12,000 members of the medical profession, has never, through this Committee, or the JOURNAL of the Association, lent itself to countenance unreasonable claims in the ranks of the public medical services. At the same time, as a body of men deeply interested in everything relating to public health, and the physical well-being of the army at home and abroad, the British Medical Association is much impressed with the great services rendered to the State by the medical officers of both services.

The health-condition of the European army up to the time when the Royal Commission reported on its sanitary defects, and consequent great mortality, is well known to us; so also is the immense improvement that has since been carried out. To bring about the diminished mortality in the European army of to-day, many factors have contributed. Some are due to the carrying out, on the part of an enlightened Government, of measures that may be summed up in the comprehensive term sanitary reform; others, to an immense improvement in the treatment of such formidable tropical diseases as malarial fevers, dysentery, and affections of the liver. This Committee would instance, in illustration of their meaning, the fact that in one of the Presidency Divisions of the Indian Empire, in which the strength of European soldiers amounted to 13,000 men, only three cases of tropical dysentery proved fatal out of five hundred. In the same body of men, there were only two fatal cases of malarial fever. We are able to say that such results could only have been obtained by exceptionally careful and skilful treatment on the part of the medical officers concerned, and, we add, we do not know where to match such favourable statistics of disease in any body of men, civil or military, in the world.

Our Committee are deeply impressed with the fact, too often forgot, that the credit due to the enormous benefit from sanitary reform is generally given to military and civil officials, who have been the instruments in the work of sanitation, forgetful that, long before a hand was applied to this work, it was the medical officers of the Indian Army who, before the sanitary era dawned in a practical way, were never weary of showing that more than half the ills usually set down to "climate," were distinctly remediable, and of showing how they could be removed. It appears to the Committee only justice to the medical officers of India, respectfully to bring the above undeniable facts to the notice of your lordship, the Secretary for India.

The Committee also respectfully press on the authorities the daily increasing demands made by the State on their medical officers. The examinations of the licensing bodies are, very properly, becoming, year by year, more strict. This is followed by a severe competitive examination for admittance to Netley. The course of study there is one demanding much labour, and it is followed by another examination before a commission can be obtained. Subsequently, every step in promotion can only be secured by examination. All this is as it should be. The Committee rejoice that so many securities should be taken for the due performance of responsible duties.

What the Committee desire respectfully to urge are the claims of the medical officers of both services, serving in India, to liberal treatment.

The Local Government of India desired to give the officers in medical charge of station-hospitals an allowance known as "charge pay," knowing the great importance and weighty responsibility of such positions. This was disallowed at home, a heavy blow and discouragement to a class of officers conscious of the value of their own services.

The Parliamentary Bills Committee respectfully and earnestly recommend a reconsideration of this decision, which will be much appreciated by the officers concerned, and also by the Association they represent.—I am, your faithful servant, ERNEST HART,

Chairman of the Parliamentary Bills Committee.

The Chairman's proposal was approved, and it was resolved that the Chairman be requested to forward the above communication to Earl Kimberley, and to take such other steps in Parliament as might assist in bringing about the desired end.

The Registration of Midwives Bill.—The CHAIRMAN said it would be remembered that this Bill, which was drafted by a joint committee from this Committee and the Obstetrical Society, and was accepted by the Privy Council, was, in 1882, referred to the General Medical Council, approved by them, and subsequently adopted by the Government; but the Government had not yet found time to introduce it. He thought that, under the circumstances, they should once more recall the attention of the Government to the Bill, which the profession, the medical authorities, and the Privy Council had approved in every detail, and which even the midwives themselves had accepted, and ask them to receive a further joint deputation, with a view to urging the progress of the Bill into law.

A resolution to this effect was proposed by Mr. CROSSE (Norwich), seconded by Dr. ORANGE, and carried *nem. con.*

Reference from the Council on Public Health Legislation.—The CHAIRMAN read the following resolution, which had been forwarded by the Secretary from the Council of the Association. "That it be an instruction to the Parliamentary Bills Committee to consider the question of the present unsatisfactory state of the public health administration, and to present a report thereon at the next annual meeting of the Association." The Chairman stated that, on receipt of this resolution, he wrote to the President of Council, to ask for any points to which they wished to call the attention of the Committee, and to ask for a copy of the notes of the discussion.

These notes were produced and read to the meeting.

The CHAIRMAN said he had written to Sir Charles Dilke, to know if it was the intention of the Government (as had been stated) to bring in a new Public Health Bill this session.

After discussion, a resolution was moved by Dr. ORANGE, and seconded by Dr. PHILLIPS, to the effect, "That this Committee is fully alive to the grave defects of the sanitary administration, and has, in the course of recent years, collected a great body of information bearing on the subject, and made numerous reports to the Government; that it has recently inquired of Sir Charles Dilke whether it is probable that any measure for the amending of the general health legislation is likely to be introduced this session, and has not yet obtained any affirmative information; and that the Committee holds itself ready to enter upon the subject at the earliest practical moment, and will gladly avail itself of the assistance of Dr. Bushell Anningson, Dr. Alfred Carpenter, and the mover and seconder of this resolution, in preparing a report, and in taking the necessary measures."

Report of the Dublin Branch on the Army Medical Department.—The CHAIRMAN stated that it had been an instruction to the incoming Council of the Dublin Branch, to send their report on the present condition of the Army Medical Department to this Committee, with a request that this Committee should give it their active consideration.

After discussion, it was resolved to forward a copy of the report to the Secretary of State, and to Director-General Crawford, to ask their attention to them, and to press upon them the views expressed in the Report.

Rivers Pollution.—The co-operation of the Committee had been sought by the Social Science Association, in the endeavour of that body to obtain early legislation on the important subject of river-pollution. The basis for such legislation had been settled for some years, and the need for action was very generally admitted. The Chairman suggested, therefore, that the Committee should inform the Social Science Association of their willingness to join with them (as desired) in a deputation to the President of the Local Government Board to press the matter upon his early attention.

The CHAIRMAN stated that he was now about to leave England for six weeks, and he therefore suggested that the Committee should nominate a deputy-chairman during his absence.

Dr. MACMILLAN moved, and Dr. WHITTLE seconded, "That during the absence of the Chairman, Dr. Alfred Carpenter (Croydon) be requested to act as deputy-chairman on behalf of the Committee, and to undertake the duties of deputy-chairman, and to summon the Committee, or take such other duties as may be found necessary."

UNIVERSITY OF LONDON.

AN extraordinary meeting of Convocation was held on Tuesday last, the 24th instant, at the University building, in compliance with the terms of a requisition addressed to the chairman, asking him to convene such meeting for the purpose of considering the proposals lately published by the Association for promoting the establishment of a Teaching University for London, and of considering certain resolutions founded thereon. The chairman, Dr. Storrar, presided.

Mr. J. Anstie, Q.C., and Dr. P. H. Pye-Smith, presented the following report of the Special Committee.

"Your committee held a meeting on February 9th, 1885, to consider the question referred to them in the following resolution of January 6th, 1885:

"'That a special committee of forty members be appointed to consider the proposals lately published by the Association for Promoting the Establishment of a Teaching University for London, and to report thereon to Convocation; and that it be an instruction to the committee to take the necessary steps for summoning a meeting of Convocation to receive their report at the earliest convenient opportunity;" and adopted unanimously the following resolutions:

"1. That, in the opinion of this committee, the objects of the Association for Promoting a Teaching University for London would, if carried into effect by this University, add to its usefulness and importance.

"2. That this committee do recommend to Convocation to reappoint this committee to promote the carrying into effect by this University of the objects of the said Association, with power to confer with the Senate or any committee thereof, and with the said Association, and with such other bodies and persons as they may think fit, and with power to accept resignations, fill up vacancies, and add to their number, and also to appoint subcommittees; and that the said committee be directed to report to Convocation from time to time as occasion may require."

The report was received.

Lord Justice FRY, B.A., representing the committee of forty, moved:—"That, in the opinion of Convocation, the objects of the Association for Promoting a Teaching University for London would, if carried into effect by this University, add to its usefulness and importance." The only proposals which had been made by the Association were the following:—"(1) the organisation of University teaching in and for London, in the form of a teaching University, with faculties of arts, science, medicine, and laws; (2) the association of University examination with University teaching, and direction of both by the same authorities; (3) the conferring of a substantive voice in the government of the University upon those engaged in the work of University teaching and examination; (4) existing institutions in London, of University rank, not to be abolished or ignored, but to be taken as the bases or component parts of the University, and either partially or completely incorporated, with the minimum of internal change; (5) an alliance to be established between the University and the professional corporations, the Council of Legal Education, as representing the Inns of Court, and the Royal Colleges of Physicians and of Surgeons of London." Lord Justice Fry went on to say that he did not desire, in bringing forward this resolution, to cast the slightest slur upon the past history of this University, which in times past had done a great work for education in this country, had undoubtedly elevated the character of teaching throughout the country. But it was well to look not only at what had been done in the past, but also at what was to be done in the future. Now, in London, besides this University, there was a vast amount of teaching of an University character, which hitherto had been scattered and unorganised, but which undoubtedly exerted an indirect influence on the counsels of the University, and which, if gathered together and united in one institution, would present a body of University teachers of no mean character. If there was one set of bodies more than another to whom the advantages of combination would be especially great it was the medical schools. London was undoubtedly, as he believed, by far the greatest clinical school in the world. It afforded, therefore, opportunities unrivalled in amount and character for the successful teaching of medical knowledge. Now, what were the results? London had something like 60,000 people passing through its general hospitals, and of its 25,000 hospital beds the greater part were now used for the purpose of giving clinical instruction. During 40 years, this University conferred the degree of bachelor of medicine at the average rate of 19 a year, or of a little more than one for every London medical school. Of every hundred medical graduates practising in this country, in the colonies, and in the services—roughly speaking, the Empire—London contributed 7.1 per cent. and the Scotch Universities 64.1 per cent. While disclaiming any desire to see this University enter into an undignified competition with the Scotch Universities in regard to the number of degrees, considering the enormous power of London as a clinical school and the small results in the matter of graduation, it appeared to his mind that the two things were out of harmony, and that either the degrees were too high or the teaching too low. This was not a matter to be regarded from any narrow or professional point of view. If London was driving away students from its hospitals to places where, although they could get less information, they could more easily get degrees, a great evil was being done which it might not be in the power of the University to remedy; but if it was within its power it was its duty to do so. On the one hand, would not the gathering together of all this teaching power into one body improve the teaching bodies, and improve the examining bodies on the other? Examination was, after all, but an imperfect test of knowledge. Teaching was a far higher thing than examining and answering questions, and he viewed with apprehension the enormous increase of the practice of cramming. To his mind, nothing was more odious than cramming, which was a vile imitation of learning. If by bringing teaching more directly into communication with examination they could in any way tend to check the increase of that great evil, they would be doing some

thing for the country at large as well as for the University. Dealing with the question of the practicability of the proposed reform, Lord Justice Fry said he saw no insuperable difficulty in the way of carrying the proposal into effect. If there were some who differed from him in thinking that it would be undesirable, he thought there would be others who would agree in thinking that the thing was inevitable. The union of these teaching bodies into something like a University would, he believed, come, whether they liked it or not, and no obstruction or unwillingness to accept the offers made by the association to the University would put an end to the scheme. If that view were correct it would be far better that the scheme should be carried into effect by and through this University than that another teaching body should arise in London, which would exert not only the influence of an examining body, but also the influence inevitably flowing from a body which superintended teaching. If they did not accept these proposals they would have another body, exerting influence greater than themselves, competing for the position of University of the metropolis. He believed that the adoption of the proposals would place the University in a position of far greater influence than it already possessed.

Sir JOSEPH LISTER, M.B., seconded the motion, which was opposed by Mr. A. W. BENNETT and Dr. W. DALE.

An amendment was subsequently moved by Mr. T. S. OSLER, and seconded by Mr. WILLIAM SHAEN, members of the Senate, to the effect: "That this House is not in a position to affirm the expediency of the adoption by the University of the diversified and indefinite objects of the Association for the Promoting the Establishment of a Teaching University for London." In moving the amendment, Mr. Osler sharply criticised in detail the scheme of the new association, arguing that its fundamental ideas were quite out of harmony with those on which the University of London was reared by its illustrious founders, and, indeed, were utterly subversive of its principles and aims. He would rejoice in closer intercourse between the governing and the teaching bodies, but that would be a very different thing from their abdicating their functions.

The discussion was continued by Dr. Pye-Smith, Mr. J. Anstie, Q.C., Mr. R. H. Hutton, Mr. James Heath, Mr. W. T. Lynn, and Mr. F. Stock; and, Lord Justice Fry having replied, the amendment was lost, and the original motion carried by a large majority.

Lord Justice FRY formally moved the following proposition, which was seconded by Sir JOSEPH LISTER: "That Convocation now reappoints the Special Committee appointed on January 6th, 1885, to promote the carrying into effect, by this University, of the objects of the said Association, with power to confer with the Senate or any committee thereof, and with the said Association, and with such other bodies and persons as they may think fit, and with power to accept resignations, fill up vacancies, and add to their number, and also to appoint subcommittees, and that the said Committee be directed to report to Convocation from time to time as occasion may require."

This resolution was adopted. The proceedings then terminated.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885: ELECTION OF MEMBERS.

Regulations for the Election of Members passed at the Meeting of the Committee of Council, October 12th, 1881.

There shall be a standing notice in the JOURNAL every week, of the meetings of the Committee of Council throughout the year; and stating that gentlemen wishing to be elected members of the Association must send in their names *twenty-one days* before the meeting of the Committee of Council at which they wish to be elected.

That a list of applicants be in the hands of the Committee of Council *fourteen days* before such meeting of the Committee of Council, and that the Branch-Secretaries be supplied with *several* copies of the list.

That no member be elected by a Branch, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Meetings of the Council will be held on April 8th, July 8th, and October 14th, 1885. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary, not later than twenty-one days before each meeting, namely, March 18th, June 17th, and September 24th, 1885, in accordance with the regulation for the election of members, passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
IV*a*. Diphtheria, sanitary.
VI. Acute Gout.
VII. Puerperal Pyrexia.
VIII. Paroxysmal hæmoglobinuria.
X. Habits of Aged Persons.
XI. Albuminuria in the Apparently Healthy.
XII. Sleep-walking.
XIII. Cancer of the Breast.

An inquiry is now issued concerning the general condition, habits, and circumstances, past and present, and the family history of persons who have attained or passed the age of 80 years.

The replies to this inquiry will be most valuable when given by a medical man; but the questions have been so arranged that, with the exception of some on the last page, they may be answered by another person. *Partial information will be gladly received.*

There is also now issued an inquiry as to the occurrence of albuminuria in apparently healthy persons.

The Acute Gout card, which had been found too elaborate, has been made a great deal simpler, and is now re-issued.

Copies of these forms and memoranda are in the hands of all the local secretaries, and will be forwarded to anyone who is willing to fill up one or more of the forms, on application by post-card or otherwise to the Secretary of the Collective Investigation Committee, 161A, Strand, London, W.C., to whom all applications and correspondence should be addressed.

July, 1884.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary. —C. SIBTHORPE, Honorary Secretary, Madras.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the above Districts will be held at the Grand Hotel, Brighton, on Tuesday, March 24th. Charles J. Oldham, Esq., will take the chair. Gentlemen desirous of contributing short papers, or cases, should communicate with the Honorary Secretary, East Sussex District.—T. JENNER VERRALL, 95, Western Road, Brighton.

METROPOLITAN COUNTIES BRANCH.—A general meeting of this Branch will be held at the Royal School of Mines, Jermyn Street, on Friday, March 6th, to consider the subject of University degrees for London medical students. A report of the Council on the subject will be presented. The chair will be taken by the president, Mr. Macnamara, at 8 P.M., precisely.—ALEXANDER HENRY, M.D., and W. CHAPMAN GRIGG, M.D., Honorary Secretaries.

NORTH WALES BRANCH.—The intermediate meeting of this Branch will be held at the Bull Hotel, Llangefni, on Tuesday, March 10th, at 2 P.M. A discussion on "Chorea" will take place, to be opened by Dr. Isambard Owen, of London, and taken part in by Dr. O. T. Williams, Holyhead, and others. Gentlemen desirous of reading papers, or taking part in the discussion, should communicate with the Honorary Secretary at once.—W. JONES-MORRIS, Honorary Secretary, Portmadoc.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next ordinary meeting will be held at Pontypridd, on Thursday, April 2nd. Members wishing to bring forward papers, communications, etc., are requested to send titles to one of the undersigned before March 15th.—A. SHEEN, M.D., Cardiff; D. ARTHUR DAVIES, M.B., Swansea, Honorary Secretaries.—February 25th, 1885.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this district will be held on Friday, March 27th, at Maidstone; C. E. Hoar, Esq., M.D., in the chair. Members wishing to read papers or to exhibit specimens are requested to communicate with me as soon as possible. Further particulars will be announced.—H. LEWIS JONES, St. Bartholomew's Hospital, Chatham.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT. —The next meeting will be held on Thursday, March 19th, at 8.30 P.M., at the Hackney Town Hall. The chair will be taken by Dr. C. T. Aveling. Dr Bristowe will read a paper "On the Significance of a Peculiar Murmur in relation to the Diagnosis of Intrathoracic Disease, illustrated by Cases."—JOSEPH L. HUNT, Honorary Secretary, 101, Queen's Road, Dalston.

BORDER COUNTIES BRANCH.—The spring meeting will be held on Friday, March 20th, at Maxwell's Commercial Hotel, Galashiels. The chair will be taken by the President, Dr. Muir, at 4 P.M., when a discussion on Pneumonia will be introduced by Dr. Lockie, of Carlisle. Dinner at 7 P.M. Notices of papers for reading, morbid specimens or patients for exhibition, should be sent to the Secretary, H. A. LEDIARD, Carlisle.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting will be held at the Queen's Hotel, Upper Norwood, S.E., on Thursday, March 12th, at 4 P.M.; G. K. Poole, Esq., M.D., of Norwood, in the chair. Dinner will be served at 6 P.M. precisely; charge 7s., exclusive of wine. All members of the South-

Eastern Branch are entitled to attend, and to introduce professional friends. The following papers, etc., have been promised. Edmund Owen, Esq.: Incontinence of Urine in Childhood. Dr. F. H. Champneys: The Prevention and Treatment of Abortion. Dr. R. M. Miller: A Case of Interest.—J. HERBERT STOWERS, M.D., Honorary Secretary, 23, Finsbury Circus, E.C.

NORTH OF IRELAND BRANCH: GENERAL MEETING.

A GENERAL meeting of this Branch was held in the Belfast Royal Hospital on Thursday, January 29th. The President (Professor CUMING) occupied the chair, and there was a large attendance of members present.

Lithotomy.—Dr. MACONCHY (Downpatrick) exhibited a large calculus, weighing about six ounces and a half, which he had removed from a patient by lithotomy some weeks previously. He was obliged to break it up somewhat before extraction. The patient was reported to be progressing favourably.

Malignant Disease of Liver.—Professor CUMING exhibited a liver, the seat of malignant disease. The point of interest in the case was the absence of any nodular feel on the surface of the liver. Palpation showed the organ to be enlarged, but smooth and regular in outline. On section, rather large cancerous masses were found studded throughout the liver. Ascites was a prominent symptom; but the fluid, which was removed several times by tapping, did not present any of the usual characteristics found in malignant disease. There was never any pain.

Cucaine.—Dr. NELSON read a paper on the use of cucaine in affections of the eye, nose, and throat. He gave some practical demonstrations on its use in eye-operations.

Anencephalous Fœtus.—Dr. ANDERSON (Newtownhamilton) exhibited an anencephalous fœtus. There was entire absence of brain and cranial cavity.

Contracted Knee.—Dr. ST. GEORGE (Lisburn) showed a patient upon whom he operated for contracted knee-joint by tenotomy and immediate extension, with good result.

SPECIAL CORRESPONDENCE.

[FROM A SPECIAL CORRESPONDENT.]

Sanitation in Egypt.—Fowl-diphtheria.—The New Victoria Hospital.—Small-pox and Vaccination.—The Cairo Medical School.

CAIRO, February 17th, 1885.

SANITARY progress in Egypt continues to be at a standstill. Surgeon-Major Green is not following the mistaken policy of some other Anglo-Egyptian administrators, by introducing sweeping reforms before having learnt the real object of existing institutions. Indeed, he is said to have puzzled his native colleagues by his apparent supineness; but he is preparing the ground for future operations. By the request of Sir Evelyn Baring, he has prepared a report for the enlightenment of the English Government, giving the history of the sanitary service, its present condition, and future prospects. The readers of the JOURNAL are already well informed as to the history and present condition of the service. Mr. Green's plans for its future conduct are mainly dependent on the support he may receive from the Home Government. One of them—a system of drainage for provincial mosques—I described in my last letter. He has also a plan for remodelling the system of sanitary fees, which are, for the most part, collected at the various district sanitary bureaus by the district doctor and his clerk. These fees are paid for certificates of birth, vaccination, and permission to bury (apart from death-certificates given by the medical man, if any, who attended the patient during life); for registering pharmaceutists, midwives, etc.; for leave to empty cesspools; certificates of death of horses, donkeys, etc. According to the universal Egyptian system of "backshish," these fees are always accompanied by a "consideration," paid to the clerk who receives them. Mr. Green intends to have these paid for by Government stamps; but he will still need much stronger support from the English Government than has lately been accorded to English servants of the Khedive. Rumours have been rife as to intrigues on the part of the Minister of the Interior and others for replacing Dr. Hassan Pasha Mahmoud as Director. It is even said that the streets have been purposely left unwatered and uncleansed, in order to bring discredit on the new director and sub-director, those functions depending on the police and voiree administrations respectively, and being only indirectly connected with the sanitary service. Sir Evelyn Baring has intimated that Dr. Hassan Pasha will never be allowed to return, but the very fact that such rumours can exist, shows the difficulties of the present mixed administrations.

Fowl-diphtheria, a disease which has been studied in Germany by Dr. Klebs, has been prevalent this winter in Cairo. It is characterised by copious patches of membrane in the mouth and throat, swelling and ulceration of the neck, and inflammation of the intestines, with abscesses round the anus. Dr. Brugsch has been studying the disease microscopically, and by cultivation-experiments at the Khedivial Laboratory, which he has fitted up with the cultivation-apparatus which is used in Dr. Koch's laboratory. He has found in the membrane, and in the œsophagus, a bacillus resembling that found by Dr. Loeffler in the diphtheria of pigeons; but he has not yet found it in the other organs, nor has he succeeded in inoculating other animals with it.

The new Victoria (Deaconesses) Hospital was opened yesterday. It contains twenty-five beds, and there will be an out-patient department. There is to be no resident medical man, and though the hospital is nominally under the control of a Cairo committee, the supreme power is vested in the Kaiserswerth authorities, who can dismiss the visiting medical staff, or veto any member or any motion of the committee. Such a constitution would not be regarded favourably in England, but as it has worked well in Alexandria, at the hospital with which Dr. Mackie is connected, we will hope it may meet with equal success in Cairo.

Small-pox is very prevalent in Cairo just now. Vaccination is probably more universal in Egypt than in England; there are no anti-vaccinationists here, and people who are fond of bleeding and issues do not fear half a dozen pricks. But, though more universally performed, it is not done so effectually, the public vaccinators being inefficient: and second vaccinations are very unusual. Impetiginous eruptions and erysipelas frequently follow public vaccination, owing to the careless and dirty way in which it is done. I have known two cases of death from erysipelas in infants occurring within two weeks of public vaccination.

The directors of the Cairo Medical School are showing a praiseworthy ambition to be abreast of the times. A laboratory is to be started for the study of bacteria microscopically and by cultivation, and the requisite apparatus has already been ordered from Germany. However it would be wiser for the authorities to assure themselves first that normal histology was being properly studied. I believe the whole school, including professors and students, can only boast of having three microscopes.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Paraldehyde.—Hysterical Fever.—Can Tuberculosis be transmitted by Vaccine-Lymph?—Diphtheria treated by the Tar-and-Turpentine Vapour.

PARALDEHYDE was discovered in 1829 by Wiedenbusch, and was regarded as a curious substance, obtained in laboratories. In 1882, it was used in therapeutics. Its composition, resembling that of aldehyde, led to the supposition that its action on the cerebro-spinal centre would be similar. The violently toxic properties of aldehyde prevent it from being used as a therapeutic agent; it is so extremely volatile that it could not be administered as a draught; it is also too powerful an irritant to be used in hypodermic injections. These difficulties are not attached to the use of paraldehyde. M. Desnos has made a careful study of this substance, which has been partially studied by MM. Eloy and Dujardin-Beaumetz. Animals submitted to the influence of paraldehyde furnish evidence of its action on the brain, and especially on the grey substance. Hypodermic injections provoke symptoms of intoxication, preceded by a period of excitement. If the dose be increased, sleep is produced, which becomes deeper, and finally comatose; there is complete anæsthesia; reflex action is weakened, but does not disappear; breathing becomes shorter. Increasing the dose a second time produces death. The heart is not affected, unless very strong doses be administered; in this respect paraldehyde is preferable to chloral. M. Desnos tested the effects of paraldehyde on sixteen women and twenty men; the doses administered varied from two to four grammes; if sleep did not result a stronger dose was also unsuccessful. Among the thirty-eight patients thus treated, who suffered from different maladies, there were but five failures. Sleep generally lasted two, four, or six hours, according to the dose. Slight excitement precedes sleep, but there is never delirium. It frequently happens that sleep returns after the patient has discontinued the use of paraldehyde. Dreams rarely trouble the sleep obtained from paraldehyde. In relieving pain, it is inferior both to chloral and to morphia; nevertheless, it is sometimes specially efficacious. In a case of persistent occipital neuralgia, which tormented an hysteri-

atient, paraldehyde gave great relief. Its effect on the alimentary anal is not always satisfactory; small doses may be tolerated, but, hen increased, cramps and vomiting frequently result. M. Desnos' xperiments prove that fever-patients can be treated with paraldehyde ith satisfactory results; this was a question hitherto left open to oubt.

Some medical men will not admit that hysterical fever exists; I. Debove, at a recent meeting of the Société Médicale des Hôpitaux, described a case which he considers thoroughly conclusive n the affirmative sense. A young woman, twenty-four years of age, hom he had treated during five years, presented all the symptoms of ysteria, multiple paralysis, contraction, violent convulsions, etc. hree years ago she had a shivering fit, followed by an increase of mperature and violent perspiration; this attack lasted three or four ours; after it, the temperature was never lower than 38° Centigrade 100.4° F.). There were subsequent attacks, and the temperature rose to 9° and 40° Cent. (102.2° and 104° Fahr.). M. Debove believed the pa- ient to be suffering from intermittent fever, but the spleen remained ormal, and the general condition remained good; the hypothesis of uberculosis was therefore rejected. The patient had another attack hich lasted fourteen days, with a temperature of 40° and 41° (104 nd 105.8 Fahr.) degrees; the skin hot, a dry tongue, a semi-delirious ondition, and constipation. All the organs remained in a perfectly ormal condition. Quinine was administered with negative results; hree days after antipyrin was given to the patient, the fever dis- ppeared. Since, the general condition has been satisfactory, but the mperature remains at 38° Cent. (100.4° Fahr.). M. Debove concludes hat this high temperature, with frequent attacks of fever unaccom- anied by any other disturbance, is to be attributed to hysterical fever. his phenomenon has occurred in both sexes, and can only be explained y the thermic nerve-centres being stimulated, which also demonstrates he possibility of increased temperature in hysteria.

Since Jenner's discovery, the question of the transmissibility of uberculosis by vaccine lymph has been much discussed and differently terpreted. The researches of Villemin and Koch, which have fur- ished good reason for believing that tuberculosis is virulent, render he question still more important. In 1881, M. Toussaint, in a note mmunicated to the Académie des Sciences, stated that he vaccinated phthisical cow from a healthy child; he afterwards inoculated a pig nd a rabbit from the vaccine pustules of the phthisical cow, and both nimals were attacked with tuberculosis. Koch's bacillus was not und in the lymph. M. Strauss has repeated these experiments. In he space of eighteen months, five phthisical patients were revacci- ated. Ehrlich's process failed to reveal bacilli in the vaccine lymph these patients. Inoculations from the vaccine lymph of phthisical atients were effected in the anterior chamber of the eye of rabbits, at they remained exempt from tuberculosis; a few days after the peration, the eyes were completely normal. The necropsy was made few days subsequently, but there was not the slightest indication of berculosis. M. Josseren, a pupil of M. Chauveau, made the me experiments as those of M. Strauss; they were equally nega- ve in result, and indicate that tuberculosis is not transmissible; us, twenty-four facts oppose one furnished by M. Toussaint.

M. Dujardin-Beaumetz records an interesting case of treating diph- eria by M. Dethil's method, which we have described in former tters. A child of four years of age, suffering from diphtheria, was bmitted to this treatment; a few hours afterwards, she was given a mitive, and in a very short time tubulated false membranes were pelled; they did not reappear, and the child was cured. M. Dujar- n-Beaumetz believes that the products of the combustion of tar nd turpentine do not dissolve the false membranes, but prevent them om being reconstituted.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

he Vacant Police-Surgeoncy.—The Recent Epidemic of Enteric Fever. —City Mortality.—Dressers for the Egyptian Expedition.—Visit from the French Sewage Commission.—Diagnosis of Renal Affections.

HE vacancy in the post of casualty-surgeon for the central police- strict of the city has been filled up this week by the appointment of r. T. K. Dalzell, of the Royal Infirmary. There were eleven appli- nts, but the contest really lay between Drs. Dalzell and Young. he former gentleman was chosen, our civic authorities apparently eling that, if a young man of tact and skill could be obtained, he ould be as valuable to them as an older and perhaps better know practitioner, the claims of whose private practice might to some extent interfere with the personal discharge of his duties as central police-surgeon.

Dr. Russell has very properly taken another opportunity of keeping clearly before us the lesson taught by the last outbreak of enteric fever, the full force of which fell on the inmates of our infirmaries. The minutes of our Health Committee for this week contain an excellent and exhaustive reply to the statements made by the Kilwinning Local Authority to the Board of Supervision in reference to the epidemic. As is well known, Dr. Russell made certain allegations against the sanitary state of certain farms which supplied Glasgow with milk; and he also held that there had been negligence on the part of the authorities within whose jurisdiction these unsanitary farms lay, in not seeing that the defects were remedied. Now that the accused have made their defence, all will agree with Dr. Russell that, if they have done all that was required of them by law, the sooner the law as it now stands is amended, the better; for it is at present a delusion and a source of danger to those inhabitants of large towns who consume the milk sent in from these unhealthy districts.

The death-rate for the last fortnight has been 30, which is a decrease on the preceding fortnight, when it was 33. We are still, however, suffering from a higher rate than at the corresponding period of last year. This seems due to the greater fatality of chest-affections, and the epidemic prevalence of measles, especially in the northern district of the city. There have been one or two more cases of small-pox registered, and the first death from that disease since June of last year occurred in the past fortnight. The man had never been vaccinated. It was also noted that, of the three cases admitted to the Small-pox Hospital, one was a servant-girl, who had contracted the disease from a fatal case of small-pox occurring in her master's house three weeks since. The gentleman who died was an opponent of vaccination, and came from Taunton, where his whole family lay ill.

For some days there was abroad what seemed a well authenticated report that the authorities in London were desirous of obtaining the assistance of civilian dressers in connection with the new expedition to Egypt. Professor George Buchanan wrote to the War Office upon the subject, as there would have been no difficulty in getting several senior students, but the reply sent showed that, at present, the Government has no intention of asking such aid. The incident brings out the fact that the Glasgow schools of medicine are somewhat behind those of Edinburgh and London in one point, and that is that they have, as yet, no volunteer medical association, the members of which have been duly trained in stretcher-drill and field-hospital work, so that, were the need to arise, they could place at the disposal of the authorities, a bearer-company fully instructed in all these duties.

Glasgow was visited last week by the French Commissioners, who are at present travelling in this country to obtain some information with reference to the purification of rivers from sewage. I fear our Town Council were not in a position to show them any practical work in this direction, although they could point to a river that needed it more than any other in the kingdom; but it is to be hoped that this visit will help to remind once again those with whom the question lies, of the need for some immediate action. The Commissioners had shown to them the system in vogue in Glasgow for the disposal of the city refuse, and had to admit that it was most admirably adapted for the purpose.

The advance that has been made in the diagnosis of renal diseases was well exemplified in a case brought before the students, at the Western Infirmary, by Professor George Buchanan. The patient was a woman, the chief feature of whose ailment was the presence of a large quantity of pus in the urine. The interesting point about the case was that, previously to adopting operative measures, steps had been taken to demonstrate satisfactorily that the right kidney was the seat of mischief, and that the other one was sound. This was accomplished by the use of a recently invented German instrument, by the introduction of which into the bladder, the urine from each kidney was collected separately, and the seat of suppuration determined. The correctness of this diagnosis was verified by the subsequent nephrotomy, performed by Professor Buchanan.

PAYMENT OF DISPENSARY OFFICERS.—In the New York Dispensary, a change has been made in the medical administration. In place of attendance by thirty-two physicians and surgeons, five medical officers have been appointed after competition, to attend four hours daily (except on Sundays and holidays, when one hour's attendance is required). They are each to receive 800 dollars (about £160) *per annum;* one of them, the physician-in-chief, or house-physician, receiving 1,200 dollars (£240).

CORRESPONDENCE.

THE ORGANISMS OF CHOLERA.

SIR,—I was greatly interested to see your report of Dr. Klein's paper on the Cholera question read before the Royal Society, but some of the statements seem to me to be contrary to facts generally known. As to his conclusion No. 4, I should like to know what Dr. Klein's plan of preparing and staining his preparations was, as I have myself found in preparing and staining some specimens of cholera-intestine, kindly given me by my friend Dr. Escherich, of Würzburg, on his return from Naples, where he was studying the pathology of cholera during the late epidemic, that in sections the bacilli are very difficult to stain satisfactorily. The only method that I found successful was by leaving the sections for about twenty-four hours in Ehrlich's methylene-blue solution (alkaline), and then decolourising with a weak solution of acetic acid. I was quite unable to stain them with fuchsine or by Gram's method, which latter method gives most splendid results with many bacteria. The statement, in conclusion 6, that the cholera comma-bacilli are not killed by acids, is valueless, as Klein does not state what acids. Surely strong sulphuric acid will kill them? Koch states that they grow well on the acid surface of potato-sections, but that they are killed by the acid of the stomach and by several other acids.

In conclusion No. 6, Klein makes the statement that "the comma-bacillus of the mouth shows the same peculiar character of growth in gelatine as Koch's comma-bacilli." I am greatly surprised at this statement, as Koch himself and a great number of other Germans have endeavoured in vain to cultivate the *Mund-spirilli*, as they are called here, in gelatine; and I should like much to know something of Dr. Klein's method of cultivating them.

The statement in No. 7 is simply opposed to the truth, as Koch has stated again and again that comma-formed bacteria are to be found in many other cases not cholera; and he has taught us how to distinguish these from the cholera-bacillus.

As to the spirilli of stale cheese, Dr. Deneke, in his paper in the *Deutsche Medicinische Wochenschrift*, "Ueber eine neue den Cholera-spirillen aehnliche Spaltpilzart," shows how easily that spirillum, and also that of Finkler and Prior, can be distinguished from the cholera-bacillus of Koch.

It seems to me quite clear that Koch has proved that the cholera-bacilli have properties in their mode of growth in artificial media distinguishing them from all other similar forms of bacteria; and the experiments on animals made by him and by others in Germany go far to show that they have also distinct pathological properties. If this is not sufficient to justify their being considered specific, what more does Dr. Klein wish?

Some of these statements of Dr. Klein that I have criticised make me wonder if he can have read Koch's papers on the subject, and I hope his report to the India Office will explain the rather remarkable conclusions to which he has come.—I am, etc.,

Munich. CHARLES WORKMAN, M.D.

*** We understand that all the subjects touched upon by Dr. Workman will be fully dealt with in the official report which will be published shortly. The abstract published by us on February 7th is the fullest account of the results attained by the English Cholera Commission which has yet appeared, but with an abstract no details could be introduced. We are enabled to state, however, with regard to Dr. Workman's statement that the cholera-bacilli are difficult to stain successfully, that Dr. Klein and his colleagues found no difficulty in staining the bacilli; in two cases, they could be easily traced as having grown into the tissue from the surface. But, in a good many cases of typical acute cholera examined shortly after death, neither alkaline methylene-blue nor any other aniline dyes that were used showed any bacilli, and the conclusion was inevitable that they were not present. The statement in conclusion 6 (second column, p. 289) applied to the behaviour of the bacilli when exposed to the action of dilute hydrochloric acid (1 in 1,000), such as exists in the stomach. The bacilli are not killed in an acid mixture of this strength. Dr. Klein informs us that the method of cultivating the mouth-comma-bacilli will be published in the official report, but that there is nothing special about the method; it is only necessary to start with saliva in which the bacilli are tolerably numerous, and to isolate them by the ordinary methods of culture. With regard to statement No. 7, which is denied by Dr. Workman, it would appear that he has not studied Dr. Koch's papers with sufficient care. Though his views have now undergone a change, Dr. Koch distinctly stated, in his earlier communications, that he had searched for comma-bacilli in a large number of cases of intestinal disease, and in the mouth, and had not been able to discover any comma-bacilli. Dr. Klein did not dispute the fact that the comma-bacilli of Koch differed in their mode of growth from all other similar forms of bacteria; but this, of course, proves nothing more than that the comma-bacillus he described is a distinct species. From the tenour of the preliminary report issued in India, we had been led to suppose that Dr. Klein did dispute this, but his communication to the Royal Society showed that he had been misunderstood. With regard to the last point raised by Dr. Workman, it is difficult to believe that he can himself attach any serious importance to it. The experiments on animals referred to, involve a very severe operation, and, so far as we are aware, there is not a tittle of evidence to show that the deaths of the animals are not to be attributed to the operation. The animals probably died of septicæmia, and we have reason to believe that, if the operations had been performed antiseptically, they would not have been attended by positive results. The abstract published in the BRITISH MEDICAL JOURNAL shows clearly that Dr. Klein and his colleagues investigated the question in a very full and thorough way. Speaking at the Royal Society immediately after Dr. Klein had made his statement, Dr. Burdon Sanderson said that he thought Dr. Klein had "completely proved his point;" these, from so acute and cautious a reasoner, were very strong words. Dr. Workman will probably see reason to modify the tone of his criticism.

THE THUNDERSTORM OF JANUARY 31ST.

SIR,—The storm, or, rather, the single discharge of lightning which disturbed us Londoners about a quarter-past seven upon Saturday evening, January 31st, and which was taken by many to be yet another dynamite-explosion, through the rarity of thunderstorms at this season, produced, in two instances which have come under my notice, effects which are, I think, sufficiently unusual and interesting to put on record.

So far as could be judged from the nearly absolute simultaneousness of the flash and thunder-crash, the electrical discharge occurred near the earth's surface, and almost exactly over the junction of St. James's Street and Pall Mall, S.W. Readers of the JOURNAL will recollect that everything, air, earth, and buildings, were then saturated with moisture.

At the moment at which the discharge took place, two servants in one of the club-houses near the bottom of St. James's Street were engaged, the one in writing with a steel-pen, the other in carving (using his left hand). Although they were in different parts of the building, and at a distance of from eighty to ninety feet from each other, they were both affected with general shock and definite local injuries, while, at the same instant, the telephone call-bell in the hall rang violently.

Before describing these injuries, it should be stated that the house in question is notably higher than its neighbours, and that it supports above many telephone-wires, and receives thence its own wire for that purpose. Below, there are other wire-connections with the earth, such as the tape-machine, and immediately outside in the street run the whole coil of the Government telegraph-wires. It may be worth noticing, also, that both the persons affected were at the time in outjutting parts of the building, composed largely of glass and iron, and not structurally parts of the house.

The effect on the servant who was carving has been described to me thus. He suddenly dropped the knife he was holding in his left hand and said that he saw the lightning run up his arm into his body. His hand and arm then became cramped and painful, and he presently complained of pains and cramps generally. He was excited, and appeared to be suffering from shock. He went home, and is stated to have been wandering and light-headed during the night. On the following morning (Sunday), his arms, but especially the left, were still very cramped and painful.

Inasmuch as I can only give a secondhand account of this man's case, it is not worth while going into further details. The foregoing will be enough to show that the effects of the lightning-shock were broadly speaking, the same in his case as they were in that of the other servant, whom I have been able to examine carefully, and who is a very intelligent person.

He states that, at the time of the lightning-flash, he was writing with a steel pen (with the ulnar side of the arm, as is usual, resting upon the desk) within a yard of the telephone-wires and two yards of the telephone mouthpiece-receiver on the one side, and within a yard

tape-machine on the other. He suddenly felt as if he had re-l a violent blow on the back of his head, and was conscious of an burning pain running up the arm and across the chest. He was confused, and felt very queer, but gradually got over his shock. ne rest of the evening he had great stiffness of the neck, and cramping feelings in different parts of the body; but especially ight forearm was flexed upon the arm, as was the wrist upon the rm, while the fingers could hardly be opened, and could not be oluntarily, at all. The whole hand was numb, with painful ings, and pins-and-needles. There was a general feeling of ness all down the right side of the trunk and thigh. The left m and hand were somewhat cramped, but not nearly to the extent as the right limb.

went home in a cab, and passed a sleepless uncomfortable night, conscious of much confusion of thought, but without any fresh toms.

nen I saw him on the following morning, the effects of the shock in a great measure, worn off. The left arm and hand had almost ned their normal sensation, and there was only a distinct feeling of fatigue in the right leg and thigh; but the right forearm, wrist, ingers were still strongly flexed, although they could be nearly d with a strong voluntary effort. The pins-and-needles, and sub-e feeling of numbness, were still present, and the sensation was lly diminished as compared with that of the other hand. All ymptoms were more marked along the ulnar side, but did not fol-he course of the ulnar nerve. The movements of the elbow and der were stiff and painful, and the muscles generally were painful ndle.

the following day, February 2nd, the sensation in the hand was r again, but still numb upon the ulnar side, and there was much pasm. The hand and arm were now very distinctly swollen and and there was much muscular tenderness. The right leg still reaker than the left. At the date of writing, February 3rd, all ymptoms seem to be steadily passing off.

r object in giving this account is twofold. In the first place, ugh injuries from lightning-discharges are not uncommon, it is, ieve, quite unusual for two people in a house, and in different of the same house, to be similarly and simultaneously affected, therefore, the mere fact is probably worthy noting.

e results of the shock in the second of these cases—namely, in the vhich I have more fully narrated—do not differ very importantly those which are usually described, but they have seemed to be h recording as coming from a trustworthy source. The fact that mb most affected was in each case holding metal—a carving-knife e one case and a steel pen in the other—is, I suppose, what might pected; but it is interesting to note that, in the second case, the severe injury was inflicted upon the tissues of the ulnar side of ight hand and forearm, namely, upon that part of the limb which n contact with the writing-table.

it secondly, it seems to me at least possible that the explanation is double injury may present some features of importance in con-ion with the safety of buildings which are surrounded and riddled telegraphic and telephonic wires running in all directions. Some ers of the JOURNAL more conversant with the laws of statical elec-ty than myself will perhaps be willing to consider whether it is ible that the condition of the house in question during the storm nbled in any degree that of a charged Leyden jar, and whether shocks experienced by the two servants can be likened to dis-ges therefrom of a limited intensity; it being borne in mind that atmosphere was humid, that the walls of the building (itself er than its fellows) were wet, that there were various electrical ections running from the roof to the ground-floor, and from that to the earth, and that both the accidents took place in out-jutting ions, principally built of glass and iron, which would be uni-ly wet on their outsides.

astly, has the ringing of the telephone call-bell any bearing on the ect? I have an indistinct recollection of an account of the in-taneous death (I think in Manchester, about a year ago, but I ot find the reference) of a person who was in the act of holding lephone-transmitter to the ear, when a discharge of lightning oc-ed in the vicinity.

he suggested explanation given in this letter may well be founded fallacy, due to my imperfect apprehension of electrical statics, the accidents I have described seem to me to be somewhat alarm-y suggestive of the possibility of a new risk having been added to list, already sufficiently long, which may be incurred by those who in houses "furnished with all modern improvements."—I am, etc.,

Sackville Street. WALTER PYE.

MERCER'S HOSPITAL, DUBLIN.

SIR,—I was glad to see you had taken notice of the Mercer's Hospital management, and action of the students in connection therewith, in your issue of the 21st. Your remarks on the conduct of the students being merely a criticism, or opinion, which everyone is entitled to hold, I will not allude to, save to say that the rowdy element was not confined to the students, inasmuch as the meeting of governors was of a most stormy nature. You are not aware of the groundwork of the dispute. The students, I am sure, will have your sympathy, when I tell you that for a long time the hall of the hospital has been the general waiting-room, dispensary, and accident dressing-room; here students, patients, and all others may be seen from the street. One of the staff may frequently be seen prescribing at a window three yards from the open street door. The operations are performed in one of the wards, where eight or ten students may perhaps see what is going on, if they are the fortunate ones to get round the bed first. The number of beds to be kept open has been set down by the house-committee as 41, and is sent forward to a special meeting of the Board of Governors for adoption. Now, sir, if this is made a rule of the house, what remedy have any students should the various licensing bodies refuse to accept the certificates issued by Mercer's Hospital. Further, can 41 beds, divided among five surgeons and physicians, give that variety and number of clinical cases necessary for the formation of a sound practical medical or surgical education. This question in connection with Mercer's Hospital is one of vast importance to parties outside the institution; the others with which the students have been occupied are more for Mercer's men alone. And now, in conclusion, I would like to add that the only cause of complaint I have heard from those students who were not at the recent meeting, was "that they did not hear of it in time." Several called at the place of meeting the day after, having mistaken the date, and were quite satisfied with what had been done. There were 40 out of the 70 students on the roll of the hospital this year at the institution on the morning of the meeting of Governors, besides 15 or 20 immediate past students; the latter were naturally opposed to the election for a second year of the same gentleman.—Yours faithfully,

JOHN KING IRWIN, L.A.H.L. & L.M.K.Q.C.P.I.

16, Peter Street, Dublin.

MILITARY AND NAVAL MEDICAL SERVICES.

CONDITIONS OF THE PRIZE OFFERED BY THE EMPRESS OF GERMANY FOR THE BEST FORM OF MOVABLE HUT-HOSPITAL.

IT was announced some months ago that the Empress of Germany had offered a sum of 5,000 francs and a gold medal, as a competitive prize, for the best model of a movable hospital of the barrack-hut type, and that the terms on which the prize was to be competed for would be published as soon as certain details regarding them had been settled. The programme of the conditions for the competition has just been issued by the Committee of the International Society of the Red Cross of Geneva, to whom the arrangements of the matter had been entrusted, and the following are the most noticeable points among them. It is to be hoped that there will be no lack of British competitors in the undertaking, which is likely to lead to results of much advantage in civil life, on the occurrence of epidemics, as well as for military hospital purposes in time of war.

1. *General Principles.*—(A) The barrack-ambulance must be capable of being rapidly put together, either on a theatre of warfare, or wherever an epidemic of disease may occur. It must be adapted for forming part of a great hospital establishment, or for being, with its annexe, complete in itself. (B) It must be constructed in all its parts in such manner that it can easily be taken to pieces; easily transported from one place to another, either along main roads, lanes, or by railway; and rapidly reconstructed and put in a state fit for receiving patients. When all the parts of the ambulance are united, it must have sufficient solidity for enabling it to resist the variable weather of temperate climates, particularly high winds. (C) Its condition must be such as to fit it for being made use of either in summer or winter, or, at least, to be rendered serviceable for use in winter without inconvenience, taking into consideration the weight of snow and other complications which a cold season may entail. In the latter case, the means for making it fit for winter use must be added to the models or plans exhibited by the competitors.

2. *Special Conditions.*—(A) The *materials* employed should be impermeable to rain, and, as far as practicable, incombustible. The walls and floor should admit of being disinfected without difficulty. The choice

of the materials in other respects is absolutely at the discretion of competitors. (B) As to *dimensions*, each barrack-ambulance should contain at least twelve beds, allowing for each a cubic space of at least 12 mètres. As to the matter of *annexes*, a closet, forming part of the body of the barrack, or separated, will suffice. If detached, it should be arranged for being put in communication with the barrack as soon as it is erected. (C) With regard to the *erection* of the barrack, the different pieces should have such mutual relation, as to render special workmen unnecessary for mounting or dismounting it. The *floor* should be formed of well planed planks, so that it may be walked upon without checks, and should not be in direct contact with the ground. The *ventilation* must be sufficient, even during a cold season, when doors and windows are closed. The particular system of ventilation to be adopted is left to the choice of the competitors. The provision for *heating* should give to the interior of the barrack in winter a temperature of about 18.75° C., or 65.75° F. The arrangement for heating may be made to assist the ventilation. (D) *Cost and Weight.*—Considering the large number of barrack-ambulances that may be required, and the advantage of having such as may be destroyed without scruple after they have been some time in use, reduction in weight and cost as far as possible should be kept in view. (E) *Mode of Exhibition.*—Competitors must present either specimens of barracks of natural size, or models reduced to one-fifth of their size. Each exhibitor must present a general plan of the establishment, with transverse and longitudinal sections, on a scale of 1-25th; also special plans for each part of the construction, the system of warming and ventilation, the closet, etc., either of natural size, or on a scale of 1-5th or 1-10th. The plan should indicate the positions of the beds. An exact description of the whole establishment, its construction, approximate weight and cost, should accompany the above, and should be written either in French, German, English, or Italian.

3. *Organisation.*—Competitors should send their works to Antwerp in time for September 1st, 1885. They will be publicly exhibited from September 10th to September 20th. The ground for the exhibition will be offered gratuitously. Competitors should send an invoice of their intended exhibits before July 15th to "The Commissary General of the Belgian Government for the Antwerp Exhibition, 10A, Rue de la Loi, Brussels."

The jury appointed to decide on the adjudication of the prize is international, and consists of His Excellency Professor von Langenbeck, for Germany; Surgeon-General Dr. Coler, for Prussia; Professor Dr. Baron Mundy, for Austria; M. Ellissen, engineer, Secretary-General of the French Society of the Red Cross, for France; Professor Longmore, of Netley, for Great Britain; Commander Dr. Baroffio, Médecin Inspecteur, for Italy; Dr. Carsten, Secretary-General of the Netherlands Red Cross Society, for Holland; Dr. Berthenson, Director of the Barrack-Hospital of Her Majesty the Empress at St. Petersburg, for Russia; and M. Gustave Moynier, President of the International Red Cross Committee at Geneva, for Switzerland.

For information on any points not mentioned in this notice, application should be made direct to the "Comité Internationale de la Croix-Rouge, à Genève, Suisse."

THE INDIAN MEDICAL SERVICE.

SIR,—In your article under the head of Indian Medical Service, in your issue of January 10th, you refer to the custom of giving nearly all the extra charges—by which, I suppose, is meant such appointments as Surgeon to the Viceroy, etc.—to the officers of the Army Medical Staff; and you seem to imply that the Medical Staff are unfairly favoured. When it is remembered that such appointments are almost the only prizes to be obtained in the Medical Staff, and that hardly any other appointments carrying increased pay can be obtained by us, I think your remarks are scarcely fair. You have only to see the very different positions in which the surgeons who obtained first places in the Indian Medical Service in the last three years, compared with those who took corresponding positions in the Medical Staff, to fully realise the immense advantages of the former service over the latter. Whilst we are serving on a miserable pittance of rupees 317:8, with but very slight prospect of holding any paid appointments, which has become still less since the Government have suppressed twelve lock hospitals, and daily losing our professional skill, the majority of surgeons in the Indian service are holding appointments which bring in substantial increase of pay, and opportunities for good professional work. The lack of prizes in the Army Medical Staff—as special appointments usually go by interest—produces, as its inevitable result, that the purely medical work is carried on in a more or less routine way, the fact being constantly before one's mind that the position attained at the end of twenty years will be but little affected by it.

In conclusion, let me thank you for the generous aid you have always afforded to the services.—I am, sir, yours truly,

SURGEON MEDICAL STAFF, N.W. PROVINCES.

*** We publish this temperate letter with pleasure. Our remarks, to which the writer refers, were not intended to stir up strife between the two services; far from it. They were made in view of facts sufficiently well known, that, consequent on changes, many of them unavoidable, the Indian Medical Service had been shorn of appointments which had long been reserved for them; and as a hint that further encroachments in the same direction would not pass without notice. We are sure that our correspondent would be among the first to acknowledge a great and well marked distinction between the officers of the Army Medical Staff and those of Her Majesty's Indian Army. The first are merely sojourners in India; they can and do serve and win honours and distinction wherever the British drum beats. With rare exceptions, the medical officers of the Indian Army are tied to India for life, and have there alone to find a career.

QUESTIONS PUT AT THE RECENT EXAMINATION FOR COMMISSIONS IN THE PUBLIC SERVICES.

WE have been favoured by the Director-General of the Medical Department, War Office, with copies of the questions on Medicine, Surgery, Anatomy, and Physiology, together with those on Natural History and Physics, which were put at the written examination of candidates for Her Majesty's Army, Indian, and Naval Medical Services. The questions, especially those on Medicine, among which two cases, of which the symptoms are very fully detailed, are submitted for analysis and exposition, are too long to admit of space being found for printing them in the JOURNAL. They are generally of a practical nature, and appear to be appropriate for testing the relative capacities and knowledge of the candidates, so far as the written examination is concerned. We are, however, informed that considerable weight is attached by the examiners to the practical and oral parts of the examination, as well as to the written part, and of these no account is given in the papers forwarded to us.

BRITISH MEDICAL SERVICE.

THE following is the list of successful candidates at the recent competitive examination for commissions in Her Majesty's British Medical Service. The number accepted (forty-five) is considerably in excess of the average, owing, no doubt, to the unusual demands which have been made on the resources of the Army Medical Department by the military operations in Egypt.

	Marks.		Marks.
S. Hickson	2540	G. G. Adams	2130
H. J. Fletcher	2480	J. M. F. Shine	2120
S. H. Lindeman	2445	W. B. Day	2110
E. Davis	2430	D. R. Hamilton	2100
S. Powell	2410	R. G. Thompson	2080
F. W. C. Jones	2335	C. T. Blackwell	2070
J. Meek	2320	R. I. Power	2070
A. E. Morris	2310	C. R. Kilkelly	2065
E. Cormack	2300	W. H. Bean	2020
J. F. M'Millan	2290	N. C. Ferguson	2010
C. O'Donel	2275	S. R. Wills	1980
W. A. Carte	2270	M. L. Hearn	1960
A. O. Fitzgerald	2270	S. L. Deebie	1950
F. D. Elderton	2260	R. H. Hall	1950
E. N. Sheldrake	2230	W. H. Bennett	1940
R. E. Molesworth	2220	J. H. Greenway	1921
J. W. F. Long	2215	R. G. Hanley	1880
C. L. Josling	2210	W. H. Bell	1875
J. F. Bateson	2180	G. Cree	1850
W. T. Swan	2180	S. C. Philson	1850
J. Bulpin	2175	J. M. Nicolls	1830
R. L. R. Macleod	2145	F. W. H. D. Harris	1800
J. H. Curtis	2140		

NAVAL MEDICAL DEPARTMENT.

AT the competition for Commissions in the Medical Service of the Royal Navy, held on February 9th and following days, in the Hall of the University of London, Burlington Gardens, the undermentioned gentlemen were the successful candidates.

	Marks.		Marks.
H. E. South	2090	E. D. Minter	1720
A. M. Page	2010	C. Alsop	1710
A. Cropley	1930	E. T. Eede	1695
J. Jenkins	1910	C. B. d'E. Chamberlain	1690
H. S. Youel	1815	J. N. Corbett	1590
H. Elliott	1760	R. F. Bowie	1570

THE INDIAN MEDICAL SERVICE.

THE following candidates for Her Majesty's Indian Medical Service were successful at the competitive examination held at Burlington House, on February 9th, 1885.

1. E. K. Campbell	2590	4. E. R. W. C. Carroll	2220
2. F. J. Drury	2495	5. H. J. Dyson	2160
3. F. A. Rogers	2230		

Eighteen candidates competed for five appointments. All were reported qualified.

ARMY MEDICAL SERVICE.

SURGEON CAMPBELL LOUIS YOUNG has been placed temporarily on the Half-Pay List, in consequence of ill-health. Mr. Young entered the service on February 5th, 1881.

The under-mentioned Surgeons on probation to be Surgeons:—James Rocheid Forrest, Michael William Russell, William Raoul de Morinni, Benjamin Frazier Zimmermann, Arthur Frank Stace, Alexander Stables, M.B., John Frederick Edward McCraith, Edward Arnold Cloete Smith, William Maxwell Hewson, M.B., Grenville Edwin Moffet, M.B., Henry Aylmer Haines, M.D., John Drew Moir, M.B., Richard Crofts, George Magill Dobson, M.B., George Ernest Hale, Cecil Willoughby Johnson, M.B., William Ebenezer Berryman, Alfred Thomas Irvine Lilly, Robert Caldwell, Charles Cooper Reilly, Sidney Edward Duncan, James Maher, Allan Perry, Samuel N. Cardozo, Arthur de Courcy Scanlan, Hartwell Woodhouse James, Robert Trevor, Henry Daniel James, William Turner, Brooke Owen William Norfor, M.B.

Surgeon-Major John Kilner, of the 3rd Battalion of the Suffolk Regiment (otherwise the West Suffolk Militia), has resigned his commission, with permission to retain his rank and wear the prescribed uniform.

Honorary Assistant-Surgeon John Prince, of the 8th (S.W.) Middlesex Volunteers, has been gazetted Surgeon to the corps.

General Buller, writing from Abu Klea, reports that the enemy, on the afternoon of February 16th, kept up a desultory fire at long range, causing some casualties. Among the officers wounded he mentioned Surgeon S. L. O'Neill.

Surgeon R. D. Donaldson, who has been doing duty in the Station Hospital at Dum Dum, is to have medical charge of the Lock Hospital at that station, in addition to his own duties, *vice* Surgeon-Major J. Hector, M.B., who has resigned.

Surgeon-Major E. C. R. Ward is brought on the strength of H.M.'s British Forces in the Bombay command from January 14th, the date of his arrival at Bombay.

Surgeon J. W. H. Flanagan is transferred from general duty, Quetta district, to general duty, Presidency Circle.

Surgeon S. J. Flood is transferred from general duty, Quetta district, to general duty, Mhow Circle.

INDIAN MEDICAL SERVICE.

THE services of Surgeon A. W. D. Leahy, Bengal Establishment, who has been attached to the 33rd Native Infantry at Drundah, are temporarily placed at the disposal of the Foreign Department.

Surgeon K. M. Downie, M.D., Bengal Establishment, in medical charge of the 29th Native Infantry at Barielly, has been promoted to be Surgeon-Major. He joined the service on October 1st, 1868, and became Surgeon October 1st, 1880.

Surgeon-Major A. Crombie, M.D., Bengal Establishment, has been appointed Honorary Surgeon to the Dacca Rifle Volunteers.

Brigade-Surgeon S. M. Shircore, Bengal Establishment, Surgeon of Moorshedabad, has been appointed Honorary Surgeon of the Central Bengal Light Horse Volunteers.

Surgeon J. L. Poynder, Madras Establishment, Civil Surgeon of Wardha, is transferred to the Sumbulpore district.

Surgeon-Major G. Bainbridge, Bombay Establishment, is directed to act as Senior Surgeon of the Jamsetjee Jejeebhoy Hospital during the absence of Surgeon-Major W. Gray, M.B., who has been granted furlough to Europe for one year on medical certificate.

Deputy Surgeon-General A. J. Payne, M.D., Bengal Establishment, has retired from the service, which he entered December 20th, 1848, attaining the rank of Deputy Surgeon-General December 20th, 1868. The *Army Lists* do not assign him any war service.

Deputy Surgeon-General Colvin Smith, M.D., C.B., Madras Establishment, has also retired from the service. He entered it on November 3rd, 1851, and became Deputy Surgeon-General August 5th, 1879. Dr. Smith served in the Burmese war in 1852-53, and was in several engagements during the campaign. (Medal.) During the Indian Mutiny in 1857-58, he had medical charge of the Kamptee movable column, and also of the sick and wounded from Sir Colin Campbell's force when sent from Lucknow to Dajeeling Sanitarium. (Medal with clasp.) He was Principal Medical Officer to the Indian contingent during the Egyptian war of 1882, and was at the battle of Tel-el-Kebir. (Mentioned in despatches; C.B.; medal with clasp; 3rd class of the Osmanieh; and Egyptian bronze star.)

Surgeon M. A. T. Collie, Bombay Establishment, has been appointed to officiate as Secretary to the Surgeon-General of Her Majesty's forces in Bombay during the absence of Surgeon-Major P. S. Turnbull, M.D.

NAVY.

THE following appointments have been made at the Admiralty during the past week:—G. A. Dreaper, W. H. O'Meara, W. W. Jacobs, and A. F. Harper, Surgeons (additional), to the *Royal Adelaide;* E. R. D. Fasken, Surgeon (additional) to the *Impregnable;* J. C. F. Whicher, Surgeon (additional), to the *Cambridge*; A. G. Andrews, Surgeon (additional), to the *Excellent;* and A. S. Nance, Surgeon (additional), to the *Vernon.*

ERRATUM.—We regret that, by a clerical error, some mistakes were made, in our last issue, in reference to the commissions and services of Dr. A. B. Messer. The paragraph should read as follows.

Fleet-Surgeon A. B. Messer, M.D., has been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets. Dr. Messer entered the service July 30th, 1859; became Staff-Surgeon, February 12th, 1864; and Fleet-Surgeon, December 7th, 1876. He served with the shore party at the attacks on the rebel redoubt at Rangariri in November 1863, was mentioned in despatches for his services to the wounded while under fire, and received special promotion to Surgeon (New Zealand medal). He was awarded Sir Gilbert Blane's gold medal in 1877, and received the thanks of the Medical Director-General of the Navy for his pamphlet on the treatment of wounds occasioned by poisoned arrows, which was called forth by the death of Commodore Goodenough from this cause.

THE REINFORCEMENTS FOR THE NILE EXPEDITION.

The 3rd Battalion Grenadier Guards left Windsor for the seat of war in the Soudan on the 20th instant. Among the officers accompanying them were Surgeon-Major H. J. H. Lawrence and Surgeon H. R. O. Cross.

The transport *Italy* left Portsmouth on the same day, having on board, with others, Deputy Surgeon-General G. L. Hinde, Brigade-Surgeon J. Warren, Surgeons N. Leader and J. Osburne, and Quartermaster T. Thompson, all of the Medical Staff of the army.

The 2nd Battalion of the Scots Guards left London for the Soudan on the 21st instant, amongst the officers being Surgeons J. A. Shaw, M.D., G. S. Robinson, and R. F. Cumming.

The hospital and bearer-companies of the Medical Staff Corps arrived at North Woolwich from Aldershot, in charge of Surgeon-Major Evatt, and embarked on board the steamship *Calabria* for conveyance to Suakin, on the 22nd inst. The following troops embarked:—No. 2 Bearer-Company, in charge of Surgeon-Major Evatt, with Surgeons Keays and Hackett, one warrant officer, six non-commissioned officers, and fifty-five men of the Medical Staff Corps; No. 3 Field Hospital, in charge of Surgeon-Major Riordan, with Surgeons Bate, Johnston, and Manders, one warrant officer, seven non-commissioned officers, and thirty-two men; the stationary field-hospital in charge of Surgeon-Major Stokes, with Surgeon-Major Corry, Surgeons Power and Mitchell, one warrant officer, eight non-commissioned officers, and sixty-seven men; also, for the base-hospital and other purposes, Captain of Orderlies Sylvester, Quartermaster Johnston, one warrant officer, seven non-commissioned officers, and 104 men.

Thirty young medical officers, who are now under drill-instruction at Aldershot, have received orders for foreign service. Fifteen of them are to go direct to Suakin, and the rest of them to Gibraltar, Malta, or India, as the case may be, to replace officers who have left those places for Egypt.

THE DUBLIN FEVER HOSPITAL.—Mr. Sydenham Davis Chandler has been appointed Resident Medical Officer and Registrar to the Fever Hospital and House of Recovery, Cork Street, Dublin, in the place of the late Dr. Leslie Maturin.

VACCINATION GRANT.—Mr. John S. Gettings, Public Vaccinator, Ogley Hay District, Lichfield Union, has received a grant of £16 8s.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,727 births and 3,508 deaths were registered during the week ending the 21st instant. The annual rate of mortality, which had been 24.5, 21.8, and 20.9 per 1,000 in the three preceding weeks, further declined to 20.5 last week. The rates in the several towns, ranged in order from the lowest, were as follow:—Brighton, 11.8; Birkenhead, 15.7; Wolverhampton, 16.5; Bradford, 17.0; Plymouth, 17.2; Hull, 17.4; Portsmouth, 19.0; London, 19.1; Derby, 19.2; Leeds, 19.4; Halifax, 19.6; Nottingham, 20.0; Salford, 20.2; Sheffield, 20.3; Leicester, 20.3; Birmingham, 21.0; Norwich, 21.2; Bristol, 21.5; Liverpool, 22.7; Blackburn, 23.2; Bolton, 23.2; Manchester, 23.8; Oldham, 24.8; Huddersfield, 26.9; Newcastle-upon-Tyne, 27.6; Cardiff, 33.3; Preston, 33.8; and Sunderland, 37.9. In the twenty-seven provincial towns the death-rate for the week averaged 21.8 per 1,000, and was 2.7 above the rate recorded in London. The 3,508 deaths registered last week in the twenty-eight towns included 117 which resulted from whooping-cough, 92 from measles, 45 from scarlet fever, 36 from "fever" (principally enteric), 35 from diarrhœa, 34 from small-pox, and 25 from diphtheria; in all, 384 deaths resulted from these principal zymotic diseases, against 356 and 398 in the two preceding weeks. These 384 deaths were equal to an annual rate of 2.2 per 1,000. In London the zymotic rate was 2.0, while it averaged 2.4 in the twenty-seven provincial towns, among which these zymotic rates ranged from 0.2 in Nottingham, and 0.5 in Brighton and in Bolton, to 5.2 in Preston, 7.0 in Cardiff, and 13.3 in Sunderland. The deaths referred to whooping-cough, which had been 104 and 112 in the two previous weeks, further rose to 117 last week, and showed the highest proportional fatality in Salford, Oldham, and Preston. The 92 fatal cases of measles showed a further increase upon the numbers returned in the two preceding weeks, and caused the highest rates in Cardiff and Sunderland. The deaths referred to scarlet fever showed a decline of 8 from those recorded in the previous week; this disease was proportionally most fatal in Cardiff and Sunderland. The fatal cases of "fever," which had been 34 and 41 in the two preceding weeks, were 36 last week, and caused the highest rates in Newcastle-upon-Tyne and Norwich. Of the 25 deaths referred to diphtheria in the twenty-eight towns, 14 occurred in London, 4 in Liverpool, and 2 in Birmingham. Of the 34 fatal cases of small-pox, 32 were recorded in London (exclusive of 12 deaths of London residents from this disease in the Metropolitan Asylum Hospitals situated outside Registration London), 1 in Liverpool, and 1 in Manchester. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased from 1,001 to 1,223 in the six preceding weeks of this year, declined to 1,141 on Saturday last; 163 new cases were admitted to these hospitals during the week, against 223 and 255 in the two previous weeks. The death-rate from diseases of the respiratory organs in London was equal to 4.4 per 1,000, and was considerably below the average. The causes of 84, or 2.4 per cent. of the 3,508 deaths registered last week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.—During the week ending the 21st instant, 873 births and 563 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had steadily declined from 30.7 to 25.0 per 1,000 in the six preceding weeks, further fell to 23.1 last week, but exceeded by 2.6 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 14.9 in Perth, 16.0 in Leith, 17.9 in Aberdeen, 19.3 in Edinburgh, 19.7 in Dundee, 20.2 in Paisley, 26.1 in Greenock, and 28.3 in Glasgow. The 563 deaths registered during last week included 81 which were referred to the principal zymotic diseases, against 92 and 95 in the two preceding weeks; of these, 30 resulted from whooping-cough, 21 from measles, 9 from scarlet fever, 8 from diphtheria, 7 from diarrhœa, 6 from "fever," and not one from small-pox These 81 deaths were equal to an annual rate of 3.3 per 1,000, which exceeded by 1.1 the average zymotic death-rate in the large English towns. The zymotic death-rates in the Scotch towns ranged from 1.4 and 1.7 in Aberdeen and Perth to 3.4 in Dundee, and 5.0 in Glasgow. The 30 deaths from whooping-cough slightly exceeded the number in the preceding week, and included 17 in Glasgow, 4 in Edinburgh, and 4 in Dundee. The 21 fatal cases of measles showed a decline of 4 from the number in the previous week; 15 occurred in Glasgow, and 4 in Dundee. The deaths referred to scarlet fever, which had been 9 and 12 in the two previous weeks, declined again to 12, of which 8 were recorded in Glasgow. The 8 fatal cases of diphtheria exceeded by 2 the number in the preceding week, and included 4 in Glasgow. The 6 deaths from "fever" showed a decline of 4 from those recorded in the previous week; 3 occurred in Glasgow, and 2 in Edinburgh. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 5.7 per 1,000, against 4.4 in London. As many as 67, or 11.9 per cent., of the 563 deaths registered in these Scotch towns last week, were uncertified.

HEALTH OF FOREIGN CITIES.—It appears from statistics in the Registrar-General's return for the week ending the 21st instant, that the death-rate recently averaged 34.9 per 1,000 in the three principal Indian cities; it was equal to 26.5 in Bombay, 36.6 in Calcutta, and 47.4 in Madras. Cholera caused 23 deaths in Calcutta, 17 in Madras, and 11 in Bombay; and the greatest mortality from "fever" was recorded in Calcutta. According to the most recent weekly returns, the annual death-rate in twenty-two of the largest European cities averaged 30.2 per 1,000 of their estimated population, and was no less than 9.7 above the mean rate last week in the twenty-eight large English towns. The death-rate in St. Petersburg was equal to 35.0, and the 623 deaths included 11 from "fever," and 10 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 25.0, and ranged from 20.7 in Copenhagen to 32.0 in Stockholm; diphtheria and croup were more or less prevalent in each of these three cities, and scarlet fever also caused 4 deaths in Stockholm and 3 in Christiania. The death-rate in Paris was equal to 26.6, and showed a decline from the rates recorded in the six preceding weeks; 35 deaths resulted from measles, 38 from diphtheria and croup, and 27 from typhoid fever. The 202 deaths in Brussels, of which 9 resulted from croup and 4 from scarlet fever, were equal to a rate of 23.5. The 38 deaths in Geneva gave a rate of 27.7, but no deaths from zymotic diseases were reported. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 27.7, the highest rate being 28.5 in Rotterdam; scarlet fever caused 2 deaths in Rotterdam and 6 in Amsterdam, 7 fatal cases of measles being also recorded in the latter city. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 29.2 per 1,000, and ranged from 23.7 and 25.4 in Dresden and Berlin, to 31.5 in Vienna, 36.2 in Munich, and 44.3 in Trieste. Small-pox caused 19 deaths in Trieste, and 16 in Vienna; diphtheria showed more or less fatal prevalence in Berlin, Hamburg, Dresden, Munich, Vienna, and Buda-Pesth. In three of the largest Italian cities, the mean rate was 31.5, the highest rate being 34.2 in Venice; small-pox caused 20 deaths in Turin, 8 in Venice, and 7 in Rome, both diphtheria and typhoid fever also showing fatal prevalence in Turin. The 445 deaths in Madrid, which included 17 from diphtheria and croup, and 3 from small-pox, were equal to a rate of 48.8. In Alexandria the rate was 32.6, and the 145 deaths included 3 from typhoid fever. In four of the principal American cities, the recorded death-rate averaged 23.7, and ranged from 19.4 in Brooklyn, to 25.7 in Philadelphia; diphtheria showed considerable mortality in each of these four cities, and typhoid fever caused 15 deaths in Philadelphia and 6 in Baltimore.

THE MEDICAL REGISTER: A HARD CASE.

SIR,—Would you kindly allow me to ask advice as to what I am to do under the following circumstances? In June last year, I applied to the National Vaccine Establishment for lymph, and was informed that my name was not on the *Register*, a circumstance of which I was not previously aware. I wrote immediately to the registrar for an explanation, and was duly informed that my name was removed for not communicating with that office, but it would be restored on my forwarding the fee of five shillings, which I did at once, being anxious as I was applying for the union-appointment of my district. I received a letter in July acknowledging receipt of fee, and stating that my name would be brought before the next meeting of the Council.

The appointment was to be decided at a meeting of the guardians in the middle of September; and, not having heard from the registrar, I again applied, when he forwarded me a temporary certificate, which he thought, no doubt, would satisfy the guardians until my name had been restored. I was duly elected, signed agreement, and commenced duty on September 21st, 1884. In October I received salary from the 21st to the 29th of September, 1884, so as to begin the proper quarter. On November 7th, I received a letter from the clerk of the union, stating there was some difficulty about my name not being on the *Register* raised by the Local Government Board; and, later on, I was told that I would

have to be re-elected as a matter of form, and was again elected by the guardians on December 11th, 1884, but received no intimation to discontinue work, and continued doing so, filling up forms as usual. It was deemed necessary to sign another agreement, the same as before, which I accordingly did; my name was duly restored on October 7th to the *Register*. In January of this year, I applied to the clerk for my quarter's salary; but he stated that, as there would have to be two separate payments, one up to the second election on December 11th, and another from that date to December 25th, and if I would not mind, it would save trouble if I would wait until authority was obtained from the Local Government Board, and then the cheque would be filled in for the entire quarter due. Not understanding the delay, I again applied on February 9th, and had, in reply, a letter from the clerk, telling me to call at his office on the following Saturday, and was then informed by him that the necessary authority was not given by the Local Government Board, and I would have to lose my quarter's salary. What am I to do? This may be law, but it is certainly not justice.—I am, faithfully yours, PRACTITIONER.

*** Our correspondent has unquestionably been very severely punished for his neglect to apprise the Medical Registrar that he had left his residence in London, and had gone to reside in the country. Perhaps, however, as many medical men are ignorant of the necessity that exists for so doing, he is more to be pitied than blamed. As regards the more important question raised in our correspondent's letter, we would recommend that he should address (without delay) a letter to Sir Charles Dilke, the President of the Local Government Board, in which, in temperate language, he should state the same facts as he has sent to us; and we advise this procedure, for the reason that we feel satisfied that this act of injustice has been perpetrated by some permanent official who consider himself at liberty to act in the name of the department.

Should our correspondent do as we advise, and find that it be attended with negative results, we will undertake to get the subject raised for him in another form.

DISINFECTING APPARATUS.

SIR,—I shall be much obliged if you can inform me, through your columns, whether any disinfecting apparatus is obtainable for the sanitary authority of this parish, which can be used either for subjecting bedding to great heat, or actually destroying it by burning, if desired.—Yours obediently, M. O. H.

*** It is now generally admitted that steam or moist heat is the best for disinfecting bedding or clothing, as it allows of a much higher temperature being used on the articles without injury to them than can be applied with fire-heat. The most complete apparatus of the character mentioned is that made by Mr. Washington Lyon, of Leo Street, Old Kent Road, for which a gold medal was awarded at the late Public Health Exhibition. Messrs. T. Bradford and Co., of High Holborn, also make a good apparatus in which steam is employed.

PREVENTION OF SPREAD OF DISEASE.

I. P. L.—You cannot compel the man to have a medical man; but, if you feel sure that he is suffering from scarlet fever or any other infectious disorder, you should tell him so, and warn him not to expose himself. If he disregard your warning, you may then summon him before justices under Section 126 of the Public Health Act, 1875. That section imposes a penalty of £5 on any person who, while suffering from any dangerous infectious disorder, wilfully exposes himself, without proper precautions against spreading the disorder, in any street, public place, shop, inn, or public conveyance. In order to secure a conviction, you must, of course, show that the man knew the disorder to be infectious, and wilfully exposed himself. One conviction would probably act as a warning to other people disposed to be incautious in the way you state.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A MEAN EXCUSE.

AN example of the meanness with which some persons endeavour to escape payment of medical charges, was afforded in a case tried last week at the Clerkenwell County Court. The plaintiffs, Drs. W. L. and G. T. Penny, sued a person named Camp for money due for medical attendance and medicine. Dr. W. L. Penny had attended the defendant's wife in her confinement, and had received his fee of one and a half guineas. No complaint was made as to malpractice. Subsequently, his professional services were again required by Mrs. Camp; but, on his sending in his account, payment was refused on the plea that his management of the labour had been unskilful, that the head of the child had been injured by the forceps, and that displacement of the uterus had been produced. Dr. Clement Godson was called to rebut the statements of Mrs. Camp and her nurse, and gave evidence that any displacement of the uterus from which Mrs. Camp suffered could not have been due to the treatment of the medical attendant during the labour.

The judge, in summing up, said that, with regard to the allegation of unskilful treatment, no proof of it had been given, and the evidence of Dr. Godson was conclusive. Under these circumstances, he should give a verdict for plaintiff. He could not speak in too strong disapprobation of the practice of bringing charges of unskilfulness and neglect against medical practitioners, for the mere purpose of avoiding payment of debts.

UNQUALIFIED PRACTICE.

THE *Portsmouth Evening News* recently contained the account of an inquest held on the body of a child named Herbert Boyland, aged 14 weeks, who died whilst under the care of an unqualified practitioner—a Mr. Wyman—stated to be "the assistant to a local practitioner." Mr. Wyman saw the deceased three times before death; and, shortly before the death, Dr. George Duncan of Landport was summoned to attend, and, on arriving at the house, found that the child had expired. Dr. Duncan stated at the inquest, after an examination of the body, that death was due to natural causes, and that the deceased died in a fit of convulsions when suffering from mesenteric disease.

In summing up, the coroner is reported to have said that, "although not a registered medical practitioner, Mr. Wyman had obtained a diploma in America; so that, although not able to give a certificate of the cause of death, he was properly qualified to attend deceased during his illness." Until Mr. Wyman's diploma has been carefully examined, and due inquiry made into its value, we must hesitate to accept the views of the coroner.

The Medical Act was passed for the purpose of enabling the public to know who were "properly qualified" to attend them during illness; and, if anyone's name cannot to be found in the *Register* published by authority, and he represent himself to his patients as duly qualified, he is undoubtedly subject to prosecution under the Medical Acts, although even he may shelter himself as "assistant to a local practitioner."

NOTICE OF HOURS OF PRACTICE.

SIR,—*Apropos* "F. P.'s" letter in the JOURNAL of February 14th, I beg leave to ask if you can assist me by your advice in a similar case, but with a difference. I have the greatest aversion to advertising in any form, but I intend practising in or near Melbourne, Victoria; and I noticed, while on a visit there, that, almost without exception, the medical practitioners there have their hours for seeing patients engraved upon their door- or gate-plates.

Under the circumstances, do you think I should be justified in doing the same?—Your opinion will greatly oblige, yours truly, M.B. and C.M.

*** Without the slightest wish or intention to, in any degree, reflect on the assumed general, in contradistinction to universal, custom of our professional brethren at the Antipodes in the matter on which "M.B., C.M." solicits our advice, we would counsel him to adhere to the etiquette adopted by the faculty in England; and if, in the course of time, he find it practically necessary and judicious to specially notify his hours of home-attendance, to do so by having them neatly printed and placed in his consulting room, and not "engraved on his door- or gate-plate," or otherwise published.

UNPROFESSIONAL CONDUCT.

THE correspondence forwarded to us by "Enquiry" relative to the appointment of medical officer to "a Provident Relief Society," disingenuously solicited by a young practitioner, is so indefensible and self-condemnatory throughout, that editorial comment is superfluous. Nevertheless, the applicant may rest assured that he who, by any unethical proceeding, attempts to unfairly supersede a professional brother, or seeks by an unworthy artifice to elevate self at the expense of his neighbour, will sooner or later entail upon himself a just retribution; as, indeed, would seem already shadowed forth in the case above alluded to, by the simple but effective rebuke conveyed in the resolution passed by the local Committee; the studied cynical reply to which presents, to our mind, a regrettable instance of "gross cultured impertinence," degrading to the writer, and, so far, discreditable to the faculty.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Monday, February 23rd.

Scarlet Fever on the Britannia.—Mr. CAINE informed Mr. HALSEY that he had received a telegram from the Fleet-Surgeon, which stated that the captain of the *Britannia*, training-ship for cadets, reported with respect to the outbreak of scarlet fever on that vessel, that the number of cadets in the hospital at Dartmouth was 24. Extra beds and bedding had been sent to cover emergencies. Six attendants and a nurse had been sent on Saturday. The outbreak was of a very mild character, and they hoped to stamp it out. Every investigation was being made as to the cause.

Tuesday, February 24th.

Grants to Dublin Hospitals.—Mr. SEXTON asked the Secretary to the Treasury whether the Treasury claimed to have the power to capitalise the various sums annually voted by the House in aid of certain hospitals in Dublin; and whether he would undertake on the part of the Government that no step would be taken towards capitalising those annual grants, or any of them, until the estimates in that regard for the current year had been dealt with, and until the House had had an opportunity of considering the principle upon which the grants were now distributed.—Mr. HIBBERT: The matter to which the hon. member refers is still under the careful

consideration of the Government. As it would be impossible to capitalise the grants without the authority of Parliament, there will be necessarily afforded the opportunity of discussion which the hon. member desires.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—The following Licentiates in Medicine of the College, having complied with the by-laws relating to membership pursuant to the provisions of the Supplemental Charter of 1878, have been admitted to the grade of membership.

M. J. Yourelle, Lic. Med. 1875, Dublin; T. V. Bell, Lic. Med. 1878, Enniskillen.

At the monthly examinations for the Licences in Medicine and Midwifery of the College, held on Monday, February 9th, 1885, and subsequent days, the following candidates were successful.

For the Licences to practise Medicine and Midwifery.—G. A. Hawkins-Ambler, New Leeds, Leeds; J. Keenan, Downpatrick; D. P. Kenna, Dublin; F. I. Maunsell, Dublin.

For the Licence to practise Medicine only.—B. J. Acheson, co. Wexford; F. F. Brady, Sandycove, Kingstown; J. P. S. Hayes, London; J. T. Walsh, Rathgar, Dublin.

For the Licence to practise Midwifery only.—W. J. Cowden, M.D.Q.U.I., Dromore; H. S. Fairbank, M.B.Edin., London; L. J. B. P. Fernandez, Medical College, Calcutta.

At special examinations for the Licence to practise Midwifery, held on January 13th and February 2nd, 1885, respectively, the following candidates were successful.

J. S. Fenton, M.B.Dub., Dublin; S. E. Falconer, Madras.

At a special examination for the Licence to practise Medicine, held on February 14th, 1885, the undermentioned candidate was successful.

S. Roch, M.R.C.S.Eng., Deputy Surgeon-General (retired) Army Medical Staff.

UNIVERSITY OF DUBLIN.—At the Hilary Term Examination for the Degree of Bachelor of Medicine (M.B.), held on Monday, February 2nd, 1885, and following days, the successful candidates passed in order of merit as follows.

J. E. Miller, R. T. Lewis, R. K. Johnston, J. S. Bouchier-Hayes, W. J. Slaughter, D. Conway, R. J. Montgomery, A. H. Meeke, E. J. Farmer, A. G. Fausset.

At the Hilary Term Examination for the Degree of Bachelor of Surgery (B.Ch.), held on Monday, February 9th, 1885, and following days, the successful candidates were placed in the following order of merit.

G. Raymond, O. P. Beater, J. E. Miller, H. A. Ellis, J. B. Buchanan, D. R. O'Sullivan, S. H. Halahan, W. R. Rice, J. J. C. Watson, W. J. Slaughter, R. H. Scovell, W. L. Hickey, A. G. Fausset, J. J. O'Donnell, T. N. Flood, J. V. Manning.

At the Hilary Term Commencements, held according to custom on Shrove Tuesday, the following Degrees and Licences in Medicine and Surgery were conferred by the University Caput, in the presence of the Senate, in the Examination Hall of Trinity College.

Licentiate in Surgery and in Medicine.—J. V. Manning.

Bachelors in Surgery.—J. B. Buchanan, H. A. Ellis, T. N. Flood, S. H. Halahan, W. L. Hickey, J. E. Miller, J. J. O'Donnell, D. R. O'Sullivan, G. Raymond, W. R. Rice, R. H. Scovell, W. J. Slaughter, J. J. C. Watson.

Bachelors in Medicine.—E. J. Farmer, S. H. Halahan, R. K. Johnston, R. T. Lewis, A. H. Meeke, J. E. Miller, R. J. Montgomery, J. J. O'Donnell, G. Raymond, W. J. Slaughter.

Doctors in Medicine.—A. J. Boyd, R. A. Lett, A. H. Meeke, V. E. Smith, C. H. Thompson, W. M'D. A. Wright *(stip. cond.)*

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 19th, 1885.

Botham, Richard Henry, King's College.
Cherry, George A., Toronto, Canada.
Hocken, James Preston, Charing Cross Hospital.

MEDICAL VACANCIES.

The following vacancies are announced.

BATH GENERAL OR MINERAL WATER HOSPITAL.—Resident Medical Officer. Salary, £100 per annum. Applications by March 5th.

BRECON INFIRMARY.—House-Surgeon. Salary, £100 per annum. Applications by March 12th.

CANNOCK UNION.—Medical Officer. Salary, £40 per annum. Applications by March 5th.

COOMBE LYING-IN HOSPITAL, Dublin.—Assistant-Physician. Applications to Dr. S. R Mason, 92, Harcourt Street, Dublin

DEWSBURY AND DISTRICT GENERAL INFIRMARY. — House-Surgeon. Salary, £100 per annum. Applications by March 3rd.

EAST SUFFOLK HOSPITAL.—Two Honorary Physicians. Applications by March 11th.

GENERAL HOSPITAL, Birmingham.—Assistant-Physician. Applications by February 28th.

GENERAL INFIRMARY, Hull. — House-Surgeon. Salary, 100 guineas per annum. Applications to the Chairman of the House-Committee by March 21st.

HALIFAX INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary, £50 per annum. Applications by March 26th.

HOSPITAL FOR INFECTIOUS DISEASES, Bootle-cum-Linacre. — Resident Medical Officer. Salary, £100 per annum. Applications to the Chairman of the Health-Committee, Town Hall, Bootle-cum-Linacre.

METROPOLITAN CONVALESCENT INSTITUTION, Walton-on-Thames. — Medical Officer. Salary, 70 guineas per annum. Applications to Mr. Charles Holmes, 32, Sackville Street, W., by March 2nd.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, Liverpool.—Resident Medical Officer. Salary, £80 per annum. Applications to Robert Calder, 4, Commercial Court, 17, Water Street, Liverpool, by March 12th.

NORTH DEVON INFIRMARY, Barnstaple.—House-Surgeon. Salary, £100 per annum. Applications by March 7th.

PARISH OF LAMBETH.—Assistant Medical Officer and Dispenser. Salary £125. Applications by March 10th.

SEAMEN'S HOSPITAL (late Dreadnought), Greenwich, S.E.—House-Surgeon. Salary, £50 per annum. Applications by March 7th.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Assistant House-Surgeon. Salary, £65 per annum. Applications to the Honorary Secretary to the Medical Staff by March 3rd.

ST. JOHN'S HOSPITAL FOR SKIN-DISEASES, Leicester Square, W.C.—Honorary Assistant-Surgeon. Applications by March 11th.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, etc., Henrietta Street, Covent Garden.—House-Surgeon for six months. Honorarium, 25 guineas. Applications by March 21st.

SUSSEX COUNTY HOSPITAL.—Assistant-Physician and Assistant-Surgeon. Applications by March 25th.

UNIVERSITY COLLEGE, London.—Professor of Surgery, and Surgeon to the Hospital. Applications by March 3rd.

UNIVERSITY OF GLASGOW.—Examiners in Physiology and Pathology, Medicine and Clinical Medicine, Surgery and Clinical Surgery. Fee, £40 per annum. Applications by March 2nd.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Junior House-Surgeon. Salary, £63 per annum. Applications by February 28th.

WINDSOR ROYAL INFIRMARY.—Dispenser. Salary, £35 per annum. Applications by March 4th.

YORK COUNTY HOSPITAL.—Honorary Physician. Applications by March 7th.

MEDICAL APPOINTMENTS.

ATKINSON, G. T. A., M.B., C.M.Edin., appointed Parochial Medical Officer and Public Vaccinator for the Harrogate District, Knaresborough Union, *vice* A. Ford, F.R.C.S.Ed., resigned.

CROCKER, J. C. Vipoid, L.D.S., appointed Assistant House-Surgeon to the Dental Hospital of London.

DAVIES, D. Rees, M.B. and C.M.Edin., appointed Medical Officer of Health for the Borough of Aberystwith.

GREEN, C. D., M.B., M.R.C.S., L.R.C.P., appointed House-Surgeon to St. Thomas's Hospital.

HALL, W. Winslow, M.B., C.M.Edin., appointed Resident Medical Officer to the Kilburn, Maida Vale, and St. John's Wood General Dispensary, *vice* H. W. S. Verity, M.R.C.S.E.

HERSCHELL, George, M.D., appointed Honorary Physician to the Farringdon General Dispensary.

HULL, Walter, M.B., M.R.C.S., L.R.C.P., L.S.A., appointed House-Surgeon to St. Thomas's Hospital.

JOHNSTON, G. D., M.R.C.S., L.R.C.P., appointed Resident-Accoucheur to St. Thomas's Hospital.

KING, Arthur, L.D.S., appointed House-Surgeon to the Dental Hospital of London.

LANKESTER, H. H., M.R.C.S., L.S.A., appointed Non-resident House-Physician to St. Thomas's Hospital.

LOCKWOOD, Harry, M.R.C.S., L.S.A., Senior Assistant House-Surgeon Sheffield Public Hospital and Dispensary, appointed House-Surgeon, *vice* Sinclair White, M.D., F.R.C.S., appointed Medical Officer of Health to the Borough of Sheffield.

MACKENZIE, H. W. G., M.A., M.B., M.R.C.S., appointed Resident House-Physician to St. Thomas's Hospital.

MARRINER, W. H. Lister, M.B., M.R.C.S., L.S.A., appointed Clinical Assistant in the Department for Diseases of the Throat at St. Bartholomew's Hospital.

MAURICE, Wm. Jas., B.A.Oxon., M.R.C.S., L.R.C.P.Lond., appointed Surgeon to the Reading Dispensary.

NORMAN, Conolly, F.R.C.S.I., Resident Medical Superintendent of the Castlebar District (Mayo County) Asylum, appointed Resident Medical Superintendent of the Monaghan District (Counties of Monaghan and Cavan) Asylum at Monaghan.

PLOWMAN, S., M.R.C.S., L.S.A., appointed Clinical Assistant in the Department for Diseases of the Skin and Ear at St. Bartholomew's Hospital.

RELTON, Bernard, M.R.C.S., L.S.A., appointed Assistant House-Surgeon to St. Thomas's Hospital.

ROBINSON, H. B., M.R.C.S., L.R.C.P., appointed Resident House-Physician to St. Thomas's Hospital.

SANEYOSHI, Y., M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to St. Thomas's Hospital.

WILLIAMS, R. M., M.R.C.S., L.R.C.P., appointed Assistant House-Physician to St. Thomas's Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

MARRIAGES.

BARNES—WATKINS.—On the 5th February, at All Saints' Church, Malabar Hill, Bombay, by the Rev. F. L. Sharpin, M.A., Surgeon Raglan W. Barnes, Her Majesty's Army Medical Staff, only son of J. Wickham Barnes, Esq., F.R.C.S., of Gower Street, W., and Stanwell Moor, Middlesex, to Ethel Bretwalda, second daughter of G. Watkins, Esq., of Richmond, Surrey. No cards.

GREEN—HAWKINS.—February 16th, at Holy Trinity Church, Bournemouth, by the Rev. Canon Eliot, J. Lardner Green, Esq., M.R.C.S., of Salisbury, to Eliza Ann, daughter of Francis Hawkins, Esq., of Palmerston Lodge, Bournemouth, and formerly of Tintinhull Court, near Yeovil, Somerset.

DEATH.

TUXFORD.—On the 16th instant, at Westham, Sussex, in his 26th year, Harold Arthur Tuxford, L.R.C.P. and L.R.C.S.Ed., youngest son of Dr. James Tuxford, of High Street, Boston.

DONATIONS AND BEQUESTS.—Mr. H. Boys has given £1,000, and Mr. E. Burkeley bequeathed £500, to the Walsall Cottage Hospital. The Mater Misericordiæ Hospital, Dublin, has received £400 under the will of Mr. James Gorman.—The Westminster Hospital has received £100, under the will of Mrs. Elizabeth Walker, "in grateful remembrance of benefits received by her at the Westminster Hospital."—The Halifax Infirmary has received £100, less duty, under the will of Miss Jane F. Walsh.—Miss Mary Roddam, of Lowestoft, has bequeathed £100 to the Essex and Colchester Hospital.—"A Friend" per Mr. Turner, has given £105 to the enlargement fund of the Eastern Counties Asylum for Idiots, at Colchester.—The Earl of Dartmouth has given £100 to the Great Northern Central Hospital.—"A friend" (per Mr. Robert Hadfield) has given £52 10s. to the Sheffield General Infirmary.

We regret to see, from the annual report of the Greenock Infirmary, that the balance due to the bank at the end of last year was £1,080, against £159 in the year preceding.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Royal College of Surgeons of England, 4 P.M. Professor Charles Stewart: On the Structure and Life-History of the Hydrozoa.—Medical Society of London, 8 P.M. General meeting. Election of officers and council. Ballot closes at 9. 8.30 P.M. Dr. Allchin: The Diet of the Febrile State.—Royal Medical and Chirurgical Society, 8.30 P.M. Annual meeting. Election of officers and council. President's address.—Odontological Society of Great Britain, 8 P.M. Casual communications by Messrs. Oakley Coles, W. St. George Elliott, W. Hern, W. A. Hunt, A. Cartwright, and Newland Pedley. Mr. E. Charlesworth: On the Fossil Teeth of Extinct Animals in the Museum of the Odontological Society.

TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. Semon and Dr. Payne: Rhino-scleroma. Mr. Eve: 1. Lympho-sarcoma of Bladder: 2. Enchondroma of Pelvis (card). Dr. Hobson: Congenital Obstruction of Intestine. Dr. Turner: 1. Neuro-sarcoma of Brain; 2. Aneurysm of Aorta opening into Œsophagus (card); 3. Necrosis of Renal Pelvis (card). Mr. Lane: Unusual Form of Pott's Fracture. Dr. Silcock: Tubercular Pyo-salpinx. Dr. Hale White: 1. A Case of Renal Disease: 2. A Crypt-orchid (living). Mr. D'Arcy Power: Synovial Cysts in connection with Joint-disease. Mr. John Poland: Ununited Fracture of Internal Condyle of Humerus (card). Mr. Jonathan Hutchinson, jun.: Lupus Lymphaticus (card). Dr. Beevor: Nerve-tissues stained by Weigert's New Method (card). Mr. M. Sheild: Tumour of Humerus (card). Mr. C. Gross: Œsophagus and Parts from Fatal Case of Sword-swallowing. Mr. Bruce Clarke; 1. Unilateral Distribution of Warts (living); 2. Croupous Enteritis of Ileum (card).—Royal College of Physicians of London, 5 P.M. Dr. Osler: Gulstonian Lecture on Endocarditis.

WEDNESDAY.—Royal College of Surgeons of England, 4 P.M. Professor Charles Stewart: On the Structure and Life-History of the Hydrozoa.—Obstetrical Society of London, 8 P.M. Specimens will be shown by Dr. Herman, Dr. Horrocks, Mr. W. S. A. Griffith, and others. The President (Dr. Potter) will deliver the inaugural address. Adjourned discussion on Dr. Wm. A. Duncan's paper on Extirpation of the Uterus, to be opened by Sir Spencer Wells. Dr. Murphy: Sequel to a Case of Ovariotomy.

THURSDAY.—Harveian Society of London, 8.30 P.M. Mr. T. W. Carmalt Jones will exhibit an Instrument for the Transfusion of Defibrinated Blood. Dr. C. Y. Biss will read notes of a case of Pleuropneumonia in a Child, with an Unusual Course and Symptoms. Dr. C. J. Hare: Emetics; their Present Neglect in the Treatment of Disease.—Royal College of Physicians of London, 5 P.M. Dr. Osler: Gulstonian Lecture on Endocarditis.

FRIDAY.—Royal College of Surgeons of England, 4 P.M. Professor Charles Stewart: On the Structure and Life-History of the Hydrozoa.—West London Medico-Chirurgical Society, 8 P.M. Mr. Percy Dunn: Morbid Specimens. Mr. Menzies: Various Clinical Cases. Dr. Thorowgood: A Case of Enteric Fever followed by Abdominal Abscess, with Double Perforation of the Diaphragm, and Discharge of Pus through both Lungs. Dr. Herringham: A Case of Descending Lateral Sclerosis in a Child, probably from Lesion of Right Crus Cerebri.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye; M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12,

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

Where shall I send my Boys to School?

Several correspondents have sent replies to the letter of "A Father of a large Family," published at page 361 of the Journal of February 14th.

Dr. F. T. Bond (Gloucester) recommends our correspondent to write to the Principal of All Saints' School, Bloxham, near Oxford.

Mr. J. Deans (Boscombe, Bournemouth) also strongly recommends the same school.

Dr. S. W. Smith (Pershore) advises "A Father" to procure the Calendar of Daventry Grammar School, or to apply to the Rev. C. F. Hutton, M.A. Bedford Grammar School is also a good institution. A calendar may be obtained from Mrs. Perrott Smith, Colenden Cottage, Bedford.

Dr. Lownds (Egham) suggests an application to the Rev. W. Watson, of the Norfolk County School, where his (Dr. Lownds') sons have been for ten years.

Mr. H. C. Burdett recommends Blundell's School at Tiverton. The school is an old foundation, and has had a high reputation. There are scholarships and exhibitions.

Mr. T. C. Bryan (Littlehampton) writes that there is a capital school at that place.

Mr. Benjamin Clarke (Upper Clapton) writes in high terms of the St. John-at-Hackney Grammar School, where he was a pupil more than fifty years ago. Information may be obtained from the Head-master.

Mr. G. Parsons (Hawkshead) recommends Archbishop Sandy's Endowed School at Hawkshead, near Ambleside.

F.R.C.S. advises "A Father of a Family" to send his son or sons to Bruce Castle, Tottenham.

Mr. A. W. Martin (Evesham) recommends the Grammar School of Prince Henry at Evesham; and will be pleased to give further information to our correspondent if he will write to him.

Dr. G. P. Poole (Upper Norwood) speaks favourably of St. John's College, Hurstpierpoint, where his two sons have been.

Dr. Alfred Wright recommends Christ's College, Finchley.

F. S. advises that inquiry be made regarding the King's School at Ely.

M.R.C.S. recommends Grosvenor School, Bath.

Dr. A. Boswell advises our correspondent to communicate with the Head-master of Queen Elizabeth's Grammar School, Ashbourne, Derbyshire.

*** Our correspondent, "A Father of a Family," will be able to obtain prospectuses, etc., by application to the head-masters of the schools mentioned. Several who have replied to his question have offered to give him further information on application by letter.

Soreness of the Tongue.

Sir,—I have under my care a case of prolonged dyspepsia, in which the soreness of the tongue is much complained of. The tongue is small, and its epithelium appears to be deficient in parts, but it is pale, and there is no trace of ulceration. I have tried the ordinary local applications (borax, etc.), but have found them of no avail. I should be glad if any of your readers could suggest any remedy likely to alleviate this condition.—Yours truly, M.B.Lond.

Bathing in Battersea Park.

Sir,—In the *Times* of February 6th, I read, with considerable regret, that the Commissioners of Works had not acceded to the reasonable request of the residents in the neighbourhood of Battersea Park that some of the lakes should be used for bathing. I venture to hope that public opinion will be brought to bear to induce the Commissioners to alter a decision standing in the way of the acquisition of the invaluable art of swimming, and, at the same time, preventing large numbers of the poorer classes from obtaining a "free bath."

As the originator and late honorary secretary of the London Schools' Swimming Club for the Public Elementary Schools of London, in the inauguration of which work I was liberally assisted and advised by Sir Edmund Hay Currie, Mr. John MacGregor, Sir John Bennett, the late Sir Charles Reed, and others, I can speak to the enormous benefit derived by thousands of boys and girls by their association with the club in question; and the largest bath of all was Victoria Park Lake, where over 1,000 boys bathed and were taught to swim during the summer months. Surely the sanction received to use one lake in a public park should be extended to all the other suitable sheets of water in the parks of London devoted mainly to the use of the people.—I am, sir, your obedient servant,

Newton H. Nixon.

Richmond, Surrey.

A Dirty Tongue.

Sir,—I think that your correspondent's patient would derive benefit from (1) the wearing of an abdominal compress, freshly wetted with cold water, morning, noon, and night; and (2) vigorous rubbing once or twice daily over the whole body with a dripping sheet, out of water at 70° Fahr., followed by dry rubbing.—I am, sir, faithfully yours,

R. J. B.

Douche.—We are not aware of the existence of any book with questions and answers on Anatomy and Physiology.

Lancing the Gums.

Sir,—I was in hopes we had heard the last of this subject; and I should not have written again were it not for the misinterpretation of my last letter by Mr. Paramore, who states that I have altered my attitude towards the gum-lancet, because I said I should use it if the physical signs so indicated. I here obviously referred, as denoted in a former letter, to the physical signs of acute inflammation or suppuration of the alveoli.

In answer to your correspondent's query as to what dose of bromide of potassium, etc., I should have given in Dr. Walford's case, I do not think it would take a very large dose of this or any other drug to send a child to sleep, who had been kept awake crying for thirty hours.

If I have altered my attitude on this subject, what can be said of that of Mr. Paramore? He first doubts, practically denies, my statement that the gum-lancet is growing in disfavour on the Continent and in America. I prove my point by quoting authorities. Mr. Paramore retorts by saying that the disuse of the gum-lancet in these countries is probably the cause, of part at least, of the frightful mortality in France and America amongst children. Is infantile mortality more frightful abroad than at home?—Yours truly,

Boyd Joll, M.B.Lond.

Liverpool.

H. E. D. asks "What is considered about the proper time for a doctor's visit to be? There has been so much said and written on the subject lately, I am anxious to have an opinion."

COMMUNICATIONS, LETTERS, etc., have been received from:

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BOOKS, etc., RECEIVED.

Text-book of Zoology. By Dr. C. Claus. Translated and Edited by A. Sedgwick, M.A., with the assistance of F. G. Heathcote, B.A. London: W. Swan Sonnenschein, and Co. 1885.

Selected Monographs. By Dr. H. Senator. London: New Sydenham Society. 1884.

A Text-book of Hygiene. By G. H. Rohe, M.D. Baltimore: Thomas and Evans. 1885.

St. Bartholomew's Hospital Reports. Edited by W. S. Church, M.D., and John Langton, F.R.C.S. Vol. xx. London: Smith, Elder, and Co. 1884.

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THE GULSTONIAN LECTURES,

ON

MALIGNANT ENDOCARDITIS.

Delivered at the Royal College of Physicians of London, March, 1885.

By WILLIAM OSLER, M.D.,

Professor of Clinical Medicine at the University of Pennsylvania, Philadelphia.

Lecture I.

Mr. President and Gentlemen,—It is of use, from time to time, to take stock, so to speak, of our knowledge of a particular disease, to see exactly where we stand in regard to it, to inquire to what conclusions the accumulated facts seem to point, and to ascertain in what direction we may look for fruitful investigations in the future. With your permission, sir, I propose to do this in the case of that most interesting disease generally known as ulcerative endocarditis, a disease the phenomena of which were first clearly explained by the late Dr. Kirkes, from whose investigations in 1851-52 we date our accurate knowledge of the affection. Some of those who listen to me to-day can doubtless recall, and recall with pleasure, the Gulstonian Lectures of 1851, in which Dr. Ormerod dealt so fully and so ably with valvular affections of the heart; but a reference to them will show how much the past twenty-five years have done to widen our view of cardiac disease, more particularly in regard to the effects of emboli, and the association of valvular inflammation with grave constitutional disorder, and the probable connection of the disease with the presence of micro-organisms. By the labours of Drs. Ogle, Wilks, Simpson, Moxon, Bristowe, and others in this country, of Charcot, Vulpian, and Lancereaux in France, and of Virchow and a host of observers in Germany, a large amount of material has been accumulated; and we may assume that the etiological, clinical, and anatomical characters of the disease have been fairly well ascertained, and that we have got about as far towards a full knowledge of the affection as the ordinary means at our disposal will permit. The inquiry now enters upon another stage, and it remains for experimental investigation to determine, if possible, the relation of the endocarditis to those diseases with which it is most frequently associated. This being the case, the present time has seemed to me a favourable opportunity to summarise our knowledge to date; and, for this purpose, I have reviewed the records of over two hundred cases, which, from the description of the symptoms and lesions, were evidently of the type of malignant endocarditis; and these, with the considerable experience I have had at the General Hospital at Montreal, may perhaps enable me to give a somewhat more comprehensive account, in some respects, than has yet been attempted.

In discussing the subject of endocarditis, we are met at the outset by difficulties of nomenclature and classification. The designation acute may be used to indicate those forms which are accompanied by proliferation of, and exudation upon, the endocardial surface, with or without loss of substance, as opposed to chronic, in which there are sclerotic changes without vegetations. Subdivisions of the acute form have been arranged on an anatomical basis, as the terms plastic, papillary, verrucose, fungous, ulcerative, indicate. On the other hand, from an etiological point of view, the forms of endocarditis are as numerous as the diseases in which it occurs, and we constantly hear the expressions puerperal, rheumatic, scarlatinal, etc. Some speak of primary and secondary forms; while, from a clinical standpoint, they are arranged in two classes, simple and grave. Anatomically, there appear to be no very essential differences in the various forms of acute endocarditis. Between the small capillary excrescence and the huge fungating vegetation with destructive changes, all gradations can be traced, and the last may be the direct outcome of the first; the two extremes, indeed, may be present in the same valve. They represent different degrees of intensity of one and the same process. A classification of cases, based on the ordinary macroscopic characters of the inflammatory products, into watery or verrucose and ulcerative, will, in many instances, group together cases widely different in their clinical aspects; and, contrariwise, a clinical subdivision into cases of simple and cases of malignant endocarditis by no means of necessity implies that the lesions in the former case are all of the plastic or warty variety, and in the latter of the ulcerative or destructive. The term ulcerative has come into very general use to describe the grave form, and it expresses well an anatomical feature present in a large proportion of cases; but in others it is very inapplicable, as there may be no actual loss of substance, and no more destruction than occurs in the verrucose form; and, on the other hand, there may be great destruction and ulceration from causes of an entirely different nature. The numerous other terms employed—septic, infectious, diphtheritic, mycosis endocardii, arterial pyæmia—while each expressing some special feature, and so far suitable, have never come into very general use. On the whole, it seems to me that the names simple and malignant, which we use often to separate the milder and severe forms of many diseases, might appropriately be employed in describing the cases of acute endocarditis; the simple being those with few or slight symptoms, and which run a favourable course; the malignant, the cases with severe constitutional disturbance and extensive valve-lesions, whether ulcerative or vegetative, the term being more clinical than anatomical.

Malignant endocarditis occurs under the following conditions: 1, as a primary disease of the lining membrane of the heart or its valves, either attacking persons in previous good health, or more often attacking the debilitated and dissipated, or those with old valve-lesions; 2, as a secondary affection in connection with many diseases, particularly rheumatic fever, pneumonia, scarlet fever, diphtheria, ague, etc.; 3, as an associated condition in septic processes, traumatic or puerperal. We shall discuss first the anatomical characters, then the clinical features, and lastly the etiological and pathological relations.

The lesions of malignant endocarditis are by no means uniform, and may be vegetative, ulcerative, or suppurative; and these various forms may occur alone or in combination. The belief that there is always ulceration has led to some confusion; and we must recognise that there are cases with the clinical history of the malignant form in which, *post mortem*, the valvular condition has been that of a severe vegetative or verrucose endocarditis. Such a case was a lad aged 11, a patient of Dr. Molson's, from whom I obtained the specimen which I pass round. He had chorea in July 1880, the second attack. Rapid improvement and recovery under Fowler's solution, five minims every four hours hypodermically, took place. There was a slight murmurish condition of the first sound. When seen again on March 3rd, 1881, the chorea had returned, having begun ten days before. The patient improved until the 10th, when he began to be feverish; had exacerbations each evening; temperature rising to 104° Fahr. He became unconscious. There was slight paresis of the left side, and death took place on the 16th. The temperature on the 15th was nearly 106°. There were irregular, soft, greyish-white vegetations on the mitral valve, infarcts in the spleen and kidneys, and a small spot of red softening in the right corpus striatum. These photographs from a case of Dr. Musser's illustrate a more advanced condition of the same kind; the vegetations were larger, more abundant, and some were a little irregular and soft on the surface, but, unless a mass were removed, no actual loss of substance was seen. Even in the smallest vegetation there is some destruction of endocardial tissue, if only of the endothelium and superficial layer; while the larger outgrowths are more deeply set in the valve, or may involve the entire thickness. More commonly with or without vegetations, there is ulceration, the frequency of the occurrence of which has given the name most often attached to this form of endocarditis. The loss of substance may be superficial, involving only the endocardium, or it may be deep and destructive, leading to perforation of a valve, of the septum, or of the heart itself. On the valves, extensive outgrowths usually accompany the process, and may conceal the ulcer or project as fungating masses from its edge, as is well illustrated by this coloured drawing. In many instances, the process appears simply ulcerative, without any vegetations to speak of. In the slightest form, only a superficial abrasion exists, perhaps scarcely recognisable; in others, a process of erosion may go on by which half a valve may be destroyed, or there may be (as shown in this drawing) a deep excavation extending beyond the valves, and destroying the muscle-substance of the heart, leading to perforation of the septum or of the wall of the ventricle. These are well known features, however, upon which I need not dwell. In two instances, I have seen superficial necrotic changes without ulceration or vegetations, circumscribed patches, of the size of a sixpence, opaque yellow-white in colour, resembling the necrotic pleura, over a pyæmic infarct of the lung, or a portion of dead peritoneum at the base of a deep typhoid ulcer. Doubtless, these would in time have formed ulcers. I find this condition noted by one or two observers. Lastly, the process may be suppurative, in which case the deeper tissues of the valve appear first involved, and the endocardium only implicated by contiguity. The occurrence of small abscesses at the base of extensive vegetations is not uncommon, but there are also instances in which the suppuration seems the initial step. The combination of ulcerative and fungating

outgrowths is, perhaps, the most common condition. The vegetations vary a good deal in appearance and consistence. Soft greyish-white masses, with roughened friable surfaces, to which thin blood-clot adheres, are numerous; or there may be large cauliflower-excrescences, with deep jagged fissures; or, again, long, pendulous, stalactitic masses. In the latter form, we often see, as Dr. Moxon pointed out, the effects of friction, and such a long vegetation from an aortic cusp may produce, by contact, a whole series of smaller outgrowths along the ventricular wall. The pressure of the valves against each other, and the action of the blood, tends to loosen and break the vegetations, and one can sometimes see where masses have been torn off, either entire or by a gradual process of disintegration. Considering the force with which the valves come together, it is curious that the soft vegetations, occupying, as they generally do, the lines of closure, can resist the constant compression to which they are subjected. Some vegetations present a remarkable greenish-grey or greenish-yellow colour. Changes in a conservative direction may go on when the disease is much prolonged. Fibroid induration may take place in the deeper parts, while the superficial portions remain unchanged and necrotic, perhaps also becoming a little harder and shrinking. Such a process can be seen in this specimen of endocarditis from an ox, in which there were most extensive vegetative and destructive changes. Not unfrequently the vegetations are gritty, from the deposit of lime-salts, which may take place in very acute cases, and is not necessarily an indication of age. It is interesting to note how often inorganic material is deposited in the neighbourhood of micro-organisms, as here on the endocardial outgrowths, in the tonsillar crypts, and about the tufts of actino-myces. Two conditions must be distinguished from the lesions of malignant (mycotic) endocarditis: the atheromatous degeneration in sclerotic valves, which leads to ulceration and extensive destruction of segments, a process which has nothing in common, except in its effects upon the valves, with the acute ulcerative changes above described, but is similar to the atheromatous processes in the aorta. It must not be forgotten, however, that an acute mycotic process may be engrafted, and indeed, often is, upon old sclerotic valves, the seat of atheromatous changes. The firm white globular thrombi of the auricular appendices, and of the interstices of the columnæ carneæ of the ventricles, have sometimes an appearance closely resembling endocardial outgrowths, and when softened in the centre and ruptured, the resemblance may be very close indeed. It is possible that the granular *débris* of an atheromatous abscess or a softened thrombus may possess irritating properties when discharged into the blood.

Histological Characters.—The study of a small fresh endocardial vegetation shows it to be made up of cells derived from the sub-endothelial layer, round and fusiform, which, by their proliferation, have produced a small nodular projection on the surface of the endocardium. Varying with the rapidity of the growth, the mass will present the characters of a soft granulation-tissue or a tolerably firm fibrous outgrowth. Usually, the round cells predominate; but there may be many elongated spindle-formed cells, with three or four processes. What part the endothelium plays in this growth, has not been determined. Tiny outgrowths may be seen, in which the process appears to be entirely subendothelial; but usually, before the mass attains any size, the smooth surface is lost, and there is deposited upon it a cap of fibrine in the form of a granular, sometimes stratified, material, of variable thickness. Though this resembles an ordinary coagulable exudation, it is probably deposited directly from the blood, and is of the nature of a thrombus. Upon and in this layer may be found, sometimes in large numbers, those remarkable little bodies which have long been known, when collected together, as Schultze's granule-masses, and which have of late become prominent as the blood-plates of Bizzozero and the hæmatoblasts of Hayem. Occasionally, they are very abundant; and I have seen soft warty vegetations composed (superficially) in great part of them. As their connection with endocardial and endarterial outgrowths has not, so far as I know, been referred to, I may be permitted to call attention to these two drawings, which further illustrate this point. The first represents the aorta from an old man dead of carcinoma, in which, just above the bifurcation, three irregular masses are shown, one nearly an inch in length, which projected fully a quarter of an inch from the intima of the vessel. They were attached to atheromatous ulcers, were soft greyish-white in colour, and were composed exclusively of the elements of Schultze's granule-masses, with fibrine-fibrils, and here and there a few white corpuscles. The second drawing illustrates a small aneurysm of the aorta, which has perforated the œsophagus. On the wall of the sac, the artist has represented a number of irregular whitish lines, which were narrow elevated ridges, also made up microscopically of these small discoid elements, the connection of which with fibrine-formation has been strongly insisted upon by Bizzozero. Scattered in and beneath the fibrinous exudation are numerous small granular bodies, which have the appearance and reaction of micrococci.

The larger vegetations, more characteristic of malignant endocarditis, consist of a granular material composed of altered and dead tissue-elements, fibrinous exudation, and colonies of micrococci; the deeper parts present the appearance of a granulation-tissue, while at the attachment in the valve there is always more or less infiltration and increase of the cell-elements. The granular substance is structureless, and resembles diphtheritic exudation, the resemblance at times being so close that one can readily understand the application of the term "diphtheritic" to the inflammation. It may be distinctly laminated, and, with a high power, fine filaments can be seen, though usually the granules conceal all appearance of structure. Strands of translucent material may occur throughout the mass, as if portions had undergone a sort of hyaline transformation. In some instances, this is very marked. Pale spheres filled with granules also occur, and may be very abundant. They have been described as colonies of micrococci; but some regard them as altered endothelial elements. I have seen them too numerous to be explained on this view. At the attachment of the vegetation, there is a zone of tissue deeply infiltrated with leucocytes, and deeper still the tissue-elements of the valve present an increase of nuclei and cells. The destruction of tissue appears to result in two ways: first, a gradual extension inwards of the necrotic process, doubtless induced by the micrococci; secondly, the softening and separation of valve-tissue caused by the rapid development of leucocytes at the base of the vegetation.

The micrococci are constant elements in the vegetations. All granules of an uniform size met with in the sections are not micro-organisms, nor, indeed, are all which stain by some methods recommended for the detection of these bodies. By far the most satisfactory method is that of Gramm (*Fortschritte der Medicin*, Band i, Berlin), in which the section, after staining in gentian-violet, is transferred for a few minutes to a dilute solution of iodine and iodide of potassium, and then to the alcohol, when it is found that the colour has been extracted from all tissue-elements and nuclei, leaving only the micro-organisms stained. They vary a good deal in number and arrangement, and may be scattered singly in the granular substance or arranged in groups. They are usually very numerous at the deeper part of the vegetations, just where the structureless material joins the granulation-tissue, and they may penetrate deeply into the substance of the valve. Sometimes the smaller vegetations seem made up exclusively of them. Several of my specimens appear to confirm the view of Klebs (*Archiv für Experiment. Pathologie*, Band vi), that the micrococci lodge first on the endocardium, and penetrate into the substance, often as distinct columns. In their immediate vicinity, there is a zone of necrosis, and beyond this an accumulation of leucocytes and signs of reactive inflammation. The micro-organisms found in connection with the malignant endocarditis are not all of the same kind. Klebs distinguishes two forms, one met with in septic, and the other in rheumatic, cases. In some instances, the micrococci are all arranged in zooglœa-like masses; in others, particularly the septic cases, they are in chaplets. Some present distinct capsules. Small elongated bacilli have also been found; I have seen them in one instance, short stout rods, often joined in pairs. Delafield and Prudden (*Text-book of Pathological Histology*, New York, 1885) have recently noted the presence of bacilli in the vegetations of a very acute case of malignant endocarditis. Cornil, in a recent lecture (*L'Abeille Médicale*, No. 51, 1884), stated that the bacillus tuberculosis had been found in the vegetations on the valves in cases of phthisis, and expressed the opinion that before long we should have accurate knowledge of a variety of micro-organisms in endocarditis depending upon the nature of the primary disease. By culture-experiments alone can we hope to have the question settled.

The following figures give an approximate estimate of frequency with which different parts of the heart are affected. The aortic and mitral valves were affected together in 41 cases, the aortic valves alone in 53, the mitral alone in 77, the tricuspid in 19, the pulmonary valves in 15, and the heart-wall in 33. The right heart is rarely affected alone; this occurred in only 9 instances, in 5 of which the tricuspid, and in 4 the pulmonary, valves were involved. The valves are most often attacked along the lines of closure, as in the simple endocarditis; the auricular faces of the mitral flaps and the ventricular surfaces of the aortic cusps suffering most severely. Mural endocarditis is most often seen at the upper part of the septum of the left ventricle, just below the aortic ring, in which situation some of the most extensive and deep cardiac ulcers occur, leading to perforation of the septum

Next in order is the endocardium of the left auricle on the postero-external wall, as noted by Lepine (*Bull. de la Soc. de Biologie*, 1869).

The local effects of the ulcerative changes are important. Perforation of a valve-segment is extremely common; sometimes there is a clean-cut, punched-out hole, with scarcely any irregularity of the edges; more frequently, however, there are great fungous vegetations which completely close and conceal the perforation. Erosion of the chordæ tendinæ is frequently met with, and an entire group passing to the papilla may be destroyed, the ends curled and encrusted with vegetations. Ulceration of the heart-muscle, leading to perforation of the septum or of the wall of a chamber is a much less frequent occurrence. I have collected notes of eleven instances; three of the septum close to the aortic ring. Ulcers at the aortic ring perforated the left auricle in three instances, the right auricle in one, and the right ventricle in one. In a remarkable case of Dr. Stephen Mackenzie (Pathological Society's *Transactions*, vol. xxxiii), the left ventricle was perforated by an ulcer at the apex. In a case of Dr. Curnow (*Lancet*, 1883, vol. i), the ulceration extended between the coats of the aorta, and then perforated into the lumen of the vessel, and in one of the Montreal cases there was perforation of an aneurysm of the aorta by ulceration, an instance of extensive ulcerative endarteritis with the production of multiple aneurysms. Another common result of ulceration is the production of valvular aneurysm. The anterior flap of the mitral valve is most frequently affected, and then the aortic cusps. In the records of the cases which I have reviewed, I was surprised not to find this condition noted oftener, only in about 12 per cent. of the cases; but, in very many cases, the record of the anatomical condition was meagre. I shall not refer further to this interesting point, as Dr. Legg has dealt with it very fully in a recent lecture at this College (Bradshawe Lecture, August, 1882). I may observe, however, that the atheromatous ulceration is also a frequent cause of aneurysm of the valves.

It was Sir James Paget (*Medico-Chirurgical Transactions*, vol. xxvii), I think, who first referred to the frequency with which sclerotic and malformed valves are attacked by acute disease. Chronic valvulitis is met with in a large number of cases of malignant endocarditis. The records which I have examined give only a percentage of about twenty-five; but the condition of the valves, except as regards ulceration, was often omitted, and thus represents a very much smaller percentage than actually occurs. In more than three-fourths of the Montreal cases, sclerotic changes were present; and Dr. Goodhart found (Pathological Society's *Transactions*, vol. xxxiii), in a series of sixty-nine cases, that sixty-one presented old thickening of the valves. In very many of the cases, the condition of fusion of two of the aortic cusps was present. This abnormality is almost invariably accompanied by sclerotic changes, and to the existence of these is probably due the frequency with which they are attacked by ulceration. In seventeen instances of fusion of two of the aortic cusps of which I have notes, there were ulcerative changes in eight, in two or three of an atheromatous nature.

In a few instances, the aorta is involved with the heart. The most frequent site is the sinuses of Valsalva, the vegetations growing through the segments spread on to the aortic wall; or it is affected by friction. It is rare for the vegetations to extend into the arch. I have met with one remarkable instance of ulcerative endocarditis in which there was also ulcerative endarteritis, involving the arch and producing multiple aneurysms. The specimen which I here demonstrate was taken from a man aged about 30, who had been the subject of syphilis, and was known to have had aortic incompetency for some time. He was admitted to the General Hospital, Montreal, on June 4th, 1880, with diarrhœa, chills, headache, cough, and fever. Temperature 104°. There were signs of pneumonia at the left base. He became delirious, a low typhoid condition supervened, with chills at intervals, and death took place on July 1st. The aortic valves were curled and hard, and presented extensive recent vegetations; the arch of the aorta presented four aneurysms, three small, not larger than cherries, and one of the size of a billiard-ball. The small ones were not noticeable as aneurysms from the internal surface, but presented the appearance of fresh fungous vegetations, on separating which little slits could be seen leading to saccular dilatations of the middle and outer coats. The large aneurysm was thin-walled, with no laminated fibrine, and presented at the edges of the orifice and over the whole lining membrane of the sac many greyish-green vegetations, some of which had perforated the sac and caused a rupture into the pericardium. It may be presumed that, in this instance, the ulcerations led directly to the production of the aneurysms, certainly in the case of the smaller ones; and the larger sac presented a condition of mycotic endarteritis unique in my experience of aortic aneurysms.

Of associated pathological changes, we have, in the first place, those connected with some primary disease, to which the endocarditis is, in the majority of cases, secondary. Thus, in the endocarditis of septic processes, there is the local lesion, a suppurating wound, a phlegmonous inflammation, or puerperal processes of a septic nature. In a very considerable proportion of cases, there is evidence of recent pneumonia; in others, rheumatic affections of joints; and in a few, diphtheritic processes. In the group of primary cases, the lesions are entirely those of endocarditis, local and general. In the second place, there are the extensive pathological changes due to embolism; and these constitute interesting features in the disease, and may produce a very great variety of lesions in every portion of the body. I do not propose to deal very fully with these, but to call attention only to some special points. The cases may be divided into those without any embolic processes, cases in which the infarcts are simple, not suppurative, those in which there are innumerable suppurative infarcts and cases in which some of the infarcts are simple and some suppurative. It is remarkable how variable these embolic features are. They may be entirely absent in well marked malignant cases. They are not necessarily associated with suppuration; indeed, in a very considerable number of cases, they present the characters of ordinary hæmorrhagic infarcts, but in the traumatic and puerperal cases the infarcts are invariably septic. They may be few in number, only one or two perhaps in the spleen or kidney, or they may be in thousands throughout the various organs of the body. When suppurative, micrococci, in my experience, are always present; but the micrococci may exist in the vessels without inducing this change. In severe forms of the disease, hæmorrhages are very frequent upon the skin, and on the serous and mucous surfaces. The cutaneous ones will be referred to again in connection with the symptomatology. They appear, in many instances, to be due to the effect of the poison, just as in other infectious diseases; in others, they are undoubtedly embolic, and a minute necrotic or suppurative centre can sometimes be seen. In the membranes of the brain, I have twice met with extensive superficial extravasation. Litten (*Charité Annalen*, Band iii, Berlin) has called attention to the frequency of retinal hæmorrhages, particularly in the endocarditis of puerperal sepsis. In some instances, there are innumerable miliary abscesses, more particularly in the heart and kidneys. They are often associated with hæmorrhage, and the smaller ones look like little extravasations, but the presence of micrococci and suppuration can be easily determined in stained sections. The spleen is most often the seat of infarction, and next in order the kidneys. The lungs are usually affected when the endocarditis is on the right side, and there may be suppuration or even extensive gangrene, but even with destructive lesions of the pulmonary valves there may be no suppurative infarcts in the lungs, as in a case of Dr. Church (Pathological Society's *Transactions*, vol. xxvi). Or again, as in a case of Dr. Moxon's (*Ibid.*, vol. xix), there may be with aortic valvulitis suppurative infarcts in the lungs, and simple ones in the other organs. The gastro-intestinal canal may present very remarkable changes, due to the presence of numerous infarctions, from the size of a pin's head to that of a split pea. They are slightly elevated, greyish-yellow in colour, often surrounded by a zone of deep congestion or extravasation, and on section may show a suppurative centre. Micrococci are present, as in other miliary abscesses, and in several instances I was able to find small embolic plugs in the arteries of the submucosa. The abscesses may discharge and leave a small ulcerated surface. In the stomach there may be similar minute infarcts, and occasionally larger ones. Carrington (*Lancet*, 1884, vol. i), has described a remarkable case in which there was a gastric ulcer, apparently due to embolic process, in a case of severe endocarditis; and Magill (BRITISH MEDICAL JOURNAL, 1884, vol. ii), a case in which the stomach was intensely inflamed, the mucous membrane at the greater curvature being black, almost gangrenous. The liver may present minute abscesses, and in a number of cases in which there has been jaundice degeneration of the cells has been observed (Schnitzler, *Wiener Med. Presse*, 1865). The serous surfaces are often inflamed, pleurisy and pericarditis being not uncommon complications. The pericardium is most frequently affected in rheumatic cases, in which endocarditis and pericarditis may occur simultaneously. Pleurisy is met with chiefly in connection with the traumatic and puerperal cases, and also with pneumonia, which, as I shall show, plays an important part in the history of this form of endocarditis. The cerebral lesions are of the substance and of the membranes. Embolic softening, simple or suppurative, is extremely common, and in very many cases head-symptoms supervene, and there is paralysis of one side or the other. There may be a single embolus, producing extensive suppuration or red softening, or there may be multiple infarcts in various regions. The meningeal complication of endocarditis has not received much attention. Considering the frequency with which it has occurred in the Montreal cases, five instances out of twenty-three, I was quite prepared to find such a large

number as twenty-five cases; that is, somewhat over 12 per cent. In the majority of these cases, it occurred in connection with pneumonia. It is almost always cortical, but may extend to the base and involve the nerves, leading in one case, which I saw with Dr. Ross at the Montreal Hospital, to strabismus, and also to ulceration of the cornea from involvement of the fifth nerve. In rare instances the spinal meninges are involved, and the clinical picture may be that of an acute cerebro-spinal meningitis (Hunolle, *Bull. de Soc. d'Anatomie*, 1874; and Heineman, *Med. Record*, New York, 1881, vol. ii). Acute suppurative parotitis was noted in three cases.

LECTURES
ON
THE ANATOMY OF THE INTESTINAL CANAL AND PERITONEUM IN MAN.

Delivered at the Royal College of Surgeons of England.

By FREDERICK TREVES, F.R.C.S.,
Hunterian Professor at the Royal College of Surgeons; Surgeon to, and Lecturer on Anatomy at, the London Hospital.

Lecture II.

The Mesentery.—The mesentery, so far as its intestinal attachment is concerned, extends, it is needless to say, from the end of the duodenum to the ileo-cæcal junction. Its upper or right layer is continuous with the under layer of the transverse meso-colon, and with the peritoneum that invests the ascending colon. Its lower or left layer joins with the serous membrane that encloses the descending colon, that forms the sigmoid mesentery, and that descends over the lumbo-sacral eminence into the pelvis. The parietal attachment of the mesentery is liable to considerable variation, and cannot be so readily disposed of. The point at which this attachment commences above is practically constant. It corresponds with the ending of the duodenum, is about on a level with the lower border of the pancreas, and is just to the left of the vertebral bodies. From this point the insertion of the mesentery follows an oblique line that runs downwards and to the right, crossing the great vessels, and then ending in a somewhat uncertain manner in some part of the iliac fossa. The precise manner of its ending will be dealt with subsequently. In an ordinary case, if the mesentery be divided close to the bowel, and all the small intestine be removed, the membrane will appear as a well marked fold, arising by a narrow line from the posterior parietes, and deviating not very considerably from the middle line. It is important to recognise that this attachment does not represent the real root of the mesentery, nor is it any part of the attachment of the median vertical fold of peritoneum, that went to the primary intestinal loop. The real root of the mesentery is in the interval between the transverse colon and the duodenum, where the trunk of the superior mesenteric artery enters.

The lower part of the primary vertical fold is represented by the serous attachments of the descending colon to the parietes. The long line of insertion of the mesentery in the adult is entirely a secondary or acquired attachment. I might recall the fact that there is a time in the history of the development of the intestine when the small intestine, the ascending colon, and the right half of the transverse colon, all form part of a single simple loop, enclosed in a single fold of peritoneum, which is attached to the vertebræ, and has its root in the comparative narrow interval between the transverse colon and the duodenum. At such a time, the parts of the colon named and the small intestine have a mesentery in common. When the rotation of the bowel takes place as already described, when the colon crosses over the duodenum so as to reach the right hypochondriac region, this common mesenteric fold is rotated to the extent of half a circle. Thus it is that what was once the left and under layer of the common mesentery becomes the right and upper layer of the mesentery of the adult, and *vice versâ*.

In time the cæcum descends to reach its final resting-place in the right iliac fossa. As it progresses it outgrows its serous covering, and in time the ascending colon above it acquires a non-peritoneal surface. This part of the large intestine is no longer a part of a free loop, and what is now the permanent mesentery may appear for a while to come off from the parietes, along the inner border of the now attached ascending colon. As a result of further development, the line of

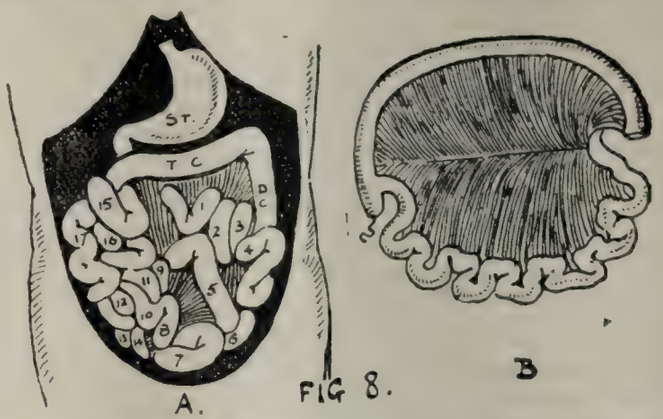


FIG 8.

origin of the mesentery is moved nearer to the middle line, until it comes to occupy the position that is familiar in the adult. As a matter of fact, the isolation of the permanent mesentery appears before the descent of the cæcum, and it may be seen as a separate fold attached to the spine in the fœtus, when the cæcum still occupies the right hypochondrium (Fig. 8 B). While the cæcum is in this position, the line of the attachment of the mesentery, such as it is, appears to be almost transverse, and it may not attain its permanent oblique direction until the cæcum has reached its goal in the iliac fossa.

In a large number of the mammalia, the ascending colon never loses any part of its original complete serous investment. It never, therefore, becomes attached to the parietes, but remains as a part of the great loop of intestine, and still invested in a simple mesentery that is common to it and the whole of the jejuno-ileum. In such animals the right limb of the large bowel remains singularly free; the mesentery of the small intestine retains its primitive relations; it acquires no secondary attachment to the parietes, and its sole root and attachment is in the narrow gap between the transverse colon and the duodenum. This condition is occasionally met with in the human subject. The ascending colon is entirely free up to the hepatic flexure, and is invested by a mesentery, common to it and the small intestine. I have met with two examples of this in one hundred specimens. The condition is of interest pathologically, as favouring the development of a certain form of volvulus of the cæcum and small intestine.

Putting aside this condition, it may be said that the parietal attachment of the mesentery measures, as a rule, about 6 inches; its mode of ending at its inferior extremity is as follows. When an ascending meso-colon exists, the mesentery ends by joining it. The two membranes meet at an angle, often at a right angle, and then the right layer of the mesentery becomes continuous with the left layer of the ascending meso-colon, and the left layer of the mesentery with the right one of the colic fold. When no meso-colon exists, the peritoneum that covers the cæcum is reflected from the hinder surface of that part of the bowel on to the posterior parietes; at this reflection the mesentery ends. Its left layer is continuous, and often in a line, with this reflected membrane, and then passes on into the pelvis, while its right layer is continued on to the ascending colon. As the position of this reflection varies considerably, so the length of the parietal attachment of the mesentery must be varied in proportion, and the same applies to cases where an ascending meso-colon exists.

The length of the mesentery from the spine to the intestine varies in different parts of the canal; its average length may be taken as between 8 and 9 inches. It soon attains its full length, and within one foot of the end of the duodenum is already 6 inches in length.

The longest part of the mesentery is that which goes to the coils of intestine that lie between a point 6 feet from the duodenum, and a point 11 feet from the same part of the gut. Such coils will, therefore, include 5 feet of the intestine, and the mesentery here not infrequently reaches the length of 10 inches. This point is of interest in connection with the position of certain coils of intestine, and to the subject allusion will again be made.

The important part that the mesentery must play in connection with the commoner forms of hernia has, it would appear, been somewhat overlooked. If the fresh body of an adult be opened, and the condition of the viscera and peritoneum be normal, it will be found that it is impossible to drag a loop of small intestine through the femoral canal (artificially enlarged) on to the thigh, or down the in

guinal canal into the scrotum. In fact, no coil can, in any part, be drawn out of the abdomen below a horizontal line on a level with the spine of the pubes. It is evident, therefore, that, in a femoral or scrotal hernia, the mesentery must be elongated. Mr. Birkett, in his well known monograph on hernia, has drawn attention to this subject, but its importance in connection with the anatomical bases of heredity in some forms of rupture, and with the prospects of operation for radical cure, appears to have been overlooked.

It is not infrequent to find in women, at or past middle life, so loose and long a mesentery as to allow the bowels to be drawn from the abdomen some way below the line named. The same applies, in a less degree, to old subjects of both sexes; but such a condition is quite rare in well developed men in the prime of life. In one old woman, aged 70, the coils of the small intestine could be drawn so far out of the abdomen that they reached, in the middle line, to the level of a point no less than 8 inches below the anterior superior iliac spine. She had no hernia. The intestines were normal, but the ascending and descending meso-colons were the most extensive that I had met with. The presence of these latter folds had much to do with the remarkable mobility of the small intestine.

Before leaving the mesentery, it is necessary to allude to certain holes that are sometimes found in that membrane, and that have been, on many occasions, the cause of a fatal strangulation of the intestine. Strangulation of a loop of bowel through a slit or hole in the mesentery, is a recognised form of internal hernia. As to the precise nature of these abnormal apertures, I am not aware that any explanation has been given of their mode of origin. That a certain number are due to violence, and have resulted from injuries applied to the abdomen, there can be no doubt. Such apertures are usually slit-like and irregular, and of uncertain situation. In the majority of the examples of mesenteric hole, however, this theory of causation cannot apply; there is either an absence of any history of violence, or a history of inadequate violence. When I came to examine all the museum specimens to which I had access, and the accounts furnished in recorded cases of strangulation through a mesenteric hole, I found that the great majority of these abnormal gaps in the membrane presented the following common characters. The holes were round; they were situated in the mesentery of the terminal part of the ileum; their margins were distinct, being often thickened and opaque, and around a part of the margin it was not uncommon to find one of the terminal branches of the superior mesenteric artery. A systematic examination of the lower part of the mesentery, in a large series of cases, brought to light the following facts. In the fœtus, it will often be observed that the ileo-colic branch of the superior mesenteric artery circumscribes, by its anastomosis with the last of the intestinal arteries, an area on the mesentery, of a well rounded or oval shape (*a* Fig. 13 G). This area is remarkable, in so far that it presents no fat, no visible blood-vessels of any kind, even in well injected specimens, and is never occupied by any mesenteric glands. An area so differentiated from the surrounding mesentery I have seen in fœtuses of 6 and 7 inches in length; but although a common, it is not a constant condition. In many bodies beyond the period of fœtal life, I have met with this singular and isolated area in the mesentery still retaining the characters just described, and rendered conspicuous by its thinness and bloodlessness.

In the fœtus at full term, and in children under puberty, it is usually about the size of a shilling-piece. The margins of the district are



FIG. 9.

marked by the arteries named, and are occasionally rendered more pronounced by some opacity of the membrane. It will be seen that this area has the precise situation, the outline, and the dimensions of the mysterious mesenteric hole; and by the atrophy of the peritoneum occupying the district such a hole would be formed. I was fortunate enough to meet with a specimen that I venture to think will complete the argument that the common mesenteric hole is produced by atrophy of this particular patch in the peritoneum. In the body of a man aged 52, I found the area in the mesentery that I have just described very pronounced. It formed a patch of oval outline measuring $1\frac{3}{4}$ inches by $1\frac{1}{4}$ inches. It was entirely devoid of visible vessels, of glands, and of fat; while the adjacent mesentery was quite opaque from adipose tissue. The margin of the space was markedly opaque, thickened, and abrupt, and was skirted on the side nearest the cæcum by one of the terminal branches of the superior mesenteric artery. The serous membrane that formed this area was remarkably thin, clear, and atrophied. The atrophy was of such a degree that the little patch of peritoneum was cribriform, being pierced by about twenty holes. It is evident that but a slight degree of force would have been required to have forced a knuckle of bowel through this wasted membrane, and so have produced a strangulation of the bowel through a "mesenteric hole." In one specimen—in a male fœtus at full term—where this peculiar oasis in the mesentery was well defined, the last intestinal artery had produced a fold at the cæcal margin of the patch (*b* Fig. 13 G). By this means a pocket was formed, which would have been a ready snare for a wandering loop of bowel, and would have directed such a loop through the thinned serous membrane.

The Arrangement of the Small Intestine.—In the one hundred specimens examined, I took great pains to ascertain if the small intestine followed a constant course, and if there were anything like a method in the arrangement of the individual coils. In each instance, when I had opened the abdomen, and before any of the parts had been disturbed, I affixed a brass number to every visible coil of small intestine. A drawing was then made of the parts as they lay *in situ*, and the position of each of the numbers subsequently ascertained by noting its distance from the commencement of the small intestine. The work was very laborious, and the results very scanty. I had some faint hope that an extensive examination of this character would enable the surgeon to form some notion of the part of the small intestine that would be likely to be involved in the various herniæ on different sides of the body. The investigation, however, showed that such a localisation is quite impossible. Apart from this, the intestinal coils conform in some degree to a definite arrangement in a

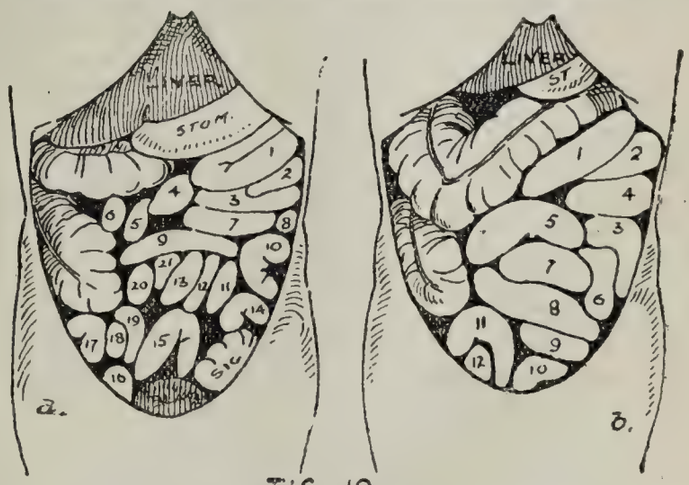


FIG. 10.

large number of cases. If the body of a fœtus about 5 or 6 inches in length be examined, the cæcum will be found in the right hypochondrium; and, with little or no displacement of parts, the small intestine will be seen to be arranged along a curved line that is convex downwards, that is almost transverse, and that extends from the left side to a corresponding point on the right side (Fig. 8 A). This arrangement can still be followed out, although in a less definite manner, in a fœtus at full term (Fig. 9). In both these diagrams, the numbers on the coils represent the order from the duodenum to the cæcum. In children, moreover, up to two or three years of age, the same general arrangement can often be followed out. In the majority of adult bodies, the small intestine is disposed in an irregularly curved manner from left to right. The gut, starting from the duodenum, will first occupy the contiguous parts of the left side of the epigastric and umbilical regions; the coils then fill some part of the left hypochondriac and lumbar regions; they now commonly descend into the pelvis, reappear in the left iliac quarter, and then occupy in order the hypogastric, lower umbilical, right lumbar, and right iliac regions.

Before reaching the latter situation, they commonly descend again into the pelvis. In the specimen from which Fig. 10 B was taken, this order was very fairly observed. The body was that of an adult male, aged 25. As a rule, however, the position of the individual coils is much less regular, and the arrangement depicted in Fig. 10 A (also from an adult body) shows very plainly the extent of the irregularity. The following facts will demonstrate the gross deviations that may be found from what may be regarded as the typical disposition of the intestinal coils. In the left lumbar region, loops may be met with that are respectively a few inches on the one hand and 15 feet on the other from the duodenum. In the left iliac quarter, the extremes are 2 feet and 23 feet; in the hypogastric, 11 feet and 26 feet; and in the right iliac, 9 feet and 28 feet. In one case, I found that a coil situated in contact with the middle of Poupart's ligament on the left side was only 11 inches from the end of the duodenum; and in another, a loop that was lying against the bladder in the middle line was only 2 feet from the same point. All these observations refer to the adult body.

It is to be noted that in the fœtus, and during the earliest part of extrauterine life, the bulk of the small intestine is placed to the left of the middle line. This is on account of the relatively large size of the liver, to the weight of which the lesser bowel no doubt acts as a counterpoise. Such disposition of the intestine is not to be clearly observed in the adult; but I am under the impression that, if a vertical antero-posterior section of a frozen body were made, it would be found that the heavier segment of the small intestine lay to the left of the median line.

In five instances among the hundred specimens examined, the coils of the small intestine were arranged in a manner exactly the reverse to that usually found. In each example, the end of the duodenum was to the left of the middle line as usual, and the other abdominal viscera were normal as regards their general arrangement. Starting from the fixed point to the left of the spine, the intestine at once passed to the right, occupied the lower margin of the right hypochondrium, and then, in order, the right lumbar and iliac regions. The gut now descended into the pelvis, and then was found forming coils about the middle of the abdomen, and in the left iliac and left lumbar regions. In the latter district the lower end of the ileum was discovered, and it was observed to sweep across the abdomen from left to right, behind the other coils, to end in the cæcum. Three of the subjects were females, of the ages respectively of 3, 17, and 36 years. The two others were males, and both of 6 years of age. From one of the latter the Fig. 11 B has been taken. The numbers indicate the order pursued from the duodenum. The whole length of the intestine measured 15 feet, and coil No. 13 was found to be 14 feet from the commencement of the bowel. In all these instances, the parietal attachment of the mesentery was normal, and followed a line directed from left to right. After its origin, the membrane took an extensive sweep to the right, and more intestine appeared to be clustered about the lower part of the mesentery than is usual. In three instances, the cæcum was large and mobile, and extended some way to the left of the middle line. In the two remaining cases, the cæcum was normal. In all the specimens, the relation of the serous membrane to the colon was as usual. In other cases, in which the cæcum was displaced to the left, as in the three instances cited, the arrangement of the small intestine was found to be undisturbed. The cause of the deviation in the present examples must remain at present unexplained. It was too precise to be purely accidental.

A good deal of interest attaches to the coils of small intestine that are found in the pelvis. These are the coils that are apt to become involved and adherent in cases of pelvic peritonitis, and that would probably form the protrusion in most instances of obturator, sciatic, and pudendal hernia. In the fœtus, owing to the small size of the pelvic cavity and the great development of the sigmoid flexure, no coils of small bowel are found below the true pelvic brim. Soon after birth, however, the pelvis begins to accommodate intestinal coils, and in the body of a child, aged 4 months, I found 3 feet of the lower ileum occupying the pelvis. The amount of the intestine found in the adult pelvis depends mainly upon the state of distension of the bladder and rectum, and upon the position of the sigmoid flexure. When the latter loop or the cæcum is distended and occupies the pelvis, all small intestine may be excluded.

The coils that are most usually found in this position belong to the terminal part of the ileum, and to that part of the intestine that has the longest mesentery, the part, namely, that extends between two points, respectively 6 and 11 feet from the end of the duodenum. It is not, therefore, uncommon to find loops lying together in contact with the pelvic floor that are in reality some 12 or 14 feet apart, as may be seen when their proper position in the course of the bowel is defined.

I think this matter is deserving of attention, because it is not uncommonly assumed that the coils occupying the pelvis belong exclusively to the lower ileum, and anatomical text-books would not lead one to believe that jejunum is ever found in the pelvic cavity. The amount of small intestine that may be found in the pelvis, even in bodies that have been opened within a short while of death, is often considerable, and frequently measures 8 or 10 feet.

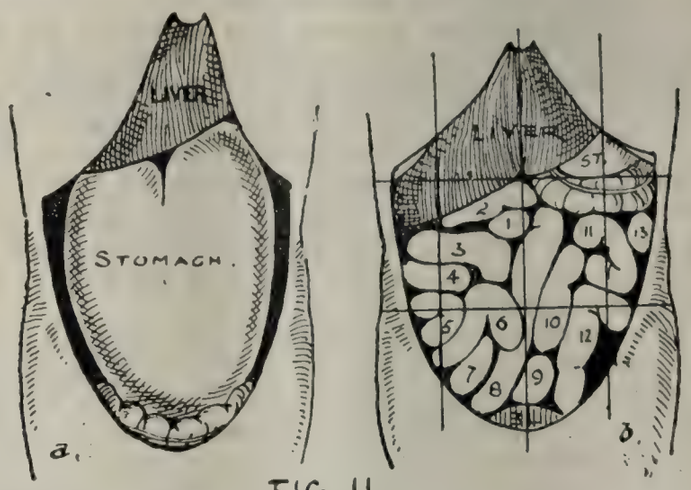


FIG. 11.

In the case of a woman, aged 82, the whole of the small intestine was found in the pelvis, with the exception of the first three feet of the jejunum, and the last two feet of the ileum. The specimen, however, from which Fig. 11 A, was taken, illustrates, in the most remarkable manner, the possible capacity of the pelvis. The subject was a woman, aged 59, who had died with cancer of the pylorus. When the abdomen was opened, nothing was seen but the stomach and a small part of the transverse colon, the latter projecting just above the symphysis. The whole of the small intestine beyond the duodenum was found entirely within the true pelvis, with the sole exception of the first 20 inches of the jejunum. This part of the tube descended quite vertically along the spine from the duodeno-jejunal junction to the pelvis. The small intestine, which had been emptied by starvation, measured 23 feet.

In more than one instance where there has been deformity or great distension of the transverse colon, I have found the whole of the small intestine, with the exception of the duodenum and the commencement of the jejunum, below a line drawn on a level with the summit of the iliac crest.

The Cæcum.—In shape and outline, the cæcum is liable to considerable variations. These variations, however, can be readily classified, and I shall endeavour to show that all forms of the cæcum can be placed under one of four common types.

The particular outline of the human cæcum and the nature of the deviations that it may present, can be best demonstrated by a reference to the development and early condition of this part of the colon. The cæcum appears first as a simple conical projection from one side of the intestinal loop. The projection is short, and is broad at the base. It may be considered to be permanently represented in anatomy by the cæcum of the Mangabey monkey (Fig. 15 A). It soon grows in length, but this growth is not attended by a corresponding development in breadth; so that it next appears as a long tube of equal width in all parts, except at its base, where it widens out before it joins the rest of the bowel. This stage is permanently represented by the cæca of many animals, and as a good example may be selected the cæcum of the Spider-monkey (Fig. 14 D). As development advances, the greater part of the tube practically ceases to grow, while active increase continues in the still widened part of the bowel at the base of the projection. In time, a long narrow tube is found hanging from the apex of a conical projection or diverticulum of the bowel; the latter is named the cæcum, and the tube the vermiform appendix. This condition may be taken as typical in man of the fœtal cæcum, and it forms the first of the four common types of cæcum to which allusion has just been made (Fig. 12 A). If the typical fœtal cæcum be examined, it will be seen to be conical in shape; from its apex, the appendix arises, and this apex is about in a line with the long axis of the colon, and corresponds very nearly to the centre of that intestine. Now, from the colon, three longitudinal muscular bands descend to the cæcum. The exact position of these bands and their relation to the outline of the cæcum have been very ably detailed by Professor

Flower. The three bands meet at the apex of the cæcum, that is, at the root of the appendix; one band lies on the side of the bowel into which the ileum enters; a second is placed upon the postero-external aspect of the colon and cæcum; whilst the third, and the most distinct, runs along the anterior aspect of the gut. The last named band about corresponds to the central vertical axis of the ascending colon. In the fœtal cæcum, these three bands are placed at nearly equal distances from one another, and so divide the caput coli into three fairly equal parts. The first or fœtal type of cæcum may persist throughout life. In one hundred bodies, I found two examples of such persistence. Both the subjects were females, of the ages respectively of 50 and 70 years (Fig. 12 B). In the second type of cæcum (Fig. 12 C), the three bands retain their relative positions. If the part be viewed from in front, there is an equal extent of gut on each side of the anterior band; the apex of the cæcum retains its original position, and this type differs only from the last described by the loss of the conical outline and the substitution of a more quadrilateral shape. The apex appears between two bulging sacculi, instead of at the summit of a cone, and it will be seen that all parts of the caput have developed to an equal degree. This would appear to be the form of cæcum that is usually met with in the anthropoid apes. I found a good example of it in a Silvery Gibbon (Fig. 15 C). It is rare in the human subject, and I met with only three instances among the hundred specimens examined. In the cæcum of the third type, that part of the caput coli that lies to the right side of the anterior band grows quite out of proportion to the part placed to the left side of the band, as the parts appear when viewed *in situ*. Moreover, the anterior wall of the cæcum becomes more developed than the posterior wall. As a result, the true apex of the cæcum is turned more and more to the left, until at last it is placed in close proximity to the ileo-cæcal junction, and can be only recognised by noting the point of origin of the appendix. The highly developed part to the right of the anterior band becomes so dependent and prominent, that it forms a new or false apex to the cæcum, and it is, indeed, to this projection that the anatomical term "apex" is usually applied. Moreover, from the undue development of the anterior wall, the root of the appendix (the true apex) is carried towards the posterior aspect of the caput, and by these changes the cæcum of the third type is produced (Fig. 12 D). This form is the most usual one, and represents the condition of the cæcum in the great majority of all subjects beyond the period of fœtal life. It appears to me that the transformation described depends to a great extent upon the arrangement of the blood-vessels. The cæcum is supplied by the ileo-colic artery. This vessel is directed towards the ileo-cæcal junction. Before it reaches the bowel, it divides into two branches: one passes to the anterior aspect of the gut, and runs down the cæcum in a curve, with the concavity towards the ileum, until it reaches the anterior band upon which it ends. Many branches come off from the convexity of this little trunk, but no visible arteries of any magnitude (and often none at all) come off from its convex side. It results, therefore, that the main part of the blood carried by the trunk will reach that part of the cæcum that is to the right of the anterior band, while but a fractional part will go to the wall of the caput to the left of the band. It may not be unreasonable therefore, to associate this unequal blood-supply with the very unequal growth that is observed upon the two sides of the band. In animals with more equally developed cæca, it will be seen that the blood-supply is also equable, a fact well illustrated in the cæca of the Mangabey and Spider-monkey. The other branch of the ileo-colic trunk proceeds to the posterior aspect of the gut; but, although of larger size than its colleague, comparatively little of the blood that it carries can reach the cæcum, since it runs in the mesentery of the appendix. This may serve to explain the greater development of the anterior wall of the cæcum, when compared with the posterior part. In the cæcum of the fourth type, the development of the part of the bowel to the right of the anterior band is excessive, while the segment to the left of the band has atrophied, and is more or less wanting. (Fig. 13 E.) In this form, the anterior band runs to the inferior angle of junction of the ileum with the cæcum. The root of the appendix is posterior to that angle. There is no trace of the original apex, and the appendix appears to spring almost from the ileo-cæcal junction. I have met with five examples of this type. In four instances, the subject was an adult; while, in the fifth case, the specimen was obtained from a fœtus at full term. In venturing to propose this classification of cæca under four types, I might mention that I have as yet met with no form of cæcum that could not be placed in one or other of these four divisions.

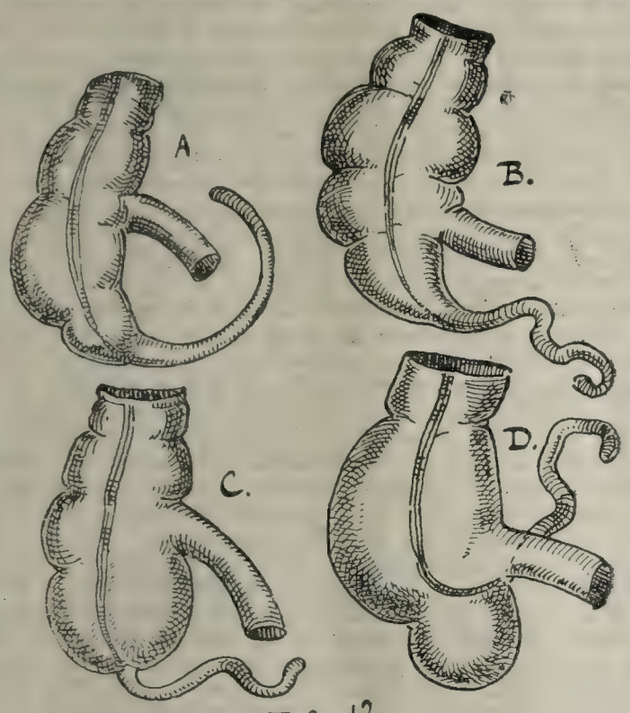


FIG. 12

It is needless to say that, apart from its outline, the cæcum presents variations in its general development. In some instances, the part is small and insignificant; while, in other instances, it may attain remarkable proportions. As an example of the latter condition may be taken the cæcum represented in Fig. 13 F. It was from the body of a man, aged 65, whose abdominal viscera were all healthy. The cæcum, and the part of the ascending colon immediately above it, were free, and entirely enveloped in peritoneum to the extent of eight inches. The caput coli was found turned upside down, so that its apex pointed upwards, and the ileum entered it on the right side. This great cæcum projected some way to the left of the middle line, and its summit was not far below the liver. It was so mobile that its apex could be made to touch a point on the front of the thigh, six inches below the anterior superior iliac spine. In the diagram, the parts are represented as they appeared *in situ*. In another peculiar specimen, from a man, aged 48, I found the cæcum rotated to the right around its vertical axis. The rotation was such that the ileum passed behind the cæcum to enter it on its right side. The anterior band also inclined to the right border, and, from the same aspect, the appendix arose. The cæcum was free, and entirely invested by peritoneum; it was held down by no fold; there were no traces of peritonitis; and the twist, which in no way affected the lumen of the bowel, could not be unfolded. I imagine

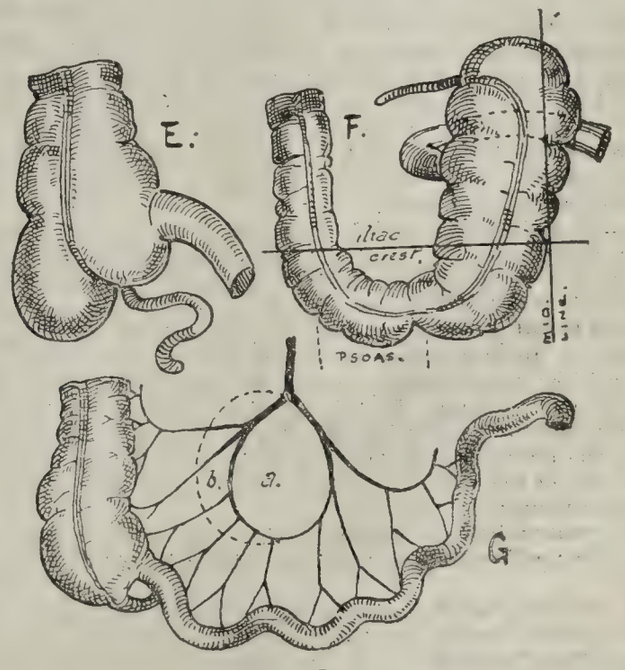


FIG. 13.

that the condition must have been due to an unequal development of the component parts of the gut. The colon was perfectly normal.

In another instance, the posterior part of the cæcum was much more developed than was the anterior part; with the result that the ileum entered the large intestine from the front, and the appendix vermiformis came off from the anterior wall of the caput coli.

With regard to the dimensions of the cæcum, it is necessary, before they can be given, that the limits of this segment of the gut be clearly laid down. The cæcum is defined as that part of the colon which is situated below the entrance of the ileum. The breadth of this part, therefore, may be represented by a line drawn transversely across the bowel, at the level of the lower border of the ileum, at the ileo-cæcal junction. The length may then be expressed by a vertical line drawn from the line just named to the apex or lowest point of the cæcum. From careful measurements, made of a large number of adult cæca, I find that the average breadth of this part is three inches, and the average length two and a quarter inches. The largest cæcum that I met with had a diameter of four inches. The smallest (from the body of a well developed woman, aged 36) measured only three-quarters of an inch in length, and one and a half inches in breadth. It is exceptional to find a cæcum with both its diameters equal.

It will now be convenient to consider the relations and connections of the cæcum; and here I might at once state that the result of my investigations upon this point is entirely at variance with the statements contained in the anatomical text-books. The account given of the cæcum in works on anatomy would appear to be very ancient. It can be traced back, from book to book, through many literary generations; and, throughout its long history, it seems to have undergone little or no alteration. It is one of these descriptions that forms a real anatomical property, and that descends from one author to another with the precision of entail.

The following is the account of the caput coli that is given in the last edition of Quain's *Anatomy*, a book that very justly holds the proud position of being the best work on anatomy extant. "The intestinum cæcum, or caput cæcum coli, is that part of the large intestine which is situated below the entrance of the ileum.....The cæcum is situated in the right iliac fossa immediately behind the anterior wall of the abdomen. It is covered by the peritoneum in front, below, and at the sides; but behind it is usually destitute of peritoneal covering, and is attached by areolar tissue to the fascia covering the right iliacus muscle. In this case, the cæcum is comparatively fixed; but in other instances the peritoneum surrounds it almost entirely, and forms a duplicature behind it, called meso-cæcum." Accepting the definition of the cæcum given by the editors of "Quain," and by all other anatomists, I might state that, in the 100 specimens examined, I have never found the posterior surface of the cæcum uncovered by peritoneum; I have never found it attached by areolar tissue to the iliac fascia; and I have not met with one single example of a meso-cæcum. I am very much disposed to doubt the existence of such a fold as the last named.

When the abdomen is opened shortly after death, while the rigor mortis is still present, and before the intestines have become distended by the gases of decomposition, and so displaced, it will be found that the cæcum is usually lying upon the psoas muscle, and so placed that its apex or lowest point is just projecting beyond the inner border of that muscle. In such a case, the cæcum will often be nowhere in relation with the iliacus muscle, or only its upper limits will be in contact with that structure. In defining these relations, it is essential not to lose sight of the precise definition of the caput coli. Less frequently, the cæcum will be found to be in relation with the iliacus muscle only, or the bulk of the caput will lie upon that muscle, while the apex rests upon the psoas.

In the great majority of instances, the apex of the cæcum corresponds with a point a little to the inner side of the middle of Poupart's ligament.

In a great number of cases, the cæcum is entirely clear of both psoas and iliacus muscle, and hangs over the pelvic brim, or is lodged entirely within the pelvic cavity. In eighteen instances, I have found the cæcum in this latter situation lying sometimes directly upon the pelvic floor, or placed in contact with the upper surface of the bladder or uterus, or wedged in with the sigmoid flexure, or lying actually in contact with the left wall of the pelvic basin. It cannot be said to be exceedingly unusual to find that some part of the cæcum has just passed to the left of the median line of the body. Now in every instance that I have as yet seen, the cæcum has been entirely enveloped on all sides by peritoneum, and has been free in the abdominal cavity.

The line of reflection of the peritoneum from the posterior wall of the cæcum on to the posterior abdominal parietes varies somewhat. When an ascending meso-colon exists, this reflection will coincide with the origin of such meso-colon. In any case, it is continuous with the left or under layer of the mesentery. The reflection is usually transverse, and is commonly placed between a line on a level with the summit of the iliac crest and another on a level with the anterior superior iliac spine. It is as a rule limited to the surface of the psoas muscle, or to that muscle and a small part of the adjoining part of the iliacus. In a few instances, the reflection has coincided with the latter muscle only. The line of the reflection may in a smaller series of cases be oblique. In such instances, it may follow the inner border of the psoas muscle, or cross the surface of that muscle, or correspond to its outer margin. In one specimen, the line of reflection was transverse, and corresponded to the lower margin of the kidney. Now, in the great majority of all these cases, the reflection in reality takes place from the posterior surface of the ascending colon, and not from the cæcum, so that not only is the cæcum entirely covered by serous membrane behind as well as on all other sides, but the same complete covering is bestowed upon the commencement of the ascending colon. Those who are impressed with the orthodox description of the cæcum will scarcely believe that the average measurement in a vertical line along the back of the colon, from the tip of the cæcum to this reflection of peritoneum, is four inches. If from this be deducted 2¼ inches for the average length of the cæcum, it leaves 1¾ inches of the ascending colon entirely invested on all sides by peritoneum. As the line of reflection is not above the level of the iliac crest, it follows that the part of the colon so invested will lie below that level. In the case of the cæcum depicted in Fig. 13 F, the reflection of serous membrane from the posterior surface of the bowel was along the pelvic brim, and from this reflection to the tip of the cæcum the bowel measured eight inches. I have excluded such exceptional cases from the above average. With the rare cases in which the ascending colon has no connection at all with the posterior abdominal parietes, I will deal when speaking of the ascending meso-colon. The relations of the cæcum to the peritoneum are of great interest in surgery and medicine, the part being so frequently the seat of trouble. It has, I notice, been recently proposed that, in certain inflammatory conditions of the cæcum, the gut be reached by an incision from the loin, the incision not to include the peritoneum, but the gut to be exposed at its hinder part, just as the external iliac artery is exposed in the extra-peritoneal operation for ligature. I would take the liberty of stating that such a procedure is anatomically impossible. With regard to the mysterious meso-cæcum, it is probable that that term has been applied to the lowest part of the ascending meso-colon, the limits of the cæcum having been ignored when the nomenclature was evolved.

The mobility of the cæcum is often considerable, and depends in the main upon two conditions—either upon the length of intestine that extends between the tip of the cæcum and the reflection of the peritoneum above alluded to, or upon the presence of an ascending meso-colon. The former factor is of greater moment than the latter. In eleven bodies, I have met with cæca that could be made to touch the under surface of the liver, and any part of the left side of the pelvis. In some of these specimens, the cæcum might very well have occupied an inguinal or femoral hernia on the left side, had the hernial orifice been large enough. In one case the tip of the cæcum could be made to touch the xiphoid cartilage, and in several instances the mobile piece of intestine could be drawn down the thigh to the level of the great trochanter.

Biology and Physical Culture.—The University of Pennsylvania has opened two new departments: a School of Biology, which will be under the direction of Professor Joseph Leidy and Dr. Horace F. Jayne; and a Department of Physical Culture under the charge of Dr. J. William White, who is President of the University Athletic Association, and who has the authority and title of Professor, and a seat in the Faculty. This department will be modelled after that of Harvard University. The school of biology has a separate structure situated on the grounds of the University. The new building is of brick, and is two stories in height; the upper floor is devoted to laboratories, library, and private rooms; the first floor has the lecture-room, museum, and working-rooms, while in the basement are a large aquarium and storage rooms. The object of this new school, which is modelled after the Johns Hopkins School, is the encouragement of individual and original biological research. A zoological table at the Naples Station, has been established. It is intended that the work of the new school will be published in monographs or journal form.

The Dover Guardians have increased the salary of Mr. Edwin Fenn, the medical officer to the workhouse, from £100 to £130 *per annum*.

CLINICAL LECTURE
ON
THE SURGERY OF THE EPIPHYSES.

Delivered before the pupils of the Medical Department of the Yorkshire College, January 21st, 1885.

By C. G. WHEELHOUSE, F.R.C.S.,
Consulting Surgeon to the General Infirmary, Leeds.

GENTLEMEN,—In your experiences in the field of surgical practice, you will be called upon to traverse many thorny paths; and, I venture to predict, you will find few more thickly beset with difficulties than those which will tax your skill in the treatment of accidental injuries of and around the joints of children and young subjects.

You may have prepared yourselves by the most careful, painstaking, and accurate study of books; you may flatter yourselves that you have been close observers of all such injuries as have come under your observation, whether in hospital or in your more private experience; and yet, unless I am very greatly in error, you will, every now and then, be brought face to face with some such injury as will not only tax all your surgical acumen, all your anatomical knowledge, and all your experience, but concerning which you will feel, after all, that, both in diagnosis and in treatment, there are elements in the case about which you can be by no means either perfectly clear or happy.

I am sure I need hardly remind those of you who make good use of that most excellent institution, our Wednesday morning consultation, how often such cases are brought before us as a "staff," as a "court of decision," in which various opinions have been formed by as many people as have been consulted in the case before we see it, and in which even we, with all our large experience, are sometimes unable exactly to agree.

I am not speaking of *bonâ fide* "recognised" fractures and dislocations, such as are most minutely described in your lectures and in all your surgical text-books. These, I need not say, you ought, and no doubt will, recognise easily enough; but of certain cases in which the nature of the accident that has happened is uncertain and unascertainable, in which the symptoms and conditions present will fit in with no known description, which will, in some points, answer to the usual descriptions of a dislocation, in some to those of a fracture, and in some to those of both, and which yet, when all are grouped together, will present some inexplicable features, and will leave you doubtful what the real nature of the injury is after all.

If such a case as this be taken, as in a large number of instances they are, to a "bone-setter," it matters little, save to the sufferer, either what he thinks or what he does. If he succeed, in his rough and ready way, in rectifying the evil, it is well; and if he do not, and the patient be permanently crippled, it is rarely even reckoned against him as a want of success; but it may be—I have seen very painful instances in which it has been—very differently dealt with as regards the duly qualified surgeon. He has often been dragged into a court of law, and, under a charge of malapraxis, has had to bend under the weight of heavy penalties; whereas an unqualified practitioner is permitted to go scot-free, because, having done his best, and failed, the fault has been considered to lie, not so much with him who, according to his light, has done the best he could, as with those who were unwise enough to ask his advice in preference to that of a properly qualified practitioner. Of us as educated men, greater things are expected, and, provided only we are true to ourselves and to each other, it may safely be so.

Of the bones anatomically, the charlatan knows nothing, nor has he any real conception of the anatomical construction of the joints. In a rough and ready way, he knows perhaps their forms, and the movements of which they are capable, but of their physiological structure and bearings upon each other and on other structures he is ignorant; and most of all, is he ignorant of the special peculiarity by which the bones and joints of the young are adapted to the special conditions of their life.

I am not able, and I greatly regret that I am not, to show you the complete skeleton of a young subject. If I had one, I should point out that there exist in it certain differences from the skeleton of an adult, so plainly marked, that it would be impossible for the least observant student to pass them over without being compelled to take note of them. Thus, if I show you—as I am able to do—side by side, the skull of an adult and the skull of a child, you may see at once what I mean. While in the adult the bones are all so firmly interlocked, and so completely united that, practically, they may be regarded as one bone, in that of the infant no two are permitted directly to touch each other; between each, a layer of unossified membrane or cartilage remains, in some places larger, in some less, but sufficient in every case to admit of some expansion and contraction under varying conditions, and to permit the rapid and easy growth of the various parts of the brain within. Let me remind you of the freedom with which the sinuses from the interior of the skull communicate with the veins upon the exterior, and how greatly more numerous are the points of communication between these two sets of vessels in the infantile than in the adult skull, and then let me ask you what reason you can see for this.

You know that, at birth, the head and upper extremities of a child are, so far as development is concerned, in a state of very decided advance upon that which has been attained by the pelvis and lower extremities; and you have only to reflect on the conditions of the fœtal circulation to understand at once the explanation of the fact.

The head and upper extremities have, during their fœtal life and growth, been supplied with pure arterial blood, direct from the placenta, while the pelvis and lower ones have had only the impure supply made up of half pure and half impure blood. Thus, while the parts and organs necessary for the maintenance of life from the moment of birth are, at the time of birth, capable of fulfilling their ultimate function already perfectly, those which are not then necessary remain undeveloped.

Except that they may grow, and be ready by the time they will become necessities, the lower limbs of an infant are but useless appendages; but it is not so with the medulla oblongata, and with the parts necessary to enable it to take the breast, to swallow and to digest its food, or to aërate and oxygenate its blood.

So, also, for many a month to come, during the period of unsteadiness and instability of gait, and of feeble muscular development, it is fundamentally necessary that the whole bony framework, and especially that of the head, should remain soft and pliable, and capable of yielding under blows and pressure to a degree that will be quite unnecessary in later life; and on this principle the whole skeleton of the child is built.

To those of you who have not already read it, I would earnestly recommend a thoughtful perusal of the little monograph on the development of the cranium which I hold in my hand—it is the work of an old friend who has gone to his rest, John Hilton—for I never remember to have read anything which gave me greater pleasure. As a physiological and philosophical exposition of the structure and growth of the skull, it is, in my opinion, unequalled; and it will be impossible for you to rise from the study, as he herein presents it, without advantage.

His account of the development of the sphenoid bone alone, of the manner in which, by its growth, provided for by many separate centres of epiphysary ossification, and by its position in the centre of the base of the skull, it is enabled, acting as a wedge, so to provide for the increasing size, and to give space for the growing lower maxilla, for the replacement of the twenty primary by the thirty-two permanent teeth, and for the widening and spreading out of the temporals by the adapted pressure of the condyles of the lower jaw, with the lateral expansion of the base, is an example of argument so simple and yet so perfect, that it will abundantly repay you for the expenditure of a large amount of both time and thought.

With one or two remarkable exceptions, there is not a bone in the frame that is perfected until long after birth, and the greater proportion of them remain in an unfinished condition till the full future stature of the subject has been attained.

I well remember, gentlemen, when I first studied the bones, and prided myself on having mastered all the intricacies of their outward forms, attachments, and relations, how aghast I felt when I realised the fact that, even then, I knew almost nothing about them, and that I had yet to grapple with the mechanism of their interior structure, their organisation, and their mode of growth, and increase in length and breadth and strength. I found that I had yet to learn that never a bone was formed complete from the first, but that all alike were developed in segments, and thus I first became acquainted with the nature of the epiphyses.

I saw, and I saw with as much of admiration as of wonder, how the shafts and the ends of the bones were kept apart by, first, a thick, and, later on, a progressively thinning layer of cartilage, which, however, until the bone had reached its ultimate growth, never disappeared, but continued as the active growing portion of the bone, and yet en-

dowed it with a degree of flexibility and power of resistance to injury such as no other arrangement could have equalled.

Think for a moment of the activities of the periods of childhood and of youth, and compare them with the quiet strength of manhood, and with the feebleness and decrepitude of old age. What would be the condition of childhood if furnished with the rigid and inflexible bones of old age?

Note how the proximity of the epiphyses to the joints increases their power of movement and of flexion, and you will understand, in a moment, why the epiphyses exist, and then consider how they are placed.

Every long bone is developed, as you know, in separate pieces; a shaft, or central portion (diaphysis) and two extremities which consist of one or more pieces, according to circumstances, and are called the epiphyses. These separate elements, until the development and growth of the bone is completed, are, as you also know, never fused together. They are kept apart by a line of cartilage into which it seems to be the unceasing effort of the diaphysis to project itself; but as fast as the shaft succeeds in growing into the distal surface of the epiphysary cartilage, the cartilage itself continues to grow upon its proximal, or joint, surface.

Thus, in and around the joints of the young the life of the limbs reaches its point of highest activity, and is liable, in proportion to increased danger to harm, both physiologically and from injury and disease.

Let me explain what I mean by this, and take it as the first purely surgical point of this lecture. So long as the processes of normal growth proceed in a normal and healthy manner, the character of the bones and joints will be properly maintained; but, as in all other of the developments of nature, so in this, the natural process may prove erratic.

Normally, the epiphyses around a joint grow at the same rate, and in the same proportion, so that all parts of the joint, when completed, may fit accurately one into another, and may be so arranged as to move smoothly upon one another; but it has been shown by Professor Humphry that growth does not always proceed in this regular and orderly way; but that, now and then, the epiphysis of one component bone of a joint will outgrow the others, and, while wholly altering the outward appearance, will also greatly cripple the natural movements of the affected joint.

Suppose, for instance, a child of three or four years of age is brought to you with a complaint that something is amiss with its elbow. You find, on examining it carefully, that the natural range of flexion is considerably restricted. You find that the radius, while it will roll upon the ulna, does so stiffly and with difficulty, and, apparently, quite painlessly; in front of the outer condyle of the humerus, you find a prominence which ought not to exist there, and which, when you rotate the radius, rolls under your fingers, and is manifestly the head of the radius—rotating not as it should do on the capitulum, but upon the front of the outer condyle.

You, not unnaturally, suspect a dislocation, and you inquire what accident has happened? You are assured that no accident of any kind whatever has happened at all, and that no violence has been done to the limb; that it has always been an awkward joint ever since the child was born, and always a source of trouble and anxiety.

You may, not improperly, be suspicious that something is being kept back from you, intentionally or otherwise, and I think it not unlikely that you may end by believing that some unknown injury has been inflicted on the joint, by which the radius has been displaced.

Now, there is an injury of this kind which may be, and which often is, inflicted, quite unwittingly, on the joints of the arms of children; and which may, in such a case, have been overlooked. One or other epiphysis may have been loosened and displaced by improper traction upon the limb.

Even this may be denied, and again you may be reminded that the deformity has existed, as far as is known, from birth or soon after, and that no accident has ever been known to have occurred. In such a case, you cannot be too careful, and you cannot spend too much time over its investigation. Measure the two limbs carefully; measure the particular bones of the two limbs carefully; and if you find that the radius of the one side is decidedly and clearly longer than that of the other, do not forget the fact that it may be that the epiphysis of one may have grown unduly; and that the deformity may, so to speak, be a natural one, and had better be left untouched.

Nature may diminish the evil, while unsuccessful surgical interference can only make it worse, and may lead to discredit on your part. (See Humphry on Growth of Epiphyses, *Medico-Chirurgical Transactions*, vol. xv, p. 295.)

On the other hand, from early death, or injury to, or absence of an epiphysis, one or other end of a long bone may fail to grow at all; and so the bone may remain in a rudimentary condition, and may thus present peculiarities of a totally different, but equally puzzling, kind.

Again, by unequal growth in parts of a bone, the whole may be more or less disfigured or rendered useless.

No commoner cases are found in our wards than cases of genu valgum and genu varum, and such like distortions of bones; and, though I do not assert that these abnormal conditions are wholly the result of abnormal epiphysary growth, they are sometimes, and in some measure, unquestionably the result of overgrowth, and sometimes of failure of epiphysary development; and the enormous number of osteotomies of one kind and another that are performed in this hospital, for the relief of such deformities, is proof by which the frequency of such abnormalities of growth is demonstrated.

The soft tissue, of which the line of junction between the epiphysis and the shaft of a bone is composed, is very liable to injury, and such injury to be followed by disease, which often assumes most serious proportions.

I dare say you have often seen a sight which, to me, is a very painful one, and one which invariably makes me shudder, namely, how an ignorant or thoughtless parent or nurse may be seen swinging a child of tender years freely round by its extended arms.

You cannot have failed to notice the ruthlessness with which a hurrying adult may often be seen dragging a weary child along, or lifting, or throwing it by an extended arm over the edge of a causeway or some such impediment, and little thinking of the terrible suffering they may be inflicting upon the child.

If such a child be brought to you a few days later, suffering with tenderness and swelling in the neighbourhood of the joints of the arms, and you inquire whether any accident has happened, of course you will be told there has not, and the frolicking or the dragging will have been wholly forgotten.

In the majority of instances, such a case will be presented to you as one of "rheumatism," and, if you be unwary, you may accept and act upon the supposition; but if the subject I am bringing before you to-day has impressed itself, as I would fain hope it will, upon your minds, your thoughts will fly at once to the line of epiphysal growth about the joints; you will remember that it is peculiarly prone to injury, and liable to inflame, and that the inflammation, if it be not speedily checked, is pretty sure to lead to suppuration, or ulceration, and may be followed, probably enough, by acute periostitis, osteomyelitis, and even, in some cases, by septo-pyæmia and death.

Even trifling injuries in the neighbourhood of joints have been known to produce all these consequences. My friend Mr. Macnamara, in his book on *Injuries and Diseases of the Bones and Joints*, mentions many such, and the subject is one which will abundantly repay you for any amount of thought and care you may devote to it.

Inflammation excited in this or other ways, as by cold, exposure to damp, to overstrain, or to other traumatic injury, is especially liable to lead to suppuration.

You will, without doubt, have noticed how very numerous the cases of hip-joint disease which come under the care of the surgeons of this institution are. For many years, we had been inclined to regard all these cases as instances of strumous disease, and of constitutional origin; but, of late years, noting how healthy the subjects of them were in other respects, and how entirely wanting they were in any other evidence to bear out the theory of strumous origin, we have come to look upon them as much more frequently traumatic in their initiation.

If you will consider for a moment or two how the activities of child-life are manifested in climbing, wrestling, playing, and in sports which necessarily involve frequent falls, crushes, and the like, and will bear in mind what I have been saying of the delicacy and tenderness of the lines of epiphysary junction, and of their proneness to inflammatory action, you will understand how this change of opinion has forced itself upon us.

A child whose health has previously been unimpeachable meets with an accident, not, perhaps, thought seriously of at the time, and which leads only to a few days of disablement and stiffness of some one or more joints—it may be of the hip, or of the knee, or of the ankle—and, after a little while, all seems, for a time, to get well again; but, after a few weeks, the joint begins to be painful again, becomes puffy or swollen, is the seat of a good deal of nocturnal pain, and, finally, becomes so manifestly the seat of disease that it is brought up for examination. It is found to be swollen, tender to manipulation, hot, and, if carefully examined, probably boggy places will be found about it; and, if an exploring needle be introduced into one of these, pus will be found to exude; if an incision be then made and a finger be introduced, or a probe, if a finger cannot, it will not unfrequently

be found that, at the bottom of the wound, bare bone will be detected; not necessarily dead bone, but bone from which the periosteum is ready to strip on the smallest provocation, and which, unless great care be taken of it, will certainly die, and that to an extent much greater than would, in the first instance, have seemed likely, but which, if kept rigidly at rest, freely and thoroughly drained and protected from the burrowing of matter under the periosteum, may, even yet, do well. The case may thus end as one of inflammation simply of the growing bone, and happy the subject in which it does so. But not unfrequently the portion of the shaft immediately separated from the epiphysis by the suppuration does eventually die, and, must either be removed by the surgeon, or, by a long, painful, debilitating, and dangerous process, has to be extruded by nature.

Such partial necrosis, in the neighbourhood of an epiphysis, is not unfrequently seen in connection with the lower end of the femur; and I can call to mind many instances in which both I and my colleagues have been called upon to remove such under circumstances of great difficulty and danger. I have seen the popliteal artery and vein both cut across by such a sharp sequestrum in making its way to the surface, and I have been called upon to amputate the thigh under similar circumstances, and have lost my patient because the operation came too late to obviate the effects of preceding hæmorrhage. But the mischief may not stop short by the formation of a small sequestrum such as this; it rarely does so. Much more frequently it goes on to the destruction of the greater part, oftentimes of the whole, of the diaphysis of the bone.

If you have studied the subject carefully, you will have noted, not only how the ossifying fibres of the diaphysis project themselves into the linear spaces in the epiphysary cartilage into which its cells group themselves, but you will also have noticed the close intimacy with which the perichondrium of the one and the periosteum of the other are united, and you will be prepared to understand how, by "continuity of tissue," inflammation commencing in one will be propagated along the other.

In this way the entire periosteum of the shaft may become involved; matter is freely formed between the periosteum and the bone, and, destroying the connection between the two, and arresting the formation of new subperiosteal blastema, may cut off the life of the bone in its thickness, as well as at either end, and thus the entire shaft perishes. The mischief may, indeed, spread even more deeply than this; and, affecting not the periosteum only, may spread also into the medullary canal, may be propagated through the endosteum also, and may end in osteo-myelitis, pyæmia, and death.

Fortunately, this does not very frequently happen. In the great majority of instances, the shaft or part of it perishes, and, on the subsidence of the inflammatory process, the still living periosteum and endosteum resume their normal bone-forming function, and a new shaft is formed around the dead one, and is destined, eventually, efficiently to replace it.

It would be foreign to my present purpose to enter now into the further study of this process, and to advance to the subject of necrosis, but I desire to remind you how often you see young persons the subjects of this disease, and to point out how very frequently it may be traced to an attack of inflammation in the active growing ends of the bones, overlooked or too lightly regarded in its early stages.

How fortunate it is that the bones are supplied with their nourishment in sections, as I have thus shown you that they are, the ends through the epiphyses, while the shafts are in the main developed by subperiosteal growth, can hardly be overestimated. If it were not so, if it were not for the limiting influence of the epiphyses, we should rarely see the recoveries we now look for, almost with certainty, in the many cases of necrosis which come before us, but should have entire bones perishing, and coming away, to the sore detriment, and often entire loss, of utility in the limbs. In illustration of the truth of this proposition, let me show you this little preparation. It is a reminiscence of a most interesting case which, many years ago, I saw with Mr. Scattergood, and which made a very great impression on my mind, and, I believe, on his also; so great, at any rate, that we thought these bones worth preserving; and now, for your sakes, I am very glad we did preserve them. We were instructed by the coroner to make a *post mortem* examination of a child who had died after, and, as its parents asserted, in consequence of, vaccination. Our instructions were to make a most careful and searching examination, and to ascertain, if we could, whether any real connection could be traced between the vaccination and the death; and I need not say that we approached our task with a feeling of very grave responsibility. The most minute and painstaking examination disclosed no trace or evidence of anything having gone wrong in the arms; the wounds caused by the vaccination were perfectly and soundly healed; the areolar tissue around the eschars was perfectly natural; but, when we came to examine the root of the neck, where some fulness and puffiness existed, we found both clavicles lying entirely loose in their periosteal coverings, and had simply to lift them out the entire and perfect bones you see.

You will perhaps remember that, in speaking of the growth and formation of the bones, I used this expression: "With one or two remarkable exceptions, there is not a bone in the frame which is perfected until long after birth." When I said this, I had the clavicle especially in my mind. This bone is very nearly as perfect as it ever will be, not only at birth, but long before, and is almost the only one devoid of epiphyses. Later on, at about the eighteenth or twentieth year, it develops a small one at its sternal end, but practically it may be considered to be perfect from birth.

Should it happen to be the subject of acute periostitis, from whatever cause arising, it would follow that, instead of the shaft only perishing, the whole bone would fall; and the instance I am laying before you is proof that it does so die in its entirety, from end to end.

I have a second case of the same occurrence, which, a year ago, was to be seen in the children's ward of this house. A little boy (Mark Brook), aged 7, was admitted on January 26th of last year. He had fallen from a cart on to his right shoulder. The parts about the right clavicle were bruised and swollen, and by January 30th were acutely inflamed. On the 31st, an abscess over the clavicle was incised, and the bone was found denuded for its whole length. The abscess was drained, and dressed antiseptically.

On February 14th, the clavicle was found lying apparently quite loose in the abscess-cavity, and was removed by dividing it into two parts at its middle, and lifting each part out after slight enlargement of previous incision.

On February 18th, the case was dressed, and the wound was found quite healed; and on the 19th the boy left the hospital.

By the kindness of Mr. Ward, to whom I am indebted for the above details, and who had preserved this bone, I am able to show it you to-day, and you may recognise the entire bone from end to end, as perfect as though it had been macerated for the formation of a skeleton.

What would have been the condition of the infant I have mentioned, in whose case both clavicles had perished, I have often wondered.

In the latter, in which only one bone was destroyed, we were all amazed to see how little its loss was felt. The movements of the arm were only more free, and very little weaker, apparently, than in the other; but what, when the full use and strength of the limb become necessary in after-life, its condition will be, I am, of course, unable to predict, as the subject is, even yet, only a child; but, seeing that the bone, devoid of epiphyses, is wholly developed by subperiosteal growth, and that the periosteum was not destroyed, I am inclined to hope that, before full growth is attained, some sort of useful substitute will be produced, which will be sufficient, at any rate, to support the arm upon the sternum.

Another class of cases sometimes, but more rarely, comes under our notice. Amongst our many cases of morbus coxæ, we now and then come upon such as, having resisted all treatment, and threatening to end in death, compel us to resort to excision, or even amputation.

On cutting into the joint, and turning out what should be the head of the femur, we find that the head has entirely disappeared, and a rough, eroded, worm-eaten-looking stump is all that remains; or it may be that, finding the neck of the bone in this condition, on introducing the finger into the acetabulum, we find a loose and similarly worm-eaten sequestrum there, which is manifestly the dead and separated original head of the bone.

Now, epiphysary cartilage, besides its proneness to take on inflammatory action as the result of local injury, is also very liable to ulceration; and in these cases I am inclined to think that ulceration, commencing on the joint side of the epiphysary cartilage, is the true explanation of this condition when we find it.

Experience has also shown us, gentlemen, and recent examples which have occurred in my own practice and in that of Mr. Atkinson remind me, that epiphysary growth may not only be abnormal in direction and in extent, but may be abnormal in nature also. We have both of us been called upon to amputate in cases of sarcomatous tumours affecting the bones, which, on careful after-examination, have been found to originate in the epiphysary cartilage. One case of mine was so characteristic an example that, by his earnest request, I forwarded the tumour to Mr. Macnamara, and this is his description of it.

"The head, or rather upper epiphysis of the fibula, has been trans-

formed into an oblong tumour as large as a goose's egg. The diaphysis of the fibula is hardly affected; at any rate, its elements, up to the extremity which impinges on the tumour, though worn down by pressure, are normal. The tumour is circumscribed, being enclosed in a capsule of dense connective tissue, which is lined by a layer of imperfectly formed bone. Within this capsule is a mass constituted of lamellæ composed of temporary cartilage, in which are seen attempts at the development of bone. The spaces between the lamellæ are filled with cells resembling those of a 'round-celled' sarcoma. I think there can be no question that this tumour has developed from the upper epiphysis of the fibula: in fact, it might be correctly described as an abnormal growth of that part of the bone. It contains elements very similar to those found in the embryonic condition of the bone, and certainly no structures or cells which are not to be seen in embryonic tissues."

This brings me, gentlemen, to the development of my subject, which, when the idea of selecting the "Surgery of the Epiphyses" as the title of this lecture, was that which I had chiefly in my mind—I mean, the relation of the epiphyses to dislocations and fractures.

I think it was the occurrence on several consecutive, or closely consecutive, Wednesday mornings, of one case after another, in which some difficulty had arisen as to the diagnosis and treatment of injuries of the elbow-joint, which first prompted the idea, and led me to remember the many occasions in my life in which similar difficulties had confronted me in my individual capacity, and when I had not the benefit of the aid and assistance which able colleagues here are so ready and willing at all times to give each other.

One such occurred to me while I was on the surgical staff of the dispensary; and it made all the greater impression on my mind, because of the mental attitude in which I found the parents of the child. A supposed simple dislocation backwards of the bones of the forearm at the elbow had been treated, in this institution, under the care of the late Mr. Teale, and had resulted in a considerable amount of deformity, with tolerably free movements of the joint, but accompanied by some permanent stiffness and locking.

Now, the mere fact of deformity remaining after the supposed reduction of a simple dislocation, put me on my guard, and led me to make a minute and careful examination of the parts; and I came to the conclusion, and did my best to explain to the parents, that the injury, so far from being a simple dislocation, had really been a dislocation accompanied by fracture through the epiphysis; that the remaining locking of the joint, in particular movements, and the deformity, depended, not on the consequences of the dislocation, but on those of the fracture by which it had been accompanied; and that, though the joint had not been restored to its original condition of perfection, the result was, for such an injury, a very excellent one, and one with which they had every reason to be content. But they were not, and took legal advice upon the subject, and threatened an action at law against Mr. Teale, and were, finally, only dissuaded from proceeding with it by the assurance of my then partner, the late Mr. Garlick, that they had no ground for any such action, and could not possibly hope to succeed in sustaining it.

You may ask, and not unreasonably, how you are to protect yourselves under similar circumstances, and I would reply by one or two very simple suggestions.

1. You should never consider your knowledge of the bones to be perfect, until you have made the anatomy of the epiphyses as thorough as that of every other point in connection with them; remembering or providing yourselves with the means of reference to the age at which they become individually consolidated to the rest of the bones.

2. In undertaking to deal with a dislocation, or with a fracture in the immediate neighbourhood of a joint, especially in children and young subjects, you should never forget to recall their existence and their anatomy to mind, or fail to remember the relations they bear to the bones under consideration, and especially the exact anatomical relation which each epiphysis bears, not only to the joint of which it forms a part, but also to the diaphysis of the bone, of which it is a component element.

3. If you have reason to believe or think that their implication will affect the ultimate result of the case, you should make a point of carefully explaining, from the very first, your doubt or fear to those who place it under your care, and to disclaim all responsibility for future conditions which it may be impossible, by the greatest care and with the highest skill, to prevent.

4. Lastly, a consultation with a brother practitioner is an unfailing safeguard.

You will, I think, find each one of these suggestions to be of intrinsic value; for if, in dealing with an injured joint, you know that the consolidation of the bones which enter into its composition is completed, you may at once dismiss all idea of epiphysary complication; while, on the other hand, if it be not, you have to consider the accident in a double light; first, as such an injury would affect a fully developed joint; and, secondly, as it would, or might, affect it with such complication as may have been introduced by the presence of the epiphyses.

Thus, supposing an injury to have happened to the elbow-joint, and to consist, as you think, of a simple dislocation backwards of the bones of the forearm, the age of the patient may make a very material difference as to the opinion you form concerning it. If he be over twenty, you will probably find but little difficulty either in reducing the dislocation, or in retaining the bones *in situ* after reduction; but it may be very much otherwise with a patient of more tender age. With such an one, you may find matters equally simple, and easily dealt with; but you may, on the other hand, find that neither is the reduction so easy as usual, nor, reduction having been effected, that you are able to retain the bones in their normal position, but that they tend persistently to revert to the abnormal one. In your efforts to effect the reduction, you may possibly have felt something like "crepitus," and then more minute and careful examination is not unlikely to reveal the fact that the lower epiphysis of the humerus has been separated from the shaft, and that the whole joint, consisting of the epiphysis with the bones of the forearm attached to it, has been drawn up behind the stump of the diaphysis.

Now think, for a moment, how widely different must the after-treatment in these two cases be. In the former, simple rest for a while in the restored position is all that will be required; whereas, in the second, without firm retentive apparatus, the displacement will be almost certain to recur, and, unless the fracture be kept up for a length of time sufficient to command reunion of the parts, may end in failure, disappointment, and disgrace.

This is only one of instances almost innumerable that I could quote as having passed under my own observation; and, in young subjects, there is scarcely a dislocation or a fracture in the neighbourhood of a joint that may not be thus complicated, nor one in which, if you be wise men and good surgeons, you will fail to suspect and search for some such complication. And if the advice, that you should master the ages at which the epiphysal growth of the individual bones is completed, is sound, I am no less certain of the equal soundness of my second recommendation, namely, that you should study with equal care the exact relationship that exists between the epiphyses and the shafts of the bones.

Unless you be equally clear on this point, too, you may be led into many otherwise avoidable mistakes. Let me illustrate this position by reference to the upper epiphysis of the humerus.

For a long time, and by many surgeons of the highest eminence, it was believed and was taught that the tuberosities belonged to the shaft, whereas, in truth, they are included in the epiphyses, and, in case of its separation, belong, with the head of the bone, to the upper, and not to the lower fragment (see R. W. Smith, BRITISH MEDICAL JOURNAL, August 17th, 1867, p. 123); and this, when you come to study the attachment of the muscles, and the displacement which, in case of separation, those muscles will cause, is a matter of very great practical importance, and may lead you to treatment which may be correct or otherwise in proportion to the extent and correctness of your anatomical knowledge.

You have, indeed, only to turn to the writings of Dr. R. W. Smith, Professor of Surgery in the University of Dublin; to those of Mr. Jonathan Hutchinson, of London (see Clinical Lectures on Rare Forms of Fractures and Dislocations, *Medical Times and Gazette*, 1866, vol. i); or to the now wonderfully improved text-books that are in all your hands, to see that the advice I am giving you is sound.

Let me quote to you a passage from a most brilliant "Address in Surgery" which I was privileged, a few years ago, to hear delivered by Professor Smith himself to the members of the British Medical Association. Speaking on this subject, he says: "When the surgeon is called upon for his opinion respecting the nature of injuries occurring in the vicinity of the larger joints in early life, he will find a knowledge of the anatomy of the epiphyses of the greatest importance."

Erroneous ideas as to the parts included in the epiphyses, and the shafts respectively, has in many instances led to error in diagnosis, and to maltreatment of individual cases, which might have been avoided had more accurate and perfect knowledge been available at the time the diagnosis was made.

On this point, Professor Smith writes thus: "I have elsewhere pointed out the error committed by Vidal, and other writers, in supposing that the tuberosities of the humerus belonged to the shaft of the bone, and shall now endeavour to show that a similar error has

been committed with respect to the lower epiphysis of the humerus; and that those authors who have written upon the subject of injuries of the elbow-joint have confounded with each other fractures above the condyles and disjunction of the epiphyses, from ignorance of the anatomical fact that the lower epiphysis of the humerus does not include the condyles, which belong entirely to the shaft of the bone; the epiphysis includes nothing but the trochlea and capitulum. The fundamental mistake of placing fracture through the line of the epiphysis among supracondyloid fractures (as has been done by Malgaigne, Vidal de Cassis, Dupuytren, and others) has involved the equally glaring error of distinguishing these two injuries from luxation of both bones backwards by the same diagnostic sign—namely, the loss of the normal relation of the olecranon process to the condyles of the humerus."

Fortunately, gentlemen, it is not often that we are able to demonstrate what has actually taken place in accidents such as these. In the majority of instances, they are simple fractures or dislocations, and the true condition of the parts is hidden beneath unbroken skin; but, now and then, it happens, either because the injury forms part only of some more serious accident, or because it leads to consequences which are, happily, uncommon and necessitate amputation, we are enabled to do so. When we are, the illustration becomes doubly valuable, and I am able to show you one such to-day.

In this preparation, we have one such which implicated the lower extremity of the femur. The patient was a youth aged about 17, who had been caught in some machinery, and had been violently twisted round. A serious injury to the knee was the result, and he was admitted into the infirmary under the care of the late Mr. Samuel Smith. A fracture very low down in the shaft of the femur was diagnosed, and it was found impossible to rectify the displacement which had taken place. The accident had occurred a few days before my election as surgeon to this institution, and the case was amongst the first handed over to my care by Mr. Smith. The preparation has, therefore, an especial value, on that account, in my eyes, and is one to which I have often had occasion to refer.

When I took the case over, I found gangrene setting in in the foot and leg; and, by Mr. Smith's advice, I amputated the limb above the fracture, and here we see exactly what had happened. The lower epiphysis of the femur had been torn from its connection with the shaft, and had remained, with but little displacement, almost *in situ*. The shaft had been driven down into the popliteal space, and had so stretched the vessels, both artery and vein, and the popliteal nerve, that gangrene was inevitable; and it was clear to demonstration that no power would have sufficed to replace the fragments in position.

Once since I have seen an almost identical case in the hands of Mr. Atkinson, and a knowledge of what had taken place in this case of mine enabled us from the first to form a correct diagnosis concerning it. In that case, Mr. Atkinson endeavoured, in the first instance, to excise the displaced epiphysis, but without success; and was compelled, as I had been, to resort to amputation, which, as in my case, also proved successful, so far as the life of the patient was concerned.

Cases such as these cannot fail to make a profound impression on the minds of those who have charge of them; and as, when the first occurred to me, I registered a mental vow that I would never forget how important a part the epiphyses may play in such accidents, so now, after twenty years of further experience, I stand here thankful for the lesson I then learned, and feeling it to be my bounden duty to urge upon you the observance, through life, of a similar course of vigilance and care.

CUCAINE.

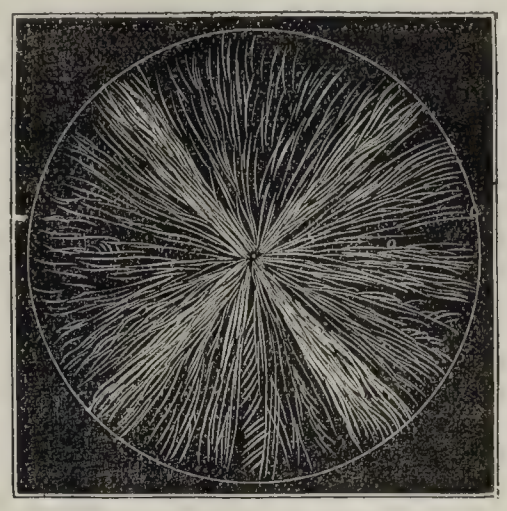
By A. PERCY SMITH, F.C.S., F.I.C., Rugby.

If the demand for cucaine increase to any great extent, it is not unreasonable to suppose that some adulterated specimens may find their way into the market; although, no doubt, since few practitioners will purchase the drug from any but well known houses, the risk of adulteration is small.

Owing to the liberality of Herr Merck, of Darmstadt and London, who placed a small quantity at my disposal, I have been enabled to apply a few tests to this alkaloid, with the object of ascertaining its properties, so that I might be able to detect the presence of adulteration, if such should arise.

Since the quantity I had was but small, I directed my attention chiefly to optical tests, or the study of the crystals deposited from various solvents, viewed under the microscope by the aid of polarised light, as I have found this method very useful, and of great assistance to chemical tests. There are a few alkaloids, such as strychnine, cantharidine, and salicine, which can at once be identified by this means alone. In other cases, where the crystalline form is not distinctive, it serves as a means for determining its purity, since admixture frequently alters the manner of crystallising (for example, quinine-sulphate pure, and mixed with cinchonine-sulphate), or else prevents it altogether, nothing being left, on evaporation of the solvent, but a gummy mass.

Cucaine-hydrochlorate is soluble in chloroform, ether, and alcohol. From chloroform it does not crystallise (owing, probably, to rapidity of evaporation); from ether and alcohol it does; but best from the latter medium. The method of procedure is to place a fragment of the alkaloid in a watch-glass, add some alcohol and a few drops of ether, and allow it to evaporate spontaneously in a warm room. In a few hours, feathery rosettes of crystals may be seen on the glass. Strong heat, and consequently rapid evaporation, are fatal to crystallisation.



Crystals of cucaine-hydrochlorate, crystallised from alcohol, seen by polarised light. Magnified 24 diameters.

If the crystalline film be very thin, it will appear of a bluish-white under polarised light; but usually the crystals are thick enough to produce prismatic colours.

The advantage of using polarised light may not be obvious in this case, since the crystals are visible without its aid. This is not always the case; for instance, strychnine deposited from chloroform may be completely invisible without this illumination.

So far, it must be confessed that there is nothing peculiar about the crystals of hydrochlorate of cucaine, sufficient to distinguish them from other alkaloids with monoclinic crystals in a radial form; yet, where we are dealing with a known substance, any alteration or modification of a recognised crystalline form would naturally suggest the presence of an impurity; but it yet remains to be seen if adulterated specimens are to be obtained, and what effect such adulteration will have.

One peculiarity about the crystals is that the hydrochlorate and the free base both assume the same form, which is rather unusual.

The other tests which I was able to apply are:

Sulphuric acid	No colouration.
,, + Potash-Bichromate	,,
Nitric acid	,,
Shosphomolybdic acid	Yellowish-white precipitate, soluble in ammonia and in hot nitric acid.
Phosphotungstic acid	Gelatinous white precipitate, soluble in ammonia.

THE ACTION OF CUCAINE ON THE NASAL MUCOUS MEMBRANE.

By E. CRESSWELL BABER, M.B.Lond.,
Surgeon to the Brighton and Sussex Throat and Ear Dispensary.

It may be interesting to know that I have been able to confirm Bosworth's important observation ("A New Therapeutic Use of Cucaine," *New York Medical Record*, November 15th, 1884, abstract in *Centralblatt für Laryngologie*, vol i, No. 8), in which, however, he appears to have been forestalled by Jellinek (compare Professor B. Fränkel, *Monatsschrift für Ohrenheilkunde*, etc., vol. xix, No. 1, p. 18), to the effect that cucaine not only acts as a local anæsthetic to the nasal mucous membrane, but also has the power of contracting

the vascular erectile bodies on the turbinated bones. Bosworth found that cucaine acted only on the venous sinuses, and not on the capillaries. He noticed its effect both on the middle and inferior turbinated bodies. My observations are confined to the latter. I append brief notes of its action in two cases; but the effect of cucaine in this respect is so remarkable, that it really needs to be seen to be believed.

Case I.—E. C., aged 19. On February 18th, an examination of the right side of his nose was made with the electric light and Fränkel's speculum. The inferior turbinated body was considerably swollen at its anterior part, so that only a slight view of the middle turbinated body could be obtained. The mucous membrane of the inferior appeared red. The anterior part of the inferior turbinated body was painted with a 4 per cent. solution of hydrochlorate of cucaine, by means of a camel's hair brush. After three minutes, the anterior extremity of the inferior turbinated body was decidedly less swollen, and more of the middle body could be seen. A globular prominence was visible on the inner (median) surface of the inferior turbinated body, at some distance from the anterior nares. This swelling was then painted with a 4 per cent. solution of cucaine. Five minutes later, the swelling had become pale and much diminished in size, so that the whole of the lower part of the middle turbinated body (including its inferior border) could be plainly seen. The inner surface of the inferior turbinated body could also be traced backwards to a great extent. The movements of the palate, during deglutition, were not seen, probably on account of swelling of the posterior extremity of the turbinated bodies, or of a swelling on the right side of the septum, which was seen on posterior rhinoscopy. More than a quarter of an hour later, the inferior turbinated body continued collapsed, and the globular swelling mentioned on its inner surface had almost disappeared.

Case II.—J. M., aged 60. On February 19th, an examination of the right side of the nose was made with reflected sunlight and with Fränkel's speculum. The inferior turbinated body was erected at its lower part, and very red—thus preventing all view of the palatal movements on deglutition, but allowing a clear view of the middle turbinated body. The inferior turbinated body was painted with a four per cent. solution of hydrochlorate of cucaine, not very freely. After three minutes, it was found rather less swollen at its anterior part. It was painted again freely and deeply with a four per cent. solution of cucaine. Five minutes later, the inferior turbinated body was collapsed so that its inner (median) surface could be traced to a great depth, and the palatal movements during deglutition could be plainly seen through the inferior meatus. It was still red at its anterior extremity. More than half an hour later, the inferior turbinated body remained in the same condition, and the movements of the palate could be plainly seen.

In another case, as in the first above mentioned, I have observed that the application of cucaine had a blanching effect on the inferior turbinated body. It therefore, contrary to Bosworth's opinion, appears sometimes to act on the capillaries, as well as on the cavernous tissue.

The great practical value of this contracting power of cucaine will be fully recognised by those accustomed to practise anterior rhinoscopy. It will render inspection of the nasal cavities easy in many cases in which it would be impossible except by drawing aside the swollen turbinated bodies. It will facilitate operative procedures on the nose; and cucaine, applied to the nasal cavities, will doubtless come into use as a therapeutic measure in cases of undue tendency to erection of the inferior turbinated bodies. Again, it will very probably be of service in cases of hæmorrhage from these structures; and will, if needed, help to settle the diagnosis between hypertrophy of the inferior turbinated bodies and simple erection of their cavernous structures.

The anæsthetic action of cucaine is now so well known that it needs no confirmation. But I may say that recently, in a highly nervous lady under my care, after two applications of a four per cent. solution, I have removed roots of nasal polypi with the cold wire-snare, and touched the same freely with the galvanic cautery, without her experiencing any pain.

Donations and Bequests.—The Brompton Hospital for Consumption and Diseases of the Chest has received £100, and St. George's Hospital £100, "In loving memory of T. B. Christmas."—Mr. T. Martin, of Beechwood, has given £100, additional, to the Sussex County Hospital, Brighton.—Messrs. Coutts and Co. have given £105 to the Middlesex Hospital.

Medical Magistrate.—Mr. John Francis Marshall Miles, The Grove, Dingle, has been appointed to the commission of the peace for Kerry, upon the recommendation of the Right Honourable the Earl of Kenmare, K.P., Lieutenant of the county.

CASE OF RECENT FRACTURE OF PATELLA, TREATED BY WIRE SUTURE.

Read before the Bath and Bristol Branch.

By JOSEPH HINTON, M.R.C.S.Eng., Warminster.

It must be acknowledged that the routine-treatment of fractured patella rarely gives the surgeon much satisfaction. After months of somewhat anxious watching, an apparently very successful case of short ligamentous union may be attained; but a few months' use often stretches the ligament, and renders the limb permanently weak. What if, by a special good fortune, bony union have attended our efforts; is it not more than probable that most of our professional brethren examining the case would doubt the correctness of our original diagnosis?

About fifteen years ago, a patient who had recently come to reside in Warminster, and who, moreover, was only just recovering from this accident, in getting out of a fly at my door, slipped, and the other patella gave way. This case, my old partner, Mr. Bleeck, whose whole professional life was spent in the town, used to say was the only case of this accident he had heard of in the district; yet, strange to say, while this lady was under treatment, her sister, living in the same street, slipped in her bedroom, and the same accident occurred. In this second case, the upper fragment was remarkably small, and though the ligamentous union was both very firm and short, her powers of movement and her confidence in the leg were equally small. This went on several months, without any improvement, the upper fragment always appearing to me to be tied down below the level of the lower portion. She never had any other feeling, but that the leg would double up under her. I then sent her up to the late Mr. Hilton, and I put this question to him: Would it not be possible to lift this upper fragment and place it in a better position? Of course, he discountenanced the idea. Antiseptics were then in their infancy. My patient returned with a cumbrous but most useful apparatus, which prevented her knee from bending beyond a certain point. With this, she contrived to walk very fairly; without it, the leg was almost useless. I have little hesitation in saying now that the lifting of this upper fragment, and the tying together of the two fragments, would have placed her in a far more favourable position. Since that date, no case had occurred in the neighbourhood until January of this present year.

On Sunday, the 28th of that month, a fine well built young fellow, the factotum of one of our neighbouring villages, slipped in church, and his right patella yielded. He was brought to our Cottage Hospital, and on my arrival I found that one of my medical brethren had at once carefully adjusted the leg on a back-splint. There was already considerable effusion in the joint.

I had been particularly struck by the series of cases recorded in our Journal, in November 1883, by Sir Joseph Lister, in which he described several cases of this accident treated most successfully by suturing the fragments with silver wire. Little dreaming I should so soon meet with a case, I had mentally resolved to try to follow his steps, if ever the accident presented itself. Accordingly, on February 4th, eight days after the accident, I proceeded, under strict antiseptic precautions, to operate. As all the steps of the operation are graphically described by Sir Joseph Lister in his most interesting paper, it is quite unnecessary for me to occupy your time with any account. I only differed from his plan, if difference it can be called, in placing a drainage-tube on each side of the joint, instead of on one. Suffice it to say that there was never anything like a bad symptom. The leg was placed on a MacIntyre's splint; the dressings were changed on the 7th, 12th, 18th, and finally 25th. One drainage-tube was removed on the 18th, the other on the 25th. The temperature never rose to 101°, nor the pulse beyond 90.

Sir Joseph Lister had kindly written me, that if I used wire sufficiently strong, one-sixteenth of an inch, I might let my patient walk about in a month. I scarcely dared to follow this; but on the day five weeks after the operation, he walked across the ward, and six weeks after the operation, he returned home, having walked nearly a mile on the previous day. [The patient was introduced.]

You will notice that the natural condition of the patella is somewhat out of the ordinary shape, and that the lower segment is altogether narrower; it was here that the fracture occurred. Also, the fracture extended higher at the posterior part.

It may appear somewhat presumptuous in me to attempt to add anything to Sir Joseph Lister's clear and admirable directions; but as any operation may develop fresh contingencies, I hope I may be pardoned for venturing on one or two remarks.

For my case, I procured two ordinary bradawls. I selected them about the fourteenth of an inch in diameter. As it happened, we had a *post mortem* examination in the hospital a day or two before. I then had the advantage, fortunately, of going through the operation. I then found the bradawls of this diameter too short for the purpose; although I was astonished at the ease with which they were pushed through the patella.[1] No longer bradawls of that diameter being procurable, the difficulty was met by filing down a larger size, and these answered very well. I, however, had also one shorter and stouter, with which I pierced the harder external portion of the bone.

Secondly, it is a matter of very slight moment, which fragment is pierced first, if they be nearly equal in size; but when, as in my case, and in one of Sir Joseph Lister's, there is great disparity in the size, it seems to me a rule absolute that the smaller portion, whether upper or lower, should be the fragment on which the operation should be first performed. By such action we are enabled to select the strongest point for the insertion of the bradawl or drill, and thus make the puncture in the larger portion, where it is less necessary to select the strongest point, adapt itself to the smaller.

When the two portions were threaded, I seized each end of the wire with pliers; and pulling this straight, allowed the wire to move freely backwards and forwards; I was thus certain there was no twist of the wire. The pliers, too, gave me a much firmer hold in twisting, so that the two fragments were well home, and in close apposition before the twist. One and a half turns were made.

I notice that, in some of the cases similarly treated at Leeds, a transverse incision was made. This, I take it, is not advisable; the scar, being transverse, is in the bend of the joint, and I think, therefore, likely to be injured in use; there is ample room for all the manipulation in the longitudinal incision.

Sir Joseph Lister mentions, in the case where he had a very small fragment to deal with, that large quantities of osseous material were subsequently thrown out. A comparison of the two patellæ in this case shows the same condition, and the fractured bone is now considerably the larger.

January, 1884.—This patient has, during the winter, been playing football, and considers one leg just as good as the other.

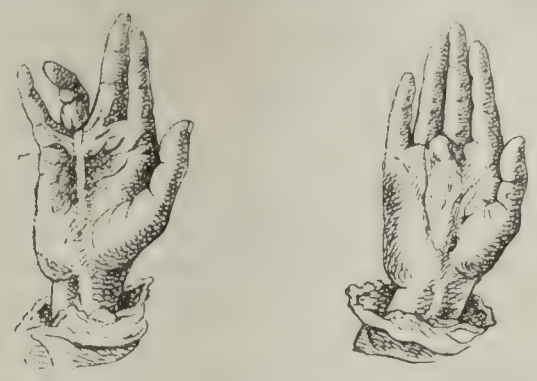
THE RAPID CURE OF DUPUYTREN'S CONTRACTION BY EXCISION.

By H. A. REEVES, F.R.C.S.E.,
Surgeon to the Royal Orthopædic Hospital, Senior Assistant-Surgeon and Teache of Practical Surgery at the London Hospital.

The following case is worthy of record, not simply because it proves the possibility of speedily remedying a disease of long standing, and which has hitherto been considered slow of cure, or intractable and even irremediable, but also because it is the second case of this deformity occurring in females which has come under my observation during the past five months. Though only three months have elapsed since the operation, the case may be considered complete on account of the method of operating, which removed the cause of the distortion, so that no fear of relapse need be apprehended, as the linear cutaneous cicatrix is unlikely to retract to any noteworthy extent. There is a slight longitudinal depression along the site of the excised band, but the finger is perfectly straight and thoroughly serviceable.

Before narrating the case, some remarks of Mr. Noble Smith in a recent number of the Journal require notice. He says, in his paper on Dupuytren's Contraction, "Modern writers have stated that contraction of the palmar fascia is only found in men. This statement is incorrect, etc." Of course it is; and just as incorrect as Mr. Smith's statement that modern writers say that the deformity only occurs in men. If Mr. Smith will refer to the British Medical Journal, 1881, vol. ii, p. 1049, he will see that I was the first to show that Dupuytren's contraction does occur, and not very uncommonly, in women; and, since then, I have drawn further attention to the subject at p. 354 of my book on *Bodily Deformities*. Shortly after my paper, Mr. F. A. Southam, of Manchester, corroborated my statements, and others did likewise.

Mrs. P., aged 45, is a relative of a student at the London Hospital, who was present at the operation. She first noticed a thickening in the palm and contraction of her right ring-finger at the age of 32. She thought it might have been produced through falling from, and being dragged some distance by, a horse, while holding the reins. Shortly afterwards, she worked much with a sewing-machine, which was as a new toy to her. Being fond of music, she practised a great deal on a digitorium. The contraction increased, and, when seen by me, it presented the condition shown in the accompanying figure.



The right hand figure is from a photograph of the case a month after operation, and the perfect correction of the deformity, which continues to be maintained, is well shown.

Assisted by Mr. P.—Dr. J. Oliver administering an anæsthetic—I made an incision through the skin down to the band, and along its entire length. The skin was then separated from the band, which was thoroughly isolated, except at its ends, and was divided at its upper end. I then tried to straighten the finger, which, however, only became straight after the use of a little force, which was accompanied by two loudish snaps, due to the rupture of some deep fibres. The band was then freely excised, and, after removing Esmarch's bandage, as there was no hæmorrhage, I accurately adjusted the skin-edges with fish-gut sutures, and put the hand in a long back-splint for the forearm and hand, with the fingers fully extended. The bandages had to be relaxed in twenty-four hours, having purposely been applied somewhat firmly, in order to keep up full extension. The wound healed by first intention; and, within three weeks, my patient could play the piano, write letters, etc. I saw her a short time since, and find that the finger is quite straight, and that the use of it is so very like the normal as to be termed perfect. I should state that this is the patient's view of the condition as well as mine.

Mr. Hardie, of Manchester, has recently revived Goyrand's operation with encouraging results; but I think the plan I adopted and intend to repeat, of excising the offending band, and removing the cause of the contraction, is the proper proceeding. Certainly, the result in the case narrated is most satisfactory; and, now-a-days, we know that cleanliness is all that is necessary in a healthy patient to insure good union of a wound, so that the former risks of the treatment by open division are no longer feared.

Before this case was operated on, I was strongly in favour of subcutaneous division; but seeing how slow, and sometimes uncertain, this plan is, and knowing the liability to recontraction when the band is left, I have no hesitation in stating my belief that excision of the band will be the operation of the future when dealing surgically with Dupuytren's contraction.

I must, in accuracy, state that we attempted to use the spray; but those present will bear me out in the observation that our backs were douched instead of the hand, so that the carbolic spray did not have a fair chance; but this seemed to be of no consequence to the wound.

TRAUMATIC URETHRAL STRICTURE CURED BY EXCISION.

By A. W. MAYO ROBSON, F.R.C.S.Eng.,
Surgeon to the Leeds General Infirmary.

It is taught in all the text-books that urethral stricture can be relieved, but is incurable; the following example proves an exception, and I am inclined to believe that the treatment followed out in the present case may be pursued in so many others, that a new rule may be formulated as follows. All narrow strictures of the urethra may be cured by excision, if situated anterior to a point half an inch in front of the membranous urethra; easily if behind the scrotum; without much difficulty, if covered by the scrotum or even if penile.

Whilst formulating such a rule, I would have it clearly understood that I would not advise or practise excision of the stricture unless it did not yield easily to the ordinary forms of treatment, or rapidly relapsed into its old condition. The following notes of one of my hos-

[1] Much more easily than in the actual operation. The patient had died of malignant disease, and the bones, it struck me, were softened.

pital cases, furnished me by my house-surgeon, Mr. Child, will serve to illustrate the various points of the operation.

"A. M., aged 48, a gardener, was admitted April 24th, 1884, suffering from well marked symptoms of stricture, with partial retention of urine, which could only be voided drop by drop. He said that he had been perfectly well up to three months previously, when he fell down a coal-hole, his perinæum coming violently against the iron cover, which had slipped edgewise; he was much bruised, and passed blood with the urine for a few hours, but there was no external wound.

"The stream of urine gradually narrowed, so that he had to have instruments passed by his medical attendant; but at last no bougie could be got through, and in that condition he was admitted into the infirmary. For several days after his admission, not even the smallest soft or hard instrument could be passed through. The stricture was situated opposite the junction of the scrotum and perinæum; but, as the symptoms were not urgent, and the bladder could relieve itself slightly, it was decided to wait a little longer before pronouncing the stricture impassable; and on April 29th, Mr. Robson succeeded in introducing a delicate filiform bougie, followed by a larger, and this by Lister's sounds, from Nos. 1 to 14, at one sitting and within a few minutes. As no rigors or other constitutional symptoms supervened, a No. 14 was passed daily, and he was made an out-patient on May 6th, taking a No. 12 bougie to pass daily at home.

"May 24th. He returned with the stricture contracted to its original condition; hence it was felt necessary to do something radical.

"May 29th. The patient was etherised, and placed in the lithotomy-position, when Mr. Wheelhouse's staff was passed down to the stricture, the scrotum held up, and the urethra laid open for half an inch in front of the stricture, which was carefully divided, and the urethra laid open for half an inch behind this. The stricture being thus fully exposed, was found to consist of a fibrous cicatricial band about one-fourth of an inch wide, involving mucous membrane, submucous tissue, and bulb-tissue. The whole of the cicatrix was excised, and the cut ends of the mucous membrane were drawn together over the gap thus formed, and secured by continuous catgut suture; a catheter being then passed into the bladder, the vertical incision into the urethra was united by catgut, thus closing the canal, and leaving a continuous and closed urethra. The last sutures were an after-thought, and perhaps unnecessary, for they gave way on the second day, and the urine partly escaped for some little time by the perinæal wound, which healed by granulation, as in the ordinary *boutonnière* operation. For the first two days after operation, the temperature reached 101°, but was afterwards normal.

"June 24th. A month after operation, Mr. Robson passed a No. 13 sound, and could feel no obstruction at the site of the old stricture.

"July 22nd. The report reads thus: perinæum quite sound, micturition painless, stream of urine of full calibre; No. 13 sound passes through an apparently normal urethra.

"September 10th, four months after operation, the patient came to report himself as quite well, and a No. 13 catheter passed without a hitch; no instrument having been passed since the operation except at the times above mentioned."

Remarks.—I was astonished to find how very easily the mucous membrane could be made to cover the gap without any tension; evidently due to the abundant submucous tissue allowing the mucous membrane to slide freely over the subjacent tissues. I feel sure it would be quite easy to cover in a space of half or three-quarters of an inch. The result in this case would seem to prove that the vertical slit may be safely left to close by granulation; and this may probably be better than absolutely closing the whole canal, and so preventing drainage.

The result has almost exceeded my expectation, as I thought there might be a tendency to relapse; but, since a No. 13 sound will pass without a hitch six months after operation, I think we may conclude that a genuine cure has been effected.

A Low Type of Humanity.—According to Dr. Hyades, who has lately returned from Tierra del Fuego, whither he was despatched on a mission by the French Government, the Fuegians are the lowest human beings in the scale of existence. The language contains no word for any number above three; they are unable to distinguish one colour from another; they have no religion and no funeral rites; and they possess neither chiefs nor slaves. Their only weapons are bone-pointed spears; they grow neither fruit nor vegetables; and as their country is naturally barren, they are obliged to live entirely on animal food. But they are not cannibals; they illtreat neither their women nor their old people, and they are monogamous.

OBSTETRIC MEMORANDA.

THE ADVANTAGES OF ABDOMINAL SUPPORT DURING PREGNANCY.

Every obstetrician of fair experience must have met with cases, however well cared for during and after confinement, who still suffered from "pendulous abdomen," or want of tone in the abdominal muscles; the said want of tone being often conducive to ventral hernia, constipation of the bowels, and also displacement of the uterus. As a rule, patients during the whole term of pregnancy wear their corsets; and, however they may loosen or adjust the same, still the downward pressure of the corset acts in a contrary direction to the uterus, which, from the earliest months, raises itself upwards towards the diaphragm, and continues to move in the upward direction, till the full term of pregnancy is completed. Knowing this to be the case, I always advise patients, in a pregnant condition, to leave off their corsets (from about the fourth month onward, should I see them at that time), and, having supplied the want of corset by a suitable bodice, to wear a supporting abdominal belt with elastic sides, so as to exercise a comfortable pressure from below on the muscles, and fitted with tapes or straps, to relax the pressure as the uterus enlarges.

In every case in which I have recommended this to be done, and where my directions were followed, the patient not only expressed herself as feeling far more comfortable, but I have remarked that the subsequent labour was of much shorter duration, owing, I believe, to the support afforded in time to the abdominal muscles, and which, by husbanding their tone and strength, enabled them to assist the uterus in its efforts of expulsion in a marked degree.

When engaged to attend primiparæ, I also direct the bandage to be left off at night, and the abdomen well rubbed over with fresh lard at bed-time. When this treatment is followed in primiparæ, I find there is little or no trace of the lineæ albicantes to be discovered after the patient recovers from the lying-in, and the abdomen also resumes its natural appearance, which the patient, as a rule, is the first to remark.

While alluding to the subject of pregnancy, I hope I may be excused for mentioning a plan I have found useful in the diagnosis of position in head-presentations (especially should the patient have been some time in the second stage of labour before the practitioner arrives); namely, when the pressure on the head distorts the shape of the fontanelle, and a large "caput" obstructs the examination, making the diagnosis a difficult one, by introducing the left index (or the two fingers if necessary) into the rectum, the fontanelle can be distinctly felt through the rectal wall and septum, thus enabling the practitioner to decide at once as to the position of the fœtal head.

Alexander Duke, M.K.Q.C.P.I., etc.,
Obstetric Physician Dr. Steevens' Hospital, Dublin,
Ex-Assistant Master Rotunda Hospital.

CLINICAL MEMORANDA.

A CASE OF MULTIPLE XANTHOMA.

That localised form of xanthoma which is found on or near the eyelids, called xanthelasma palpebrarum, is common enough, and has been well delineated in Dr. Tilbury Fox's *Atlas*, and in Mr. Hutchinson's *Illustrations of Clinical Surgery*. The general form, which Dr. Liveing calls "multiple xanthoma," seems to be a very rare disease, though a few cases have been carefully described in the *Transactions of the Pathological Society of London*. I am indebted to Dr. Liveing's *Handbook* for a brief but vivid account of a malady which I should otherwise have failed to diagnose in the following case, the first of its kind that I have ever seen.

A maiden lady, aged 30, was sent to Bath in July, 1884, and was kindly entrusted to my care by her medical attendant. She was an example of the havoc which can be made by chronic osteo-arthritis. Much crippled in all her limbs by enlarged and immovable joints, she was dependent in everything on the ministrations of others. This extensive disease began, during the autumn of 1878, in the lower limbs, and is mentioned here in order that we may keep in mind its probable neurotic relation to the affection of the skin. About Christmas, 1883, when the patient had been confined to bed for eight months, although the general health was tolerably sustained, the plantar surfaces of the feet began to grow yellow. After her arrival in Bath, I noticed nothing beyond this faint discoloration until September, 1884, when a "rash" appeared on the right leg in brownish-yellow spots or patches. The spots varied in size from the smallest specks

visible to the naked eye, up to dots of irregular size, varying from one-eighth to one-fourth of an inch in diameter. In tint the spots differed much; wherever they were most discrete or separate the yellow was brightest. On the upper and front part of the leg, there were, and still are, three groups of spots much closer together, the predominant colour of which is a dirty yellow-brown. When the finger is passed lightly over the leg, the "rash" feels slightly raised, as if the thinnest flake of solid material were deposited in the rete mucosum of the skin, slightly raising the epidermis.

Last autumn, the skin on the sole of the right foot was rough and horny, and marked here and there with the brightest yellow stain. On the sides of the toes there was a delicate yellow tinge, and a fainter tinge of exactly the same hue appeared during the winter on the sides of some of the fingers, and slightly on the palms of the hands; the skin of the hands was not otherwise altered in any way.

A sister of my patient, who nurses her tenderly, tells me that "no washing removes the yellow on the feet or the brown on the leg; but after a free application of olive-oil, the yellow skin on the feet, and all over the toes, peels off like a thick leathery skin, leaving the flesh underneath quite soft and white. The brown rash on the leg comes off in little flakes after the application of oil; a red rash, which disappears after a night's rest, is then visible under the skin." A peculiar burning and "drawing" sensation is continually felt in the legs and feet. The chief pain is between the knee and ankle of the right leg, and this is the part most covered with the rash; and it has been observed by the patient that pain "brings out the yellow rash," so that the causal relation of the phenomena is firmly impressed in her mind. During the night she is, at times, in extreme heat, with great perspiration on the body and dry burning on the legs.

At present, the pigment-spots are limited to the front of the right leg; they are more numerous now than ever; here and there are irregular clusters of spots, grouped more closely together; they are more permanent and seemingly less under neurotic influences. The diffused yellow stain on the hands and feet is of a deeper tint and is extending in area, but without trophic changes in the epidermis. The nutrition of some of the nails has become affected. The nails of the left thumb and right great toe have separated from their respective phalanges, and are almost torn from the matrix by an increasing accumulation of dry chalky material. My patient has never had jaundice nor any other disorder of the liver; and the urine does not contain albumen nor sugar.

So far as this case is not associated with any previous disorder of the liver, it belongs to a rather rare group. The course of the disease will be watched with interest; and the object of this memorandum will be partly attained if any of our best authorities will kindly give some hints on the therapeutics of that pathological vagary, multiple xanthoma. JOHN KENT SPENDER, M.D.Lond.,
Physician to the Mineral Water Hospital, Bath.

URTICARIA AND ASTHMA.

THE case of "Asthma produced by a Linseed Poultice," recorded by Dr. Kingsbury in the JOURNAL of February 7th, reminds me of a case of urticaria recently under my care, in which attacks of asthma and of severe vomiting occurred several times during the illness. On two occasions I noticed patches of the eruption on the fauces, and regarded the attacks of asthma and vomiting as being occasioned by the occurrence of similar patches on the mucous membrane of the bronchial tubes and stomach. Possibly, in Dr. Kingsbury's case, the association of asthma and urticaria may be similarly explained. In another patient, the application of a linseed poultice is always followed by an eruption of urticaria. Another interesting fact, in connection with the first case, was the occurrence of an attack of acute rheumatism in the seventh week of the illness, and the disappearance both of the eruption (which until then had been unaffected by alkalies, arsenic, quinine, etc.) and of the rheumatism, four days after having been treated with salicylate of soda.

PERCY WARNER, Woodford, Essex.

PATHOLOGICAL MEMORANDA.

MOVABLE KIDNEY.

IT is, comparatively speaking, seldom that the opportunity is afforded of observing after death a kidney which has been freely movable in the abdominal cavity. Some authorities even doubt the existence of such. A case which recently came under my notice I consider worthy of record. The ascending colon was completely surrounded by peritoneum, which formed a right meso-colon of considerable length; the right kidney, imbedded in loose areolar tissue, was situated between the folds of this meso-colon, and was capable of being moved about freely in all directions, even to the left of the vertebral column. The colon, with its complete peritoneal covering, was not in apposition with its kidney. Great interest, however, is attaching to the case from the fact that the left kidney was the seat of advanced cystic degeneration, and much enlarged. Now, had the cystic change occurred in the right kidney instead of the left, a correct diagnosis would have been impossible, and it is more than probable the cyst would have been considered omental.

JAMES OLIVER, M.B., M.R.C.P.Lond., Montague Street, W.C.

THERAPEUTIC MEMORANDA.

CARBOLIC ACID IN INDIGESTION.

IN reading Dr. Lauder Brunton's learned and exhaustive lectures in the BRITISH MEDICAL JOURNAL, on indigestion, I have been particularly struck with his remarks on a form of hyperæsthetic pyrosis, or, if I may venture to coin a phrase, subjective acidity. I would presume, in this connection, to call attention to the results of the administration of carbolic acid. I have for a long time particularly noticed its sedative, anæsthetic, and curative action on the mucous membrane of the eye; and, by analogy, I was some time ago tempted to try it in indigestion, associated with tenderness of the stomach, acidity, and flatulence.

In most instances the result was very striking; cases which had proved very intractable yielding immediately to its influence. I used it of the same strength which I have always used for the eye, that is, 2 minims to the ounce of water, usually with the addition of 5 grains of carbonate of soda, and 25 minims of aromatic spirit of ammonia. I have also found it very useful in the dyspepsia of tea-bibbers. If any one should be induced to act on this hint, I should be glad to hear the result. J. F. DIXON, L.R.C.P.Lond., Bournemouth.

SPIRITUS PYROXYLICUS RECTIFICATUS IN CONSUMPTION.

AMIDST the growing tendency to employ new drugs, I think it is a pity that we should lose sight of such old remedies as Hastings's medicinal naphtha. I have employed this spirit in the treatment of phthisis for three or four years, and with encouraging results. I was inclined to prescribe it long before I did so, believing it to be the purest known alcohol, a direct sedative, diminishing the necessity for respiration, and giving physiological rest to the lungs. The following case will, I think, illustrate its value.

On November 27th, 1884, I was sent for to see Mr. X., aged 22, in consultation with his usual medical attendant, in whose opinion the case was hopeless. The patient's family-history showed hereditary tendency. The pulmonary symptoms dated back to August last. He was for a few weeks previously under treatment for derangement of the digestive organs. When seen on November 27th, 1884, his condition was as follows. There were harassing cough and much phthisical sputa; small sharp pulse, 120; temperature at noon, 102°; copious night-sweats; rapid progressive wasting; anæmia; irritable tongue; constant sickness; with confined bowels and sleeplessness. The physical signs of extensive softening were detected on the right side, and commencing consolidation on the left.

After preliminary treatment, directed to the condition of the digestive organs, the patient was ordered twenty minims of spiritus pyroxylicus rectificatus three times a day, with occasional doses of a cough-mixture, and a pill containing belladonna at night. The pyroxylic spirit was gradually increased to two drachms three times a day. Under this treatment, his temperature became normal, and he was then placed upon tonics—arsenic, etc.—and inhalations of eucalyptus-oil. The pyroxylic spirit was continued.

His present condition (February 17th, 1885) is very satisfactory. There is hardly any cough or expectoration; pulse 90, small, soft; temperature normal; and no night-sweats. He is gradually and steadily gaining flesh and strength, but remains anæmic. The tongue is at times irritable; the appetite is fairly good, and the bowels regular. He sleeps well, and goes out occasionally, as weather permits. There are physical signs of a contracting cavity on the right side.

If the record of this case should encourage any members who have

not previously employed this remedy to give medicinal naphtha a trial, or elicit a more worthy record of its uses, my object will have been attained.

GILBERT RICHARDSON, M.A.Cantab., M.D., M.R.C.P.Lond.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

WEST LONDON HOSPITAL.

A CASE OF POISONING BY AMMONIATED AND RED OXIDE OF MERCURY.

[For the earlier notes of this case we are indebted to Mr. R. F. BENHAM, for the later to Mr. H. HENDLEY.]

E. P., AGED 20, being pregnant, swallowed ninety grains of each of the two drugs, ammoniated and red oxide of mercury, in powder, for the purpose of poisoning herself. She was at first under Mr. Benham's care, who saw her on August 5th. The extremities and head were cold, the face and forehead being pale, and bathed in a cold perspiration. The pupils were only slightly sensitive to light. The pulse was 60—small, weak, and, at times, imperceptible. Respiration was 16, and laboured. The temperature was 97° Fahr. The surface of the tongue and of the mucous membrane of the cheeks was swollen and cream-coloured. She complained of a burning sensation in the throat and chest, of severe purging pains, and of cramp in both extremities. She vomited, at short intervals, a ropy mucous fluid, and passed by the bowel mucus tinged with blood. She was presumably about six months and a half pregnant; the fœtal heart could be distinctly heard. The poison had been taken about eight hours earlier. A glass of milk, containing two eggs, was swallowed with difficulty, and returned immediately. By the application of various stimulants, and also by the hypodermic injection of morphia and ether, she gradually improved for the first two days, but there was ulceration of the tongue and mouth, and salivation; after that time the urine became scanty, and contained a large amount of albumen and casts. The quantity secreted gradually diminished, so much so that, from the fourth to the eighth day after taking the powder, she passed only about 30 ounces; the quantity on each day was 12, 8, 5, 3, 2 ounces. A catheter was passed on several occasions. Mr. Benham examined, by means of the amalgam-test, the saliva, urine, and motions, and in each case there were various shades on the surfaces of the sheet-copper, according to the quantity of mercury present. In addition to the suppression of urine, she complained of slight abdominal pains, and the os uteri was found to be somewhat dilated and hard.

Believing the patient to be on the verge of having a miscarriage, that the suppression of urine was an alarming symptom, and that it was advisable to give warm baths, Mr. Benham, on August 11th, procured her admission into the West London Hospital. Early on the following morning one ounce of urine, looking like watery mucus, was drawn off. A vapour-bath was given, lasting twenty minutes, and under its influence the patient perspired most freely, and was considerably relieved; she also took a drachm of compound jalap-powder.

At 3 A.M. on August 13th, the child was born, but died in about a quarter of an hour. Two or three hours after the birth of the child the patient passed three ounces of urine, and there was no further trouble with regard to this.

On August 16th, a rash appeared upon the arms, in isolated, raised, and vivid red patches; the temperature was 98°. On August 19th, the rash became confluent over the face, arms, and thighs, and patchy on the chest. She was sick several times during the day, but she had no sore-throat, although her tongue was badly ulcerated. She was given five grains of iodide of potassium with a saline mixture.

On August 20th, the tongue became cleaner, but there was a great deal of sickness during the day, with pain in the back of head. From this time the rash gradually disappeared and desquamated on the arms and face, and the sickness ceased. She was discharged on August 30th.

REMARKS.—The rash looked very much like that of scarlet fever. The rapid disappearance of the milk would lead one to suppose that the mercury exerted an absorbent influence in this direction, and it is well worthy of remark that the serious symptoms disappeared in a marvellous manner after the birth of the child; in fact, before the rash appeared, it seemed as though the child had taken the whole of the poison away with it, and thereby saved its mother.

LEPER ASYLUM, TRINIDAD.

TWO CASES OF LEPROTIC GANGRENE: AMPUTATION: RECOVERY.

(Under the care of Dr. BEAVEN RAKE.)

CASE I.—P., a Hindoo, aged 24, was admitted on May 31st, 1878 for anæsthetic leprosy of the extremities, of two years' duration. With the exception of bronchitic, dyspeptic, and febrile attacks, he went on well till the beginning of 1884, when the right foot became ulcerated.

March 7th, 1884. There was a large gangrenous ulcer involving the right ankle, and spreading almost halfway up the leg. The smell was very offensive, and the patient very weak and emaciated. No evidence of internal disease could be found on examination. As he appeared to be sinking simply from exhaustion, amputation was performed, as a last resort, just above the knee. He took chloroform very well. Dissection of the limb showed extensive sloughing of tendons, erosion of the cartilages of the ankle-joint, and necrosis of the astragalus and the lower part of the tibia. The tissues were infiltrated nearly to the knee.

The flaps began to slough a few days after the operation, and the urine was found to contain a trace of albumen. At 2 A.M. on March 16th, a sharp attack of secondary hæmorrhage occurred, which, however, was soon arrested, and did not recur. After this, he steadily improved.

On April 22nd, he was able to get about, could eat well, and was much stouter. The end of the femur was covered with granulations, and the cicatrix was spreading from the margin of the granulating surface.

On June 5th, the stump was completely cicatrised; it was quite firm and comfortable on August 12th.

August 30th. The specific gravity of the urine was 1005; it was slightly alkaline, but contained no albumen. He had difficulty in using crutches, owing to anæsthesia of his hands.

CASE II.—J. S., a Portuguese, aged 25, was admitted on January 20th, 1877, for anæsthetic leprosy of the extremities, of eleven years' duration. A brother, aunt, and two cousins, were also lepers.

From his admission till April 1884, he suffered off and on from subacute bronchitic and pleuritic attacks.

April 17th, 1884. Painful and very offensive gangrenous ulcers nearly met round the right foot. Gangrene was also spreading up the leg, which was swollen nearly as far as the knee. There were no enlarged glands in the right groin. The left foot was swollen. The heart and lungs were normal. The specific gravity of the urine was 1020; it was acid, and contained no albumen. The appetite was failing.

April 18th. Amputation was performed through the knee-joint, leaving the patella. He took chloroform well, but, on account of the diseased state of the popliteal artery, there was considerable hæmorrhage before it was ligatured. Dissection of the limb showed extensive sloughing, and erosion of the cartilage on the superior articular surface of the astragalus. The periosteum stripped easily from the greater part of the tibia, leaving the bone bare and white. The fibula was laid bare by gangrene for about an inch at the junction of the lower and middle thirds. The tarsal and knee-joints were healthy. Leprous amputation of two toes had occurred at an early period.

April 19th. The temperature was 97.8° Fahr.; the pulse 92. He had been restless and noisy during the night. A grain of pilula opii was ordered to be taken every four hours.

April 21st. The temperature was 102.6° Fahr. Gangrene had commenced in the stump. Charcoal poultices and a grain of opium-pill night and morning were prescribed.

April 22nd. The temperature was 101°; the pulse 110. A line of demarcation had formed. He slept and eat well, and the opium was only given at night.

On April 23rd, the slough was separating. The temperature was 102°, and the pulse 112.

On April 26th, there was slight oozing of blood. The temperature was 98.6°, and the pulse 96.

May 1st. There was considerable discharge of pus from the stump, increased by pressure over the middle of the thigh. The temperature was 98.4°; the pulse 96.

May 13th. A large slough enclosing the patella was separated with scissors, exposing rosy granulations. The ligatures were removed from the popliteal artery.

May 24th. Thin unhealthy pus could be squeezed from the sinus. The cartilage was being displaced from the end of the femur by healthy granulations.

On July 31st, the sinus was healed, and the cicatrix was spreading well from the margins of the granulating surface, which had been dressed with jequirity-decoction.

On August 9th, he was dressed with jequirity-powder, and the result was slightly better than with the decoction. On September 18th, he was able to get about with crutches. He was subsequently troubled with ulceration of the hands; and on December 27th, there was still a granulating surface at the end of the stump, about three inches in diameter. It was dressed with iodoform and vaseline, and was slowly cicatrising.

Remarks by Dr. Beaven Rake.—These two cases illustrate the value, at any rate in some instances, of amputation in spontaneous gangrene, and before the formation of a line of demarcation, though I am aware that this is quite opposed to orthodox teaching. Certainly gangrene appeared in the stump in each case, but in neither was it very extensive. In both cases, the viscera appeared healthy on physical examination, and the patients to be sinking from simple exhaustion, so that amputation seemed the only chance, though rather a desperate one. I have been the more impressed with this view, as I have lately made necropsies in two cases of gangrene, in which the viscera were healthy, but in which amputation was unfortunately impracticable, on account of the gangrene being multiple. I would sum up the advantages of amputation in such cases as follows: (1) the stench is in great part removed; (2) there is more blood proportionately to nourish the rest of the body; (3) the granulating end of the stump acts like a large seton.

The first advantage is by no means a small one. In one of the fatal cases, there were severe abdominal symptoms, traceable entirely to the extreme fœtor of the gangrene. With regard to the second and third advantages, I was struck with the great improvement in the general appearance and nutrition of my patients after the operation, especially in the first case. Slight bronchitic attacks almost vanished, and superficial ulcers in other parts of the body healed. Surely the drain from the stumps was of value as a derivative. It did not last long enough to suggest the danger of lardaceous degeneration in the viscera, nor, as a matter of fact, did physical examination point to such changes.

INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.

HEPATIC ABSCESS: INCISION AND DRAINAGE: RECOVERY.

(Under the care of Mr. Crisp.)

[Reported by Mr. G. W. Ridley, M.B., House-Surgeon.]

George P., a sailor, aged 26, was admitted to the infirmary on November 14th. He had spent most of his life at sea, chiefly in tropical climates. He had always been a temperate man, and had had no illness of moment, except a passing attack of dysenteric diarrhœa, in the beginning of the summer of 1884.

In the early part of September, he experienced an acute attack of pain in the right side and back, accompanied by heavy night-sweats and constipation. He placed himself under medical care, and recovered in the course of three or four days. About seventeen days after this, while at sea, the pain recurred, and now shot up to the right shoulder. He was subjected to a course of saline purgatives, with the application of large fly-blisters over the liver, with no permanent relief. Shortly afterwards, during his passage home, he had a rigor, which lasted for some considerable time. The pain continued to increase.

On his arrival at Hull, he consulted a surgeon, who diagnosed abscess, and suggested aspiration. This was done, and about half a pint of pus withdrawn, with great relief to pain. Four days later, he was admitted to this infirmary. There was a considerable rounded swelling on the right side, over the region of the liver, most prominent in the nipple-line, between the seventh and eighth ribs. Fluctuation was distinct, and measurement showed an increase of $2\frac{1}{2}$ inches in the girth of the right side. Pain was very intense, impeding respiration, with great tenderness on palpation.

Mr. Crisp saw the patient the following day, and at once decided on free incision. A director having been passed into the abscess-cavity, the tissues over the most prominent point were freely divided, and upwards of a pint of chocolate-coloured matter evacuated. A very large drainage-tube was then introduced, which penetrated to the depth of about five inches, and a dressing of oakum applied.

The discharge at first was most profuse, and necessitated a change of dressing twice a day for the first three days. At each dressing, the cavity was washed out with a solution of boracic acid. After this, the discharge lessened considerably, and the wound was dressed once a day. At the end of a week, the patient was allowed to get up; while in four weeks from the date of the operation, the wound had entirely closed, and the patient was discharged cured.

Remarks by Mr. G. W. Ridley.—I read with great interest, in the British Medical Journal of December 11th, notes by Dr. John Cochrane on a case of hepatic abscess, in which he advocates the expediency of allowing the abscess to burst spontaneously through the abdominal wall, in opposition to the emphatic directions of Sir Joseph Fayrer to the contrary.

The above case may be of interest as illustrating the success consequent upon following the line of treatment laid down by the latter eminent authority.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, March 3rd, 1885.

J. Syer Bristowe, M.D., F.R.S., President, in the Chair.

Rhinoscleroma.—Dr. Payne and Dr. F. Semon exhibited drawings and microscopical specimens from the case of rhinoscleroma which they had shown to the Society on October 21st, 1884. The patient was a young Guatemalan, aged 18, who had been suffering from this affection for four years, and who had been sent to Dr. Semon by Dr. Martin, of Paris. The disease had begun insidiously, and without any known cause. There were two rounded reddish swellings, firm but not very hard, each about the size of half a hazel-nut, and ulcerated on the surface, just below the nostrils; and both nostrils were filled with similar masses. The bridge of the nose was considerably broader than normal, and the tissues of the nose beyond the bones was of stony hardness to the touch. The external ulceration was said to be due to galvano-caustic and other operations, to which the patient had been subjected during his stay in Paris. A short description of the histological characters of a portion removed at that time had been published by M. Cornil. The throat was also affected. The uvula had entirely disappeared. Upon the soft palate, an irregular, raised, whitish, slightly ulcerated patch was seen. The rest of the soft palate had undergone considerable cicatricial contraction, fibrous bands running from the ulcerated patch in all directions, and greatly distorting the parts. Similar morbid changes were visible on the left tonsil and left lateral wall of the pharynx. The larynx and naso-pharyngeal cavity were unaffected. The patient was extremely anxious to have some operation performed which should remove the external disfigurement and the impediment to breathing through the nostrils, although the impossibility of a radical cure and the improbability of a lasting improvement were strongly represented to him. Before proceeding to operative measures, energetic antisyphilitic treatment was had recourse to, and continued for some months, but without any result. The day after he had been shown to the Society, he was put under chloroform, the external tumours and the masses blocking the nostrils were thoroughly scraped out with the sharp spoon, and the exposed surfaces on this and the following days freely cauterised with lunar caustic. In spite of these precautions, two months after the operation, unmistakable signs of recurrence made their appearance. Further operative interference was declined as apparently useless, and the patient was lost sight of. It was found that the greater part of the septum had entirely disappeared, and, as no trace of bone was detected in any of the numerous sections which were made, it could only be assumed that the partition had been destroyed by the progress of the growth. The histological examination showed that the skin and the upper part of the mucous membrane was invaded by a small-celled growth resembling granulation-tissue, with an admixture of some larger cells of a different form. The epidermis was also altered in a peculiar manner, producing concentric masses with some resemblance to the "nests" of epithelioma. There were also firm masses of fibrous tissue. The whole structure was entirely different from epithelioma or sarcoma, or any other definite tumour-formation, but formed a growth more resembling the granulation-tumours, such as lupus, syphilis, or tubercle, than anything else, though quite distinct from any of these. It was remarkable for the absence of any evidence of atrophy or degeneration. The histological appearances were, on the main, the same as had been observed in all cases of rhinoscleroma, though these appearances had been differently interpreted by different observers. This was believed to be the first in-

stance of this rare disease ever described in this country, and no other case but this had been described in France. In Germany (out of Austria) the disease was equally unknown, most of the reported cases having come from Vienna, a few from Italy.—In reply to Mr. Butlin, Dr. PAYNE said that the growth had been carefully examined by means of aniline preparations for micro-organisms, but without result. M. Cornil had also failed to find micro-organisms.

Sarcoma of Bladder.—Mr. EVE showed two specimens of sarcoma of the bladder. 1. A firm pale lympho-sarcoma occupied the anterior and upper walls of the bladder, which it filled, with the exception of an elongated space one inch in width at its lower and posterior part. The greatest thickness of the tumour was three inches and a half; its free surface was not papillary. Microscopically, it was composed of round cells like lymphoid cells, forming ill-defined masses and groups in a scanty fibrous stroma lying in the meshes of a reticulum of hyaline fibrils. The specimen was taken from a man aged 68, who suffered for two years before death from pain in the loins and slight hæmaturia. 2. A mixed, probably a myo-sarcoma, forming a firm fibrous tumour about an inch and a half in length, was situated within the left wall of the bladder, just above the ureter. It projected externally from the bladder-wall; but the corresponding inner surface was unaltered, with the exception of a slight superficial erosion. Microscopic sections showed bundles of unstriped muscle, separated by tracts of connective tissue; the bundles were infiltrated with round and elongated nuclei, and with large spheroidal cells possessing a large nucleus surrounded by a rim of clear protoplasm; the latter formed in parts small ill-defined growths in the muscular bundles and in the connective tissue, or were diffusely scattered. Indications of a new formation of unstriped muscle-fibre from elongated nuclei were observed in many places. The bladder was taken from an elderly lady; but no clinical details of the case had been obtained.—Mr. BUTLIN had examined the first specimen, and agreed in regarding it as a lympho-sarcoma; he thought that it might possibly have arisen from the prostate.—Mr. BOWLBY said that two cases of sarcoma of the bladder had recently been treated at St. Bartholomew's Hospital. 1. A woman, aged about 40. A portion of the growth was removed, after dilatation of the urethra. The microscopic appearances were those of mixed-celled sarcoma, and therefore no further operation was attempted. 2. A man, also about 40 years of age. A perineal opening made into the bladder afforded but little relief, and he died from the gradual extension of the growth and exhaustion. At the necropsy, the tumour was found to occupy the posterior wall of the bladder, and to have grown into the rectum. There was no secondary growth. Microscopical examination showed that there was no fibrous stroma nor muscle-cells; the growth was apparently a mixed celled sarcoma.—Mr. EVE, in reply, said that, as the tumour occupied the anterior part of the bladder, and was thickest there, and did not extend between the bladder and the rectum, he thought it probably did not arise in connection with the prostate.

Congenital Obstruction of Intestine.—Dr. HOBSON showed a specimen taken from a male infant who died before the end of the third day. The child was born at the seventh month of intra-uterine life; during life, it vomited a greenish coloured fluid. The rectum was imperforate. There was no evidence of recent peritonitis at the necropsy, but numerous delicate bands were present. The whole large intestine and the lower sixteen inches of the small intestine resembled a solid tube, a quarter of an inch in diameter, filled with semi-solid mucous matter. Above this, the bowel was dilated. A break in the continuity of the intestine occurred at a point just opposite to the occlusion. The mother stated that, when five months pregnant, she had a violent fit of coughing when at stool, which caused her great pain in the abdomen. Dr. Hobson thought that possibly, at this moment, either by the forcible bending of the fœtus on itself, or from some other cause, a rupture of the bowel had taken place, and that consequent inflammatory action had obliterated the gut at the opposite end of the loop.

Adeno-sarcoma of Pineal Body.—Dr. CHARLEWOOD TURNER showed a nodulated oval growth, about the size of a kidney, which filled and distended the left lateral and third ventricles, and had destroyed the corpus callosum and fornix; it had, however, apparently originated from the pineal body. It was of lobulated structure, and showed bands of fibrous structure containing well defined nuclei; the lobules consisted of spindle-celled sarcoma, traversed by numerous tubules and acini lined with epithelium. In some tracts of the growth there were large globular or fusiform cells, resembling sympathetic ganglionic cells. These cells afforded an illustration of the fact, frequently observed in morbid new growths, that the elements of a morbid growth are conformed to the type of the cell of the part in which the neoplasm arises. The pineal body was extremely rarely the seat of a tumour. Dr. Turner dwelt at considerable length on the pathology of morbid growths. In such cases, he believed micro-organisms found a suitable soil for development, causing and continuing the growths, which should then be looked upon as perverted attempts at repair.—Dr. HALE WHITE observed that, although tumours of the pineal body were rare, the nature of the growth in the recorded cases had varied greatly.

Fractures of Hyoid Bone and Larynx.—Mr. ARBUTHNOT LANE, from an examination of one hundred bodies in the dissecting-room of Guy's Hospital, had found that the percentage of fractures of the larynx and hyoid bone found in the class of mankind from which the supply for dissection was drawn was at least 9 per cent. He had excluded all doubtful cases. Mr. Durham had collected seventy-five recorded cases of fractures of the larynx and hyoid bone, and of these fifty-nine proved fatal. Fischer's statistics of fractures of the hyoid bone alone showed twelve deaths in twenty-three cases; so that, out of a total of eighty-two cases of fractures of the larynx and of the hyoid bone, twenty-eight only recovered. Comparing these statistics with the cases he described, Mr. Lane concluded that these fractures very frequently did not give the dangerous symptoms which had been said to be so characteristic of them, and that they were but rarely diagnosed. The cases he described were as follows. 1. Ununited fracture of right greater cornu of the hyoid bone. 2. Fracture of right greater cornu of the hyoid bone; ununited fracture of both superior cornua of thyroid cartilage, with much separation of the fragments; partial dislocation of lower cornu; deformity of cricoid, owing probably to fissuring. 3. Fracture of right upper cornu of thyroid cartilage; bony union; ununited fracture of left upper cornu; much separation of fragments. 4. Fracture of right upper cornu of thyroid cartilage; no separation of fragments; fibrous union; probable fracture of left upper cornu; bony union. 5. Fracture of right upper cornu of thyroid cartilage; bony union. 6. Fracture of right cornu of hyoid bone. 7. Fracture of right upper cornu of thyroid cartilage; much separation of fragments; fracture of left upper cornu; fibrous union; no separation of fragments; cricoid cartilage fractured in front to the right; considerable displacement of fragment; bony union; fissured in front and to the left. 8. Fracture of left upper cornu of thyroid cartilage; fibrous capsule. 9. Fracture of left upper cornu of thyroid cartilage; fibrous union; no separation of fragments; probable fracture of left great cornu of the hyoid bone. The list thus included fractures of great severity. There were probably two, and certainly one case of fracture of the cricoid cartilage; and in the latter there was considerable displacement of the fragments, which overlapped one another. Mr. Durham made a special note of the fact that every case in which the cricoid was fractured proved fatal. Gurlt found no difficulty in fracturing the thyroid in elderly subjects by backward pressure with both thumbs. In these cases, the upper cornua of the thyroid were frequently broken. Other observers, as Keiller, Cavasse, and Helwig, had experimented by backward pressure or lateral compression of the larynx. Their success in producing fracture of the cartilages varied, and appeared to depend on the age of the cartilage. The fracture of the larynx which Mr. Lane had found to be most common—namely, fracture of the upper cornua of the thyroid cartilage—was produced, with comparative ease, by compressing the larynx by the hand, and then exerting force directly backwards. This would be seen, on consideration, to be the probable means by which this fracture was produced in the specimens he showed. If the perichondrium were torn, there was considerable separation of the fragments; but if not, they remained in apposition. He found, contrary to the experience of others, that the cartilage of later adult life yielded more readily than that which had undergone ossific change. He also referred to the condition described by Gibb as "dislocation of the hyoid bone," and considered that he had in no way defined the injury or condition; and that the two cases, of which he gave but a very meagre account, were probable instances of quite different conditions.—Mr. BLACK inquired as to the exact site of the fractures of the thyroid.—Dr. SEMON was astounded at the large number of cases Mr. Lane had found in so short a time. The paper seemed to point to a more favourable prognosis than had been generally drawn from clinical experience; fully three-quarters of such cases were fatal, especially the cases of multiple fracture of the thyroid.—Mr. LANE said that the fractures occurred at the extreme base, as a rule.—Mr. SHATTOCK referred to the existence, in some cases, of a congenital want of union between the body and great cornua of the hyoid.—At the suggestion of the President, the specimens were referred to a committee, consisting of Messrs. Butlin, Lane, and Shattock, and Dr. Semon.

Tubercular Salpingitis.—Mr. A. Q. SILCOCK showed a specimen of tubercular disease of the uterus and Fallopian tubes from a child aged 5 years, who died of tubercular meningitis and general tubercu-

losis. At the necropsy, on opening the abdomen, the great omentum was found to be adherent to the abdominal wall, and there were other evidences of a subacute peritonitis which had subsided. Both Fallopian tubes were distended with caseous material, which was in greatest quantity towards the fimbriated extremities; the walls of the tubes were thickened; the right tube was most affected; the Fallopian tubes and the uterus were adherent to the bladder. The uterus was acutely anteflexed, and the body largely distended with caseous matter; tubercle-bacilli were found in the lungs, but not in the caseous matter. He thought it probable that the acute anteflexion produced by the adhesions to the bladder prevented the extrusion of the caseous matter.—Dr. GRAILY HEWITT observed that the specimen was an example of a very rare condition; the strong fibrous adhesions binding down the uterus in the anteflexed condition would have served to have permanently maintained the uterus in that position, and this probably, at least, perpetuated, if it did not produce, the malady. Distension of the Fallopian tubes, it now appeared, occurred more commonly than was supposed until recently; he suggested that this distension might be due to retention due to obstruction of the canal of the uterus.—Dr. ANGEL MONEY had only met with one example of the condition among all the examinations he had made at the Hospital for Sick Children, and only one other case had been recorded there. In both cases, the cervix and vagina were healthy, and the conditions of the parts were practically the same as in Mr. Silcock's case. The case in which he had found the condition was that of a girl aged 4 years and 10 months.—Dr. SHARKEY believed that, in the adult, the condition was not very rare, as he had met with a considerable number of cases.—Mr. EVE had met with two recent cases in adults, and had seen another specimen in the Museum of the Royal College of Surgeons.—Dr. CARRINGTON had also found it to be not a rare affection in adults, and had looked upon the uterus and Fallopian tubes as one of the special tracts in which tubercle appeared.—Dr. W. B. HADDEN had frequently seen a tubercular affection of these organs in adult cases of phthisis; in the early stages, they appeared to be lined by a slaty adherent material; this was replaced later by an inspissated purulent material.—Mr. MARMADUKE SHEILD thought that caseous disease of the Fallopian tubes was not uncommon in adults, but that it was not safe to assume that the process was always a true tubercular process.—Dr. PERCY KIDD had found this tuberculous process not uncommon in the Fallopian tubes in adult cases, but very rare in the uterus.—Dr. GOODHART said that, on going over the records of the necropsies he had made at Guy's Hospital during ten years, he found he had met with seven cases of tubercular disease of the Fallopian tubes. Altogether, these tubes were diseased in twenty-six cases; there were twelve cases of suppuration, eight cases of cystic disease, and six cases of adhesion. He believed, on the other hand, that tubercle of the uterus was very uncommon. He fancied that sometimes suppurating cases had been mixed up with tubercular; suppuration was not very uncommon, and was generally connected with syphilis.—The PRESIDENT thought that pyosalpinx was relatively common; he had recorded two or three cases in the *Transactions* of the Society. He observed that the condition might not produce any symptoms to call attention to the uterus.—Mr. SILCOCK said that his experience accorded with that of other speakers with regard to the comparative frequency of caseous disease of the Fallopian tubes in adults, but he believed it to be very rare in children, and it was this that had led him to bring forward the case. He did not think that distension of the uterus was a necessary antecedent of the salpyngitis.

Acute Nephritis.—Dr. HALE WHITE showed the kidneys from the case of a man who was admitted in an unconscious condition, comatose, with stertorous breathing, but without paralysis; the urine was bloody, but though the man had been knocked down twelve days before, no injury could be found. He remained comatose, with occasional convulsions, until he died. The only abnormality observed at the necropsy was in the kidneys, which were bulky, and firm, and weighed together 19 ounces. The pyramids were very dark; there was no evidence of chronic Bright's disease. Projecting here and there on the surface were whitish patches, a little raised, about the size of a split pea; these patches were most numerous in the medullary part. The largest was half an inch in diameter. All had two zones, an outer crenated pale yellow, and an inner dark-brown zone, like breaking down pus. The structure of the kidney around each patch was red and inflamed; this inflamed part was pretty sharply marked off from the healthy substance. The patches in the medulla were triangular, with the apex at the apex of the pyramid, and radiately striated in appearance. The diseased spots in the cortex were circular. The pelvis of the kidney was normal. Microscopic examination showed that there was slight epithelial and interstitial nephritis. The part which, to the naked eye, was abnormal, showed a large number of pus-cells between and in the tubes; the whole had a broken up appearance, portions of tubes being here and there visible among the pus-cells; sometimes this process had extended far enough to form a definite abscess. The great rarity of this condition was pointed out; it was not scarlatinal, there was no history of scarlet fever, there was no pyæmia, and it could hardly be attributed to the injury, nor was there anything to suggest surgical kidney.

Card Specimens.—Mr. Eve: Enchondroma of pelvis; colloid disease of omentum. Dr. C. Turner: Necrosis of renal pelvis. Mr. Silcock: Croupous enteritis of ileum. Mr. John Poland: Ununited fracture of internal condyle. Mr. Jonathan Hutchinson, jun.: Lupus lymphaticus. Dr. Beevor: Nerve-tissue stained by Weigert's new method. Mr. M. Sheild: Tumour of humerus. Mr. Gross: Œsophagus and parts from a fatal case of sword-swallowing. Dr. Hale White: (1) Sacculi of large intestine; (2) cryptorchid (living specimen).

CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 27TH, 1885.

THOMAS BRYANT, F.R.C.S., President, in the Chair.

Locomotor Ataxy, without Disease of the Posterior Columns of the Spinal Cord.—Dr. A. HUGHES BENNETT read notes of this case. The patient during life presented all the prominent symptoms of tabes dorsalis, while after death the posterior columns and cornua of the spinal cord were found without a trace of disease. From this fact, important physiological and pathological conclusions were drawn. The patient, a man, aged 48, suffered from all the usual symptoms of locomotor ataxy, including inco-ordination of movement, without loss of muscular power, a typical ataxic gait, Romberg's symptom, impaired and retarded sensibility of the lower extremities, lancinating pains, and loss of the knee-jerk phenomena. After death, evidences of general acute cerebritis were found, with patches of recent softening. In the medulla oblongata, there was a mass of sarcomatous infiltration occupying its posterior and central aspects; with the exception of one anterior cornu in a limited portion of the lumbar region, the spinal cord was perfectly normal throughout, as were also the posterior cornu, and roots within the circle of the spinal membranes. Outside these, the posterior roots in the dorsal and lumbar regions were found involved in a mass of sarcoma, which extended as far upwards as the cervical portion of the cord. In the lumbar region, the anterior roots were implicated, but only to a very limited degree. Microscopic preparations and drawings illustrating these facts were shown at the meeting. In commenting on this fact, special attention was directed to the pathological and clinical phenomena. It was pointed out that the patches of central softening were probably quite recent, and due to the acute cerebritis, which supervened shortly before death. The sarcomatous growth in the medulla was stated to be a rare pathological condition; and the absence of pronounced bulbar symptoms was explained by the supposition that the morbid material had infiltrated the normal structures, without causing their serious degeneration. Although one anterior horn was implicated, and some of the anterior roots slightly involved in the disease, it was evident that this had caused few symptoms during life, as the motor power was unimpaired, there was no muscular wasting, and the retinal reactions were normal. The clinical point illustrated by this case, to which it was the object of the paper specially to direct attention, was the relation which existed between the spinal symptoms and the lesions in the posterior roots of the cord. It was pointed out that the patient during life suffered from all the prominent symptoms of tabes dorsalis, and presented a fairly typical clinical picture of what was understood of that disease. It was then stated that the universal belief was, that the essential lesion of locomotor ataxy was sclerosis of the posterior root-zones of the cord. In the case under consideration, there was no trace of disease of any portion of the posterior columns, proving that, for the production of ataxy, degeneration of the cord was not an essential factor. Reference was made to the cases published by M. Déjerine, in which there were all the symptoms of tabes, and after death only parenchymatous neuritis of the peripheral nerve-endings found, the cord, roots, and nerves being intact. From this it was maintained that interruption of the different paths at the periphery was capable of causing ataxy in as characteristic a manner as when these tracts were diseased in the cord. The case under notice showed that lesion of a third locality, namely, of the posterior spinal roots, might produce the same effects. It was asserted that this was a pathological confirmation of the experimental researches of Van Deen and Claude Bernard, who, by dividing the posterior roots, induced inco-ordination of movement without motor paralysis. It supported the view that those elements which conveyed the impulses regulating

co-ordination, were situated in the afferent paths of the nervous system. Whatever theory were advanced to explain the physiology of locomotor ataxy, this case served to show that the point at which, in the causation of the phenomena, the nervous path was interrupted, must not of necessity, as was generally asserted, be primarily situated in the posterior root-zones of the spinal cord. Reflection on this fact suggested that the anatomical substratum of that protean disorder which was at present recognised under the term tabes dorsalis, had not yet been fathomed. This assemblage of symptoms probably consisted of a combination of different pathological conditions, many of which were represented by phenomena common to all, and each of which in time might be distinguished. It was possible that a case such as the present might prove a link in the chain of discovery.—Dr. S. WILKS was of opinion that the pathology of locomotor ataxy was still unknown. He had seen cases presenting the symptoms of the affection that had recovered. He did not believe that there always was sclerosis of the spinal cord in cases which presented such symptoms. In some cases, disease of the whole cord and its membranes had been found. Some other causes than atrophy and degeneration of the posterior roots of the cord must be sought for. He thought that the clinical features of the malady had been well worked out, but that the pathological ones had as yet failed. He was of opinion that the present case was only another instance showing the want of further physiological information. A large number of other symptoms than those described were associated with locomotor ataxy.—Dr. ALTHAUS said that, with regard to the inequality of the pupils, the diagnostic points were between locomotor ataxy and paralysis of the insane, in which diseases the pupils were equal. He had found the pupils in the former disease invariably equal. Tabes dorsalis, or locomotor ataxy, usually lasted from ten to twenty and even twenty-five years, the patients dying frequently of some complication. This case was of one year's duration. The indications were probably those of an early stage. Cases of locomotor ataxy lasting for years had apparently recovered, the patients dying of different diseases; and, on *post mortem* examination, entire destruction of the posterior columns had been found.—Dr. TURNER mentioned a case which had presented the phenomena of locomotor ataxy, and in which he had found a distinct tract passing down between the lateral columns, and filled with serous or albuminous exudation separating the nerve-fibres. This patient had died after tracheotomy. He thought that the frequent association of the clinical and pathological features of the disease justified the practical diagnosis.—Dr. BEEVOR thought that, in this case, compression of the nerve-tubes by the fibrous tissue gave rise to the symptoms. The changes in the fibrous tissues were probably primary.—Dr. HADDEN said that, in alcoholic paralysis, marked changes were occasioned in the peripheral nerves. He had found sclerosis of part of the lateral columns in a case which presented marked symptoms of locomotor ataxy.—Dr. BRISTOWE thought this case helped to throw considerable light upon the subject. In the posterior nerves the elements must exist which produced symptoms of locomotor ataxy. He said, in opposition to Dr. Althaus, that the pupils were not unfrequently unequal, and that this inequality was also observed in general paralysis. He had seen cases of undoubted recovery from locomotor ataxy. Such symptoms as headache, giddiness, double vision, straddling gait, profound nausea, paralysis of various nerves, exaggerated tendon-reflexes, had all disappeared one by one, and the patient was now to all appearance well. In all probability, such degenerative changes as those occurring in tabes dorsalis might undergo practical cure.—Dr. WILKS said that many cases of suspected brain-tumour were said to have recovered, in which iodide of potassium had been accredited with their cure, and therefore their existence had been considered certain.

Arrested Rickets.—Dr. SEYMOUR TAYLOR read particulars of this case. The patient, Alexander S., aged 6, came under notice in June 1884. He was the twelfth child out of sixteen, and was born at term. His parents were healthy and temperate. His brothers and sisters enjoyed good health, but two sisters were "knock-knee'd." His mother dated his illness from a fall from his cot when he was a year and a half old. He was subsequently treated by different practitioners for bronchitis, and also "enlarged liver," and there was also at that time history of laryngismus stridulus, and also of profuse sweatings, especially about the head. The child now presented the typical pigeon-breast, with beading of the sternal ends of the ribs. He had a chronic bronchitis. The heart was depressed, and pushed towards the right side. There was no cardiac murmur. He was stunted in growth; the limbs were shortened, with marked curvature of bones; he was "pot-bellied," and the spine was curved to the right; the fontanelles were closed; the os frontis was "prow-shaped;" the girth at the occipital protuberance was $20\frac{3}{4}$ inches. As regarded the causation of the disease in this case, there was a remarkable absence of the recognised influences. He was born and reared in fairly healthy surroundings. His parents were healthy, but his mother had borne children very fast (sixteen births in twenty-two years), but had had no premature nor still-born children. This child was the only weakly one in the family. The injury to the child from a fall was interesting, as showing what might be the starting-point of the disease in a child predisposed to rickets.—Mr. R. W. PARKER said there was nothing uncommon in rickets being arrested. It was the rule for a large percentage to be arrested, and the symptoms to disappear under treatment, or the condition to wear itself out. It was a question whether, in the present case, the disease was not still active.—Mr. SYMONDS agreed with Mr. Parker that the disease was still active. He thought many cases of so-called osteomalacia were probably rachitic.—Dr. MONEY said that osteomalacia was frequently associated with rickets.—Dr. TAYLOR said, in reply, that twelve months ago he was afraid to bend the child's bones, and it was from the fact that the child had improved under treatment, that he had therefore called the case one of arrested rickets. In regard to the treatment, he had suggested shampooing and gymnastic exercises, and in addition cod-liver oil and iron preparations.

Nephrolithotomy.—Mr. CHARTERS J. SYMONDS detailed this case, which was that of a man, aged 50, who had suffered for twenty-four years from left renal pain. The attacks occurred at varying intervals, and lasted from a day to a week. During the last four years, this pain had nearly left him, and his health improved. Seven months ago, micturition became frequent, and, three months later, blood appeared in the urine, in amount sufficient at times to obstruct the urethra by the coagula. Blood generally appeared after working, particularly gardening, and he had a dull pain in the left loin. No tumour could be felt. The case being under Dr. Mahomed's care, Mr. Symonds was called to see him, and it was decided to cut down on the left kidney. This was done on July 11th, 1883, the incision being parallel and close to the last rib. The lower end of the kidney was first isolated, and at once a stone was felt fixed in the commencement of the ureter. The parietes were scratched through with a director, but, on enlarging the opening, the stone fell back into the pelvis of the kidney, which was dilated, so as to leave little renal tissue remaining. Finally, the cortex was cut into, the finger introduced, and the stone removed. Very little bleeding followed. The operation was performed antiseptically, and, by the 20th, the wound had entirely closed. Attention was directed to the importance of isolating the lower end of the kidney first, and examining from the anterior surface, in the way pointed out by Mr. Howse; also the rapid union which followed, notwithstanding the amount of injury inflicted upon the kidney. In the subsequent history of the case, it was stated that, six months later, there still remained some blood in the urine, that the pain still continued to some extent, and it was feared that a calculus existed in the other kidney. When last heard of, November 10th, 1884, the man was free from pain, except when he over-exerted himself. The urine contained pus and some blood.—Mr. BARWELL said the second attack of hæmaturia was very interesting; that did occur occasionally. He thought it would have been well to have removed the kidney at the time, as it was evident that the organ was considerably diseased; it could have been of no service to the patient, and possibly harmful. The operation of removal would not have added to the danger. The pain in the loin, he thought, pointed to further pathological changes taking place.—Mr. SYMONDS, in reply, said he was strongly tempted to remove the kidney. The kidney did not seem to be harmful. It was atrophied, but not actually diseased. He scarcely believed that the pus or blood was derived from the kidney, but probably from some other source, perhaps from the other kidney.

Nephrolithotomy.—Mr. HENRY MORRIS recorded notes of this case. Edward G., aged 24, a jeweller, was admitted, under Dr. Powell, into the Middlesex Hospital on April 10th, 1884, suffering from symptoms of calculus in the left kidney. Since his schoolboy-days, he had complained of pains in his loins; but, in spite of this, he had enjoyed fairly good health until about two years before, when he was attacked by "kidney-complaint." This came on without any assignable cause, and was chiefly marked by pains in the left loin, shooting down at times to his left testicle. For three weeks before admission, these pains had been too severe to permit his working, and he attended during this period at the out-patient department. On admission, he had pain in the left renal region, and tenderness on deep pressure in the left loin. His urine was neutral, of specific gravity 1010, and contained blood and triple phosphates. There was frequency of micturition, though the urine was stated to be somewhat deficient in quantity. Five days after admission, however, it was noted that the average daily quantity of urine voided had been 45 ounces. From April 10th to 25th, the pain was diminished and inconstant; but there

was still tenderness on deep pressure in the left lumbar region. When the pain occurred, there was retraction of the testis. Moreover, the left testis was discovered to be much atrophied. The urine at this time was acid, specific gravity 1024, and contained a trace of albumen due to the presence of pus. After consultation with Dr. Powell, it was decided that the patient should be transferred to a surgical ward for the purpose of undergoing nephrolithotomy. The operation was performed on May 10th, 1884. A calculus was felt by the finger on the front of the kidney, next the inner border and below the hilus. Digital examination of the posterior surface and acupuncture of the kidney had previously failed to detect it. The sensation communicated to the finger by the calculus through the renal substance was simply that of increased induration as compared with the resistance offered by the rest of the kidney. With the finger-nail Mr. Morris scratched through the renal tissue covering the calculus, and thus verified the nature of the induration; then with a bistoury he incised the inner free edge from the posterior surface, and, partly by pushing the calculus with the left index-finger (which he kept all the while in front of the kidney), and partly by the aid of a narrow curette, the stone was dislodged and removed. There was no hæmorrhage of any moment from first to last. A large drainage-tube was introduced into the wound, but not into the kidney; the edges of the wound were held together by sutures; and terebene-oil on lint and a thick layer of cotton-wool were retained over the wound by a tight bandage. The operation was performed at 2 P.M. At 1 P.M., he had micturated for the last time before the operation, and no urine was passed after the operation by the penis until 7.30 A.M. on May 11th, when 15 ounces of lightly blood-stained urine were voided naturally. At twelve o'clock at noon on the same day (May 11th), 9 ounces more were voided, so that 24 ounces were passed naturally in the first twenty-four hours after the operation. The dressings were changed once in the evening of the day of operation, and three times on the following day; but on May 12th, there was so little discharge from the wound, that this frequency of dressing was considered quite unnecessary, and was, therefore, discontinued. Urine had, in fact, ceased to pass by the wound. During the second period of twenty-four hours, the urine was passed as follows. May 11th—2.50 P.M., 4 ounces; 5 P.M., 4 ounces; 10 P.M., 4 ounces. May 12th—12.15 A.M., 5 ounces; 2 A.M., 4 ounces; 5.15 A.M., 6 ounces; 7.50 A.M., 10 ounces; 10.45 A.M., 6 ounces; 1.21 P.M., 5 ounces; making a total of 48 ounces. The urine voided continued to be blood-stained until May 14th. On the 15th, it was neither blood-stained nor did it contain albumen; its specific gravity was 1023, and there were 40 ounces voided in twenty-four hours. On the 16th, the quantity of urea was estimated, and found to be 495 grains in 42 ounces passed in twenty-four hours. On May 17th, the wound was in great part united, and the stitches were removed. The patient had had no pain since the operation, and his only discomfort had been the enforced restriction to the recumbent position. The temperature rose on this day to over 101° (101.8° being the highest). On the following day (18th), and on part of the 19th, the temperature remained just below 100°. With these exceptions, the temperature throughout never exceeded 99° Fahr. Sixty ounces of urine were passed *per urethram*; so that the chief part, if not the whole, of the urine from the left, as well as the right kidney, must have come the proper way. On May 20th, the bowels had not acted since the operation, and therefore an enema was given. This had the desired effect, and the defæcation was unattended by pain; but on May 21st, from the state of the dressing, it was inferred that a little urine had again been discharged through the wound. On the 23rd, the bowels again acted twice, and again a small quantity of urine was thought to have come subsequently through the wound; but the amount so escaping was extremely small. It would seem as if the passage of the fæces along the descending colon caused some disturbance to the wound in the kidney, which, however, must have nearly healed. This interference was the less improbable owing to the situation of the wound in the kidney. Forty-six ounces of urine were passed the natural way; it was of good colour, of specific gravity 1027, acid, and contained no albumen. On May 28th, the patient, who had been on ordinary diet since the 26th, was feeling quite well, and only the track of the drainage-tube remained unhealed. On June 3rd, this track had closed, so that not even a fine tube could be introduced. On June 10th, he got up for the first time. On June 12th, he went into the garden, and there took walking-exercise. He continued to gain strength daily, and was considered to be well, when, on June 26th, at 8 P.M., after taking a good deal of exercise outdoors, he passed urine coloured deeply with blood. At 4.30 A.M. on June 27th, the urine was still more blood-stained than that passed at 8 the previous evening. At 9 A.M., June 27th, the urine was much less mixed with blood; and, on June 28th, 51 ounces of urine were passed in twenty-four hours; it was acid, and of specific gravity 1020, and contained neither blood nor albumen. The bowels had been acting twice a day, so that the hæmorrhage could not have been due to pressure on the kidney by an overloaded colon. No pain, sense of discomfort, or feeling of illness of any sort, attended this attack of hæmaturia. For a few days, he was kept in bed; but there was no return of the hæmaturia; and on July 8th he left the hospital quite well, and with the cicatrix in his loin throughout perfectly firm. On several occasions since (the last being January 1885), he has been seen at the hospital. He had had no return of the hæmaturia, never suffered pain, had been at work regularly since leaving the hospital, and had never felt better in his life than now. The calculus was divided, and Mr. Thomas Taylor had given the following account of its composition. "The half of the calculus which I herewith return consists of a small dark-coloured nucleus of oxalate of lime, upon which has been deposited urate of ammonia mixed with a small quantity of oxalate of lime. This is surrounded by a layer of dark oxalate of lime; and the whole is coated by a thin layer of nearly white oxalate of lime, upon which are deposited, in parts, crystals of pure oxalate of lime."

MEDICAL SOCIETY OF LONDON.

ANNUAL GENERAL MEETING: MONDAY, MARCH 2ND, 1885.

ARTHUR E. DURHAM, F.R.C.S., President, in the Chair.

Report of Council.—The report of the Council, which was read by Mr. A. Pearce Gould, Honorary Secretary, congratulated the meeting upon the prosperity which had marked the one-hundred and twelfth year of the Society's existence. The *Proceedings* of the Society would continue to be published annually. Only one essay had been received in competition for the Fothergillian medal, and the adjudicators had not yet completed their report. The financial position of the Society had been materially improved.

Library Report.—The report of the honorary librarian (Dr. Allchin) stated that upwards of two thousand five hundred volumes, on the subjects of Anatomy, Physiology, Medicine, Surgery, and Midwifery, had been repaired, catalogued, and placed in their respective sections, for easy reference.—The adoption of these reports was moved by Dr. Sewill, seconded by Mr. Davy, and carried.

Votes of Thanks.—A vote of thanks to the retiring President was moved by Sir Joseph Fayrer, seconded by Mr. Goodsall, and acknowledged by Mr. Durham. A vote of thanks to Dr. Wiltshire, on retiring from the position of honorary treasurer, an office the duties of which he had ably discharged during a very anxious period, was proposed by Dr. Theodore Williams, seconded by Dr. Walter Smith, and carried by acclamation. After a vote of thanks to the retiring Vice-Presidents and Members of Council had been carried, a similar vote to the retiring honorary secretary (Mr. A. Pearce Gould) was carried by acclamation.—Mr. Gould briefly replied, and expressed his obligations to Mr. Poole, the resident librarian.

Diet in the Febrile State.—Dr. ALLCHIN read a paper on the management of diet in fever. He first passed in review the income and expenditure of the body in the normal state, and commented on the method in which heat was produced, almost as it were a by-product, in health. Fever was a general morbid state, of which the most prominent and obvious characteristic was an elevation of temperature; the other forms under which energy is evolved in the body, muscular, glandular, and nervous, were all diminished in fever. The nitrogenous waste was greatly increased, and, as the total nitrogen of the food in the diet of fever was below the normal standard, it followed that there was a waste of the proteids of the tissues; the water of the excreta was increased, as was also the potash. The main source of heat in health was the oxidation of some hydrocarbonaceous material which was in intimate relation with the proteid material of the tissues. The fact that the excessive excretion of urea commenced before the elevation of temperature, showed that they were not in direct dependence. The arrest of the salivary secretion, and of the function of the gastric juice, allowed various decompositions in the food, which all belonged to the septic class, and gave rise to noxious products; to these products, the gastritis common in fever might probably be attributed. Physiological considerations, such as those sketched above, led him to question whether the assumption that fats and carbohydrates ought to be diminished in the diet of fever, in favour of the nitrogenous food, was sound. He was inclined to agree with the opinion of Dr. Parkes that a considerable diminution in the customary quantity of nitrogenous food, and an increase in the quantity of fats, was advisable; he had

advocated the use of cod-liver oil and butter where they could be borne, and an increase in the quantity of amyloid food. The partially digested proteid and amyloid food now available afforded facilities not at the disposal of physicians half a century ago.—Dr. ROUTH advocated the use of inunction to check cutaneous respiration, and so diminish the pyrexia. As to diet, he strongly recommended raw beef-juice made with tepid water, which was very easily absorbed; he estimated that three claret wine-glasses were equivalent to a mutton-chop. He agreed with Dr. Allchin in recommending fats, especially cod-liver oil, in fevers, to supply the waste of hydrocarbons.—Dr. DE HAVILLAND HALL regretted the absence of practical observations drawn from Dr. Allchin's experience. Dr. Dupré had provided an excellent practical receipt for the beef-tea or beef-juice recommended by Liebig. Take 1 lb. of meat, 1 pint of distilled water, from 2 to 4 minims of hydrochloric acid, from 50 to 90 grains of common salt. The meat was finely minced, and soaked in water for one hour; the fluid was then to be strained through a fine sieve, without pressure, and the filtrate made up to one pint; the whole of the albumen was thus extracted. —Dr. T. H. GREEN thought Dr. Allchin's paper gave an excellent summary of the physiological basis for the study of the subject he had taken up, and might afford ground for a special discussion at some future meeting.—Dr. PARAMORE made some remarks on details of diet.—Dr. ALLCHIN shortly replied, pointing out that he had specially advocated the use of the partially digested amyloid foods; and that his paper was intended to serve as an introduction to discussion by affording a summary review of the present state of physiological knowledge of tissue-metabolism, and the destination of foods in so far as regarded the production of heat, whether in health or in disease.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, FEBRUARY 19TH, 1885.

THOMAS MORTON, M.D., President, in the Chair.

Operative Procedures in Cleft Palate, and their Effects upon the Voice.—This paper was read by Mr. J. H. MORGAN. After referring to the gaps still remaining to be filled in our knowledge of the etiology of the deformity, the author inquired whether cases ever occurred in which the surgeon need despair of producing some benefit by operation. Assuming that only partial closure would be obtained, the size and weight of the obturator required would be materially reduced, and its adaptation rendered easier. The wearing of an apparatus previously to operation was denounced on account of expense, and of the damage caused to the teeth, as well as of its ill effect upon the state of the cleft. Partial failure to close the whole opening at a first attempt did not stand in the way of complete success on a second occasion. The period between two and a half and three years was recommended as the most suitable age for operation. The method of dividing with curved scissors the attachment of the soft to the hard palate, and of making long incisions parallel to the edges of the cleft, was advocated as the best means of reducing tension, and as less likely to interfere subsequently with the action of the muscles of the soft palate, and with their function of closing the opening between the nares and the pharynx. An analysis of 25 cases was given; 14 were completely successful, and 10 partially so. One failed altogether on the first attempt, but was dealt with successfully later. The result upon the voice in those cases where attention had been given to proper training was stated to have been most satisfactory, and the necessity of careful and systematic teaching after the operation was strongly urged.—Mr. CARMALT JONES referred to cases where the results, ten years after the operation, were not satisfactory, the soft palate being excessively tense. Such cases supplied an argument in favour of deferring interference until the age of puberty.—Mr. T. P. PICK had performed the operation in a considerable number of cases. Before the introduction of Smith's gag, early operation had been impracticable; it had now become the rule, with the result that the habit of nasal intonation, so difficult to eradicate when once acquired, was generally avoided. Mr. Pick's first patient, operated on at the age of three years, had since been educated as a vocalist. In some cases, however, the dentist's obturator achieved better results than the knife, although the necessity for frequent renewal and the damage done to the teeth were strong arguments in favour of operating. Distinct articulation could be taught by causing the children to strike a board with the finger at each syllable. In every case, the whole palate should be operated upon, partial operations having led to ultimate failure. The first condition for success was complete absence of tension on the sutures; free incisions were necessary, and never did harm.

Cases of Emphysema treated by the Compressed Air Bath.—This contribution was read by Dr. C. T. WILLIAMS. The author, after fully describing the machinery and the working of the compressed air bath in use at the Brompton Hospital, proceeded to give illustrative cases of the specific effects of this agent. 1. A mechanical influence was exerted by the increased pressure on those surfaces of the body which were specially exposed, such as the skin, the aërial mucous membrane, and the conjunctivæ; dilatation of the bronchi, and intropulsion of blood from the superficial veins and capillaries into those of the deeper organs which were protected by bony cavities (skull, spine, thorax, pelvis), were among the mechanical results described. 2. Physiological and chemical effects were due to the increased amount of oxygen inhaled, which showed itself in quickened tissue-change and larger excretions of carbonic acid and urea. With regard to emphysema, Dr. Williams' conclusions were that, by the use of the compressed air bath, (1) cough and expectoration were allayed, and bronchial spasm reduced; (2) respirations were diminished in number and increased in depth; (3) pulmonary distension was relieved, and the active respiratory area increased; (4) a fall in the pulse-rate and a rise in arterial tension were effected; (5) the secretion from the kidney and liver was assisted, and thus derivation from the aërial mucous membrane brought about; (6) lastly, body-weight was increased. Diagrams, pulse-tracings, etc., illustrated the remarks contained in the paper.—Dr. SANSOM expressed his appreciation of the new departure in the treatment of emphysema. He had formerly tried Waldenburg's apparatus, with disappointing results. He was, nevertheless, a believer in mechanical treatment, which he had used in three forms: (1) forced expiration; (2) bandaging the chest; (3) shampooing. Forced expiration could be practised very effectually without the additional aid of the air-pump which Dr. Berkart had recommended, if patients were directed to blow a stream of air through a tumbler, one-third full of water, till they could no longer produce a bubble. This exercise might with advantage be continued for ten minutes, and repeated during the day.—Mr. Frankish, Mr. Cripps Lawrence, Mr. Whitcomb, and Dr. Ewart, also took part in the discussion.—In his reply, Dr. WILLIAMS pointed out that, whereas fifty air-baths were in use on the Continent, only one existed in London and one in the provinces (at Ben Rhydding). It was hoped that arrangements for rarefaction of air would be added to the Brompton apparatus. The immediate effects of a bath passing off within twenty-four hours, a course of at least thirty, and preferably of sixty, baths was recommended. With regard to the question of danger in dilatation of the right cavities of the heart, Dr Williams had observed no ill effects, but a decided amelioration, unfortunately temporary, in the only severe case which he had treated. The main source of danger in all cases was carelessness in effecting a very gradual transition from high pressure to the normal. Workmen could spend hours comfortably under a pressure of five or six atmospheres, but when the pressure had been suddenly reduced in the pneumatic tubes, death had occurred from cerebral and spinal hæmorrhage. The subject of atmospheric pressure in mines was also commented upon.

ACADEMY OF MEDICINE IN IRELAND: SURGICAL SECTION.

FRIDAY, JANUARY 23RD, 1885.

W. COLLES, F.R.C.S.I., in the Chair.

Transplantation of Skin-flaps without Pedicle.—Mr. SWANZY read a paper on transplantation of skin-flaps without pedicle, for the cure of cicatricial ectropion. He reviewed the steps of the proceeding as usually practised, and gave particulars of six operations he had recently performed, four of them being successful, and two unsuccessful. The successful cases were exhibited. In addition to the points generally regarded as important, he drew attention to the following. 1. It was desirable that the wounded surface on the eyelid should be made as extensive as possible, by the dissection of the everted lid being carried to the fullest extent. It was not sufficient, as usually recommended, to carry the dissection only so far as to bring the free margin of the eyelid being operated on into contact with the free margin of its fellow; but the dissection of the lid from the surface underneath to which it was attached should be gone on with until, on reflection, the free margin reached up to or beyond the eyebrow, if it were the lower lid, or as far as or below the infra-orbital margin, if it were the upper lid. The object of this was to provide for the inevitable shrinking which took place in the transplanted flap, so that the ultimate size of the eyelid might not be less, or much less, than normal. This point had not before been mentioned. 2. With regard to securing the flap in its new position by sutures, it would be much better if sutures could be avoided, as they caused suppuration at each point. The author had no experience of Wolfe's method of securing

the flap without sutures. If sutures were used, they should be of fine silk or of fine platinum-wire, and only so many as sufficed to keep the flap in its place. Catgut sutures were not suitable, as they did not hold long enough to enable the flap to become adherent. A large number of sutures were unnecessary, and caused a line of suppuration around the margin of the flap ; but platinum-wire seemed to cause little suppuration. 3. With regard to the dressing, carbolic acid should not be used in any form, being apt to irritate the delicate skin-flap, and increase the liability to peeling off of the epidermis. He did not agree with Wolfe, that the so-called antisepticism "has no place in ophthalmic surgery." In this proceeding, the dressings should be antiseptic, but they should be also non-irritating. Boracic acid and sero-sublimate were among the suitable applications. Finally, he pointed out that where the epidermis had not peeled off the shrinking was slight in comparison with where it came away and where the rete Malpighii had to throw out a new cuticle.—Mr. ARTHUR BENSON considered the communication of importance, not only to the ophthalmic surgeon, but to the general surgeon, since the transplantation of pieces of skin wholly removed from attachment, as carried out by Mr. Swanzy, with a fair average number of successes, was such an advance in plastic surgery, that it might be adopted for many purposes besides that of restoring eyelids. In the late Surgical Society, he had himself read a paper on the same subject, giving the results of eight cases of transplantation from the arms to the eyelids, without pedicle, and with a tolerably fair average of successes, though not so large as Mr. Swanzy had. He asked, as to the failures, whether the lid was made better by the operation, even though the flap sloughed. He also inquired the time of the return of sensation in the transplanted skin. The use of carbolic acid as a dressing he condemned, the effect being to irritate the wound; and he preferred vaseline.—Mr. WHEELER observed that, in the formation of new noses, where the flap was taken from the forehead, sensation returned earlier than when taken from the cheeks, or by Syme's operation.—Mr. STORY remarked that all the nerves had to do where the flap was taken from the forehead was to continue growing, to restore sensibility ; but, when the skin was transplanted from the arm without pedicle, the new nerves had to join on to the skin beneath, and therefore the early return of sensibility was not to be expected. In Mr. Benson's cases, the return of sensibility was exceedingly slow. He asked Mr. Swanzy to state his percentage of successes in the operation. Where the pedicle existed, the operation, if neatly done, was almost invariably successful, whereas the transplantation of skin *en masse* was precarious. Of Mr. Benson's eight cases, only one was a perfect success ; the whole flap lived, and the epidermis peeled off. However, in six out of the eight the results were successful.—Mr. SWANZY, in reply, was mindful that Mr. Benson had anticipated him in the operation. His experience of it was extremely favourable. Of seven cases, two had been complete failures, while the rest were, surgically and therapeutically, complete successes. The two failures occurred in the same patient, and arose from the untimely melting away of the sutures. As a rule, the epidermis came away ; but he did not desire that result, the flap not being unlike the skin of the cheek where it remained, and the tissue underneath had not to go through the granulating process. He did not note the return of sensation, but it did not take place within a week or a fortnight.

Treatment of Flat Foot.—Mr. STOKES read a paper on astragaloid osteotomy in the treatment of flat foot.—Mr. KENDAL FRANKS read a paper on the treatment of flat foot by Ogston's operation.—On the motion of Mr. CORLEY, seconded by Mr. ORMSBY, the discussion on both papers was, owing to the lateness of the hour, postponed to next meeting.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

FEBRUARY 5TH, 1885.

CHARLES OLDHAM, F.R.C.S., President, in the Chair.

Ulceration of Nipple.—Mr. GIFFARD showed a case of, probably, primary syphilitic ulceration of the right nipple, of fourteen weeks' duration, in a single woman, aged 27. The nipple at first resembled a tuberous growth like a ripe mulberry, but had grown smaller as ulceration spread ; this was now ragged, with everted edges and hard base. The axillary glands were enlarged. Maculæ on the skin, sore-throat, and a sore on the vulva, had occurred.

Tuberculous Ulceration of Intestine.—Dr. MACKEY showed a specimen of tuberculous ulceration of intestine from a man, aged 22, ill for more than two years, dating from an acute attack of peritonitis. During the last six months only of life deposit had appeared in one lung.

Operative Treatment of Hæmorrhoids.—Mr. WILLOUGHBY FURNER read a paper on the operative treatment of hæmorrhoids, adopting the subdivision of the bleeding form into (1) capillary, (2) arterial, and (3) venous, which he described. The capillary hæmorrhoid was better treated by application of nitric acid than by astringent injections. The other two forms, if leading only to occasional hæmorrhage in full-blooded subjects, might, perhaps, be better left alone, but, as a rule, required operation. After excluding the presence of stricture, and the patient being anæsthetised (by ether, if very anæmic), the sphincter should first be dilated by the fingers (thus securing a better view, and lessening after-pain), and then the piles ligatured in the usual manner. This operation was fairly satisfactory, Allingham's statistics giving only one death in 620 cases, better than more modern ones, with one exception. The risks of the ligature, namely, ulceration, hæmorrhage, and septicæmia, were still further lessened by the clamp-operation, which he now preferred, and for which he used Benham's instrument. After being strongly compressed by this for about two minutes, the pile could be shaved off without cautery or ligature, any risks from which were consequently saved. Six successful cases treated in this manner were quoted in illustration. The treatment of the ordinary non-bleeding external pile might be either medicinal, or by puncture and abscission.

Hypertrophy of Spleen.—Dr. J. H. Ross read notes of a case of hypertrophy of the spleen occurring in a single woman, aged 30, without apparent cause, and at first without symptoms. From February to April, 1880, she took quinine and bromide of potassium, but, later, passed under another attendant, who thought the tumour ovarian, and took the patient, in June, to Sir Spencer Wells, who confirmed the previous diagnosis of splenic tumour, and recommended removal, as it was growing rapidly. Mr. Bryant concurred, but consent was not given. Arsenic was then recommended and given, till muco-enteritis occurred. In June, 1881, at Worthing, she got violent pain and hæmaturia, and the urine contained pus for some time, and afterwards renal calculi were passed. In 1882, the tumour apparently filled the abdomen, resting on the pelvis. At this time she was much distressed by bronchitis, as previously by a broncho-pneumonia, and, as her pain increased, she had sometimes seven grains of morphia by the skin daily. At the end of this year, ergot was given thrice daily for some months, during which time the splenic tumour began and continued to shrink, but conversely the liver increased until it became the larger of the two organs. At this time, the body-temperature was commonly 103° to 105° Fahr. Microscopically, the blood, in the later stages only, showed increase of white corpuscles. She died of exhaustion in July, 1883. At the *post mortem* examination, the spleen weighed seven pounds five ounces. There were serous cysts on the surface ; the substance was firm, dark, with many bands of fibrous tissue ; there were no adhesions, and it was easily removed. The liver weighed nine pounds three ounces ; there was no amyloid degeneration ; no other glands were enlarged. The right kidney was disorganised, and contained two stones, weighing 130 grains ; the left kidney was normal. A special point of interest in the case lay in the absence of sufficient cause for such an effect, the patient having never lived in malarious districts, unless once for a few weeks in the Thames valley.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THURSDAY, FEBRUARY 12TH, 1885.

J. J. NASON, M.B., President, in the Chair.

Specimens, etc.—Mr. JORDAN LLOYD showed a patient upon whom he had operated for strangulated congenital hernia, occurring with an undescended testicle. Radical cure was performed by excision of the sac, the testicle being excised at the same time.

Mr. JORDAN LLOYD showed a specimen of hydronephrosis removed successfully by operation.

Mr. PRIESTLEY SMITH showed a model illustrating the action of the ciliary muscle in accommodation.

Dr. RICKARDS showed a lung removed at the *post mortem* examination of a case of pneumothorax.

Dr. CARTER showed a large saccular aneurysm of the descending aorta, which had caused death by rupture into the right pleural cavity, no pathognomonic symptoms being exhibited during life.

Scarlatinal Sore-Throat.—Dr. LINE read a paper on the scarlatinal sore-throat, in which he pointed out that, in nearly every case, there was a direct correlation between the body-exanthem and the early appearance of the disease in the throat and palate, by which the after-condition might be prognosed. Local treatment was considered to be of most benefit in severe anginose cases ; and for this purpose, early and frequent syringing of the nostrils with solution of salicylate of soda, common salt, boroglyceride, or chlorine, was the most useful.

The tonsillitis in the third or fourth week of mild cases of scarlatina anginosa was often accompanied with great pain, which he regarded as pyæmic, and not rheumatic. The local treatment of scarlatina maligna and of cellulitis was not at all encouraging.

Entoptic Phenomena.—Mr. LLOYD OWEN read a paper on the clinical import of entoptic phenomena. After defining the term entoptics, he proceeded to describe various entoptical appearances produced by the vitreous body, cornea, crystalline lens, tears, reflections of the eyelids and eyelashes, and margins of the iris. He recognised three varieties of muscæ volitantes: 1, simply physiological, of no importance; 2, the same in aggravated forms; and 3, actual visible floating bodies. He concluded that, while most of these appearances were of no serious importance in themselves, they were often of great importance as indications and warnings of other diseases. The ophthalmoscope was the reliable test of their nature; and if bodies were seen floating in the vitreous chamber, they must be regarded as certain evidences of danger.

A Demonstration of all the principal forms of Pathogenic Microorganisms was then held, the specimens having been kindly supplied by Dr. Barron, of Liverpool.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, FEBRUARY 4TH, 1885.

WALTER WHITEHEAD, F.R.C.S., President, in the Chair.

DR. LEECH (the retiring President) introduced Mr. WALTER WHITEHEAD, who opened the meeting with an inaugural address.

Cholera in Paris.—Dr. H. TOMKINS read a paper giving a brief account of his observations in Paris during the recent outbreak of cholera in that city. The locality in which the first cases occurred was near the Faubourg St. Antoine, one of the dirtiest parts of Paris, overcrowded, and inhabited by the lowest of the populace. No special hospitals were set apart, cholera-patients being treated in separate wards of the general hospitals in various parts of the town. At the Hôpital Cochin, trial was made of saturating the air with ozone; but the results did not appear to have been very beneficial, as 50 per cent. of the cases died here, as elsewhere. At the Hôpital St. Antoine, Professor Hayem had recourse largely to transfusion of a saline solution, using it not only in the worst cases, but also in a large number of the less severe attacks. At the Hôpital Marinier, which was set apart specially for cholera-patients, elaborate arrangements were in operation for destroying all the infective material discharged from the patients, for the disinfection of clothing, bedding, etc. These the author of the paper described, together with the general sanitary arrangements adopted by the health-authorities of Paris for the removal of cases, and the disinfection of houses where cases occurred; and concluded by showing how highly probable it was that the disease would reappear there during the present year.

Further Observations on Creeping Pneumonia.—Dr. DRESCHFELD made some further observations on this peculiar form of pneumonia, which he described in a former paper (BRITISH MEDICAL JOURNAL, 1884, vol. i, p. 906). The disease was characterised by the creeping character of the inflammation, which often commenced at the apex, and gradually passed downwards, first in one lung, and then in the other. The initial rigor, the characteristic rusty sputum, and the sudden crisis, were, as a rule, absent; while cerebral disturbances and complications (such as pericarditis and endocarditis) were more frequently found in this form of pneumonia than in the ordinary pneumonia. This form of pneumonia resembled very much epidemic or infectious pneumonia. Dr. Dreschfeld had recently observed that, in two instances, two members of the same family were attacked, one after the other, with this form of pneumonia. Creeping pneumonia seemed particularly common just recently in one of the suburbs of Manchester; and Mr. Coates had had sixteen cases of this form of pneumonia under his care, almost all the cases occurring in the same street, and in several instances two or more members of the same family were attacked. Dr. Dreschfeld related a case of creeping pneumonia resembling in its course and symptoms very much the case recently described by Sir Andrew Clark, and which evidently belongs to the same type. In the lungs, when examined after death, typical pneumonococci were found in all cases.

Difficulty of Diagnosing Breast-Tumours.—Dr. CULLINGWORTH mentioned, in illustration of the occasional difficulty of diagnosing breast-tumours, a case in which a preliminary incision into a supposed cancer showed it to be nothing more than a large simple cyst of unusually irregular shape. He strongly urged the desirability of making an exploratory puncture, as a matter of routine, in every case before removing the entire gland.—Mr. T. JONES and Dr. DRESCHFELD brought forward similar cases, in which tense abscesses and cysts had been mistaken for solid tumours; and expressed their entire concurrence in the rule of practice Dr. Cullingworth had laid down.

Ovariotomy in a Girl aged 16.—Dr. CULLINGWORTH exhibited two multilocular ovarian tumours, one of which he had removed the same morning from a patient aged 58; and the other, a much larger growth, weighing upwards of 17½ lbs., had been successfully removed, a fortnight previously, from a girl aged 16, in whom the catamenia had not yet made their appearance.

REVIEWS AND NOTICES.

PHOTOMICROGRAPHY: INCLUDING A DESCRIPTION OF THE WET COLLODION AND GELATINO-BROMIDE PROCESSES, TOGETHER WITH THE BEST METHODS OF PREPARING MICROSCOPIC OBJECTS FOR PHOTOMICROGRAPHY. By A. COWLEY MALLEY, B.A., M.B., B.Ch., T.C.D. Second edition. London: Lewis.

IN issuing the second edition, the author has taken the opportunity of altering the name of the book from "Microphotography" to "Photomicrography," correcting a few mistakes in spelling due possibly to careless reading for the press, and adding fourteen pages of description of the preparation of gelatino-bromide plates after the method of Mr. Hartley, of Chicago.

The book contains a large amount of padding on the principles of optics (which would be better found in works on the microscope or optics), together with some crude ideas of the author; but the student will miss useful original suggestions and guidance upon the particular subject of photomicrography. The two photographs of diatoms are fair results by the use of the low or medium powers; but the examples with higher powers, as those on Plate II, are very faulty; there is even considerable doubt as to what the print of bacillus anthracis represents, while the scales of Argus and the other objects have been better done twenty years ago by Woodward, Maddox, Abercrombie, and others. The author has evidently been at considerable pains in producing the book; it is expensively got up, but his instructions are laboured and diffuse. There are numerous contradictions and still some errata. "Mr." Woodward should be "Dr.;" "sine" is put for "sign," "screen" for "screw," etc. We are told of the simplicity of the camera-arrangement on page 44, and then referred to Figs. 24, 26, 28, page 46, to understand "why the arrangement is so complicated." The instructions on the use of the achromatic condenser with high powers are not good; and to his want of study on this point, no doubt, the author's unsuccessful effort in photographing the bacillus anthracis is due. The method given for fitting the front of a dry ⅛th on to a French combination leaves little chance of it being optically centred, and, if not, it had better be discarded. At its best, it is but a poor makeshift for a substage condenser. In obtaining photographs under the highest powers, the difficulty of obtaining the focus is one most trying to the patience, and contains the first elements of success; the author, however, gives but few particulars on this point.

The author says, "The focussing screen, which should consist of the finest patent plate (oiled), must be carefully adjusted, to occupy exactly the same position as the sensitive plate." On the next page, after stating in a note his disapproval of the use of a white card to focus upon, he tells us, "nothing has yet been found of sufficient surface-opacity and fineness of texture, to take the place of patent plate.' Surely the author cannot conceive clear oiled patent plate to possess a surface-opacity and fineness of texture. Though not distinctly stated whether clear or *roughened* patent plate should be used, we conclude the latter is the medium to be selected. In the note attached to these particulars is a remark in parentheses: "(anyone can photograph with the ¼);" this is not to be disputed; no doubt anyone can who has given his time to it, but we cannot congratulate the author upon his productions on Plate II, whichever objectives were used.

In his processes, the author gives some of his formulæ in litres and grammes, and others in grains and ounces; and it is difficult to understand why, except that he may have taken them from various sources, in which case he should have stated from whence he had extracted his formulæ. Dr. MALLEY, in describing the development of dry plates, claims for his process that it is on a different theory from those developers used by dry plate factories, the claim being that he suits his developers to the exposure. Dr. Malley cannot have much practised the wet process, or he would have known that this is just the difference between the two processes; that, in the wet process, all, or nearly all, depends upon the exact exposure; whilst in the dry or gelatine process all, or nearly all, depends upon the exact

development; and that, in the latter, the development is regulated by the respective quantity of bromide and ammonia; this is recognised by all workers in both processes. A statement is made that, with artificial lamplight and the $\frac{1}{25}$th objective, photomicrographs of microscopic objects can be taken in five minutes, having a magnification of 1,000 to 5,000 diameters, which will bear enlargement to 50,000 diameters before the finest details become visible to the naked eye. We should be very pleased to see a proof of this statement done by the author, as this would go far to show the great utility of the present form of optical lantern for class demonstration by the use of positives on glass made from such negatives. They would thus offer a means of elucidating to an audience some of the more important points delineated by the microscope. Unfortunately, the author is silent upon the method of obtaining such positives by the Beechey or other process. This is to be regretted, as the optical lantern is now becoming one of the principal methods of showing to classes many of the important points in microscopical studies.

Our review may seem hypercritical to some, but it is naturally expected of those who write as teachers to be fully acquainted with the subject of their work, and to state all details in a careful, simple, and concise manner. Unfortunately, on each of these points the author's work shows marked deficiency.

THE MEDICAL STUDENT'S MANUAL OF CHEMISTRY. By R. A. WITTHAUS, A.M., M.D. London: Sampson Low, Marston, Searle, and Rivington.

THIS work is decidedly original in its conception and plan. The object of the author is to enlarge only upon such portions of chemistry as are of special interest to the medical practitioner. Physiological chemistry, and toxicology, and the chemistry of hygiene are dwelt upon; but the book can hardly be said to treat of "therapeutics," since only the toxic effects of drugs are mentioned, whilst medicinal action is altogether ignored.

Part I is introductory, and, though confessedly brief, gives a clear account of general principles which are essential to the proper understanding of the subject.

Part II, called "Special Chemistry," deals with the properties of the various elements and their compounds. Dr. WITTHAUS introduces a new classification of the elements; the element carbon being followed immediately by a description of organic compounds generally, in the midst of which carbonic acid and carbon monoxide appear unexpectedly.

Analytical details, particularly such as are necessary in medico-legal investigations, are very carefully and thoroughly given throughout. The diagrams of apparatus, etc., are excellent, and much useful information is embodied in the form of tables.

Part III consists of a few brief but concise directions for the guidance of the student in commencing quantitative chemical analysis.

Finally, there are very good schemes for qualitative analysis of calculi and of inorganic soluble compounds.

If the medical student were in the habit of reading works on chemistry for the purpose of becoming practically acquainted with the subject, or, indeed, for any purpose other than that of getting sufficient knowledge to enable him to pass an examination, this book might be recommended to his notice; but, from its very originality, it is not the kind of work from which examination-knowledge is to be culled, at all events by the average medical student. Of course the facts are here, but not in the usual stereotyped form.

Until, therefore, the old lines of thought are obliterated, and the teaching of the schools remodelled, Dr. Witthaus' work will be rather valuable to the teacher than to the taught, at all events in this country. Indeed, the manual can hardly be looked upon as educational in the highest sense. Whatever may be the weaknesses of the present system of classification adopted in the chemical literature of our day, it has, at all events, this advantage, namely, that it allows the introduction of the various elements to the student's notice, in such a way that what has gone before prepares the understanding for what is to follow; and in all standard works the highly complex and varied compounds produced from organised beings (organic chemistry) are the last to be explained, when the student is supposed to have mastered the simpler phenomena connected with the inorganic world.

However scientific, on the other hand, may be the classification of Dr. Witthaus, it is weak just where the old method is strong, since it inserts the subject of organic chemistry between the non-metallic and metallic elements; so that, if the student follow the order of the book, he will be introduced to the study of organic acids, without any previous acquaintance with the properties of lead and its compounds; and to that of the organic bases, while still in ignorance of the metals, zinc, mercury, and platinum, and their salts.

Of course the student might be instructed to read the organic part of the book last, but that presupposes oral instruction, of which in some cases the manual has to supply the want.

Nevertheless, there is no fault to find with the facts and principles, which are undoubtedly sound, and judiciously selected for the use of the medical profession.

ELEMENTS OF SURGICAL DIAGNOSIS. By A. PEARCE GOULD, M.S., M.B. Pp. 584. London: Cassell and Co. 1884.

WE have examined this manual carefully, as being on a subject of more than usual importance, and requiring to be written upon by a teacher of more than usual power as well as of large experience. Surgical diagnosis includes the whole range of surgery in its clinical aspect; and we recognise that clinical surgery, in the wards of our hospitals, is generally too unsystematic to be as valuable as it should be to students. A manual on this subject may, then, help the teacher as well as the student, and it ought to be of immense value to the busy, but scientifically minded, practitioner.

These considerations make such a manual as this a responsible and arduous task for even a surgeon of long and large experience, and one not to be lightly undertaken; and we are, therefore, the more pleased to find the work fully meets the requirements for which we feel bound to look. It is eminently practical and thorough, and the author is to be congratulated upon the excellent book he has produced.

One of the difficulties in such a work is to convey to the student the relative value of diagnostic symptoms, and not lead him to expect rare conditions to be found as commonly as the simple ones; to avoid mare's-nests, which a tyro is very ready to find. We are glad to see that the author generally notices what is likely, and what is unlikely, to occur in the way of disease or injury of organs and parts. The language is clear and precise generally, and we are glad to find it is not too dogmatic; and we think the author has wisely avoided much that can be found in general works on surgery and pathology, for he fills a compact volume of five hundred and eighty-four pages, of which only twenty-five are introductory. These introductory remarks are valuable, and, as they are intended for commencing students, would bear simplifying in their language in places.

The chapters on the Diagnosis of Injuries of Regions are particularly good; those on Fractures of the Limbs being just what both student and practitioner will find useful. The author gives eight chapters on the General Diagnosis of certain Pathological Conditions affecting any parts, before considering the Diagnosis of Disease regionally. This is also thoroughly and practically done, and we find but little that is open to criticism. The chapters on Regional Diagnosis include useful instructions on the proper methods of examining. But the author avoids, and perhaps wisely, the details of the chemical or even microscopical examination of secretions and tissues, and gives what seems a very limited reference to text-books on such subjects—so limited that it would have been better to omit the names of text-books at all.

Surgical diseases and injuries of the eye and the ear are not included, and only a few remarks on foreign bodies in the air-passages are found, but these are practical. The chapter on the Diagnosis of Joint-Disease is not equal to the others.

The work is certainly an excellent one, and will greatly add to the reputation of the author as a teacher and as a surgeon. Its convenient size makes it readily carried by the student; but we feel that it should be carefully consulted at home after he has seen his cases, and before a second visit. For such reference, the book is not as well bound as it ought to be. And it would be an useful addition to future issues of the work, if a specimen-form for case-taking were introduced, with such other tables as might be useful for reference.

NOTES ON BOOKS.

Proceedings of the Society for the Study and Cure of Inebriety. No. III. H. K. LEWIS.—In this issue, Mr. Lennox Browne has an interesting paper on "Inebriety and Voice-Use." He points out that the abuse of alcohol is a primary cause of several forms of throat-disease, especially of chronic pharyngitis and laryngitis. In such cases, enforced abstinence accelerates recovery. Alcohol is often chargeable with the chronic "dryness of the throat" not at all unusual with vocalists. In proof of the comparatively slight value of alcohol in the treatment of disease, Mr. Browne states that, in the past seven years, 1,016 in-patients have been treated in the Central Throat and

Ear Hospital, with a total expenditure on alcohol of £8 7s. 1d. The author received 380 replies to certain questions regarding the use of alcohol and tobacco from male vocalists. One-third either abstained or rarely took alcohol; 101 of these being total abstainers. Of the non-abstainers, one-third affected malt-liquors, and three-fourths one or other of these, with either spirits or wine; 65 took their stimulants at meals only, and the same number at the close of the day; 26 at supper only; 47 at meals and end of day. Three-fourths of those taking alcohol stated that they never took it as an aid to exertion of the voice. Of the whole 380, 47.3 per cent. were habitual smokers. Of the 101 abstainers, 20 per cent. smoked. A letter from Dr. Magnus Huss, of Stockholm, accepting the office of honorary member, appears in this number, and will be read with much interest, as will also the congratulatory resolutions of the American Association to the younger Society for the Study and Cure of Inebriety.

Die Chemisch-mikroskopische Untersuchung des Harns auf seine Wichtigsten Krankhaften Veranderungen. Zum Gebrauche für Practische Aerzte und Militär-Lazarethe. Zusammengestellt von Dr. O. PUHLMANN. Berlin: Hirschwald. 1885.—This is a very short and practical note-book, containing all that is necessary for the general examination of urine. It is now in its third edition, and it is much improved since its last appearance. What is particularly to be recommended about it is its brevity and accuracy; and even should the reader possess Neubauer and Vogel's *Qualitative and Quantitative Analysis of Urine*, or Leube and Salkowski's recent and particularly able book, *Die Lehre vom Harn*, he will not find the present little treatise out of place, for all its facts are accurately as well as ingeniously combined in tabular form, so that, at a glance, he will be able to find what he wants, and to see the difficulties to be overcome, as well as the errors to be avoided. The first table gives a general account of the properties of urine; then follows a table detailing the modes of procedure for detecting the different forms of albumin, chlorides, earthy phosphates, and uric acid, with all the precautions to be adopted, particularly in the case of the albumins. The methods for detecting the presence of sugar, biliary or blood-derivatives, leucin, tyrosin, etc., are also given very clearly in the same tabular form. Sediments and calculi are next very practically treated, and a very useful table upon the value of urinary examinations for diagnostic and prognostic purposes brings the book to a close. In this last, the alterations in the quantity, specific gravity, colour, smell, reaction, and constituents are associated with the diseases in which they most frequently occur.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

DRIED MEAT-PRESERVES.

NUMEROUS attempts have, for many years past, been made to preserve meat by the simple process of desiccation, and to bring into the market meat-preparations which should contain all the constituents of flesh, possessing any food-value, in as concentrated a form as possible. Lean beef, including no less than 75 per cent. of water, admits of a fourfold condensation of its nutrient constituents, whilst, at the same time, complete removal of all moisture would render putrefactive changes impossible. All these attempts have, however, until recently, proved abortive, mainly because, by oxidation of the fat, and by slight chemical changes in the composition of the fibrine, the flavour of the dried meat gradually suffered, became more or less sour, and objectionable. In this, as well as in other European countries in which meat-desiccation has been attempted on a commercial scale, the high price of fresh meat has been an additional stumbling-block in the way of attainment of this most desirable object, it being generally acknowledged that any process of meat preservation and utilisation which leaves out of account the most important component of flesh, namely, the fibrine, must be uneconomical, and therefore unscientific.

A number of food-preserves lately submitted to us by Messrs. M. Bauer and Co., of 8, Union Court, E.C., indicate a notable advance on anything previously done in this direction. The preparations included dried meat-powder, meat-powder biscuits, meat-powder with cocoa, meat-soups, and "army and navy preserves," all containing, as sole or principal constituent, dried flesh, in a state of fine division. The process followed to obtain this meat-powder is more or less novel. Perfectly lean meat is salted with from two to three per cent. of salt, and deprived, by a preliminary process of drying, at a temperature of about 60° Cent., of upwards of one-half of its water. The temperature of the drying chamber is then raised to that of boiling water, whereby the remaining portion of water is driven away. During the drying at the lower temperature, vapours of sulphide of carbon are allowed to saturate the air of the drying chamber, the strongly antiseptic properties of the bisulphide rendering any bacterial, that is, putrefactive, changes in the meat impossible. No trace of the antiseptic remains in the meat, as at the higher temperature of the subsequent drying it is completely volatilised and removed. The dry meat is then reduced to an impalpable powder, consisting of about 85 per cent. of dry flesh-constituents, 10 per cent. of salt, and 5 of moisture. The samples which we had an opportunity of examining were perfectly fresh and sweet, free from the acid odour and taste of former meat-powders, as well as from the excrementitious flavour so characteristic of extracts of meat. In warm water, the fibre became perfectly soft, and yielded with it an infusion undistinguishable from meat-broth or *bouillon*. The preparation seems to us to possess all the requirements which can reasonably be expected from such an article, and to literally answer to Liebig's ideal, expressed by him in the sentence, "Were it possible to produce at a reasonably cheap price a preparation of meat which would contain in itself both the albumen and extractive matters, such a preparation would be preferable to my meat-extract, for it would contain all the nutritive qualities of the original meat."

Messrs. Bauer and Co. have profited by the failures of previous workers in the same field. They have secured a supply of good lean meat, by entering into contracts with the Roumanian Government, at prices not exceeding those of South American or Australian cattle.

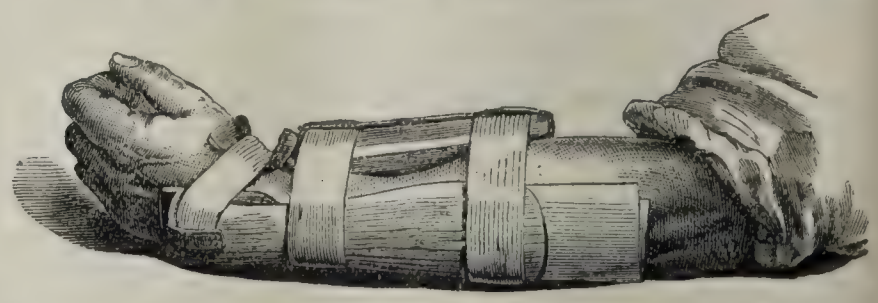
The meat-biscuits contain meat-powder as the predominating constituent. They are, consequently, highly nitrogenous and nutritive; at the same time they are agreeable to the taste, and well prepared. On account of their portability and concentration, they will specially appeal to travellers.

The meat-soups, consisting of meat-powder, pea or bean flour, and rice, fat, and spice, should have an extended application. They are very cheap and nice; for less than sevenpence eight pints of an excellent soup is obtained, a fact which deserves the attention of patrons and managers of the soup-kitchens which bid fair to become connected with our London schools.

The "army and navy preserves," lastly, which are put up in tins, each containing a substantial meal for a working man or soldier, are, as the name implies, mainly intended for military uses. They contain, in the smallest compass, a mixture of vegetable and animal food, containing a sufficiency of nitrogenous and carbonaceous material to supply the requirements of a man doing full work. They are cooked, ready for consumption, and embody the most scientific and successful attempt to answer that exceedingly important and difficult problem, to feed an army, in times of war, cheaply but well, without stint, but without waste. On board ship, and on expeditions, but above all, in our army, these preserves deserve a full and fair trial. The Prussian Government, with its enormous army, and a comparatively slender national purse, has given them its most unqualified approval.

DR. GORDON'S SPLINT FOR FRACTURE OF THE RADIUS.

DR. GORDON'S improved splint for fracture of the radius consists of the body, ulnar and bevelled portions, and a curved back-splint. The lower end of the ulnar portion is curved forwards and hollowed



to receive the inner border of the flexed hand, with a slit for the carpal strap. The bevelled portion is secured to the body of the splint, nearly half an inch internal to its margin; it is applied to the palmar surface of the upper fragment. The lower end of the back-splint is much curved forwards.

LORD LECONFIELD has been elected president of the Sussex County Hospital, Brighton, for the current year.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 7th, 1885.

HUNTERIAN LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

THE lectures on "the Anatomy of the Intestinal Canal and Peritoneum in Man," delivered last week by Mr. Treves, at the Royal College of Surgeons, demonstrate the absurdity of a prevalent idea that human anatomy is a worked-out science. This notion is not only an error, but an evil, like all other fallacies connected with scientific questions. Science being infinite, its infinity must involve every single problem with which it is associated, and every organ, fibre, or cell, which has to be studied in relation to any such problem. Many years ago, a superficial observer might have flattered himself that, after examining a fragment of connective tissue under the microscope for a few minutes, he henceforth knew all that was to be known about connective tissue. Since that date, we have learnt that the theories then prevalent as to the precise character of fibre and cell have needed modification, and the nature of this tissue is consequently different from what was formerly supposed. The progress of histology, not to speak of the equally or more popular science of pathology, has been almost entirely due to perfection in the use of the microscope, and in the art of preparing microscopic specimens, without which such progress would have been an impossibility. In the case of individual observers, it cannot be doubted that too much importance may have been attached to the instrument, and that staining has led to fallacy. The brilliant results of microscopic research have decidedly seduced many scientific anatomists from their old enthusiasm for naked-eye dissection. The experience of Mr. Treves has shown that much remains to be done, and always will remain to be done, in the dissecting-room, without the aid of any lens, excepting those which are necessary, in the form of a pair of spectacles, should the dissector suffer from a disorder of accommodation.

It cannot be doubted, however, that the great evil involved in the belief that the end of human anatomy has been reached, is an excessive confidence in text-books on the subject. It should never be forgotten that a text-book is essentially transitory in character, being a summary of knowledge brought down to the date of its publication, and prepared in a form suited for instruction. Yet the assertions of text-books are too often held to be sacred traditions. Professor Hyrtl, whose jubilee as a doctor of medicine is shortly to be celebrated in Vienna, has shown in his admirable *Onomatologia Anatomica*, that in the shameful larcenies, as Molière would say, from which the Greeks and Romans suffered at the hands of mediæval anatomists, the stolen articles have often become adulterated, as in the case of *hilum*—often written *hilus*. But when we pass from nomenclature to assertions, the matter assumes its more serious aspect. Mr. Treves has shown that the result of his investigations upon the relations and connections of the cæcum is entirely at variance with the statements contained in anatomical text-books. The account of the cæcum as given in works of anatomy would appear to be very ancient. It can be traced back, by the lecturer, from book to book, through many literary generations; and throughout its long history, it seems to have undergone little or no alteration. It is one of those descriptions, we are reminded, that form a real anatomical property, and that descend from one author to another with the precision of entail. A more fertile source of error could hardly be conceived; yet we are all aware that similar traditions concerning every part of the human body are handed down from text-book to text-book, whilst their incorrectness is overlooked by thousands of good observers and patient dissectors. All of us are apt to forget that, in science, nothing written must be taken for granted.

Mr. Treves has based his lectures upon the careful and systematic examination of one hundred fresh bodies, but has been careful to bear in mind that, without morphology, human anatomy is often unintelligible, and accordingly has studied the viscera of a large number of the lower animals. Some of the lecturer's statistical records are by no means devoid of interest. Thus, the average length of the small intestine in the adult male he finds to be 22 feet 6 inches, and in the female 23 feet 4 inches. The length of the bowel appears to be independent, in the adult, of age, height, and weight, and the ratio between the small and large intestine is not constant. The peculiarities of the proportionate growth of these two parts of the alimentary tract in different stages of childhood are shown to be very remarkable, and the growth of the small intestine seems to be influenced in no small degree by nutrition. Mr. Treves dwelt at great length on the somewhat puzzling relations of the peritoneum to the duodenum, and the true character of the fossa duodeno-jejunalis, which may be irreverently termed the new toy of the anatomists. We have already referred to the lecturer's opinion on the legendary and traditional description of the cæcum. In the hundred specimens which he examined, he has never found the posterior surface of the cæcum uncovered by peritoneum; he has never discovered it to be attached by areolar tissue to the pelvic fascia; and he has not met with one single example of a meso-cæcum. In every instance that he has yet seen, the cæcum has been entirely enveloped on all sides by peritoneum, and has been free in the abdominal cavity. The lecturer also carefully examined the arrangement of the loops of the small intestine, but found that it is impossible to localise their coils so as to form some notion of the part of the jejunum or ileum that would be likely to be involved in the various herniæ on different sides of the body. Another curious fact revealed by Mr. Treves's investigations is the presence in the mesentery of an oval area destitute of fat and vessels very subject, on that account, to atrophy and form a pouch which constitutes the sac of a mesenteric hernia. A hole may form in the atrophied tissue, through which a loop of bowel may become strangulated.

The concluding lecture, which will be shortly published, related chiefly to the remarkable variations of the disposition of the peritoneum in the region of the ileo-cæcal junction, the vermiform appendix,

and the beginning of the ascending colon. If other workers follow Mr. Treves with equal zeal, and, what is more requisite and essential, with equal method, we may predict, without exaggeration, that the text-books on anatomy twenty years hence will have changed almost as completely as have their homologues in physiology and pathology since 1860. It is satisfactory to find that these new discoveries are no mere scientific luxuries, but are certain to prove of value to the physician and surgeon.

THE MANUFACTURE OF WHITE LEAD.

More than twelve months have elapsed since the Factory and Workshops Act (White Lead), 1883, came into operation. It was intended to lessen the dangers to life incident to this industry, but the scant measure of success that has attended it may be learnt from a letter addressed to the daily press, by Mr. D. M. Forbes, medical superintendent of the Shoreditch Infirmary. He states that, during the past year, eleven cases of white lead poisoning, six men and five women, were admitted, and that of these four died. In January, three more were admitted, of whom two have already died. The whole of these were persons employed in one factory. Mr. Forbes remarks that persons of dissipated habits are especially susceptible to the toxic effects of lead; and he considers that, if by higher wages a better class of workpeople could be engaged, the mortality might, with the aid of improved appliances, be greatly reduced.

We fear, however, that such hopes are illusory, and that it is perfectly impossible to divest the Dutch or stack process of its fatal character. When, in 1882, attention was called to the subject by Mr. Redgrave's report, and the occurrence of a number of fatal cases at the factory to which Mr. Forbes refers, we carefully inspected the works in question, and could not but fully confirm the conclusions at which Mr. Redgrave had arrived. He had drawn up a series of recommendations as to the dress, ablutions, etc., of the operatives, by which the dangers might be minimised; but he was compelled to admit that, in one factory where the regulations were even more strict, more so indeed than it would be possible to insist on in an Act of Parliament, the amount of illness was not much less than elsewhere. The fact is, that it is quite impossible to divest the old Dutch or stack process of its dangerous character; and it would not have been tolerated so long had any alternative been available. Numerous attempts have been made to obtain the desired mixture of carbonate and hydrate by precipitation-processes, such, for instance, as the addition of a solution of commercial soda to one of acetate of lead, but the product, generally crystalline, is quite different from the fine amorphous powder known as white lead, and is fit only for rough work.

No special danger attends the casting and handling of the metal, nor the grinding and mixing of the white lead, which are done in the wet way, and visitors to the works will have men pointed out to them who have been for ten or twenty years employed at the mill. The most unhealthy operations are those of taking down the stacks, and detaching the films of white lead that encrust the plates of metal, and the later stage, when the white lead has been ground and worked in water, that of stirring, or carrying the semifluid mass in open pans to the oven, there to be evaporated down to the required consistence. In the former, the air is filled with fine dust, which penetrates the clothes and enters the mouths and air-passages of the work-people; and in the latter, a certain amount of splashing on their hands and dress is unavoidable. Both these operations are performed by women, generally of a low class, who come and go, alternating with work at the lead-factory such casual employments as those of haymaking and hopping. Ill fed, irregular, and dissipated in their habits, they are peculiarly susceptible to lead-poisoning, even when their natural aversion to soap and water is overruled; but this is only a partial explanation of the terrible consequences of their employment. If special clothing be not supplied by the firm, their dresses soon become saturated with the white lead, dry or wet; and if, as in two or three, perhaps, of the best regulated factories, a change of clothes be insisted on, enough of the dust enters their mouths and noses, and is swallowed with the saliva, to produce effects equally grave. It is not from ignorance or apathy alone that they refuse to wear respirators, for the work is laborious, and they feel such obstacles to free respiration simply intolerable. Prudence and foresight are not in their nature, and they prefer to risk the consequences of their freedom from restraint.

The steady and careful workman rarely suffers any greater inconvenience than an occasional attack of colic, relieved by some doses of Epsom salts and a few days' absence from work; but the wretched women, as well as the more careless and dirty of the men, are liable to lead-palsy of greater or less severity, and to a peculiar form of meningitis, accompanied by epileptiform convulsions. The paralysis is best treated by iodide of potassium, and if taken in time is curable, though recovery is always tedious, and often imperfect; but the meningeal affection has not received the attention it deserves. Bristowe and Aitken merely mention convulsions as an occasional concomitant of the palsy, and they are always spoken of in text-books as occurring late in the course of chronic lead-poisoning. This is certainly a mistake; cases have occurred in which convulsions and coma, ending fatally in a few days, have come on without any prodromata beyond occasional colic, and Mr. Corner has reported a case in which there was not even this warning. Whether they are really meningeal, or of the nature of uræmic poisoning, *post mortem* observation only can determine; but that plumbic eclampsia is a form of lead-poisoning distinct from plumbic paralysis, and not seldom appearing as a primary affection, is a fact that should be more generally recognised.

That any industry should be attended by such terrible sacrifice of health and life is a disgrace to our civilisation. We are willing to admit that the various zinc and barium silicates have not yet been found capable of fully taking the place of lead-paint; but, if experience should prove that the white lead now made by Professor Gardner's patent is, as he alleges, in every respect equal to the best product of the old method, we have no hesitation in maintaining that it is the duty of the legislature to declare the stack-process illegal after a limited number of years. Since the white lead manufacture is in very few hands—there are not a dozen factories in the United Kingdom—such a course, which in its principle would not be unprecedented, would involve but little interference with trade; and the greater rapidity with which the new method is conducted would soon compensate the manufacturers for any royalty they might have to pay. In it, electrolysis takes the place of the slower chemical action, and the entire process is conducted in closed chambers, the lead never coming into contact with the hand. It is not a question of reducing the danger, but of rendering what is now the most deadly of employments absolutely free from injury to health.

THE HEALTH OF CONVICTS.

THE Directors of Convict-Prisons have recently published their annual report for the year ending March, 1884. It contains much that is interesting from a medical, and more especially from a sanitary, aspect. There are twelve convict-establishments in England; and, at the close of the financial year, these held within their walls 9,640 prisoners, undergoing sentences varying from "life" (of these there were no fewer than 301) to five years. This number seems, however, to be much under the daily average of the year, which amounted to 9,946, of which 887 were females.

Under the heading "Disposal of Prisoners," we find that there were 100 natural deaths during the year, 2 suicides, and 36 were released on medical grounds; that is, under medical certificate that further imprisonment would, in all probability, directly shorten their lives. If we assume that half those thus liberated died within the year, even then, the death-rate is remarkably low; a fraction over 12 per 1,000. The admissions to hospital, or, at any rate, the number treated, amounted to 4,625, including 56 under the head of "lunatics."

Turning to the classified diseases, the list of which is somewhat elaborate, and might well be condensed for the statistical purposes of a Blue Book, we notice under "General Diseases, A," the columns opposite small-pox, typhus, and enteric fever, are blank—a telling fact for the efficiency of the sanitary arrangements. It is doubtful if any other establishment in the United Kingdom can show such a return. Chest-diseases, as might be anticipated, are the most frequent causes for admission to hospital, and to them are referable the largest share of mortality. Phthisis, including hæmoptysis, comes first, 160 cases with 17 deaths; organic disease of the heart accounts for 15 deaths in a sick-return of 80; chronic bronchitis, including asthma, amounted to 185 cases, but with a low mortality, 11 deaths only being referred to that head. Considering the class of the community from which convicts are chiefly derived, the returns under the respective headings, syphilis, encephalitis, and epilepsy, appear to be low. Dissolute and dissipated lives are generally fruitful in the production of disorders of which these are types; yet the syphilitic diseases do not amount to fifty, and brain-disease and epilepsy to little more than half that number.

Convict-practice does not seem to afford a very wide field for operative surgery. The entire number of operative procedures, not including "minor," were under a dozen, not one apiece for each prison; these fell for the greater part to the three or four large public-works prisons, where accidents are more numerous. However unsatisfactory this may be to the ambitious surgeon, it shows how efficient must be the safeguards surrounding the convict in preserving him from dangers to life and limb to which his more honest fellow-citizen is exposed. Comparing the working hours, as set down in the Report, with those of the ordinary British workman, it is obvious that one element of danger to health, overwork, does not press upon him. With full time for his meals (nearly two hours seem to be allowed for dinner), which are regularly served three times a day, and with a working-day of about seven-and-a-half hours in summer, and of five-and-a-half hours in winter, the convict is not likely to fall a victim to the host of diseases to which a system lowered by improper and insufficient food, hurried meals, and overwork, is liable.

Not the least interesting part of the Report is the recognition of the value of the medical department. "We have taken advantage,' so it runs, "of certain vacancies in the department, to suggest to you that the Female Prison at Woking should be placed under the charge of an experienced medical man, and subsequently that the Invalid Male Prison at Woking should be placed under the same officer. We have no doubt that these steps will have very beneficial results. They are also attended by economy in cost of staff." This is as it should be; we have always advocated the principle that a medical man should be at the head of a medical establishment; under any circumstances, he is the potential agent; and it must always work badly to have, in the same establishment, one man invested with officia authority, whilst the absolute power remains in the hands of another. The common objection, that discipline cannot be intrusted to a medical man, is frivolous; technical education does not prevent administrative ability; and even if some military training were desirable in a semi-military establishment like a convict-prison, an official to correspond to an army non-commissioned officer would be quite equal to the supervision of any duties that might be required of a military nature. We cordially agree with the words in the Report in believing "that these steps will have very beneficial results."

THE death of Dr. M. Popper, of Prague, is announced. The deceased was an active worker in the field of hygiene, and will be remembered by his valuable work on diseases connected with handicrafts and trades, published by Encke, of Stuttgart, 1882; and by his investigations on subsurface water.

THE MEDICAL SICKNESS, ANNUITY, AND LIFE-ASSURANCE SOCIETY.

THE ordinary monthly meeting of the Executive Committee of the above Society will be held on Wednesday afternoon next, at 4.30, at the residence of Dr. Ord, 7, Brook Street, Hanover Square.

ASSOCIATION FOR PROMOTING A TEACHING UNIVERSITY.

WE learn that Mr. John Marshall has been appointed treasurer to the Association for Promoting a Teaching University for London; and that it has been decided by the Executive Committee to ask the members to make a voluntary contribution, not exceeding £1 each, to meet the expenses of printing, clerical assistance, etc.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.

THE corner-stone of the new medical school connected with the Westminster Hospital was laid on Saturday last. The building, which is in the Queen Anne style, is 160 feet long, and has a frontage of 60 feet. The site has been acquired at a cost of £4,600, while the building and fittings are estimated to amount to £10,000.

THE GENERAL MEDICAL COUNCIL AND "BRANCH DISPENSARIES."

AT the last meeting of the English Branch Council, several cases of alleged professional misconduct were made the subject of a report by a special subcommittee. We understand that the majority of these cases were instances of registered practitioners employing unqualified assistants in so-called "dispensaries." The cases have been referred to the Solicitor to the Council, and under his direction will be brought forward at the next meeting of the General Medical Council. It is a matter for congratulation that this subject, which is said to be a growing evil, has been taken up by the Council, and that there is now some prospect that energetic steps may be taken without delay.

UNIVERSITY DEGREES FOR LONDON MEDICAL STUDENTS.

WE are requested to remind the members of the Metropolitan Counties Branch of the Association of the general meeting which is to be held this (Friday) evening, at 8 o'clock, in the Royal School of Mines, Jermyn Street. The report of the Council of the Branch, a summary

of which was published in the BRITISH MEDICAL JOURNAL of February 21st, and a copy of which has been forwarded to every member of the Branch, will be proposed for approval; and it is expected that an interesting discussion will take place. As the subject is one of much professional interest and importance, and the Council of the Branch has bestowed much time and labour on its investigation and on the preparation of the valuable report to which we have referred, it is trusted that members will allow no plea, unless of an unavoidably urgent character, to prevent their attendance.

THE OBSTETRICAL SOCIETY OF LONDON.

ON Wednesday evening, March 4th, the recently elected President of this Society, Dr. J. B. Potter, delivered his inaugural address. He regretted that circumstances had prevented Dr. Gustavus Murray from accepting the presidency, but expressed his hopes that that distinguished obstetrician would be ready to take the chair on a future occasion. Dr. Potter dwelt on the advantages which had resulted from the examinations of midwives instituted by the Society in 1872. The position of a midwife was still highly unsatisfactory; much work had to be done for very little pay, and hence it was not to be a matter for surprise that many were urged to questionable or even criminal practices, in order to make their vocation more remunerative. If midwives were better educated, the public would have more confidence in them, they would be better paid, and general practitioners would be relieved of much fatiguing and hardly profitable labour. Dr. Potter then quoted opinions expressed by Drs. Clifford Allbutt and West on the true scope of specialism. The discussion on Dr. W. A. Duncan's contribution on Extirpation of the Uterus, read before the Society on January 14th (see JOURNAL, February 7th, 1885, page 283) was resumed by Sir Spencer Wells, who did not favour the entire discouragement of the operation, believing that, through the experience of past failures, the present high mortality might be greatly reduced. Drs. Priestley, Hewitt, Galabin, and Edis also spoke, and Dr. W. A. Duncan replied.

THE PREVENTION OF HYDROPHOBIA.

THE report, for 1884, of Mr. Ernest Batt, the veterinary officer of the Brown Institution, shows that the work of the hospital has been efficiently carried on, and highly appreciated by the owners of animals; 222 in-patients and 3,269 out-patients were treated during the year; the majority were horses and dogs. The fact of most general importance was the occurrence of a series of cases of rabies during a short period towards the end of the year; the outbreak has, however, apparently subsided. Dr. Burdon Sanderson, when professor-superintendent, suggested that the leading symptoms of rabies should be printed on the back of dog-licences; some permanent official in the Inland Revenue Department probably resisted this innovation. The suggestion, if brought to the notice of the present enlightened President of the Local Government Board, will, it may be hoped, meet with a better fate; the cost of carrying it out ought not to exceed a few shillings a year. A great deal of ignorance undoubtedly exists with regard to the symptoms of rabies, of the "dumb" form especially, yet the recognition of the disease in its early stage, before the dog has become ferocious or helpless, is of the greatest importance. If the first cases were recognised in their earliest stages, it would be comparatively easy to stamp out a commencing epidemic.

A FEW FACTS FOR ANTIVACCINATIONISTS.

WHILE the deaths from small-pox, last year, throughout the entire German empire, averaged one or two a week, and never exceeded four, there died in Prague, a city of about 270,000 inhabitants, no fewer than eight hundred and twenty-eight persons between January and June, besides four hundred and nine in the last four months of 1883. Between October 1st, 1883, and March 31st, 1884, fifty-six cases, nearly all children under five years of age, were admitted into the Polyclinic Hospital wards, under Dr. Ganghofner. Of these, fifty-two were unvaccinated and four vaccinated, two of the latter, however, not until after infection. Of the fifty-two unvaccinated, 11 (21 per cent.) died; of the vaccinated, none. There is a strong local prejudice against vaccination, with which several medical men, we regret to say, sympathise. Buenos Ayres is a city of about the same size—namely, 287,000 inhabitants; and vaccination is unpopular and not compulsory. While the births in 1883 were close on 11,000, the total number of vaccinations and revaccinations was 8,643. The deaths from all causes were 8,248, or 28 per 1,000; and those from small-pox 1,487, or 5 per 1,000 of the population, and 18 per cent., or nearly one in five, of the total deaths. In Prussia, the mortality since 1875 has been from 0.34 to 3.62 per 100,000 yearly; in Austria, 5.57 to 50.83; in Berlin, in 1882, it was 0.43, and in Vienna, 108.29 per 100,000. Since 1875, not a single Prussian soldier has died of small-pox; in the Austrian army, 10 to 47 per 100,000 annually; and in the French, 2 to 27 have died.

A MEDICAL STUDENT AGED SEVENTY-FOUR.

OUR Berlin correspondent writes: It is not often that one hears of a student of the age of 74 taking a degree at a university. The "bemoostes Haupt" is sometimes to be seen at German universities, but he is generally a man who has spent his best years in idleness. The Nestor of the Berlin students to whom I now refer has been studying at Berlin since 1881, and has just taken a degree as Doctor of Medicine. The Professors addressed him as "Worthy Colleague," the students as "Papakin." In 1833, he was matriculated at Berlin, and studied theology till 1837, and spent his time from then till 1881 as a missionary in South Africa. It had been his wish all his life to study medicine, but pecuniary difficulties stood in his way. Now that he has passed his examination, having worked with all the zeal of a young student, he is going to return to Africa, where he will practise medicine.

TRICHINOSIS IN BERLIN.

WHEN, observes our Berlin correspondent, will the Germans properly estimate the dangers of eating raw ham? An unusually violent outbreak of trichinosis occurred within the last few days in the family of a well known dentist in Berlin. He, his wife, a son, a daughter, his assistant, man-servant, and two maid-servants were attacked; and of these, the wife died, after having suffered intense agonies for several days. It appears that a gamekeeper in the neighbourhood of Berlin had sent them a present of some raw ham, of which they all partook. The meat, contrary to law, had not been examined till the gamekeeper had heard of the catastrophe which had befallen his friends in Berlin, and then it was discovered that a sample from the same stock contained an enormous number of trichinæ. It is said that several other persons who ate of the same meat are suffering from trichinosis. This case has attracted considerable attention.

HIGH MORTALITY AT PRESTON.

AMONGST the twenty-eight large English towns, of which statistics are regularly given in our columns, Preston has recently been pre-eminent for the persistent magnitude of its death-rate. When, week after week, we have to record a rate of mortality often approaching, and not seldom exceeding, thirty-two in the thousand, it is evident that something must be amiss in the sanitary condition of the borough. The Town Council do not seem to be fully alive to the responsibilities of their position; nor, until very recently, has there been any organised public opinion in the place to rouse them into action. This latter defect has, however, now been remedied by the formation of a local sanitary association, which held, on the 9th ultimo, a very successful and business-like meeting, to consider the causes of the high death-rate of the borough. In the course of the discussion, it came out pretty clearly that the scavenging of the town is disgracefully nefficient. Houses appear to be built without due

supervision, and with improper materials. The removal of excrement is imperfect, and the main drains are badly ventilated. Mention was made, too, of the carelessness and ignorance of artisan-mothers in the feeding and rearing of their children; an evil, unhappily, all too common in great manufacturing centres. In the end, it was unanimously resolved that, "inasmuch as the excessive death-rate of Preston is a source of great loss, sorrow, and suffering to the community, and the cause is not sufficiently known, an exhaustive official inquiry into the whole subject should be instituted by the Corporation of Preston without loss of time." But would not this request have been more appropriately addressed to the Local Government Board direct? The Town Council appears to have already frittered away valuable opportunities. Now is the time for action, not so much for inquiry; and nothing would tend to rouse the Corporation to a sense of their duty so much as the threat of an independent Government investigation into their management of the public health of the borough.

THE LABORATORY OF THE BROWN INSTITUTION.

THE Professor-Superintendent of the Brown Institution (Mr. Victor Horsley), in his report to the Committee, states that the laboratory has been actively used for various researches in comparative pathology. Dr. Theodore Cash has continued his researches on the prevention of the action of the poison of splenic fever and tuberculosis by means of certain disinfectants. Mr. G. F. Dowdeswell has made the important observation that, in fowl-cholera and in "Davaine's septicæmia," the organism which is presumably the cause of the disease is identical in the two diseases; he has also made an investigation with regard to the power of the lower animals to resist the influence of the "comma-bacillus" of Koch; the result of this investigation will shortly be published. Dr. Wooldridge, Dr. Angel Money, and Dr. Hrb, as well as Mr. Horsley, have also carried out researches in the laboratory.

LONDON SANITARY PROTECTION ASSOCIATION.

AT the annual meeting of this Association, which was held on February 28th, at the offices, Adam Street, Adelphi, Lord Chelmsford, who took the chair, in the absence from town of the President, the Duke of Argyll, announced that the number of members was now close upon 1,000, having been 887 on December 31st, 1884. This number included about forty medical men, who were members in respect of their own private residences. How many of the other members had joined by the advice of their medical attendants, of course, the officers of the Association could not say; but it was probable that the majority had done so. It was further explained that this was the number of members remaining on the list, and having their houses inspected annually, but did not represent the total number of houses reported upon by the engineers of the Association which, on December 31st, was 1,351. Many of the inspections were made for temporary purposes only, as in the case of certain houses which were occupied for a season, and of others which there had been an intention of occupying, but which, the report being unfavourable, were not taken. The annual report showed that there were now fourteen associations working in the country on exactly the same principles as the London one, and mustering 2,356 members December 31st, and that, in the course of the year, the engineers of the London Association had reported upon the sanitary arrangements of four of the smaller London hospitals, and one large hospital at Chatham. Mr. Timothy Holmes, the treasurer, in presenting his report, which showed the finances of the Association to be in a flourishing state, pointed out the advisability of all hospitals and public institutions having their drainage arrangements inspected by the engineers of the Association, who were young men of intelligence specially trained to this work, at which, by constant practice, they became very expert. Their work was supervised by a consulting engineer of mature age and of high standing in the profession, as well as by a committee of medical men, engineers, and architects, who met once a month. One of the duties of these supervisors was to inquire most rigorously into any complaints which might be made against the engineers. Since the beginning of this year, the Association's engineers had been called upon to inspect a portion of St. Thomas's Hospital, about the drainage of which suspicions were entertained, one of the largest private lunatic asylums in London, and the private residences of the President of the Institute of Civil Engineers, and of two other members of Council of that body.

THE LAW AS TO STEAM-WHISTLES.

IT is not generally known that the law of the land deals with certain noises as nuisances which are prejudicial to health. In our manufacturing districts, steam-trumpets or "bulls," and steam-whistles, are largely used as signals for summoning workpeople to their duties. The noises produced by these instruments make day and night more than hideous to many persons who are acutely sensitive to monotonous and discordant sounds. An Act to regulate the use of steam-whistles in certain manufactories, 35 and 36 Vict., chap. 61, passed August 6th, 1872, contains the following. "Section 2. No person shall use or employ, in any manufactory, or any other place, any steam-whistle or steam-trumpet for the purpose of summoning or dismissing workmen or persons employed, without the sanction of the sanitary authority, and every person offending against this section shall be liable to a penalty not exceeding five pounds, and to a further penalty not exceeding forty shillings for every day during which such offence continues; provided always, that the sanitary authority, in case they have sanctioned the use of any such instrument as aforesaid, may at any time revoke such sanction on giving one month's notice to the person using the same; provided also, that it shall be lawful for the Local Government Board, on representation made to them by any person that he is prejudicially affected by such sanction, to revoke the same, and such revocation shall have the same force and effect as if it had been made by the sanitary authority." Section 3 provides that "sanitary authority" means the authority at the time being empowered to execute the Nuisance Removal Acts, as defined and extended by the Sanitary Act, 1866. In the case of "Horder *v.* Trent Valley Brewery Company," Mr. Justice Chitty, in the High Court of Justice, granted an injunction restraining the use of the whistle so as to cause a nuisance to the plaintiff, notwithstanding that licence had a second time been granted by the local authority, after the first had, on appeal, been revoked by the Local Government Board.

THE MEDICINES PHYSICIANS USE.

SQUIBB'S *Ephemeris* gives an analysis, containing some points of interest, of some observations made by Dr. Wm. P. Bolles, on the prescriptions which he found on the files of three Boston pharmacists. The number counted was 3,726, which were pretty generally from physicians of that city. The number of articles entering these prescriptions was 504, the whole number contained in the *United States Pharmacopœia* for 1880 being 994. Of the 504, 236 occurred 5 or more times; 157, 10 times; 80, 25 times; 27, 50 times; 9, 100 times; 1, 200 times. Sulphate of quinine headed the list, and was found in 292 of the 3,726 prescriptions; sulphate of morphia in 172; bromide of potassium in 171; iodide of potassium in 155; tincture of chloride of iron, 134; subnitrate of bismuth, 133; glycerine and syrup together, 120; syrup, 108; carbolic acid, 92; extract of nux vomica, 87; paregoric, 80; bicarbonate of soda, 77; calomel, 72; chlorate of potassium, 71; compound tincture of gentian, 67; lime-water, 65; and so on down. It will thus be seen that, of the 994 articles of the *Pharmacopœia*, only 18 occurred more than 65 times in 3,726 prescriptions; and of these 18, three are vehicles or adjuncts which are in such common use as to bring their numbers into prominence. Dr. Squibb regards it as surplusage of a very useless kind to have a drug in substance, in abstract, decoction, infusion, extract, fluid extract, and tincture. He says the individual habits of physicians are the caus

of much of this surplusage. One of the remedies for this evil he points out as follows. "The individual preferences of physicians are largely prejudices adopted from teachers in the schools, and, therefore, if the schools would but reason upon the subject, and direct only the best preparation of each drug, a needed reform in the *Pharmacopœia* would soon follow, and the pharmacists' supplies would be much fresher and more trustworthy." Some means of simplifying the art of prescribing, and excluding by common agreement superfluous preparations from occasional use, would be a great advantage to patients, physicians, and pharmacists.

THE WATER-SUPPLY OF LINCOLN.

THE Town Council of Lincoln are still in tribulation as to the water-supply of the city. Certain of the councillors appear to be of opinion that the difficulty will be solved by ordering an indefinite number of samples to be chemically analysed. The Local Government Board have, however, now stepped in, and have pointed out the importance, in forming an opinion as to the wholesomeness or otherwise of a water, that regard should be had not alone to a knowledge (however complete) of the chemical ingredients of the water, but further to a full knowledge of the source and of the local conditions by which the water is liable to be affected. As Dr. Buchanan well observed in his annual report for 1881, "we must go beyond the laboratory for evidence of any drinking water being free from dangerous organic pollution." Having in view these considerations, the Board have suggested to the Urban Sanitary Authority that they should procure from their medical officer of health a report on the subject after a complete examination of the several sources of the water-supply, with specia regard to the possibility that in some case there may be pollution capable of prevention. This report is understood to have been ordered by the council, and to be now in preparation by the health-officer.

DRUGGISTS' CHARGES.

THE *Canadian Pharmaceutical Journal* for February reports the results of an attempt to determine the relative charges of druggists in the principal European States and in Canada, by sending the same prescription to leading houses in the chief cities. Looking at the figures broadly, they do not admit of very close scrutiny. It would appear that France is the country in which dispensing druggists charge the highest prices; while in Belgium the rates are at the lowest point. Prussia stands nearly as high as France, and England next on the list. When, however, we come to look into the matter, it is manifest that comparison is impossible, because the inquiry was not so carried out as to elicit trustworthy data. For example, it may be noted that "the French prices are those of a first-class house, in a fashionable quarter, while the Belgian prices are those of the sick-club." Obviously, is is idle to waste words about figures so collected. In proof of the way prices differ, even in the same city, it may be recalled to recollection that, some years ago, a prescription was sent round, without remark, to druggists in different parts of London, and dispensed, the prices asked being in each case paid without comment; and these ranged, among fifteen establishments, from three shillings and sixpence to only five pence! We are not of those who think that druggists should be underpaid for their skill in dispensing, as well as for the drugs they compound; but it would be desirable if something like an agreement could be arrived at by the druggists themselves as to the scale of their charges, so that, while the poor are supplied at reasonably low rates, the middle and well-to-do classes may not be overcharged.

ANILINE DYES.

SOME weeks ago, a discussion arose respecting the hurtful properties of many aniline dyes when used for staining articles of dress and house-furniture. We then referred to the intermixture of arsenic with the aniline colour as probably blamable, in part at least, for the faults attributed to the latter. A paper read by M. Napias, before the Paris Society of State Medicine, on November 26th, has also an important bearing on this subject. M. Napias has found that workers in artificial flower-making, who use a large quantity of aniline dye, are apt to suffer from symptoms of lead-poisoning. This is particularly true of those who use "geranium-red," by means of which a carmine hue can be obtained at a fraction of the cost of that derived from cochineal. Geranium red is an eosine lacquer, containing twenty per cent. of lead. It is, therefore, easy to see how the air of a workroom may quickly become poisonous to a dangerous degree by being laden with particles of this nature. M. Napias further alludes to the lesser troubles of the nature of coryza which arise from the inhalation of eosine-dust, and which are due to the bromine contained in it. Erythemata also are apt to be produced by the manipulation of this substance, as of others like iodine, which are not dangerous poisons in the ordinary sense; and such eruptions are ascribed by this observer to the nitrogen in the aniline colour. These lesser evils, of course, are dwarfed in the presence of lead-poisoning. As a remedy for the latter, M. Napias recommends the substitution of alumina for lead, since the former gives a similar dye without the risk of injury to those who handle it.

THE CASE OF DR. BRADLEY.

WE have received from Sheffield a printed copy of a memorial addressed to the Home Secretary by members of the medical profession in that town and in Rotherham, calling his attention to the case of Dr. Bradley, and asking him to exercise his prerogative. The grounds on which the memorial is based are elaborately and clearly stated in a document which, with the memorial, and exclusive of signatures, occupies four printed pages of foolscap paper. Among the signatures are those of the medical staffs of the Sheffield General Infirmary (headed by Dr. Martin de Bartolomé), of the Sheffield Public Hospital and Dispensary, of the Jessop Hospital for Women, of the Children's Hospital, of the South Yorkshire Asylum, and of the Rotherham Hospital; and also of numerous other practitioners in Sheffield, Rotherham, and the neighbourhood, making in all ninety-six. The brotherly feeling and energy displayed by the medical men of Sheffield on behalf of an injured member of the profession are highly gratifying; and we hope that their able and temperate memorial, and that of the profession in Birmingham, supported as they no doubt have already been, or will be, by similar memorials from other towns, will speedily have the effect at which they aim—the removal of a grievous injury.

LONDON RAIN.

SOME years since, Dr. Angus Smith made a series of experiments on, or rather analyses of, the rain that fell in large cities, and in the country, when he proved that it contained a larger quantity of sulphates, chlorides, and ammonia in towns than in the country, and that in manufacturing places, where chemicals were largely made, the rain was somewhat acid. Dr. W. J. Russell, of St. Bartholomew's Hospital Medical School, has lately repeated the experiments, and with similar results as regards London rain. He points out the purifying effects on the air of rain, by the removal of the sooty particles, saline matters, and other foreign substances, and that the first portion of the rain contains more of these than the last. The beneficial effects of rain as regards the removal of these matters is, however, not confined to animals but extends to vegetable life, as the saline matters are useful for vegetable growth. This is the more important, as summer rain contains more salts and ammonia than winter rain; in consequence, it is believed, of the decomposition of animal and vegetable refuse being more rapid in summer than in winter. In the rain-water of Manchester, Dr. Smith found in the month of March as much free and combined sulphuric acid as 7.35 grains per gallon, and about one-tenth part of this amount of hydrochloric acid. In London (Guy's Hospital), the amount of sulphuric

acid was 1.47 grains, and of hydrochloric acid 0.17 grains per gallon. At Hampstead and Poplar, the quantity of sulphuric acid was the same, but that of hydrochloric acid was less than at Guy's Hospital. The amount of ammonia was larger, however, at Guy's Hospital than at suburban places. The average quantity of sulphuric (combined) in English country-places was only 0.25 grain, and of hydrochloric 0.36 grain per gallon ; in Scotland, even still less of sulphuric and a little more of hydrochloric acid. The analyses of Dr. Russell show a greater difference between the amount of saline matter in the city and suburban rain than Dr. Smith found, probably by the extension of building, and consequently larger area over which air travels before it reaches the heart of the city.

INTEMPERANCE AND PAUPERISM.

THE relation of intemperance to pauperism was the subject of a conference of relieving officers of the metropolis, called by the National Temperance League, held at Exeter Hall on Saturday last. Mr. S. Morley, M.P., who presided, stated that, as a member of the Royal Commission to inquire into the housing of the poor, he did not hesitate to say that drink lay at the bottom of very much of the misery which existed at the present moment. So impressed was he with the importance of this drink-question, that, when he retired from parliamentary life, as he intended to do at the next dissolution, he was resolved to devote himself to temperance effort among the people, and to try to persuade them to follow his example and become abstainers. A large number of relieving officers addressed the meeting, and there was unanimity on the point that drinking largely increased pauperism, though the estimates differed. Several of the speakers also said that drink was the main cause of lunacy. There was general unanimity as to the absence of teetotallers from the books of relieving officers ; one speaker said that, out of 21,000 applications, he had only known of two proceeding from total abstainers.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

As announced in the JOURNAL last week, a deputation of the Association of Fellows of the Royal College of Surgeons met the Committee of Council on Charters and By-laws on Tuesday last, March 3rd. The deputation consisted of Messrs. G. Pollock, Willett, Norton, Davy, Macnamara, Jessett, W. Barnes, John Couper, Tweedy, and Mr. John H. Morgan, Secretary. All the members of the Committee of Council were present, Sir James Paget presiding. The various recommendations of the Association were read, and the report which the Committee had furnished to the Council was also discussed. A full epitome of the recommendations will be found in a leading article on "The Royal College of Surgeons and its Fellows," in the JOURNAL of January 3rd. The members of the deputation gave their reasons for framing the recommendations, and their views as to the alterations in any future charter were expressed, the various subjects being freely discussed on both sides. The meeting lasted upwards of two hours and a half; and although, of course, it remains to be seen how far the views of the Council upon the various important questions discussed may be altered, it is highly satisfactory to learn that there is no doubt that every consideration will be given to the objects of the Association.

FURTHERANCE OF REVACCINATION.

THE North-Western Association of Medical Officers of Health, whose energy and resource must be pretty well known at the Local Government Board by this time, have recently addressed a petition to Sir Charles Dilke, praying for further encouragement and facilities for the revaccination of adults. Referring to the still considerable mortality from small-pox in some parts of the kingdom, the memorialists remark that efficient vaccination of infants, and revaccination of adults, would prevent this mortality. While fairly satisfactory regulations obtain for securing the efficient vaccination of infants, no adequate steps have yet been taken to secure the revaccination of adults, though the usefulness and expediency of the revaccination of adults is already recognised by many Government departments; military and naval recruits, Post-office *employés*, etc., being required to submit to the operation. The memorialists are of opinion that the principle thus admitted is capable of legitimate extension by making proof of vaccination a qualification for all Government employment, and by making revaccination compulsory on all adults residing in premises which may become infected with the contagion of small-pox, and on all adult applicants for poor-law relief. The fee at present allowed for successful revaccination is not sufficient to excite any interest in the performance of the duty on the part of the public vaccinator, and does not fairly repay him for his expenditure of time and trouble. Efficient revaccination would be promoted and encouraged by furnishing to all legally qualified medical practitioners, on request, an ample supply of calf and humanised lymph. The memorialists ask, therefore, that the Local Government Board will "consider the slight encouragement at present given for the promotion of revaccination," and will take such steps as the Board may deem desirable for increasing and furthering the practice of revaccination. The prayer of this petition is, perhaps, open to criticism on the score of indefiniteness ; but with its object, all who are concerned in the administration of vaccination and the stamping out of small-pox will cordially agree.

NOT LICENSED TO RETAIL DISEASE.

AT a recent meeting of the Islington Board of Guardians, the clerk reported that the number of small-pox patients from the parish in the hospitals of the Metropolitan Asylums Board was 170, as many as 29 cases having been admitted during the week. It was stated that a considerable number of cases had been traced to a potman at a small public-house, who served behind the bar, and delivered beer at the houses of customers, while actually suffering from the disease. The board have already closed two public-houses, as well as the Angler's Gardens Board School; and have resolved to issue a circular calling attention to the importance of vaccination and revaccination. But sanitary measures, however wise and prompt they may be, are heavily handicapped by such criminal negligence or melancholy ignorance on the part of individuals as is disclosed in the case above quoted.

FEVER AND SMALL-POX IN LONDON.

THE returns from the fever and small-pox asylums under the Metropolitan Asylums Board, laid before the managers on Saturday, showed a decrease of small-pox patients, and a steady increase of fevers of the three classes, scarlet, typhus, and enteric. During the fortnight, 78 fresh cases had been received altogether, more than half of these in the Eastern asylum, showing that the crowded parts of the metropolis still suffered the most. In the four weeks, eight patients had died, and 47 had been discharged, leaving 408 under treatment. Of these, 39 were in the South-Western asylum, 231 were in the Eastern asylum, 36 in the Western asylum, 55 in the South-Eastern asylum, and 47 in the North-Western asylum. Of the 408 under treatment on Saturday, an increase of 21 upon the number left a fortnight ago, 313 were scarlet fever cases, 21 were typhus cases, and 74 enteric fever cases. Of the whole number of typhus cases, which were all confined to the southern side of the metropolis, 16 were in the South-Eastern asylum, and afford conclusive evidence of the evils of overcrowding. The small-pox returns show that 347 patients had been received in the fortnight, as against 481 the previous fortnight. During the two weeks 55 patients had died, and 432 had been discharged recovered, leaving 1,097 under treatment, against 1,240 a fortnight ago. Of the whole number left on Saturday under treatment, 669 were in the Darenth Camp, where there had been no mortality, 275 were on board the hospital-ships, where 25 deaths had occurred, while 113 were in the six suburban asylums of the metropolis.

SCOTLAND.

BRITISH ASSOCIATION IN ABERDEEN.

At a recent meeting of the local executive committee, held in Aberdeen, various local committees were appointed in connection with the forthcoming meeting of the British Association. Colonel Farquharson, of Invercauld, has made a magnificent offer to the local committee. He invites members of the Association to visit Invercauld, and to travel to Ballater by special train, and thence past Balmoral and Abergeldie, and up Deeside by coach to Invercauld. The gallant colonel is to pay all expenses connected with the excursion.

DEPARTURE OF PROFESSOR OGSTON FOR EGYPT.

Professor Alexander Ogston, of Aberdeen, left London on February 27th, for Suakim, travelling *vid* Brindisi. Although it had been intimated by the War Office that no civilian surgeons are required, still Professor Ogston has been permitted by the authorities to go to the scene of the war-operations. Dr. Ogston pointed out that in Aberdeen he had to teach students, many of whom entered the Army Medical Service, and that it was advantageous for all parties that he should make himself acquainted, practically, with military surgery. Dr. McKenzie Davidson is to deliver the lectures on surgery for the remainder of the session.

ROYAL MEDICAL SOCIETY OF EDINBURGH.

The annual dinner of the Royal Medical Society of Edinburgh was held on February 26th, and was presided over by the Senior President of the Society, Dr. D. Noel Paton, while Dr. J. Hay Ferguson was croupier. The usual celebrities were present, and the evening was spent pleasantly. The occasion was notable, however, for this reason, that the new Principal of the University, Sir William Muir, made his first public appearance; and, in replying to the toast of the University, he spoke in eulogistic terms of the tercentenary.

UNHEALTHY HOUSES IN EDINBURGH.

There is an ancient low-lying village, which is quite surrounded by modern Edinburgh, called the Water of Leith. As there was good reason to believe that the village contained many unhealthy houses, the medical officer of health for Edinburgh presented two full reports on the subject to the Public Health Committee of Edinburgh Town Council, in which he dealt with the unsatisfactory condition of no fewer than thirty houses. The Committee resolved that the owners should be called upon to show cause why the houses should not be declared unfit for human habitation; there was only one exception made in dealing with the proprietors of these thirty houses. The same vigorous action was also taken with regard to certain unsanitary houses in Cowgate and Canongate.

EDINBURGH ROYAL INFIRMARY AND INFECTIOUS DISEASES.

A week ago there was a report in the Journal of the action of the committee of the Court of Contributors to the Edinburgh Infirmary, regarding the treatment of infectious diseases by the infirmary. Since then, the recommendation of the committee has been adopted by the managers of the infirmary, and notice has been sent to the Town Council that in future, subsequently to July 1st, the Corporation will be expected to provide accommodation and treatment for infectious diseases occurring in Edinburgh. At the meeting of managers at which this resolution was adopted, there were only two dissentients, and these were the representatives of the Town Council, who, naturally enough, looked less approvingly on the proposal than the other managers. At a meeting of the Public Health Committee of the Edinburgh Town Council, held on Tuesday, the resolution of the Infirmary managers was under consideration. Considerable discussion took place on the subject; in the meantime, however, it was agreed that the legal aspects of the question should be considered by the legal advisers of the city. So far as the organs of public opinion in Edinburgh have referred to the matter, the action of the managers is approved; and, as regards the legal aspect of the question, while it is proper that only that which is right and lawful should be done, it is well to remember that the chairman who signed the report was not only an eminent lawyer, but also one of the judges of the Court of Sessions.

IRELAND.

DEATH OF MR. MARCUS EUSTACE.

We regret to announce the death, in his 54th year, of this gentleman on Sunday last. Mr. Eustace was a Fellow of the King and Queen's College of Physicians in Ireland, and was the part proprietor, with his brother, of the two principal private lunatic asylums in the vicinity of Dublin.

PAYMENT FOR INSPECTION OF LABOURERS' DWELLINGS.

Boards of guardians have heretofore refused adequate compensation to medical officers of dispensary districts for services rendered by them in inspecting labourers' dwellings and sites for labourers' cottages, under the Labourers' Act, Ireland; but last week the matter was decided in the Supreme Court of Judicature. The case, which was a test one, undertaken at the instance of the Irish Medical Association, was, for the third time, brought forward by Dr. Rogers, against the Guardians of Youghal Union. The Court of Appeal unanimously decided that medical officers employed by boards of guardians to discharge duties under the Labourers' Act, were entitled to extra remuneration.

THE IRISH PRISONS' BOARD.

Mr. F. Frederick Maccabe, Medical Inspector of the Local Government Board for Ireland at Dublin, has been appointed medical adviser of the Irish Prisons' Board. It may be remembered that a Royal Commission reported, towards the close of last year, on the Irish prisons; and one of its unanimous recommendations was that a medical member should be added to the Board "for the purpose of giving the authority essential to the due performance of functions second to none in the prison-service." It is much to be regretted that the Government have not adopted in its entirety the recommendation of its own Royal Commission, by not giving the officer they have appointed a seat on the Board. There can be no question, however, as to the eligibility of Mr. Maccabe for his new post. He has shown that he is an official possessed of tact, independence, and administrative ability; and we congratulate the service upon his appointment, even though it is a subordinate one. Mr. Maccabe was a member of the Royal Commission that sat in Dublin in 1879 to inquire into the sanitary condition of that city, and was also a member of the Commission on Convict and Prison Dietaries in Ireland. His appointment to the Prisons' Board will make a vacancy for an Inspectorship of the Local Government Board.

THE QUEEN'S COLLEGES COMMISSION.

As was expected, the Commissioners appointed to inquire into the condition of education in these Colleges have not been unanimous, and consequently two reports instead of one is the result. The two Roman Catholic members, viz., Mr. Carton, Q.C., and the Rev. Dr. Molloy, report in rather a disparaging manner as regards the condition of the Cork and Galway Colleges, and go back to the Session 1880-1 to quote from a report of the president of the former College, to show that the entrance examination is very low indeed; and they report in somewhat similar terms as to the standard of education required for matriculation in the Galway College. On the other hand, the other members of the Commission testify that, in their opinion, the general standard of education maintained in the Queen's Colleges, and in all of them, is in the main satisfactory. In general, they say that the pro-

fessorial staff of the Colleges is of a very high class. A great number of the professors have attained generally recognised eminence in their departments, and there is every indication that the great majority of them teach their classes with success. They add that the great majority of the students who now enter the Queen's Colleges, have come up to an entrance standard—that of the Royal University matriculation—which is generally recognised as reasonable. The majority of the Commissioners—Professor Jack, Mr. Stoney, and Deputy Surgeon-General Marston—think it clear that the effect of the Treasury rule regarding retiring allowance to professors who are engaged in private practice, a rule which applies only or mainly to the faculty of medicine, presses severely on all the Colleges. As regards clinical facilities for students, they consider them best in Belfast, and worst in Galway; but in all matters, they observe, they might be improved. They submit the following recommendations for the approval of Earl Spencer: That the matriculation examination programme in arts and law in Cork and Galway be made practically equivalent to that of the Royal University; that the Colleges be permitted to enter students entitled to compete for scholarships in medicine and engineering on a different programme, designed in view of the requirements of those professions; that the Colleges should admit students who have passed the first university examination in arts in the Royal University to compete with their students for the scholarships at the beginning of the second year, subject to the usual conditions of residence; that the senior scholars should be freed from the duty of teaching, which tends to diminish the competition for the scholarships and their practical value; that funds should be provided for the payment of a limited number of assistants to professors who require them for the more efficient teaching of their classes; that provision should be made for the erection of a suitable laboratory for practical chemistry, and for the improvement of the chemical buildings in Belfast; that the medical professors who are not prohibited from private practice be entitled to retiring pensions; that, in Galway, medical scholarships shall cease to be awarded in the third and fourth years; that the chairs of anatomy and physiology and histology in Belfast and Cork be separated; that, in view of the separation, compensation be given to the present occupants, and sufficient salaries be provided for these chairs; that summer classes be instituted in Cork, as in Belfast, for the benefit of medical students; that the distribution of scholarships be reconsidered, with a view to make some difference in the amount payable to the scholars, according to their places in the list, and with a view to transferring unawarded arts scholarships to medical students, where the number of probable competitors seems to warrant it.

THE PHYSIOLOGICAL LABORATORY AND OXFORD MEDICAL SCHOOL.

ANOTHER determined effort will be made on Tuesday next to render the experimental teaching of physiology impossible in Oxford. The opponents of the so-called vivisection have sent a circular to every member of Convocation, urging him to come up and *non placet* the decree to be submitted to the congregation, authorising the payment of an annual sum of £500 for the necessary expenses (coal, gas, assistance, etc.), for three years. This circular is signed by two heads of houses (Pembroke and Worcester), the Bishop of Oxford, two Canons of Christ Church, the Bodley's Librarian, the Regius Professor of Modern History (Mr. E. A. Freeman), and about twenty-five other persons. A counter manifesto has been issued by Professor Burdon Sanderson, and we are glad to see that the list comprises the names of the Dean of Christ Church, and nearly all the heads of houses, besides many well known names in Oxford. We can only urge, in conclusion, that all Oxford graduates who have at heart the interests of science in their University, should go on Tuesday next and record their vote for the decree. A special train, we are informed, will leave Paddington at 11.50 A.M.

THE MILITIA SURGEONS.

SIR J. E. EARDLEY WILMOT, M.P., has consented, at the request of the Chairman of the Parliamentary Bills Committee, to put a motion in the House early in the session to the effect that the case of the Militia Surgeons, in respect to their just claims to compensation, for being deprived compulsorily of their appointments from the exigencies of the service, and not from any fault of their own, be referred to a committee of the House.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE Royal Medical and Chirurgical Society held its annual general meeting on Monday, March 2nd; Dr. George Johnson, F.R.S., President, in the chair. A very satisfactory balance-sheet was presented, and the annual report showed a larger number of Fellows than in any previous year, namely, 741; and a larger number of attendances at the meetings of the Society. A larger proportion also of those who had attended had taken part in the discussions, namely, 145 out of 632. The library also had increased by 520 volumes, and 3,421 books had been lent during the year. There had been considerable expenditure on improvement of the drainage, and the value of the property had correspondingly increased.

Dr. ALTHAUS proposed a vote of thanks for the report, which was seconded by Dr. B. O'CONNOR; and some items of expenditure were explained by Mr. Cooper Forster, whose retirement from the office of Treasurer, which he had held for six years, was deeply regretted.

The PRESIDENT delivered the annual address, in which he included, according to custom, short obituary notices of fourteen Fellows whom the Society had lost during the preceding year, some of them celebrated names. Among the resident Fellows, there were six, namely, Mr. Cæsar Hawkins, Sir Erasmus Wilson, Dr. Andrew Whyte Barclay, Dr. William Fairlie Clarke, Dr. D. A. King, and Dr. Evan Buchanan Baxter; among the non-resident, six also: Dr. S. B. Denton, Dr. Lashmar, Mr. John Arnold, Dr. W. Cory, Mr. J. S. Daniel, and Mr. W. C. Worthington; one Honorary Fellow, Dr. Allen Thomson; and one Foreign Honorary Fellow, Dr. Samuel Gross. In conclusion, the President directed attention to the satisfactory surplus shown by the balance-sheet, and the considerable improvements effected in the Society's premises. There was still something which needed to be done to dispose of the products of the combustion of the gas, which rendered the air in the evenings sometimes not only unpleasant, but unwholesome, and was tending to destroy some of the bindings of their valuable books. The papers that had been read, and discussions that had been held on them, during the past year, he thought he might say were fully equal to those of former years; and the list of papers that were promised to be read in the coming year showed abundance of good material. The subject of cholera had been felt to be one of great interest; and, as the time for its reappearance might be not improbably approaching, he had arranged a discussion of the subject, and had himself undertaken to introduce it on March 24th, when he hoped there might be a large attendance, and an instructive debate.

Dr. WILSON FOX proposed a cordial vote of thanks to the President, coupled with a request that he would allow his address to be printed. This was seconded by Dr. BUZZARD, carried unanimously; and the President, in returning thanks, said he should be very glad to print his address.

Dr. CHOLMELEY proposed, and Mr. VICTOR HORSLEY seconded, a vote of thanks to the members of Council who were retiring. Dr. GERVIS proposed, and Dr. WICKHAM LEGG seconded, a vote of thanks to Mr. Cooper Forster, who was retiring from the office of Treasurer. A vote of thanks to Mr. Berkeley Hill, who had held the office of Secretary for four years, was proposed by Dr. DYCE DUCKWORTH, and seconded by Mr. PARKER. The list of officers and other members of the Council, elected by ballot, was handed in by the scrutineers, and is as follows.

President: George Johnson, M.D., F.R.S. *Vice-Presidents:* W. O. Priestley, M.D.; *Hermann Weber, M.D.; *Thomas Bryant; *M. Berkeley Hill. *Treasurers:* C. Bland Radcliffe, M.D.; *Timothy Holmes. *Secretaries:* R. Douglas Powell, M.D.; *Howard Marsh. *Librarians:* Wilson Fox, M.D., F.R.S.; John W. Hulke, F.R.S. *Other Members of Council:* *H. Charlton Bastian, M.D., F.R.S.; *William H. Broadbent, M.D.; *Thomas Buzzard, M.D.; *William S. Church, M.D.; C. Theodore Williams, M.D.; *Warrington Haward; Sir William Mac Cormac; Thomas P. Pick; William Sedg-

wick; *Walter Rivington. Those gentlemen to whose names an asterisk is prefixed were not on the Council, or did not fill the same office last year.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885: ELECTION OF MEMBERS.

Regulations for the Election of Members passed at the Meeting of the Committee of Council, October 12th, 1881.

1. There shall be a standing notice in the JOURNAL every week, of the meetings of the Committee of Council throughout the year; and stating that gentlemen wishing to be elected members of the Association must send in their names *twenty-one days* before the meeting of the Committee of Council at which they wish to be elected.
2. That a list of applicants be in the hands of the Committee of Council *fourteen days* before such meeting of the Committee of Council, and that the Branch-Secretaries be supplied with *several* copies of the list.
3. That no member be elected by a Branch, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Meetings of the Council will be held on April 8th, July 8th, and October 14th, 1885. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary, not later than twenty-one days before each meeting, namely, March 18th, June 17th, and September 24th, 1885, in accordance with the regulation for the election of members, passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
IV*a*. Diphtheria, sanitary.
VI. Acute Gout.
VII. Puerperal Pyrexia.
VIII. Paroxysmal hæmoglobinuria.
X. Habits of Aged Persons.
XI. Albuminuria in the Apparently Healthy.
XII. Sleep-walking.
XIII. Cancer of the Breast.

An inquiry is now issued concerning the general condition, habits, and circumstances, past and present, and the family history of persons who have attained or passed the age of 80 years.

The replies to this inquiry will be most valuable when given by a medical man; but the questions have been so arranged that, with the exception of some on the last page, they may be answered by another person. *Partial information will be gladly received.*

There is also now issued an inquiry as to the occurrence of albuminuria in apparently healthy persons.

The Acute Gout card, which had been found too elaborate, has been made a great deal simpler, and is now re-issued.

Copies of these forms and memoranda are in the hands of all the local secretaries, and will be forwarded to anyone who is willing to fill up one or more of the forms, on application by post-card or otherwise to the Secretary of the Collective Investigation Committee, 161A, Strand, London, W.C., to whom all applications and correspondence should be addressed.

July, 1884.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—C. SIBTHORPE, Honorary Secretary, Madras.

BATH AND BRISTOL BRANCH.—The fourth ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday evening, March 12th, at half-past seven o'clock, R. S. Fowler, F.R.C.S.Ed., President. The following communications are expected: 1. "Notes on Two Cases of Enterica," A. W. Fox, M.B. 2. "On the Employment of Digitalis in Acute Febrile Diseases," Henry F. A. Goodridge, M.D. 3. "A Successful Case of Removal of Uterus and Ovaries," Mr. H. W. Freeman (the specimen will be shown). 4. "A Case of Hydatidiform Mole (with specimen)," Mr. R. W. Thomas.—R. J. H. SCOTT, E. MARKHAM SKERRITT, Honorary Secretaries.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next ordinary meeting will be held at Pontypridd, on Wednesday, April 15th. Members wishing to bring forward papers, communications, etc., are requested to send titles to one of the undersigned before March 29th.—A. SHEEN, M.D., Cardiff; D. ARTHUR DAVIES M.B., Swansea, Honorary Secretaries.—February 25th, 1885.

NORTH WALES BRANCH.—The intermediate meeting of this Branch will be held at the Bull Hotel, Llangefni, on Tuesday, March 10th, at 2 P.M. A discussion on "Chorea" will take place, to be opened by Dr. Isambard Owen, of London, and taken part in by Dr. O. T. Williams, Holyhead, and others. Gentlemen desirous of reading papers, or taking part in the discussion, should communicate with the Honorary Secretary at once.—W. JONES-MORRIS, Honorary Secretary, Portmadoc.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held on Thursday, March 19th, at 8.30 P.M., at the Hackney Town Hall. The chair will be taken by Dr. C. T. Aveling. Dr. Bristowe will read a paper "On the Significance of a Peculiar Murmur in relation to the Diagnosis of Intrathoracic Disease, illustrated by Cases."—JOSEPH L. HUNT, Honorary Secretary, 101, Queen's Road, Dalston.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The next meeting will be held at the Royal Bethlem Hospital, St. George's Road, S.E., on Wednesday, March 11th, at 8.30 P.M., Mr. Macnamara, President of the Branch, in the Chair. Dr. Henty will propose a resolution to the effect that a small fee and system of registration are desirable for hospital out-patients. Dr. Gilbart-Smith will propose an amendment to the effect that a system of registration without fee is desirable. Dr. Savage will read a paper on "Our Duties as to Certificates in Lunacy."—W. HALE WHITE, Honorary Secretary, 4, St. Thomas's Street, S.E.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting will be held at the Queen's Hotel, Upper Norwood, S.E., on Thursday, March 12th, at 4 P.M.; G. K. Poole, Esq., M.D., of Norwood, in the chair. Dinner will be served at 6 P.M. precisely; charge 7s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend, and to introduce professional friends. The following papers, etc., have been promised. Edmund Owen, Esq.: Incontinence of Urine in Childhood. Dr. F. H. Champneys: The Prevention and Treatment of Abortion. Dr. R. M. Miller: A Case of Interest.—J. HERBERT STOWERS, M.D., Honorary Secretary, 23, Finsbury Circus, E.C.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this district will be held on Friday, March 27th, at Maidstone; C. E. Hoar, Esq., M.D., in the chair. Members wishing to read papers or to exhibit specimens are requested to communicate with me as soon as possible. Further particulars will be announced.—H. LEWIS JONES, St. Bartholomew's Hospital, Chatham.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the above Districts will be held at the Grand Hotel, Brighton, on Tuesday, March 24th, at 4 P.M. Dinner at 6 P.M.; charge 6s., exclusive of wine. Charles J. Oldham, Esq., will preside. The following papers have been promised: 1. The Chairman, "A Case of Hydrophobia." 2. Noble Smith, Esq., "A Case of Incontinence of Urine from Malformation Cured by Operation." 3. Dr. Withers Moore, *a*, "A Case of Locomotor Ataxy with Anomalous Symptoms;" *b*, "A Case of Meningitis." 4. Dr. Sutherland, "The Premonitory Symptoms of Insanity." 5. Dr. Ranking, "Cases of Fæcal Tumours." Messrs. Krohne and Sesemann will show some new instruments.—G. B. COLLET, T. JENNER VERRALL, Honorary Secretaries, 95, Western Road, Brighton.—March 3rd, 1885.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, March 26th, at 5 o'clock. The following question has been settled by the Council as the one on which members should be invited to express their opinion at the said meeting after dinner: "What is your opinion on Vaccination, with reference to the three following points: 1. Is there any diminution in its prophylactic value? 2. Is calf or humanised lymph preferable? 3. Have you noticed any diseases occasioned by it?—W. M. KELLY, M.D., Honorary Secretary.—Taunton, February 26th, 1885.

BORDER COUNTIES BRANCH.—The spring meeting will be held on Friday, March 20th, at Maxwell's Commercial Hotel, Galashiels. The chair will be taken by the President, Dr. Muir, at 4 P.M., when a discussion on Pneumonia will be introduced by Dr. Lockie, of Carlisle. Dinner at 7 P.M. Notices of papers for reading, morbid specimens or patients for exhibition, should be sent to the Secretary, H. A. LEDIARD, Carlisle.

YORKSHIRE BRANCH: MEETING.

A MEETING of the Yorkshire Branch was held at the Station Hotel, Batley, on January 28th; the President, Mr. KNAGGS, in the chair.

New Member.—Dr. Kinch, of Heckmondwike, was elected a member of the Association and Branch.

Papers.—The following papers were read.

1. Mr. Jessop: Treatment of Cancer of the Rectum.
2. Mr. Mayo Robson: Two Cases of Fracture of the Astragalus; and a Case of Separation of the Upper Epiphysis of the Radius.
3. Mr. John Wilson: Notes of Two Cases of Sunstroke.
4. Dr. Churton: The Causation and Treatment of Chorea. After discussing the theories of the intrinsic causation of the disease, and showing that no practical indications for treatment resulted from any of them, he considered the primary causes (chills, fright, imitative peripheral irritations, such as worms, second dentition, pregnancy); and stated that for purposes of treatment, he definitely divided cases of chorea into those which were (or might, having regard to their apparent causation, have been) rheumatic, and those which were not. The "rheumatic" cases were divided into acute and chronic. In the acute, there was high temperature; for these he had used the salicylate of soda, just as for acute rheumatism, with great success. In the

chronic, there was a history of joint-pain, or of distinct causation by chill, but all acute symptoms had subsided. For this condition, potassium-bicarbonate and tonics were used. To the above drugs he usually added moderate doses of succus conii. For "non-rheumatic" cases he usually prescribed either conium, in large and increasing doses if the symptoms were violent or obstinate, or scutellaria if the conium failed; he used arsenic and other nervine tonics or stimulants only in mild cases, and in default of the natural tonics of fresh air and scene. He had used scutellaria for several years, and thought it a valuable drug.

GLOUCESTERSHIRE BRANCH: SPECIAL MEETING.

A SPECIAL meeting of this Branch was held at the Infirmary, Gloucester, on Tuesday, February 24th, 1885, under the presidency of Dr. NEEDHAM.

The Secretaryship.—Dr. BATTEN announced that, owing to his many professional engagements, he would not be able to act as Secretary to the Branch in the future; it was therefore proposed by Mr. WILTON, Gloucester, and seconded by Mr. CORNWALL, Fairford, and carried unanimously: "That this Association receives with regret the resignation of Dr. Batten, and begs to tender to him their warmest thanks for his valuable services during the past twelve years."

Rules of the Branch.—A resolution was passed, asking the Council to consider and report on the rules of the Branch, with a view to their revision.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Eradication of Erysipelas in Hospitals.—Sulphate of Cinchonamine.—General News.

AT a recent meeting of the Académie de Médecine, there was an animated discussion on erysipelas and its eradication by antiseptic and other measures. The debate was opened by a communication on the subject from M. Verneuil, surgeon to the hospital of La Pitié; he informed the meeting that, when in 1872 he was appointed clinical professor of that hospital, erysipelas was a terrible scourge in his wards, but from 1875 to 1876, owing to the antiseptic measures adopted, there was a considerable improvement. M. Gosselin has collected statistics concerning the prevalence of erysipelas in the same wards during previous years, which he divides into two periods. During the three years included in the first period, namely, from 1862 to 1864, there were 133 cases, in round numbers about 44 yearly, with an annual mortality of 10. Of these 133 cases 50 were admitted with symptoms of erysipelas, and 83 developed the disease after admission. The wards were then ventilated by opening the windows; erysipelas-patients were placed in a ward apart from patients with any kind of wound or abrasion. Patients suffering from erysipelas were henceforth refused admittance into the hospital. Tumours of the breast, etc., were removed by caustic substances, and sharp instruments were as little used as possible; there was not any modification in dressing wounds; nevertheless erysipelas diminished, but in 1872, when the same wards were under the care of M. Verneuil, erysipelas was again prevalent. M. Verneuil adopted a plan of action which was the reverse of that of M. Gosselin. He admitted erysipelatous patients, and did not isolate them, but admitted the fullest number of patients that his wards could hold. The windows of the wards were not kept open; and M. Verneuil removed tumours and opened abscesses with the bistoury, never using caustic substances, but trusting to antiseptic dressings, such as were then known. The result was, that on an average the cases of erysipelas were reduced from thirty to ten. M. Verneuil observed in his communication that antiseptic measures were not all-powerful, nor did they render other precautions unnecessary; the good results he obtained by antiseptic precautions would have been greatly increased if he could have organised a thorough system of isolation. Since antiseptic precautions have been adopted in his wards erysipelas has become comparatively rare, but nevertheless it still occurred. M. Verneuil explained this fact by stating that erysipelas had a double origin, one within the hospital and the other without. If the sources of infection from within could be conquered, the external sources could not be reached, and always remained as an element of danger. M. Verneuil does not believe that the internal cause of infection can be completely removed; he admits that antiseptic dressings protect wounds so treated, but fears that certain common diseases, such as bed-sores, gangrenous patches, and urinary fistulæ, prevent the possibility of the complete eradication of erysipelas. M. Panas, the eminent oculist, was amongst the first of the Paris surgeons to adopt Listerian dressings; he stated that the comparative statistics of those hospitals where antiseptic treatment was adopted, and of those where it was not, furnished startling proofs of its efficacy; but there was good and bad antiseptic treatment; the good was successful, and required extreme care, which was seldom applied. Some antiseptic agents M. Panas considered excellent, others were of inferior value. Among the former, he ranked iodoform; among the latter, corrosive sublimate. M. Le Fort believed that certain antiseptic agents sooner provoked erysipelas than prevented it; he also made a distinction between erysipelas independent of contagion, and of the same disease in connection with an epidemic. At the Cochin Hospital, in the men's wards, he used camphorated alcohol, and could only record one case of erysipelas in three years; in the women's wards, alcohol only was less successful. At the Lariboisière, there were a succession of slight epidemics of erysipelas, which always coincided with a want of camphorated alcohol. M. Le Fort considered camphor to be one of the best antiseptics; carbolic acid, according to the same authority, irritated wounds, and provoked a certain number of attacks of erysipelas. M. Trélat did not believe that the prophylaxis of erysipelas consisted in substituting one germicide fluid for another, but in refusing to admit erysipelatous patients. He adopted that system at the Necker Hospital, and his wards were now entirely free from erysipelas, though three years ago it infested them.

MM. G. Sée and Bochefontaine have made a series of experiments to determine the physiological action of sulphate of cinchonamine; the results have been communicated to the Académie des Sciences in a note presented by M. Vulpian. Cinchonamine appears to have a powerful action on the heart. These experimenters have observed that arrested action of the heart was an almost constant phenomenon, resulting from the influence of cinchonamine, and happened during diastole, a special feature which characterised only a limited number of poisons, of which muscarine is one; but, if a drop of solution of atropine were allowed to fall on the heart, systole replaced diastole, whereas the effect of cinchonamine was to provoke persistent diastole. MM. Sée's and Bochefontaine's experiments proved that cinchonamine was a most violent poison, and that its effect was not easily determined.

The Académie des Sciences has awarded the Lallemand prize to M. Brown-Séquard. One of the Montyon prizes for an essay on unhealthy trades has been won by M. Marsant.—Mademoiselle Adèle Charruyer has left in her will 100,000 francs (£4,000) to the City of La Rochelle, 100,000 francs (£4,000) to its hospitals, and 200,000 francs (£8,000) to different charitable institutions.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

The Fourth German Medical Congress.—Hospitals for Children at the Sea-Side.—Baths in National Schools.—Deafness in Schools.—Balneological Section of the Society for Therapeutics.—Animal Lymph.—Inoculation of Yellow Fever.—The Case of Professor Schweninger.

THE fourth German Medical Congress will take place at Wiesbaden, from April 8th to the 11th, under the presidency of Professor von Frerichs, of Berlin. The following subjects will be discussed:—On Wednesday, April 8th: The treatment of corpulency (Professors Ebstein and Henneberg of Göttingen). Thursday, April 9th: Bronchial asthma (Dr. Curschmann, of Hamburg, and Dr. Riegel, of Giessen). Friday, April 10th: Antipyresis (Dr. Filehne, of Erlanger, and Professor Liebermeister, of Tübingen). Addresses are also announced on Narcotics, by Professor Liebreich, of Berlin; on New Drugs, by Professor Bing, of Bonn; on the Surgical Treatment of Asthmatic Conditions, by Professor Hack, of Freiburg; on the Statistics and Etiology of Acute Rheumatism, by Professor Edlessen, of Kiel; on the Movements of the Stomach, the Pylorus, and the Duodenum, by Professor Rossbach, of Jena; on Uræmia, by Professor Fleischer, of Erlangen.

In the course of last summer, I referred to the hospitals for children now established on the Baltic coast, for the reception of children from all parts of Germany, at a small cost, and, in some cases, free of charge. The committee have lately received a cabinet order from the Emperor, expressing His Majesty's high satisfaction at the results attained during the short time of the existence of these hospitals.

An experiment is being tried in Göttingen, to test the advantage of attaching baths to national schools. In one of these recently built schools, the baths were opened a few weeks ago. There is a large bath-room, where warm or cold baths can be taken, according to require-

ment. A whole class of boys, or girls, is taken by the master, or mistress, into the bath-room during school-time, and in order that the children should not go, immediately after bathing, into the open air, they attend the class-rooms for the next hour.

The Prussian Minister of Education has ordered that a form should be sent to the rectors and directors of all the higher schools, which they are to fill up, stating how many pupils in each class are in any degree deaf, and how many were so affected on entering the school. The object is to establish how far the arrangements in schools are to blame for causing deafness, as it has been recently pointed out by medical men that catarrh of the nose and throat is not seldom the cause of deafness, and that it is often brought on by a wrong system of ventilation during school-hours.

The seventh public meeting of the Balneological Section of the Society for Therapeutics is to take place at Berlin on March 14th and 15th. The meetings will be held in the hall of the Pharmacological Institute.

An establishment for the supply of animal lymph for purposes of vaccination is to be erected at the Central Cattle Market in Berlin. The lymph required for public vaccination will be supplied gratis; but medical men, public institutions, etc., will have to pay, in order to cover the expenses of the establishment, which are estimated at about 18,000 marks (£900) *per annum*. The establishment is to be placed under the management of a physician of experience in this matter.

The *Allgemeine Medicinische Central Zeitung* says that Dr. Domingo Freire, of Rio de Janeiro, the discoverer of the bacillus of yellow fever, has met with surprising success in his inoculation experiments. Of nearly 1,000 persons inoculated by him, not one single case was severely attacked, and the very few that suffered had the fever in the mildest form possible.

The question of Professor Schweninger's appointment as Professor of Dermatology at the University of Berlin was brought up for discussion in the Lower House of the Prussian Landtag last week during the Budget debate. The Minister of Education gave his reasons for appointing him, and Professor Virchow spoke immediately afterwards, acknowledging the difficulty of the Minister's position in this matter, but maintaining that the legitimate rights of the University, and of the medical faculty in particular, had been seriously infringed. The voting was of a purely party nature, the item being allowed by 190, against 149.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Faculty Meeting.—Instruction in Insanity.—Official Visitation of the Universities.—Larbert Institution.—Barony Parochial Asylum.

THE March meeting of the Faculty of Physicians and Surgeons took place this week, and was one of the largest ever held, nearly ninety Fellows being present. The chief interest, of course, centered in the changes that fell to be made on the Examining Board, to adapt it to the working of the conjoint scheme. The report by Council suggested that additional examiners should be appointed in several of the subjects; and for these new vacancies there were in some instances two or three applicants, thus affording an opportunity for the rivalries of our different medical schools to come into play. The successful candidates were, Dr. Adams in anatomy, Dr. Christie in physiology, Dr. Morton in materia medica, Dr. W. L. Reid in midwifery, and Dr. Glaister in medical jurisprudence. Drs. Knox and Paterson were appointed the examiners in surgery and surgical anatomy; while Dr. John Clark was chosen for the department of chemistry, it being understood that whoever was elected was to be a professional chemist and analyst.

At the same meeting of the Faculty, Dr. Yellowlees had no difficulty in carrying a motion to the effect that instruction in insanity should be made compulsory in the medical curriculum. He found an able seconder in Dr. Gairdner, and it was eventually decided that an expression of this opinion on the part of the Glasgow Faculty should be transmitted to the General Medical Council. It is to be hoped that this suggestion of Dr. Yellowlees may eventually come to be acted upon. The Legislature, on its part, has clearly defined the legal formalities to be gone through in dealing with persons of unsound mind; but our Medical Council has, as yet, done nothing to make it compulsory on the part of medical men to acquaint themselves with those mental maladies upon which they have often to give an opinion. Recent occurrences have shown that mistakes in this direction may involve serious consequences, and may bring other dignitaries upon the scene.

It has now been formally announced that Professor Leishman and Professor George Buchanan have been appointed members of the commission selected by the General Council of Medical Education for reporting on the examinations for degrees in medicine and surgery in all the universities of Great Britain and Ireland. The third representative from Scotland is Dr. George Balfour of Edinburgh.

The friends and supporters of the Larbert Institution for Imbecile Children held their annual meeting in Glasgow last week, and the interest shown in this work was apparent by the very full attendance. The report presented and passed was satisfactory in every way. The income of the year was larger than that of the two preceding ones, and the number of children under training was 184, of whom 120 were boys, and 60 girls. The results obtained were encouraging, all of those in the institution having received a certain amount of benefit, while some were rendered, to a great extent, capable of earning their own livelihood. There seems to be nothing desired in the management of the place, but there was a feeling on the part of some of those at the meeting that the present system of admission needed alteration. At present, two-thirds of the children are admitted by election, and one-third by the directors. To some, the former method is objectionable, and they would like to see the election of those who are to receive the benefits of the place left entirely to the directors. Dr. Yellowlees spoke very strongly in favour of this view. The directors hold that a combination of the two plans of admission is the best, and that in this way a more general interest is aroused in behalf of the institution. If this be the case, and no instances of hardship to the children applying occur, it would not be advisable to make any radical change in a system that has so far worked well, and has received so much public support.

Dr. Sibbald, Commissioner in Lunacy, has drawn attention, in his report last month, to the very crowded state of our Barony Parochial Asylum, especially on the female side, and he has impressed on the authorities the advisability of reducing the numbers by the removal of many of the patients whom it is unnecessary to detain, either for their own welfare or the public safety. He hints that the legality of detaining such patients is a moot point, but he lays stress, very properly, on the fact that some consideration should be shown for the happiness of these persons, and that the conditions of ordinary family-life are more suitable for their cases. It is satisfactory to see that the authorities are inclined to act on his suggestions, and to extend the judicious boarding-out of these patients.

CORRESPONDENCE.

THE PRELIMINARY SCIENTIFIC EXAMINATION OF THE UNIVERSITY OF LONDON.

SIR,—The fact that a very large proportion of the candidates for the above examination fail to pass it is, in my opinion (and in that of every other examiner whom I have consulted), due to the extremely inadequate preparation of the candidates who have, as a rule, given too little time (that is, less than an academical year), and have wasted such time as they have given by following ignorant or incompetent teachers.

An academical year of nine months, spent under the guidance of competent teachers, will enable any youth who has matriculated to pass the preliminary scientific examination with ease. The whole of the present difficulty arises from the pretensions of those who delude unfortunate youths by telling them that five months' preparation (after matriculation) is sufficient for the preliminary scientific examination, and further undertake to provide these youths with competent teaching for a fee of eight guineas. As a matter of fact, the schedules of the University for the preliminary scientific examination are drawn up on the definite assumption that at least one whole year's study will be given to the subjects of this examination (chemistry, physics, animal and vegetable biology) alone. Also, as a matter of fact, it is impossible to provide anything but false and worse than useless teaching in these three subjects for eight guineas. Good teaching cannot be given for less than four times that fee.

If the medical men of London wish to cut out altogether the year's study devoted to preliminary science, and to offer to students an university degree in medicine without requiring from them any preliminary training of the kind, let us be plainly informed of the matter. But, pending a decision on this policy, do not demand of the University to hold examinations twice a year for the purpose of rejecting, again and again, the poor boys who have been wasting their time in some of these advertised five-months' eight-guinea classes. I do not hesitate to pronounce those

classes to be a disgrace to the institutions which advertise them, and a nuisance to the community. I warn any who may think of defending them that I have full and curious details of the so-called successes claimed by some of them, which are highly significant.

I enclose a letter which I have just received. It is a sample of a great number which I get every year. Their writers are all under the same delusion as those persons who pretend to prepare candidates in five months for the preliminary scientific examination. They regard this examination as a farce, in which they can learn to take a part by studying for three or four mornings for a month. When they arrive at Burlington House, they find the piece is not a farce, but a tragedy, and they set up a terrible wailing. The medical men at our hospitals, who ought to guide these poor fellows in the right path, and see that they give at least a year's study under competent teachers to the subjects of the preliminary scientific examination, join in the lamentation, and demand that the University shall make its preliminary scientific examination in real earnest a farce.

They would act more worthily were they to abandon the attempt to teach the subjects of preliminary scientific education at a hospital, and to frankly advise their pupils to make use for one year of the arrangements of thoroughly organised colleges which exist for the very purpose of teaching science. After a year spent in the science-faculty of such a college, and having passed his preliminary scientific examination, the student can return to the hospital of his choice without let or hindrance.—Faithfully yours, E. RAY LANKESTER.

The following is the letter referred to by Professor Ray Lankester.

"Sir,—I am very anxious to pass the preliminary scientific examination at London in July, having matriculated in honours last January. May I ask your advice? I am unable to attend a regular course in biology, but I think I could manage to attend the laboratory at University for three or four mornings or afternoons a week for about a month, say June or July. Would this be sufficient to get up the practical part? If it would, might I ask you to be so kind as to advise me what to read in the meantime. I have Huxley and Martin, but they do not touch on the fowl or rabbit. What would be the probable expense of attending as I suggest? I should be so glad of your advice, and must apologise for troubling you.—I am, yours truly, * * *"

THE PATHOLOGY OF INFLAMMATION.

SIR,—I regret to find that the President of the Clinical Society, in his inaugural address, has thought fit to borrow certain expressions from a private letter of mine, and to reproduce them both as evidences of a "cloud of words" used to cover "uncertain views," and as an indication of a too general confusion of thought with reference to the relationship of inflammation to the healing of wounds.

Without referring at length to the circumstances which led me to correspond privately with Mr. Thomas Bryant on this subject, I will content myself with a brief statement of the points at issue.

As a teacher of surgical pathology, I have deemed it in accord with ascertained facts to regard the healing of wounds as essentially an inflammatory process, and to recognise that inflammation may have a formative as well as a destructive termination. That there may be no uncertainty here, I would go further, and say that the formative is even more typical of an inflammatory process than is the destructive termination. In my lectures, however, I never fail to point out, as clearly as possible, that this view is one which is necessarily dependent on a corresponding conception of the inflammatory process.

Mr. Bryant, on the other hand, considers that inflammation, or anything like inflammation, is fatal to the healing of wounds; that repair and inflammation are, in short, incompatible; and that repair beginning "by what is called granulation," and ending in cicatrisation, is a physiological and not a pathological process, which is only possible in the absence of inflammation.

It is manifest that these views are only tenable with a correspondingly limited comprehension of what is implied by inflammation.

Mr. Bryant knows quite well that the real source of the confusion he deplores is entirely traceable to different views as to what "inflammation" really implies; and by ignoring this, he raises a false issue, which calls for a very considerable exercise of that generosity for which he asks.

Mr. Bryant pleads for clear views and precise thought. In this I must heartily join; but I would point out that "clearness" is only a part—and not the most important part—of what is essential in our views.

Not only must a view be clear, it must also be adequate, or, in other words, it must accord with facts.

Lest this statement should present itself to Mr. Bryant as "a mixed expression" which merely conveys a "cloud of words," whilst it "covers uncertain views," I will endeavour to illustrate what I conceive to be the distinction between a view which is clear only, and one which is both clear and adequate at the same time.

Under the circumstances, Mr. Bryant can hardly complain if I borrow my illustrations from his own writings. In the fourth edition of his work on *Surgery* is the following statement: "Acetic acid dissolves the nucleus of a leucocyte;" and this is made a distinctive feature between white blood-corpuscles and pus-cells. The view thus expressed is clear enough—painfully clear—but it is not adequate, for it is not in accordance with facts. Again, the view that granulation and cicatrisation are physiological and not pathological processes, is another example of a view which is clear but not adequate. In my opinion, Mr. Bryant's views on the relationship existing between inflammation and the healing of wounds are throughout equally clear and equally inadequate.

To my mind, inflammation is a continuous process from the first deviation from health up to any of its terminations—whatever the termination may be. The practical surgeon has, however, no difficulty in drawing a sharp line of demarcation between its destructive and formative terminations, but even the most instructed pathologist finds himself unable to make a trenchant distinction between that kind of nutrition which constitutes health, and that of the first stage of inflammation; or between the minor degrees of inflammation, which terminate in repair, and the major degrees, which terminate in destruction of tissue. Inflammation being regarded as a continuous process, the minor and major degrees graduate insensibly into one another.

To illustrate this from another source: it is an easy matter for even the uninstructed to hold fairly clear ideas of the distinctions between a horse and an oak-tree, whilst the most learned find it impossible to draw a sharp line of separation between the lowest forms of animal and vegetable life.

By ignoring inconvenient facts, it is possible to draw sharp distinctions in cases where they do not actually exist; but though, by so doing, "clear views" may be formulated, they cannot be adequate, and they must inevitably lead to that confusion which it is intended to avoid. In conclusion, I would express the opinion that Mr. Bryant's views are fatal to true teaching; and, however ready I might be to defer to his judgment on a purely practical question in surgery, I feel it incumbent upon me to protest strongly against the idea that his position as an examiner entitles him to dictate (either privately or publicly) to teachers of pathology what doctrines they shall or shall not teach.—Yours, etc.,

A. H. YOUNG, Lecturer on Surgical Pathology,
Owens College, Manchester.

THE PYROGALLATE OF IRON STAINING PROCESS.

SIR,—In the JOURNAL of February 7th, a letter appeared from Mr. H. A. Reeves, calling attention to the advantages of the pyrogallate of iron staining process in pathological histology. He says: "I may premise that iron was first, I believe, used in normal histology by Polaillon, in the study of sympathetic ganglia, and subsequently by the Drs. Hoggan, for bringing out the details of articular cartilage; but, to my knowledge, it has never been used to any extent in morbid histology." This will probably lead to the supposition that the staining process which I first described, ten years ago, at the annual meeting of the British Medical Association in Edinburgh, had really been previously proposed and used by Polaillon, and that, consequently, for me to describe the process as an original discovery, was either a want of good faith, or an unconscious mistake. To leave the matter where Mr. Reeves has placed it, now that my attention has been called to it, would be to acknowledge a mistake, on my part, and willingness to concede priority to Polaillon as the inventor of the process. In order to correct such an impression, I wish to state that I have yet to learn that Polaillon had anything to do with the staining process devised by me, which Mr. Reeves has minutely described in his letter. Private communications have failed to elicit from Mr. Reeves any precise indication as to when, where, and in what manner Polaillon described any process akin to mine; and, even if he did use a salt of iron in histology, there is no evidence that he used it as a staining agent; therefore, any claim made for him in respect of this process is, as yet, unsubstantiated.

In reference to some of the other points brought up by Mr. Reeves, I ought to state that the special application of the process to cartilage was first recorded, not by me, but, I believe, by Dr. Sylvester Marsh, in his little manual; and that, although I did not recommend it for any tissue in particular, the process was demonstrated upon

large sections of cancer, which were stained and mounted before a large audience, in the physiology room, at the Edinburgh meeting. Several stained preparations of cancer were also shown for some days under microscopes, in the pathological laboratory, where, I regret to say, they were eventually annexed by some member of the Association anxious to possess a souvenir of the occasion. I may add that, in addition to the published researches in normal histology made wholly or in part with the aid of this process, several of our pathological researches, as will be seen on perusing the description of the plates attached to them, are illustrated by drawings of preparations stained by the pyrogallate of iron process.—I am, sir, your obedient servant,

FRANCES ELIZABETH HOGGAN, M.D.

7, Trevor Terrace, S.W.

SUPPURATION OF THE CORNEA IN EXTRACTION OF CATARACT.

SIR,—The question "Does the position of the section in cataract-operation influence suppuration of the cornea; if so, what part is played by septic infection?" discussed by Dr. Wolfe at the annual meeting of the Association, appears to me to be one which ophthalmologists should try their best to elucidate. At present, when there is a strong tendency to explain the causes of disease by ascribing them to microcosms, bacilli, and other infecting organisms, some ophthalmic surgeons may possibly be led to think that some one or other of the microcosms is the chief and the only cause of suppuration of the cornea after cataract-operation; but facts must be forthcoming to prove that the presence of organisms, if there be any, or septicæmia, is the cause, and not the result, of the suppuration of the cornea. Without doubt, the septic infection theory of the cornea lessens to a degree the responsibility of the operator.

This letter expresses my views on the subject, entertained after an experience of nearly thirteen years in ophthalmic surgery, and a little over 500 operations of cataract, which I have performed with considerable success.

My reply to the question proposed is this. In a fair case, the position of the section of the cornea, which would prevent perfect adaptation of the lips of the wound in the cornea, is the primary cause of suppuration of the cornea; that is, whatever section be made, and whatever its position, whether it be made upwards, downwards, inwards, or outwards, or entirely in the sclerotic, or commenced in the sclerotic and finished in the cornea, or, as I have been making it from 1875, entirely in the cornea, if the incision be not neat, and if the lips be not in perfect apposition, there may not occur union by what has been called first intention, and the low lymph thrown out may degenerate into pus.

Similar circumstances occur in other surgical operations on the body. Of course, the larger the section, the greater is the danger of suppuration of the cornea taking place; but there are various other causes of suppuration of the cornea. It may occur as a sequence of inflammation of other structures. In some of my cases, eyes have been inflamed, and suppuration of the cornea has occurred on account of some cotton getting into them on the patient shifting the bandage unconsciously; in some other cases under my observation, inflammation and suppuration occurred by the anterior lip of the wound remaining bent forwards, which has been the case where there has been extravasation of the vitreous humour; and wherever section has been jagged and irregular, almost invariably inflammation and suppuration of the cornea take place. But also suppuration of the cornea occurs in numerous cases where the section has been neat and perfect. It comes on very insidiously sometimes. On the third or fourth day after the operation, a yellowish-white streak appears at the wound, and, if left to itself, on the very next day a large portion of the cornea becomes suppurated. In such cases, I am in the habit of opening up freely the wound with a fine probe, and of removing as much as possible of the yellow matter, and of instilling eserine. This practice has been successful with me.

I have performed all my operations without any antiseptic precautions, now recommended and carried on very extensively elsewhere. I have also performed operations without any ill results in houses so dirty and full of miasmata, that, if septicæmia played a very important part in suppuration of the cornea after cataract-operation, it would show itself in some of these cases. On the other hand, suppuration of the cornea is not unfrequent in operations for cataract, where the best possible antiseptic measures have been adopted, and every care has been taken to exclude septic surroundings. I am, therefore, led to the conclusion that septic poison plays only a secondary part, if any, in suppuration of the cornea, and that the suppuration is almost entirely influenced by the section of the cornea.—I am, etc.,

J. ACCACIO DA GAMA, Graduate of the University of Bombay.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SERVICE.

BRIGADE-SURGEONS G. L. HINDE and S. B. Roe, M.B., C.B., have been granted the local rank of Deputy Surgeon-General while serving with the Suakin Expeditionary Force.

Surgeon-Major John Candy, M.D., has retired upon temporary half-pay. Dr. Candy dates as Assistant-Surgeon, September 30th, 1864; Surgeon, March 1st, 1873; and Surgeon-Major, September 30th, 1876. He served during the Egyptian war in 1882, on board the hospital-ship *Carthage*, and has the medal and Egyptian bronze star.

Surgeon J. M. Reid is brought on the strength of Her Majesty's British forces in the Bombay command from January 26th, the date of his arrival at Bombay.

Mr. H. W. Roberts has been appointed Acting Surgeon to the 1st Volunteer Battalion of the Queen's Own West Kent Regiment (late the 1st Kent Volunteers).

Mr. A. A. Watson has been appointed Acting Surgeon to the 3rd Lancashire Volunteers.

Surgeon J. G. MacNeece has been transferred from general duty to the Presidency Circle, Bombay.

Surgeon-Major R. H. Carew has been directed to act as Civil Surgeon of Darjeeling, in addition to his own duties, during the absence of Surgeon-Major F. C. Nicholson, M.B.

Surgeon-Major E. C. R. Ward has been placed on general duty, Mhow Circle.

Surgeon-Major W. Taylor, M.D., has been transferred from general duty, Mhow Circle, to general duty, Poona Circle.

Surgeon-Major D. B. Brown has been transferred from general duty, Presidency Circle, to general duty, Poona Circle.

Surgeon D. Franklin has been transferred from general duty, Sind Circle, to general duty, Mhow Circle.

Surgeon-Major J. N. Davis, M.D., is permitted to proceed to England, in anticipation of his retirement from the service.

Surgeon P. Mulvany and Surgeon J. Hickman have been permitted to exchange places on the Indian roster of service.

Lieutenant Leicester Seward, of the South Lancashire Regiment (formerly the 40th Foot), the son of Surgeon-Major G. E. Seward, M.D., died at Peshawur, India, on the 17th ultimo, at the age of 25.

Colonel F. G. C. Probart, the only son of the late Dr. F. G. Probart, of Bury St. Edmund's, died at Great Yarmouth on the 18th instant, in his 50th year. At the time of his death, Colonel Probart was Commanding Officer of the Great Yarmouth Regimental District.

Quartermaster John Mullins, Medical Staff, died at Korti, in the Soudan, on January 8th, in his 41st year. He entered the service as Lieutenant of Orderlies, June 9th, 1877, and was made Quartermaster from July 1st, 1881.

INDIAN MEDICAL SERVICE.

AT a meeting of the Faculty of Medicine held on February 7th, at the University Buildings, Bombay, Dr. H. Cook and Dr. Cowasjee Hormusjee were elected Dean and Syndic of the Faculty, respectively, for the ensuing year.

The responsibility of transferring married hospital-assistants for duty to places on the western coast, Sind, and the Quetta district, and of permitting their families to accompany them at the public expense when the duty is of a permanent nature, is by a recent ruling vested in the Surgeon-General of Her Majesty's Forces, Bombay, who is to accord specific sanction in each case as it arises.

Surgeon J. B. Gibbons, Bengal Establishment, Officiating Resident Physician at the Medical College Hospital at Calcutta, has been directed to act as Civil Surgeon and Superintendent of the Medical School at Dacca, during the absence of Surgeon-Major A. Crombie, M.D.

The services of Surgeon H. C. Hudson, Bengal Establishment, lately on duty with the camp of the Governor-General's agent in Central India, have been replaced at the disposal of the military department.

The services of Surgeon A. F. Ferguson, Bombay Establishment, have been replaced at the disposal of His Excellency the Commander-in-Chief. The services of Surgeon-Major S. B. Halliday, Bombay Establishment, have been also replaced at the disposal of His Excellency the Commander-in-Chief.

Surgeon-Major C. P. Costello, Bengal Establishment, in medical charge of the 5th Punjab Cavalry, is directed to take medical charge of the Brigade Staff, in addition to his other duties, during the stay at Dera Ghazi Khan of the Brigadier-General commanding.

Surgeon C. B. Maitland, Bombay Establishment, who has been officiating in medical charge of the 2nd Cavalry at Deesa, has been appointed to the officiating charge of the 19th Native Infantry at the same place.

The services of Surgeon R. J. Baker, Bombay Establishment, Staff-Surgeon at Quetta, are placed at the disposal of Government for temporary employment in the Civil Department.

Surgeon-Major R. A. K. Holmes, M.B., Bengal Establishment, Superintendent of the Central Prison, has been transferred from Meerut to Lucknow.

Surgeon-Major R. Jameson, M.D., Bengal Establishment, Superintendent of the Central Prison, has been transferred from Futtehghur to Meerut.

Surgeon W. H. Cadge, Bengal Establishment, Superintendent of the Central Prison, has been transferred from Lucknow to Futtehghur.

The services of Surgeon J. W. T. Anderson, Bombay Establishment, have been temporarily placed at the disposal of Government for employment in the Civil Department.

The undermentioned gentlemen have been allowed leave for the periods specified: Surgeon L. R. Dawson, M.D., Bengal Establishment, in medical charge of the 22nd Native Infantry, for one year on medical certificate; Surgeon-Major R. Caldecott, Bombay Establishment, in medical charge of the 2nd Central India Horse, and the Goonah Political Agency, for ninety-two days on medical certificate.

NAVAL MEDICAL SERVICE.

Staff-Surgeon R. W. Coppinger, M.D., has been promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet. Dr. Coppinger entered as Surgeon November 12th, 1870, and became Staff-Surgeon November 3rd, 1876. He served in the Arctic Expedition in 1875-76, and received the Arctic medal.

THE INDIAN MEDICAL SERVICE AND EXTRA CHARGES.

Sir,—In the Journal of January 10th, you draw attention to an alleged grievance of the Indian Medical Service in the following words.

"There is another matter to which the attention of the public, and the authorities at home and in India, is now being frequently directed by the most influential Indian journals, and which we hope Mr. Gibson will bring under the notice of Parliament when it meets, and that is, the almost daily increasing practice of bestowing all the extra charges upon officers of the Army Medical Staff." Further on, you say "we must remind those who are now abusing that influence and authority, by using both to the injury of the latter (the Indian Medical Service), of its great history" . . .

To read these remarks, it would appear to an uninstructed reader that some great injustice was being inflicted on the Indian Medical Service for the benefit of the Army Medical Staff. It is not stated what these "extra charges" are, or who are the "authorities" who are so abusing their powers.

Perhaps, sir, in the interests of the British Medical Journal (which, I am certain, would be the last paper to publish a misstatement, and to prevent Mr. Gibson, or any other member of Parliament, from airing imaginary grievances in the House), you will permit me to put a few facts before your readers.

The first question to consider is, what are the "extra charges," the next, who are the "authorities" in whose gift they are? The only appointments open to officers of the Army Medical Staff in India, are the surgeoncies to the Viceroy and Commander-in-Chief in the Bengal Presidency, those of the governors and Commanders-in-Chief in Madras and Bombay, staff charges and lock hospitals. The first-named six appointments—namely, of the Governor-General, the Commander-in-Chief, and the Governors and Commanders-in-Chief of the minor presidencies, are purely personal, and it would surely be out of place for the British Medical Journal or Mr. Gibson to attempt to dictate to these officials regarding the appointment of their personal staff.

The next point is, what are known as "staff" charges? At each divisional head-quarters a staff-surgeon is appointed by the major-general commanding, and this officer (generally one of the regimental officers of the station) receives 100 rupees a month (£8) for attendance on the general, his staff, their families, and all the departmental officers, and their subordinates and families. In the Bengal presidency there are, I think, five divisions, and each of these has its staff-surgeon. These appointments are also purely personal, and are in the gift of the general officer commanding, who makes his selection on the recommendation of the deputy surgeon-general of the circle. Here, again, I think you will admit that, being personal appointments, and open to both branches of the medical service, no dictation would either be listened to, or would be advisable. The man most suited is chosen, and I would merely remark, in passing, that if an officer of the medical staff is more frequently chosen, this may follow from two causes; 1, the preponderance in numbers of medical staff officers over the officers of the Indian Medical Service doing military duty (civil surgeons are neither eligible nor available in military stations); 2, the very natural feeling on the part of the military to prefer medical men who are constantly in the habit of treating Europeans, and who are presumably better qualified to attend on their countrymen and women in a tropical climate than officers who spend their lives attending native soldiers. I do not for a moment mean to insinuate that this feeling is a correct one, but the prejudice does exist, and will be difficult to combat.

Now, as regards the value of these appointments. Truly, and I speak from experience, their gain is too frequently a loss. In the first place, one has to keep at least two horses to do the work; and what with the expense of purchasing them and their feed, the balance-credit at the end of a year is frequently a minus quantity.

The next point to consider is the charge of the smaller stations, that is, other than head-quarter stations, for which the allowance is thirty rupees a month; here I will at once say that not only is there nothing to be gained by taking them, but, at the end of the month, the incumbent is frequently out of pocket. I have known cases in which all the medical officers of both services have refused to accept these "station staff-surgeoncies," and the commanding officer has actually had to compel an officer to do the duty by putting him in orders for the post against his wish.

The last point to touch on is the charges of lock hospitals; these are of two classes, 100 rupees and 50 rupees per month respectively. These lock hospitals are instituted entirely for the benefit of the European soldier; and, though the appointments are open to officers of both services, and are frequently given to Indian men, yet commanding officers do prefer to give them to officers of the medical staff, as they have more direct communication with the European soldier, and can trace out cases of disease in consequence. My personal experience of these various positions is pretty extensive, as, during a service of sixteen years in India, I invariably held staff and lock hospital appointments in addition to my duties with European troops. Out of six different appointments, four were conferred on me by commanding officers of the Indian Service, who presumably appointed the officer they considered most fit for the post.

It must be borne in mind that officers of the medical staff must pass the examination in the native languages before being eligible; further, that none of the "plums" of the Indian Medical Service are open to us.

I think, sir, you will see from the above that the grievances to which you have alluded, exist chiefly in the imagination of your informant, and that the great injustice complained of is nearly wholly imaginary.—I am, etc., X.

HOSPITAL AND DISPENSARY MANAGEMENT.

FRIENDLY SOCIETIES' MEDICAL INSTITUTES.

Dr. J. Maunsell has reprinted and forwarded a number of letters, notices, and papers relating to his connection with the Bath Friendly Societies' Medical Institute, and the results arising from it. Dr. Maunsell, it seems, became medical officer to this institute, and, desiring to know more of the working of similar organisations, initiated a correspondence with their various medical officers, and with the secretary of a central union of such institutes (Mr. G. Abbott of Sheffield). The result of a rather animated correspondence was that Dr. Maunsell's position at Bath became a difficult one, and eventually his connection with the Friendly Societies' Medical Institute was terminated by the committee. In consequence of this, and some subsequent occurrences which it is not necessary to particularise, some very important questions have been reviewed and discussed. Of course, among these is a consideration of how far friendly societies' medical institutions are worthy of countenance. There is unquestionably a great deal that may justly be urged against many of the features of such combinations, but at present it seems as though time would have to be allowed to develop these until faultiness leads to failure, or modifications cannot be any longer delayed. In the meantime, the members and managers, with the pride and ardour begotten of the novelty and comparative largeness of their accomplished work, allege that they are only availing themselves of the full advantages which competition in the medical profession places within their reach.

There are not wanting, however, signs that several of the friendly societies connected with these institutes look back regretfully to their "club-doctor," and in several towns a number of lodges, etc., have plainly refused to be systematised, and vowed their preference for old and valued association with their own local medical officers. Probably the whole matter points to the ill-effect of want of co-operation and common understanding among the profession—as groups and as a whole—on such matters, an isolation which leaves their interests perilously at the mercy of any moderately effective combination.

The teaching of the last twenty-five years seems to have tended to prove alike in the industrial, the commercial, and the professional circles, that "unrestricted competition," while it may benefit the many, often brings the worst consequences to the competitors, and the real need is some means whereby, without stifling proper and healthy rivalry, the profession can guard itself against reckless lowering of the position and status of many of its members. Dr. Maunsell, however, rather indicates certain evils now pretty generally recognised, than suggests definite means of remedying them.

SEAMEN'S HOSPITAL.

The report of the Seamen's Society presented at the sixty-fourth annual court, held at Willis's Rooms, on March 4th, showed that the number of patients under treatment in the hospital last year was 1,751, and that 7,360 out-patients were relieved. At the Wells Street Dispensary of the Society, 4,066 patients were treated during the year. An examination of the drainage of the hospital had convinced Mr. Rogers Field, C.E., that it was so radically defective that nothing short of the reconstruction of the whole system would place the hospital in a safe sanitary condition. The Lords Commissioners of the Admiralty, as landlords of the property, have consented to contribute £1,500, or half the estimated cost of the drainage-works.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

ENGLISH URBAN MORTALITY IN 1884.

In an accompanying table will be found summarised the vital and mortal statistics issued by the Registrar-General in his weekly returns for 1884, relating to twenty-eight of the largest English towns. Weekly summaries of these statistics have already been published in these columns.

During the year 1884, 308,153 births were registered in the twenty-eight towns, equal to an annual rate of 34.6 per 1,000 of their aggregate population in the middle of that year, estimated at rather more than eight and three-quarter millions of persons. In London the birth-rate did not exceed 33.7 per 1,000, whereas in the twenty-seven provincial towns it averaged 35.4. The birth-rate in these large towns showed a slight decline from the rate recorded in 1883, which was 34.7 per 1,000. Since 1876, when it was as high as 38.1 per 1,000, the birth-rate in the large English towns has continuously declined. The lowest rates last year in the twenty-eight towns were 28.3 in Brighton, 29.2 in Bradford, and 29.5 in Halifax and in Huddersfield; the highest were 39.9 in Nottingham, 42.4 in Cardiff, and 42.6 in Sunderland.

The 192,237 deaths in the twenty-eight towns last year were equal to an annual rate of 21.6 per 1,000 of the population, and corresponded with that in the preceding year 1883, which was lower than in any year on record. The marked improvement in the health of the country generally, and especially in that of the urban population, in recent years, was fully maintained during the past year. During the ten years 1871-80 the rate of mortality in the large towns dealt with by the Registrar-General averaged 24.0 per 1,000. During the past four years of the current decade the death-rate has not exceeded 21.8 per 1,000. This reduction in the death-rate implies that nearly 74,000 persons in the twenty-eight towns survived the last four years whose deaths would have been recorded had the mean rate of mortality prevailing in the preceding decade been since maintained. It may be here noted that the saving of life during the same period of four years in England and Wales, as the result of the reduction of the general death-rate of the country, is estimated at no less than 213,000. The rate of mortality in London last year was equal to 20.3 per 1,000; while it averaged 22.7 in the twenty-seven provincial towns, among which it ranged from 18.0 in Brighton, 18.4 in Bristol and in Derby, and 19.4 in Portsmouth, to 24.5 in Oldham, 25.2 in Liverpool, 26.4 in Manchester, and 27.3 in Preston.

During the year under notice, 31,147 deaths were referred to the principal zymotic diseases, equal to 16.2 per cent. of the total deaths, and to a rate of 3.5 per 1,000. In the preceding ten years, 1874-83, this zymotic rate averaged 3.8 per 1,000. The lowest zymotic death-rates last year were 1.7 in Brighton, 1.8 in Huddersfield, and 2.0 in Plymouth; while the highest were 4.8 in Cardiff, 4.9 in Leeds, and 5.2 in Preston. These 31,147 zymotic deaths included 10,809 which resulted from diarrhœa, 5,692 from whooping-cough, 5,349 from measles, 3,961 from scarlet fever, 2,565 from "fever" (principally enteric), 1,508 from diphtheria, and 1,264 from small-pox. The death-rate from diarrhœa was equal to 1.21 per 1,000, and exceeded that recorded in any year since 1880; this disease showed excessive fatality in several provincial towns, the rate being equal to 1.92 in Blackburn, 2.43 in Leicester, and 2.88 in Preston. The rate of mortality from whooping-cough was equal to 0.64 per 1,000; this disease was considerably more fatal in London than in the aggregate of the provincial towns, among which the highest death-rates from this disease were recorded in Sunderland, Liverpool, and Bolton. Measles was more fatally prevalent during 1884 than in the preceding year, and caused a rate of 0.60 per 1,000; among the twenty-eight towns, the highest measles death-rates were returned in Portsmouth, Wolverhampton, and Oldham. The rate of mortality from scarlet fever did not exceed 0.45 per 1,000, which was little more than half the average rate in the ten preceding years, and was lower than that recorded in any previous year for which these statistics are available. In London the mortality from this disease was lower than in any year since 1873; among the provincial towns, however, the scarlet fever death-rate was excessive in Cardiff, Leeds, and Sheffield. The rate of mortality from "fever" (principally enteric) was 0.35 per 1,000, and showed a further decline from those recorded in the two preceding years; this disease was proportionally most fatal in Salford, Derby, and Blackburn. The death-rate from diphtheria slightly exceeded that recorded in the preceding year; the fatality of this disease in London considerably exceeded that in the provincial towns, among which the rate was somewhat excessive in Portsmouth and Cardiff. During last year, 1,264 fatal cases of small-pox were registered in the twenty-eight towns; 913 occurred in London, and 351 in the twenty-seven provincial towns.

Public Health Statistics relating to Twenty-eight Large English Towns, for the Year 1884.

Towns.	Estimated Population middle of 1884.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Deaths.	Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhœa.	Rate per cent. of Uncertified Deaths.	Deaths of Children under one year of age to 1,000 Births.
28 Towns.	8,762,354	308,153	192,237	34.6	21.6	3.5	31,147	1,264	5,348	3,961	1,508	5,692	2,565	10,809	2.4	168
27 Provincial Towns.	4,742,993	170,658	109,187	35.4	22.7	3.6	17,518	351	3,063	2,517	535	2,504	1,520	7,028	3.3	178
London	4,019,361	137,495	83,050	33.7	20.3	3.3	13,629	913	2,285	1,444	973	3,188	1,045	3,781	1.3	155
Brighton	112,954	3,251	2,060	28.3	18.0	1.7	197	1	10	29	15	36	17	89	1.6	147
Portsmouth	133,059	4,719	2,616	34.9	19.4	3.0	403	—	163	9	42	9	62	118	0.9	128
Norwich	90,410	3,138	1,948	34.2	21.2	3.1	285	—	58	4	13	23	31	156	1.7	187
Plymouth	75,509	2,454	1,612	32.0	21.0	2.0	153	—	50	2	9	17	27	48	1.0	150
Bristol	215,457	6,888	4,024	31.5	18.4	1.8	402	—	50	40	19	97	49	147	2.4	143
Wolverhampton	78,367	2,752	1,863	34.6	23.4	3.8	304	5	96	36	5	18	12	132	3.8	189
Birmingham	421,258	15,055	9,145	35.2	21.4	3.9	1,662	63	332	128	44	291	81	723	1.5	174
Leicester	132,773	4,921	2,978	36.5	22.1	4.0	544	—	54	62	13	69	18	328	1.9	226
Nottingham	205,298	8,329	4,780	39.9	22.9	3.8	795	—	145	37	39	129	68	377	2.0	196
Derby	87,608	3,077	1,636	34.6	18.4	2.3	201	2	36	13	1	21	47	81	1.3	145
Birkenhead	90,870	3,509	1,808	38.0	19.6	2.2	204	11	44	28	7	10	24	80	4.5	140
Liverpool	573,202	20,503	14,691	35.2	25.2	4.5	2,613	106	621	201	82	553	206	844	4.9	194
Bolton	108,968	3,683	2,668	33.3	24.1	4.3	478	—	112	15	4	106	35	206	2.4	194
Manchester	338,296	12,426	9,071	36.2	26.4	3.6	1,235	5	200	231	19	212	79	489	2.8	183
Salford	197,153	7,129	4,468	35.6	22.3	4.2	851	—	101	139	19	128	94	370	4.3	184
Oldham	122,676	4,409	3,050	35.4	24.5	3.5	430	—	197	33	5	38	25	132	6.8	183
Blackburn	110,498	4,182	2,701	37.3	24.1	4.0	449	—	110	45	2	2	74	216	3.0	187
Preston	99,481	3,919	2,756	38.8	27.3	5.2	521	—	61	83	11	33	42	291	3.9	222
Huddersfield	86,004	2,579	1,708	29.5	19.6	1.8	153	—	15	7	4	59	11	57	3.7	163
Halifax	76,479	2,219	1,814	29.5	23.4	2.4	188	—	56	31	2	34	26	39	6.0	176
Bradford	209,564	6,291	4,286	29.2	20.1	2.4	518	—	103	33	9	58	54	261	2.6	181
Leeds	327,324	11,564	8,034	34.8	24.2	4.9	1,620	1	219	487	67	165	145	536	2.0	184
Sheffield	300,563	11,272	6,832	36.9	22.4	4.2	1,273	34	19	458	11	128	93	530	5.2	172
Hull	181,225	6,960	3,887	37.8	21.1	3.6	654	18	89	45	28	64	77	333	5.6	169
Sunderland	123,204	5,331	2,887	42.6	23.1	3.5	433	85	8	46	15	94	28	157	2.9	166
Newcastle-on-Tyne	151,325	6,072	3,552	39.5	23.1	3.2	496	12	16	153	15	83	57	160	2.9	156
Cardiff	93,468	4,026	2,312	42.4	24.4	4.8	456	8	98	122	35	27	38	128	2.2	184

including 106 in Liverpool, 85 in Sunderland, 63 in Birmingham, 34 in Sheffield, and 18 in Hull. The fatality of small-pox in London showed the greatest excess during the last two months of the year. The number of small-pox patients under treatment at the Metropolitan Asylum Hospitals, which was 98 at the beginning of the year, gradually rose to 1,368 by the beginning of July; it afterwards declined to 471 in September, but was 1,013 at the end of the year.

Infant mortality, measured by the proportion of deaths of infants under one year of age to births registered, averaged 168 per 1,000 in the twenty-eight towns during last year. Owing to the excessive fatality of summer diarrhœa, this rate exceeded the average. In London it was equal to 155 per 1,000, but it averaged 178 in the twenty-seven provincial towns, among which it ranged from 128 and 140 in Portsmouth and Birkenhead, to 196 in Nottingham, 222 in Preston, and 226 in Leicester.

RURAL SANITATION IN INDIA.

Slowly but surely sanitation is making progress in the great presidency towns of India; attention is being paid to drainage and a pure water-supply, the first two requirements of all cities; and in Calcutta the tanks of stagnant sewage are, one after another, being filled up. When, however, we turn to the rural districts, to the village communities, we find that, with here and there an exception, little has been done. As our readers know, we have been diligent students of the reports of the sanitary commissioners of the different provinces of India, and have highly appreciated their labours; but, in common with some of our lay contemporaries in India, we should be glad to see some fruit as the outcome of all. We have made it our practice to look carefully at what, in official language, is known as the "Government Order on the Report," which is either prefixed or appended to all reports by the sanitary commissioners. These "orders" are usually drawn up by one of the secretaries to the local government of the province or district to which the report refers. There is a notable sameness in the purport and tone of the various writers. There is generally, but not always, a stiff acknowledgment of the work done, a summary of some of the leading facts, a little fault-finding when some small error in details has been hit; and, as a rule, that is about all. Sometimes, when the duty of preparing the Government order falls to the lot of a smart young "competition wallah," the opportunity is taken to indulge in a few sneers at the work he is set to review, or to joke in a dull way over matters which, to people who are not "competition wallahs," are questions involving life or death to whole communities. We have before us a Government order which is in some respects a wholesome exception to the above; the writer is Mr. Webster, Chief Secretary to the Government of Madras. We notice in this document that, in the matter of vaccination, Mr. Webster pitches his expectations in a high key; after expressing dissatisfaction with the results for the year under notice, he declares "that the minimum outturn of work which can be accepted in future as satisfactory, must represent an equilibrium between the number of successful primary cases and the number of births." Happy will it be for India when such results can be obtained.

If Mr. Webster had to report on the vaccination statistics of Leicester, where would he find language sufficiently strong to characterise the successful labours of Mr. Peter Taylor, M.P., and those whose happiness it is to be represented by that legislator in Parliament? In happy Leicester, at the present time, 5,000 parents are under summons for point-blank refusing to have their children vaccinated at all. We can assure Mr. Webster, while wishing him more success than he is likely to attain in his vaccination-results, that in no part of England with which we are acquainted, even under the operation of a compulsory Vaccination Act, has such a "minimum outturn of work" been obtained as he expects to see in Southern India. At the same time, we rejoice over the vigorous manner in which Mr. Webster chastises the neglect of certain "local fund" authorities for not doing their duty in the work of vaccination, and others, "20 per cent. of whose allotment for sanitation was unspent in 1882-83." It strikes us, with our experience of our own home difficulties in the way of sanitation, that little will be done in India until the minds of "local fund boards" there are enlightened as to the meaning of sanitation. Until they are made to understand the inestimable value of pure air and pure water, of cleanliness of house, person, and surroundings, all the reports of sanitary commissioners and orders of Government thereon will avail nothing. They must be taught that a death-rate of 1.2 *per mille* of the population from cholera, rising to 3.8 in towns, of 1.2 *per mille* from small-pox, and 7.1 *per mille* from fevers, is not an inflexible law of God, but the outcome of human ignorance and stupidity. We do not know that we can put the simple requirements of Indian village sanitation in plainer words than those used by a writer in the *Englishman*, which, if carried out, would plainly be worth a cart-load of "reports;" in one word, it is now action, and not mere talk, that is needed to diminish the yearly harvest of death.

"It is by doing something year by year, by precept and example, by educating people to see the uses and necessities of proper sanitation, whereby the health of themselves and their children is improved and life prolonged; it is by such measures that district sanitation can and will be carried out. From the chief civil authority of each province, down to the latest joined civilian fresh from his competition examination, and lately appointed to a district, we must look for the proper carrying out of proper sanitary laws. A little carried out, year by year, in the shape of drains, not the shallow trenches that are now supposed to act as such, and which as a rule lead nowhere: the filling in of all holes and small kutcha wells and tanks that abound in every basti: the imparting to the inhabitants the necessary knowledge that cleanliness means health, and health means wealth: the supplying them with good and pure drinking water—they will gladly take it, and prefer it when they can get it to the living filth they drink now—these and such like matters, gradually but steadily kept in view, will do much to render life healthier, and do away with the annual terrible heavy bill of mortality, that is a disgrace to us as a civilised nation, and one reigning over the people of India. Educate the people to know that bad drainage, or none at all, is and must be detrimental to health; that bad ventilation and bad water mean disease; that, in the event of an epidemic of disease—cholera, for instance—breaking out in a house, and that if not thoroughly disinfected, it must spread and break out again; that the very food they have stored up and which they possibly lie over, if not on, must become impregnated with the germs of disease, and so go on causing the propagation of the disorders. Teach them all this by degrees, and they will soon learn, and the bill of mortality will lessen year by year. Above all, let it be that the Sanitary Commissioner and his own particular staff, namely, the district civil surgeons, are to be *de facto* the authority from whom should emanate suggestions as to what should be done, and insist that these recommendations be carried out loyally and thoroughly."

POOR-LAW MEDICAL OFFICERS AND THE MEDICAL REGISTER.

At a meeting of the Council of the Poor-Law Medical Officers' Association, held at their Rooms, 3, Bolt Court, Fleet Street, March 3rd, attention was drawn to the case of Mr. H. C. Linden, District Medical Officer of the Bingham Union, Notts., who applied for and obtained a Poor-Law medical appointment, his election to which was annulled by the Local Government Board on account of his name not appearing in the *Medical Register* through his not apprising the Medical Council of his change of residence; proof having subsequently been given to the board of guardians that his name had been restored to the *Register*, he was re-elected; but on his applying for his quarter's salary, he was told by the clerk that the Local Government Board had declined to sanction the payment. We are requested to state that the Council of the Poor-Law Medical Officers' Association desires to express its opinion that a great injustice has been done to Mr. Linden, and that he is entitled to the sympathy and support of the profession, and it also wishes to impress upon Poor-Law medical officers the importance of immediately informing the Medical Council of any change of residence.

Health of English Towns.—In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,146 persons, 5,937 births and 3,660 deaths were registered during the week ending the 28th ultimo. The annual rate of mortality, which had declined in the four preceding weeks from 24.5 to 20.5 per 1,000, rose again last week to 21.4. The rates in the several towns, ranged in order from the lowest, were as follow:—Portsmouth, 13.9; Huddersfield, 14.3; Hull, 15.7; Halifax, 16.9; Leicester, 18.4; Oldham, 18.6; Bradford, 18.7; Birmingham, 19.4; Brighton, 19.6; Leeds, 19.7; London, 20.0; Birkenhead, 20.2; Wolverhampton, 20.4; Blackburn, 21.3; Sheffield, 21.8; Derby, 22.1; Nottingham, 23.9; Bristol, 24.4; Manchester, 24.6; Bolton, 25.6; Liverpool, 25.7; Salford, 26.8; Plymouth, 26.8; Norwich, 29.2; Sunderland, 29.6; Newcastle-upon-Tyne, 30.3; Cardiff, 31.7; and Preston, 32.2. In the twenty-seven provincial towns the death-rate averaged 22.6 per 1,000, and was 2.6 above the rate recorded in London. The 3,660 deaths registered in the twenty-eight towns last week included 377 which were referred to the principal zymotic diseases, against 398

and 384 in the two preceding weeks; of these, 113 resulted from whooping-cough, 102 from measles, 44 from scarlet fever, 32 from "fever" (principally enteric), 31 from diphtheria, 31 from diarrhœa, and 24 from small-pox. These 377 deaths were equal to an annual rate of 2.3 per 1,000. In London the zymotic rate did not exceed 1.8 per 1000, while it averaged 2.5 in the twenty-seven provincial towns, among which these zymotic rates ranged from 0.0 in Derby and Halifax, and 0.4 in Portsmouth, to 5.7 in Norwich, 9.1 in Cardiff, and 14.2 in Sunderland. The deaths referred to whooping-cough, which had increased from 104 to 117 in the three previous weeks, declined to 113, and showed the highest proportional fatality in Bristol, Wolverhampton, Preston, and Norwich. The fatal cases of measles, which had been 53, 91, and 92 in the three preceding weeks, further rose to 102, and caused the highest death-rates in Cardiff and Sunderland. The 44 deaths from scarlet fever showed a slight further decline from those recorded in the two previous weeks; this disease was proportionally most fatal in Preston. The 32 deaths from "fever" were 4 less than the number in the preceding week, and showed the greatest prevalence in Norwich. Of the 31 deaths from diphtheria in the twenty-eight towns, 16 occurred in London, 3 in Liverpool, 3 in Nottingham, and 2 in Leeds. Of the 24 fatal cases of small-pox in the twenty-eight towns, 18 occurred in London (exclusive, however, of 19 deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside Registration London), 2 in Birmingham, 2 in Sunderland, 1 in Liverpool, and 1 in Brighton. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 1,223 and 1,141 at the end of the two preceding weeks, further declined to 1,103 on Saturday last; 170 new cases were admitted to these hospitals during the week, against 255 and 163 in the two preceding weeks. The death-rate from diseases of the respiratory organs in London was equal to 4.9 per 1,000, and was again considerably below the average. The causes of 79, or 2.2 per cent. of the 3,660 deaths registered last week in these twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.—In the eight principal Scotch towns, having an estimated population of 1,269,170 persons, 830 births and 600 deaths were registered during the week ending the 28th ultimo. The annual rate of mortality, which had been 25.0 and 23.1 per 1,000 in the two preceding weeks, rose again last week to 24.6, and exceeded by 3.2 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 13.3 in Perth, 16.0 in Edinburgh, 20.5 in Leith, 21.1 in Aberdeen, 24.7 in Greenock, 26.2 in Dundee, 29.0 in Glasgow, and 35.2 in Paisley. The 600 deaths registered in these towns included 82 which were referred to the principal zymotic diseases, against 95 and 81 in the two preceding weeks; of these, 31 resulted from whooping-cough, 17 from scarlet fever, 15 from measles, 11 from diarrhœa, 6 from "fever" (principally enteric), 2 from diphtheria, and not one from small-pox. These 82 deaths were equal to an annual rate of 3.4 per 1,000, which exceeded by 1.1 the average zymotic death-rate last week in the large English towns. The zymotic death-rates in the Scotch towns ranged from 0.9 and 1.9 in Aberdeen and Edinburgh, to 4.5 and 6.6 in Glasgow and Perth. The 31 fatal cases of whooping-cough showed a further slight increase upon those recorded in the two previous weeks, and included 13 in Glasgow, and 6 in Edinburgh. The deaths from scarlet fever, which had been 12 and 9 in the two preceding weeks, rose last week to 17, of which 14 were returned in Glasgow, and 2 in Paisley. The 15 fatal cases of measles showed a decline from recent weekly numbers, and included 12 in Glasgow, and 2 in Dundee. The 6 deaths from "fever" corresponded with the number in the preceding week; 3 were recorded in Greenock. The 2 fatal cases of diphtheria were returned in Glasgow. The mortality from diseases of the respiratory organs in these Scotch towns exceeded that recorded in the corresponding week of last year, and was equal to 5.1 per 1,000, against 4.9 in London. The causes of 71, or 11.8 per cent., of the 600 deaths registered last week in these Scotch towns were uncertified.

HEALTH OF FOREIGN CITIES.—It appears, from statistics published in the Registrar-General's return for the week ending the 28th ultimo, that the annual death-rate averaged 36.0 per 1,000 in the three principal Indian cities; it was equal to 24.7 in Bombay, 34.9 in Calcutta, and 57.6 in Madras. Cholera caused 4 deaths in Bombay, 16 in Calcutta, and 37 in Madras; small-pox 3 both in Calcutta and in Bombay, and 1 in Madras; and "fever" mortality showed the greatest excess in Madras. According to the most recently received weekly returns, the annual death-rate in twenty-two of the largest European cities averaged 28.1 per 1,000, and exceeded by 6.7 the mean rate last week in the twenty-eight large English towns. The death-rate in St. Petersburg was equal to 33.5, showing a decline from the still higher rate in the previous week; the 595 deaths included 22 from diphtheria, and 13 from typhoid fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 25.0, and ranged from 20.7 in Copenhagen to 32.0 in Stockholm; scarlet fever and diphtheria showed fatal prevalence in Stockholm and in Christiania, and the 106 deaths in Copenhagen included 4 from diphtheria, and 1 from small-pox. The death-rate in Paris was 26.6, and showed a further decline from the high rates in recent weeks; 38 deaths resulted from diphtheria and croup, 35 from measles, and 27 from typhoid fever. In Brussels the 202 deaths included 9 from croup and 4 from scarlet fever, and were equal to a rate of 23.5. The 38 deaths in Geneva gave a rate of 27.7. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rate averaged 27.7, the highest rate being 28.5 in Rotterdam; the deaths in Amsterdam included 7 from measles and 6 from scarlet fever, and 2 fatal cases of scarlet fever occurred in Rotterdam. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 27.8 per 1,000, and ranged from 22.8 in Buda-Pesth, and 23.7 in Berlin, to 31.9 in Trieste, 32.0 in Munich, and 36.0 in Prague. Small-pox caused 13 deaths in Vienna, 12 in Trieste, and 2 in Prague; diphtheria caused the highest mortality in Dresden and Trieste. In three of the largest Italian cities, the mean death-rate was 32.4, the rate being 27.8 in Rome, 33.9 in Venice, and 35.3 in Turin. Small-pox caused 19 deaths in Turin, 9 in Rome, and 4 in Venice; 7 fatal cases of typhoid fever occurred in Turin, and 3 in Rome. The usual returns from Madrid and Lisbon do not appear. In Alexandria the 155 deaths, including 5 from whooping-cough and 3 from diphtheria and croup, were equal to a rate of 34.8. In four of the principal American cities, the mean recorded death-rate was 24.4, the several rates ranging from 24.0 in Brooklyn, to 26.0 in New York. Diphtheria showed more or less fatal prevalence in each of these American cities; measles caused 41 deaths in New York, typhoid fever 16 in Philadelphia, and scarlet fever 13 in Brooklyn.

HEALTH OF IRISH TOWNS.—During the week ending February 14th, the number of deaths registered in the sixteen principal town-districts of Ireland was 509. The average annual death-rate, represented by the deaths registered, was 30.7 per 1,000. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Armagh, 0.0; Belfast, 26.4; Cork, 30.5; Drogheda, 21.1; Dublin, 34.1; Dundalk, 21.8; Galway, 40.3; Kilkenny, 38.1; Limerick, 25.6; Lisburn, 24.2; Londonderry, 37.4; Lurgan, 35.9; Newry, 17.6; Sligo, 19.2; Waterford, 48.6; Wexford, 29.9. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 3.0 per 1,000, the rates varying from 0.0 in Galway, Newry, Kilkenny, Drogheda, Dundalk, Sligo, Lisburn, Lurgan, and Armagh, to 25.5 in Waterford; the 21 deaths from all causes registered in the last named district comprising 11 from measles. In the Dublin Registration District, the deaths registered during the week amounted to 236. Twenty-three deaths from zymotic diseases were registered, being 2 over the number for the preceding week, but 8 under the average for the sixth week of the last ten years; they comprised 10 from measles, 3 from scarlet fever, 2 from whooping-cough, 3 from enteric fever, etc. There were but 46 deaths from diseases of the respiratory system registered in Dublin during last week, against 83 for the preceding week; they comprised 37 from bronchitis, and 4 from pneumonia. The deaths of 28 children under five years of age (including 20 infants under one year old) were ascribed to convulsions. Five deaths were caused by apoplexy; 9 by other diseases of the brain and nervous system (exclusive of convulsions); and 9 by diseases of the circulatory system. Phthisis caused 34 deaths, mesenteric disease 5, and cancer 5. One accidental death and one case of suicide were registered. In one instance, the cause of death was "uncertified," and in 34 other cases there was "no medical attendant."

WE are glad to learn that the Vestry of Lambeth have decided to accept the offer of the Metropolitan Public Garden, Playground, and Boulevard Association of the gift of £100 towards planting trees in the principal thoroughfares of the parish, to which we alluded in the JOURNAL of February 7th. We understand that the money was presented to the Association by one of its members, who does not wish his name to be made public.

THE EPIDEMIC OF TYPHOID FEVER AT MARKET WEIGHTON.

SIR,—As an old subscriber to the BRITISH MEDICAL JOURNAL, may I ask for a little space for comment upon the paragraph in the JOURNAL of February 14th, with the heading above named. You are perfectly accurate in stating that we have suffered severely from what is well known to be a preventable disease. My colleague, Dr. Jefferson, has had a great many cases, and I have myself now reached my seventieth, and we have had four deaths; but when you proceed to say that this state of things reveals an amount of ignorance, etc., little less than culpable, I think I ought, in vindication of the rural sanitary authority, to ask you to state that the very inspector from the Local Government Board (Mr. Arnold Royle, C.B.) whose investigation you name, speaks in a very different strain, he having, in most eulogistic terms, praised the continued and persevering efforts of the authority, whose work has been from the outset uphill and arduous.

Market Weighton is, as you say, a small town, dependent entirely upon agriculture, and is so small as to have suffered in an almost unprecedented manner from the recent depression. For many years back, it has been my duty to point out the "dangers ahead" from faulty drainage and an unsafe water-supply, and with unmitigated zeal the authority have, to the utmost of their resources, responded to my call; but, as ours is only one out of forty small parishes with which they have to deal, they have unfortunately been hampered in their work by having to consider not only the cure, but the cost. I am quite aware that this is a false argument; but in rural districts, at any rate, hygienic progress must necessarily be gradual, as people are slow to believe even such apparent truths.

And now, sir, as to the vicar and leading parishioners of the place, whom you accuse of "ignorance and intolerance." What have they done to merit such an accusation? They have, in spite of unparalleled poverty, subscribed to and formed a waterworks company, and this by no legislative compulsion, but from a private conviction of the inevitable "Nemesis of the neglect of scientific law," of which you deem them so profoundly insensible. That there have been black sheep in our flock I am bound to admit, and I would fain believe it is to them that your remarks refer; as I feel sure that, after inquiring into the matter with your usual justice, you would be the first to acknowledge that it has been from no lack of knowledge, or apathy, on the part of the authorities that sanitary reforms have been so slowly brought about; and before leaving this subject, may I take up cudgels for our worthy vicar, who has, as you justly remark, made himself conspicuous, not only in Cambridge, but in Market Weighton, and not only by his conscientious scruples upon vivisection, but by his fearless and eloquent appeals in all social reforms. If one man more than another has deserved well of his fellows in this affliction which has visited us, it has been our parson. He has been not only the first to visit, to assist, and comfort the sufferers, but he has been an active member of our local committee, and one of his sermons is now being printed by the special request of his parish; and, although I entirely disagree with his "vivisection theories," I must in justice confess that I believe it is mainly due to his exertions that we have arrived at the happy consummation of Mr. Royle's visit, who, if asked upon this subject, would, I am confident, corroborate my statements; and if, Mr. Editor, you had known the man, you would have been the last to talk of touching the conscience, awakening the sympathies, or enlightening the intelligence, of the late Hulsean Lecturer.—Yours very faithfully,

ALFRED JACKSON, Medical Officer of Health, Market Weighton.

*** It is satisfactory to know that the rural sanitary authority is making great efforts to prevent the recurrence of such an epidemic in the future, but this does not annul responsibility for supineness in the past. The censure expressed in the paragraph referred to did not, of course, apply to the medical officers of health, who will have the warmest sympathies of their colleagues for the arduous work which has been done and must yet be done. The epidemic of typhoid fever at Market Weighton has been, unquestionably, very extensive. An epidemic of similar magnitude in a large town would excite an universal chorus of condemnation. In Manchester, for instance, it would mean that over twenty thousand people would be prostrated by the disease at the same time. Market Weighton received severe lessons when the cholera visited it in 1849 and 1866; there has, therefore, been plenty of time to effect the necessary improvements had the inhabitants understood their importance.

The sermon which we have received contains some sensible advice, which shows that the vicar, who had witnessed the last epidemic of cholera, has now learnt some of the rudiments of sanitary science. The sermon is founded on a passage in Deuteronomy which contains the regulations with regard to the disposal of excreta laid down for the guidance of the Israelites. The excellence of the sanitary regulations contained in the Mosaic law has been universally recognised by recent writers on hygiene. Dr. Gueneau de Mussy, the well known Parisian physician, has just published an *Etude sur l'Hygiène de Moïse.* But an intelligent comprehension of the broad principles which underlie his enactments is necessary, in order to apply these principles to the altered circumstances of modern life. The fact that Moses considered it part of his duty as a religious leader to give minute attention to the physical well-being of the people whose religious welfare was committed to his care, contains an obvious moral. That the preacher who, in an University containing a medical school remarkable for its scientific excellence, made use of a public occasion, when reply was impossible, to deliver an assault upon the methods of scientific medicine—methods of which he understood neither the nature nor the uses—should be the same man as had been for twenty years or more vicar of the town in which this severe epidemic of a preventable disease has been raging, seemed to be worthy of note. It was the vicar, not his parishioners, who was accused of intolerance.

PRESENTATION.—A presentation of a handsome dressing-case was made to Dr. Henry Tomkins by the nurses and others of the staff at the Monsall Fever Hospital, Manchester, on his resignation of the appointment of resident medical officer to that institution, which post he has held for upwards of six years.

MEDICO-LEGAL AND MEDICO-ETHICAL.

UNFOUNDED ACCUSATION AGAINST A MEDICAL MAN.

MEMBERS of the medical profession are specially exposed to have unfounded charges brought against them. Such charges, imputing the improper use of drugs, etc., are easy to make, and not always easy to disprove. They are of serious importance to the men against whom they are made, though the persons who make them may often have no character which is materially affected by their being either substantiated or broken down. Any legal proceeding in which such charges are in issue is, therefore, one in which a professional man fights at a disadvantage. He may lose much by the result, and is nearly certain in any event to have to incur considerable expense. He must, however, face out any charge publicly made, and cannot, for the sake of peace, agree to any compromise of the litigation, however unprofitable it may be. If he win, he is only left in the position in which he was before his character was wantonly assailed; and if he fail to win, he must remain subject to an imputation which will be certain to interfere with his professional success.

The truth of the above remarks has long been well recognised; but from time to time instances occur which call attention to it again. An action, "Parker against Whitefoord," was recently tried in the Queen's Bench Division. In it, the plaintiff, an old woman, whose position seems to have been that of partly lodger and partly charwoman, sued Mr. C. C. Whitefoord for assault, and for trespass, in turning her out of his house, in which she occupied certain rooms. She admittedly was addicted to drinking, and evidently was a most undesirable person to have as an inmate of any respectable house; though the jury found that Mr. Whitefoord had exceeded his rights in the means which he took to get rid of her. The case was, however, a trumpery one, and Mr. Whitefoord, if he could have done so, would have been well advised to settle it in the first instance by making the woman some small payment; but she and her friends rendered this course impossible by asserting that he had "passed something across her face to make her insensible." Such a charge must either be withdrawn or negatived in open court, and the action had consequently to be tried. The plaintiff successfully resisted an attempt to relegate it to a county court, and the parties had consequently to incur the expenses incident to a trial in the High Court. At the trial, the charge against Mr. Whitefoord, which alone made it necessary to try the action at all, broke down utterly, and both judge and jury said that it ought never to have been brought. The plaintiff had a verdict for £10—she might have had at least that much without bringing the action at all—and, we are glad to say, the judge refused to allow her any costs. The result, as far as she is concerned, is that she (or her solicitors, if they were kind enough to take up her case) is considerably out of pocket by the action which she nominally won. Mr. Whitefoord has succeeded in clearing his character from an unfounded charge, and has been put to considerable expense and anxiety in so doing. We can only congratulate him on having had the courage and determination to meet such an imputation as it should be met, and hope that the failure of the plaintiff to get any costs may act as a deterrent to persons who are disposed to make serious imputations against professional men without any evidence to support them. The people who make such imputations are usually impecunious, and it is not worth while to take proceedings against them. Knowing that they have nothing to lose, they become bold from their impunity. When, however, these charges are made into grounds of action, they become serious; and it is a matter of importance to the profession, and the public generally, that such actions should fail, as this has done.

THE MUTUAL RELATIONS OF PRACTITIONERS.

J. G.—One or two cases, clearly stated, of the alleged unethical conduct of Dr. T. would have enabled us to discharge the function of ethical assessors with less difficulty, and greater effect, probably, than the series of imperfectly defined charges, extending over several years, submitted for comment by Dr. G.

A critical examination, however, of the more salient points of the correspondence between Dr. T. and Dr. G. leaves no doubt upon our mind that the former has, in more than one instance, failed in his professional duty to the latter; and, moreover, by "issuing circulars or cards, of a decidedly business-like character, to the public," has committed an act incompatible with the honour and dignity of the profession, and inimical to his own true interest.

We may further note, in passing, that if Dr. T. will refer to pages 27, 35, 3 and 37 of "the little book recommended by Dr. G. for his careful study," rule will be found by which his professional conduct should have been governed the several cases to which exception has justly been taken. At the same tir. we think that Dr. G.'s notes of remonstrance would have had greater weight w his erring medical colleague if a more conciliatory tone had happily pervade them.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 26th, 1885.

Arnold, William, Manchester School of Medicine.
Blachford, Jem, London Hospital.
Cundell, William Hatch, St. Mary's Hospital.
Hebblethwaite, Septimus Montague, St. Bartholomew's Hospital.
Innes, Charles Barclay, St. Bartholomew's Hospital.
Sutton, James Bryan, Charing Cross Hospital.

MEDICAL VACANCIES.

The following vacancies are announced.

BRECON INFIRMARY.—House-Surgeon. Salary, £100 per annum. Applications by March 12th.

BURTON DISPENSARY.—Dispenser. Salary, £80 per annum. Applications to Mr. Allen, 69, Branstone Road, Burton-on-Trent.

CHESTER GENERAL INFIRMARY.—House-Surgeon. Salary, £80 per annum. Applications by March 28th.

COLONIAL HOSPITAL, Fiji.—Dispenser. Salary, £150 per annum. Applications to Mr. R. Bremridge, 17, Bloomsbury Square, W.C.

EASTBOURNE UNION.—District Medical Officer. Salary, £85 per annum. Applications by March 12th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Clinical Assistant. Applications by March 19th.

EAST SUFFOLK HOSPITAL.—Two Honorary Physicians. Applications by March 11th.

GENERAL INFIRMARY, Hull. — House-Surgeon. Salary, 100 guineas per annum. Applications to the Chairman of the House-Committee by March 21st.

HALIFAX INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary, £50 per annum. Applications by March 26th.

HOSPITAL FOR INFECTIOUS DISEASES, Bootle-cum-Linacre.— Resident Medical Officer. Salary, £100 per annum. Applications to the Chairman of the Health-Committee, Town Hall, Bootle-cum-Linacre.

LITTLEMORE PAUPER LUNATIC ASYLUM, near Oxford.—Resident Assistant Medical Officer. Salary, £100 per annum. Applications by March 15th.

NATIONAL DENTAL HOSPITAL AND COLLEGE, 149, Great Portland Street. —Lecturer on Dental Materia Medica. Applications by March 20th.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, Liverpool.—Resident Medical Officer. Salary, £80 per annum. Applications to Robert Calder, 4, Commercial Court, 17, Water Street, Liverpool, by March 12th.

NEW ROSS UNION.—Medical Officer. Fethard, No. 1 Dispensary. Salary, £115 per annum and fees. Applications to James Neill, Honorary Secretary, Arthurstown. Election on March 16th.

NORTH DEVON INFIRMARY, Barnstaple.—House-Surgeon. Salary, £100 per annum. Applications by March 7th.

PARISH OF LAMBETH.—Assistant Medical Officer and Dispenser. Salary, £125. Applications by March 10th.

PARISHES OF WESTRAY AND PAPA WESTRAY, Orkney.—Medical Officer, Public Vaccinator, and Officer of Health. Salary, £82 per annum. Applications to J. Scott, Inspector of Poor, Westray by Kirkwald, by March 25th.

PORTSMOUTH LUNATIC ASYLUM, Milton, near Portsmouth.—Assistant Medical Officer. Salary, £120 per annum. Applications by March 16th.

PROVIDENT MEDICAL INSTITUTE.—Medical Officer. Salary, £150 per annum. Applications to the Secretary, 4, Bath Street, Bath, by March 17th.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House-Surgeon for six months. Applications by March 17th.

SEAMEN'S HOSPITAL (late *Dreadnought*), Greenwich, S.E.—House-Surgeon. Salary, £50 per annum. Applications by March 7th.

ST. JOHN'S HOSPITAL FOR SKIN-DISEASES, Leicester Square, W.C.—Honorary Assistant-Surgeon. Applications by March 11th.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, etc., Henrietta Street, Covent Garden.—House-Surgeon for six months. Honorarium, 25 guineas. Applications by March 21st.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square.—Honorary Physician. Applications by March 23rd.

ST. MARK'S HOSPITAL FOR FISTULA, etc., City Road, E.C.—Honorary Surgeon and Honorary Assistant-Surgeon. Applications by March 19th.

SUSSEX COUNTY HOSPITAL.—Assistant-Physician and Assistant-Surgeon. Applications by March 25th.

TIVERTON INFIRMARY, Devon.—House-Surgeon. Salary, £100 per annum. Applications to the Honorary Secretary, Old Blundells, Tiverton.

VENTNOR CONSUMPTION HOSPITAL.—Clinical Assistant. Applications to Dr. Coghill, St. Catherine's House, Ventnor.

WEST LONDON HOSPITAL, Hammersmith.—Assistant Surgeon. Applications by March 30th.

YORK COUNTY HOSPITAL.—Honorary Physician. Applications by March 7th.

MEDICAL APPOINTMENTS.

FOX, W. Piercy, L.R.C.P., etc., appointed Assistant Medical Officer to the Brownlow Hill Infirmary, Liverpool, *vice* J. Henderson Brannigan, L.R.C.P. & S.Ed., resigned.

GABB, J. Percy A., M.D.Lond., appointed Honorary Assistant Medical Officer to the Royal Surrey County Hospital, Guildford, *vice* H. Parson, L.R.C.P., M.R.C.S., resigned.

LAPAGE, Charles Clement, M.A., M.D.Cantab., appointed Physician to the Nantwich Brine and Medicinal Baths Company.

OLDHAM, H. Falconer, B.A., M.B., B.Ch.Trin. Coll. Dubl., Resident Medical Officer to Netherfield Institution for Infectious Diseases, Liverpool, appointed Resident Medical Officer to the Monsall Fever Hospital, Manchester, *vice* H. Tomkins, M.D., resigned.

PERKS, Robert Howell, F.R.C.S.E., appointed Resident Medical Officer to the Royal Albert Hospital, Devonport.

RICE, Edward, M.B.Lond., M.R.C.S.Eng., appointed House-Physician to the Radcliffe Infirmary, Oxford, *vice* Thomas Harris, M.D.Lond., resigned.

STEPHENS, William J., L.R.C.P.Edin., appointed Honorary Physician to the Brighton and Hove Dispensary, *vice* E. G. Whittle, M.D.Lond., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTHS.

JULER.—On the 2nd instant, at 77, Wimpole Street, Cavendish Square, W., the wife of Henry Juler, F.R.C.S., of a daughter.

MICHAEL.—On March 1st, at Turnchapel, Plymouth, the wife of Surgeon H. J. Michael, Army Medical Staff, of a daughter.

MARRIAGES.

CAMERON—SAVORY.—On March 3rd, at St. Stephen's Church, by the Reverend H. W. Lee, Robert Duncan Cameron, L.R.C.P. and S., North Cave, Brough, Yorkshire, second son of Donald Cameron, M.A., LL.D., of Torquay, to Grace, daughter of the late William Savory, Esq., Painswick, Gloucestershire.

TURNBULL—ROBERTSON.—At Drumacharry Lodge, Queen's Crescent, Edinburgh, on the 4th instant, by the Reverend John Alison, D.D., Newington, Matthew James Turnbull, M.D., F.R.C.S.E., of Tweed View, Coldstream, to Jane, daughter of the late Captain Alexander Robertson, 33rd Regiment, and granddaughter of the late Lieutenant-General Fergusson, of Dunfallandy, Perthshire. No cards.

DEATHS.

THORNE.—On the 3rd instant, Lillie Anna, the wife of Frederic Thorne, of 27, Waterloo Place, Leamington.

WARREN.—February 12th, 1885, at 83, Grosvenor Square, Rathmines, Samuel Warren, M.D., M.Ch., Dub. Univ., of Hoylake, Cheshire, eldest surviving son of the late Samuel Warren, T.C., Dublin, deeply and deservedly regretted. His remains were interred on Monday, the 16th ultimo, in the Moravian Cemetery, Whitechurch, co. Dublin.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Royal College of Surgeons of England, 4 P.M. Professor Alexander Hill: On the Grey Masses of the Cerebro-spinal System, their Relations to one another and to the Peripheral Nerves.—Medical Society of London, 8.30 P.M. Dr. Macpherson: On the History of the Use of Ipecacuanha in Dysentery. Dr. Sydney Coupland: A Case of Endocarditis. Dr. Samuel West: On Hæmaturia in Granular Kidney.

TUESDAY.—Royal College of Physicians of London. Dr. Hermann Weber: Croonian Lecture on the Hygienic and Climatic Treatment of Consumption. —Royal Medical and Chirurgical Society, 8.30 P.M. Mr. F. Treves: The Treatment of Acute Peritonitis by Abdominal Section. Mr. J. R. Lunn and Dr. Benham: Case of Aneurysm of Abdominal Aorta.

WEDNESDAY. —Royal College of Surgeons of England, 4 P.M. Professor Alexander Hill: On the Grey Masses of the Cerebro-spinal System, their Relations to one another and to the Peripheral Nerves.—Epidemiological Society of London, 8 P.M. Surgeon-General A. C. C. De Renzy, C.B.: The Prevention of Heat-Apoplexy.—British Gynæcological Society, 8.30 P.M. Specimens by Drs. Aveling, Granville Bantock, Edis, and others. President's inaugural address. Dr. Aveling: A Case of Double Pyosalpinx.—Royal Microscopical Society, 8 P.M. Mr. J. W. Stephenson: On a New Catadioptric Illuminator. Dr. J. D. Cox: Structure of the Diatom Shell. Siliceous Films too Thin to show a Broken Edge. Mr. J. R. Cheshire and Mr. W. W. Cheyne: The Pathogenic History of a New Bacillus (*B. Alvei*, Cheshire). Mr. Francis Fowke: The First Discovery of the Comma-Bacillus. Exhibition of Nobert's original machine for ruling his lines.—Hunterian Society, 7.30 P.M. Council. Dr. Herman: Cases of Dermoid Pelvic Cysts. Mr. Corner: Cases of Uterine Hæmorrhage, with impending Death, cured by Removal of the Ovaries.

THURSDAY.—Royal College of Physicians of London. Dr. Hermann Weber: Croonian Lecture on the Hygienic and Climatic Treatment of Consumption.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Living specimens at 8 P.M. Mr. Nettleship: Total Detachment of Retina of Long Standing, with Retention of some Sight. Mr. A. S. Morton: Choroidal Atrophy. Dr. Brailey: On the Condition of the Ciliary Nerves in Certain Diseases of the Eye. Dr. Mules: Evisceration of the Globe (with living specimen). Mr. Nettleship: Note on the Spontaneous Disappearance of Diabetic Cataract. Mr. A. H. Benson: Tuberculosis of Cornea. Mr. J. B. Lawford: Case of Tubercle of the Choroid (with ophthalmoscopic drawing and microscopical specimens).

FRIDAY.—Royal College of Surgeons of England, 4 P.M. Professor Alexander Hill: On the Grey Masses of the Cerebro-spinal System, their Relations to one another and to the Peripheral Nerves.—Clinical Society, 8.30 P.M. Dr. Bastian: A Case of Thrombosis of the Basilar Artery, with Profound Coma, Extreme Lowering of the Rectal Temperature, and Death in Five Hours and a Half. Mr. Barwell: An Unusual Sequela of Ovariotomy. Mr. Davies-Colley: Three Cases of Colotomy, with delayed Opening of the Intestine.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.— Samaritan Free Hospital for Women and Children, 2.30 P.M.— Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.— Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.— Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M. —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12,

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30 Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE THERAPEUTICS OF MERCURIC CHLORIDE: A GERM-THEORY OF SYPHILIS.

SIR,—There are some points in Mr. Fotherby's interesting communication on the above subject in the BRITISH MEDICAL JOURNAL of the 7th ultimo, which deserve special consideration, and to which I would call attention.

1. Dr. Farquharson, in his *Guide to Therapeutics*, points out the superiority of corrosive sublimate over the other preparations of mercury as an antiseptic. From what M. Miguel has lately discovered, he makes out the biniodide to be three times the strength of the perchloride, a solution of a strength of 1 in 40,000 rendering life impossible to any form of microbe, while of perchloride the strength must be 1 in 14,000.

2. Mr. Fotherby asks whether the combination of corrosive sublimate with albumen would appreciably modify its poisonous effects when given to the lower animals. I am inclined to think that (as direct combination takes place between corrosive sublimate and albumen, and the result is an insoluble compound), if any symptoms should manifest themselves after its administration, they would be due to the mercuric perchloride which remained over and above that which was required for the complete neutralisation of the albumen, the severity of the symptoms varying in proportion to this quantity; no action whatever taking place if complete combination only were effected.

3. The fact that, when mercurials are given shortly after meals, patients show a greater tolerance of the drug, is, I take it, explained above; for I think that, in ordinary diet, there is an insufficient amount of albumen to counteract the doses of mercury which are usually prescribed; should, however, an essentially albuminous diet be adopted, there would probably be no action whatever following the average doses of mercury.

Whether the combination of the biniodide with albumen would have the effect of modifying the action of this drug, I am not prepared to say; but I should think, judging from their chemical history, that the result would be much the same, dose for dose proportionally, as that of the mixture of the perchloride with albumen would be.

On the subject of the germ-theory of syphilis, I see that M. Briçon has contributed an article in the *Progrès Médical*, where, after reviewing the subject, he sums it up in the following words. "1. Syphilis is a parasitic disease. 2. The microbe of syphilis is a micrococcus, because, if we except some few authors who have described it as a bacterium or bacillus, most writers refer to a micrococcus of a character still undefined. 3. Inoculations made with the products of syphilis have been unsuccessful, or, at least, doubtful, M. Martineau's case (that of an ape) being, perhaps, an exception."

The admirable suggestion made in the JOURNAL on January 24th, as to the advisability of forming a bacteriological laboratory at the forthcoming meeting of the Association, would, if carried out, go far to clear up any doubts at present existing as to whether syphilis, and, indeed, many other diseases, are due to a process of fermentation, just as chemical combination in inorganic substances is due to chemical affinity.—Yours truly,

CHARLES THOMAS GRIFFITHS

15, Cathcart Road, South Kensington, S.W.

A CASE OF HEPATIC CONGESTION AND INTESTINAL DISORDER.

SIR,—Assuming, from the somewhat limited description of this case, given by your correspondent, "J. C. H.", in the JOURNAL of January 17th, that it is one of catarrhal congestion of the hepatic ducts, and that the diarrhœa is mainly due to, or, at least, maintained by, irregular discharges of acrid and irritating bile, I should recommend the following plan of treatment. He should have a hot bath daily, with gentle shampooning over the site of the liver, after the manner of the Orientals. He should rest for a time in the recumbent position, as all bodily movement increases the peristaltic action of the bowels. In fact, for all obstinate cases of diarrhœa, this rest is a *sine quâ non*; and should be enjoined with the same resolution as in spinal disease or an injured joint. For medicine, he should first take three grains of calomel, with half a grain of capsicum, guarded, in case of need, by a grain of opium. Let this dose be repeated when necessary, say, twice a week; half a grain of podophyllin may be added sometimes with advantage. In addition, let ten grains of ammonium chloride be taken twice a day in about two wineglassfuls of water, taking the precaution to enjoin perfect rest, and the abstention from all food and drink for an hour after each dose. This medicine sometimes acts better when given with warm water. The following pill should, at the same time, be administered thrice daily. Sulphatis ferri exsiccati, gr. ii; sulphatis quiniæ, gr. ii; ext. nucis vomicæ, gr. ½; pulveris opii, gr. ½; extracti gentianæ, q.s. ut fiat pilula. As the diarrhœa becomes less, the opium may be omitted. Of course, if it be resolute, more active astringents will be necessary. The diet should consist of milk, with a little arrowroot or gelatine, administered at frequent intervals, and in small quantities, after the manner which has proved so successful in the hands of Sir Joseph Fayrer. A cup of cocoa may be taken after a time, but tea and coffee must be prohibited. Even soup, which, in the process of digestion, is resolved into its fluid and solid constituents, may, by the stimulating effect of its solid particles, further irritate the diseased intestine. Tobacco should also be laid aside, while a large sheet of spongio-piline should be continuously applied over the region of the liver and bowels.

By strict adherence to some such plan as this, I have been successful in many chronic cases, my own amongst the number. The ammonium and pills may be increased or diminished, according to the predominance of the hepatic or intestinal symptom.—Your obedient servant,

27, Welbeck Street, W. D. H. CULLIMORE, M.D., M.R.C.P.Lond.

THE M.D. BRUSSELS.

SIR,—Perhaps your correspondent, "Sigma," in the JOURNAL of February 7th, would kindly let you know what books, etc., he read for the above degree; or would you put me in communication with him? Apologising for encroaching on your time, I am, yours truly, PERCY NEWELL.

Saffron Walden, Essex.

A DIRTY TONGUE.

DR. DUNCAN MACKENZIE, of Glossop, writes, in answer to "G. W.'s" letter in the JOURNAL of February 21st.

"If your correspondent, 'G. W.'s' patient have recovered from his gastro-enteritis, the cause of his dirty tongue is probably chronic stomatitis. Does the patient smoke? Is there any chronic inflammation about the pharynx or tonsils? Is there any irritation in connection with teeth, natural or artificial? I think the continued use of Wyeth's compressed tablets of chlorate of potash and borax would be useful, or, perhaps, as recommended by Niemeyer, rolling about a fragment of rhubarb-root in the mouth; a glass of water, or, if required, of purgative mineral water, in the morning would also seem advisable."

The Administration of Anæsthetics.

Sir,—Being deeply interested in the subject of anæsthetics, I read an account, in the Journal of January 24th, 1885, of a "Death from Nitrous Oxide Gas," in Paris, the gas being administered to a gentleman advanced in life, by a well known advertising dentist of that city, in order to have a tooth extracted. From what can be gathered from the notice, death would seem to have been quite sudden, and to have been due to syncope or failure of the heart's action, caused by the fear or the shock of the operation. In the same number of the Journal, a very interesting letter appears on the Administration of Anæsthetics, by Dr. James Parkinson, of Sacramento, California, who, I am glad to see, has a high opinion of my ether-inhaler; and, from all I can learn, was the first to introduce it to the profession in America. In my improved inhaler, made by Coxeter, of London, it is impossible for the ether to run through the sponge into the patient's eyes and mouth, for there is a contrivance specially arranged within the mouthpiece to prevent the occurrence mentioned. I consider Dr. Parkinson's observations most valuable and practical with reference to the administration of these agents.

What I now proceed to state is what I have often stated before, and that is, that all anæsthetics are dangerous, and will induce death if carried too far; but, of all anæsthetics, I believe ether, properly and judiciously administered, to be the safest; chloroform to be the most dangerous. Ether will never produce syncope, or failure of the heart's action, no matter how much is given; but it will produce asphyxia, or failure of the respiratory action. But as this is a very slow process compared with the former, timely warning is given to the anæsthetist, so that he is enabled to anticipate and prevent any untoward result; whereas syncope comes on and ends so rapidly, that there is no time to resort to a remedy.

I also maintain that, when bronchitis or pleuro-pneumonia is present to any great extent, ether or any anæsthetic is dangerous to use. For the administration of such agents, I would make the following suggestions.

1. All anæsthetists should understand the properties and dangerous effects of each anæsthetic used.

2. All administrators should be qualified physicians or surgeons, and they should perfectly understand the process and degrees of anæsthesia before undertaking the grave responsibility of placing a human being into the mysterious sleep of insensibility.

3. Previously to any anæsthetic being administered, a careful and thorough examination of the thoracic cavity and its contents should be made, so as to detect, before it is too late, bronchitis or other pulmonary affection, as well as the condition of the heart.

4. The administration of ether, or any other anæsthetic, should not be prolonged beyond the actual time required for the performance of the surgical operation. This I think it right to mention, as, in a recent visit to some London hospitals, I observed the administration of ether with my inhaler was continued, and the anæsthesia kept up, long after, in my opinion, it was necessary. After the main steps of an operation are concluded, anæsthesia, in the majority of cases, need not be continued.

5. At the slightest approach of danger, such as lividity and pallor of the face, stertorous breathing, cessation of respiratory action or pulse, the anæsthetic should be at once discontinued, and fresh air at once allowed free access to the patient. Even after recovery, the anæsthetic should not again be then and there administered, though this should necessitate the postponement of the operation.

6. The person deputed to administer the anæsthetic should devote his entire and undivided attention to the anæsthesia of the patient, and to nothing else; he should never attempt to look about him, or watch the progress of the operation. When mishaps have occurred, they have frequently been due to carelessness in this respect. A competent and careful anæsthetist is, in my opinion, as important, and bears as much responsibility during an operation, as the operator himself.—I am, sir, yours, etc., L. Hepenstal Ormsby, M.D., F.R.C.S.,
Surgeon to the Meath Hospital and County Dublin Infirmary.

4, Merrion Square West, Dublin.

Permanganate of Potash.

Sir,—I have read, with the utmost surprise, the statement made by Dr. Simms, that permanganate of potash tablets give rise to ulceration of the parts with which they are brought into contact. He speaks of recently having had under his care two cases in which ulceration of the mouth was produced by the mere contact of the drug.

I do not know what experience Dr. Simms may have had in the use of permanganate of potash as a therapeutic agent; but, as my own observations, and, I may say, those of the majority of medical practitioners, are altogether opposed to his, I think he should be prepared to enter more fully into detail before making such a sweeping assertion. During the six months when I was resident obstetric assistant at Westminster Hospital, I saw permanganate of potash administered in some dozens of cases of functional amenorrhœa, and never, on any occasion, witnessed any untoward effect. Because permanganate of potash pills have sometimes passed through the alimentary canal unchanged, Dr. Simms thinks some of us are "miraculously preserved." A more rational conclusion would be that the chemist who dispensed them did not know his work. Everyone ought to know by this time that, if this drug be ordered in pilular form, it should be made up with vaseline, parafin, and kaolin. If these excipients be employed, there is no possibility of the pill passing through the intestines unaltered, and I can answer for it that there will be no ulceration of the mucous membrane, or other bad effect. If the drug be prescribed with any easily oxydisable substance, such as extract of gentian, an explosion is not unlikely, which might give rise to trouble, especially in these days of dynamite scares.

A few months ago, Dr. Roberts Bartholow, of Philadelphia, published a lecture on this drug, in which he recommended that the drug should always be administered in the form of compressed tablets, two or three one-grain tablets being taken three or four times a day with perfect confidence, provided only that they are swallowed in a little water after meals.

Dr. Simms must, I think, be mistaken in supposing that this remedy was introduced to the profession "two or three years ago." Reference to any of the text-books of materia medica will serve to convince him that it has been in use as a therapeutic agent for the last fifteen or twenty years. Indeed, his letter reminds me of the gentleman who said that he found no benefit from nitrite of amyl in angina pectoris, because the patients could not swallow the glass capsules in which the drug was contained.—I am, sir, your obedient servant, Alfred S. Gubb, M.R.C.S., L.R.C.P.Lond.

Hôpital Français, Leicester Square.

A Home for an Invalid.

M.R.C.S.E. asks for information concerning a suitable home for a medical gentleman who has cerebral softening, and has had repeated attacks of paralysis. He is dirty in his habits, and requires constant supervision. Unfortunately, this patient has no private income, but his friends are willing to pay £50 per annum, or even more (although they can ill afford it), to place him where he can be looked after and be comfortable.

Elastic Bandages.

Sir,—I shall be obliged if any of your readers can inform me if the porous elastic bandages have any advantage over Martin's India-rubber bandages in curing varicose ulcers of the leg.—I am, sir, yours faithfully,

Bagshot. J. Winthrop Woodruff, M.R.C.S., L.R.C.P.Edin.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. Purdon, Belfast; Mr. S. Knaggs, Huddersfield; Mr. Vere G. Webb, London; Mr. E. M. Crookshank, Bridport; Mr. T. H. Moorhead, Coote Hill; Dr. P. A. Gabb, Guildford; Our Birmingham Correspondent; Dr. Bond, Gloucester; Dr. W. M. Kelly, Taunton; Mr. I. Willcocks, Overton; Dr. W. S. Paget, Great Crosby, Liverpool; Dr. Ward Cousins, Southsea; Dr. Cameron, M.P., London; Mr. G. Meadows, Hastings; Miss I. Burton, Opcina; Mr. H. Lashmore, Southampton; Miss Seeley, Windermere; Dr. J. H. Aldridge, Southampton; Dr. J. E. Dowling, Ballymoe, co. Galway; Mr. Leonard Jeffery, Eastbourne; Mr. J. Thornley, Bolton; Mr. Beatty, Stockton-on-Tees; Dr. Roden, Great Malvern; Dr. A. M. Fernandez, New York; Dr. C. Lapage, Nantwich; Mr. J. E. Edwards, Chester; Mr. E. Mackenzie, Cheadle; Our Berlin Correspondent; Mr. H. S. Homans, Paris; Mr. P. S. Brito, London; Dr. Styrap, Shrewsbury; Mr. J. M. Miles, Dingle, co. Kerry; Mr. T. J. Verrall, Brighton; Mr. Shirley F. Murphy, London; Dr. H. W. King, Chester; Mr. H. A. Reeves, London; Mr. R. H. E. Hunter, Battersea; Dr. Mackey, Brighton; Dr. R. H. Hilliard, Aylesbury; Mr. W. J. Stephens, Brighton; Mr. J. Moore, London; Dr. A. Eddowes, Market Drayton; Mr. R. H. Smith, Devonport; M.R.C.S.E.; Mr. C. J. Symonds, London; Mr. L. Humphry, Cambridge; Mr. S. Snell, Sheffield; Dr. James H. Keeling, Sheffield; Dr. G. H. Rohe, Baltimore; Our Aberdeen Correspondent; Mr. T. Holmes, London; Messrs. T. and H. Constable, Edinburgh; Mr. S. D. Chandlee, Dublin; Mr. A. Jackson, Market Weighton; Dr. C. W. Suckling, Birmingham; Dr. P. M. Braidwood, Birkenhead; Dr. G. H. Mackenzie, Edinburgh; Mr. J. E. Burton, Liverpool; Dr. A. Carpenter, Croydon; Mr. G. E. Jeaffreson, Framlingham; Mr. E. L. Thomas, London; Dr. Glascott, Manchester; Mr. A. Duke, Dublin; Dr. H. Smith, London; Mr. J. Weir, Padiham; Dr. W. H. Tayler, Anerley; Mr. A. H. Benson, Dublin; Dr. A. H. Carter, Birmingham; Sir J. E. Eardley Wilmot, London; Dr. H. Sutherland, London; Mr. J. B. James, London; Dr. W. Hale White, London; Mr. R. J. Bush, London; Dr. A. Hill Hassall, San Remo; Mr. H. L. Woodeson, Milton, near Portsmouth; Dr. W. Woodward, Worcester; Mr. R. H. B. Wickham, Newcastle-on-Tyne; Dr. Gibson, Edinburgh; Dr. W. H. Daly, Pittsburg; Mr. Nunn, Dalston; Mr. W. D. Fox, Liverpool; Our Dublin Correspondent; Our Edinburgh Correspondent; Mr. Eastes, London; The Secretary of the Clinical Society, London; The Secretary of the Royal Medical and Chirurgical Society, London; Mr. J. W. Barnes, London; Dr. A. Sheen, Cardiff; Mr. Jonathan Hutchinson, London; Messrs. Woollams and Co., London; Dr. R. Paramore, London; Dr. Willoughby, London; Dr. H. Campbell Pope, London; Mr. H. Saxon Snell, London; Mr. Rayson, Wimborne; Dr. J. Ashburton Thompson, Sydney; Mr. Lowndes, Roscrea; Dr. N. H. K. Kane, Kingston-on-Thames; Dr. G. Homans, Boston; Dr. Rummo, Naples; Mr. T. F. Gardner, Bournemouth; Mr. J. H. Strover, West Hartlepool: Dr. P. Frankland, London; Our Belfast Correspondent; Our Manchester Correspondent; Our Liverpool Correspondent; Mr. E. Chapman, Oxford; Dr. Longstaff, Wandsworth; Mr. G. P. Best, Cheltenham; Mr. J. H. W. Gowan, Dumfries, etc.

BOOKS, ETC., RECEIVED.

The Metaphysical Aspect of Natural History. By Stephen Monckton. London: H. K. Lewis. 1885.

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THE CROONIAN LECTURES
ON
THE HYGIENIC AND CLIMATIC TREATMENT OF CHRONIC PULMONARY PHTHISIS.

Delivered at the Royal College of Physicians, London, March 1885.

By HERMANN WEBER, M.D.,
Physician to the German Hospital.

Lecture I.

Definition of Phthisis.—Infectiousness.—The Bacillus.—Differences in the Liability to Phthisis: Acquired and Hereditary.—Circumstances influencing the Prognosis.—Deplorable Condition of the Consumptive Poor in the Ordinary Hospitals.—Preventive Treatment.

Mr. President, Fellows, and Gentlemen,—Drs. William Ewart J. E. Pollock and Andrew have delivered before you, in the course of the last few years, lectures on important points in the ætiology, pathology, and treatment of phthisis. I intend to confine myself as much as possible to the hygienic treatment in the widest sense, which includes the dietetic and climatic management. Graves said: "It is of great importance to know how to make a man phthisical, as, by pursuing an opposite line of conduct, we will be able to prevent it." In these words lies my excuse, if I do not altogether avoid questions of ætiology and pathology.

While the lectures of my predecessors to whom I have just alluded were full of scientific research, mine claim only a humbler place; but if I were only able to put the matter as I see it, before you and the profession in general, with sufficient clearness and force, I should hope to be fortunate enough to contribute a small share towards the development of a more energetic and somewhat more successful prophylaxis and treatment of phthisis, especially in the poorer, but also in the richer classes.

As the word phthisis has had different meanings at different times, and at the same time in the minds of different men, I must state what I mean by pulmonary phthisis, namely, a chronic disease of the lungs, with consolidation beginning almost always at the apex, having a tendency to caseation, softening, and the formation of cavities, or of fibrous changes; all these changes may occur in the same individual at the same time in different parts of the lungs, or may follow one another at different periods of the disease. These changes are endowed with infective qualities, and have a disposition to spread to the adjacent parts, and to become also disseminated over distant parts. They are mostly found associated with the tubercle-bacillus discovered by R. Koch, and they are intimately connected with, we might say, engrafted on, a state of malnutrition of the whole organism, and especially the cells and tissues of the lungs. I claim no originality for this definition, which is not exhaustive, and which I have given only for the purposes of these lectures. It is derived principally from the remarks made by Drs. Green, Wilson Fox, and others, during the discussion at the Royal Medical and Chirurgical Society on Dr. Percy Kidd's paper on the Distribution of Tubercle-bacilli in the Lesions of Phthisis. I exclude the lung-diseases often called phthisis, which are caused by mechanical irritation through inhalation of inorganic or simple organic dust, the different forms of bronchiectasis, chronic bronchitis, or emphysema and heart-disease, chronic changes resulting from pressure on the bronchus, the diseases of hydatid origin, cirrhosis, empyema, and syphilitic changes of the lungs.

With regard to the infective power of the changes in the lung of phthisical subjects, they have been surmised long ago, even before the history of inoculation, which dates back at least as far as 1843, when Klencke made some experiments, which were almost forgotten when Villemin began his famous researches. The late William Budd, you remember, was perfectly convinced of the infectiousness of phthisis. On more than one occasion, when discussing the subject, he expressed his astonishment that the view of the infectiousness was not universally credited. Mr. W. Thompson, amongst others, has constantly insisted on the communicability of the disease. Possibly this view would not have been so generally accepted, even now, if the ideas of the profession with regard to zymotic diseases had not been gradually transformed by the researches of Pasteur, to whom the greatest praise is due, although he was preceded in some points by Schwann, that type of the modesty of genius, and had not the marvellous results obtained by Lister's disinfecting processes acted as a stimulus to the germ-theory in general. Pasteur's intelligent and never resting industry paved the way to a number of other scientific observers and experimenters, as Davaine, Obermeier, Cohn, H. V. Carter, Cohnheim, Klebs, Wilson Fox, Burdon Sanderson, Baumgarten, Lister, Tindall, Tommasi-Crudeli, Klein, and others, so that Koch's discovery of the tubercle bacillus came to us like a long expected message.

Dr. Andrew especially dwelt on the importance of this discovery in his lectures on the Ætiology of Phthisis, where he justly said that "not many discoveries of equal importance have received such speedy and strong confirmation as that of the tubercle-bacillus."

Mr. Watson Cheyne has given a full, clear, and confirming account, based on visits to the Continent, and many experiments performed by himself. The literature on the subject in this country, as also in France, Germany, Italy, and America, is already very large, and has received an important addition by the paper already mentioned by Dr. Percy Kidd, and the discussion which followed it. In spite of the large array of authors and papers, however, we cannot say that we know all about the bacillus; by which term I understand not only the developed little rod, but alsoits spores, and the chemical poison which probably is originated by its development in the tissues in an analogous manner to that in which, according to the researches of Gaspard, Panum, Billroth, Burdon Sanderson, and others, a powerful chemical poison, sepsin, is developed in the process of septicæmia.

We have no doubt that the bacillus is intimately associated with phthisis, but the exact relations appear to require still further elucidation. It is, for instance, not quite clear why the tubercle-bacillus thrives in some persons and not in others; or why in the same persons it thrives at one time and not at another. It seems to be an acknowledged fact, that some micro-organisms do not grow in the living tissues of a living animal. Dr. Klein states this with regard to the "septic and zymogenic organisms properly so-called;" and explains their occurrence in diseased tissues during the life of the subject, by assuming that these tissues had become changed, by inflammation or otherwise, so as to become practically dead before the organisms could grow in them. By analogy, the question arises whether the tubercle-bacillus settles and grows in healthy living tissues of the body, or only in pathologically altered tissues. We know that it thrives in the bodies of most warm-blooded animals when inoculated; but this does not prove that it will find a *nidus* in a healthy tissue when merely brought into contact with it by the surrounding air. The first point which we have to consider is, that the air which we inhale perhaps does not so often contain the fully developed bacillus as is supposed by many people, for this microbe does not thrive in the air at the usual temperature, but requires, according to Koch, a temperature approaching that of the human body. Its growth entirely ceases below about 82° Fahr., and above 107°, and it thrives best at about 98° to 100° Fahr., while other pathogenic microbes have a much wider field; for instance, the anthrax-bacillus, which grows luxuriantly between 67° and 74°, and up to 110° Fahr. A further point against the spread of the tubercle-bacillus out of the animal body, is that it does not form spores in the air, while the anthrax-bacillus does. Another peculiarity in the life of the former is that it grows slowly, that it requires as many days for its development as the anthrax-bacillus requires hours. This circumstance seems to diminish our danger considerably, for we may presume that a bronchial mucous membrane, when healthy, materially assists the expelling act of expiration by its ciliary functions. We are, however, less secure when, by catarrhal or inflammatory conditions, the mucous membrane of the bronchi, and especially of the smallest divisions, is deprived of its protecting surface, and when the respiratory acts are imperfectly performed, especially the expiration, thus allowing the stagnation of impure air in the alveolar spaces, and permitting the bacilli and their spores to develop themselves under circumstances most favourable to them.

This leads me to another subject in the relation of bacilli to phthisis, which appears not finally settled, namely, the chronic affections of the apex, which are usually regarded as incipient phthisis. Every one of us has seen numerous cases of this kind, characterised by some degree of dulness, mucous rhonchus, and more or less pyrexia, at one time or other. Many of these cases are followed, after a shorter or longer time, by an extension of the disease to other portions of the lung, and by a fatal termination. Not a few cases, however, become arrested and retrogressive, and ultimately, to all appearances, cured. These apparent cures are not always permanent; but, after intervals of four or six months, or some years, a similar affection is started again, either in the same or in the other apex, or in both, and may rise into fully developed phthisis, or be again arrested. In looking over my

notes, I have found eleven cases in which the arrest or cure has now lasted from five to twenty years, without a relapse, so that the cure may be regarded, with some degree of assurance, as permanent. What was the nature of these cases? Were they bacillary or non-bacillary? I cannot answer the question with any degree of certainty, as the bacillus was not known at that time, and only its constant absence in the sputa could have pointed with probability to the non-bacillary character of the affections.

I am inclined to believe, first, that some of the apical affections which I have seen were non-bacillary, or, in other words, the result of chronic catarrh and inflammation, without the presence and influence of bacilli, while the greater number were complicated by the presence of the parasite, and partly caused by the latter; second, that non-bacillary cases are apt to become bacillary, by the settling of the bacillus in the diseased cells and tissues; third, that bacillary cases may, under favourable circumstances, become non-bacillary. The recent discussion, already referred to, at the Royal Medical and Chirurgical Society, has not cleared up the question. Dr. Wilson Fox, in his philosophical remarks, told us that we ought not to be too quick in accepting all which the new views of the bacillary origin of phthisis required, considering that the pathology of tuberculosis had biennially, triennially, or quinquennially, been swayed by histological dogmata. Dr. Green, on the other hand, seemed more thoroughly to accept Koch's discovery, as being in perfect harmony with our older views, and his (Dr. Green's) definition of phthisis. He questioned the existence of pretubercular consolidation of the apex, which term may perhaps be understood as equivalent to non-bacillary consolidation, which I have used above. He appeared, however, not quite certain on this point. In some cases of disease of one apex, he said, where there was no evidence of softening and disintegration, it was difficult to say whether they were tubercular or not.

I have been told that it is imprudent to discuss, in our present state of transition, the question of the treatment of phthisis; but I do not quite share this opinion. If we could hope that, by further acquaintance with the nature and life of the bacillus, we could, at an early date, ascertain a method of attenuation of the tubercle-virus for inoculation, or find means of destroying the bacillus and its spores, either in the air we breathe, or in our tissues, or discover substances by which, without injury to ourselves, some slight alteration in the chemical constitution of our cells and tissues could be effected, which would render the thriving of the bacillus impossible, I should certainly wait; but I do not think that we are justified in entertaining such hopes for the near future, although the discovery of some such means does not appear to me at all impossible. We are not so well off as surgeons with regard to keeping off the entrance of spores into wounds and sores. The ingenious respirators invented by Tyndall and Frankland are certainly not without practical value, but their use will, I fear, never be general; and when once the system is infected, we do not yet know of parasite-killing remedies, which in effective doses would not injure the host together with the parasite. Even the surgeon, when once pyæmia or septicæmia is established, has hitherto found himself powerless to arrest the progress of the disease by means of antiseptic remedies administered internally. He even has great difficulty in disinfecting an external sore when complicated with sinuses. I well remember a conversation with Sir Joseph Lister on this subject, when he held out no hope that we might, at an early date, succeed in disinfecting an infected lung. The conversation to which I refer, occurred some years ago, but I have no reason to believe that Sir Joseph has altered his views since then. Although, however, we possess no direct means of destroying the parasite, we need not despair of doing good, by placing persons under circumstances in which they are less liable to become infected, and when infected, more able to limit the progress, and to effect a more or less perfect and more or less permanent cure. We know that the reputed cause of danger, the tubercle-bacilli or their spores, exist in many localities; and that yet, fortunately, the majority of people remain free from tubercles, and some become infected only after some accident, some lowering influence, mental or physical, or some catarrhal inflammatory affection of the respiratory organs, or some febrile disease, as measles or whooping-cough, or typhoid fever. There is some reason for the inference that, under such depressing influences, the resisting power of the body, and especially of the lungs, becomes impaired, and that thus the pathogenic germs are more likely to find a nidus for their development. This diminished resistance thus produced constitutes the complex class of *acquired predisposition*, which may be transitory or permanent. Our duty is, to prevent the occurrence of this predisposition, and, when it is formed, to remove it by improving the state of nutrition. And a further duty is to prevent, during the existence of this acquired predisposition, the risk of infection.

There is, besides, an equally large, if not larger, class of persons who have *hereditary predisposition* to phthisis. We must avoid entering on the exact nature of this heredity, whether it consists, as Professor Sée, in his very interesting work, *Phthisie Bacillaire des Poumons*, argues, in direct transmission of the virus from parents to offspring, or whether only in the transmission of certain predisposing defects. But we shall, under the head of "prophylactic treatment," return to the consideration of the duties which the existence of heredity imposes on us.

Before I enter on these duties, I must say a few words about prognosis, and endeavour to meet the gloomy views which many medical men still entertain. That anyone can hold the opinion that phthisis is incurable, is almost incredible; as not only older medical authors, but many of the most experienced living men, have pronounced distinctly hopeful views. The words of Carswell should be sufficient. "Pathological anatomy," he says, "has perhaps never afforded more conclusive evidence in proof of the curability of a disease, than it has in that of tubercular phthisis." Instead of saying that the prognosis of phthisis is almost always bad, I would, on the contrary, say that it is frequently hopeful. Every one of us has, I doubt not, often met with this proof in making *post mortem* examinations of persons who had died of other diseases. The instructiveness of most of such cases, however, is greatly diminished by the fact that the conditions of the person at the time when the attack had occurred are unknown, as also the circumstances under which the cure had taken place. As a great interest is attached to cases whose history is known, I venture to give you a short sketch of a case in which I had the opportunity of witnessing two separate attacks of phthisis, terminating in recovery, and finding the remains of the lesions, by *post mortem* examination, seven years after the second recovery, when death had occurred from typhoid fever with perforation.

C. M., aged 21, with a history of phthisis on the part of his father, came under observation in July 1867, on account of hæmoptysis. He had previously had attacks of "bronchial catarrh," as he called it. There was dulness, with crepitant rhonchus, over the left apex down to the fourth rib, and also on the supraspinal region. The right side was free; he had moderate pyrexia, and loss of flesh. With rest in bed and on sofa, with open windows, light cold food, and ergot of rye, the bleeding soon ceased. There was subsequent general improvement after removal to Weybridge, where he was ordered to be, during the greater part of the day, in the pine-forest of St. George's Hill; he was obedient to take frequent meals and cod-liver oil, with small doses of arsenic. He was then advised to spend ten or twelve months at Davos or St. Moritz; but, as this advice was described by an authority, who was separately consulted, as due to my "cold-loving idiosyncrasy," C. M., having found an engagement at Cape Town, went thither. At that place, he was disagreeably affected by the wind and dust, and was, therefore, sent to the high ground amongst the Boers, where he spent six months of the cool season on several farms at elevations of between 4,000 and 6,000 feet. Being constantly in the open air, with abundant exercise on horseback and walking, he entirely recovered, and was afterwards for some years at Cape Town and in the neighbourhood, in perfect health. In January 1873, after a year's residence in Paris and London, he was again seized with hæmoptysis. The apex of the left lung had remained free, showing only slight dulness and flattening, and occasionally a dry crackle, but no moist rhonchi; while the right apex was in an analogous condition as the left had been in 1867. Under a similar treatment, he again improved; and, being a good sailor, he went on board a sailing vessel to Valparaiso. On the voyage, the cough almost subsided; but at Valparaiso, where he began office-work, it became worse, and he was advised to carry out my previous suggestion to spend a year at Jauja, in the Peruvian Andes, whence he returned to Valparaiso in perfect health. In 1878, I had the opportunity of examining C. M., when on a visit to Europe. The former flattening and dulness over the left apex had disappeared; the breathing was only somewhat harsh, with prolonged expiration; but over the right apex there were slight dulness on percussion, some flattening, and harsh long expiration. He was able to bear any amount of fatigue, but no confinement to close room and office-work. I did not see him again till he came, in August 1881, from Italy and France, with well developed typhoid fever of a moderate type, without any lung-complication. He had almost recovered, when, at the end of the fourth week of the disease, he committed, against strict advice, the imprudence of eating a rather large quantity of grapes. Perforation of the lower part of the ileum took place within twenty-four hours, from a sore which had been in fair progress of healing, almost all the other patches being already healed. There were cretaceous patches in the apices of both lungs, and also in the lower lobe of the

right lung, with the often described changes in the surrounding tissues.

Whether these two attacks of phthisis were bacillary, and if so, whether the encapsuled cretaceous and semicretaceous masses still contained bacilli and spores, are questions which naturally offer themselves. If the bacilli and their spores can retain their life for years in such encapsuled masses, then it is very possible, as has been suggested by others, that the fresh attacks of phthisis which occasionally occur, after years of apparently perfect cure, are in some cases due to self-infection from the escape of imperfectly shut up parasites. A case lately published by Dr. Neuwerk, of Tübingen, tends to show that bacilli may really exist in such old encapsuled masses. The main points of the case are these. A ranger in a healthy district of Prussian Silesia, who served in the Franco-German war of 1870-71, in perfect health, and passed in 1875 a medical examination as a good life, suffered in 1877, during six months, from cough, anæmia, emaciation, and a general feeling of illness; he recovered, however, while continuing his open-air duties, and then remained well for several years, till cancer of the stomach developed itself, from which he died. The *post mortem* examination disclosed in both apices, which were contracted and puckered, cretaceous masses of different consistency, and also caseous nodules, in one of the latter of which Dr. Neuwerk found well-developed bacilli, after having searched in vain for a long time. He ascribed the phthisical changes in the lungs to the illness in 1877.

Dr. Neuwerk's case and the one related by myself have this in common, that indubitable attacks of phthisis were cured by what may be called "open-air treatment," and that death occurred not from phthisis, but from other diseases.

These cases, if we had no other proof, would in themselves be sufficient to show that phthisis is sometimes cured, and I do not hesitate to repeat that it is often cured.

There is nothing more baneful than the idea that phthisis is incurable. It shuts out all honest attempt to do everything possible, and to make every sacrifice to promote arrest and cure. I well remember in my student's time, when phthisis was considered as mostly incurable, how the name of the disease was withheld from the patient's knowledge; how depressed he became when he found it out; how he regarded himself doomed, and sometimes killed himself by poison or debauchery. I remember also the joy amongst the younger medical generation, and the public, when a more hopeful view developed itself, and the readiness to submit to every sacrifice and to long expatriation, with a fair chance of recovery. I will not mention the names of the living men who have worked in this direction, but I cannot help paying a tribute to the memory of Graves, Carswell, Archibald Smith, Addison, and Felix Niemeyer.

The portions of lung which are already destroyed before the treatment has commenced cannot be restored; but experience has shown to us that life, with a fair capacity for work and for enjoyment, can be maintained after a loss of a good part of the lungs, and that the remaining part, if sound, can be rendered capable of doing the ordinary life-work of both entire lungs; though it must always remain unfit to perform the extraordinary duties which can be occasionally demanded from the combined power of both lungs in perfect health.

That even the presence of a cavity does not preclude a cure, more or less complete, all the best observers of England, and many of the Continent, have proved. The phenomena of cavities have been carefully studied by Dr. C. T. Williams, Dr. Douglas Powell, and especially by Dr. William Ewart, whose Gulstonian Lectures of 1882 contained the fullest account of the pathology of cavities with which I am acquainted. In some cases, the formation of a cavity, as Professor Jaccoud and others have pointed out, is even favourable, provided the infectious contents can be thoroughly evacuated, and a fibrous zone of demarcation be established between the cavity and the surrounding healthy tissue. The tendency to fibrous change in this, as in all other processes of phthisis, is one of the most powerful agencies towards prolongation of life, and, in many cases, towards arrest and cure of the disease.

There is a species of constitution, which does not fight well when attacked by any serious disease, and especially by phthisis. I cannot satisfactorily define this complication of anatomical and physiological peculiarities of cells and tissues, and nerve-functions, which our old physicians, especially in Germany, used to call "erethic constitution." A slight injury, or a slight course of irritation, produces constitutional effects, especially pyrexia, quite out of proportion, and the effects do not readily disappear. The equilibrium of health is not easily regained. The pulse is generally rapid, the appetite varying, the mucous membrane irritable, sleep imperfect. This constitution is always associated with a certain degree of asthenia, sometimes patent, sometimes masked. For the sake of brevity, we might use, I think, this term when referring to the constitutional peculiarities just mentioned. The general treatment, and especially the climates most useful to other consumptive patients, are not easily adapted to this constitution. The prognosis of the developed disease is bad. Prophylactic treatment is imperative.

A most important point in the prognosis is the degree of intelligence and judiciousness of the patient, and, in many instances, of the patient's friends. The delicate or sick persons, who have an insight into their own condition in the wider sense of the word, and into those influences which act beneficially on them, and those which are injurious, have a better chance of recovery than those who are less intelligent, who do not see the bearing on health of all the numerous items of daily life, most trivial in appearance, but all-powerful in their accumulated action.

A circumstance of equal importance is the possession of means to carry out the most suitable treatment. No other disease demands so many, and as long continued, sacrifices, as phthisis; and those who are able to make them have, as a rule, a greater chance of recovery than those who cannot. The poor deserve our greatest sympathy. While, in the majority of other diseases, the ordinary hospitals place the poor almost under the same favourable conditions as the rich at their homes, this is by no means the case with phthisis. On the contrary, the majority of general hospitals are very ill adapted, and the well arranged special hospitals for the treatment of consumption have accommodation only for one sufferer in thousands. I wish, gentlemen, I could induce you not only to see this in the same light that I do but also to use your influence with the public gradually to fill up this great gap in our philanthropic institutions.

Preventive Treatment.—In discussing the treatment of phthisis, it is impossible to restrict ourselves to that of the developed disease, and to pass over the prophylactic or preventive treatment. The latter is, indeed, in many cases, all that gives us any chance; for in some constitutions the disease, once established, runs a rapid course to the end, or, at best, cripples the patient for life; and many of those endowed with better constitutions do not possess the means to submit to treatment which often must be extended over many years.

The question of preventive treatment has been ably discussed by many authors, Drs. Mc Cormac, Pollock, Jaccoud, and Rühle, amongst others, and quite lately, in a comprehensive way, by Ewald, in his address to the International Medical Congress at Copenhagen.

Some of the questions relating to the prevention of phthisis ought to belong to public hygiene and state medicine; for instance, whether to destroy cows affected with tuberculosis; whether to permit the flesh and the milk of such animals to be consumed; the hygienic arrangements in school-board schools, the playgrounds connected with them, and the superintendence of the games; the number of school-hours; the condition of factories, and the work at factories; the buildings for the accommodation of working people and their families, the barracks, etc.

The questions of infectiousness and communicability of phthisis are not yet sufficiently settled to lay down prophylactic rules with regard to them, but they ought to be carefully and calmly investigated in all their bearings. I have only to deal with them in the preventive sense, not as ætiological questions; but both cannot be quite separated. Dr. Andrew has fully discussed them in his Lumleian Lectures, and, though we may not in all points agree with him, his reasoning, based on historical data and personal experience, deserves thoughtful examination. There is in Dr. Andrew's discussion no sign of a feeling which is so apt to intrude itself unconsciously on the inquirer, and sometimes to influence his judgment. I have, for instance, heard from intelligent men the view that it would be cruel to shun the consumptive, who is already much afflicted; to check the intimate intercourse between him and his nearest and dearest friends, or to render his condition intolerable, and promote the fatal termination of his disease, by not allowing him to marry. If we could be sure that, by allowing intimate intercourse and marriage, the disease could not be spread, it would certainly be cruel to give pain; but, if experience and investigation should teach the opposite, then judgment ought to have precedence before feeling.

We are, I suppose, all convinced that infection can take place by *inoculation*; and this may possibly occur more frequently than is thought. Several instances are recorded. I remember, just now, two occurrences. The first is related in a communication by Dr. Lindmann in the *Deutsche Medicinische Wochenschrift*, 1883; two children, who were circumcised by a man who was in the last stage of consumption, and who, after the circumcision, sucked the prepuce according to the Jewish rites, became both infected with ulcers at the prepuce, and swelling of the inguinal glands; and the ulcers had the appearance of

tuberculous ulcers. One of the children recovered after some months; in the other, the glands became ulcerated, and caseated masses were removed from them. The child then apparently recovered, but, in the third year, it perished from Pott's disease and rapid phthisis. The second occurrence is recorded in the *Berlin Medicinische Wochenschrift* of 1878. The midwifery practice in the small village of Neuenburg was pretty closely divided between two midwives. One of the two became consumptive in 1874, and died in July 1876. Ten children, without hereditary predisposition, attended by this midwife between April 1875 and May 1876, died within the first seventeen months of their lives; while none of those died who were attended by the other midwife; and tubercular meningitis is a rare disease at Neuenburg. The consumptive midwife was in the habit of sucking the mucus from the mouths of the new-born children, and of blowing air into the mouth when there was the slightest sign of asphyxia.

It is not impossible that more cases of inoculation will be observed when once general attention is directed to this point. I remember two cases, which I am now inclined to explain in this way, though, at the time of their occurrence, I had not done so.

The first was in a wet-nurse, who nursed a consumptive child. She first had an ulcer at the side of the tongue, which was regarded as due to a rough tooth, which, however, did not heal after the tooth had been filed, and was not cured by borax and other local applications. Several months later she lost her voice, and ultimately died from phthisis. I am inclined to think that a slight sore on the tongue had been inoculated, and formed the starting-point of phthisis in this woman, who was free from hereditary disposition.

The second recollection relates to a mother who nursed a consumptive daughter, fifteen years old, with whom she shared the same bed, and whom she constantly kissed. She likewise had, first, a sore on the tongue, and afterwards on one of the tonsils, before she manifested any signs of pulmonary consumption. But in this case, the mother belonged to a somewhat tainted family, and her husband had died from phthisis. Although she had been apparently quite well before she nursed her daughter, yet she may have had latent phthisis before the sores on the tongue and tonsil made their appearance.

On the question of the contagiousness of phthisis, the views of medical men will probably remain divided for a long time to come. The facts brought forward by Drs. Theodore Williams, Pollock, and Andrew, are very encouraging, and we may be sure that phthisis is not in the same way communicable as scarlet fever and small-pox are. But we must bear in mind that there is more intimate intercourse between husband and wife, and near relatives sleeping in the same room, and even the same bed, with consumptive persons, than between nurses, or medical men and patients; and that, besides, the hygienic arrangements at the Brompton Hospital, and at some of the best general hospitals, are much better than those of many of the small houses. Since I read a paper "On the Communicability of Phthisis between Husband and Wife" at the Clinical Society more than ten years ago, I have not met, in my own practice, with any such striking cases as those which I then related, so that I am happy to think that they are rarer than it seemed to me at that time. But I remain convinced, from clinical facts, of the communicability of phthisis under certain circumstances; and the experimental researches of Tappeiner, Veraguth, and Schäffer ought not to be forgotten.

In preventive medicine, therefore, the infectious character of phthisis ought to lead to certain precautions, of which I can mention only the most salient. Persons afflicted with consumption, for instance, especially the subacute forms, ought not to be allowed to perform offices by which breath, or saliva, or sputa are brought into close contact with healthy, and still less with very young or weak diseased people, or persons with an acquired or inherited predisposition. Not without reason, physicians have forbidden kissing between consumptive patients and other persons; but this prohibition recalls to my mind a beautiful German poem by Scheffel, in which a famous tomcat, a prince of cats, watches from his throne high up on the roof the doings of mankind, and soliloquises on that trait of human nature, to kiss one another, especially in the time of youth. From this poetical cat's cogitation, I infer that kissing is a part of man's nature, and nature, I fear, cannot be stopped. "Naturam expellas furcâ, tamen usque recurrit."

The secretions and excretions of consumptive persons, and the wearing apparel, bedding, etc., soiled by them, especially the expectoration, should be disinfected and carefully removed. Woollen articles of furniture ought also to be avoided or frequently changed for disinfection. No dust ought to be made in sick-rooms or wards, as the microbes are likely to be moved about in this way. The cleaning of rooms and furniture by a dry process of sweeping and dusting ought, therefore, to be forbidden. Ventilation of the sick-room ought to be most abundant, not only for the sake of the sick persons themselves, but for those in contact with them; and the latter ought to be much in the open air, and attend to their health by all other means, in order to keep up their power of resistance.

It is our duty to prevent, as far as lies in our power, the marriage of consumptive persons, and even of persons who, though not actually consumptive themselves, belong to families with a strong consumptive taint. We must, at all events, endeavour to convince those with whom we come into professional contact of the importance of this duty; but, notwithstanding all this, our advice will often be disregarded; and those who know the meaning of the wonderful word love, and its equivalents in other languages, cannot be astonished at it.

Failing in the prevention of marriages, we must direct our attention to the management of those affected with *hereditary tendency*. The infants of consumptive mothers ought never to be suckled by the latter, but ought to have perfectly healthy wet-nurses, or, if this be impossible, they ought to live on milk from sound cows, or donkeys, or goats, during the first year—boiled, if there be the slightest cause for suspicion as to purity; and milk ought to form, during the first six years, the principal article of food, and ought only gradually to be in part substituted by other animal food, with an admixture of farinaceous and green vegetables. I quite agree with Dr. Duckworth's remarks in the *Practitioner*, on the insufficient use of milk as an article of diet in England, with regard to children as well as adults; and these remarks would be still more applicable to other countries. Those who have been in the country districts of Italy know how difficult it is to obtain milk. The child ought never to sleep in the same room, and still less in the same bed, with the consumptive parent or any other consumptive person. The child's room ought to be large, with plenty of light, in a southern or south-western aspect, with abundant ventilation by day and by night. Whatever we may think of Dr. Henry Mac Cormac's explanation of the origin of consumption by the "breath rebreathed," it must be acknowledged that pure air is the best means to prevent consumption; that he has pleaded in favour of it in a more eloquent way than any other author; and that his teachings ought to be accepted much more universally than has hitherto been the case. The temperature of the room ought not to be too high, 65° Fahr. being quite sufficient for the very young, and 62° for somewhat older children, and less in the sleeping-room. The skin ought always to be covered with flannel, the clothing warm and loose; there should be daily sponging, with gentle friction. The temperature of the water used is to be gradually lowered, 60° Fahr. being sufficient after the second year. The child ought to be taken out into the open air for several hours every day; and, later on, it should spend the greater part of the day in the open air. If it can be arranged, the house ought to be in the country, on a dry slope with sunny aspect. Active exercises ought to be encouraged at an early period, and to be gradually increased as to duration and activity of movement; games, gymnastics, rowing, riding on horseback, climbing, and all kinds of exercises by which the muscles and the organs of circulation and respiration are brought into play, and, as a consequence, the nutrition of the body is improved. Mental education need not be neglected, but ought to go on, and can go, hand in hand with sound physical education; but confined rooms and sedentary habits ought to be vigorously avoided. No trade or profession ought to be permitted which insists on or induces such habits, or which exposes the delicate person to dust or tainted air; but farming, sea-faring, and other open-air occupations ought to be selected. The period of cessation of growth, and the first year succeeding it, require special attention. But how can this be applied to the children of the poor? I am afraid that I must say that this is one of the problems not yet solved, and perhaps not to be solved in the very near future. Let us, at all events, lay down these principles for the guidance of those who have influence on the nursing and education of the children of the poor, and some improvement, we may hope, will gradually be achieved, and is often achieved already now, in individual cases and in well arranged orphan asylums. With regard to schools, too, we can demand the best hygienic arrangements and playgrounds attached to them, and gymnasia and drilling masters.

Every one of us has, I suppose, met with instances which prove how much can be done by judicious physical education, even under apparently hopeless circumstances; yet you will pardon me, I hope, gentlemen, if I relate to you the outlines of a very instructive family-history. About thirty years ago, I saw a lady affected with rapid consumption, living in a small street near Bloomsbury Square; the husband, a teacher of languages, had just died under my care at the German Hospital, of chronic consumption, at the age of 38. He was

a member of a consumptive family. The wife's family, too, was by no means free from consumption; indeed, out of three brothers and two sisters, two brothers and one sister had already died of the disease. She herself had had seven children, between the ages of 12 and 1. The second of these had died from tubercular meningitis. The others, namely, four boys of 12, 9, 7, and 2 years, and two girls of 5 and 1, were fairly healthy, excepting the youngest boy, who was pale and rachitic. After the death of the mother, some relatives, intelligent and wealthy at the same time, took entire charge of the children. They took them to their home in a mountainous district of Silesia, one of the healthiest parts of Germany, and brought them up on the plan which I have just sketched. The oldest son remained well so long as he took much out-door exercise; but, at the age of 23, he became wrapped up in the study of the origin and affinities of languages, worked day and night, gave up exercise, took most of his meals in his study surrounded by books, and perished from rapid consumption in less than eighteen months. The second son took to farming, and was in excellent health up to the age of 29, when he found his occupation not remunerative enough, and began to work in a commercial house, being confined to an ill ventilated office during the greater part of the day, and working besides this at home, with the hope of gaining a better position. After scarcely two years of this intensified city-work, he had several attacks of hæmoptysis, and died in less than two years from the outset. The third son has become a cavalry soldier, leading a judicious life, and is a strong and healthy looking man. The fourth child, then a girl of five years old, is now a country parson's wife in a healthy part of Silesia, has no children, and is perfectly healthy. The youngest son, rachitic as a child, has become a powerful man, and is a farmer near Manitoba in Canada; and the youngest daughter, staying with him, is likewise strong and healthy. The history of this family is very instructive; it shows that, by favourable circumstances, even a strongly marked family tendency may be neutralised; and this becomes still more manifest when I add that by far the majority, namely, nine out of eleven, of the cousins of these children have died from consumption before the age of 28. It further teaches the serious lesson that, if the stringent rules of health be neglected, even after the constitution has become satisfactorily developed, the disease may suddenly show itself, and run a rapid course. My experience, indeed, forces me to say that a strong hereditary tendency, especially from the mother's family, requires the strictest attention, not only during the first thirty years, but from infancy to old age, for old age does not shelter from phthisis. I have notes of several cases where, with a healthy mode of living, the health had been perfect up to fifty, and phthisis was developed afterwards, and under unhygienic influences. Thus, for instance, C. M., with a consumptive history on the mother's side, was perfectly well as a sailor up to the age of 52, when, on account of a chronic and fatal disease of his wife, he retired from the service, and, while nursing her, was much confined to the house for many months. Dyspepsia and phthisis developed themselves, and he died at the age of 56. A. D., likewise with consumptive tendency from the mother, enjoyed good health as a traveller for a commercial house, till, at the age of 54, he exchanged this occupation for office-work as a partner in the house, and lived altogether in town. His health began to fail after a year, and he died before he was 59.

I could mention other similar instances, and have also had the opportunity of seeing repeatedly "consumption" as the certified cause of death in life-insurance cases after 60, where insurance had been effected late in life, in spite of hereditary disposition, because it had been thought that, at so advanced an age, the office might be secure with regard to the development of consumption; but I am convinced that where the hereditary predisposition is much marked, there is only that "security" of which the great poet says:—

> "And you all know security
> Is mortals' chiefest enemy."

Altogether, there seems to be no good foundation for the general impression that consumption is rare in the later part of life. Dr. Sommerbrodt found, in twenty-five *post mortem* examinations of military pensioners, eleven times tubercular lesions as the cause of death, the average age at the time of death being 82. Dr. Würzburg found, on comparing the number of deaths at certain ages from consumption with the number of persons of the same age living, that, in the Prussian monarchy, phthisis is decidedly a more frequent cause of death among the old than among the young; thus he gives, amongst 10,000 persons living:—

93	deaths from	phthisis	in the period of age from	60 to 70
nearly 68	,,	,,	,,	50 ,, 60
only 41	,,	,,	,,	30 ,, 40
,, 30	,,	,,	,,	20 ,, 25

At Copenhagen, likewise, according to Lehmann, the death-rate from phthisis to the number of persons living at the same age, increases with advancing years up to the age of 75. There is, however, in this respect, a difference between different countries, and in England and France, for instance, the death-rate is greatest between 15 to 35. It is not easy to say what is the cause of this difference. It may be partly due to a difference in the names given to the diseases in the different countries; thus, in England the number of deaths from "lung-disease" in old age is proportionately greater than in Prussia, while that of "phthisis" in old age is smaller. It is possible that some cases, which in England are certified as "chronic bronchitis," or other "lung-disease," would receive in Prussia the name of phthisis. But part of the difference may be accounted for by the fact that, during the much colder winters in Prussia, old people are more confined to narrow, ill-ventilated, stove-heated rooms, than is the case in England, where the cold is never great, and where open fire-places do not allow the air to be vitiated to the same degree.

The preventive treatment of the acquired predisposition to phthisis is similar in principle to that of the hereditary predisposition; but it generally is not required for the whole of life, but only for a shorter or longer period. The preventive treatment must be varied according to the constitution and the circumstances of the individual, the causes which have produced the predisposition, and the system or part of the body principally weakened. You will not wish me to enter into details, but allow me briefly to discuss a few points only.

A fruitful source of phthisis is the *tendency to catarrh of the respiratory mucous membrane.* It is not to be treated by confinement to hot rooms, and by avoiding the open air, but, on the contrary, by hardening and by accustoming the delicate person, clothed in flannel, but not loaded with clothes, to constant exposure to the air in almost all weathers, by walking, driving, riding in open carriages; by abundant, though judicious, ventilation of the rooms; by regular sponging of the skin, at first tepid, perhaps with vinegar, afterwards cold, and by friction; and by strengthening the whole system by nutritious food, and by frequent prolonged changes to the sea-side, or the mountains, according to the nature of the constitution. These frequently recurring catarrhal affections may form predisposing causes in different ways, especially by producing sore places in the mucous membrane, and thus allowing the bacillus to settle; or by weakening the epithelial cells of the mucous membrane, and their ciliary action; or by causing imperfect breathing from unconsciously avoiding deep inspirations, in order to avoid coughing, or by weakening the nutrition and energy of the whole system. The latter element is powerful, and by no means rare. Many persons remain excessively weak for a long time after a so-called "severe cold," and lose entirely their appetite, and their inclination to exercise and to work. I have repeatedly observed this, to a limited degree, in myself. A fortnight, or even a month, after the beginning of a general cold, a short run, or a walk of five or six miles, causes a sense of fatigue, perspiration, and great acceleration of the pulse; and a walk of twelve or fourteen miles a marked rise of temperature, of which there is no trace at other times; and the pulse is sometimes for weeks, in the evening, unnaturally rapid, without rise of temperature. It is possible that this general weakness is connected with imperfect energy and imperfect resisting power of the epithelial cells of the alveoli, or would lead to it, if it were not checked by judicious management. The tendency to imperfect breathing which often accompanies protracted colds, is best remedied by judicious exercise, even if it cause, at first, fatigue. Persons presenting the imperfect development of the thorax, often described as the "paralytic form," and the general appearance known by the term "phthisical habitus," whether hereditary or acquired, demand similar management to those subject to constant catarrhs. The imperfect development of the thorax specially requires pulmonary gymnastics, deep inspirations, alternating with complete expirations; breathing with raised arms, in order to allow free entrance of air into the apex; and judicious climbing of hills and mountains.

It is not only our duty to remove the acquired disposition, but also to prevent the acquirement of it by physical education, general hygiene, and by the management of acute diseases, especially those which affect the respiratory organs, as measles, whooping-cough, diphtheria, bronchitis, pneumonia. The broad rules laid down by Dr. Wilson Fox in his article, "Pneumonia," in Dr. Russell Reynolds' *System of Medicine*, relieve me of the duty of further entering on this subject. But, with regard to measles, diphtheria, and whooping-cough, I cannot help pointing out the injurious influence of hot rooms and fear of ventilation, to which I have been repeatedly obliged to ascribe a share in the cause of phthisis. Change of air to mild sea-

side, or fairly bracing inland, places, is often important during the convalescence from these diseases, but the fatigue of long journeys is to be avoided.

Preventive medicine has a very large field in the subject of phthisis. I need only remind you of the change in the mortality from phthisis of soldiers and prisoners by improved ventilation in barracks and prisons; and we must always have before our minds the important discovery of Bowditch and Buchanan, that drying of the soil by drainage diminishes the mortality from phthisis. The practical application requires no words.

THE GULSTONIAN LECTURES,

ON

MALIGNANT ENDOCARDITIS.

Delivered at the Royal College of Physicians of London, March, 1885.

By WILLIAM OSLER, M.D.,

Professor of Clinical Medicine at the University of Pennsylvania, Philadelphia.

Lecture II.

Symptoms.—In considering the symptoms of endocarditis, it is important to bear in mind the manifold conditions under which the disease may develop. A limited number of cases may be grouped together as forming a primary substantive disease; but in the great majority the affection is either an associated pathological state, or is of the nature of a secondary malady arising in the course of some other disease.

In the primary cases, individuals in perfect health may be attacked, or, more frequently, the disease affects those with chronic valvular endocarditis, with perfect or failing compensation. Where the affection occurs after an injury, or in the puerperal state, the cardiac condition must be regarded as part of the general sepsis, and is of the same nature as the pyæmic foci and the inflammation of serous membranes The existence of the endocarditis in these cases has no special influence, and the phenomena may be just as marked without it.

When the endocarditis supervenes in the course of some particular disease, as rheumatism or pneumonia, it is usually a secondary process, though indeed it may be regarded as directly produced by the causes which have excited the original diseases.

The different modes of onset, and the extraordinary diversity of symptoms which may arise, render it very difficult to present a satisfactory clinical picture. The general symptoms are those of a febrile affection of variable intensity, which may be ushered in, like any acute fever, with rigors, pain in the back, vomiting, headache, etc. Arising in the course of some other disease, there may be simply an intensification of the fever, or a change in its features. The pyrexia is constant, but variable in type and intensity, and more likely than any other symptom to lead to misinterpretation. Prostration of strength, delirium, sweating, and other signs of severe constitutional disturbance, are usually present.

Cardiac symptoms may be marked from the outset; pain, palpitation, sense of distress, and murmur; in many instances, there has been old valvular disease, but in a considerable number of cases the heart-symptoms remain in the background, hidden by the general condition, and giving no indication; or they may be so slight, that they are not even detected on special examination.

The embolic processes give a special prominence to local symptoms, which may divert attention from the general malady. Thus delirium, coma, or paralysis may arise from implication of the brain or its membranes; pain in the side and local peritonitis from involvement of the spleen; bloody urine and pain in the back from affection of the kidneys; loss of vision from retinal hæmorrhages; and suppuration in various organs, or gangrene, from the distribution of emboli.

So diverse are the features of malignant endocarditis, that a consideration of the symptoms is greatly facilitated by arranging the cases in groups, according as they display special characters. Dr. Kirkes, in 1852, called the attention of the profession to the occurrence of a typhoid-like condition in acute endocarditis, and he subsequently pointed out the fact that inflammation of the valves might lead to pyæmia. The investigations of Charcot and Vulpian (*Gazette Médicale de Paris*, 1862), of Virchow (*Gesammelte Abhandlungen*), of Jaccoud (*Nouveau Dictionnaire de Médecine*, etc., art. Endocarditis), and others, gradually led to the recognition of these two great types of the disease. Of late, still further separation has been made of the cases with features closely resembling ague or intermittent, and also of cases in which the cardiac symptoms are most prominent; and I shall call attention to certain cases in which the symptoms are those of an acute affection of the cerebro-spinal system.

And first let me direct your attention for a few moments to those cases in which the endocarditis is merely a part of a septic or pyæmic state, the result of an external wound, a puerperal process, or an acute necrosis. Somewhat over 18 per cent. of the cases I have analysed were of this nature, the majority of them occurring in connection with puerperal fever, 11 per cent.; the others in association with various wounds and injuries, or acute necrosis of bone. The puerperal cases appear most frequent after abortion, and the first symptoms usually develop within a week or ten days of delivery, beginning with rigors and fever, and running a course not essentially different from ordinary puerperal septicæmia or pyæmia without endocardial complication. Sometimes, the onset of the symptoms may be much delayed, and the patient up and about her duties when the attack comes on. Usually, there is local inflammation of the uterus or ligaments; membranous-diphtheritic-endometritis, and phlebitis, are common. Occasionally, there may be no special affection of the generative organs, as in a very severe case reported by Dr. Moxon (Pathological Society's *Transactions*, xxi), in which there was extensive endocarditis of the right heart, and sloughing patches in the lungs. The woman had been delivered within the month, and the uterus appeared in a state normal for the period. The endocardial lesions are not necessarily ulcerative, but may be vegetative, and occasionally suppurative. It is very evident, from the records, that valves with sclerotic changes are most often affected. The visceral lesions are always suppurative, but do not appear to be more numerous than in cases of puerperal sepsis without endocarditis. The heart-symptoms may be completely masked by the general condition, and the attention may be directed to them only by the occurrence of embolism. In this connection, it may be remarked that malignant endocarditis may attack pregnant women, and run a rapid course leading to abortion. In two cases of this kind, Litten (*Charité Annalen*, Band iii, Berlin) found no differences in the clinical features or anatomical condition, as regards valves and metastases. In other instances, there may be the rigors, sweats, and irregular fever, leading to abortion, without the occurrence of any suppurative foci, as in a case reported by Guyot (*Bulletin de Soc. d'Anatomie*, 1879). Dr. Trueman, of Maccan, New Brunswick, has also sent me notes of a case which developed during pregnancy.

The cases of ulcerative endocarditis in traumatic and operative septicæmia are of a similar nature, but do not appear to occur so frequently as in the puerperal condition. Many of the cases occur after very slight injuries, as paring a hangnail, or a corn, a sloughing pile, or the passage of a sound through a stricture. There are usually suppurative infarcts in the lungs; and, even with extensive ulcerative changes in the left heart, the pyæmic foci may be all in connection with venous system and right heart. This was well illustrated in the case of a man, aged 25, who was admitted to the Montreal General Hospital, May 31st, with a wound of the radial artery. Phlebitis followed, and cellulitis of the arm, rigors, septic pneumonia, thrombosis of the femoral vein, and symptoms of pyæmia. At the necropsy, there were numerous foci in the lungs, and a suppurating thrombus in the femoral vein. The mitral valve presented, on the ventricular face of the anterior segment, a patch, of the size of a sixpence, swollen and greyish white in colour, and opposite to it, on the auricular face, was an ulcer big enough to contain a small pea. There was another also on the wall of the left auricle. There were no infarcts in the arterial system. In these cases of puerperal and traumatic septicæmia, the right heart is more frequently affected than in any other group of cases. Thus, of the thirty-seven cases of this kind, there were thirteen in which the tricuspid or pulmonary valves were involved.

In the acute necrosis of bone or acute osteo-myelitis, a secondary endocarditis may develop; and in some instances the clinical features may strongly resemble malignant endocarditis, as was well illustrated in the case of a lad, aged 10, who died after an illness of less than a week's duration, characterised by high fever, rigors, sweats, etc. No local trouble was complained of, and at the *post mortem* examination there was ulcerative endocarditis of the right side, and a purulent focus in the septum; and it was only after most careful search that the primary trouble was found in a small spot of acute necrosis of the tibia.

These forms do not strictly come within the province of the physician, but they must be taken into account in any description of malignant endocarditis. The source of the poison is very evident in the external wound; the metritis, etc., and the lesions, are chiefly in the territory of the venous system and right heart.

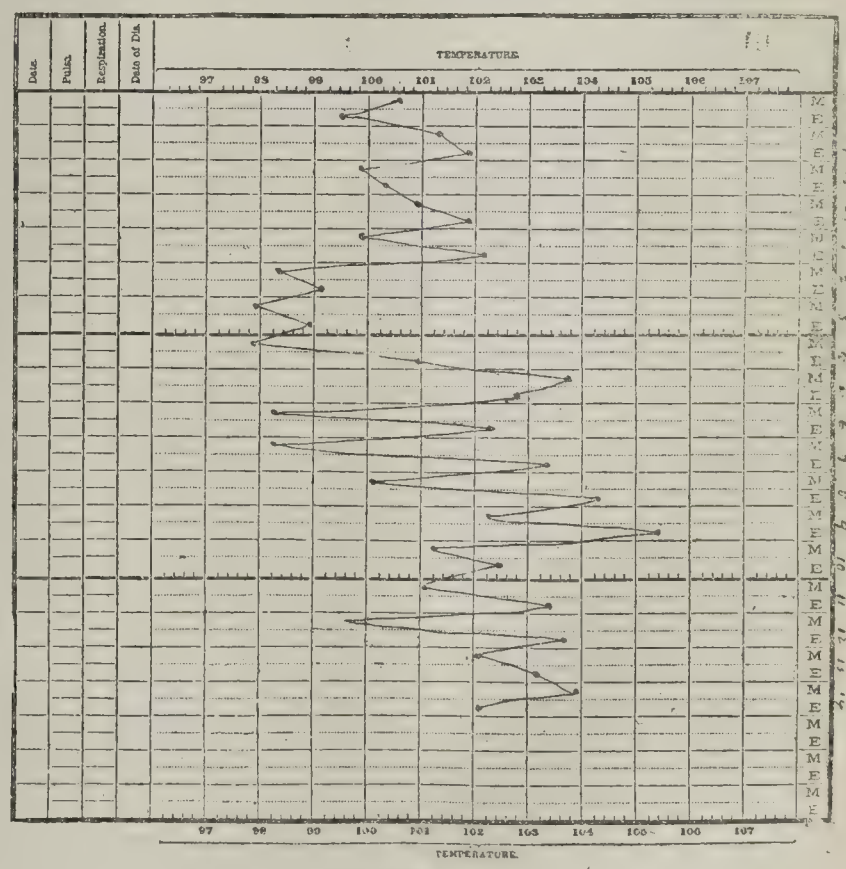
In the pyæmic group of cases, the clinical features are of a decided pyæmic type, and here the source of infection is at the heart, and the metastatic lesions are chiefly in the territory of the arterial system, rendering very applicable the name of arterial pyæmia given by Dr. Wilks to this class of cases. We may recognise two types of the pyæmic form: first, the cases in which the symptoms resemble closely those of ordinary pyæmia, with rigors at intervals, sweats, and other signs of septic infection; and, secondly, an important group, in which intermittent pyrexia is a striking feature, occurring in regular paroxysms like ague, with cold, hot, and sweating stages. These forms may develop as primary independent affections, or come on in the course of rheumatic fever, pneumonia, etc. In our Montreal cases, they have not been so marked as the typhoid type. The following case, with illustrative chart, is a fair example of pyæmic symptoms due to endocarditis developing in the course of pneumonia.

M. W., aged 43, a well built man, was admitted under Dr. Ross, February 26th, 1880. He served his time in the army; he had had syphilis, and had quite recently had syphilitic ulcers; had also been a hard drinker. In October 1879, he was in hospital with pneumonia, and had severe cerebral symptoms. On February 23rd, he had a severe rigor, followed by fever, cough, and pain in the side. On admission, February 26th, there were signs of consolidation at the left base. On the 28th, he was delirious. On March 1st, the crisis seemed to take place; temperature fell to 98°, remained low for three days, and he seemed to be doing very well. At 1 P.M. on the 4th, he had a severe chill, with vomiting, and followed by sweating. On the 5th, he was delirious; he had another severe chill at 2 P.M., in which the temperature rose to nearly 104°. He had five stools; there were no indications pointing to the heart. On the 6th, the morning temperature was normal; the patient was very prostrate, sweated a great deal, and there was low wandering delirium. From the 6th to the 9th, the temperature rose a degree each evening, reaching 105.3°, its highest point. Pulse over 120, and feeble. From this time until the 14th, he gradually sank, remaining unconscious. The lung-symptoms did not extend, but rather improved. The *post mortem* examination revealed extensive ulcerative vegetations on the aortic valves, purulent meningitis, and resolving pneumonia of the base of the left lung.

The attack may be ushered in with a single rigor, or more often a series of chills; and from the outset they may constitute a marked feature, and, with the sweating, prostration, and diarrhœa, give a septic character to the case. A light jaundice may develop, and still further intensify the resemblance. Sometimes the case may run on for a couple of weeks with marked typhoid symptoms, and then pyæmic features develop—rigors, sweats, etc.

But by far the most remarkable cases of the pyæmic group are those which present a marked intermittent type of pyrexia, simulating a quotidian or tertian ague. They may occur without any signs or indications of heart-disease, or the symptoms may develop in individuals the subjects of chronic valvulitis. The cases are not nearly so frequent as those of the typhoid type; but they have been specially studied by Drs. Wilks, Bristowe, and Coupland in this country, Lancereaux in France, Leyden and others in Germany. The paroxysms may have the absolutely typical features of intermittent; the chills, hot stage, and sweating succeeding each other with regularity; and in the intervals there may be an entire absence of the fever. The quotidian type is the most common; the tertian has occasionally been described; and in rare instances two paroxysms have recurred within the twenty-four hours. The cases may be much prolonged, even for three or four months. One of the first references I find to cases of this kind is in a foot-note to one of Dr. Ormerod's Gulstonian Lectures (*Medical Gazette*, 1851), in which a case of Dr. Bond of Cambridge is narrated—an instance of chronic valvular disease, with intermittent fever and diarrhœa, two paroxysms occurring in the day. The case lasted four months. In a remarkable case (Dr. Ray) described by Dr. Wilks (BRITISH MEDICAL JOURNAL, 1868), during a six or seven weeks' illness, rigors recurred with such regularity that a tertian ague was suspected for a time, although the patient was known to be the subject of heart-disease. In some instances, the existence of ague previously has rendered the condition much more puzzling. In several of Lancereaux's cases (*Gazette de Médecine*, 1862; *Archives Générales*, 1873), the patients had had intermittent fever a short time before; so also with one of Leyden's cases (*Zeitschrift für Klin. Med.*, Bd. iv, Berlin). But the most extraordinary case of the kind is recorded by Dr. Bristowe (BRITISH MEDICAL JOURNAL, 1881). A patient had ague in October, chills once or twice a day; she was ill for six weeks; and, after an interval of two or three weeks, they recurred in the second week of December, and continued until December 23rd. She was well for a few days, and then the attacks recurred after sleeping in a cold bed, and persisted until her admission to hospital on February 12th. For the four weeks previous to entrance, the attacks came every twelve hours regularly. A murmur was noticed; but the history of ague was so clear, and the attacks so characteristic, that a suspicion of malignant endocarditis was at first not entertained. It was only after the failure of quinine and a variation in the character of the paroxysms, that a diagnosis was reached. In Dr. Coupland's cases (*Med. Times and Gazette*, 1882, vol. i), the intermittent pyrexia was also well marked. In none of our Montreal cases was the aguish type very pronounced, though in one or two cases there were regularly recurring paroxysms of chills, fever, and sweating; but the conditions under which the attacks developed rendered the clinical features more like ordinary pyæmia. The majority of these cases appear to arise independently of other affections, and occur among what I have referred to as the primary class of cases: though, as already mentioned, some develop in chronic valvular disease, and others appear associated in some way with ague.

The typhoid type is by far the most common, and the majority of the cases present features which come under this heading. The disease may set in with a single rigor or a series of chills, most frequently the former; often a period of *malaise* or ill health has preceded the attack, and in very many instances the symptoms develop in the course of some fever. The characters of this form are irregular temperature, early prostration, and involvement of the nervous system, delirium, somnolence, and coma, dry tongue, relaxed bowels, sweats, petechial and other rashes, and occasionally parotitis. Perhaps the majority of cases are mistaken for typhoid, as the heart-symptoms may never be prominent, or even when sought for not found.



The Case of M. W

The following cases illustrate the chief features of this form.

Ann O., aged 46, large well nourished woman, was admitted under Dr. Wilkins, June 5th, 1881. She had been a healthy woman. Dr. Blackader saw her on the 2nd, when she complained of severe pains in the back, loins, and hips, which were relieved by poultices. Pulse rapid, tongue furred, no diarrhœa. She was supposed to be suffering from typhoid fever. No reliable history, family or personal, could be obtained, but she had been out of sorts for four or five days previous to the onset of the attack. On admission, temperature 104°; pulse 110; perspiration 32; no eruption; lungs normal; no heart-murmur; no albumen in urine. On the 6th, she passed a restless night. Temperature, 104°; pulse 120, dicrotic; abdomen distended; two stools. She passed 18 ozs. of urine, slightly bloody, which might have been from the menses, which began to-day. On 7th, morning-temperature 103.2°;

pulse weak, 120 ; respiration 54, shallow ; loud sonorous *râles* over chest ; bowels and bladder emptied involuntarily ; stools frequent, high coloured ; patient could not be roused. The legs and general surface seemed tender, which caused her to cry out when moved. Urine drawn off by catheter contained much blood, 50 per cent. by volume of albumen, and many granular casts. Pupils unequal ; head drawn to the right. Some rigidity of muscles of arms, most marked on the left ; increasing coma, and death at 3.30 P.M. of the 7th, the sixth day of her serious illness. At necropsy, no hypertrophy of heart ; mitral valves a trifle thick, with small superficial losses of substance on both curtains. Aortic valves normal ; infarcts in spleen. Numerous small hæmorrhagic emboli in kidneys and throughout the intestines. Six or eight suppurating infarcts in brain, chiefly near longitudinal fissure and on median surfaces. The case is a good example of the primary malignant endocarditis occurring in a healthy individual, and running a rapid course, with symptoms of a typhoid character. The diarrhœa was not profuse, though the intestinal lesions were well marked.

In the following instance, occurring in connection with pneumonia, the profuse diarrhœa and severe nervous prostration were very suggestive of typhoid fever.

J. H., aged 40, drayman, a large well built man, was admitted, May 13th, with pneumonia. He had been a pretty healthy man, though he had had two previous attacks of inflammation of the lungs. He had been in the habit of taking stimulants. His present illness began on the 11th with the usual signs of pneumonia, for which he consulted Dr. Blackader. On admission, he was delirious ; temperature 105°, respirations 60, pulse 110, consolidation of lower two-thirds of right lung, with the usual physical signs of hepatisation. On the 6th day, the delirium was less marked and the temperature had fallen to 101.5°. On the 9th day, the fever was 103°, and the condition of lung remained about the same. On the 12th day, I saw him with Dr. Molson. The dulness appeared to be diminishing at the right base ; I could detect no murmur at either apex or base of heart. The condition of the patient resembled closely other cases of pneumonia in which ulcerative endocarditis had developed, and I suggested the possibility in this instance. The tongue was furred ; no abdominal distension ; no spots ; diarrhœa had come on in the past few days ; stools thin, yellowish in colour. The patient was dull and heavy, not actively delirious. On the 18th day, temperature rose to 104.5°, and for the next four days kept about that height. On 20th day, diarrhœa, which had been checked, began again. On 23rd day (June 1st), temperature 104.5°, pulse 96, respiration 30. Dulness diminished at right base, still evident in scapular region at lower part ; moist *râles* over back of lung ; rhonchi, sibilant and sonorous, heard in front. A single large dose (30 grains) of quinine, at 4 P.M. did not affect the temperature, which at 10 A.M. was 105.5°. On 26th day, much the same ; temperature had kept about 104° ; two or three loose stools each day ; low delirium, restless at night. For the next three days, the fever was not quite so high, the diarrhœa ceased, and he became somewhat rational. Still deficient resonance in right lung behind. Respirations kept about 30, and pulse under 100. On the night of June 8th, patient very restless, required constant watching ; temperature 105° ; pulse more rapid, 130. On the 10th, patient more drowsy ; pulse feeble, 140 ; large moist *râles* heard over both lungs. In the evening he had a rigor ; temperature rose to 105°, and death took place on the morning of the 11th, just a month from the onset of the disease. Petechiæ had appeared on the skin during the last few days of his life.

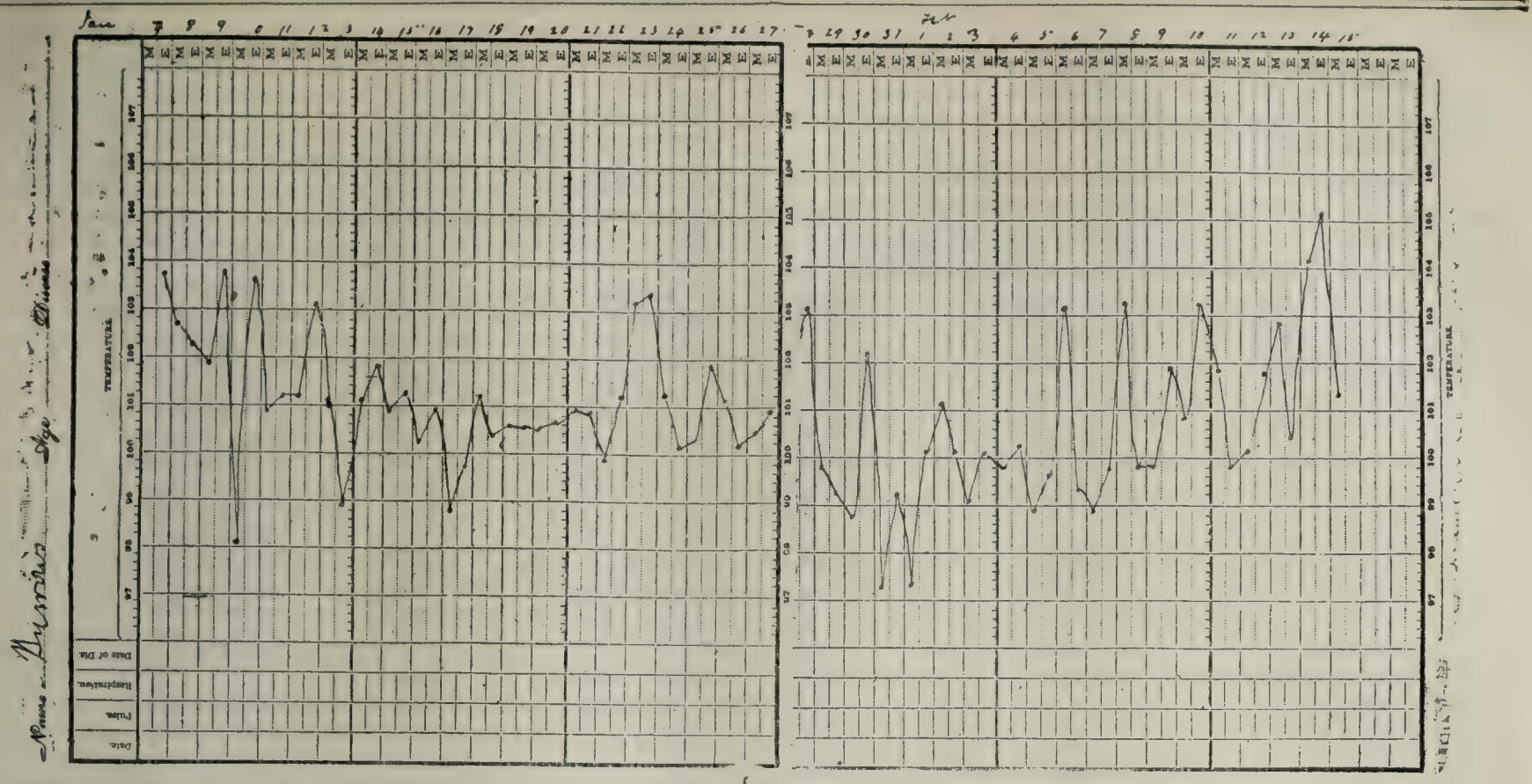
Necropsy, five hours after death. The body was not emaciated ; there were petechiæ on the skin in various regions. In the abdomen, patches of dark extravasation were noticed upon the coils of intestines, both large and small. In the thorax, the right lung was intimately adherent. *Heart*, subpericardial ecchymoses. Numerous petechial spots beneath lining membrane of the cavities ; some of them are as large as split peas, and on section present a greyish centre, as if they were small infarcts. The mitral segments were natural-looking on the ventricular surface, but on separating the edges, large masses of vegetations were seen blocking the orifice. They were attached to the auricular faces, about 2 to 3 millimètres from the edge ; that in the anterior segment was about 2 centimètres in extent, and projected 12 millimètres. It was roughened on the surface. The growth on the posterior segment was smaller, irregularly divided into two bulbous portions, the surfaces of which were smooth. The aortic orifice was blocked with a clot ; the right anterior valve presented an enormous mass of vegetation, which occupied the entire curtain, except the edge, and infiltrated the whole thickness, appearing in the sinus as small nodular masses. Two perforations existed between the outgrowths, each about the size of a crow-quill. The posterior segment presented a flattened vegetation, which encrusted the centre of the valve, and extended up to the corpus Arantii. All of these masses had the same appearance ; colour greyish-yellow, except where coated with adherent blood-clot ; the ones on the anterior mitral segment and on the posterior aortic were roughened, and the granular substance exposed ; three others presented smooth surfaces, as if covered by a thin membrane. They were soft, on section granular, uniform throughout, and of the consistence of pith. The coronary arteries were free. *Lungs.* The right was closely bound to the chest-wall by old fibrous adhesions. The posterior part of the organ was heavy, but crepitant, except at the upper part of the lower lobe, which, with a band about 5 centimètres in breadth, of the lower part of the upper, and part of the middle lobes, were firm, airless, and granular on section. Colour liver-red, interspersed with small opaque areas, the plugs in the air-cells undergoing fatty change. The left lung healthy. The *spleen* weighed 185 grammes ; pulp soft. No infarctions. The *kidneys* were of average size ; numerous small infarcts, chiefly in cortex ; small hæmorrhagic areas with grey centres. *Intestines.* The deeply ecchymotic patches seen externally corresponded with small infarcts situated in the submucous tissue, and surrounded by a zone of deeply hæmorrhagic tissue, above which the grey pale glandular layer could be distinctly seen. The infarct itself was about the size of a split pea, a little elevated, on section deep red or greyish red, not in any instance purulent, and surrounded by a zone of extravasation from 1 to 3 centimètres in diameter. They were most abundant in the ileum, about 20 in number. Peyer's glands were not swollen. The *liver* was pale, swollen and soft. *Brain.* Vessels of pia mater full, parts at base normal. Thick purulent lymph beneath arachnoid, covering central part of fissures of Sylvius on both sides, over both frontal lobes at anterior part, over the left intraparietal fissure and on upper part of cerebellum, close to great transverse fissure. A good deal of serosity beneath the membranes. No infarcts in substance of brain.

In some instances, the clinical features are mixed ; typhoid and pyæmic characters may alternate, as in the following case.

J. B., aged 38, admitted January 7th, 1880, had been a healthy man. Ten years ago, he had a severe attack of pneumonia. On the night of January 4th, he felt uneasy, and did not rest well ; got feverish, and in the morning had pain in the side and cough. No rigor. Symptoms continued, and he came to hospital on 7th. On admission, temperature was 103°, pulse 128, and respirations 40. Signs of pneumonia in right lung, lower three-fourths. Characteristic expectoration. During the first week in hospital, nervous symptoms appeared ; he became delirious, and passed urine and fæces in bed ; tongue dry ; and on the 9th and 10th there was troublesome vomiting. The temperature was irregular, ranging from 100° to 104° ; the evening record usually high, but twice it was lower than the morning. Pulse 120 to 148 ; respirations 32 to 50. During the second week, the intensity of the symptoms abated ; the temperature kept lower, not once reaching 101°. The nervous prostration continued, with tremor of whole body, and the discharges were passed involuntarily. Tongue very dry. A very disgusting fœtor emanated from the body. He lay like a patient in the third week of severe typhoid fever ; took food and stimulants well. On the 19th, a painful swelling appeared in the left parotid region, and he began to have chills, and sweated a great deal each day. No objective indications of heart-trouble. The lung cleared very much in the third week, but the prostration continued. During the fourth week, the swelling of the parotid increased, and on February 1st an abscess was opened in this region. On 30th, there were severe chills, with blueness of face and the finger-tips. Much sweating, of a profuse drenching character. He became brighter after the abscess was opened, and the nervous symptoms were less marked. Temperature ranged from 98° to 100°, rising with the chills. In the fifth week, he remained in this state, with but little change, occasional chills and profuse sweats, the picture being more like severe pyæmia. In the sixth week, the prostration increased, and he lay in a heavy unconscious state. No chills, but most profuse sweats. On February 13th and 14th, the temperature rose very high, reaching 105°, and death took place on the 15th, after an illness of forty-two days.

The necropsy revealed extensive mitral endocarditis, as the only special lesion. The base of the right lung was a little firmer than the left, but not granular on section. Only one infarct was found, which was in the upper part of the spleen. The intestines were healthy ; there was no meningitis. The parotid abscess had almost healed.

Cardiac Group.—Under this heading may be arranged, as suggested by Dr. Bramwell (*Diseases of the Heart*), those cases in which patients, the subjects of chronic valve-disease, are attacked with febrile symptoms and evidences of a recent endocarditis engrafted upon the old process. I have already remarked on the great frequency with which ulcerative changes are found in connection with sclerotic endocarditis. Many of such cases present features of the pyæmic, typhoid, or cerebral types,



and may be of the most acute character; but, in others, the process appears much less intense, and the cause more chronic. In a considerable series of cases, the history is somewhat as follows. The patient has, perhaps, aortic valve-disease, and is under treatment for failing compensation, when he begins to have slight irregular fever, an evening exacerbation of two or three degrees, some increase in cardiac pain, and a sense of restlessness and distress. Embolic phenomena may develop; a sudden hemiplegia; pain in the region of the spleen, and signs of enlargement of the organ; or there is pain in the back, with bloody urine. In other instances, peripheral embolism may take place, with gangrene of the foot or hand. There may be hebetude or a low delirium. Instances such as these are extremely common; and while, in some, the process may be very intense, in others it is essentially chronic, and may last for weeks and months, so that the term malignant seems not at all applicable to them; still, in a large series of cases, all gradations can be seen between the most severe and the milder forms. Dr. Green (*Lancet*, 1884, vol. i) referred to a case which lasted six months, and to another in which, during eighteen months, there were attacks of irregular fever. I have known the febrile symptoms subside for weeks, to recur again with increased severity; and there are cases which render it probable that the process may subside entirely. The ulcerative destruction, in these cases, may be most extensive; and I have seen the aortic ring with scarcely a trace of valve-substance left. The process in the chronic cases is also mycotic, and it is to be carefully distinguished from the atheromatous changes. In very many instances, there is no history of rheumatic fever or of other constitutional disorder; but the endocarditis appears to attack the sclerotic valves as a primary process, and a very considerable number of the most typical cases are of this kind. A good example was the following case, in which the disease attacked peformed and hardened valves, and the clinical symptoms were prolonged for nearly three months.

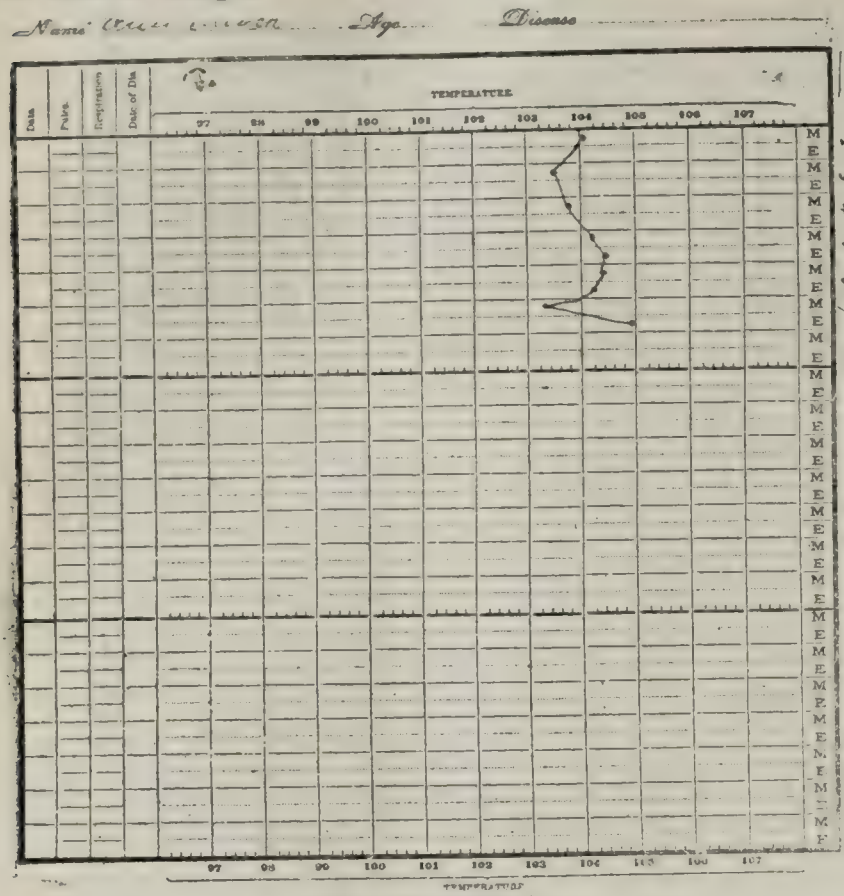
H. M., aged 38, was admitted September 8th, under Dr. Ross. He had a good family and personal history; he had always enjoyed excellent health. A month ago he had chilly feelings, fever, and sweating, with vomiting. He kept about until ten days before admission, when he took to bed, with pains at the heart, and fever. On admission, there was marked aortic incompetency; temperature 100° Fahr.; he seemed dull and heavy. On 15th, there was iliac tenderness, and some diarrhœa. For the next two weeks, he remained in same state, temperature rising at times to 103° Fahr. During the first week of October, the prostration increased, and there was slight delirium at night; temperature not higher than 102° Fahr. On the 14th, there was an eruption of petechiæ. From this time, the temperature kept lower—100° to 101° Fahr.—the delirium and prostration increased, and death took place on the 23rd. Two of the aortic cusps had fused, and there were old sclerotic changes; there were recent soft greyish vegetations; the spleen presented six or eight infarcts, one suppurative.

These are the cases of ulcerative endocarditis which present fewest difficulties in diagnosis. The existence of the chronic heart-disease excites attention; and even if compensation has previously been perfect, the ulcerative process may be the very cause of disturbing the balance and producing marked symptoms. In my experience, the existence of fever is invariable when the ulcerative processes are due to micrococci, whereas most extensive destructive changes may occur in atheromatous disease without any elevation of temperature. It may be possible that the granular detritus discharged from atheromatous foci on the valves, or on the aorta, may have irritating properties; yet, in two instances, I have met with most extensive atheromatous ulcers on valves and aorta, from which large quantities of material must have been discharged, and the patients were not febrile. Dr. Sansom (*Lancet*, 1884, vol. i), however, has referred to a case of ulcerative endocarditis in which there was no elevation of temperature throughout.

Cerebral Group.—A considerable number of cases of malignant endocarditis come under observation, perhaps, in hospital-practice, for the first time, with symptoms of cerebral, or even cerebro-spinal, trouble. In three of the Montreal cases, the patients were brought to hospital unconscious, and presented the appearance of profound cerebral affection. One of the first cases I saw was of this kind. The patient, a woman, aged 29, was admitted on October 22nd in an unconscious state, and no history could be obtained. On the 24th, she became partially conscious, and complained of great pain in the head and back of the neck. Symptoms of slight apex-pneumonia were detected. Temperature up to 104°. On the 25th, she passed urine and fæces involuntarily. There was strabismus of the right eye, and commencing ulceration of the left cornea. Death took place on the 26th. The symptoms were those of an acute meningitis. The *post mortem* examination revealed apex-pneumonia, a patch of endocarditis on the mitral valve, and suppurative meningitis, involving chiefly the cortex. Another case, almost the counterpart, was admitted last year, under Dr. Molson, in an unconscious state, and died eighteen hours after admission, when the necropsy revealed apex-pneumonia, extensive endocarditis, and suppurative meningitis. There may be early unconsciousness or delirium without any meningeal implication, as in a case of primary endocarditis admitted June 5th, 1881. The patient may be wildly delirious or unconscious at the first visit of the medical man, as in a case narrated by Eberth (Virchow's *Archiv*, Band lvii). Very many of these cases die within two or three days of admission, and the question of diagnosis has usually to be suspended; indeed, in looking over the records of eleven instances in which these cerebral symptoms were early, they appear to run a more rapid course than other cases.

In two remarkable cases, there was cerebro-spinal meningitis. Hunolle (*Bulletin de Soc. d'Anatomie*, 1873) records a case of a lad who was admitted with symptoms at first like those of typhoid fever,

and then of a marked cerebro-spinal character. There was also a pulmonary affection and endocarditis. The patient lived five days. At the necropsy, there were suppurative meningitis of the brain and cord, pneumonia of one lung, and extensive ulcerative endocarditis, with old sclerotic changes.



The Case of Ann O

A still more remarkable case is reported by Heineman (*New York Medical Record*, 1881, ii). A boy, aged 14, was admitted November 19th. For two days previously he had suffered with pains in back and legs, chills, fever, loss of appetite, vomiting, and constipation; he was rational on admission; tongue coated; temperature 105.2°; condition of heart and lungs negative.

November 20th. Temperature, morning, 103.4°; evening, 105.6°. Fæces and urine passed involuntarily.

November 21st. A purpuric eruption was noticed on the chest, then on the face, and afterwards on the legs and arms. Temperature 104.8°; pulse very feeble; delirium; hyperæsthesia along the spine; no opisthotonos; pericarditis suspected. At 11 P.M. of this day, a second crop of purpuric spots came out; temperature 106°; convulsive movements.

November 22nd, 3 A.M., second convulsive seizure, and death. At the necropsy, there was purulent exudation on the brain, and the meninges of the spinal cord were congested, opaque, and inflamed. There was congestion of lower lobe of the lungs. There were recent vegetations on the mitral valve; and near the apex on the anterior wall of the left ventricle, a small cavity, indicative of probable abscess and destruction of tissue. Purulent serum was found in the pericardium; the kidneys presented embolic abscesses.

Certain clinical features may be specially referred to in a few words. The fever, as will have been gathered from the previous statements, is of a very variable character. Irregularity is the prominent feature; periods of low may alternate with periods of high temperature, or a remittent may become an intermittent. A remittent type is most frequently met with, but the remissions do not occur with any regularity. Occasionally there may be a continuous high fever, the thermometer not registering below 103° for a week at a time. The pyæmic and aguish types have been sufficiently noted.

The occurrence of a rash has been described by many observers and, in some instances, has led to errors of diagnosis. The most common form is the hæmorrhagic, in the form of small petechiæ, distributed over the trunk, particularly the abdomen, less often in the face and extremities. They may be most abundant over the whole body, and at times are large and present small white centres. When severe nervous symptoms are also present, the resemblance of the cases to cerebro-spinal meningitis, or typhus, may be very close. In one instance, the case was thought to be hæmorrhagic variola (Duget and Hayem, *Comptes rendus de la Soc. de Biologie*, 1865). An erythematous rash has also been observed.

In a case of Dr. Cayley's (*Lancet*, 1884, 1), there was a mottled red rash on the skin. Colson (*Bull. de Soc. d'Anatomie*, 1876) describes a case in which the rash was erythematous, and in spots distinctly papular.

The mental symptoms may be of a very varied character. By far the most frequent conditions are low delirium, and a dull, semi-conscious, apathetic state. There may be at the outset active delirium, or even maniacal outbursts. In a case of Dr. Habershon's (*Guy's Hospital Reports*, vol. xvii), there was a condition described as mental eccentricity. When there is extensive meningitis, there is usually a condition of deep coma.

Sweating is a very frequent symptom, and is worthy of special notice, from the peculiarly drenching character, which is, as Dr. Henry Thompson remarks (*Lancet*, 1880), second only to ague, and usually far beyond the average mark of phthisis or pyæmia.

The diarrhœa is not necessarily dependent on any recognisable lesion, and may not be very marked, even when the infarcts on the mucosa are most abundant. As noted in several of the cases, it may be profuse, and still further add to the resemblance which some of the cases bear to typhoid fever.

Jaundice may be present, but appears to be a rare symptom. Cases, some of which were mistaken for acute yellow atrophy, are reported by Schnitzler (*Wiener Med. Presse*, 1865), Gubler (*Gazette Médicale*, 1862), Luys (*Ibid.*, 1864), and Mattice and Chalvet (*Ibid.*, 1862).

The heart-symptoms may early attract attention, from the complaints of pain and palpitation; but, as a rule, they are latent, and unless looked for are likely to be overlooked. In those cases with chronic valve-disease, there is usually no difficulty, but where the affection sets in with marked constitutional symptoms, the local trouble is very apt not to attract attention. Even on examination, there may be no murmur present, with extensive vegetations, or it may be variable. There are many instances on record, by careful observers, in which the examination of the heart was negative.

The course of the disease presents many variations, well illustrated by the records I have given; very acute cases may run their course within the week, as in the patient Ann O., already referred to, while in others the duration may be even two or three months. Except in certain cases in which the patients are the subjects of chronic valvulitis, the course is rarely prolonged beyond four or five weeks. Some of the pyæmic group, particularly those with intermittent pyrexia, appear very prolonged, even two or three months. The most rapidly fatal case is described by Eberth (Virchow's *Archiv*, Band lvii), in which a man, who had enjoyed previous good health, was attacked on the evening of the 25th, with rigors, followed by high fever and rapid unconsciousness. The temperature that night, when seen by a physician, was 41° C., and the case seemed like one of typhus with meningitis. On the 27th, he was removed to the hospital, where he died at 5 P.M. The temperature was 42.4° C. There were extensive ulcers in the aortic valves, and suppurative infarcts in the brain. The duration in this case was scarcely two days. In a considerable number of instances, the disease terminates within a week or ten days.

THE MORTALITY IN INDIAN GAOLS.—It appears, from a recent Report, that since 1878, the year following the last famine, there has been a steady decrease in the gaol population of India—from 127,914 to 94,063. There has been an improvement in the health of prisoners as a whole; but it is admitted that in several gaols the range of sickness and mortality still continues very high. The most unfavourable return is from the Central Provinces, where the rate of mortality rose from 29.30 to 71.05 per thousand. This extraordinary increase is attributed to "the general unhealthiness of the country, and to the transference to the Raipur gaol of a number of prisoners from the feudatory State of Kalahundi, a people who are reported to be by habit and temperament utterly unable to bear the loss of freedom and separation from their families." The returns from certain gaols are still more unfavourable than those from the different provinces. There are still 12 gaols where the rate of mortality exceeds 10 per cent., and that at Mymensingh shows the extraordinary rate of 27 per cent. There appears to be no neglect on the part of the official authorities, and in consequence of the criticism which the facts have aroused against our gaol administration, the most trivial cases are sent into hospital. This has not been devoid of satisfactory result, and the decrease in the cases of Bombay, the Punjab, North-West Provinces, Berar, Assam, and British Burmah served to make a general diminution of the rate for the whole of India of about 4 per thousand. While the subject is still engaging much of the attention of the Indian Government, there seems no doubt that the high mortality is due, not to any official remissness, but to the prevalence of epidemics of cholera, which are necessarily peculiarly fatal among men who seem to be excessively sensitive to the irksomeness of imprisonment.

LECTURES
ON
THE ANATOMY OF THE INTESTINAL CANAL AND PERITONEUM IN MAN.

Delivered at the Royal College of Surgeons of England.

By FREDERICK TREVES, F.R.C.S.,
Hunterian Professor at the Royal College of Surgeons; Surgeon to, and Lecturer on Anatomy at, the London Hospital.

Lecture III.

The Ending of the Ileum.—As a rule the ileum ascends to enter the cæcum, but in certain cases it descends to its termination, especially in those cases in which the order of the intestinal coils is found to be reversed. In not a few specimens the terminal part of the small intestine has been closely attached to the psoas muscle, not by direct adhesion, but by means of a fold of peritoneum that has passed from the left or under layer of the mesentery to the serous membrane covering that muscle. In some five instances I have found the last inch or last few inches of the ileum closely adherent to the cæcum. Such adhesion has been brought about by a certain readjustment of parts, and is quite independent of any pathological change. A good example is afforded in Fig. 16 c. Here the ileum, having crossed the psoas, reached the line at which the peritoneum was reflected from the posterior surface of the colon. At this point (M) the gut became suddenly bent upon itself, and ran vertically downwards along the back of the ascending colon and cæcum, to end at about the usual position (N). The segment of bowel between the points M and N measured 4 inches, and was closely adherent to the colic wall. This specimen may be taken as a fair type of the condition of things, when the terminal part of the ileum is adherent.

The Appendix and its Mesentery.—In spite of its insignificant size and its very slight physiological importance, there is centred about the vermiform appendix peculiar anatomical interest. In the adult, the average length of the appendix is four inches, the extremes being one inch on the one hand, and six inches on the other. The growth of the appendix would appear to be irregular and uncertain, and to be influenced in no way by the development of the main intestinal tube. It would seem that it may attain to its full length quite early in life, and I have met with an appendix four and three-quarter inches in length in the body of a child aged 3 years. The width of this process is more constant, and is, indeed, liable to very few fluctuations. In one remarkable case, in a male subject 37 years of age, I found the appendix to be four inches in length, and a little over half an inch in width. This extraordinary transverse diameter it retained up to its very extremity. The process was unprovided with a mesentery, and was attached vertically to the posterior aspect of the cæcum and colon.

In three subjects, amongst the one hundred examined, examples were afforded of practical obliteration of the appendix. In each instance, the body was that of a male adult. In each, the cæcum was found bound down by old peritoneal adhesions, due to a past perityphlitis, and buried in these adhesions the appendix was discovered. It appeared as a white tough fibrous cord, between one and one and a half inches in length, and about the size of a No. 9 catheter. It was placed vertically behind the cæcum, and had no trace of a mesentery. In one specimen, no canal could be detected in the cord, and no opening into the bowel made out; but, in the other instances, a patent canal was discovered that would just lodge a pin. Such specimens may be of interest in connection with the question as to whether the appendix has a function, or is functionless.

Appendices, under the length of three inches, may appear as quite straight tubes when processes so short are met with in the adult. In the great majority of instances, however, the appendix is much twisted upon itself. Its spiral form depends mainly upon the shortness of its mesentery. When the tube is untwisted—a measure that will usually involve some division of its mesentery—it most commonly forms a fairly regular curve, with the concavity towards the cæcum. This curve will carry the appendix behind the cæcum, and it will be usually found to continue the direction of the curve formed by the anterior muscular band. In more than one specimen, I have found the process sharply bent upon itself at its extremity, so as to form a species of hook. In the fœtus, the process is commonly curled up at the posterior and inferior aspect of the cæcum.

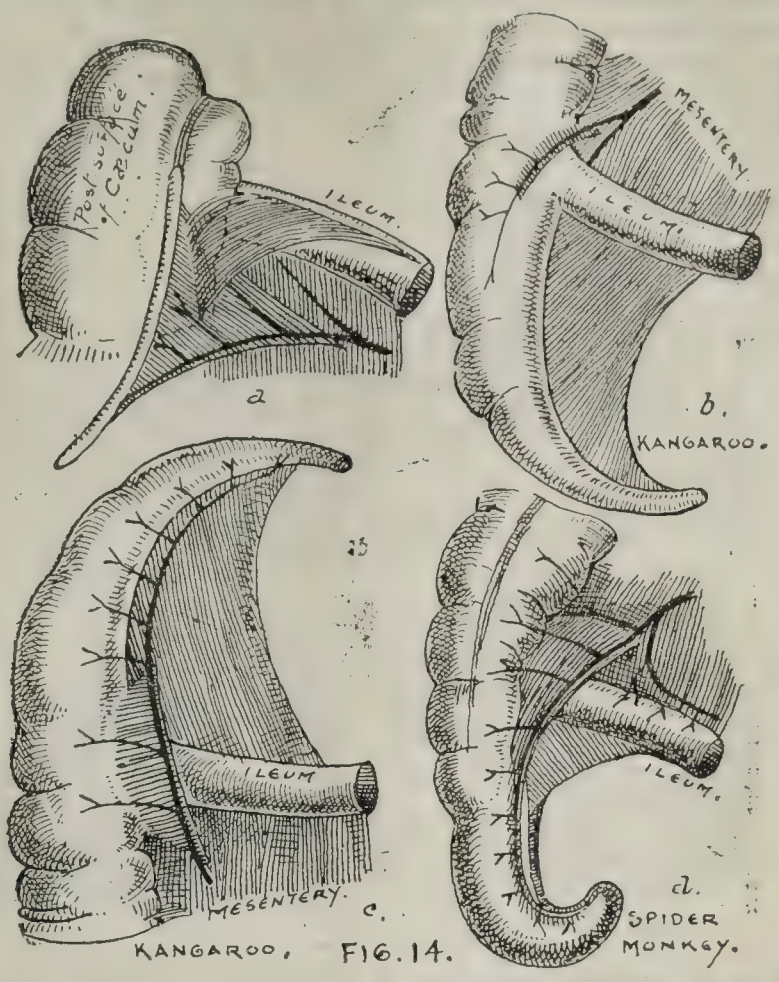


FIG. 14.

In the majority of cases in the adult body, the appendix—when examined *in situ*—will be seen to lie behind the end of the ileum and its mesentery, and to point in the direction of the spleen. In the only other position that may be said to be at all common, the little tube ascends vertically behind the cæcum. This position nearly always depends upon an abnormality in the arrangement of the appendix mesentery, to which allusion will be subsequently made. In four instances where the appendix was so placed, the tip of the process was very near to, if not in actual contact with, the under surface of the liver; and, in one of the four specimens, it was found touching the gall-bladder. In these cases, and in several other instances where the appendix ran vertically behind the cæcum, the process would have been encountered in performing a right lumbar colotomy. When the cæcum occupies the pelvis, the appendix, of course, lies with it; but, in one or two specimens in which the cæcum occupied its normal position, the process was found hanging down into the pelvis. In one body—that of a male aged 10—the caput coli was strictly limited to the iliac fossa, but the appendix—which measured 4½ inches—was lying in the pelvis, and in contact with the bladder. The strangest position assumed by this little tube was met with in the body of a woman aged 33. In this subject, the appendix was straight, measured nearly five inches, and had an extensive mesentery. It passed horizontally across the middle line in front of the lumbo-sacral eminence, so that its tip rested upon the left psoas muscle.

In one case, I found the tip of the process adherent to the left layer of the mesentery of the ileum in such a way that a loop was formed, beneath which a coil of bowel might readily have become strangulated. This was the only instance noted, in the hundred cases, of an appendicular loop.

The mesentery of the appendix is formed by a very definite fold of the serous membrane. It comes off from the left, or under layer, of the mesentery of the end of the ileum. Its origin from this layer is along a straight line, which is situated at a short distance from the intestine, and which is not quite parallel with the margin of the bowel. If the appendix be pulled away from the cæcum, so that its mesentery is fully displayed, it will appear to come off at right angles from the enteric mesentery. At one extremity, this little fold runs right up to the ileo-cæcal junction, while, at the other end, it forms a free and concave margin. In its general outline it is triangular (Fig. 14 A). In the fœtus it may extend to the tip of the appendix, but in the adult,

it often only reaches to the centre of the tube, or to the junction of its middle with its distal third. It is too short for the appendix, and this disproportion between the process and its serous fold accounts for the twisted condition of the former. In the free margin of this little mesentery there runs an artery, a branch of the ileo-colic. From this artery, at regular intervals, are given off branches to the appendix. The earliest and largest of these reaches the posterior wall of the cæcum.

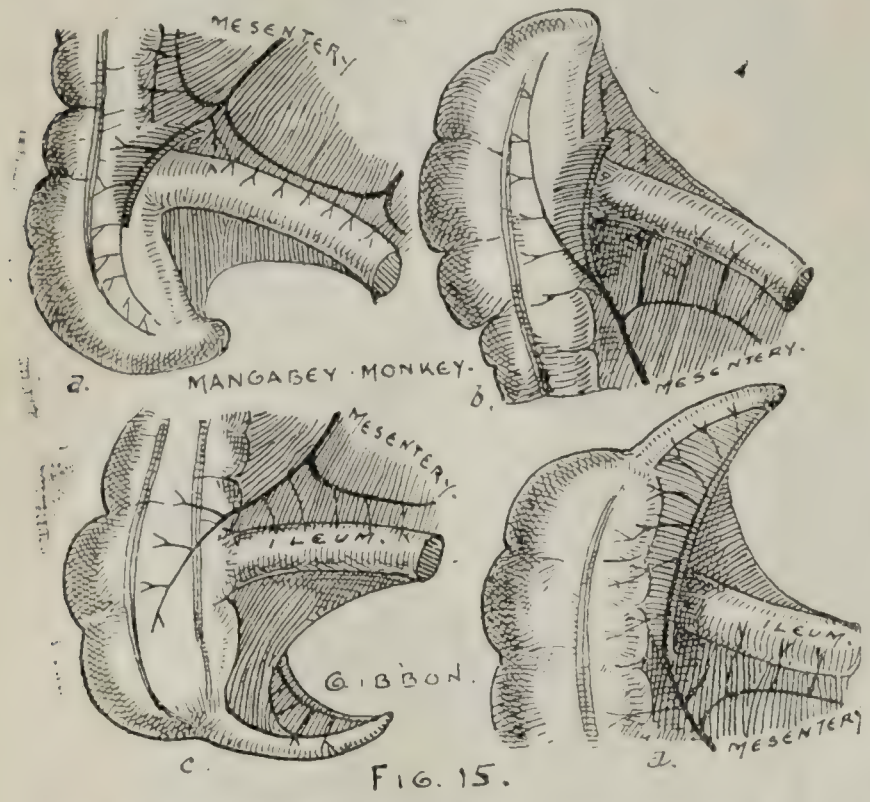


FIG. 15.

Now, in eighteen per cent. of the bodies examined, it was found that the appendix, instead of being placed obliquely, as already described, ascended vertically behind the cæcum. In such cases, the process was often straight, or curved only at its extremity, and it was found that the mesentery of the appendix had unusual connections. These connections are susceptible of a ready explanation.

It has been already pointed out that the bowel grows out of proportion to the peritoneum that covers it, and this disproportion is especially to be noticed in connection with the colon. The instances of displacement of the mesentery of the appendix are to be explained upon the assumption that the relation between the growth of the cæcum and the serous membrane about it has been more conspicuously disturbed than usual. As the cæcum grows under the almost passive peritoneum, it tends to encroach upon it, and to clothe itself with such parts of the serous membrane as are in its immediate vicinity. It approaches the mesentery of the ileum, and takes some part of that layer upon its walls. With the mesentery goes also the mesentery of the appendix, and in one class of case the latter fold will be seen to arise in part from its usual site, and in part from the posterior wall of the cæcum. At the same time, the direction of the growth of the cæcum will have rendered the little mesentery more vertical (Fig. 16 A). If this disproportionate growth continue, it will be found that the appendix mesentery has become quite vertical, has attachment to the cæcum only, and has been rendered much scantier by the encroachment of that part of the bowel. Such a condition is presented by the specimen from which Fig. 16 B was drawn.

Taking another step in the same direction, the little mesentery will be found to have been so much unfolded by the growing cæcum, that it is still further reduced, while, near the root of the appendix, it has disappeared, and that process is actually adherent to the caput coli (Fig. 16 C).

In a more advanced degree of the same condition, the appendix is almost wholly adherent to the cæcum, while its mesentery is reduced to the scantiest proportions. This is illustrated by Fig. 16 D, from the body of a man, aged 33. In the last stage of all, the appendix has no mesentery at all, but is adherent, in a vertical line, to the posterior wall of the cæcum, its extremity being as a rule, however, free. These variations, in their different stages, have all been illustrated by examples provided by the one hundred bodies examined.

The account of the mesentery of the appendix may be completed by observing that in rare instances a fold of peritoneum has passed from that margin of the process most remote from its mesenteric border, to join the serous membrane at the pelvic brim. This has only been noticed in instances where the appendicular fold took its normal origin from the mesentery of the ileum.

The Ileo-Cæcal Fossæ.—About the cæcum, and especially in the vicinity of the ileo-cæcal junction, are certain fossæ collectively known as the ileo-cæcal. They possess not only considerable anatomical interest, but are also worthy of notice, as having been the reputed

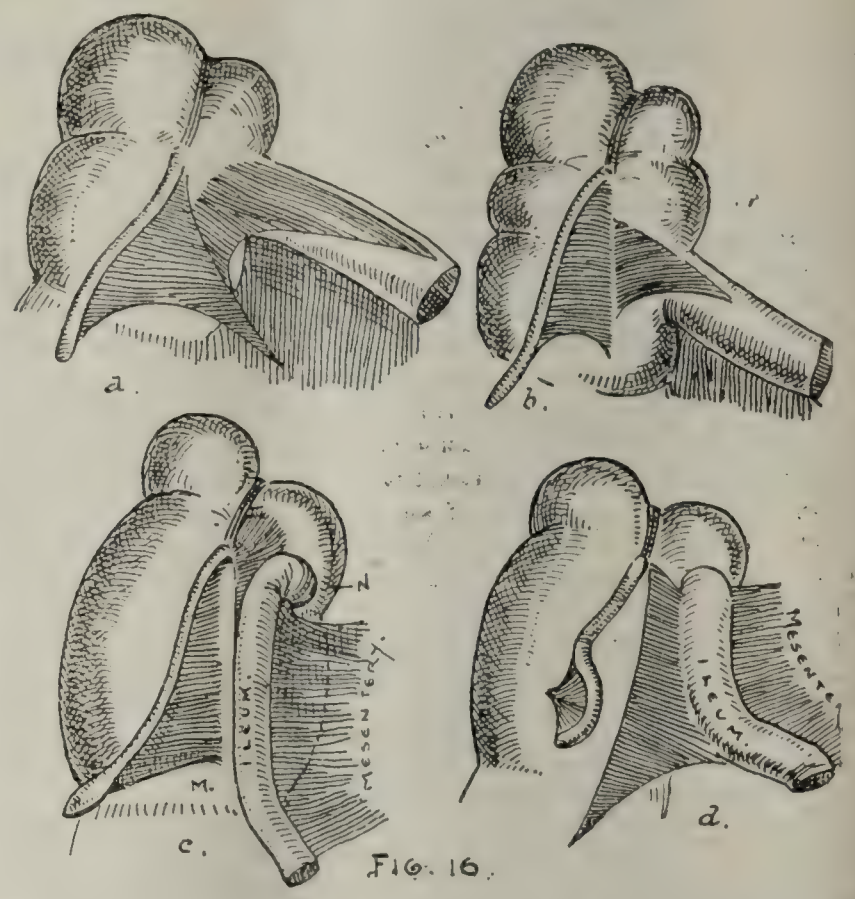


FIG. 16.

seat of certain herniæ, some of which have been the subjects of strangulation. They have attracted the attention of certain anatomists, and notably of Luschka, Hartmann, Treitz, and Waldeyer. I might be allowed to say that the accounts given of these pouches are somewhat involved, are frequently contradictory, and, I might venture to add, are also incorrect. Certain fossæ are described as constant, that would appear to be exceedingly rare. The subject has suffered also from a reckless and exuberant nomenclature; and one little fossa, termed indiscriminately the fossa ileo-cæcalis infima, the fossa subcæcalis, and the recessus retro-appendicularis, I have entirely failed to discover.

I should be sorry if these were regarded as sweeping assertions, but they are founded upon a careful systematic examination of the parts in one hundred fresh bodies, a drawing of the involved regions having been made on the spot in each instance. Describing these fossæ as they are met with, it will be found that there are only two that can be said to be in any way constant. The ileo-colic artery, when it nears the cæcum, divides into two branches; one of these, passing behind the ileum, appears as the vessel that runs along the free margin of the mesentery of the appendix; the other branch crosses the front of the ileo-cæcal junction, and ends almost immediately upon the anterior surface of the cæcum. It is concave towards the small intestine, and gives off several branches to the caput coli, from its convex border. In its passage across the line of junction between the cæcum and the ileum, the artery produces a fold in the peritoneum. This fold covers the ileo-cæcal union, is concave at its free edge, and limits a fossa. This small pouch may be well termed the superior ileo-cæcal. It is not always present, it often forms but a slight fossa, and the largest pouch that I have met with in this situation took the point of the thumb to a depth sufficient to cover the nail. It is shown in the diagram of the cæcum of the Mangabey monkey (Fig. 15 A), and with this pouch the fossa in the human subject is practically identical. It is difficult to understand that it can ever be the seat of a hernia. The second fossa is not quite so simple. If the cæcum be turned upwards, so as to expose its posterior surface as it lies *in situ*, and if the appendix be drawn down so as to put its mesentery on the stretch, a pecu-

liar fold will be found to join that mesentery (Fig. 14 A). This fold, which may be of considerable dimensions, arises from that border of the ileum that is most remote from the insertion of its mesentery. It then passes over the ileo-cæcal junction on its inferior aspect; is adherent to the cæcum, and finally joins the surface of the mesentery of the appendix. Its line of attachment to the appendix mesentery forms an acute angle with the little tube itself, and seldom extends over more than one-half of the membrane.

The connection of this fold to the ileum often extends to the length of one and a half inches. The plica in question is distinguished from the other folds in the vicinity by its bloodlessness. Even in well injected specimens, it may not present any visible vessels. If it do present any arteries, then they will still be very small, and will be derived from the vessel that runs in the free margin of the mesentery of the appendix. For convenience of description, and until some name is devised, it may be called the bloodless fold. Between this fold and the appendix mesentery there is a fossa that is almost constant, and is often very capacious. It will commonly lodge two fingers as far as the first joints. It opens outwards, its apex is at the ileo-cæcal junction, and it is bounded on one side by the small intestine, and on the other by the caput coli. To this conspicuous pouch may be applied the name of the inferior ileo-cæcal fossa.

These are the only constant fossæ that are met with in this region. They may be observed in subjects of all ages, in the fœtus at full term, and even at an early period of intra-uterine life. I have found them both well marked in fœtuses that measured respectively $5\frac{1}{2}$ and $4\frac{1}{2}$ inches in length.

In connection with these fossæ, the greatest interest attaches to the bloodless fold. An examination of embryos that displayed the earlier stages of the development of the intestine afforded no certain clue as to the nature and origin of this singular membrane. A very full explanation, however, of its significance was at once afforded by an examination of the parts in the lower animals.

Regarded from the standpoint of comparative anatomy, objection may be taken to the practice of regarding the appendix vermiformis as something that is distinct from the cæcum. This process is simply an undeveloped cæcum, a cæcum of which only the proximal end has grown in proportion with the growth of the body. If the appendix in the human subject could be distended until it was nearly of the size of the caput coli, then the whole diverticulum would closely resemble the cæca of many of the mammalia. If, on the other hand, in a long mammalian cæcum, such as that of the kangaroo (Fig. 14 B), the distal part had not developed in proportion with the rest, then would a cæcum and appendix be produced that would compare with like named parts in the human subject.

It is well, therefore, to hold in mind that the simple cæca of most of the lower animals represent both the cæcum and the appendix of the highest mammal. In such animals as have a prominent cæcum, it will be noticed that a well-marked fold of peritoneum passes to it from the ileum. The subject may be here simplified by selecting the cæcum of some one animal (and I have arbitrarily selected the kangaroo) as a basis for the description of this very general fold. The fold always passes from that margin of the ileum that is most remote from the attachment of the mesentery to that border of the cæcum that is nearest to the small intestine (Fig. 14 B and C). It is a thin layer of peritoneum, with a well defined concave margin, and is singularly free from visible blood-vessels. It is the true mesentery of the cæcum; it is continuous over the ileum with the mesentery of that bowel; and it is evident that it has been derived from the latter membrane by the budding out and subsequent growth of the caput coli. As this diverticulum has developed, it has carried a part of the common serous investment of the intestine with it. It has nothing to do with conveying blood to the cæcum. This part of the bowel is supplied by the ileo-colic branch of the superior mesenteric artery. This vessel, on nearing the gut, divides into two branches—one small, the other large. The former crosses the ileo-cæcal junction on its anterior aspect, while the latter occupies an almost corresponding position on the posterior surface of the bowel.

As they run to their destinations, these arteries draw the adjacent peritoneum into folds, and near the free margins of these folds the arteries will be seen. The fold for the anterior artery is usually small, and covers the ileo-cæcal junction; while that for the posterior vessel is more extensive, and runs from the left or under layer of the mesentery of the ileum to join the mesentery of the cæcum. As may be expected, variations are met with in these folds in different animals; but such variations are slight, and the general arrangement of these processes of the serous membrane would appear to be singularly constant. In the Mangabey monkey, where the cæcum is very short, the disposition of these folds is precisely the same as it is in the long cæcum of the kangaroo (Fig. 15 A and B). In the Spider monkey, there is a symmetry in the arrangement of the cæcal plicæ. The true mesentery of the cæcum is placed in the middle of the bowel, while on each side the anterior and posterior vascular folds run in a perfectly symmetrical manner. In this specimen, it will be seen that the two last named folds are of equal size (Fig. 14 D).

Now, on turning to the human cæcum, it will be seen that the anterior vascular fold exists as the plica that forms the superior ileo-cæcal fossa. The posterior vascular fold, with its distinct blood-vessel, exists in man as the mesentery of the appendix; while the fold in the human subject that has been termed the bloodless fold persists as the remains of the true mesentery of the cæcum and the appendix. The human appendicular mesentery is a substituted mesentery. The true serous fold of that process is represented by the non-vascular plica that runs from the surface of the ileum to the substituted mesentery of the appendix.

In the only anthropoid ape that I have had the opportunity of examining (a Silvery Gibbon), it is obvious that the condition of these folds is approaching that met with in the human subject (Fig. 15 C and D). The true appendicular mesentery is becoming less conspicuous; while the posterior vascular fold is unduly prominent, and forms, in fact, the greater part of the said mesentery. The specimen, indeed, shows the middle stage in the process of substitution—a

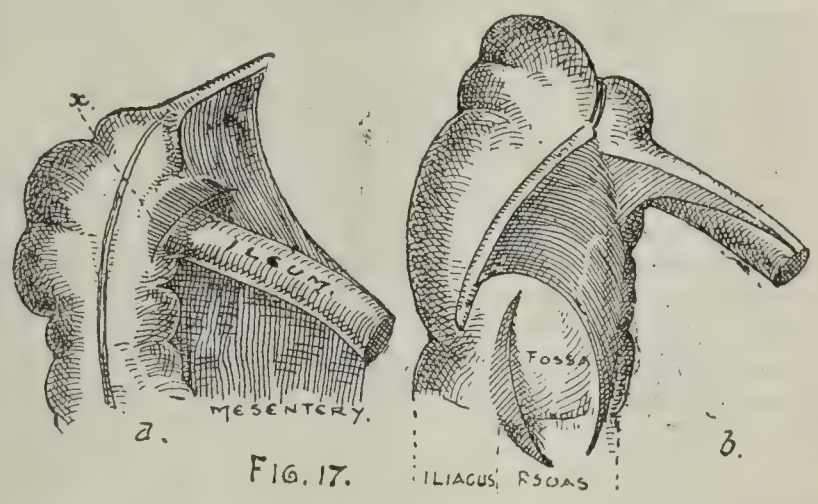


FIG. 17.

process that is completed in the cæcum of man. As an interesting comment upon the relations between these cæcal plicæ in man and in the lower animals, I had the good fortune to find two examples in the human subject of reversion to the lower condition. One specimen was from a female aged 70 (Fig. 17 A); the other from a male aged 64. In both, the cæcum was of simple and rudimentary outline; in both, the appendix was short and straight; and in both, its mesentery was formed entirely by what has been termed the bloodless fold—that is, the true mesentery. The substituted mesentery was represented by the slight fold *x*, which carried a branch of the ileo-colic artery, from which the appendix was supplied. In both, there was a slight superior fossa. It will be seen that these specimens exactly reproduce the condition met with in certain of the apes. (Compare Fig. 15 B.)

When the appendicular mesentery becomes displaced to the right, by the disproportionate growth of the cæcum, and appears at last to be attached vertically to the back of the caput coli (as already described), the bloodless fold—the representative of the true mesentery—of course follows it. As the appendix mesentery is encroached upon and taken into the covering of the cæcum, so the bloodless fold acquires unusual attachments (see Figs. 16 A, B, C, and D), until, at last, it may become quite dissociated from both the appendix and its serous fold; and, in such a specimen as is shown in Fig. 16 D, it is difficult to understand, at first, that the purposeless looking fold at the back of the cæcum is all that represents the true mesentery of the vermiform process.

There are certain other folds of peritoneum in connection with the cæcum that are of inconstant character, and that may be briefly disposed of. These plicæ are, for the most part, found along the line at which the peritoneum is reflected from the back of the cæcum on to the posterior abdominal parietes. They can, therefore, only be displayed when the caput coli has been turned upwards (Fig. 17 B). They are usually placed vertically, and run from the back of the colon to the peritoneum covering the psoas or iliacus muscles. Very often they arise at the root of the appendix, or are continued down from the mesentery of that process (Fig. 17 B). In length and depth, they show the greatest variations. When two exist, they may enclose a

fossa (Fig. 17 B). These fossæ represent those termed retro-cæcal by some anatomists. They are, however, not deserving of a special name. They are rare, are most variable, and evidently more or less accidental. Some appear as mere shallow grooves, while others are large enough to take a bantam's egg. They can hardly be demonstrated, unless the cæcum be put upon the stretch. It may be noted, however, that these retrocæcal folds have much to do in keeping the cæcum in position. Folds are also often found at right angles to the long axis of the gut, and passing from the colon near the cæcum, transversely across the iliacus muscle. These folds are very irregular, and can often be more or less entirely obliterated by displacing the large intestine. They do not merit anatomical recognition.

(To be continued.)

ABSTRACT OF THREE LECTURES ON THE MUTUAL RELATION OF THE GREY MASSES OF THE CEREBRO-SPINAL SYSTEM, AND THEIR CONNECTIONS WITH PERIPHERAL NERVES.

Delivered at the Royal College of Surgeons of England.

By ALEX. HILL, M.B., M.R.C.S.,

Hunterian Professor at the Royal College of Surgeons; Fellow of Downing College; and Demonstrator of Anatomy in the University of Cambridge.

Lectures I and II. — The Central Grey Tube, and the Involuted Parts of the Cerebral Cortex.

Were it possible to unravel the cerebro-spinal system, it would probably be found to consist of an association of simple combinations of nerve-fibre and nerve-cell, simple as to the number of elements entering into the formation of each combination, but complex as to the connections between them. The object of our study is to trace the fibres of nerves, the functions of which we know, back to their ultimate terminations in cells, and to determine further the connections of the various cell-groups with one another. The mere topography of the system, although, in the history of the subject, necessarily the first to be studied, is of no interest until we have some notion of the meaning of the different regions. So difficult, however, is the investigation of the structure of the cerebro-spinal system, whether carried out by the microscope or by methods of dissociation, that exceedingly discrepant results are obtained by different observers; and it is necessary, in order to obtain a general conception of the plan upon which this system is built up, to have recourse to fundamental morphological and physiological considerations.

Formed as an involution of the epiblast, the central nervous system retains, throughout its whole extent, its tubular character. This tube, at first uniform, undergoes a differentiation into three concentric layers, of which the internal constitutes the epithelium of the spinal canal, the middle the grey matter, and the peripheral the white matter of the cord, and of its continuation throughout the basal part of the system. It is with the grey matter alone that we have any further concern; this, owing to the lozenge-shaped section of the primitive central canal, is constricted into four columns, which subsequently become the two anterior and two posterior cornua, united above and below the central canal by the anterior and posterior commissures. The anterior and posterior roots of the spinal nerves are connected with their respective cornua. Within the grey matter, we find three distinct kinds of cells: 1, large motor cells (measuring from 67 to 135 μ) with distinct process of Deiters, collected in two separate groups in the anterior and lateral horns respectively, except in the cervical and lumbar enlargements, where these groups fuse together; 2, a dorso-mesial group of cells (Clarke's column) resembling the cells of the anterior horn in form, but not in size, their diameters varying from 40 to 90 μ; 3, spindle-shaped cells, of an average length of 18 μ, apparently devoid of an axis-cylinder process. These cells are diffused through the matrix of the posterior horns.

It must be remembered that the above mentioned groups of cells constitute continuous columns, presenting, nevertheless, a distinctly metameric arrangement. Birge has shown that, in the frog, the number of motor cells in the spinal cord equals the number of large motor fibres in the anterior roots; and, further, that the number of cells in each metamer equals the number of large motor fibres in the anterior root leaving that metamer. Although there are certain difficulties in carrying out this investigation which should make us hesitate in accepting the exact numerical equivalence as proved, Birge's results are strongly confirmatory of the opinion that every motor fibre is connected with a nerve-cell immediately before its exit from the cord. The variation in size of the posterior cornu, and consequently in the number of spindle-shaped cells which it contains, indicates that a similar connection obtains of the fibres of the posterior roots with nerve-cells of their own metamer.

Gaskell has, quite recently, called particular attention to the white rami communicantes (rami advehentes of Remak) of the sympathetic system, composed of the smallest medullated (leucenteric) fibres; and has further remarked that the number of cells in Clarke's column in any particular region appears to vary as the number of leucenteric fibres derived from that region. As the result, therefore, of Gaskell's researches, this column, hitherto so anomalous in position, in the character of its cells, and in its pathological alterations, falls into place as containing the primary centres of the visceral nerves; and we are justified in considering the central grey tube of the cerebro-spinal system as composed of metameric groups of three varieties of cells, well defined as to their histological characters, and severally connected with three kinds of nerve-fibres, equally distinct as to their anatomical and physiological relations.

As the spinal cord passes into the medulla, its central canal opens out into the fourth ventricle. The posterior columns, previously separated only by the median fissure, become widely divergent, and the posterior cornua are consequently displaced outwards. The physiological reason for this change is to be found, as it appears to the lecturer, in the peculiar needs of the nervous system with regard to the circulation. Subject to rapid exaltation and depression of functional activity, it demands a correspondingly variable nutrient supply. A very slight alteration in the pressure upon the nerve-cells would be injurious; and yet, since it forms a solid parenchymatous mass, local turgidity must produce pressure upon, and displacement of, neighbouring regions. To prevent such pressure, and to remove rapidly all products of action (a function of the lymphatic system not sufficiently recognised), every nerve-cell and fibre swims in a little bath of lymph. Where, however, the grey centres reach a certain size and functional importance, they are brought into contact with a sea of lymph, by which their alternating pressures are widely distributed, and their products of action rapidly removed.

With the displacement of the posterior column outwards, the anterior column of cells is brought up into the floor of the fourth ventricle close to the median line, where it constitutes the nucleus of the hypoglossal nerve. The lateral column is isolated by the crossing fibres of the pyramid, as the antero-lateral nucleus of Clarke, and the nucleus ambiguus. Clarke's column, the cells of which retain the same characters as in the cord, swells out into the nucleus of the vagus, the great leucenteric nerve of the thoracic viscera. From it also arise fibres of the glosso-pharyngeal nerve, which Vulpian has shown to possess a vaso-dilator influence upon the back of the tongue; and into its anterior part Duval has traced the pars intermedia of Wrisberg, ramus visceralis of the seventh pair, from which the chorda tympani vaso-dilator nerve of the submaxillary gland is derived. The sensory part of the glosso-pharyngeal nerve probably terminates in the spindle-shaped cells of the grey matter of the medulla, homologous with the posterior cornu of the cord. In the pons Varolii we find the abducens arising from the anterior, the facial from the lateral, and the auditory passing into the posterior cell-columns.

The motor nucleus of the fifth nerve appears to belong to the lateral column, the sensory to the posterior column, of the whole hind and mid-brain. In the mid-brain, the grey matter resumes its tubular arrangements; indeed, this part, the region of the corpora quadrigemina, preserves, to a greater extent than any other part of the central nervous system, its primitive form. From the ventral (motor) part of the grey tube arises the third nerve; the fourth arises from its dorso-lateral part.

The optic thalamus and corpora striata are usually associated together as "basal ganglia," and constitute the second node in Meynert's projection scheme. They are considered to be of a higher value than the grey matter of the spinal cord, to constitute, as it were, an intermediate office or *bureau* between the cord and the cortex, exercising a censorship over all messages received from and forwarded to the front, and capable, in the absence or somnolence of their chief, of re-directing and returning them. The lecturer believes that this scheme was based originally upon Carpenter and Todd's classification of reflex actions. Intermediate centres were required to carry out the kind of reflex they termed "ideo-motor." But neither two nor twenty serially ascending centres would suffice for the proper allocation of such official work. Every gradation of reflex action is possible, from

a simple twitch carried out by a limited portion of the cord, to the imitation of speech and gesture exhibited by a hypnotised person. The character of the action depends not upon the particular group of cells by which it is reflected, but upon the extent of the connection between the primary centres of the sensory nerve, up which the afferent impulse passes, with other sensory and motor centres. Everywhere throughout the grey matter, nerve-cells communicate with one another by a fret-work of processes, and it would appear that there is less resistance to the passage of impulses up sensory tracts than to their immediate transference from sensory to motor ones. Only when the road is blocked does this transference take place. This is, in many instances, the meaning of inhibition; as long as the sensory connections are open, the impulse travels up this tract instead of being reflected across to the adjoining motor cells. As in the well known experiment of dangling three frogs, from the first of which the cerebral hemispheres, from the second the corpora bigemina, and from the third these structures and the medulla also have been removed, with their feet in sulphuric acid, the farther the sensory impulses have to travel, the longer the time that elapses before they are reflected, and the greater the possibility of their being directed to motor cells other than those which will remove the injured foot from the acid.

The fact that the complexity and the purposeful character of reflex action is more marked the less the nervous system has been mutilated, depends, not upon its being carried out by higher centres, but upon the more extensive connections of the primary receptive cells. Physiologically, the conception that the basal ganglia serve as intermediate projection-areas, does not in any way facilitate the explanation of the different varieties of reflex action. Nor is it justifiable to place the optic thalami and corpora striata together in a division by themselves on anatomical grounds. They are developed from different cerebral vesicles, and grow in a somewhat different way. More distinctive, however, is the fact, that the nucleus caudatus remains permanently connected by its head and tail with the cortex, of which it seems justifiable to regard it, with Wernicke, as forming an involuted part. The nucleus lenticularis is inseparably connected with the nucleus caudatus, and, therefore, if Wernicke's view be correct, also a part of the cortex system. The correctness of this view has been strongly impressed upon the lecturer by a careful examination of the nucleus amygdaleus, which, with the claustrum, although almost everywhere separated from the cortex by white fibres, is always regarded as forming a part of this system.

Dr. Alex. Hill then observed that he proposed to lay before his audience evidence of an entirely new kind in proof that the corpora striata cannot possibly be middle-men between the cortex and the cord. In a microhydrocephalic brain (the anatomical report of which the lecturer proposed to publish in conjunction with Mr. De Lisle's clinical notes) he had particularly examined these ganglia, with a view to determining if there was any alteration in their size coincident with the diminution of the cortex. The whole brain, after soaking in spirit, only weighed 10¼ ounces, and since it was not put into spirit until some days after death, it could not, the lecturer thought, have weighed more than 15 or 16 ounces when fresh (as against 49 ounces, the normal weight). The cortex was reduced to not more than one-fifth of its normal size. The brain was cut, by means of a specially constructed macrotome, into sections one-sixteenth of an inch thick. At the same time, a normal brain, similarly hardened, was cut up with the same machine. Dr. Hill also used the photographs in Luys' *Iconographie* for comparison.

Without entering into details as to the method of measurement, he stated that the head of the nucleus caudatus was a trifle larger than in his control brain; the nucleus lenticularis was almost identically the same size. Both were a little smaller than in Luys' photographs, owing to the contraction produced by the spirit. This result is the more remarkable, inasmuch as all the cranial nerves, the crura, and the spinal cord, were considerably reduced in size. Except for the remote possibility of the corpora striata exercising vicarious functions, it is inconceivable that they can be normally connected with the cortex by the fibres of the corona radiata, and yet not diminished in size when the cortex is congenitally deficient.

The optic thalami, on the other hand, appear to the lecturer to belong to the central grey tube, with the sensory part of which they agree, with certain modifications, in the manner of development, in minute structure, and in connections. Anatomically, it is impossible to distinguish them from the rest of the grey matter surrounding the third ventricle. Their prominence and comparative isolation depend upon the absence of motor nuclei in this region. Unless they belong to the æsthesodic part of the central grey tube, it is impossible to find primary metameric centres for the optic and olfactory nerves, a result for which neither the development of these nerves (Marshall has shown that, in the chick, the olfactory nerves arise, like any other, from the dorsal ridge of the fore brain before the budding out of the cerebral vesicles), nor what we have already learnt of the mechanical construction of the central nervous system, justifies us in anticipating.

THE POST-MORTEM APPEARANCES IN A CASE OF DEATH FROM THE ACTION OF ELECTRICITY.

By MARMADUKE SHEILD, M.B., F.R.C.S., and SHERIDAN DELÉPINE, M.B., B.Sc.

(For permission to publish this case we are indebted to Dr. Cavafy.)

A HEALTHY strong man, aged 21, engaged at the electrical department of the Health Exhibition, was observed to suddenly fall back insensible from a machine which he was manipulating. He was at once brought to St. George's Hospital, on the evening of September 27th, 1884, and was found to be quite dead on admission. No alteration was perceptible in the texture of his clothes or the metallic substances on the person.

The necropsy was performed forty hours after death. The body was that of a muscular healthy man; rigor mortis well marked. Great cutaneous congestion was present, curiously limited to the head, neck, upper part of the chest, and arms. On the outer aspect of the left index finger was a small elongated blister, about half an inch in length by one-eighth of an inch wide. This had the appearance of a burn, but there was no congestion of the skin round it, and no smell of charred epidermis.

On opening the body, the muscles of the thorax were noted to be very firm and resistant to the knife. All the internal viscera, with the brain and spinal cord, were, to the eye, perfectly healthy. A striking feature in the investigation was the extreme fluidity of the blood; there was not a trace of a clot even in the right side of the heart. The viscera were much engorged with dark fluid blood; the heart was large and muscular, but quite uncontracted. Under the microscope, the fibres were normal in appearance. The blood was also examined with the microscope, but nothing abnormal could be discovered. The median nerve, and portion of blistered skin, were submitted to prolonged and careful microscopical investigation.

Nothing of importance could be discovered in the median nerve; this, however, does not exclude the idea that some abnormal coagulation, or other changes, may have been present, but these were of such a nature as not to be revealed by the methods of observation used.

DESCRIPTION OF THE MICROSCOPICAL APPEARANCES OBSERVED IN TRANSVERSE SECTIONS THROUGH THE SKIN OF THE LEFT INDEX FINGER IN THE REGION OF THE BLISTER.

One part of the specimen was hardened in osmic acid, and another in chromic acid and spirit.

The sections were cut in a plane perpendicular to the surface of the skin and to the long axis of the blister.

A. EXAMINATION UNDER LOW POWER.

The epidermis is raised from the cutis vera in the portion of skin corresponding to the blister; thus a small elongated cavity is formed, which, at the time it was opened, contained no fluid.

The roof of the cavity is depressed in the centre, this depression corresponding to a longitudinal groove, observed on the surface of the blister, and running in the direction of its long axis. On cutting through this raised epidermis, it is noticed that it is very brittle and hard, generally breaking in the region of the median depression; in that region the epidermis is much thinner than elsewhere. The floor of the cavity is almost flat, and the transverse measurement of the cavity, in the middle of the blister, is about ¼ inch, the width diminishing at both ends. The depth of the cavity is from $\frac{1}{50}$ to $\frac{1}{75}$ inch at the sides of the median depression of the roof, but just under that depression it often measures less than $\frac{1}{100}$ of an inch.

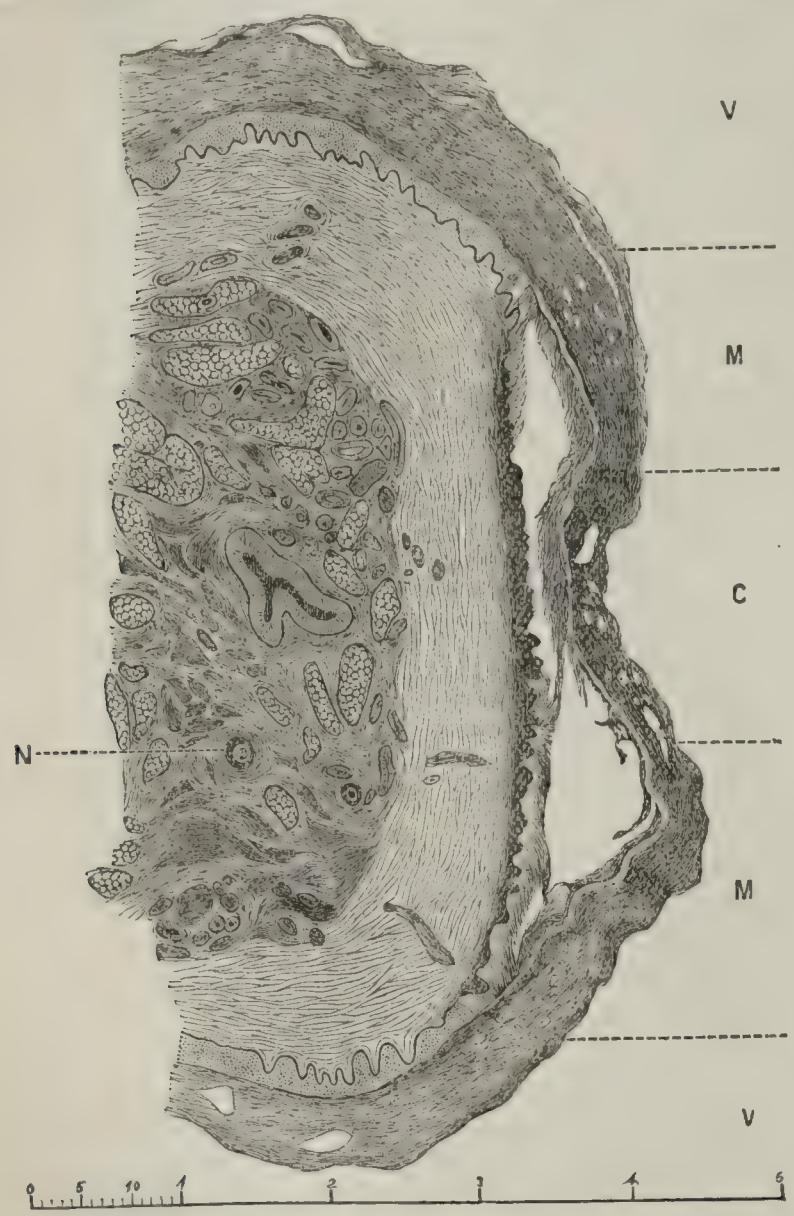
For the sake of clearness, it will be necessary to describe the various parts of the epidermis, cutis vera, and subcutaneous tissue in the following regions: 1, the middle of the blister; this will be called the central region, or zone; 2, the border of the blister; this will be called the marginal region, or zone; 3, the immediate vicinity of the blister will be called the external region, or zone.

It must be, however, understood, that there is no sharp line of demarcation between these zones, and, moreover, that if these zones were determined in each layer, according to the degree of intensity of the lesions, they would not have the same extent in each stratum, so

that a series of planes perpendicular to the surface of the skin could not separate them accurately from each other all through.

B. EXAMINATION UNDER HIGH POWERS (= 250 to 1,000).

1. *Horny Layer of Epidermis.—a.* External zone. There is little to notice here; the cells appear somewhat swollen, and more distinct than usual; their outline is very wavy; in many of them a nucleus is stained pretty distinctly. *b.* Marginal zone. The horny layer in this region is little thicker than in the last; the cells are more swollen, and in many places adjacent layers of cells are separated by small spindle-shaped or irregular cavities, as if they had been pulled apart by some force acting in a direction perpendicular to the surface of the skin, or as if some material had accumulated or expanded between them. *c.* Central zone. In the centre of the blister, where the epidermis looks dry and burnt, the horny layer is much thinner than in the neighbourhood, the thickness being less than half that of the normal stratum corneum. It looks as if it had been compressed or



Section through the skin of the index-finger in the region of the blister.
C. Central zone.
M. Marginal zone.
V. External vicinal zone.
The outlines are accurate; the shading partly diagrammatic. The black portions of the epidermis and cutis vera indicate the places where the tissues had taken an almost homogeneous appearance.
N. One of the small nerves which seemed affected; there is another showing analogous changes a little below and to the right.

dried up. The scaly strata are very thin, and in many places are quite fused together, forming an homogeneous waxy looking mass; however, in most places the stratified arrangement, and even some individual cells, are quite distinguishable. Separating these strata, and often interrupting them, are found many irregularly rounded or elongated spaces; some of these spaces are very large, and occupy more than half of the thickness of the stratum. These spaces are analogous to those described in the last zone, but much larger. This central zone has in an exaggerated degree the same characters as those of the superficial portions of the horny layer. In fact, in the specimens observed there can hardly be found a line of demarcation between the superficial parts of the horny layer in the external and marginal zones, and the whole of the horny layer in the central zone, the state of things normal in the superficial layers of unaltered epidermis having apparently prematurely invaded the whole thickness of this membrane in the centre of the burn, and this in an excessive manner.

Before leaving the stratum corneum, it may be added that the staining reagents affect differently this layer in the various zones. The external zone shows the ordinary reactions. The marginal zone takes the pigments more deeply, and in a somewhat modified manner; thus, with carmine, it becomes dark pinkish-red, and, with logwood, almost of a lilac-colour, or, at any rate, much more pink than normal. The central zone stains, so to speak, in a negative manner; thus, with picrocarmine, it becomes bright yellow, showing a small red patch here and there; whilst with logwood it hardly stains at all (when not left in too long). This part can be well stained with eosin, which stains the marginal zone in a lesser degree, and the external zone still less.

2. *Stratum Lucidum.—a.* This layer cannot be very distinctly recognised in the external zone. *b.* It gets very conspicuous and broader at the margin of the blister. *c.* It becomes still more marked in the central region, except at the very centre, where it is difficult to recognise it from the other parts of the stratum corneum.

3. *Stratum Granulosum.*—This is most distinct in the immediate neighbourhood of the marginal region, whilst in the central region it becomes almost entirely fused with the superficial parts of the rete Malpighii, and there, with the latter, it forms a kind of colloid looking, lobulated and vacuolated irregular mass, lining, in many parts, the roof of the blister-cavity. These altered masses, when stained with picrocarmine, take a bright yellow colour, as well as the stratum lucidum; with logwood, they take various shades of violet; the stratum granulosum itself has its normal dark look in the external and marginal regions.

4. *Rete Malpighii.—a.* In the external zone, the layer shows little alteration. In the immediate neighbourhood of the marginal zone, the nuclei seem rather contracted within the cavities containing them (that is, within the nuclear wall).

b. In the marginal zone, very peculiar changes are observed. Generally speaking, the depth of the layer becomes greatly increased at the border of the blister-cavity; it measures, in many places, fully twice its normal thickness; moreover, here and there, it seems more or less separated from the subjacent papillæ. The nuclear cavities are much distended. On closer examination, it can be seen that, at the periphery of the marginal zone, the nuclear cavities are less distended than in the more central portions of the same zone, with the exception of the part immediately bordering the blister, where it is generally difficult to recognise any trace of the nuclei. The nucleus itself is much contracted, but less so at the periphery than towards the centre; in most cases, it is quite flattened or plate-like, the direction of the plate being perpendicular to that of the long axis of the nuclear cavity (which is generally elliptical); the contracted nucleus showing an appearance not unlike that of the so-called equatorial plate observed during the process of karyokinisis.

Between the distended nuclear cavities are seen numbers of more or less distinct fibrils, running from the superficial part of the cutis vera to the deep aspect of the horny layers; these fibrils at the border of the blister-cavity are densely crowded together, leaving here and there a narrow space in which a very elongated nucleus may be occasionally seen towards the external border of the marginal zone; these fibrils are less abundant, and are evidently taking the place of the protoplasm of all the cells of the rete mucosum which are more or less completely fused together.

Here and there, in the external zone, small groups of cells show a slight tendency to fibrillation, but not to such an extent as in the marginal zone.

The impression given by this appearance is that it is due to some violent stretching of the cellular protoplasm, which, on account of its internal structure, or owing to certain changes of consistency only (or more probably owing to the two combined), forms a continuous mass of soft, elastic, or glutinous material. If this were not the case, the separation of the superficial layers from the deeper layers of the skin would cause a solution of continuity somewhere.

The fibres just described show a marked waviness, and this is most noticeable at the border of the blister-cavity. This will be better understood when the central portion is described.

In many places, the fibres of connective tissue of the papillæ seem to be continued into the epidermic covering; and in the regions where the fibrillation of the rete Malpighii is very marked, it is difficult not to believe that such is the case, but the appearance is probably

fallacious, and due to the fact that, in papillæ cut obliquely, the fibres of the corium and those of the rete Malpighii running in the same direction, and being partly superposed, it is difficult to say where one set begins and the other ends. This view is supported by the fact that, side by side, one can see papillæ, the surface of which is separated from the rete Malpighii by a sharp line, just as if there were there a basement-membrane, and other papillæ (generally shorter) showing the appearance above alluded to.

c. In the central zone, the rete Malpighii presents various modifications.

At the sides, the elongated fibres just described, instead of extending between the stratum corneum and the cutis vera, as was the case in the marginal zone, are broken asunder; in most places, the greater part of the rete Malpighii remains attached to the raised cuticle, but, in other places, a considerable amount remains attached to the cutis vera. In some other places, the skin and its papillæ are left perfectly bare.

The arrangement of this portion of fibrillated rete Malpighii is most interesting to study. The fibres composing it are generally arranged in bundles, which have a broad basis, and a free end projecting into the blister-cavity. These fibres, and bundles of fibres, are bent in various ways; thus, those which are attached to the raised superficial layers are generally bent towards the centre of the cavity; at a very short distance from their point of attachment, they are generally bent at almost a right angle to their first direction, so that from perpendicular that they were, they become almost parallel to the cutaneous surface, with the exception of their free end, which is seen projecting more or less into the cavity. The fibres remaining attached to the floor of the blister show a course quite different. At first perpendicular to their surface of attachment, they soon bend towards the periphery of the blister, but generally not so sharply as the fibres just described.

Quite at the margin of blister, where the fibres still extend from cutis vera to stratum corneum (or, more accurately, to stratum granulosum), they show a remarkable double bend, allowing them to take the two directions above described, thus following them from the cutis vera to the stratum corneum. They are first bent towards the marginal zone, then towards the centre of the cavity, then again towards the margin, becoming finally attached to the raised cuticle, as has already been described.

This arrangement is not perfectly constant, but is sufficiently so to deserve notice. In some preparations these fibres, instead of converging to or diverging from the centre of the blister only, seem to do so in relation to one or more secondary centres.

Where the cutis vera is not entirely denuded, but very nearly so, the fibrous looking remains of the Malpighian layer form a kind of short fur, covering the papillæ, and lying between them. However, close to the centre, and corresponding to the depression in the cuticle, there often remains a tract of unbroken fibres, extending obliquely between the separated strata.

The fibrous looking cells of the rete Malpighii, which remain attached to the cuticle in the central part of the blister, are generally altered in many points, having taken a homogeneous colloid look, and forming more or less a continuous, lumpy, vacuolated layer just under the stratum lucidum and stratum granulosum, with which it seems to have become entirely fused.

II. *Cutis Vera.—a.* In the external zone, the papillæ show their structure with great clearness, the bundles of fibrous connective tissue, the capillaries, the nerve-endings (Meissner's corpuscles), all being almost abnormally clear. This is true, also, of the deeper layers, where some ducts of sweat-glands show their structure very well. *b.* In the marginal zone, some of the papillæ are smaller and more rounded than normal, their structure is pretty well marked. However, the connective tissue-bundles are less distinctly fibrillated. The lumen of the capillaries is apparently narrowed, whilst their walls are altered, being formed of short thick plates, evidently made of contracted, thickened, endothelial scales. It will be noticed that, owing to this, the walls of the capillaries are not continuous, but must present a number of openings or fissures between the cells. The most superficial parts of the capillaries in the papillæ show here and there a peculiar striation, which is also observed in the neighbourhood of the vessels a little deeper down; in some places a few spiral fibres seem to run round the capillaries. Here again Meissner's corpuscles are remarkably distinct.

c. In the central zone, the papillæ are more or less flattened and rounded. Some of them have almost entirely disappeared; others have taken an almost spherical shape, remaining attached to the rest of the cutis vera by a thick neck. As has already been said, many of them are quite bare, and project into the cavity of the blister. The most striking change observed here, besides this flattening, is the homogeneous look presented by the ground connective tissue, in which the bundles of fibres have almost entirely fused together, their fibrillation having generally almost disappeared. A few small, triangular, branched or elongated, spindle-shaped cells, which seem to correspond to much altered connective tissue corpuscles, are embedded in this homogeneous matrix. The change is observed all along the floor of the blister—that is, in all the region which is here named central zone; but it extends deeper into the cutis in the central parts than at the margin of the blister, where this altered stratum gets thinner, and gradual transition is observed; but nowhere does this change extend deeply into the skin. About twice the height of a normal papilla seems to be the greatest depth observable in this case; and this renders this peculiar change still more remarkable, giving it a sharpness which is seldom observed in pathological lesions. The capillary vessels have in this region an appearance very much like that already described in the marginal zone; but, in addition, their contents are apparently coagulated; at least, the whole lumen of the vessel seems to be filled with some homogeneous material. In some places, the walls are hardly distinguishable from this substance. In many of these capillaries, another thing is noticed; namely, a peculiar striation or fibrillation of the vessel and its contents. This striation, which is parallel to the axis of the capillary, becomes very conspicuous at the apex of some papillæ, where the fibrillæ separate from each other, forming a kind of brush. These fibrils in some cases seem to extend up to the deep layers of the epidermis; and in some places, where the papillæ are denuded, these fibrils seem even to extend beyond the surface of the true skin. Owing to the alterations above described, it is in many places impossible to be quite sure that what are here described as capillaries may not be partly made up of some nerve-fibres. However, in most cases, the connection with unmistakable vessels can be traced. The touch-corpuscles are here also very distinctly seen; but their structure is, perhaps, less distinct than in the marginal zone; and they are less elongated, being apparently flattened in the direction of their long axis. This, of course, corresponds to the flattening of the papillæ themselves.

In one preparation, the duct of a sweat-gland opens almost in the middle of the blister, and that duct shows almost the same appearance as that described above regarding blood-capillaries. The fibrillation and complete destruction of structure can be observed to extend over the greater part of the duct as it passes through the cutis vera, and at the surface of the cutis the fibrillated contents project and expand in a fan-like manner.

III. *Subcutaneous Tissue.*—This layer presents but few changes; the ground connective tissue does not seem altered; the adipose tissue shows nothing abnormal. The coiled part of the sweat-glands does not seem much affected, with the exception of a few portions of dilated tubes, where a number of cells seem to be destroyed, and the few remaining *débris* have collected in the centre of the tube, being separated from the basement-membrane by a clear space containing some transparent or vacuolated cells. Two or three small nerves, situated in the part of the subcutaneous tissue corresponding to the central zone, show also an uncommon appearance; a considerable space exists between the bundles of nerve-fibres and the perineurium; this seems to have been due to some expansion or swelling of the endoneurium. However, the nerve-fibres do not seem more separated from each other than in the normal state. A few small arteries seem to be contracted to an abnormal degree.

Conclusions.—It will be seen that, in this description, no attempt is made at giving the distinguishing features between this kind and other kinds of burns. This would imply not only a long discussion, but also the description of appearances not generally known, and requiring further study. All the points given here are given as facts, which everyone can ascertain by examining the specimens described. No explanation is attempted; not that the facts are devoid of suggestiveness, but because this will be better done in some subsequent and more elaborate paper. However, nothing that may be required for the recognition of such cases has been, it is hoped, omitted. And, to make this easier, it will be as well to recapitulate here the chief changes described above.

Summary of the Lesions.—I. Epidermis.—1. Stratum Corneum. *a.* Cavities. *b.* Swelling of cells in the marginal region. *c.* Condensation and partial fusion of central cells. 2. Stratum Lucidum. More apparent and thicker at margin of blister. 3. Stratum Granulosum. Partly fused with the last in centre of blister. 4. Stratum Mucosum. *a.* Distension of nuclear cavities at margin. *b.* Peculiar contraction of nuclear substance. *c.* Fibrillation of protoplasm at margin, and breaking asunder of these fibrils in the central portion. *d.* Peculiar direction taken by fibrils in the cavity of the blister.

II. Derma.—1. Ground Connective Tissue. *a.* Papillæ flattened. *b.* Tissue of floor of blister almost homogeneous. 2. Capillaries. *a.* Contraction of capillaries. *b.* Contraction of endothelial cells. *c.* Coagulation and fibrillation of contents. 3. Nerves. Remarkable distinctness of Meissner's corpuscles.

III. Panniculus Adiposus.—1. Ground-tissue unaltered. 2. Fat-lobules unaltered. 3. Sweat-glands. Fusion of cells and fibrillation of contents of ducts near surface of cutis vera. 4. Nerves. Doubtful swelling of endoneurium. 5. Vessels. Doubtful excessive contraction of arteries.

The recorded morbid appearances of death from lightning are noteworthy in general, on account of the absence of obvious internal lesions; in this they agree with the present case. Although at least two fatal cases have been reported in this country from the action of the electrical fluid generated by machinery, yet we are not aware that the pathological changes have been placed on record.

Looking at the present increase in the application of electricity to various purposes, it seems quite probable that fatal accidents will increase among those who, from the nature of their vocation, are daily engaged among the complicated machinery. Important medico-legal questions may arise on the subject of a person found dead in the neighbourhood of electrical machines or conducting wires. So, too, it is sufficiently obvious that such an agent as electricity might be employed by murderers acquainted with the working of electrical apparatus, and with the absence of traces of violence left by the action of the current. It may, therefore, justly be said that a record of such cases is of importance, if only to serve as references for future comparison.

From the evidence of those who stood near, it would seem as though the man were instantly deprived of life. No doubt the vital spots at the base of the brain are, in such cases, markedly implicated. The fluid condition of all the blood, and the uncontracted state of the heart, were quite striking, but the naked eye appearances of injuries like these are sure to be obscure and negative in character, and it is only by the microscope that we can hope to appreciate any of the minuter changes that occur. The condition of the blistered skin is very peculiar, and differs from that of the ordinary burn-blister in several particulars. Such appearances would be quite recognisable on another occasion.

THE PREVENTION OF EPIDEMICS.

Read in the Section of Public Medicine at the Annual Meeting of the British Medical Association.

By EZRA M. HUNT, M.D., New York.

In this brief paper, I only attempt a syllabus of the method in which we should conduct our inquiries in order to accomplish more in the prevention of epidemics. In dividing up and assigning this study of epidemics, the following are the chief inquiries and observations to be made.

I. What is the *contagium vivum?* As to this, we have to determine in what its entity consists; whether it be particulate or gaseous, whether it be so specific and singular in its character that it is always the same as to quality or quantity; or, if capable of modification, how it can be modified; whether it be always derived, or whether it be produced so as to be in a sense spontaneous. In a word, we must study the contagium, so as to know the most possible about it in its own individuality.

It is almost needless to say that the germ-theory of disease has immensely broadened this part of our study; but perhaps it is needful to say that the fact that we are probably nearer than ever before to the identification of certain or most contagia, does not clear up the question as to whether they are derived or spontaneous, or how the benign bacillus becomes malign; it does not settle their origin, and so as yet does not, by original dealing with the entity, assure us how we can prevent its existence, and so radically prevent epidemics.

Most contagia thus far seem identified with plant-life. We may get lessons as to modes of study from the fact that many communicable diseases seem to have to do with plant-life.

It is not surprising that Hallier, Panum, De Bary, Cohn, Thomé, Darwin, and others who were early in these studies, were botanists; and it has seemed to us that we would have done well, in our study and classification of this infinitesimal life, to have followed still more closely in their methods. The botany and zoology of parasitic microscopic life will yet have a classification well nigh as extended as that which belongs to life in its more visible forms.

The worker in this field is in a garden of contending vegetations, in which it is not enough to say that each spore or germ or seed will produce its kind. *Omne ovum ab ovo* is true enough in animal life, but this does not prove the impossibility of a mule, or of some other product, or of a disease equally unique in its way. It is a marvel to see how the same seed can be so cultured that its products may be very greatly varied, and how marvellous are the hybrids or sports that may result. To me, the views of Pasteur do not seem to conflict with those of Bastian, nor does the doctrine of a result in disease, so modified as to almost defy identification, or so crossed as to give a mongrel, or what practically as to treatment is new, at all lean to the doctrine of spontaneous generation, as formerly taught. Cholera, typhoid fever, diphtheria, etc., some day become existences amid intense disturbances of natural processes. Although now generally occurrent from derived source, this does not preclude the possibility of their occurrence locally and sporadically, without an antecedent case—the only antecedent being the same intense disturbance of natural processes. It is strange that nitric acid and glycerine—the one corrosive, the other emollient—should have been so long handled in the laboratory before nitro-glycerine should have begun to exist. So, from special relationship of ordinary filth and extraordinary atmospheric conditions, there probably have come, and will come, new diseases, the causation of which we do not define when we find a germ, however much it may aid us in diagnosis.

II. Our next study, although allied, is quite distinct. Failing in finding the seed or the contagium, or destroying it, how shall we make of its *vivum* a case of suspended animation? How shall we sterilise it? I will not here discuss its culture in order to enfeeble it, as this is going on well enough. But I allude to the study of how we may provide it a sterile soil, either in the surroundings or in the person. This involves a close study of the habits of each contagium, on what it flourishes best without or within.

While the name filth-diseases is a convenient generalisation, we are not exact in our study until we accurately define decompositions, putrefactions, associated animal or plant life, so as not only to affirm, for instance, that vegetable decay causes periodic fevers, and animal excretion typhoid fever, but also to carry the details of observation, of facts, and of experiment, to an extent which shall enable us to approach the exactness of the botanist, who says that the silkworm thrives best on the mulberry, and that the potato-bug has an especial relish for the egg-plant. For the prevention of epidemics, there is this special field of study as to all the minute conditions or surroundings outside the body. We shall have gained very much when these scientific or expert methods, which are applied by the skilful naturalist, for instance, to all harmful or poisonous plants or insects, are applied to all embarrassments to our lives productive of disease as found outside and about us.

While the first plan, that of discovering a germ, is radical, yet it is not necessarily indispensable, if we can so apprehend the necessary conditions for propagation as to circumvent these. Hence students of this second class are not discomfited, even if the first study be incomplete.

III. The study of the individual in his relation to the *contagium vivum*, and to his surroundings, is another distinct study, inviting to another class of skilled observers—a laboratory in which minute work is greatly needed.

1. Under what circumstances does a human being come to be the host of something inimical to him, and prepared for an invasion of something, perhaps, producing disease? It is not enough to say of it that it is its nature to seek or to be communicated to human beings, and to develop into a disease. The fact that some persons, without having had a disease, are proof against its invasion is a significant one, and worthy of great inquiry to those who would like to put all in the same resistful condition. The fact that once having had some diseases protects most from them afterwards, or does not protect some, or, while protecting all, does not protect all for an equal length of period, cannot but make the epidemiologist very inquisitive to find out the reason, and so put it into effective preventive operation. Watson and others have stated that it is because the disease exhausts its necessary pabulum in the system; but, if this be so, the statement is incomplete, until we find out what pabulum it has wasted and what it has exhausted. As in the old system of inoculation it was discovered that, by diet or certain preparative treatment, small-pox could be modified in its virulency, and the secondary fever aborted, the why and the wherefore ought not to be given up by the modern medical profession, as it apparently had to be in the former.

2. When, too, we find that, as in inoculation to prevent pleuro-pneumonia in cattle, we secure an inflammatory action, and a constitutional effect through a muscle, and so prevent the fatal attack on a vital organ like the lung by a sort of artificial metastasis, we need to

study how much of diversion and limitation of epidemics can be secured by their artificial and preliminary introduction into some part other than that which it seems their habit to attack with virulence. How much of the modified effect is owing to mode of introduction rather than to attenuation?

3. Still, further, if changes can so be wrought in systems as to make them unreceptive of diseases, as we know to be the fact with many ailments, cannot and do not quinine, alcohol, potassium-chloride, ferric chloride, and other antimicrophytes, antizootics, or antiseptics, cause the blood and tissues to be protected from the invasion while there is exposure thereto, and so may we not prevent epidemics ?

We now know, by actual experiments and observation, that we can see the blood-corpuscles multiplying during the administration of iron, and can, with small doses of quinine, potassium-chloride, arsenic, etc., have the sustained presence of these in the blood. There is good reason for thinking that, during such presence, the blood and tissues become resistful to that multiplying plant-life which, either directly, or by its overpowering abundance, or by mechanical clogging of blood-paths, constitutes the gravity of the disease ; also that we can anticipate the action of the introduced contagium, and make the system refuse to nourish or propagate the parasite. Thus, either all may escape the prevailing influence, or so many that it cannot prevail among the people, and so cannot become epidemic. This temporary prophylaxis, during what, for the want of a better term, has sometimes been called an epidemic tendency or constitution of the atmosphere, is most worthy of accurate trial. As to its reality, many corroborative facts from Polli, Parkes, Panum, Bert, etc., can be adduced.

Then, last of all, comes the question of the limitation of diseases in their attempt to become epidemics, and after they have so become; the former being most valuable forethought, the latter being not unimportant afterthought. This limitation involves the study of the natural history of every communicable disease in all its minutiæ, that we may know its times and seasons, the distance at which it can be propagated, the length of period of its communicability, the secretions or families most likely to convey it, the relation of breath and of air to it, and all other facts which are relative to its transmissibility ; and, as a sequel, comes in a study of isolation, and of disinfection, etc., as a system of rules and regulations.

Our imperfection of knowledge does not hinder us from general rules and methods founded on apparently correct generalisation as to all communicable diseases, and specifications as to some, so far as we know.

The most inspiring result of what we may call the modern departure in epidemiology, is not so much the conclusiveness or completeness of facts in any one direction as the unmistakable indication of precision in the laws of communicable diseases, these being as accurate as those that obtain in nature, giving us the comfortable persuasion that they are ascertainable and classifiable, although, for various reasons, difficult of ascertainment, but likely to yield to analytic and statistical methods, and to that tact of experience in observation which can be acquired but cannot be described.

The chief contentions of this paper are, therefore, as follows.

1. In the study of the *contagium vivum*, we are to recognise not only change from culture or attenuation, but, as in plant-life and animal life, to recognise manifold changes which may take place, so discursive as to obscure identity, and so as to make what, in pathology and treatment, may be a new disease, without involving the doctrine of spontaneous generation.

2. We must give significance to the effect of imparting a disease to the system by channels or modes of introduction different from what may be called its normal method of entrance, and allow for modification of effect from this cause, without any real attenuation.

3. We must study closely, not only the general effects of surroundings, but the fertilisation or rankness which certain diseases attain from a compost especially adapted to them.

4. We need, with the same precision, and in a similar direction, to ascertain what are the conditions of individuals who furnish in themselves extraordinary soil for communicable diseases, or who withstand seizure amid exposure, or have but a mild attack, and to recognise that there are ascertainable reasons for this difference, a definite law of susceptibility.

5. We need to give great prominence to a study of direct prophylactic methods, and such as shall seek, during exposure or the prevalence of an epidemic, to prevent an attack, by imparting to the blood and tissues the presence of such substance as shall prevent those changes which an introduced morbific agent would otherwise set up.

MEDICAL MAGISTRATE.—C. J. Westrop, M.D., of Carrow Carlin, has been appointed a Justice of the Peace for the Co. Fermanagh.

NARRATIVE OF AN INSTANCE OF CURE OF LUPUS ERYTHEMATOSUS.

By JONATHAN HUTCHINSON, F.R.S.,
Emeritus Professor of Surgery to the London Hospital.

ALL who know the disease will, I am sure, admit that cases of recovery from lupus erythematosus are, unfortunately, rare. As an instance of completed cure, the case which I am about to relate becomes, I think, of much interest.

I first saw Mr. J. P. B. on March 4th, 1881. He came to me on account of patches of erythema-lupus on each side of his nose, about its middle. There was a third on its ridge, near the tip, but the three did not coalesce, and thus the bat's-wing was not complete. Their arrangement was, however, quite symmetrical. Mr. B. was a tall man, rather spare, but in fairly good health. His age was 45. He had never suffered from actual chilblains, but had a feeble circulation, and dusky ears. A maternal aunt had died of phthisis. He had himself once consulted the late Dr. Baly, in the belief that his chest was delicate, but had been told that he ailed nothing but "dyspepsia and weak heart." His skin had always been very irritable, and he was liable to little spots on the hands, etc., which itched intolerably, and which he used to scratch until they became sore. Such was his state when the erythema-patches showed themselves on his nose. I may add that he was living the life of a country gentleman in a cold district. The patches had been present about a year when he came to me. I prescribed for him arsenic internally, and a weak lotion of tar and lead to bathe the patches.

Between 1881 and April 1883, I saw nothing of Mr. B. At the latter date, his surgeon, Mr. Williams, of Norwich, wrote me that he was worse. It was now decided to insist on the use of arsenic.

In February 1885, Mr. B. called to show himself, and to tell me that his lupus was quite well. It was absolutely so. White, thin, inconspicuous scars took the place of the former patches, and there was neither thickening nor erythema at their edges. The scars on the sides of the nose were each as large as a shilling, that on its middle not so big. On the scalp, which was nearly bald, there were several other scars as big as the end of one's thumb, which were the remains of other patches which had developed since his visit to me. As regards his cure, Mr. B. said that it was unquestionably due to arsenic. He said that, in consequence of my having remarked that I trusted most to external treatment, he did not, on the first occasion, continue the arsenic, having a prejudice against it, but used the tar and lead wash assiduously. The patches increased, and new ones on his scalp formed. Two years later, in 1883, Mr. Williams insisted on his taking the arsenic, and increased the dose. It was continued for fifteen months regularly, caused a sharp attack of shingles, and made the eyes red and irritable, but, in the end, quite cured the lupus. I inquired carefully as to whether any local remedy had been employed simultaneously, which might have been the real agent in the cure, but it did not appear that such was the case. As regards the patches on the scalp, it is true that Mr. B. thought that a hair-wash, "which made the scalp smart," had done them good ; so much impressed had he been with this belief, that he applied the wash to his nose also, but this had been done only on a few occasions, and had not, he thought, helped the cure. It must also be remembered that he was taking arsenic all the time that the wash was being credited with the cure of the scalp-patches.

COMMENTS.—I have prescribed arsenic for many other cases of lupus erythematosus, but, having never realised any definite result, I have not urged it with much faith. It may easily be the fact that it has seldom been sufficiently pushed. It will be seen that, in this case, we have proof, in the occurrence of arsenical shingles and of red eyes, of the full physiological influence of the drug. I have, in a certain minority of cases, cured, or partially cured, this disease by the use of external applications, but have never thought that internal medication had any definite effect. This case would certainly suggest a more free use of our great remedy. I fear, however, that we shall find that it is by no means generally successful, and that Mr. B.'s case is, after all, a fortunate exception to rule. I have certainly seen many cases in which other surgeons had, before the patient came to me, pushed arsenic very freely, and sometimes apparently rather with injury than with benefit. The clinical fact that lupus erythematosus differs from all other forms of lupus in its tendency to develop symmetrically in isolated and independent patches, seems to show an alliance with psoriasis. At any rate, it indicates a constitutional rather than a local origin, and, as such, implies the probable need of internal remedies.

I append a note from Mr. Williams, which gives details as to the treatment.

"Norwich, March 5th, 1885.

"My dear Sir,—I am very glad Mr. B. called on you ; he seems to me to be quite cured of his affection.

"The arsenic was pushed to its fullest, and persisted in from March 1883. Until lately, that is, until about three or four months ago, no local application was ordered by me ; but, very rarely, he used a lotion prescribed by you, I think liquor carbonis detergens. Mr. B. took five-drop doses of liquor arsenicalis in water, three times a day, very seldom missing a single dose. When his conjunctivæ became congested, and the eyelids swollen, he left the remedy off for several days, more or less, according to the condition of the eyes. I was constantly urging him to go on with the remedy—pertinaciously so, indeed—and the result has been what you see.—I am, yours very faithfully, CHARLES WILLIAMS."

RETRACTION OF TESTICLE INTO ABDOMEN.

By J. B. HAMILTON, M.D., Surgeon-Major Army Medical Staff.

THE following case seems worthy of record, as being, if not unique, at all events exceedingly rare, and not, as far as I can ascertain, mentioned in any of the text-books.

Private J. N., a well developed and healthy young soldier, 21 years of age, was brought to hospital a few weeks ago, complaining of a painful swelling in the right groin. He stated that, when riding "barebacked" that morning, the horse suddenly plunged and threw him on to the withers ; he at once felt a most sickening pain in the groin, and had to dismount and report himself sick.

On examination, an oval tumour could be felt in the right inguinal region, which gave no impulse on coughing, but was exceedingly tender to the touch. An inspection of the scrotum revealed the fact that the left testicle was *in situ*, but the right was absent. The man stated positively (and this is confirmed by the medical history-sheet) that, previously to the accident, both testicles were in their proper position. An attempt was made to "reduce the dislocation," but without effect, as the pain was so severe the man could not endure the necessary manipulation. I then ordered him to be placed in a warm bath and to have a dose of tincture of opium, with directions to endeavour to push the testicle back into the scrotum when the parts became relaxed. In the meantime, the man had to go to stool, and, on his giving a sudden bend to the left side, the testicle slipped up into the abdomen, and, when he was next examined, it could not be felt in any position.

The man was threatened with an attack of orchitis, which, if it had taken place in the abdomen, might have been most serious ; but, having been kept in bed, and given small doses of calomel and opium every few hours, with fomentations to the abdomen, the pain subsided, and he recovered.

Private J. N. was kept under observation for some weeks, and was then discharged to duty as a tentative measure ; but shortly afterwards he reported himself sick again, and stated that, when lifting a sack of corn, the testicle came partly down, and gave him great pain. He is now well again, and has been sent to dismounted duty. His condition now is this. The left testicle is in its normal position ; the right cannot be felt, the scrotum at that side having tightened up till it has almost disappeared. The right external ring is very patent, and the finger can be passed up into the inguinal canal, but there is no impulse on coughing, nor any tendency to hernia.

The question now is, what is the best treatment to adopt? Several courses are open ; the first and simplest, to apply a truss ; the second, to perform an operation, as if for hernia, with a view to occluding the canal, and preventing the return of the testicle. If, however, the testicle should come down again, it might be possible (under chloroform) to get it into the scrotum, and to keep it in its place by means of a truss, or even by occluding the canal by passing threads across it, and exciting sufficient inflammation to close it ; this was successfully done some years ago by Surgeon-Major Staples, in the case of an Indian wrestler, who had accustomed his testicles to remain in the canal, to prevent their being grasped by his opponents. This man was desirous of getting married, but his future father-in-law would not give his consent till his testicles were in their proper position ; in despair he appealed to Mr. Staples, who succeeded in exciting inflammation in the canals, and preventing the retraction of the testicles upwards.

If the testicle of the present patient come down into the canal, and cannot be induced to return into the scrotum, it is a question whether it would not be advisable to remove it, as undoubtedly a movable testicle, passing in and out of the abdominal cavity, will be a great source of danger, in case it should be injured, or suffer from acute inflammation. I have put forward these remarks in the hope that some other surgeon, who may have met with a similar ease, will give me the benefit of his experience.

SURGICAL MEMORANDA.

VESICO-VAGINAL FISTULA.

THE advantage of introducing the finger into the bladder in cases of operation for vesico-vaginal fistula (a procedure which I do not find mentioned in the ordinary text-books) has appeared to me to be worthy of record.

Having dilated the urethra sufficiently to admit the forefinger, my first intention, in a recent case, was to evert the anterior wall of the vagina, in order to facilitate the paring of the edges of the fistula. This requires a third hand ; and one has to be careful in the use of sharp instruments. But, as I found the eversion was not so easy of accomplishment as I expected, I cannot say it was of any great benefit in the particular case. In some others where the wall is laxer, it might perhaps be useful.

Where I found it most useful was in introducing the sutures. It was of great value here, because one could introduce the forefinger of the left hand along the bladder, and thus direct the application of the needle with precision and celerity.

The case in which I tried this procedure has done well so far as it has gone, twelve days since the operation.

P. TYTLER, M.D., Surgeon to the Ardwick and Ancoats Hospital, Manchester.

HEREDITARY TRANSMISSION OF DUPUYTREN'S CONTRACTION.

E. McC., 23 years of age, has had, from birth, the little finger of his right hand contracted ; it is flexed towards the palm at the second and third phalangeal joints, and the whole finger deviates somewhat to the radial side of the hand. On the whole, it is a typical example of Dupuytren's contraction. The patient's maternal grandfather and his mother's brother both have the same finger of the same hand contracted in a similar way ; and, in both these cases, the contraction is said to have existed since birth. The patient has one brother and four sisters living, none of whom exhibit any finger-abnormality. There is no family-history of either gout or rheumatism. SYDNEY H. A. STEPHENSON, M.B., C.M., Nottingham.

THERAPEUTIC MEMORANDA.

THE TREATMENT OF RINGWORM OF THE SCALP.

THE following is a simple and very effectual method of treating ringworm of the scalp.

The child affected is made to sit down on a chair before a washing-basin half filled with warm water ; a folded towel is first of all tied round the child's forehead, in such a way that no fluid poured on the head can trickle down into the eyes.

It is best to cut the hair short all round the affected part. If there be many spots of ringworm, the whole head may be closely cropped. Have ready a two-ounce bottle of common spirit of turpentine, an ounce bottle of tincture of iodine, a camel-hair brush, and a 10 per cent. cake of carbolic acid soap.

While the child bends forward over the basin, the spirit of turpentine is freely poured over one or more spots at a time, the forefinger being used to rub the turpentine well into the scalp. Almost immediately the dirt and greasy scabs disappear, and the short broken hairs are seen to stand up like bristles. Generally, in about three minutes' time, the child cries out, "Oh, it nips!" then we know that the turpentine has penetrated deeply. Immediately, the piece of carbolic acid soap is well rubbed into the parts which have been acted on by the temperature, and warm water is freely applied to make this soap into a lather, by which means the head is well washed, and soon appears to be beautifully cleaned. The smarting, such as it is, quickly disappears after the application of the soap. The head is then well dried with a towel. Common tincture of iodine, in two or three coats, is now painted well over the affected parts, and allowed to dry. As soon as the hair is dry, some carbolic oil (1 in 20) is rubbed all through the hair to catch such spores as may be there.

This treatment, applied every morning, or morning and night in

very bad cases, generally cures the worst cases in the course of a week. During the last five years, I have used no other method of treatment. The explanation of its success is as follows. Common spirit of turpentine is a powerful germicide; but it is a still more powerful solvent of the sebaceous or greasy matter of the scalp, and it rapidly penetrates into all the epithelial structures of the scalp, the affected hairs included, and clears the way for the application of a still more powerful germicide, namely, tincture of iodine.

It is an interesting chemical fact that spirit of turpentine, or, more correctly, oil of turpentine, is a powerful solvent of iodine. This solution of iodine in turpentine is a most powerful germicide, and quickly destroys the fungus of ringworm. If tincture of iodine be applied to the spots which have been treated, as above, first with the spirit of turpentine, and then washed with carbolic acid soap and water, it finds its way down into the epithelial tissues, and into the hair-follicles, following the course which the spirit of turpentine has taken. It is of no use to apply watery solutions of germicides, until the greasy or sebaceous matter of the scalp has been first removed.

In some severe cases, I have applied a solution of iodine in turpentine, ten grains to the ounce, instead of the tincture of iodine, after the head has been washed and cleaned; but in most cases, the application of tincture of iodine, after the part has been acted on by the spirit of turpentine as above described, is quite sufficient to destroy the disease.

Ringworm on other parts of the body may be treated with spirit of turpentine and tincture of iodine in exactly the same way. One great advantage of this treatment is that it may be applied to the head of the youngest child, and causes little or no distress at any time.

JAMES FOULIS, M.D., Edinburgh.

CUCAINE IN NEURALGIA.

WHEN the medical journals are full of the varied uses to which the new anæsthetic, cucaine, has been applied, it would seem superfluous to seek publication for the following case, illustrating its anodyne properties, which follow, as a matter of course, from its recognised anæsthetic action.

D. B., aged 24, single, waiter in a London restaurant, consulted me for neuralgic head- and face-ache, lasting for over six weeks. The pain was agonising, constant, but always aggravated at night. He had been under the treatment of two other medical men, and had besides tried, without obtaining any relief, various remedies, much in the same way as Mark Twain treated his cold. I prescribed the usual bromides, quinine and iron, belladonna, spirits of chloroform, etc., but to no purpose. It occurred to me to try the effect of the local application of cucaine. A 2 per cent. solution was applied to the forehead and cheeks. The application was attended with a smarting sensation, like the "pricking of pins," to use the patient's words, and the neuralgic pain seemed, if anything, worse after it. The lotion was ordered to be diluted with as much water, and was rubbed over the points where the sensory nerves of the head become cutaneous, with the effect of shifting the pain from the forehead and face, to the vertex and occiput. A third application, however, completely cured him, and for the last week he has been free from any return.

I may add that the condition of the bowels and pupils contraindicated opium; the only administration of the drug being in the form of Ferrier's snuff combined with ordinary snuff, which he has been using since the cessation of the pain. To give tonicity to his nervous system, I have now put him on small doses of Easton's syrup.

PHILIP S. BRITO, M.B.,
Late Demonstrator of Anatomy, Aberdeen University.

CLINICAL MEMORANDA.

FOREIGN BODY IN THE ALIMENTARY CANAL OF AN INFANT TEN MONTHS OLD: PASSAGE IN THIRTY-SIX DAYS: RECOVERY.

ON January 15th, I received an urgent message to go and see a baby, who, the messenger said, had swallowed a toy, and was choking. On my arrival at the house, the father of the child told me that, just after the messenger had started, the child became so bad that he thought it would die; he therefore passed his finger into its mouth, and, feeling something hard and sharp, and not being able to remove it, he pushed it down. The little one was at once relieved, and, when I saw it a few minutes afterwards, was quietly taking the breast, as if nothing unusual had happened. I kept the child under observation for a day or two, and gave directions that the motions should be watched and examined. No bad symptoms whatever occurred, the child taking the breast and sleeping as usual. The circumstance had nearly passed from my memory, when, on February 20th, thirty-six days after the infant had swallowed the foreign body, the father came to my surgery, and said that the baby had just passed it. The baby seemed in a little pain as the motion, which was semisolid, came away, and the diaper was slightly stained with blood. The foreign body proved to be half a brass toy locket, with sharp cutting edges, measuring in its long axis seven-eighths of an inch, and from side to side nearly three-fourths of an inch. The colour of the brass was very little altered.

The above case seemed to me to be interesting on account of the length of time the foreign body remained in the alimentary canal, no untoward symptoms occurring during its passage. In an adult, we can administer opiates, keep the patient at rest, and order him constipating food, so as to form a coating or a vehicle for the foreign matter swallowed; but this treatment is impossible in an infant ten months old, subsisting, as my little patient does, only on its mother's milk.

Mr. Erichsen relates an interesting case, in which he succeeded in getting a gold plate with three molar teeth to pass in four days after it was swallowed by a gentleman 25 years old; but I think, in contrasting the two cases, that of my little patient is of greater interest.

F. W. E. KINNEIR, M.R.C.S., L.S.A., Horsham.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

NORFOLK AND NORWICH HOSPITAL.

SUBSPINOUS DISLOCATION OF THE SHOULDER.

(Under the care of Mr. CADGE.)

[Reported by Mr. DONALD D. DAY, House-Surgeon.]

ON July 14th, J. C., aged 44, who had been thrown out of a cart less than an hour previously, was brought to the hospital complaining of pain in the right shoulder. All underhand movements were performed well, but abduction was extremely limited and very painful. The arm hung down almost vertically, the elbow being close to the side, though not touching it; the forearm, semiflexed across the abdomen, was supported by the left hand. There was marked flattening of the deltoid, with increased prominence of the acromion. A swelling beneath the spine of the scapula proved to be the head of the humerus, which lay at the posterior edge of the deltoid, just under the middle of the spine.

Reduction of the dislocation was effected with very little trouble, the man being faint, and his muscles flabby. The patient being seated, while steady traction was made horizontally outwards by an assistant, Mr. Day, with his knee in the axilla, and his fingers on the acromion, and thumbs on the head of the bone, steered it into its natural position in less than a minute. A sling for the wrist and circular bandages kept the arm to the side. As the patient left Norwich the next day, he was not seen again.

REMARKS BY MR. DAY.—The rarity of this dislocation seems to be due to the strong protection afforded to the posterior part of the joint by the supraspinatus and infraspinatus muscles, which are extremely tendinous, and intimately blended with the capsular ligament; in fact, from the coraco-humeral ligament to the inferior edge of the infraspinatus muscle, there is one strong musculo-tendinous plane, through which escape of the head is impossible without such an extreme degree of violence as to rupture it; and this is prevented as a rule by the force expending itself in breaking the clavicle. Hence the only point of escape lies at the lower part of the joint which is unprotected save by the long head of the triceps, on which the bone falls in the subglenoid dislocation. Now, in consequence of the plane of the scapula inclining slightly forwards, the smooth round head is apt to slip off it forwards, and be drawn up under the coracoid process (the usual position), unless the greater tuberosity catch against the under lip of the glenoid cavity. If, however, the arm be rotated inwards as the head slips out of the socket, the tendency is for the head to slip backwards off the triceps; and then, as the arm descends from the elevated position, which seems necessary for the production of any dislocation, the head of the humerus is levered up towards the spine of the scapula, stretching and probably tearing the infraspinatus from its origin. In this process, a strong analogy exists to

the dislocation of the femur on to the dorsum ilii, the part played by Professor Bigelow's Y-ligament being here taken by the coraco-humeral ligament and the supraspinatus, with which it is intimately blended. The subspinous position is, in my opinion, always a secondary one, and not that originally occupied by the head of the bone. The vertical position of the arm, though differing from that described by Erichsen, entirely agrees with the account given of it in Callaway's Jacksonian Essay, 1846. The slight pain experienced, except during abduction, is evidently due to the absence of pressure on or stretching of the large axillary nerve-trunk, which would take place in the subcoracoid or subglenoid positions. The rarity of the accident is shown by the fact that Sir Astley Cooper only saw two cases.

BATH GENERAL OR MINERAL WATER HOSPITAL.

A CASE OF IRREGULAR SUPPRESSED GOUT.

(Reported by Mr. JAMES MERCES, Resident Medical Officer.)

W. C., AGED 37, a farm-labourer, was admitted on September 15th, 1884, for articular gout. At the age of 22, he had some acute febrile affection, probably acute rheumatism. Six years before admission, he had the first indication of gout. He complained of irregular pains, with acute exacerbations of swelling and inflammation in his knee, ankle, and toe-joints. There were large irregular deposits of urate of soda at the terminal joints of all the phalanges. The movements of the joints were impaired, and gave rise to a fine crepitant feeling on passive movement. The condition of the feet was very characteristic of gout; there was no actual enlargement, but the feet on the inner side were in a straight line from ankle to great toe, with no depression anywhere. The ankles and knees gave rise to the same fine crepitant feeling. Deposits of urate of soda were formed in the helices of the ears, in the bursæ over the patellæ, the elbow, and the outer side of the ankles; softer deposits, presenting microscopically fine acicular crystals of urate of soda, were found in the palpebral conjunctivæ. The conjunctivæ were somewhat chemosed. The apex-beat was in the sixth intercostal space, two inches below, and in the nipple-line. There was a loud blowing systolic murmur heard, also, at the angle of the scapula. The second aortic sound was accentuated. The pulse at the wrist was 108, small, regular, and somewhat tense. Large quantities of urine, of specific gravity 1010, pale acid, containing a quarter albumen, and a few granular casts, were passed. Sight had been failing for a year. There was double optic neuritis, with small hæmorrhages close to the disc.

September 16th. He was ordered the baths at a temperature of 98° Fahr., with the wet douche thrice weekly. He was placed on a diet of meat, vegetables, and milk; no stimulants were given, but he drank a small tumbler of mineral water twice daily.

On September 30th, he was ordered the hot bath (103° Fahr.), and the douche to the joints.

On October 17th, he complained of severe pain in the head and symptoms of a "cold." The temperature was 99° Fahr.; the skin moist; the pulse 100.

On the following day, he complained of severe pain in the epigastrium, extending to the right iliac fossa, with constant vomiting of bilious matter. The tongue was dry, and covered with dark yellowish-brown fur. Dysphagia was the most troublesome symptom. As there was constipation, he was ordered a pill containing three grains of euonymin.

October 20th. The vomiting had ceased. He was slightly jaundiced. The tongue continued furred, though the bowels had acted freely. Dysphagia was exceedingly troublesome. The urine was of specific gravity 1035, and contained abundant lithates. Far above the normal amount of urea was excreted in the twenty-four hours. He was ordered a mixture containing colchicum.

On the following day, he began to improve, and left the hospital on October 25th.

REMARKS BY MR. MERCES.—The points of interest in this case are: 1, the undoubted existence of rheumatism, as indicated by the old mitral regurgitant murmur; 2, the hypertrophied heart and contracted granular kidney commonly met with in long standing gout; 3, the sudden appearance of "suppressed gout," while the joints were quite well; 4, the value of colchicum even in cases of suppressed gout, with suitable treatment for special symptoms as they arise.

PRESENTATION.—Dr. Atkinson, late assistant medical officer to the Kensington Infirmary and Workhouse, has been presented, on the occasion of his retirement from the post, with a handsome clock and bronzes, accompanied by an illuminated address, expressing the good wishes of his friends for success in his new sphere of labour.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 10TH, 1885.

GEORGE JOHNSON, M.D., F.R.S., President, in the Chair.

The Treatment of Acute Peritonitis by Abdominal Section. By FREDERICK TREVES, F.R.C.S.—The extreme fatality of acute diffused peritonitis—especially of that form due to perforation—and the acknowledged futility of the modes of treatment that are at present employed, give some support to the proposal that acute peritoneal inflammations should be treated by the same methods that are successfully applied to other acute inflammations, namely, by free incision and drainage. This common and general surgical procedure has been already applied for the relief of inflammations of certain of the serous membranes. It was at first adopted in connection with the smaller serous cavities, as those of the joints. It has been gradually and with increasing freedom applied in the treatment of inflammatory conditions involving the pleura. It has finally become a recognised means of treatment in certain forms of localised and chronic peritonitis, especially when purulent collections have formed. Mr. Treves urged the adoption of this principle in treatment in connection with acute and diffused forms of peritonitis. A female, aged 21, was admitted into the London Hospital on January 21st, suffering from chronic pelvic peritonitis following severe gonorrhœa. On February 25th, three months after the commencement of the chronic peritonitis, she suddenly developed the symptoms of acute diffused peritoneal inflammation. The sequel showed that a large chronic purulent collection, containing very offensive matter, had formed near the left pelvic brim. The walls of the abscess were formed partly by the pelvic peritoneum and partly by many coils of small intestine that had become matted together. The acute symptoms were due to the bursting of this abscess, and the extravasation of its contents into the general peritoneal cavity. On February 26th, the abdomen was opened under antiseptic precautions, the patient being at the time apparently in a very critical condition. The general surface of the peritoneum showed the ordinary appearances of acute peritonitis. The intestines, where in contact, were lightly glued together. A quantity of semi-opaque fluid, mixed with flakes of lymph and pus, escaped. The whole peritoneal cavity was washed out with many quarts of water, and a drain introduced. The patient made a good recovery, and was allowed in the garden on the fortieth day. Mr. Treves alluded to several cases in which operations involving laparotomy have been performed with success during the progress of acute peritonitis, the cases having been in most instances the subjects of error in diagnosis. Allusion was also made to the recent experiments of Dr. Parkes, of Chicago, as to the treatment of penetrating gun-shot wounds of the abdomen, with perforation. Mr. Treves ventured to suggest the use of abdominal section in the treatment of certain cases of acute general peritonitis, such as that following injury, gun-shot wound, the bursting of an abscess, and specified forms of perforation.—Mr. HOWARD MARSH read the notes of a case which had many points in common with that of Mr. Treves. The patient was a medical student, of the age of 19, who was attacked with symptoms of sudden and acute peritonitis, and admitted under the care of Dr. Andrew and Mr. Howard Marsh into St. Bartholomew's Hospital. There was no hernia, and nothing abnormal could be felt by the rectum; a little to the left of the umbilicus the skin was slightly raised and flushed, and there was deep fluctuation, with dulness on percussion. A diagnosis of circumscribed peritonitis was arrived at, and operation determined upon; the state of the patient was very critical, the vomiting violent. An incision about two inches in length was made along the linea semilunaris, and about two pints of fœtid pus evacuated. The intestine was found to be much distended, but no cause of obstruction was discovered. The abdomen was thoroughly washed out with a solution of carbolic acid, of the strength of one part in 60, a drainage-tube introduced, and the upper and lower ends of the wound closed by deep sutures; carbolic dressings were applied as dressings for the wound. For two hours the patient was cold and collapsed, and he vomited much, probably from the ether; then he began to revive, and the vomited matter had no feculent odour, but was merely the contents of his stomach. Morphia was given, and he was fed by the bowel for several days; the sickness ceased entirely in twelve hours, and it became possible to take food by the mouth. The temperature was slightly raised, but did not reach 101; the discharge from the incision was profuse, and at first very offensive, but after a week it lost its odour, and recovery was steady, with one trifling intermission, when the discharge increased. The peritoneum, in the later stages, was washed out with a solution of

iodine, one in 1,000; and after about two months recovery was complete. The cause of the peritonitis was not clear; Dr. Andrew agreed with Mr. Marsh in thinking it might be due to the bursting of an abscess in the mesentery, arising from tubercular glands; that it extended very widely was plain, from the large area from which pus could be withdrawn by a catheter on the first incision. The condition of the patient when operated upon was very critical, and it did not seem probable to those who saw him that, if immediate relief had not been found, he could have lived many hours. His condition forbad any further proceeding for ascertaining the cause of the suppuration; to evacuate the pus was all that could be attempted. The relief was rapid; in six hours the pulse was fairly good, though the other symptoms were so severe that only his youth enabled him to pull through. The operation was certainly to be approved for localised peritonitis, but in general peritonitis any large success was doubtful, for then the abscess-cavity was very extensive, any thorough washing-out of the pus must lead to danger of rupture of the intestine, and, even after temporary recovery, adhesions were likely to have formed which would be a cause of future danger. In this case there was impaired peristaltic action, which might possibly be from adhesions.—Mr. BRYANT thanked both Mr. Treves and Mr. Marsh for their contributions to the knowledge of the subject, which was, taken in all its bearings, a large and important one. The operation recommended was, after all, only the application of well-known surgical principles to abdominal suppuration. Operations for the relief of perityphlitic abscesses were sometimes regarded as extraperitoneal; but that was a mistake, as Mr. Treves had lately clearly demonstrated in his excellent lectures at the College of Surgeons. For himself, he had long felt that such abdominal operations ought to be carried out; their results, it must be allowed, would depend very largely upon what was the cause of the peritonitis: it might be due to a wound, a perforating ulcer, or a burst abscess. In cases of perforating ulcer of the cæcum, he was decidedly of opinion that operation might do good. Mr. T. Smith had put on record a very valuable instance of its success in such a case in *St. Bartholomew's Hospital Reports*, vol. ix, 1873.—Mr. KNOWSLEY THORNTON wished also to express his thanks to the authors of the papers. At the present day, it would be difficult to find any surgeon bold enough to blame such surgical operations as those of Mr. Treves and Mr. Howard Marsh. He had himself been sorry that the phrase used as describing the disease was not acute suppurative peritonitis, for that, in his experience, was a much easier state to deal with than simple acute peritonitis. This latter state occurred sometimes apparently idiopathically where there were tumours in the abdomen; there might be no escape from the tumour, and yet such a state might come on, apparently from chill. In such conditions, where there was an ovarian tumour, and simple acute peritonitis supervened, he had twice opened the abdomen, and found, on both occasions, the peritoneum intensely congested, but quite dry. The first case died soon after the operation, with suppression of urine and collapse; and subsequent reflection led him to the conclusion that it would have been better to have waited longer before operating. In the second case, there was a large ovarian tumour, the peritonitis was very acute, and the state extremely hazardous. He was induced to operate, by the impression that there was abdominal hæmorrhage. It turned out that he was wrong; no hæmorrhage was found, but the same condition of acute dry peritonitis. The woman, however, recovered, after passing through a state of extreme peril. This experience had convinced him that that was not a suitable stage for operation. Mr. Treves had, unfortunately, not stated whether, in his case, the peritonitis was dry or not. If it had been possible to incise the peritoneum, to relieve the congestion, it would have been a good thing; but that was out of the question, and the alternative was, to wait till a subacute stage, or a stage of effusion, was reached. In perforation or gunshot-wounds, he should prefer to operate at once, to try to close the opening in the bowel, to clear out the matters that had escaped into the abdomen, and to drain the cavity. Drainage was important, as it was nearly impossible to be sure that all obnoxious contents were cleaned out during the operation. In gunshot-wounds, it was hardly likely that the results would be quite satisfactory, for the edges were not such as could easily be brought together, and only after somewhat perilous resection in the track of the ball could good union be expected. As to the method to be used in operation, he generally advocated Listerism, and all antiseptic precautions; still, he held strongly that, if it were impossible to be sure of making wounds antiseptic, it was better to leave antiseptics entirely alone. In these abdominal cases, it was often so impossible to be sure of attaining a completely antiseptic condition, that he preferred, as a rule, to leave Listerism entirely alone, and to wash freely with boiled water at the temperature of the body, and then to dress the external wound antiseptically, until it could be seen whether the subjacent parts were antiseptic.—Dr. DOUGLAS POWELL was extremely glad that his surgical brethren were beginning to treat peritonitis as they had treated pleurisy, and to recognise two classes of cases—namely, (*a*) the suppurative, which required early surgical treatment; and (*b*) the serous or idiopathic, which were less fitted for operation. Mr. Treves's paper would tend to place effusions into the peritoneum on the same footing as effusions into the pleura, and to lead it to be recognised that, in effusions of pus, surgical treatment only could be efficient. He demurred to Mr. Thornton's preference for boiled water, and should expect, in such cases, suppuration in the residue of the abdominal contents. He should himself incline to the use of a weak mercurial solution, such as Mr. Pearce Gould had successfully used in a case under his care.—Mr. BARWELL gave some details of a case of suppurating perityphlitis, in which he had made an opening in the flank, and a counter-opening in the loin, by which he had evacuated twenty-four ounces of fœtid pus from within the peritoneum. The wound was for long syringed out with a weak carbolic solution, and at last closed completely. The patient died eighteen months after the operation, of phthisis; but he thought himself justified in saying that life was prolonged by the operation. He felt himself in substantial accordance with Mr. Treves as to the benefit to be obtained from such operations, but expressed his conviction that in these cases the surgeon was almost always called in too late.—Dr. GOODHART took surgery in general somewhat severely to task for its aggressive habits in attacking the physician's territory. Mr. Treves, however, he had found cautious and kind. He would have been glad to have heard rather more of non-suppurative peritonitis, and those frequent cases in which there was too little effused fluid for the surgeon to deal with. Such cases often died very suddenly, like dogs injected with sepsin. He had seen one such case benefited by surgical treatment. A colleague of his was going to perform, in a case of peritonitis, what he believed he was right in calling Littré's operation; and he was performing it by two stages. In the first stage, an incision was made, and the intestine stitched to the walls of the cavity. A very little turbid fluid was let out; and no more was done, for it was found that that had sufficed to alleviate the symptoms completely. In ascites, he thought there was room for more surgical treatment. It often happened that such cases died after having been very frequently tapped—perhaps ten or twenty times. In such cases, incision and drainage might have succeeded better. One case had been reported as "cirrhosis cured by tapping." Of course it was not the cirrhosis, but only the ascites, that had been cured; and that had been effected by the union of the visceral and parietal layers of the peritoneum, after the evacuation of fluid and the establishment of a collateral circulation.—Mr. MEREDITH expressed his substantial agreement with all that Mr. Thornton had said, especially as to disuse of antiseptics in abdominal operations; for a solution of carbolic acid of the strength of 1 in 40 had been found insufficient to arrest putrefaction, and no stronger could be used in these cases.—Dr. DOUGLAS POWELL remarked that he had advised the use of weak solutions of perchloride of mercury, and commented also on the advisability of using a hypodermic syringe before operation in order to determine the nature of the effusion.—The PRESIDENT asked if it would be thought desirable to call in surgeons in cases of perforation of the stomach by simple ulcer, where the symptoms of acute collapse were generally present, and the cause plain. Certainly, if the case were left to the physicians, there was very small chance of recovery. In his experience, he had only met with one such case; the symptoms of perforation of the stomach had seemed distinct, but the recovery led to some doubt being thrown on the diagnosis. The stomach, at the time of perforation, had fortunately been very empty.—Mr. BARWELL expressed an opinion in favour of operation in such a case.—Mr. TREVES, in reply, noticed some objections to the operation which Mr. Marsh had brought forward, namely, the large size of the abscess, the difficulty of removing the pus, and the danger from resulting adhesions. He could not admit that the first two were insuperable objections, as, indeed, Mr. Marsh's own favourable case had shown, and danger from adhesions was too distant and uncertain to have any practical influence in determining what should be done in these cases, in which there was generally a pressing question of life and death. Mr. Thornton had said that, in cases of dry peritonitis, it was unfortunately impossible to relieve the intense congestion by incision, but he ventured to think that the opening of the cavity would in itself tend to relieve the congestion. Mr. Thornton had advised waiting in such cases, but most of such cases were dying, and could not wait. He related a recent case of gunshot-wound of the abdomen, in which the bowel was perforated in four or five places. The abdomen was washed out; no resection was thought necessary; the

wounded edges were adjusted, and the operation was followed by complete recovery. The objection to the use of the solution of perchloride of mercury which Dr. Douglas Powell had advocated, was that it formed an albuminate, and its antiseptic properties were thereby much diminished. As to the operation in the case of perforating ulcers of the stomach, such as the President had described, he could not bring forward any experience, but he knew that many surgeons were anxious for an opportunity to operate upon them.—Mr. HOWARD MARSH explained that he quite agreed with Mr. Treves in wishing to perform these abdominal operations, but that he had thought it right to dwell on the difficulties of thorough drainage, and that his reference to subsequent abdominal adhesions had arisen from his recollection of a case in which he had seen death result from such adhesions.

MEDICAL SOCIETY OF LONDON.

MONDAY, MARCH 9TH, 1885.

W. M. ORD, M.D., President, in the Chair.

President's Address.—The PRESIDENT, in taking the chair for the first time, congratulated the Society on its greatly increased prosperity. He felt the honour and responsibility of the position to which the Society had elected him, and would devote his best efforts to maintain the Society in its present prosperous condition, and do all that in him lay to discharge the duties of a position filled with so much ability and geniality by his predecessor, Mr. Durham. The Society, he said, contained many general practitioners of medicine, and they could contribute much valuable matter to its meetings and discussions. From personal experience—for during twelve years he had been a general practitioner—he knew that there were many problems to which the general practitioner could contribute more largely and more usefully than the consultant or specialist. He was brought more closely into contact with his patients, knew their life-history by personal observation, and was, therefore, better able to estimate the personal reaction of each patient.

The History of the Use of Ipecacuanha in Dysentery.—Dr. MACPHERSON read a paper pointing out the curious fluctuations in the popularity of ipecacuanha as a remedy for dysentery. The drug was introduced into European practice during the last decade of the seventeenth century, as a remedy for the bloody flux; in this malady, according to contemporary authors, it acted like a charm. Helvetius considered it as specific in dysentery as cinchona in malarial fever, or mercury in syphilis. After reigning supreme for half a century, it fell into some disgrace both in England and in France; but it was habitually used in small doses until the end of the last century. Akenside used very small doses, one grain every six hours; but other physicians recommended either one large dose, or several smaller ones (five grains), repeated every hour until vomiting was produced. Subsequently, very large doses, even frequently repeated, were highly fashionable in the tropics; but the drug was almost beaten out of the field by mercury as a remedy for dysentery, though never entirely abandoned. In 1846, Dr. Parkes said that ipecacuanha was of quite secondary importance; still he recommended scruple-doses. Sir Ranald Martin used doses of ten grains at least. Since 1858, the use of ipecacuanha had been the main feature in the treatment of dysentery; and though something must be put down to improved hygiene and the abandonment of bleeding, still, the diminution of the mortality among the troops pointed to the probability that the drug was really of use in saving life. The French also now used the drug in large doses in the tropics, and in America Bartholow and others had found it useful. From a consideration of the general experience, he was inclined to say that the dose should not exceed thirty grains, nor fall below five. He referred to the temporary popularity of mercury during the first half of the present century, and mentioned that even scruple-doses of calomel were at one time commonly given, and were supposed to have a specific action on the mucous membrane in dysentery. Ipecacuanha had now entirely replaced it.—The PRESIDENT thanked Dr. Macpherson for his learned and valuable retrospect.—Sir JOSEPH FAYRER had listened to Dr. Macpherson's paper with great interest. He particularly wished to recall that it was to Mr. Docker, a regimental surgeon, that we owed the introduction of this remedy into the practice of the British Army. Mr. Docker had first commenced to use it in large doses in the Mauritius, and had reduced the practice to system. The mortality from dysentery had greatly declined in India in recent years, and was now, according to the last report, only .57 per mille of average strength. This small mortality was to be attributed in great part to the use of ipecacuanha. If a case of acute dysentery could be treated at an early period, about three doses of twenty grains generally brought the disease promptly to a termination. He thought that the highest honour was due to Mr. Docker, not that he discovered the remedy, but because he showed the world how to use it.—Mr. STOCKER, from his experience during the Russo-Turkish campaign, could say that ipecacuanha acted most satisfactorily in acute dysentery. It was the custom there to give ten grains of ipecacuanha with one grain of opium about three times a day. The drug was extensively used by the Turkish doctors, who prescribed as a rule Dover's powder.—Dr. CULLIMORE believed that, in dysentery associated with hepatic disease, ipecacuanha in large doses was not well borne, or not as well borne as in simple dysentery. The mortality from dysentery varied very much in different countries.—Dr. THOROWGOOD had found small doses (three grains) of powdered ipecacuanha very useful in severe chronic diarrhœa, when the patient was kept at rest.—Sir JOSEPH FAYRER supplemented his previous remarks by quoting from the last report of the Sanitary Commission the mortality from dysentery in India in 1882. The British army, with an average strength of 57,269, showed 1,629 men admitted into hospital for dysentery, with 33 deaths; this was at the rate of .57 per mille of the average strength. The Native army, with an average strength of 114,894, showed 5,223 men admitted for dysentery, with 70 deaths, a mortality of .61 per mille of strength. The jail-population, with an average number of 94,063, showed 8,866 persons admitted into hospital for dysentery, and 9,363 for diarrhœa (it was often impossible to separate the two diseases); 798 died of dysentery, and 683 of diarrhœa, giving the rate of mortality for the two diseases together as 15.21 per mille of population. All these cases were treated with ipecacuanha. The large relative mortality among the jail-population was to be traced to the influence of class-peculiarities and debility, due to the manner of life before admission; while in jail they were well treated and well fed. It was necessary to insist that ipecacuanha was only to be recommended in acute dysentery or in acute exacerbations of chronic dysentery.—Dr. MAIR said that it was most important to have ipecacuanha of good quality, as it was a drug which easily deteriorated. In Madras, the custom was, when a case of dysentery could be treated early, to give a dose of about twenty drops of tincture of opium, followed in about an hour by a dose of thirty grains of ipecacuanha.—Dr. MACPHERSON briefly replied.

Endocardial Mycosis.—Dr. COUPLAND read a paper on a case of malignant endocarditis.—Dr. T. H. GREEN thought that, in the absence of other symptoms to account for it, an intermittent pyrexia in the course of cardiac disease commonly indicated infective endocarditis. He raised the question whether ulcerative endocarditis was invariably fatal.—Dr. KINGSTON FOWLER thought this a most important question; he suggested that the irregular rises of temperature might be due to the occurrence of the infarctions.—Dr. COUPLAND, in reply, said that the disease sometimes ran a chronic, and sometimes a very acute course, and that it was not improbable that some patients might recover.

ACADEMY OF MEDICINE IN IRELAND: PATHOLOGICAL SECTION.

FRIDAY, FEBRUARY 13TH, 1885.

A. W. FOOT, M.D., President, in the Chair.

Self-Mutilation of a Lioness.—Mr. ABRAHAM read a paper on a case of self-mutilation in a lioness, twelve years old, in the Dublin Zoological Gardens. The animal was discovered one morning to have eaten off six inches of her tail. After a short time she took off another large piece, and, finally, in another meal demolished the remainder. After another interval she began to eat the dorsum of one of her paws. It was thought advisable to destroy her—various means, change of diet, aperients, local applications, etc., having failed in stopping the perverted appetite. She had till then been quite healthy, in good condition, and nothing amiss with the fur or excretions, but for one year previously she had not been in season, although formerly her catamenial periods were regular, and she had given birth to four litters of cubs. At the *post mortem* examination all the internal organs were found healthy, with the exception of some ovarian degeneration. A number of similar cases were cited, and the distinction pointed out between those in which an animal suddenly begins to bite off and swallow large portions of its person and the more common cases, as in monkeys, etc., in which a gradual nibbling away of the tail takes place, often in consequence of some external irritation, or the itching of a healing wound.—The PRESIDENT suggested that the affection was analogous to the tendency in human beings to bite their nails, which sometimes occasioned the destruction of the ultimate phalanges of the fingers. The nail-biting began generally before

hysteria manifested itself. Possibly, the lioness sought to relieve itself from irritation, and there might be an anæsthetic condition of the tail and foot which enabled it to do so without much pain.—Mr. COLLINS remembered seeing a lion or lioness similarly affected. In 1871, a horse was under his observation which, though quiet during the day, kicked furiously at night, and ultimately bit the skin off his chest. A light having been placed in the horse-box, and a man directed to watch, there was no disturbance, and he attributed the animal's action to terror. He knew of spaniels gnawing their tails when sore. Monkeys in confinement mutilated themselves, biting their tails.—Mr. WHEELER had a spaniel bitch which had had several litters of pups, and ate the last litter, then her own tail, and died of convulsions.—Dr. HENRY KENNEDY instanced a child suffering from hydrocephalus, who ate off the whole of the under lip.—The Rev. Dr. HAUGHTON said the President had made a good point in comparing the tendency described in the lioness to that of biting the nails in human beings. The nail-biting habit was, in his experience, confined to men. There was a great deal in Mr. Abraham's remarks as to the hysterical character of the affection. During the twenty-one years of his secretaryship to the Zoological Gardens, he found it necessary to drown animals that bit their tails. The tendency was connected with that in female animals of destroying their offspring. The feline carnivores ate their surplus cubs, but dogs had been known to bury them alive. The question that, when the breeding period was over, there was a liability to permanent derangement or loss of faculty, was a very serious one. He had seen cases of women who, having stopped breeding, either took to drink or became deranged. Self-mutilation was so foreign to animal instinct, that it must be due to interference with, or cessation of, some great physiological function.—Mr. KNOX DENHAM mentioned the case of a cat which devoured its four kittens, and afterwards suckled three young rats, which became domesticated, running about the house. The children played with them, but the lady of the house, becoming alarmed, had the rats destroyed.

Gangrene of the Leg.—Mr. WHEELER read notes of a case of gangrene of the leg and occlusion of the popliteal and tibial veins in a man, aged 46, of intemperate habits, who had twisted his leg whilst wrestling. When admitted to hospital, the leg was swollen, hot, much discoloured, and with large sanguineous bullæ. It was quite free from pain. The specimen exhibited showed well formed thrombi, occluding the interior and posterior tibial veins, there being the several examples of the "obliterating," the "valvular," and the "parietal" thrombus, the wall of the vein, in the first case, being much thinned. Allusion was made to some of the recent theories of coagulation of blood.

Endocardial Concretion.—Mr. BROOMFIELD exhibited and explained a specimen of endocardial concretion, which was taken from an old woman, aged 78. Being a dissecting-room specimen, he had no history of the case. The specimen was of a calcareous character, and interesting from its exaggeration, extending round four-fifths of the mitral orifice, and running three-quarters of an inch into the ventricular wall. At one point there was complete rigidity. The epithelioid lining was perfectly healthy, and the valves were comparatively healthy.

Croup of the Colon.—Mr. M. A. BOYD exhibited a colon removed from a man, aged 30, who died in the Mater Misericordiæ Hospital with all the symptoms of tropical dysentery of a month's duration, having had the usual fœtid stools, containing mucous blood and shreds of lymph and mucous membrane, with most distressing tenesmus, a dry brown tongue, dryness of the throat, and difficulty of swallowing, vomiting, and hiccough. The temperature throughout, except in the beginning, when the attack came on with shivering and hot skin, was either normal or subnormal. There was tenderness over the liver, no enlargement of spleen, and no peritonitis. The ascending colon could be felt through the abdominal wall, round, resisting, and tender. The necropsy revealed not ulceration of the rectum and colon, but general thickening of the mucous coat of the colon throughout, with exudation upon it of an adventitious lymphy membrane.

Aneurysm at the Base of the Brain.—Mr. LENTAIGNE exhibited an example of aneurysm at the base of the brain, which was taken from a woman who, whilst putting a postage-stamp, which she had just bought, on a letter, fell dead, as if struck by lightning. Up to the time of her death, she had been apparently in perfect health. On *post mortem* examination, he found that a large quantity of blood, effused at the base of the brain, had come from an aneurysm, about the size of a pea, formed in the middle cerebral artery, at its junction with the posterior. The artery was split open with a large rent. There was no disease elsewhere, save that the kidneys were small and contracted. Almost all the vessels of the brain were atheromatous, but the aorta was perfectly free from atheroma. A great deal of blood was wedged in below the medulla and spinal cord.

Pericarditis in a Horse.—Mr. ABRAHAM read a paper for Dr. NIXON on pericarditis in a horse, showing the specimen. The principal features were enormous hypertrophy, and an extraordinarily extensive fibrinous exudation covering the whole pericardial surface. The normal weight of the horse's heart was six or seven pounds, but this specimen weighed twenty-one pounds. The notes of the case were taken by Mr. J. Kenny, under whose care the horse had been for pleuropneumonia, which had yielded to treatment. A week after, the animal was brought back, with high pulse and friction-sounds over the heart, subsequently becoming dull. At the *post mortem* examination, four gallons of yellow fluid were obtained from the pericardium. The hypertrophy of the heart was of long standing, and caused chiefly by the heavy work which the animal had to perform. The pericarditis appeared to be secondary to the pleuropneumonia. The immediate cause of death was the enormous pericardial effusion.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL AND CLINICAL SECTION.

FRIDAY, FEBRUARY 27TH, 1885.

LAWSON TAIT, F.R.C.S., in the Chair.

Labio-glosso-laryngeal Paralysis.—Dr. SAUNDBY showed a patient who presented all the characteristic peculiarities of this condition. There was, in addition, wasting of the deltoids, the latissimi, and the interosseous muscles of both sides.

Progressive Muscular Atrophy.—Dr. SAUNDBY showed a patient who exhibited muscular atrophy resulting from an attack of acute anterior polio-myelitis in childhood, and, in addition, wasting of the interossei muscles of both hands, which had come on gradually in the course of the last year. Dr. Saundby believed that this was an example of progressive muscular atrophy supervening upon an old case of anterior polio-myelitis, and he quoted a similar case recorded by Raymond.

Mitral Stenosis and Pericarditis.—Dr. SAUNDBY exhibited a heart which showed extreme stenosis of the mitral valve, and, in addition, recent pericarditis. Microscopic examination of the myocardium proved the existence of acute interstitial myocarditis. Dr. Saundby pointed out that the real cause of the fatal result was the lesion of the muscular wall, the valve-deformity being quite compatible with healthy activity, provided the heart-wall remained sound.

Enlarged Spleen.—Dr. SAUNDBY showed a spleen which weighed sixty-two ounces, the enlargement being due to pigmentary hypertrophy. The case, which will be published, presented many peculiar features. The most notable anatomical change, in addition to the enlarged spleen, was atrophy of the suprarenal bodies.

Tumour of Omentum.—Mr. LAWSON TAIT showed a specimen of a tumour of the omentum removed from a man. Its nature was uncertain, but it was probably hydatid. The abdomen was full of fluid, in which small cystic bodies like sago-grains were floating.

Specimens.—Dr. COULSON BULL showed two specimens of aneurysm of the aorta, and a malignant tumour of the cæcum.

Tubal Gestation.—Dr. W. G. LOWE exhibited a specimen of tubal gestation of seven weeks' growth. The sac involved the fimbriated extremity of the left Fallopian tube, and was adherent to the left ovary. The subject was a well made woman, aged 31, wife of a labouring man. She had had one child at 16, and no miscarriage or pregnancy for fifteen years after. She was first seen on December 27th, 1884, when she complained of pain in the lower abdomen and back. This appeared to be connected with the catamenia, which till then had been regular, and were expected within the next week. She recovered from the pain, but was seized with another attack, somewhat similar to the former, on January 11th, 1885; the catamenia not then having come on. On January 16th, the catamenia, as she thought, came on, lasting ten days, the ordinary period. During the next ten days, there was considerable tenderness over the region of the left ovary. No tumour could be felt. The uterine discharge ceased on January 24th. On January 28th, Dr. Lowe made a vaginal examination, and found the uterus somewhat enlarged and thickened; there was some fulness and tenderness in the direction of the left ovary. The patient improved during the next few days. There was less soreness over the left ovary till February 2nd, when she was again seized with violent pain in the bowels, most intense in the region of the epigastrium, with symptoms of collapse. She rallied from these symptoms; but, on February 5th, was seized with a similar attack, from which she died before medical aid could be obtained. At the necropsy, the abdominal cavity was found full of blood, about three

pints. A tumour of the size of a small orange, with evidence of rupture on the upper surface, was adherent to the upper part of the rectum; it was connected with the left Fallopian tube. The uterus was enlarged and thickened; there was no decidua. On opening the tumour, a seven weeks' fœtus was seen, with the membranes intact, floating in liquor amnii.—Mr. LAWSON TAIT said that the case, so well narrated by Dr. Lowe, was one of great interest, and he trusted that Dr. Lowe would publish it. The fact that the author of the paper had himself said that, had he known the state of matters more accurately, he would have been able to do more for the patient, removed him at once from a position in which adverse criticism might have been extended to him. The case was one, however, which conveyed a very serious lesson, and one very much needed at present, in the direction of allowing any patient with serious abdominal symptoms to die without an effort being made to relieve her by operative proceedings. The question of diagnosis in such cases was of relatively small importance. It might be made seven or eight times out of ten with accuracy, but it was most unwise to wait for the completion of a diagnosis before treatment was attempted, for two reasons. In the first place, if waited for, it would be, in all probability, made only with perfection at the *post mortem* examination. In the second place, the step which led to the treatment of such cases enabled a complete diagnosis at the same time to be made. Mr. Tait had now operated upon nine such cases, eight times successfully. Such cases as that narrated by Dr. Lowe were far from rare. Dr. Lowe's case was also of interest, because it substantiated the views of the pathology of extra-uterine pregnancy which Mr. Tait advanced for the first time ten years ago. In cases where the rupture at the tenth or fifteenth week did not prove fatal, and where the pregnancy went on to the full time, it was often extremely difficult to say precisely where the pregnancy arose. But in not a single instance where an operation or a *post mortem* examination had been made in cases of extra-uterine pregnancy at the time of rupture had the pregnancy ever proved to be anything but tubal in origin. If cases of ovarian pregnancy, or tubo-ovarian pregnancy, or abdominal pregnancy, ever occurred, they would be discovered just as certainly in the early fatal cases as those which came under observation at or after the completion of pregnancy. But no such thing had ever been published, not a single instance had ever been seen, where the pregnancy did not begin in the tube, and where its progress was altered by the rupture of that organ.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, FEBRUARY 18TH, 1885.

T. H. BARTLEET, F.R.C.S., President, in the Chair.

The Social Aspect of Imbecility and Insanity.—Mr. ROSS JORDAN read a paper with the above title. He pointed out the great importance of the subject, and the desirability of the medical profession being prepared to advise their patients in such cases. After speaking of the early symptoms of insanity and their importance, it was urged that, if home-treatment did not speedily cure or improve the patient, he should in all cases be sent to an asylum. He pointed out that epileptics often had long intervals of sanity when under control, but that the attacks were much more frequent and dangerous when at home. Moral insanity, and some special forms of mania, in his opinion, were not sufficiently recognised by law; it should be made legal to detain and treat many of these cases. The difficulty and danger of diagnosing and certifying private patients in the present state of the law was enforced, and the right of appeal to experts appointed by the Commissioners of Lunacy was suggested.

Strangulated Congenital Hernia—Mr. JORDAN LLOYD showed the parts removed from a strangulated congenital hernia, with the testis retained in the inguinal canal. The patient had been ruptured since childhood. Two days before admission the rupture came down, with symptoms of strangulation; the operation was performed on the third day, the sac and atrophied testis being excised. He left the hospital on the twenty-third day, without an impulse, and is wearing no truss. Mr. Lloyd showed eight other hernial sacs recently removed by himself.

Lympho-sarcoma—Mr. LLOYD also showed a specimen of infiltrating lympho-sarcoma, removed from the posterior triangle of the neck. The growth seemed to begin in the deep cervical fascia, and, at the time of the operation, had infiltrated the platysma and sterno-mastoid, the clavicular part of which was removed. The patient left the hospital on the twenty-sixth day, with the wound soundly healed.

Cancer of the Cæcum—Mr. BENNETT MAY showed a specimen, taken from a man aged 54, of cancer of the cæcum of the ordinary cylindroma form, which, by compression of the duodenum at its second bend, had caused death by protracted starvation. The intestinal symptoms being slight, and no tumour being perceptible for some time, the case was difficult of diagnosis in its earlier stages, and was further complicated by the formation of a large abdominal abscess due to ulceration.

Congenital Aniridia.—Mr. EALES showed a man in whom the iris was completely absent in each eye. Both lenses were opaque after the zonular type, but with many striæ in the clearer outer zone, and in each eye the lens was abnormally placed, being nearer the upper than the lower corneo-scleral junction. The removal of the lens in one eye showed the vitreous body to be quite fluid.

Coloboma.—Mr. EALES also exhibited a girl, aged 12 years, suffering from coloboma of the iris and choroid in the left eye. The eye was hypermetropic, and the difference in refraction between the margin of the coloboma of the choroid and its deepest part was eight dioptrics.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

FEBRUARY 26TH, 1885.

W. A. GARRARD, M.R.C.S.Eng., President, in the Chair.

Enlarged Heads.—Mr. B. WALKER introduced two interesting cases. The first was a man, aged 28, a hawker, with abnormal development of the left side of the frontal bone. The right side of the head measured 10¾ inches, and the left 12¼, the enlargement being apparently confined to the frontal bone, and causing a decided projection in that region. The condition was congenital. He had been led to suppose by a phrenologist that he possessed talents in no ordinary degree, but that, for want of education, they had not been brought forward. His memory was stated to be remarkably good, especially as regarded objects, persons and places, figures and forms, which he never forgot. The second was a girl, aged 12, and was probably hydrocephalic. As an infant, she suffered a good deal in her head, and was considered to have "water on the brain." The head measured nearly 24¼ inches in circumference. Her intelligence was not impaired; she was very useful at home, but was not so far advanced in learning as others of her age.

Aneurysm of Aorta.—Mr. LOCKWOOD showed a specimen of aneurysm of the transverse portion of the aorta, which had burst into the base of the left lung. The specimen was from a man, aged about 50, who was admitted into the public hospital in an unconscious condition, with blood also flowing from the mouth. He only lived five minutes after admission.

Genu Valgum: Wedge of Bone Removed.—Mr. PYE-SMITH showed a wedge of bone which he had removed from the lower end of the femur of a man with severe genu valgum. The specimen was from the right limb, a similar one from the left having been shown at a previous meeting. The limb first operated on was well; the other was healing.

Fracture of Cervical Vertebra.—Mr. PYE-SMITH also showed part of the spinal column of a man, aged about 40, exhibiting a fracture of the sixth cervical vertebra. The injury had been received in a fall from a dray whilst the man was intoxicated. There was paraplegia and loss of sensation below the umbilicus, except in the distribution of the ilio-inguinal and ilio-hypogastric nerves. There was good thoracic respiration, and no rise of temperature. A bed-sore began to form within twenty hours of the injury, and the patient died on the fifth day. At the necropsy, the cord was softened and congested opposite the fracture, and there was also a softened and ecchymosed portion, with considerable effusion of blood around it, in the lower dorsal region. This latter lesion seemed to have produced the paraplegia, and the later inflammation higher up the fatal termination.

Aural Polypus.—Mr. SIMEON SNELL exhibited a large aural polypus; it was of the fibrous variety, and grew from the wall of the meatus. It was only of interest on account of its unusual size.

Changed Aspects of Unchanged Truths: the Use and Abuse of Rest.—Mr. ARTHUR JACKSON read this paper, and endeavoured to show that the great truths of physiological and mechanical rest, as laid down by John Hilton in his never-to-be-forgotten and unrivalled *Lectures on Rest and Pain*, were being lost sight of in the theories of the present day. He urged their application in the treatment of fractures, excisions, osteotomies, and in the treatment of wounds; and the more or less complete reform of our present mode of treatment.

DR. HORNIBROOK, medical officer of Kinsale Workhouse, having retired on superannuation, an election to the vacancy took place last week. There were three candidates, Messrs. J. C. Nunan, J. F. Magner, and Vickery, the last being successful by four votes.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, FEBRUARY 11TH, 1885.

NORMAN CHEVERS, M.D., C.I.E., President, in the Chair.

The Prevalence of Epidemic Roscola in Calcutta.—SURGEON-MAJOR K. MCLEOD read a paper on this subject. He stated that an epidemic of measles had visited Calcutta during 1880 and the early part of 1881. This was succeeded by an outbreak of cases of an eruptive fever, which appeared sporadically throughout the town among all classes of the population, affecting principally children and young adults. It lasted throughout the hot weather and rains of 1881, and cases continued to occur during the cold weather of 1881-82. The phenomena and course of these cases differed in many respects from those of the earlier epidemic. The symptoms of the disease were :—a distinct pre-eruptive stage, lasting generally from twenty-four to thirty-six hours, ushered in by chilliness, malaise, and anorexia, and charactised by the sudden onset of fever. Muscular pains were sometimes present; vomiting was rare, and running nose, watery eyes, and sneezing, were not common nor severe. The eruption was papular, in spots and patches of circular shape, sometimes becoming diffuse or confluent, bright red, rosy, or crimson in colour, appearing generally, but not always, successively on the face, body, and extremities, lasting for two or three days, and not succeeded by desquamation. The fever was in most cases severe, reaching from 100° to 105°; its onset was sudden, its decline gradual, as the eruption faded. The total duration of illness was about a week. The most commonly observed complications were bronchial catarrh and tonsillitis; the fauces and palate were always congested, and the tonsils sometimes much swollen, especially towards the close of the outbreak; they were sometimes seen to be covered with an aphthous pellicle, and slight ulceration was also observed. The lymphatic glands of the neck were enlarged in many cases. Diarrhœa was rare. The urine was not albuminous, and no indications of dropsy were seen. Sequelæ were absent; and the mortality was trifling. The disease was not very infectious, but cases occurred in succession in the same family, and instances of communication by personal intercourse were related. It was also observed that a previous attack of measles was not protective; and an instance was recorded, in which an attack of measles occurred shortly after recovery from this disease. As regarded the nature of the disease, Dr. McLeod considered that its phenomena and course resembled those of rubella or rötheln more closely than of any other exanthem. There could be no question of identity with scarlatina, because, in addition to well marked clinical differences, it was a well established and very striking fact, that scarlatina did not exist in India as an epidemic. The only question was, whether these were not cases of some other kind of fever, such as mild, malarious, remittent, complicated by a roseolar rash. This was shown to be improbable by the similarity of the symptoms, as observed by different practitioners, and the number and grouping of the cases. On the whole, the evidence pointed strongly to the view that this was an epidemic of rötheln; and, if this were so, it became an interesting question whether similar outbreaks occurred from time to time in other tropical countries and places.—In the discussion which followed, the President, Surgeons-General de Renzy and W. J. Moore, Surgeons-Major Duka and Cayley, Sir William Smart, Drs. Thorne and Squire, and Messrs. Shirley Murphy and Paget took part.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, FEBRUARY 6TH, 1885.

J. CARTER, F.R.C.S., President, in the Chair.

Election of President.—Dr. BRADBURY was unanimously elected President for the ensuing year. The chair was then taken by Dr. Bradbury, and the following communications were made.

Supposed Cerebellar Embolism.—Dr. BOSWELL (Saffron Walden) related this case. Early in May, 1884, he was called in to see a patient, aged 50, suffering from rheumatism, which shortly afterwards assumed an acute form. The salicylic treatment was adopted, and the disease checked, though not before an impurity of the heart's first sound had become noticeable over both the mitral and aortic areas. On June 7th, she was able to sit up, and felt very well. Next day, while quietly resting in bed, she suddenly pressed her hands over her head, and, with a cry of terror, fell over. She was conscious, but unable to articulate; the face was greatly flushed and somewhat swollen, the conjunctivæ congested, the eyelids drooped, the pupils were much contracted and turned upwards. Nystagmus was observable when the eyes descended. There were, moreover, very remarkable writhing movements, the patient lying close to the bed, and not raising herself from it. There was no indication of any form of paralysis, either motor or sensory. The reflexes were exaggerated. Next day she was suffering from an overwhelming sense of vertigo, objects appearing to be whirling round her, not laterally, but from behind forwards on a vertical plane. The left pupil remained contracted for three weeks. She complained much of extreme photophobia, and consequently an ophthalmoscopic examination was not possible. Tinnitus aurium was also a marked feature. There was no evidence of inflammatory mischief. The temperature was normal. The blood-vessels were healthy. In this condition of extreme prostration, with total inability to raise her head from the pillow, she remained for several months. Latterly she had improved somewhat, and had been able to sit up a short while each day, to occupy her time a little with reading and needlework, and to walk round her bed once or twice daily. But she was still unable to occupy any but a horizontal position, except for a very short time, and the vertigo and other sensations were very easily produced, particularly by any change of character in the visual impressions. The probable pathology of the case was discussed, and the view adopted of an embolus being impacted in one of the cerebellar arteries, or in a branch of the posterior cerebral artery on the left side.

Fracture of Pelvis with Wound of Artery.—Mr. W. R. POLLOCK showed this specimen. The patient was 56 years old, and very stout; he was admitted into the hospital on April 9th, at 10.30 P.M. He had been knocked over by the buffer of a passing engine, but not run over; the blow was on the buttock. He was suffering great pain, and was quite unable to walk, but his pulse was good and there was no sign of shock. He was put to bed, without further examination; he died about 5.30 A.M. the following morning. The *post mortem* examination revealed a fracture of the pelvis and a spicule of bone penetrating the left internal iliac artery, causing internal hæmorrhage; there was also fracture of the two or three upper ribs on the left side. Mr. Pollock referred to three cases, recorded by Mr. Clement Lucas, of fractured pelvis with wound of either the iliac vein or artery; one patient living for six hours with a wound of the external iliac artery.

Sarcoma of Kidney.—Mr. ROGERS (Fulbourn) showed a specimen, and said that it was removed from a lunatic in the asylum. Hæmaturia was first noticed in April, 1883, lasting for ten days, and accompanied by pain. The patient recovered, but in December continuous hæmaturia persisted, until death occurred, in November 1884. A growth was found in the kidney, occupying a large portion of its pelvis, and extending into the medulla and cortex; on section it showed several hæmorrhages and cystic degeneration. Microscopically it proved to be a sarcoma, with some indication of an alveolar arrangement. There were some calculi in the lower part of the pelvis of the kidney, the association of which with malignant disease was noticed. There were no deposits in the other organs.

Congenital Epulis.—Dr. HUMPHRY showed a patient upon whom he had operated a short while ago. Photographs were also exhibited of the patient before the operation was performed.

HARROGATE MEDICAL SOCIETY.

THURSDAY, FEBRUARY 19TH, 1885.

A. S. MYRTLE, M.D., President, in the Chair.

Pollution of Water by Birds' Droppings.—Dr. JOHNSON mentioned some cases of diphtheria, alternating with scarlatina, occurring in a farm-house. The infective cause was, in his opinion, rain-water which was collected from the roof, fouled by pigeons' dung, and afterwards used for drinking purposes.

The Mineral Waters of Harrogate.—The Bath and Wells Committee brought forward some resolutions concerning the conservation of the mineral waters.

Friar's Balsam.—Dr. DEVILLE read an interesting paper on friar's balsam; he referred to its antiseptic, astringent, and stimulating properties when used externally as a dressing for wounds, and, when used internally, for various affections of the mucous membrane. He spoke in favour of its being used in the place of water-dressing, poultices, etc., as he was of the opinion that it caused union by first intention, and prevented phlegmonous erysipelas, inflammations of synovial sheaths, veins, and lymphatics.—Considerable discussion followed, in which most of the members joined. Dr. Deville replied.

MEDICAL MAGISTRATES.—The name of Dr. A. W. Macfarlane, of Kilmarnock, has been added to the commission of the peace for Ayrshire.—Mr. Cecil G. Westropp, of Derrylin, Belturbet, has been appointed a magistrate for the County Fermanagh.

REVIEWS AND NOTICES.

A Practical Treatise on the Medical and Surgical Uses of Electricity. By G. Beard, A.M., M.D., and A. D. Rockwell, A.M., M.D. Fourth edition, revised by A. Rockwell. Pp. 758. London: H. K. Lewis. 1884.

It was with a melancholy feeling of depression that we turned over the leaves of this ponderous tome, which with every new edition has received, by a process similar to that of the snowball rolling down the hill-side, such accrescences as to make it a work of truly portentous size. And yet, if anything were needed to make it an useful and readable book, it was a liberal application of the pruning-hook and hydraulic press. Long-winded generalities have been amplified, and masses of ill-digested matter interspersed among its already more or less incoherent constituents; and the straggling record of mostly imperfect histories lengthened to an almost exasperating amount.

Four hundred pages are devoted to principles, three hundred and fifty to special treatment and cases. If at least Dr. Rockwell had managed to give a complete survey of the subject of electro-therapeutics, we might have forgiven his deficiencies in other respects; but, when we find him dismiss the most important questions of electro-diagnosis—the reactions of degeneration—in a couple of imperfect pages, and pass over in complete silence recent important experimental inquiries into the electrotonic phenomena of human nerves, we fail to guess what principles of selection may have guided him in the choice of his amplifications. One subject he congratulates himself in his preface to have introduced in this new edition; it is an account of some cases of extra-uterine gestation, treated by electrolysis; and this account is made the theme of a commentary, written in the author's characteristic style. Here (page 611 *b*) we read, for instance, that the galvanic current "has a greater power of overcoming resistance than the faradic"—an example of the profound ignorance of electro-physics which is painfully obvious in many statements occurring in the earlier chapters. Here the authors set themselves to the task of expounding the terms used in electrical matters, and the laws which govern electric phenomena.

To criticise these chapters in detail would be tedious; suffice that we adduce, as instances, a few gems of their kind. Thus we read on page 66: "A farad is the quantity of electricity which, with a certain electromotive force, flows through a certain resistance." And, again (page 67): "The tension of the frictional machine is very great, for the reason that it is not at all influenced by the resistance in the circuit, which in the galvanic circuit is very great. If the current of the galvanic battery encountered no resistance in the circuit, or was not affected by resistance, its tension would be enormous." The following occurs on page 72: "The quantity of electricity is the amount which passes the circuit in any given time." Such statements as these would, we fear, make one of the examiners at Burlington House feel himself morally bound to pluck the luckless candidate whose answers revealed such a deplorable lack of knowledge.

Here is a specimen of the physiological language adopted by the authors. "The power of a nerve to conduct irritability is more or less modified by the condition of electrotonos" (page 102). The student who has read recent European treatises knows by this time all about current-measurement, milliampères, and absolute galvanometers. All this is a *terra incognita* to the authors, who give vent on this subject to the following (page 83): "The time may come, in the advance of science, after physiology shall have found its Newton to reduce its present chaos to order and law, when it shall be possible to prescribe so many *farads* of electricity . . . But for the present, when we describe the current that we employ as mild, medium, or strong, and have stated the method, and length, and frequency of application, we have attained all the accuracy that science will allow."

The generalities into which the authors launch forth on the effects of electricity on the body, on the *rationale* of electrisation, show the authors to be affected with a true *diarrhœa verborum*, in which the solid matters constitute but an infinitesimal fraction of the copious flux of words.

In the clinical part of the work before us, literary and scientific curiosities are no less abundant, and the loquacity of the authors finds another ample field for its exercise. As a good illustration of the style adopted in this portion of the book, we turn to pages 599 and 600, where we find an account of a case of deafness "which is the most remarkable of any which have been scientifically reported." A young lady of 19 "was taken with symptoms of acute intracranial disease of an hysterical character." Three months after "she began to suffer from hysteria or epileptic attacks . . . . The ears were differently affected. On the right side, there was paralysis of the auditory nerve as well as paralysis of the trophic nerve, decubitus of the right concha," etc. The case recovered under galvanisation, but "it is entirely probable that the faradic current might have been of more or less service."

Further on, page 660, there occurs an almost comical paragraph to show that the "temperament of the patient is less important in surgical than in medical electricity," for, as we are gravely informed, "electro-surgical operations are of a thermal or chemical character, and are not dependent for their success on the idiosyncrasy of the patient . . . The electro-susceptibility of the patient may appear either in the form of farado-susceptibility or galvano-susceptibility," etc.

These illustrative extracts will no doubt justify in the reader's mind the expression we used at the outset. Here is a book largely used by medical men, and which is yet allowed to reach a fourth edition, still bristling with most inaccurate statements, and distended with pseudo-scientific inanities to such a degree as to conceal whatever merit it possesses. The work has passed through a treble ordeal of the reviewing process, and yet it continues unexpurgated—nay, shows a tendency to further exaggeration of those features which must strike every judicious reader as objectionable. This surely could not possibly occur if our medical critics performed their duty honestly and well. It is on account of the perfunctory milk and water style too frequently adopted in the review-department of the journals, that authors go, to their own detriment, unchecked, if not absolutely encouraged, in their wayward career.

In the volume now before us, there is evidence of honest work and enthusiasm. It contains many an useful hint. But only the advanced student can derive unmixed benefit from its reading, and separate the wheat from the blinding masses of chaff which it gives forth in the process of winnowing.

Traité Complet d'Ophthalmologie. Par L. de Wecker et E. Landolt. Vol. II, Part I. Paris: Delahaye. 1883.

The first portion of this book, by Waldeyer, treats of the Microscopic Anatomy of the normal Cornea and Sclerotic. As may be judged by its length, for it comprises 83 pages, and by the name of its author, it gives a reliable and exhaustive account of this branch of the subject. The extent of its literature may be conceived when we say that over 300 authors are referred to under the head of bibliography.

The author begins by pointing out that there is histological as well as developmental evidence of the existence in the cornea of three zones; one, the most anterior, belonging to the skin; another, the posterior or choroidal one; and the third, or scleral, situated between the two others, and comprising the middle strata of the cornea proper.

Later on, he draws a further inference in favour of this from the cornea of the pig, in which the anterior part, which is found in direct communication with the conjunctiva, is clearly distinguished from the subjacent tissue by its different histological appearances, such being a more marked fibrillar texture and the possession of larger lymph-spaces. Moreover, this anterior zone can be easily detached, and colours differently with carmine. He regards the sub-epithelial layer of Arnold, which this author, after macerating in warm dilute nitric acid, has succeeded in isolating from the deeper layers, while still maintaining in continuity with the scleral conjunctiva, as the anterior layer above alluded to.

For the disassociation of the fibrillæ of the proper corneal tissue, he soaks the preparation for twelve or twenty-four hours in chloride of palladium solution (a quarter to a half per cent.).

He considers the cement-substance, which he distinguishes into interfibrillar, interfascicular, and interlamellar, as the modified remains of the protoplasm of the parent-cells, of which the cornea was formerly entirely composed. He thinks that the bulk of these cells becomes transformed into the fibrillar substance of the cornea, while their remains only constitute the cement-substance. Certain others of the parent-cells do not undergo this transformation, but remain as the corneal corpuscles. In this way, the cement-substance will be equivalent to the hyaline substance of cartilage.

With Recklinghausen and Leber, and in opposition to Rollett, he considers that the corneal tubes of Bowman are not fissures artificially produced, but that they are simply certain of the canaliculi which, by their size and position, fill more readily than others with the substance of the injection, while the fusiform dilatations on them are the lacunar

spaces. The structure of the cornea in certain animals, for example, the ox, favours the production of these appearances. To show them well, he says that oily substances should be substituted for the mercury first used by Bowman. For the perfect demonstration of the lacunæ, he has abandoned all other methods, and uses only the moist chamber in preparing the recent cornea.

He thinks that the cement bordering on the lacunar spaces becomes, at a later period of life, metamorphosed into a substance capable of greater resistance to acids, and that thus we may get an appearance as if the corneal lacunæ had proper walls. Thus he explains the stellate corpuscles isolated after the use of acids by His and Leber. He draws an analogy between this appearance and that described by Neumann, who isolates, in a similar manner, the lacunæ of bone and the dentinal tubules.

While he will not deny that some of the protoplasmic prolongations of the corneal cells anastomose with their neighbours, he refuses to admit that all do so. He considers that the cells of the cornea, or, at least, the central portions of them, preserve sufficient vitality to react to various irritations, and to take an active part in such pathological processes as inflammations; his views being, in this respect, strongly in opposition with those of Cohnheim.

He believes that the ultimate nerve-fibrils of the cornea anastomose so as to form a terminal intra-epithelial network ; and he has not succeeded in finding either free extremities to them or the terminal enlargements described by Cohnheim and Inzani. Schlemm's canal he regards as a true lymph-space, since it can be filled by injections from the anterior chamber; whereas he has not been able to inject it either from the ophthalmic artery or from the superior vena cava. Moreover, he has never succeeded in finding blood-corpuscles in it, either in human eyes or in those of the lower animals.

The Diseases of the Cornea are treated of by De Wecker in the course of one hundred and twenty-six pages. In this space, he gives the most complete account of the subject that exists up to the present date. He cordially accepts the views which regard the cornea as a passive agent in inflammation, and the cells which invade it as coming entirely from outside it under the influence of a nervous irritation, which may take its rise in the nerves of other parts, or even in the corneal nerves themselves. He states distinctly that, in his opinion, all idea of proliferation of the corneal corpuscles as the source of the new corpuscular elements encountered in inflammatory disturbances of the cornea should be abandoned entirely. (In this regard, his remarks may be contrasted with those of Waldeyer, already referred to as occurring in the earlier portion of the work.) The central opacities noted by Saemisch as occurring without corresponding disturbances of the part of the cornea between them and its peripheral limit, he explains by the statements—(1) that, in many cases, the part corresponding to the opacities is denuded of its epithelium, so that immigration from the abnormal conjunctival secretions may take place ; (2) that, in the others, the use of the ophthalmo-microscope will demonstrate that the more peripheral parts of the cornea are not in reality unaffected.

The pathology of corneal ulceration is clearly put, and is illustrated by figures which, together with the ideas of this part of the text, are presumably mainly borrowed from Saemisch and Arlt.

The author finds the compressive bandage, with the instillation of eserine or pilocarpine, to be the most effective treatment in phlyctenular keratitis. Irritants are only resorted to when vascularisation has appeared ; and the use of atropine is restricted to those cases where there is a tendency to iritis, and none to ulceration. He describes a pure trachomatous pannus as attacking the cornea independently of any friction of the lids, from the formation on any part of it of the true neoplastic tissue which constitutes the granulations.

For the treatment of granular lids, while he has derived considerable benefit from the operation of syndectomy, he deprecates strongly inoculation with the matter of purulent ophthalmia, though he appears unable to contest the evidence of the numerous observers who have found beneficial results from its use. But this good he considers to be obtained at a disproportionate risk, whereas the inoculation with jequirity, which he strongly advocates in preference, is, in his opinion, free from the very considerable danger of suppurative keratitis.

He treats the deeper circumscribed sclerosing corneal infiltrations when indolent, even if complicated, as they usually are, by episcleritis by inducing diaphoresis, being especially inclined to the administration of pilocarpine by subcutaneous injection. But, should rheumatism be apparent as a cause, he administers, in addition, the salicylate of sodium. He refuses to admit, with Mauthner, that syphilis is a cause of this form of infiltration. He regards peritomy as the most efficient surgical treatment of this affection, even where the infiltration near the edge of the cornea is complicated by episcleritis in the acute stage.

He adheres strongly to the views received in England as to the relation between notched teeth and the interstitial keratitis of inherited syphilis ; but he avoids iridectomy as far as possible, as frequently causing relapses. On the other hand, he thinks that the tendency to these is diminished, and that the cornea is somewhat cleared, by a previous peritomy.

The account of the band-like opacities of the cornea, which are so frequently associated with glaucoma, is very good, as are also the rules for distinguishing those which are not unfrequently the prelude to a glaucomatous irido-choroiditis, from those which appear as the results of a fully developed glaucoma.

In favour of tattooing, he pleads strongly against the attribution of such morbid conditions as suppurative irido-choroiditis, glaucoma, etc., in eyes that have been the subjects of this process, to the operation; asking how often such phenomena arise in eyes that have not been tattooed, and are suffering from leucoma adhærens, for example. He inclines toward iridectomy as the best treatment in the early stages of conical cornea. He is strong on the superiority of myotics in suppurative affections of the cornea over the mydriatics formerly used. Myotics, in his opinion, check suppuration ; and, after the perforation has developed itself, they undoubtedly diminish the pressure from within the globe upon the seat of the lesion.

Treating of cicatricial staphylomata, he explains them as being, in the majority of cases, really nothing more than distended adherent leucomata, such having, as their cause, an increase of intra-ocular pressure during the cicatrisation of a corneal wound. This heightened tension he regards as due to excessive secretion, consequent on irritation of the ciliary nerves, and also to the attraction of the iris towards the angle of the anterior chamber, and the consequent occlusion of the ways of filtration.

With regard to the surgical treatment of partial corneal staphylomata, he advises that, if the prolapse be small, and near to the corneal centre, it should be cut off. But he directs otherwise with regard to more peripherally situated incarcerations of the same size. He considers that the removal of these still more approximates the remaining part of the iris towards the dangerous neighbourhood of the zone of filtration. Under such circumstances, all that he advises of an operative character is, the making a cautious attempt, by means of one or two artificial pupils, to free the part entangled.

In very large perforations he gives choice of two methods, either to simply evacuate the lens, or to add to this the removal of the entire prolapsed iris.

Other very good chapters on wounds and on ruptures of the cornea follow; but it is time for us to take leave of the book, cordially commending its conscientious perusal to our readers.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

YOUNG'S PATENT DISINFECTING CANDLES.

These are paraffin candles of a light red colour, with the conical fluted bases adapting them to sockets of any size. Their light is not so clear as that of others of the same size, but they emit, in burning, a just perceptible odour of carbolic acid. The idea of the patentees seems to be the vaporisation, by their means, of the disinfectant ; but holding, as we do, all attempts at aërial disinfection in the presence of the patient as delusions, we must characterise such as this as mere trifling. Intensely retentive of vitality as micro-organisms notoriously are, it is inconceivable that they should be affected by anything that would not first be fatal to every living thing of higher grade.

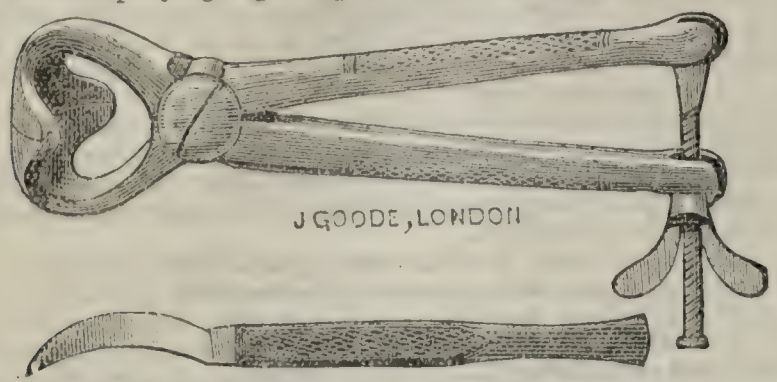
TREATMENT OF PILES BY CRUSHING.

A few years ago, Mr. Pollock wrote an article in one of the medica papers, giving an account of an operation on piles effected by crushing. The instrument he used was one devised by Mr. Benham.

At the time, I was engaged in practice in Washmir, and had a number of such cases, and determined to give the method a trial. I had an instrument made there according to the description given. The operation answered the purpose, but I experienced one inconvenience, and that was that, if the pedicle were thick, part of it escaped

on either side of the clamp, and was, therefore, not crushed. I made a change in the instrument which obviated this defect, and in my modification of Mr. Benham's instrument, I think I have the very best instrument for removing piles that I have yet seen.

The accompanying engraving will explain itself tolerably well.



The difference between my instrument and the original instrument of Mr. Benham's is that, in mine, the blades are curved instead of being straight, and the pedicle being seized by the central part of the blades of the clamp, there is not the same tendency for part of it to escape when crushing is effected by means of the screw. The knife is merely a curved knife, fitting the inside of the clamp, and is a convenient way to cut off the pile when sufficiently crushed at its base.

I generally gave an anæsthetic, but not always, and I did not find the patients complain of very much pain, either during the operation or afterwards. I never had any hæmorrhage to cause the least anxiety, though I have removed very large masses of piles. I generally run the cautery over the base after cutting away the pile, though Mr. Pollock thought it unnecessary. I think it is an additional safeguard against hæmorrhage, and renders the wound less liable to septic influences.

I have not my case-book, but I may say that I have operated on some scores of cases, and some of the very worst cases I have ever seen; and it is something to say that I have never had cause for anxiety for a moment, nor have I ever experienced the least difficulty in operating. I have not the least hesitation in recommending this clamp to the profession as at once simple and effective, and, I believe, rendering the operation absolutely free from danger of hæmorrhage.

I have asked Mr. Goode of Praed Street to make me the clamp since I returned to England, and he will doubtless get one made for any other surgeon.

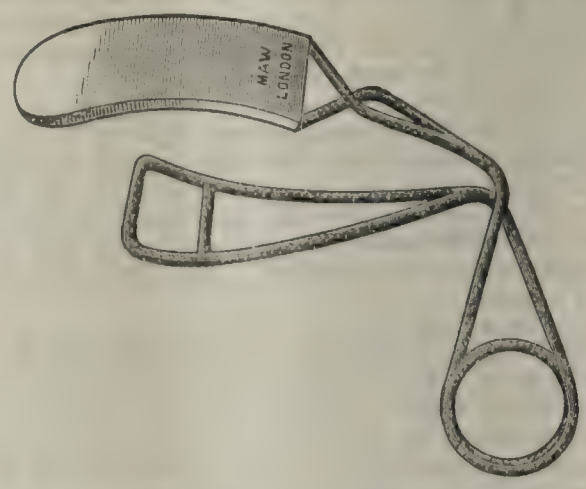
E. Downes, L.R.C.P.Lond., M.R.C.S.E., Eastbourne.

NEW SELF-ADJUSTING TONGUE-DEPRESSOR.

The engravings illustrate the construction and application of the tongue-depressor. The instrument is self-adjusting, and when it is placed in position, the operator can use both hands for any manipulation. It consists of two metallic plates, in combination with a wire



recoil-spring; the larger, or tongue-plate, is polished on the upper surface, and this assists in the illumination of the mouth; and on its under side it is roughened, to prevent it from slipping forward on the tongue; the smaller, or submental, plate is curved to fit easily and securely under the chin, behind the maxillary symphysis. The wire spring occupies very little space, and is bent downwards, so as to be out of the way of the surgeon. The blades can be easily opened, and to assist their expansion a loop of wire is fixed on each side of the spring to support the thumb and finger. The instrument can be employed for depressing the tongue in any position, and therefore it will be found serviceable in minor operations about the mouth, and



also in rhinoscopic and laryngoscopic examinations. The submental pressure is especially useful in patients who are intolerant of oral instruments, and this method of fixing the tongue often appears to reduce the reflex irritability of the parts.

The tongue-depressor is very neatly made by Messrs. Maw, Son, and Thompson, in three convenient sizes, and can be obtained from that firm at a very moderate price.

J. Ward Cousins, M.D.Lond., F.R.C.S.,
Surgeon to the Royal Portsmouth Hospital.

Physician's Emergency Case.

In noticing Mr. H. Colman's Emergency Case, at page 386 (February 21st), we omitted to state that Messrs. Bailey and Son, Oxford Street, W., were the makers. The case is small (about the size of a cigar-case) and compact, and is so devised that it will contain about a couple or more doses of active drugs, such as would be required on an emergency. It is presupposed that the practitioner keeps a stock of these always ready to come at; and after each time of using the case, on returning home, it is replenished, to be ready for the next emergency. For example, there is a leather-covered small bottle for a dose of compound spirit of ether (double strength), and similar bottles for hypodermic injections of morphia and of pilocarpine.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An ordinary meeting of the Council of the College was held on Thursday, March 12th.

The report of the Committee of Management appointed by the two Colleges, and already adopted by the College of Physicians, was presented to the Council, approved, adopted, and directed to be entered on the minutes. This report, dated January 9th, 1885, was based on the letter of December 1st, addressed to the two Colleges by the President of the General Medical Council; it referred to the conjoined examining board, and included certain recommendations with regard to the period of study for the diploma, the subjects for study, and the visitation of medical schools. It will be brought under the attention of our readers when the General Medical Council meets.

A letter was read from Professor Peter Redfern, of Queen's College, Belfast, requesting that the vaccination-certificates given in Belfast may be recognised by the Royal College of Surgeons of England, as they are by the Irish College of Surgeons. The request was not granted, as the Council are pledged to accept only those certificates which are recognised by the Local Government Board of England.

A vote of thanks to the Hunterian Orator for 1885, Professor John Marshall, F.R.S., was agreed to unanimously, and it was requested that he should publish the Oration delivered at the College on February 14th.

The Committee of Council on Charters and By-laws will shortly meet, for the purpose of considering the recommendations recently submitted to them by the Association of Fellows, and will report thereon, as soon as possible, to the Council.

We are informed that the obstacle with regard to the recognition of vaccination-certificates from Belfast, rests on the fact that students are not allowed to vaccinate there, and hence fail to fulfil one of the conditions required by the English Local Government Board.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 14th, 1885.

LUNACY TRIALS.

A NEW series of trials, mostly for the discovery of law in lunacy proceedings, demands notice; the most important of them being that of Hicks *v.* Bedford and others, reported in the columns of the *Times* of March the 4th and 5th instant, wherein those interested in details may peruse them. It was stated that the case was important, as throwing light upon the practice of workhouses in the reception of pauper-lunatics; but the plaintiff, although described as a person of no means, and dealt with as a pauper by the poor-law officials, was declared by Mr. Justice Wills not to have been a pauper. This is a warning for those numerous officials who are in the frequent habit of dealing with persons as pauper-lunatics who are not paupers, for whom this depression in the legal barometer indicates bad weather before long.

Mrs. Hicks, who was living with an aunt in lodgings, and had never applied for poor-law relief, unquestionably became insane, with abundance of delusions about poisoned air, poisoned food, dynamite, and other matters. Mr. Sims, her aunt's medical attendant, thought her dangerous, and gave a certificate to that effect; but "he did not mean to take any responsibility; he left it to the parish authorities to take the legal steps." These authorities took steps which turn out to be very far from legal. The relieving officer got Mrs. Hicks into a cab by a stratagem, and took her to Marylebone Workhouse, where she was confined in the lunatic-ward for fourteen days. She brought an action for damages for this false imprisonment against the relieving officer and the lodging-house keepers who had set him in motion, against a man who had assisted in conveying her to the workhouse, and against the master of the workhouse, who was ignorant of the whole matter, but who was held to be responsible for the conduct of his subordinates; and the jury found for her on all the questions put by the judge, and gave her £200 damages against the parties first named, and £50 against the master of the workhouse. The summing up of Mr. Justice Wills, which resulted in this verdict, will bear to be gravely considered by all relieving officers, masters of workhouses, and others who are in the habit of dealing with lunatics in poor circumstances, in a manner which is often a good many points off the true course of the law. Mr. Justice Wills expressed his great surprise "that officials of the workhouse could have so neglected their duty of ascertaining the law relating to their functions, or allowed themselves to drift into the habit of its violation. With the exception of the case of the inmate of a workhouse going mad during his sojourn there, there was no statutory authority for confining a lunatic in a workhouse." Why, there are twelve thousand lunatics in ordinary workhouses, besides five thousand in the metropolitan district asylums, which are but huge workhouses constructed for lunatics. Moreover, it is the common practice of relieving officers, acting under the direction of boards of guardians, to convey lunatics to workhouses, and confine them there, pending the examination of a justice of the peace, and his order for the admission of the lunatic into the pauper-asylum. In view of the apparent necessity of detaining lunatics in workhouses, it is probable that statutory authority will be provided; but such authority will scarcely be of the loose and lawless kind under which Mrs. Hicks was confined in the great Marylebone institution.

The series of actions brought by Mr. Hasker against the medical men who signed certificates of his insanity, and those who received him under care and treatment at Bethlem Hospital, have great interest to the members of our profession, as they seem to prove that the most careful, cautious, and correct proceedings will not save medical men from costly and anxious defence of their conduct in the discharge of their professional duties. All these actions have indeed been given against Mr. Hasker, and his appeals for new trials have been dismissed with costs. But Mr. Hasker, whose social, or rather professional, position is that of a lawyer's clerk, and who fights his legal battles in person, stands at an advantage with regard to costs to the defendants, who were represented by the usual array of solicitors and counsellors, and who are in a position to feel that the glorious uncertainty of the law contains at least one certainty, namely, that of heavy expenditure for those who are able to pay. Perhaps the governors of Bethlem will pay the costs of the defence of their medical officers, which would, however, then become so much money taken from a charitable fund now at a low ebb from agricultural depression; and, therefore, it is possible that the advantages of gratuitous treatment in Bethlem may have to be refused to persons quite as meritorious as Mr. Hasker, on account of his legal proceedings.

As Mr. Hasker has informed the Court of Queen's Bench that he intends to take all the cases to the House of Lords, it may be both right and prudent to reserve comments upon the merits of his actions; but we may, perhaps, be permitted to say, without prejudice, that the experience afforded by this trial may possibly have a tendency to influence the opinions of the physicians of Bethlem, and other asylums, as to the full and complete meaning of the term dangerous.

The physicians, also, who signed the certificates and who have had verdicts and judgments in their favour, will have, in future, to consider, perhaps, whether danger of homicide and suicide is much more appalling than danger of litigation, especially if they meet with an adversary who will not stop short of the House of Lords, although he admits in the witness-box that he is not able to pay the costs of unsuccessful actions. Surely, there is something wrong in the state of this facility for vexatious litigation; and rather than that the grand jury should be abolished in criminal courts, it would seem more reasonable that some inquiry of similar authority should be introduced into civil proceedings.

In Durham *v.* Durham, otherwise Milner, for the dissolution of a marriage on the ground of the insanity of one of the contesting parties, we get into a new and aristocratic region, which, however, is not

particularly interesting to medical men personally. The medical evidence is necessarily meagre and unsatisfactory, for the medical witnesses have been required to give their evidence *in camerâ obscurâ*, a method which does not seem greatly conducive to the dignity of the profession, or to the satisfaction of the public. In adulterous cases, no doubt, there is abundance of abominable evidence which it would be well to keep under the veil, and which is not so kept; but why medical evidence respecting insanity should be given in a private closet it is impossible to surmise, unless it be true, as it has often been suggested, that this particular court, more than any other court, is jealous of medical opinion. It can scarcely have been needful to draw the veil even between the public and Dr. Matthews Duncan's evidence, simply because functional disturbances might have to be mentioned incidentally; but the reason why Dr. Blandford should have been required to bear his testimony also under the veil is still more obscure. Everyone who has followed the case with any care must have anticipated the result; yet the judgment of the President is scarcely deserving of the *Times*' panegyric that "it is a minute psychological study, based on the evidence." No doubt it is sensible, and fair and good law, but it evinces no great amount of psychological study, and it ignores some psychological questions which might have been of the greatest importance if common-sense inference had failed to supply, as might well have happened, a sufficient basis for a satisfactory conclusion. The form of Lady Durham's insanity, and her actual mental condition from a medical point of view, and the grounds of the strong opinions which have been expressed that it is absolutely incurable, all remain under the veil. If the medical men be right, no doubt lunacy founded on imbecility is incurable; but if Sir James Hannen be right, a simple case of post-connubial insanity cannot be pronounced incurable. The medical witnesses may have some cause of complaint that the President of the Divorce Court should have taken their evidence *in camerâ*, while he has so remorselessly torn it to pieces in public. He says there is nothing in the evidence to warrant the medical opinion that Lady Durham had been imbecile from childhood, and he declares his own opinion, founded upon the evidence, that, although she was a person of low intellectual powers, she was capable of receiving the ordinary education of young persons of her class. The medical men appear to have testified that, in their opinion, the insanity preceded marriage, existed at the time of marriage, and that the present mental state is but a development of it. The President came to the opposite conclusion, that the lady was of sound mind before marriage, and at the time of marriage, and for several months afterwards, until, during her visit to Cannes, the mental change from sanity to insanity took place—a change which it was impossible to doubt from the concurrent testimony of many witnesses—a change marked by perversion of the affections, and other symptoms of that state which the doctors recognised as insanity, a new condition, in fact, which had no influence upon the lady's mind at the time when she entered into the contract of marriage; and therefore he dismissed the petition for its dissolution.

PHYSIOLOGY AT OXFORD.

THE School of Medicine at Oxford has now, we may fairly hope, escaped from the last difficulty which a factious opposition has not scrupled to throw in the way of its establishment. During the past eighteen months, every artifice has been used by the party which so loudly claims to represent morality and humanity, to prejudice the minds of the authorities and of the graduates of the University of Oxford. We forbear to characterise the methods adopted by some of our opponents in the language which they deserve; and, while we regret that such men as Canon Liddon and Professor Freeman should have been carried away by the sophistries and misrepresentations of unscrupulous agitators, it is not, perhaps, altogether a matter for regret that the question should have been so thoroughly discussed and so unmistakably answered.

The facts of the case are sufficiently simple. In November 1882, Dr. Burdon Sanderson, at that time Jodrell Professor of Physiology in University College, London, accepted the appointment of Waynflete Professor in the University of Oxford. This appointment was universally recognised as a distinct indication that the University of Oxford had determined to establish a complete medical school in Oxford. Dr. Burdon Sanderson's motive, in resigning his exceedingly important and honourable appointment at University College for the arduous task of organising a new school, was the highly creditable desire to make this new school, in one of its most important departments, worthy of the great University. On June 5th, 1883, the Convocation of the University was asked to grant a sum of £10,000, to defray the cost of the erection of a physiological laboratory. This vote was carried by a small majority—3 in a house of 173. Subsequently, on February 5th, 1884, the question was again raised upon a point of detail; and, in an unusually large Convocation of 335, the vote to sell out the stock necessary to pay the £10,000 was carried by a majority of 41.

It might have been hoped that this second division, showing, in spite of all the efforts of the opposite party, the very decided opinion of the majority of Convocation, would have been sufficient to set the question at rest. The so-called antivivisectionist party, however, were not satisfied, but loudly contended that the vote was not representative. Accordingly, when notice was given that Convocation would be called upon, on March 10th, to vote the annual sum of £500 for three years, to defray the cost of heating, lighting, water-supply, wages, the salary of a Demonstrator of Histology, and other incidental expenses, a circular headed "Vivisection in Oxford," and signed by four heads of houses, by Mr. Ruskin, Mr. Freeman, five other professors, and a number of Fellows, was widely distributed, calling upon Convocation to forbid "the establishment of a centre o vivisection in Oxford." The publication of this circular led to the issue of a very remarkable counterblast, signed by a majority of the most prominent men connected with the University of Oxford, although the scientific professors, as a rule, abstained. The Dean of Christchurch and fourteen other heads of houses, the Regius Professor of Divinity, Professor Max Müller, and a number of the most distinguished teachers and Fellows were among the signatories. It is not necessary for us to insist upon the importance of such a testimony from such men, but we may be allowed to quote the words of the *Times*, which said that, "without disrespect to the anti-physiological party, we are bound to say that their list of names cannot for a moment compare with that of their opponents."

The meeting of Convocation on Tuesday last was very largely attended, and a little impatient. After listening to Canon Liddon and the Bishop of Oxford on the one side, and the Dean of Christ Church, Sir William Anson, and Sir Henry Acland on the other, it would tolerate no more eloquence from either party. The question was then put to the vote, and carried by a majority of 168 in a house of 656.

"It is hard to over-estimate," said the circular issued by the anti-physiological party, "the influence on popular opinion which is exerted by the attitude of an University such as ours."

We warmly congratulate Sir Henry Acland and Dr. Burdon Sanderson on the issue of the struggle in which they have been so long engaged, and so bitterly attacked; we may reasonably hope that the question may at length be considered as settled, and that the medical school at Oxford may now be able to develop regularly and quietly; and that the effort which will be made to organise a system of real medical study, and to prepare a new departure in the teaching of anatomy and physiology at Oxford next October, will be successful. Dr. Sanderson has a grand opportunity before him; he has sacrificed much in order to take up the noble work of organising a real school of medicine at Oxford. Success in such a work would be a worthy achievement for a life-time. There will be an universal feeling of confidence that the man who has now put his hand to the plough will not turn back, but will finally surmount every difficulty, to his own high honour, and to the great gain of the profession of medicine.

UNIVERSITY DEGREES FOR LONDON MEDICAL STUDENTS.

ANOTHER proof of the interest felt in the movement on foot to make it possible for the majority of students at the metropolitan medical schools to obtain university degrees, and of the growing belief that some practical means of achieving this end will be found, was afforded by the meeting of the Metropolitan Counties Branch of the British Medical Association, on March 6th. At the meeting, which was summoned to consider the report of the Council of the Branch (published in abstract in the BRITISH MEDICAL JOURNAL, February 21st, page 397), a large proportion of those present were men actually engaged in the work of teaching; the general tone of the meeting was practical and business-like, and the resolution proposed by the Council, empowering it to send a deputation to confer with the Senate of the University of London, was carried by a very large majority, after Dr. Sansom had failed to induce the meeting to omit from the report all reference to the University.

The course which has been adopted has been frequently recommended in the pages of this JOURNAL, as the only proper and dignified course to follow in this early stage of the question. Dr. Robert Barnes was loudly applauded when he argued that, as one of the chief ims of the founders of the University of London was the improvement of medical education, the great medical school in London was fully justified in demanding that the University should now once more move forward, and adapt itself to the needs of the day. When the University was founded, the teaching in the schools was very bad; money and interest were the only roads to preferment; the College of Surgeons was a little close borough, where friends and relatives elected each other; the College of Physicians was still a club for graduates of Oxford and Cambridge; and the Apothecaries' Society had as yet no ambitions. At the present day, the complexion of affairs is very different; medical teaching has greatly improved, and the status and knowledge of the general bulk of the profession are much higher than they were. In the earlier days, the University took up, rightly enough, a protestant attitude; but this is now out of date, and is apt to appear to practical men pedantic, if not even pharasaical.

Along with the improvement in medical teaching, we have witnessed also a great increase in the complexity of the science and art of medicine, and, especially during the last twenty years, an extraordinary extension of the biological sciences. Once upon a time, one professor lectured on anatomy and physiology, and another on natural history; now-a-days, we are told that no school can be complete that has not separate courses on anatomy, physiology, human embryology, practical physiology, histology, physiological chemistry, comparative anatomy with dissections, embryology, botany, and morphological botany with dissections; further, to be able to perform the experiments in practical physiology and physiological chemistry, the student must have attended systematic lectures and practical courses on chemistry, physics, electricity, heat, light, mechanics, and so on, until the curriculum of the unfortunate student begins to remind one of the famous song of the House that Jack Built, for the connection between the priest who was shaven and shorn and the malt that lay in the house, was not more remote than the connection between some of these sciences and the practice of the art of medicine, which, after all is said, is still the real object of a medical education. Doubtless, it is possible to show that every science depends more or less for its entire comprehension upon some other, or upon all other sciences. The medical student is not yet examined in astronomy; perhaps this solitary omission will be supplied some day. May not a physician be called upon to advise a patient as to the proper climate to choose, and is not "climatology" nearly related to meteorology, and the latter, in a more remote way, to phenomena of an astronomical kind? Is it not mere pedantry to pretend that a man must study the notochord of amphioxus before he can understand the construction of the human spine; or that he must have a practical acquaintance with the renal organ of the gasteropods before he can be trusted to treat a case of Bright's disease?

As Dr. Bristowe truly said in his excellent speech, which ought to be read by everyone, the use of these early examinations is far more to ascertain whether the student has been taught and can yet learn, than to test his knowledge. Comparative anatomy, it is true, is on the border-land between those fields of study which are merely of use as affording a mental training, and those which have the additional advantage of presenting the student with a considerable store of useful facts. Professor Ray Lankester's letter, published last week, is, to a certain extent, beside the point; if all students are to spend a year or more in the study of these so-called preliminary sciences, most people will be ready to admit that it will be better for them to work under competent teachers in well appointed laboratories. The real question is, Can the general run of medical students afford the time to gain a real knowledge even of the elements of these sciences as now taught? The answer given by Mr. Macnamara in his opening speech, and by Dr. Bristowe, was in the negative. If every student received a good school-education, and were able to afford to spend an extra year in unremunerative study; and if, finally, the schedule of sciences with which he is supposed to be acquainted were thoroughly revised and curtailed in many directions, the answer might be different. As each department of science becomes more and more specialised, as the number of subdivisions becomes more numerous, and the mass of facts greater, so, it is contended, greater latitude should be allowed to the student in his choice of the subjects in which he shall be examined. Dr. Bristowe, for instance, would like to see the subjects at the matriculation examination grouped, and the candidate allowed to take up any group he might prefer. We confess to feeling great doubts as to the practical working of such a system; experience seems to show

that it is very doubtful whether it would really lighten the burdens laid upon the shoulders of the unhappy boys who have to pass that examination.

All the available evidence points to but one conclusion: that it is not so much the severity of the examination, but the miserably insufficient preliminary education of would-be medical students, that leads to the large percentage of failures; and it is very questionable how far the system of grouping would remedy this. At the matriculation examination of the University of London, the number of candidates during 1884 was 1,794, and the number of those who passed was 993; that is to say, nearly 45 per cent. failed. If we take the total number of candidates and passes since the foundation of the University in 1838, we see that the number who failed has been nearly 44 per cent. These seem large numbers until we turn to the reports of the College of Preceptors, presented to the General Medical Council about a year ago; these reports show that 264 candidates were examined in September, 1883, and 230 in March, 1884; of these 494 candidates, 357, or over 72 per cent., failed! To make matters even worse, the report on the examination in March adds, that "the number who failed in four or more subjects shows that a large proportion of the candidates were wholly unprepared for the test of any serious examination." Nearly 20 per cent. failed in four or more subjects, and, at the examination in September, 12 per cent. "were reported for defective spelling."

With such facts as these on one hand, and the demands of enthusiasts like Professor Ray Lankester on the other, Mr. Macnamara and the Council of the Metropolitan Counties Branch have a hard task before them, and it is difficult to foresee the issue of the struggle which is just commencing; whatever it may be, however, the public spirit which has dictated their conduct will be, we believe, universally recognised, and the Council and its President will have the gratitude and, to a large extent, the hearty support, of the profession at large.

DEATH BY ELECTRICITY.

Modern science, in acquiring the power of separating and accumulating that mysterious fluid which, in the minds of our forefathers, was reverently thought to represent an attribute of divinity, has deprived it of some of its terrors to the superstitious mind. But, in doing so, it has introduced into our life a new source of danger, which might make the acquisition very undesirable indeed, unless proper precautions were taken to prevent the reproduction of accidents, such as those which have unfortunately been too often recorded during the past few years.

One of the inventors of the Leyden jar, Musschenbrock, from his first acquaintance with the electric shock, derived a most wholesome fear of its effects, as one can judge from his letter to Réaumur, where he says that he would not expose himself to the same shock again, not even for the kingdom of France; and yet the instrument which he had just invented, with his pupil Cuneus, was far from being very powerful. What the spirit of self-preservation then led him to say would have been more justified, if he had experimented with some of the accumulators now at our command. However, since that time, minds have become accustomed to the wonders of electricity; and it proved necessary that several persons should lose their life, in order that we should be awakened to the sense of our duty. This duty is the more necessary, as most of the victims of electricity are to be found among those who, from their position in life, derive least benefit from it, and are most ignorant of its properties; whilst it is evident that those who use this powerful agent to some purpose know, at the same time, enough of its dangers to be guarded against them. Such a state of things calls for some measure on the part of authorities, whose duty it is to ensure the security of the masses, which have trusted the care of their welfare to the knowledge of their superiors.

A consideration of the cases which are recorded, and have come under our notice, will, it is hoped, bear this out more powerfully than any argument. The first case occurred at Manchester. A young adult, at the end of a theatrical performance, out of curiosity, touched two conductors, evidently within easy reach. He fell senseless to the ground, and died within forty minutes. We have then to register the death of the sailor on board the Imperial Russian yacht *Livadia*. Then comes the most important case at Hatfield House. William Dimmock, a young gardener, in the performance of his duties, took hold of electrical conductors which were entirely unguarded, and met with an instantaneous death. More recently, a case happened in Paris, where a man attempted to get into a garden illuminated by electricity, by climbing over the railings. In doing so, he took hold of some electrical conductor, and was killed on the spot. The accident at the Health Exhibition is described to-day in our columns. And, within the last few days, a new fatal case has come to swell this list, already too long. We refer to the tragedy which occurred at the works of M. Chertemps, in Paris, where a man, Paul Thiebault, is said to have deliberately taken hold of the electric conductors, and obtained thus an instantaneous death. It will be seen that all these cases have occurred within the last five years, and it is probable that there have been other cases which have not come within our knowledge. Considering the comparatively small number of powerful electric engines now in use, such a number of fatal accidents is certainly worthy of attention.

The Health Exhibition case, as it may be conveniently termed, resembled some recorded cases of death from lightning in the most distinct of the external evidences of injury; for on the outer aspect of the left index-finger was a small elongated blister, about half an inch in length, which had the appearance of a burn, but there was no congestion of the skin around it, nor any smell of charred epidermis. Drs. Sheild and Delépine describe, with great care and minuteness, the appearance of the structures around and included in this blister, It must ever be borne in mind that, whilst almost every student has examined sections of sarcomata and carcinomata, the pathology and histology of blisters, burns, and scalds, have been neglected by many leading pathologists. Hence, what is common to all blisters might, in such a case, be taken as pathognomonic of electrical vesication. In this instance, however, the authors of the paper imply that they found distinctions, which want of space prevented them from describing; and they promise further and elaborate discussion of the subject. There is no doubt that Drs. Sheild and Delépine have succeeded in discovering very definite changes in the skin involved in the blister. The cells and their nuclei in all the layers of the epidermis were found to have undergone great modifications from their normal type. Even the tough stratum corneum, the most superficial part of the cuticle, exhibited signs of change. Its dry horny cells were seen, in the middle of the blister, to be condensed and fused together, forming a homogeneous waxy mass. The next layer, or stratum lucidum, was

conspicuous at the margin of the blister, and still more distinct within the limits of the blister, excepting in the actually central portion, where it could not be distinctly recognised from the stratum corneum. The next layer of the epidermis, which consists of flattened scales with granules, of a nature intermediate between protoplasm and keratin, around their nuclei, and is termed the stratum granulosum, was found to be much altered and fused with the rete Malpighii, or stratum mucosum, towards the centre of the blister. In the rete itself, the changes were marked, and are described with minuteness. There were distinct morbid appearances in and around the nuclei, and a remarkable fibrillation of protoplasm. In the cutis vera, or corium, the papillæ were abnormally flattened, and a complete fusion of the delicate fibres, abundant in the true skin, had taken place in the middle of the blister, producing a homogeneous appearance. The epithelioid cells of the capillaries had contracted, so that there were a number of openings or fissures between the individual cells, which, it must be remembered, form the only true wall of these minute vessels. Some of the cells in the coiled part of the sweat-glands exhibited considerable deviation from their natural appearance. The changes in the nerves were not considered, according to Drs. Sheild and Delépine, to be either very distinct or highly characteristic. They dwell, on the other hand, upon the abnormal clearness and distinctness of the tactile (or Meissner's) corpuscles. These bodies are, we believe, tolerably familiar to all who have studied physiological manuals; they are found in the papillæ of the corium covering the palmar aspect of the fingers and the plantar aspect of the toes, each being always connected with at least one nerve-fibre, which winds round and ultimately fuses with it. The morbid distinctness of the corpuscles may be due to some severe but unknown injury to their substance, produced by the electric current, an injury which, at the very moment of its infliction, may transmit a profound or even deadly impression to the great centres along the nerves in connection with the corpuscles.

The medico-legal aspect of the question has already often been referred to in our columns, and we are glad to-day to put our readers in possession of some facts which may prove of use, should any obscure case necessitate judicial inquiry. A more complete contribution being promised, we shall only for the present point out to our readers the importance of these facts as antecedents. The suggestions which have already often been made by us, and some of our contemporaries, touching the advisibility of replacing the actual mode of applying capital punishment by death through electricity, are supported by the evident efficacy with which death has followed the action of the fluid in all the cases in question, except the first, where the power used was comparatively small. The case of suicide which has just happened in Paris certainly strongly supports the view; and the horrible spectacle which quite lately was witnessed at Exeter, with the remembrance of similar scenes, such as those which occurred at Wandsworth and at Galway, are sufficient reasons why some departure should be made from the received methods. But before anything else, we advocate some efficacious measure, which would prevent the use of powerful electrical engines, unless all the parts which might prove dangerous to the unwary were properly and adequately guarded. Lastly, turning to another medico-legal aspect of the case, it is, unfortunately, only too possible that electricity, when made still more portable and manageable than it is at present, could be used for criminal purposes, so that men may, at no distant period, go about with as much fear of being electrified to death by malefactors, as crews of men-of-war already dread torpedo-boats. For the checking, by detection, of such criminal perversion of the resources of science and civilisation, Drs. Sheild and Delépine have done their best in describing the physical effects of electricity on the microscopical elements of the tissues in a case where death from electricity was indisputable.

MEASLES AT SUNDERLAND.

SUNDERLAND is being visited by a severe epidemic of measles, the inhabitants of the colliery neighbourhoods of Bishopwearmouth and Monkwearmouth being among the greatest sufferers. Schools are blamed for a large share in spreading the infection; and, in presence of the epidemic, the health-officer is regretting the absence of the compulsory notification of infectious disease, though it is difficult to see what particular sanitary advantage this would give him.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

THE first meeting of this Society was held at 11, Chandos Street, on Wednesday, the 11th instant, at 8.30 P.M., when there was a large attendance, there being more than eighty present, including ten visitors, some of whom joined the Society at the close of the meeting. The President (Dr. Alfred Meadows), after the ordinary business, delivered an inaugural address (which will shortly be published), in the course of which he announced that 266 names had been enrolled as Foundation Fellows of the Society. At the end of the meeting, the number was increased to 272. The first number of the *British Journal of Gynæcology*, published by Smith, Elder, and Co., will be issued by the Society on April 10th.

HOW TO SUPPRESS EPIDEMICS OF MEASLES.

IF the action of the Widnes Local Board be correctly reported in the daily papers, we seem to be drifting back into the pre-hygienic days of quarantine; for it is gravely announced that a severe epidemic of measles being now existent at Widnes, the Local Board of that place last Tuesday instructed its clerk "to write to such manufacturers in Widnes as employed the seven hundred workmen who live in Runcorn and work in Widnes, taking weekly contract tickets across Runcorn Bridge, to compel their men to live in Widnes or cease employing them, so as to prevent the further spread of the disease." How charmingly simple and socialistic, but, alas! how utterly unworkable and useless is this measure of "prevention."

"DENGUE FEVER" IN NEW CALEDONIA.

ACCOUNTS reach us of a serious outbreak, a month or so ago, of "dengue," "dandy," or "polka" fever, in Noumea, the chief town of the French convict settlement of New Caledonia. It is stated that, at one time, there were upwards of nine hundred cases of "dengue" existing in the neighbourhood. The disease was no respecter of persons, for thirty-six officials were simultaneously among the sufferers. Even the British Consul did not escape, and, on his recovery, he had partially lost both sight and memory. Strange to say, not a single death occurred. During the epidemic, the captain of a vessel loading off the port, had the whole of his crew, consisting of ten hands, invalided; and, in consequence of the extent to which the disease prevailed, men to replace them could only be found with some difficulty.

THE ILLNESS OF GENERAL GRANT.

WHILST all who read the newspapers in any country must have learnt, with regret, that the gallant general who saved his country from disunion, and guided its destinies for so many years, is suffering from a painful and deadly malady, it is very advisable that capital

should not be made by a certain party out of the alleged cause of his illness. It has been distinctly reported in several journals that General Grant is suffering from cancer of the tongue caused by smoking. A little knowledge of pathology is sufficient to demonstrate that smoking cannot cause cancer, although the irritation of a pipe sometimes sets up ulceration of the lip, which, when of very long standing, may become cancerous, provided that the patient has a hereditary tendency to cancer. There is no evidence whatever that cigar-smoking causes cancer of the tongue. Mr. Butlin, the author of some of the most recent observations and statistics on cancer of the tongue, has shown that the proportion of men to women suffering from that disease is nearly six to one, but that it occurs in men who neither drink nor smoke, whilst it is as rare among women of the most masculine habits as amongst other females. Even the irritation of a broken or decaying tooth can only be an occasional exciting cause, since this condition is as common amongst women as amongst men, whilst cancer of the tongue is, fortunately, rare, out of all proportion to cases of decayed teeth. There can be no doubt that a man with a tooth irritating his tongue ought to have it removed. It is equally certain that no smoker who has a sore on his tongue ought to persist in the use of tobacco until that sore is cured. But the risk of cancer through smoking is so infinitesimal, as to be perfectly useless as an argument for the antitobacconists.

THE GOVERNMENT OF LONDON.

Sir William Harcourt, with something of his old skill as a special pleader, is losing no opportunity of discrediting in the House of Commons the present municipal government of the metropolis. We have already been told on authority that, despite the pleadings of Mr. Firth's Reform League, the Cabinet have abandoned all hope of passing their London Government Bill this session. Probably, therefore, it will not even be introduced, but be handed over to the new Parliament, along with a number of other matters, such as the land laws and private bill legislation, that have already been conveniently hung up in the same way. But the Home Secretary is careful to let it be known that he is still of the same mind about the deplorable mismanagement of metropolitan affairs; and herein he is wise. For, especially in an overgrown invertebrate organisation like London, no reform has the least chance of acceptance that is not persistently dinned into people's ears as the only remedy for a state of things admittedly wasteful and scandalous, but because everybody's business is nobody's. Sir William Harcourt even went so far, in a discussion last week on the Thames Crossings Bill, as to express his view that the Metropolitan Board of Works did not command the confidence of London, though he ostentatiously washed his hands of any responsibility in the matter. Now, this is surely carrying the principle of anti-centralisation too far. Does Sir William mean that he will sit still and offer no help in getting things done right, because his municipality is not yet in working order? The moral of his recent lectures on the subject apparently is that, until Parliament can find time to pass his Bill, Londoners must struggle on as best they can, and that he is only prepared to end, not to mend, the existing local government of the metropolis. This is hardly encouraging; and we venture to think that, even at the expense of a little consistency, the Home Secretary might lend a helping hand to London in its present administrative difficulties, instead of offering to it counsels of perfection that, from no fault of its own, it is unable to embrace.

THE PRINCE OF WALES AND THE HOUSING OF THE POOR.

An absurd rumour has somehow obtained credence, that the visit of the Prince of Wales to Ireland is connected with his duties as a Royal Commissioner to inquire into the Housing of the Poor. The story probably does not need contradiction, being, on the face of it, fanciful and ridiculous. But, in denying it, we may take the opportunity of bearing testimony to the really remarkable perseverance and devotion with which the Prince has applied himself to the by no means easy or entertaining work of the Commission. Every Tuesday and Friday the Commission sits, and regularly, on each day of its sitting, His Royal Highness attends at Richmond Terrace to assist in its deliberations. Now, to those who know how "slow," in society parlance, the proceedings of a Royal Commission are, this sacrifice of time on the part of the Prince argues a very sincere and genuine sympathy with the question. No subject, indeed, could well be more important than the social life and surroundings of the working classes of a community, though it is only lately that the public conscience has been pricked by a remembrance of its sins of omission in this respect. The intimate and personal interest in this grave national question which the Heir Apparent has publicly manifested, is of the happiest augury to the welfare of Her Majesty's poorer subjects. In things great as well as small, society takes its cue from the doings of royalty; and the example set by the Prince of Wales cannot fail to bring home to the great landowners that property has its obligations as well as its privileges, and that the better housing of the poor is not only a national, but a personal duty.

UNIVERSITY REPRESENTATION IN PARLIAMENT.

The House of Commons spent a not altogether unprofitable evening on March 6th in discussing a resolution proposed by Mr. Bryce (himself the Professor of Civil Law at Oxford), which would deprive our Universities of any share in the parliamentary representation of the country. The arguments used by the Member for the Tower Hamlets, and those who supported him, were of the familiar description: that the university members do not represent the views of those who constitute the real university—namely, the resident graduates, but merely the politics of a heterogeneous mass of former collegians, scattered up and down the country. The fact that so many distinguished *alumni* of universities should publicly express their anxiety to deprive their *alma mater* of articulate voice in the counsels of the nation, is one that must be reckoned with and accepted as a sign of the times. Our own interest in the matter is, of course, mainly the securing to the faculty of medicine of the share of direct representation to which it is manifestly entitled, and of which it has too long been deprived. The Association of Members of the Royal College of Surgeons have endeavoured to prevail upon the Prime Minister to give two representatives in Parliament to the registered medical practitioners of Great Britain and Ireland, for the reasons set forth on p. 879 of our last volume. Probably the Association hardly expected to have its wishes realised quite in the way suggested; but it, at least, did not anticipate that so cruel a blow would be aimed at the small remnant of the representation of science and culture which will be left to us under the provisions of the Redistribution Bill. We are far from saying that the present method of parliamentary representation of universities is ideally perfect; but the case is evidently one for reformation, not annihilation. As Sir Stafford Northcote pointed out, we are enormously increasing the power of the numerical majority, the representation of mere numbers, and there ought to be some kind of counterbalance. Through the universities a representation is given to education and learning, which otherwise would not be provided for, and we feel therefore bound, in the interests of the medical graduates, to protest against the deprivation of their parliamentary rights, with which Sir Charles Dilke threatens them in the next Reform Bill.

ST. JOHN AMBULANCE ASSOCIATION.

A conference of the examining staff of the Association was held last week at St. John's Gate—Dr. Sieveking, Physician-Extraordinary to the Queen, in the chair—for the further consideration of a recent report on the method of conducting examinations. Letters having been read from many of the provincial examiners, the chairman, in the course of some opening remarks, referred to the liberal support given by the medical profession to the movement, and its continued

extension both at home and in India and the colonies; and a lengthy discussion followed, among the speakers being Drs. J. C. Street, J. P. Wilton, and Crespin; Mr. F. B. Baker (Grenadier Guards); Mr. S. Benton; Fleet-Surgeon H. C. Woods, R.N.; Drs. Roberts Law, Collingridge, and H. Percy Potter; and Deputy Inspector-General M. Coates, R.N. Mr. John Furley, Deputy-Chairman, and Honorary Director of Stores, having given an account of the development of the Transport Department for the removal of invalids, some of whom have been brought a great distance, the proceedings closed with the usual vote of thanks to the chairman.

THE FIRST DISCOVERY OF THE COMMA-BACILLUS.

At the meeting of the Royal Microscopical Society, held at King's College, on Wednesday evening, Mr. Francis Fowke read an interesting paper on "The First Discovery of the Comma-Bacillus;" in which, while disavowing any idea of impugning the originality and independence of Dr. Koch's researches, he claimed for Dr. Brittan and Dr. Swayne the honour of having observed and described, thirty-six years ago, the identical organism with which the name of the great German investigator is now connected. He said that, having taken an interest, as a microscopist, in the recent researches into the meaning and significance of the bacillus of cholera, he had referred to the medical literature of the time of the last visitation of the disease in this country, and had found, in the pages of the *Provincial Medical and Surgical Journal* of 1849, most interesting evidence of the discovery of the comma-bacillus by the two English medical men above named. Mr. Fowke read numerous quotations in support of his claim from the medical press of the time, and exhibited drawings, reproduced by photography from prints in the *Provincial Medical and Surgical Journal*, showing the cells and bacilli found by Dr. Brittan and Dr. Swayne in the vomit and dejecta of cholera-patients, which presented an unquestionable similarity to the now well known appearances of the comma-bacilli of Koch. A short discussion followed the reading of the paper, which will, we understand, be published in the *Journal* of the Society.

GALLANT CONDUCT OF A LADY SUPERINTENDENT.

The nursing department of the Philadelphia Hospital is, at the present time, under the charge of Miss Alice Fisher, who left this country not long ago, accompanied by Miss Edith Horner, in order to take up the appointment. We understand that, during the disastrous fire which recently occurred in the lunatic wing of that hospital, where nearly fifty inmates lost their lives, Miss Fisher behaved with singular coolness and courage. It is stated that, while the confusion was at its worst, Miss Fisher "did wonderful work in preparing the women patients of the insane department for the inevitable abandonment of their quarters." She laid her plans with perfect coolness, her assistants were told off to definite posts, and the patients were gathered in groups. It is further added: "No undue haste was observable, and there was comparatively little confusion. The wretched women were told to take what they could with them, and blankets were even served out to all." At one time, the lives of over 700 lunatics were in imminent danger. Miss Alice Fisher is well known to many members of the profession in this country, from having held the appointments of Lady Superintendent at Addenbrooke's Hospital, Cambridge, the Radcliffe Infirmary, Oxford, and the General Hospital, Birmingham. At each of these institutions, Miss Fisher was able to effect most beneficial changes in the nursing arrangements, and at the same time to secure the hearty co-operation of the medical staff.

DEATH OF PROFESSOR ELLSBERG.

By the untimely death of Professor Ellsberg, of New York, laryngology in America has sustained a severe loss. Professor Ellsberg, who was born in Germany in 1837, was, we believe, the first to introduce the laryngoscope into medical practice in America. His numerous contributions to literature have been distinguished by clearness, thoroughness, and a rare knowledge of the literature of his subject. He was the first President of the American Laryngological Association, and the chief editor of the *Archives of Laryngology*. He had been in failing health for many years, and succumbed to an attack of pneumonia on February 19th. His death will be a source of sincere regret, not only to the profession in America, but to his numerous European friends, for both classes had learned to respect his upright character, his vast knowledge, and enthusiastic devotion to the study which he had chosen.

ANNIVERSARY DINNER OF THE MEDICAL SOCIETY.

The one hundred and twelfth anniversary of the Medical Society of London was celebrated on Saturday last, when the Fellows, and a number of invited guests, dined together in the Venetian Room of the Holborn Restaurant. After dinner, the usual loyal and patriotic toasts were given. "The Army, Navy, and Reserve Forces" was received with cheers, redoubled when Mr. Durham went on to refer to the generous conduct of the English colonies, conduct which had shown that there was a reserve force beyond the British seas. The sympathies of the Fellows of the Medical Society were, he said, extended especially to their brethren in the medical services of the army and navy; and he added that two of the officers whose conduct had been especially commended, Surgeon-Major Conolly and Surgeon Keogh, had been dressers in his own wards at Guy's Hospital. Dr. Crawford, Director-General Medical Staff, who responded to the toast, was very warmly received. He described the present campaign as one of the most arduous, owing to the nature of the climate and the severity of the physical exertion and endurance, which the British soldier had ever been called upon to make. The officers of the Medical Staff, as the Army Medical Department is now called, had had, he said, very heavy work to do, and unusual difficulties to contend with, owing to the remoteness of the scene of action, the various detached expeditions, and the unaccustomed nature of many of the operations. All difficulties had, however, been successfully overcome. The Medical Service, when accusations, since abundantly proved to be unfounded, were brought against it, had been encouraged by the ready sympathy and generous indignation of the profession at large, and it was therefore gratifying to him to be able publicly to announce in such an assembly that, during the present expedition, the officers of the Medical Staff had been praised on all hands for the self-devoting and unsparing energy with which they discharged their trying duties. The toast of the Medical Society of London was given by Mr. Durham, the retiring president, and responded to by Dr. W. M. Ord, the president-elect. The toast of the Royal Colleges of Physicians and Surgeons was proposed by Sir Joseph Fayrer, who said that he was a warm advocate of the scheme for affording London students greater facilities for obtaining degrees. It was responded to by Mr. Cooper Forster, the President of the latter College. He referred to the arrangement between the two colleges, which had resulted in the establishment of a conjoint examination, and added that, since he had sat upon the Council of the Royal College of Surgeons, he had changed his opinion with regard to the management of that body, and now believed that no alterations could result in an increase in its usefulness, or an improvement of its methods. The health of Mr. Durham was drunk with great enthusiasm, and, after returning thanks, the retiring president discharged his last duty by proposing the health of the officers and honorary secretaries of the Society. This was acknowledged by Dr. Allchin, Honorary Librarian; Mr. A. Pearce Gould, the retiring Honorary Secretary; Dr. Kingston Fowler, and the Registrar, Mr. Poole.

OVERPRESSURE AND HIGHER EDUCATION.

The subject of overpressure dies hardly. Mr. Stanley Leighton once more brought up Dr. Crichton Browne's report into the arena of par-

liamentary questionings last Friday, and was told by Mr. Mundella that no steps were proposed to be taken by the Education Department itself with reference to that report, "inasmuch as, long before anything was heard of it, provisions were introduced into the Code which, by general testimony, have done all that the central government can do to prevent overpressure." The real difficulty at the bottom of this matter—a difficulty which departments and teachers seem never able to solve—is that of the "personal equation." What is undoubtedly overpressure in one child, under one set of circumstances, is by no means so in the case of another child in a different set of circumstances; yet the same Procrustean rule is applied to both. Overpressure, being interpreted, would very often signify underfeeding. The ratepayers of the metropolis, smarting under the increasing education-rate, are beginning to doubt whether the curriculum of the School Board is not a little too advanced for the great body of children entrusted to their care; though no enlightened citizen would grudge the expense necessary for facilitating the higher education of everyone, however poor, who has the industry and the mental capacity to pursue it. And how far behind other nations we are in the opportunities of this higher education, is strikingly shown in some very interesting figures which Sir Lyon Playfair last week quoted in the House of Commons in protesting against the banishment of the representatives of universities from the House of Commons. Sir Lyon pointed out that foreign countries, during the last ten years, had made enormous strides in promoting university education. The competition of nations now, both in war and peace, was not a competition either of brute force or of local advantages, but was a competition of intellect; and foreign nations recognised this in a remarkable way. Jules Simon had stated that "the best educated nation will be the greatest nation, if not to-day, certainly to-morrow." Before the great revolution, France had twenty-two universities, which spread intellectual life throughout all the provinces. Napoleon destroyed these universities, and centralised them into one single university in Paris. Just before the war with Germany, university education in France had fallen so low that the subventions amounted to less than £10,000. Immediately after the war, the French Institute for a whole fortnight discussed the question why it was that France had shown an intellectual paralysis in the war. Why had not any great men come forward in the hour of danger? The answer was, that higher education had been crushed out. France had recognised the position, and had recently spent £3,280,000 in rebuilding her colleges throughout the provinces. The subvention for university education alone was now £500,000 *per annum*. When Germany took Strasburg, the first thing she did was to rebuild the university of that small town, at an expense of £711,000; and she now gave it £46,000 a year for university education. Germany had twenty-four universities, and spent annually £400,000 for university education, besides £200,000 more to provide the institutions with the modern appliances of science. The Netherlands, with a population about the same as Scotland, and with a revenue of only nine millions, had four universities, and gave £136,000 a year for university education. Either (said the honourable member) foreign nations were extravagantly absurd, or we were excessively weak in the attention given to higher education. No one who knows the facts needs to be told which of these two alternative propositions is the correct one.

ROYAL COLLEGE OF SURGEONS.

Professor William A. Brailey will commence his course of three lectures on some points in the Anatomy and Physiology of the Eye, in the Theatre of the College, on Monday next, the 16th instant, at 4 o'clock. The following is his syllabus. Lecture I. Variations in the size and shape of the eyeball; relation of these points to age, to size and position of the lens, and to thickness and shape of the ciliary body. Thickness and strength of the sclerotic in different parts; their relation to age and to yieldings of the tunics of the eye, general or local. Development of the so-called myopic crescent and posterior staphyloma in myopia.—Lecture II. On the lamina cribrosa; its power of resistance to pressure; variations in its curve or position. The capsule of Tenon. Relation of extreme peripheral part of anterior chamber of the aqueous humour (iris angle) to the sclero-corneal junction, as indicated externally. Position of the macula lutea in relation to the optic disc and insertion of the obliquus inferior; its relation to the optical axis of the eye. Size and shape of the ciliary body and muscle; their variation with age.—Lecture III. Source and course of the intraocular fluids; relation of their increase or diminution to position of lens, ciliary folds, and iris-base. Optic neuritis and papillitis secondary to inflammations of distant parts; their cause and mode of propagation.

THE NORTH-WESTERN PROVINCES AND OUDH BRANCH.

The report of the third annual meeting of the North-West Provinces and Oudh Branch of the British Medical Association gave an encouraging account of the progress of the Branch. When first formally recognised on October 18th, 1882, it consisted of 32 members; in December, 1883, the numbers had risen to 57, and in December, 1884, to 115. The financial position was satisfactory, as a balance remained after defraying the cost of the monthly journal of the Branch and all other expenses. Surgeon-Major Boileau, to whose energy as Vice-President and Honorary Treasurer the success of the Branch has been largely due, has become the President of the Branch.

INNERVATION OF THE LARYNX.

Professor Sigmund Exner, in his work, *Die Innervation des Kehlkopfes* (Vienna, 1884), announces the discovery of a third laryngeal nerve—*nervus laryngeus medius*. This nerve is derived from the pharyngeal and laryngeal plexus formed by the pharyngeal branch of the vagus with other nerves, and enters the crico-thyroid muscle, which is also supplied by the external branch of the superior laryngeal nerve. The interarytænoid muscle is supplied by both upper and both lower laryngeal nerves, and, generally, each muscle is innervated by several nerves. The above conclusions are deduced from three lines of research: 1, irritation of nerves in living animals; 2, degenerations of nerves after section in living animals; 3, examination of the larynx in children (*post mortem*).

THE FAMILIAR USE OF DRUGS.

Self-treatment by means of drugs is not a new practice. No one will deny that it may in some cases be a reasonable and advantageous one; but, at the same time, any such recourse to medicine must be of very limited application, and must be guided by due caution. The external use of turpentine or mustard, and the few time-honoured remedies of nursery-physic, may usually be committed to the discretion of ordinarily sensible people; but the case is different when narcotics, or, indeed, most officinal preparations, whether "patented" or not, are in question. On February 20th, an inquest was held in Islington respecting the sudden death of a young man after having taken, in this irregular way, a dose of opium-powder to cause sleep. He had been of intemperate habits, had been accustomed to take bromides on account of the resulting sleeplessness, and had latterly taken to opium-smoking, in the vain endeavour to suppress his ever present source of discomfort. On the present occasion, he recklessly drank off a quantity of water containing powdered opium, and died a few hours later. This case is an extreme, but not an isolated one. Less marked examples of the same sort are common. Thus, one frequently meets with persons who treat themselves with combinations of opium, or with the drug itself, and others not less injurious, for some cough, neuralgia, or the mere liking for narcotic quietude. Self-treatment has even found its unwilling martyrs among the members of our own profession—a fact which, more than any other, ought to teach us that the use of powerful drugs to cure any disorder, and chiefly one so obscure as insomnia, requires at least the previous diagnosis of disease,

and of its bearings, in each case, by a fully qualified and impartial judge, such as no one is in his own affairs.

SCOTLAND.

UNIVERSITY OF ABERDEEN: HONORARY DEGREES.

At its meeting on Saturday last, the Senatus of the University of Aberdeen resolved to confer the degree of LL.D. on the following medical gentlemen: Dr. Robert Lawson, Inspector-General of Hospitals; Dr. Francis Ogston, Emeritus Professor of Medical Jurisprudence in the University of Aberdeen; and Dr. Wm. Walker, Surgeon-General of the North-West Provinces, Oudh, India.

PROFESSOR OGSTON AND THE SOUDAN.

At a meeting of the Senatus Academicus of Aberdeen University, held last week, a letter from Professor Ogston was read, in which he explained the circumstances under which he had left his class before the close of the winter session, and gone to the seat of war in the Soudan. The Senatus agreed to the appointment of Dr. J. Mackenzie Davidson for the purposing of lecturing and conducting the ordinary duties of the class of surgery for the remainder of the present session. The Senatus also requested the medical faculty to recommend a suitable substitute to conduct the examination in surgery for degrees in medicine.

ABERDEEN ROYAL INFIRMARY.

At a quarterly meeting of the managers of Aberdeen Royal Infirmary, held last week, it was stated that Her Majesty the Queen had contributed in all £800 to the institution; and, at the meeting, Her Majesty's Commissioner at Balmoral, Dr. Profeit, was appointed one of the managers, in virtue of the Queen's annual subscription of £25. At the same meeting, the resolution which had been passed at a previous meeting, with regard to a special charge for domestic servants and private servants, was rescinded. A report submitted by the treasurer showed that the expenditure had exceeded the income by £232, which, with the sum written off for deterioration of property, was increased to £415. It was also stated that the expenditure for the year for the Convalescent Hospital exceeded the income by £369. It is proposed to extend the infirmary to the extent of accommodation for 200 beds. The probable cost is estimated at about £15,000.

EDINBURGH SICK CHILDREN'S HOSPITAL AND INFECTIOUS DISEASES.

Following closely on the action taken by the managers of the Edinburgh Royal Infirmary, the managers of the Royal Hospital for Sick Children, Edinburgh, have also decided that, on and after July 1st, 1885, they will cease to receive cases of infectious disease for treatment in the wards of the Sick Children's Hospital. The ground taken up by the report of the Committee appointed to inquire into the question is similar to that which recommended itself to the committee of contributors to the Infirmary, only in the case of the Sick Children's Hospital it was shown that the expense connected with the fever-wards was much greater than that of the general wards. It was also brought out that the annual revenue had always been insufficient to meet the annual expenditure; thus, for 1880, the deficiency was £1,247; for 1881, £1,447; 1882, £869; 1883, £801; and 1884, £317; and it had been necessary, in making good these deficiencies, to appropriate legacies, which would otherwise have been capitalised, and employed, as occasion required, in carrying out the improvements of a permanent character which had constantly been found necessary in the hospital. The expense of caring for infectious cases had hitherto relieved ratepayers to a very considerable extent; and it was shown that many ratepayers have contributed nothing to the funds of the institution. At a meeting held recently, it was resolved to intimate to the local authority the decision at which the managers had arrived that, on and after July 1st, no patients labouring under any infectious disease will be received into the hospital.

IRELAND.

KERRY LUNATIC ASYLUM.

At a recent meeting of the governors, Dr. Woods, referring to the proposal to transfer to the workhouses of the various unions to which they belonged harmless patients, said he should not be justified in recommending any for removal, as they would demand their discharges when they got to the workhouses, and could not be refused.

PHARMACEUTICAL SOCIETY OF IRELAND.

With a view of forming a School of Pharmacy in connection with this Society, its President, Mr. J. E. Brunker, has issued a circular stating that, as the Council of the Society has no funds available for such a purpose, it has been suggested to carry it into effect by the formation of a limited liability company. It is proposed that the company should have a capital of £1,000, in two hundred £5 shares, and a committee has been appointed to bring the matter under the notice of the pharmacists and apothecaries of Ireland, with a view to enlisting their sympathy with, and support of, the project. There is no doubt that such a school, in which evening instruction would be given at moderate charges in practical chemistry and materia medica, would supply a want much felt; and it is thought that its prestige, as being intimately connected with the Society, would induce a considerable number of students to resort to it.

CORK FEVER HOSPITAL.

A deputation waited on the Cork Corporation last week from this institution, in support of an application for a grant of £750 for the half-year, being £50 less than the sum allowed six months previously. It appeared that the matter had been before the Finance Committee that morning, and they recommended the payment of £700 for this half-year, and suggested that in future the sum be reduced at the half-yearly rate of £50. It was pointed out, by a member of the Town Council, that patients attacked with fever had been admitted to the Cork Fever Hospital who should have been sent into the Union Fever Hospital. The cost of maintenance in the workhouse being considerably lower, it was thought unfair to the ratepayers to oblige them to pay the extra cost. On the other hand, it was shown that the Fever Hospital had done good service, and it was mentioned that, within the past few months, a bad case of confluent small-pox had been admitted, which, if not taken in, might have been very disastrous. The last small-pox epidemic had cost about £5,000, and this showed the importance of maintaining the institution. It was proposed to grant a sum of £700, which was ultimately done, two amendments suggesting £350 and £600 respectively having been lost. The hospital gained the grant of £700 by a majority of one vote.

WHITTLE-HUTCHINSON FUND.

On March 5th, at an ordinary meeting of the Liverpool Medical Institution, the President (Dr. Gee) presented Drs. Whittle and Hutchinson with a cheque for a little over £169, the outcome of the fund started in November last to express the sympathy of the profession with these gentlemen in their vexatious action at law in the case of Goode *v.* Whittle and others. Dr. Ewing Whittle, Dr. Glynn Whittle, and Dr. Hutchinson returned thanks, expressing themselves as deeply grateful for the sympathy evinced by the profession, and for the token of that sympathy which they had just received.

Below are the names of subscribers whose subscriptions have not yet been publicly acknowledged.

"A Friend," £10.

Dr. Grimsdale and Dr. Waters (Chester), £3 3s. each.

Dr. Bell-Taylor (Nottingham), Dr. Rogers (Rainhill), and Dr. Waters (Liverpool), £2 2s. each.

Drs. Harvey, Fay, Grimes, Howie, Clarke, J. Bligh, Armstrong, W. Williams, Cullingworth (Manchester), T. R. Pennington, W. H. Hughes (Ashton-under-Lyne), Fawcet (Oldham), Dale, T. W. Pearce (Manchester), D. U. MacLennan (Widnes), Warburton, J. L. Molyneux (Upholland), Latham, J. Matthews (Waterloo), Carruthers (Runcorn), Atkinson (Crewe), and Messrs. Manifold, Glazebrook, McCheane (Stone), £1 1s. each.

Drs. Lupton, T. Starkey (Warrington), Hyla Greves, E. T. Davies, John E. Allen (Todmorden), Messrs. T. D. Leigh, C. G. Lee, T. H. Bickerton, 10s. 6d. each.

Dr. Berry (Wigan), 10s.

Dr. Crutchley (Alsager), and Mr. T. W. Dartnell, 5s. each.

MEDICAL NOTES FROM THE NILE EXPEDITIONARY FORCE.

[FROM OUR OWN CORRESPONDENT.]

Suakin.

THE Royal Victoria Hospital, Suez, which has, during the past year, been under the Admiralty, and used as a Royal Marine hospital for the battalion of that corps stationed at Suakin and Suez, is now to be handed over to the War Office for a military hospital. This building was erected in 1867 by the Indian Government when the overland route was in existence, and prior to the opening of the Suez Canal. Many an Indian invalid, in those days, sought its friendly portal, and recruited his strength for the journey to Alexandria for home. The hospital, which contains accommodation for three hundred patients, is built of wood, on iron supports. Owing to neighbouring marshes and defective surface-drainage, intermittent fever is prevalent, especially in the summer season. The cases received from Suakin during the past summer were chiefly "typhoid" and "remittent" fevers, and, notwithstanding the acute character of these diseases, the death-rate was very small; in some cases, the poor fellows looked like skeletons, with the skin drawn taut over the bones. The climate is now very healthy, and there is no typhoid or remittent at present in hospital. During this summer, as in last, the establishment will be filled with the latter cases, as the occupation of this unsanitary town (Suakin) is a necessity. The hospital, up to this period, has been administered by naval surgeons attached to the Marine Battalion, who now accompany this corps to Suakin for the front. Staff-Surgeon Fleetwood Buckle, R.N., and Surgeons N. C. Ross and Charles W. Hamilton are the medical strength.

The authorities will commit no graver mistake than advancing at once to Berber and Khartoum, as the season is already growing hotter. It will be well if, putting aside the just and eager demand for vengeance for Gordon's sad end, the expedition will not start until the autumn; as, if it do, the climate, with paucity of water and shade, will, in the shape of sunstroke, cause many a poor fellow to lose the number of his mess. Of course, Osman Digna, outside Suakin, must be met and defeated as soon as possible—then the railway commenced.

Suakin is a low-lying town, built on coral-reefs, on the edge of the Red Sea; and, owing to the unsanitary habits of the natives, is thoroughly impregnated with sewage; there is thus, from the heat of the sun and in the rainy season, always a miasma, which causes typhoid and remittent.

The helmets worn by the corps are not suitable for this proposed expedition, as the temples are left exposed; there is a hat, at present worn by the Royal Engineers at Suakin, which, though not so smart-looking as the white helmet, is the one the authorities ought to supply to all hands. It is a thick pith hat with a wide brim, and comes over the nape of the neck and sides of the face, somewhat resembling a Sou'-wester. Spine-pads ought also to be served out generally, and their use made compulsory. In no position are the sun's rays more felt, or is one more exposed to them, than on the back of a camel. I regret to see that "insolatio" is prevalent at present amongst Lord Wolseley's troops.

Officers' and men's classes are daily held for instruction in first-aid-to-wounded, also ambulance-drill, under the superintendence of the surgeons.

COLLECTIVE INVESTIGATION.

LIST OF RETURNS RECEIVED DURING FEBRUARY 1885.

THE Committee desires to acknowledge the following returns received during the month of February.

East Yorkshire Branch: III, E. O. Daly, M.B.

Lancashire and Cheshire Branch: Chester District: II, S. Walker Foster, M.B. Liverpool District: I, William Macvie, M.B.; II, J. E. Garner, M.D.; III, J. E. Garner, M.D.; A. Creswell Rich, M.B. (4); George Shearer, M.D., and a set of MS. cases from Dr. Shearer; X, A. Creswell Rich, M.B. Manchester District: VII, XIII, Duncan J. Mackenzie, M.D.

Metropolitan Counties Branch: I, IV (2), IVa, V (2), George Eastes, M.B.; X, G. Parker May, M.D.; F. A. Hill, M.D. (7).

Midland Counties Branch: Lincoln District: X, Henry George.

South-Eastern Branch: East Kent District: I, Charles Parsons, M.D. West Kent District: I, Ernest Cusse; II, James Crawford: III, Charles Boyce, M.B.; X, Joseph Brown; George Wilks, M.B. East Surrey District: II (8), III, Holland H. Wright.

South of Ireland Branch: I, J. W. Martin.

South Wales Branch: III, T. Neil Whitfield (2).

Yorkshire Branch: VII, T. Tinley.

Erratum.—In the last list, a return from W. A. Thomson, F.R.C.S., was inserted by mistake in the West Surrey District instead of the South Midland.

MAHOMED MEMORIAL FUND.

THE following additional subscriptions have been received.

	£	s.	d.		£	s.	d.
J. S. Bartrum, Esq., F.R.C.S.	2	0	0	G. M. J. Giles, Esq., F.R.C.S., Indian Medical Service	2	0	0
Dr. Bower	1	1	0	Cooper Keates, Esq.....	1	1	0
Dr. Oswald Currie.....	1	1	0	Robert Manser, Esq., I.M.D...	3	3	0
Dr. Walter Dickson, R.N.	1	1	0	Messrs. Nutter *per* Dr. Argles.	2	2	0
D. Elcum, Esq., Ind. Med. Ser.	5	5	0	Dr. Siordet	1	1	0
J. H. Ewart, Esq.....	5	5	0				

ARTHUR E. DURHAM, Treasurer.
JAMES F. GOODHART, W. H. A. JACOBSON, } Secretaries.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885: ELECTION OF MEMBERS.

Regulations for the Election of Members passed at the Meeting of the Committee of Council, October 12th. 1881.

1. There shall be a standing notice in the JOURNAL every week, of the meetings of the Committee of Council throughout the year; and stating that gentlemen wishing to be elected members of the Association must send in their names *twenty-one days* before the meeting of the Committee of Council at which they wish to be elected.
2. That a list of applicants be in the hands of the Committee of Council *fourteen days* before such meeting of the Committee of Council, and that the Branch-Secretaries be supplied with *several* copies of the list.
3. That no member be elected by a Branch, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Meetings of the Council will be held on April 8th, July 8th, and October 14th, 1885. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary, not later than twenty-one days before each meeting, namely, March 18th, June 17th, and September 24th, 1885, in accordance with the regulation for the election of members, passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 8th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, March 14th, 1885.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
IVa. Diphtheria, sanitary.
VI. Acute Gout.
VII. Puerperal Pyrexia.
VIII. Paroxysmal hæmoglobinuria.
X. Habits of Aged Persons.
XI. Albuminuria in the Apparently Healthy.
XII. Sleep-walking.
XIII. Cancer of the Breast.

An inquiry is now issued concerning the general condition, habits, and circumstances, past and present, and the family history of persons who have attained or passed the age of 80 years.

The replies to this inquiry will be most valuable when given by a medical man; but the questions have been so arranged that, with the exception of some on the last page, they may be answered by another person. *Partial information will be gladly received.*

There is also now issued an inquiry as to the occurrence of albuminuria in apparently healthy persons.

The Acute Gout card, which had been found too elaborate, has been made a great deal simpler, and is now re-issued.

Copies of these forms and memoranda are in the hands of all the local secretaries, and will be forwarded to anyone who is willing to fill up one or more of the forms, on application by post-card or otherwise to the Secretary of the Collective Investigation Committee, 161A, Strand, London, W.C., to whom all applications and correspondence should be addressed.

July, 1884.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary. —C. SIBTHORPE, Honorary Secretary, Madras.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next ordinary meeting will be held at Pontypridd, on Wednesday, April 15th. Members wishing to bring forward papers, communications, etc., are requested to send titles to one of the undersigned before March 29th.—A. SHEEN, M.D., Cardiff; D. ARTHUR DAVIES, M.B., Swansea, Honorary Secretaries.—February 25th, 1885.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT. —The next meeting will be held on Thursday, March 19th, at 8.30 P.M., at the Hackney Town Hall. The chair will be taken by Dr. C. T. Aveling. Dr. Bristowe will read a paper "On the Significance of a Peculiar Murmur in relation to the Diagnosis of Intrathoracic Disease, illustrated by Cases."—JOSEPH L. HUNT, Honorary Secretary, 101, Queen's Road, Dalston.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The next meeting of the Session 1885 will be held at the Great Northern Central Hospital, Caledonian Road, N., on Thursday evening, March 19th, 1885, at 8.30; C. Macnamara, Esq., President of the Branch, in the Chair. Dr. R. W. Burnet will recite a case of "Cerebral Hæmorrhage," with specimen and drawings. Mr. R. Marcus Gunn will exhibit several "Eye Cases." Mr. J. Macready will also give a case. All members of the Branch are invited, and may introduce a medical friend.—GEORGE HENTY, M.D., Honorary Secretary, 308, Camden Road.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the above Districts will be held at the Grand Hotel, Brighton, on Tuesday, March 24th, at 4 P.M. Dinner at 6 P.M.; charge 6s., exclusive of wine. Charles J. Oldham, Esq., will preside. The following papers have been promised: 1. The Chairman, "A Case of Hydrophobia." 2. Noble Smith, Esq., "A Case of Incontinence of Urine from Malformation Cured by Operation." 3. Dr. Withers Moore, *a*, "A Case of Locomotor Ataxy with Anomalous Symptoms;" *b*, "A Case of Meningitis." 4. Dr. Sutherland, "The Premonitory Symptoms of Insanity." 5. Dr. Ranking, "Cases of Fæcal Tumours." Messrs. Krohne and Sesemann will show some new instruments.—G. B. COLLET, T. JENNER VERRALL, Honorary Secretaries, 95, Western Road, Brighton.—March 3rd, 1885.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this district will be held at the West Kent General Hospital, Maidstone, on Friday, March 27th, at 3.30 P.M., Charles Hoar, Esq., M.D., in the chair. The dinner will take place at the "Star" Hotel, Maidstone, at 6 P.M. precisely; charge, 6s., exclusive of wine. Gentlemen who intend to dine are particularly requested to signify their intention to Dr. Hoar, 3, Rocky Hill Terrace, Maidstone, not later than March 26th. All members of the South-Eastern Branch are entitled to attend this meeting and to introduce friends.—Papers to be read: 1. Charles Frith, Esq., M.D.: "Two cases of Thoracic Aneurysm, with specimens." 2. J. E. Meredith, Esq., M.D.: "A case of complete Atresia of Vagina, with severe constitutional symptoms." 3. C. Boyce, Esq., M.B.: "A case of Intestinal Obstruction: Stercoraceous vomiting for five days; recovery." 4. M. A. Adams, Esq., F.R.C.S.: "Clinical Notes on Amaurosis." 5. A. H. Hallowes, Esq.: "Surgical Cases of Interest." Dr. Ground will exhibit some specimens of Pathogenic Micro-organisms. At 3 P.M. Messrs. Mayer and Meltzer will exhibit some new Surgical Instruments. —H. LEWIS JONES, Honorary Secretary, St. Bartholomew's Hospital, Chatham.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this District will be held at Faversham on Thursday, March 26th, at 3 P.M.; Mr. Garraway in the chair. The following communications have been promised. 1. Dr. Bowles: "Cases illustrating the difficulties of the Diagnosis of Aneurysms." 2. Mr. Wacher: "A case of Puerperal Fever treated with Warburg's Tincture." 3. Dr. White: "A Hospital for the Insane in the United States." 4. Dr. Eastes: "Empyema." The dinner will take place at the Ship Hotel at 5 P.M.—T. WHITEHEAD REID, Honorary Secretary, March 5th, 1885.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, March 26th, at 5 o'clock. The following question has been settled by the Council as the one on which members should be invited to express their opinion at the said meeting after dinner: "What is your opinion on Vaccination, with reference to the three following points: 1. Is there any diminution in its prophylactic value? 2. Is calf or humanised lymph preferable? 3. Have you noticed any diseases occasioned by it?—W. M. KELLY, M.D., Honorary Secretary.—Taunton, February 26th, 1885.

BORDER COUNTIES BRANCH.—The spring meeting will be held on Friday, March 20th, at Maxwell's Commercial Hotel, Galashiels. The chair will be taken by the President, Dr. Muir, at 4 P.M., when a discussion on Pneumonia will be introduced by Dr. Lockie, of Carlisle. Dinner at 7 P.M. Notices of papers for reading, morbid specimens or patients for exhibition, should be sent to the Secretary, H. A. LEDIARD, Carlisle.

QUARANTINE IN EGYPT.—A Reuter's telegram, dated Alexandria, March 4th, says:—"Quarantine is now imposed upon arrivals from Bombay and Madras. At yesterday's sitting of the Sanitary Commission, the Austrian delegate proposed that the Sanitary Board should undergo a thorough re-organisation, and that the number of the Egyptian delegates should be reduced. The president refused to allow the motion to be put to the vote, on the ground that it dealt with a matter not within the competence of the board. The Austrian, French, German, Spanish, Greek, and Turkish delegates have protested against the president's decision."

UNIVERSITY DEGREES FOR LONDON MEDICAL STUDENTS.

A GENERAL meeting of the Metropolitan Counties Branch was held on March 6th, at the School of Mines, Jermyn Street, to receive and discuss a report of the Council "On the steps which should be taken to facilitate the obtaining of degrees in medicine by metropolitan students." The attendance was among the largest that had ever been known at a meeting of the Branch. The chair was taken, at 8 P.M., by Mr. MACNAMARA, Treasurer of the Association, and President of the Branch.

The PRESIDENT, in opening the proceedings, said: Gentlemen, we have met this evening to consider a report on a very important subject—that of university degrees for London medical students. The report, which we have before us, is one which has been drawn up by Dr. Gilbart Smith, and I am sure you will all join with me in thanking him for the trouble and labour which he has expended upon it. It divides itself into two principal parts. The first part deals with certain facts and certain figures, upon which, I think, there can be very little doubt. You will all agree with me that they prove incontestably that London medical students are at a disadvantage, as compared with those in other parts of the United Kingdom, with respect to obtaining a degree in medicine. And, further, this report shows, I think, incontestably, that the number of our London medical students has been decreasing steadily during the past few years. The second part of the report refers to the means which the Council of this Branch of the Association consider most likely to gain the objects which we have in view. Those objects are distinctly stated upon the first page of the report; and they consist in this, "that it should be within the power of all well educated medical students to obtain a degree in medicine; which degree, while implying such general and scientific culture as befits men of education, should mainly indicate the possession, on the part of its holder, of a good knowledge of the theory and practice of medicine, and of the sciences which are specially related thereto." Now, the report is of considerable length, and therefore I hope that the meeting will receive it as read. It has been in the hands of most of you for a considerable time; and, if the meeting will receive it as read, we shall be enabled to proceed with the resolutions which have been prepared. Of course, after these resolutions have been proposed and seconded, it will be in the power of any member present to offer any amendment that he may think proper. [The meeting signified its assent to the report being taken as read.] No doubt there is some diversity of opinion as to whether it is desirable that an increased number of medical students shall obtain degrees in medicine; but it seems difficult to understand why medical students should not be able to obtain degrees in medicine in the same way that their brother students at Oxford and Cambridge can obtain degrees in arts; and this fact must be clearly understood and clearly faced, that, whatever our opinions may be with regard to the advisability of students obtaining degrees in medicine, in all other centres of medical education, not only in this country, but in Europe, medical students can obtain such degrees. It is in this metropolis, and in this metropolis alone, that the difficulty arises with which we have to contend, and which we are met to consider this evening. Those difficulties arise largely from the curriculum and from the examinations of the University of London. Now, while one can readily sympathise with a considerable number of the graduates of the London University—I say, with a considerable number, because we have had communications with many graduates of the University who entirely sympathise with the movement which is now in progress—while we sympathise with some of them in hoping and wishing that anything that shall take place now shall not affect the value of the degrees granted by the University of London, still we have this fact to deal with, that London students cannot obtain degrees, or do not obtain degrees; and that, in consequence of this, a very considerable number of them are leaving London, and migrating to other parts of the United Kingdom, and obtaining degrees in other localities. It happens that, this very morning, without any reference whatever to this meeting, or to anything connected with this meeting, I received a letter from a gentleman who had consulted me regarding a young man who is about to enter the medical profession. It was decided that he was to enter at one of the London medical schools in October, and I received a letter dated from Brighton yesterday, in which he says that he understands that the University of Edinburgh is able to grant degrees, and therefore they have made up their minds to send this young man to Edinburgh, rather than to enter him at one of the London schools.

This is what is occurring over and over again, and we must deal with the matter, if we possibly can, in a common-sense and practical manner. I wish particularly to state that there is nothing in this report which in any way countenances a lowering of the examinations of the University of London, as far as regards all matters directly connected with medicine and surgery. What we hold is this, that, after a young man has matriculated and entered as a medical student, the few short years that he can then devote to preparation for his profession should be entirely given up to such subjects as will best enable him to practise that profession. I do not say it is the opinion of all the Council, but it is the opinion of a large majority of the Council, that it is therefore a mistake, at the very outset of a student's career, to compel him to spend a year in the study of experimental physics, zoology, botany, and certain branches of chemistry. I hold that, however valuable these subjects may be, still the knowledge of them hardly tends to make a man a more efficient medical practitioner. Over and above this we hold, and we have the best evidence for believing, that the majority of those men who go in to these examinations have to cram up the subjects, and we cannot help believing that any system which compels the majority of students to commence their career by a system of cramming, must be a very bad system; I hear that there is a letter in one of the medical journals, to the effect that this is not the fault of the examinations, but of the teachers. That may be so, at any rate, let us try to overcome the fault, wherever it may be. What we propose is that, with your consent, the Council should approach the Senate of the University of London, and try to prevail upon them to alter their examinations, not in any way to lower the standard of all that tends to the practice of medicine and surgery, but to expunge from their curriculum, as far as possible, those subjects which are not absolutely necessary to the training of a medical student. Students of more than average ability should demonstrate their exceptional powers, as at Oxford, by taking honours, and so being placed either in a first, second, or third class. All the existing graduates of the University should be placed in the first class. Supposing that the University is unable to accede to our request, or to propose any alternative scheme to relieve us from the existing muddle, then we ask you to permit us to turn to other educational bodies, in the hope that they may combine together, and form a degree-giving power whose degree shall not be of less value than that of the University of London, but in giving which less consideration shall be paid to the subject of examination, but more to medical education and training, so as to fit our students to become thoroughly practical medical practitioners.

Dr. BRISTOWE: The resolution which has been placed in my hands is the following.

"1. That the report of the Council of the Branch on university degrees for London medical students, be adopted; and that the Council be directed to petition the Senate of the University of London to receive a deputation of members of the Branch in support of the objects aimed at in the report."

I need scarcely say that I feel a great deal of pleasure in rising to propose this resolution, because I feel fully with the Council of this Branch of the Association the importance of the subject which is dealt with in this report; but at the same time I approach it with a good deal of trepidation, because I know how unequal I am, in spoken language, to express the feelings which I have to express, or to make myself clear to those who are about me. I take it for granted that every one here has read the weighty report by Dr. Gilbart Smith, and has considered it thoroughly. There is no doubt, I think, that every one here feels, as I feel, that the medical profession in England labours under a very deep grievance in respect of medical degrees, and that has been shown largely of late years, by correspondence in the medical journals, by leading articles in the different medical periodicals, and, more recently, by the action which has been taken by a body formed to promote university teaching in London; and, I might also add, by the College of Physicians, and, I think, the College of Surgeons, privately. They have, during the last few years, been considering this very question, as to how far this grievance might be met. But the most important proof that we labour under a grievance, is furnished by the statistics which Dr. Gilbart Smith has accumulated in the latter part of the report, and they are very striking. In the first place, with regard to the prevalence, if I may call it so, of the degrees in the different countries, England, Ireland, and Scotland, we find that in England 32 out of every 100 medical practitioners have degrees in medicine; in Scotland 70 per cent. have; in Ireland 38; and in the army and navy 42.4 per cent. You see that the proportion of graduates in England to the number of men practising is much less than it is in Scotland, and less than in any other part of the British dominions or in any of the services. The facts become more striking as showing a grievance when we examine into the degrees which are held in different sections in this country. Taking England, we find that, of those having degrees, nearly 63 out of every 100 hold Scotch degrees, 9.7 have Irish degrees, 6.9 have foreign degrees, and only 20.6 have degrees obtained in English universities. The discrepancy becomes still more marked if, instead of taking the metropolis, we take the parts outside the metropolis. London is the metropolis for the three divisions of the kingdom, and, in comparing England, Scotland, and Ireland, I say it is fair to leave out the metropolis. What, then, do we find? That out of every 100 practitioners possessing degrees, only 16 possess English degrees; 68, or more than four times as many, possess Scotch degrees; and the Irish and foreign degrees are equal to those derived from English sources. Now, compare what happens in England with what happens in Scotland. Out of every 100 practitioners in Scotland, 98.7 have Scotch degrees, not one-half per cent. have English degrees, and about one-fifth per cent. have Irish degrees. You see that, in Scotland, nearly every man who has a degree has a Scotch degree. In England, the majority of the degrees are Scotch. In Ireland, we find that the Irish degrees form 72 per cent., Scotch degrees 26 per cent. Then look at it from another point of view. In Scotland, there are 1,557 men practising with degrees; all but 20 of these possess Scotch degrees; while of 5,219 practitioners with degrees in England, 4,143 have Scotch degrees. What I have said with regard to England, Scotland, and Ireland, holds good with regard to the army and navy. What do we find there? We find, in the army and navy, 53 per cent. of the graduates are Scotch graduates, 41 are Irish graduates, 4 are English graduates, and one is a foreign graduate. If we consider the question in reference to the population of the countries, the thing becomes more striking still. Here is London, with a population of four millions, Scotland has a population of about two millions and a half—two-thirds of that of London—and Ireland has a population of a little more than five millions, or only about one-fourth as much again as London; and yet you see how Scotch and Irish graduates prevail throughout England and throughout the services. Now, what is the explanation of this? It is not in the quality of the students, and it is not, I believe, in the quality of the teachers. I think every one will allow that, notwithstanding the admitted ability of Irishmen and Scotchmen, our English students are as clever and hardworking, and our English teachers, if not better, are at least equal to, those in Ireland and Scotland, and there are many more of them. I say the fault does not lie in the students or in the teachers; it depends on the system, and on the facilities which are afforded. What are the facilities afforded? We find that, in Scotland, every town which has a school of medicine has an university connected with it. In Ireland, at the present time, the same thing prevails. Every student entering at a Scotch school of medicine, if he choose to work, can obtain a degree. In England, we have many universities—Oxford, Cambridge, Durham, the Victoria University, and the London University. Oxford and Cambridge are admirable universities; but who ever regards them as being universities for the teaching of medicine? I am very glad to see they have of late years been making important changes, and have been becoming potent agents in the promotion of medical education and collateral sciences; but still, let them do as much as they please, so long as they are simply Oxford and Cambridge Universities in provincial towns, they will supply but few medical men, and give but few degrees; and they will be degree-giving bodies, not for the general bulk of the practitioners, but for those who have money at their command. No man can be admitted there unless he has a considerable amount of money at his disposal, or his friends are prepared to pay largely. I admire these universities, and say nothing against them; but they cannot be popular universities; they cannot take in England the position which Edinburgh does in Scotland. The Durham University has been recently established, and is proceeding most successfully; the school is increasing largely, and they have two hundred pupils. It is an university which, if properly conducted, will be a rival to the Scotch universities, and be of immense service to the north of England. The Victoria University, no doubt, will have a career of great importance, and will be instrumental in educating successfully a very large body of practitioners. But its success will be attained very much by taking pupils away from London. London, which is the largest field for clinical observation in the world, which, by its large number of schools, constitutes the greatest collective school of medicine in the world, has no university practically in connection with it; and, as the President has said, those men who want degrees in virtue of education in London have to finish their education elsewhere; and unless we have something to weigh against this in the metropolis, the result

will be that our schools will diminish, as they have been doing of late years, until at length they will be nothing more than clinical schools for men, who have completed their curricula elsewhere, to come to learn that practical experience which they could not gain in the university towns where they were educated; and we, who have all the opportunities and facilities for furnishing a complete medical education, will be left out in the cold. It may be replied to this, "You have the University of London." We admit it; but what has the London University done for us? It is a very respectable body; it has taken a very high aim in the matter of education; it has assumed, from the beginning, that it must educate men to a high standard; and, as time goes on, it becomes more and more narrow in its views. It has put obstacles in the way of men becoming graduates, which are deterrent in a high degree. A proof that the London University is not our university is shown by the small number of its graduates. During the five years ending 1883, to which Dr. Gilbart Smith's statistics go up, we find that the yearly average of degrees granted by that university was 39; but, recollect, those 39 are not all men who have been taught in London. The University of London is for the whole of the British dominions, and men obtain degrees there who come from Scotland, from the north of England, and even from the colonies, so that, no doubt, only a proportion of the number represents students educated in London. Can you call that a successful university, or a university which is to raise the profession in England? I think not. Whilst the University of London, mainly in connection with London, is granting 39 degrees in the year, the universities of Scotland between them are granting ten times as many, and there is no sign, that I can see, that the University of London is increasing in popularity. Why is it that it has failed? for I confess I think it is a failure. I said just now that the University of London has formed a very high standard of education, and you find in the report a quotation from their own Registrar which expresses their views in the clearest language, namely, that their object has been not to educate a large number of medical practitioners above what they would have been educated without the University, but to educate a small number of practitioners highly. Now, is that the way in which medical education should be promoted throughout the country? Is not the proper method to educate a large number of medical men a little above what they would have been without the University? However, that is the view which has guided the proceedings of the London University. But how is it that, practically, it has failed? It is not because its medical examinations are too difficult, it is because the preliminary examinations, as the President told us, are too difficult and too uncertain for men to go up to. The examinations to which I refer are the matriculation and the preliminary scientific. Now everyone who has had anything to do with the matriculation examination knows that it contains very many subjects, and for anyone to pass it, however able he may be, or well educated, it is necessary that he shall grind. It promotes grinding more than any other examination, I think, in this kingdom. It seems to me that the examination should be in a much smaller number of subjects, if you like, much deeper in those subjects; and at the same time, if I had my way, I should make the matriculation examination a varying one; I mean that there should be a certain amount of choice for candidates going up, which would enable those who had been educated in one way to pass in a certain direction, and those who had been educated in another way to pass in another direction. The object of a matriculation examination is simply to show that a man has learned something, and that he has in him the capability of still learning. It is not to show that he is able to get up a large amount of knowledge by cramming, which, I repeat, is all that this matriculation examination attains. With regard to the preliminary scientific examination, the same thing holds good. There is no more unsatisfactory examination, I think, in existence than that for the purpose for which it is held. The preliminary scientific examination includes subjects of very great difficulty. I do not believe any one of them is necessary for a medical man. I think it a desirable thing that he should know one or more of them, and many who are clever would know a great deal of all of them no doubt, but they are not essential; and many men who become most able practitioners and ornaments of their profession, are, I have no doubt, quite unable to pass that examination. The most difficult part of that examination, I think, is that in Natural Science. I do not say it is difficult for a man who has studied mathematics or science thoroughly, but it is very difficult for boys who have come from schools, and have not had much training, to pass such an examination. I will tell you what happened three or four years ago. I met a distinguished chemist and mathematician, a Fellow of the Royal Society, and I was talking with him about this very subject after one of the examinations. He said: "These papers came before me; they seemed exceedingly difficult, and I handed them to a young German professor of physics, who is paying a visit to me. He looked through them, and he said, 'There are two or three of those questions that I myself could not answer.'" I do not suppose he meant to say that if he sat down in his study and thought them out he could not answer them, but he could not do so in the examination time. Fancy expecting boys who have only learned up to the requirements of the examination, being expected to answer such questions! Shortly after, I wrote a letter, of which some of you have heard, to the Chancellor of the University upon this subject. A preliminary examination took place. I saw it, and I was rather horrified to find that the questions were more difficult than I think they had ever been before. About 53 per cent. of the candidates were plucked on that occasion. I spoke to one of the members of the Senate afterwards, and said, "How is it you can allow such questions to be given to the candidates?" He said, "That has been a matter of consideration in the Senate; it has come before them, and distressed them very much; but the fact is, these questions are supposed to be submitted to a member of the Senate, who is a mathematician, and if he objects to any, they are cut out. They were submitted to him; but he happens to be a very high mathematician, and one who supposes that everybody else must be a great mathematician, and he saw no difficulty in them." I believe that those are the main difficulties in the way of providing an university for London. I may say, finally, that I agree very much with the recommendations of this report. I will read two or three things which I jotted down the other day, not with regard to this speech, but with reference to another meeting connected with the formation of an university for London, which I had to attend, and in relation to which I prepared a few remarks. "In order to meet the requirements of the present time, the University of London should come to some friendly arrangements with the Colleges of Physicians and Surgeons, so that its matriculation examination should be the recognised portal to a medical education in the London schools. To this end, it would be necessary to diminish the requirements of the examination, so far at least as concerns the number of subjects of examination. Further, in my opinion, it would be desirable to allow the candidates some choice of groups of subjects to meet the exigencies of the difficult kinds of education which prevail. The University should bring itself into alliance with the medical schools of the metropolis, of which there should be elected representatives on its Senate. Further, there should be a board of studies, elected partly by the University and partly by the schools of medicine, to superintend or advise, in respect both of the teaching in the schools and of the examinations. There should be some arrangement in virtue of which men who have failed, from any cause, to enter the portals of the University at the commencement of their career may (on adducing evidence that they have complied with the essential requirements of the University) be allowed to go through the same examination for a medical degree at the shortest possible interval; and further, men who have been in practice for (say) twenty years, should be allowed to obtain a degree on simply passing the professional examination." The last essential is not a view that is mentioned in this report. I dare say many would agree with it, and I entertain it very strongly. I may be allowed to say why I refer to the last of these paragraphs. I recollect that many years ago the University was not so strict in its requirements as it is now, and the late Dr. Sibson, a very distinguished man, who had been in practice some little time, applied to the London University and was allowed to go through all his examinations as quickly as he could, and he did them very rapidly. Why should not that be allowed now? It is not allowed, and to show that it is not, I will refer to the experience of the late Dr. Mahomed, a most distinguished man, a teacher in Guy's Hospital, who would have been an ornament to the University of London. He had not matriculated, and he applied to the London University late in his career to know if he might do what Dr. Sibson had done. No, he must begin at the beginning, and certain intervals must elapse; and he went to Cambridge and obtained a degree there. Now, why should not Dr. Mahomed have been an ornament of the London University? In conclusion, I should like to say that what I have said is not intended to be in any way disrespectful to the University of London. I am a graduate of it; in a certain sense, I am proud of being so; but I should be very much prouder to be a graduate with ten thousand graduates in the medical profession than with only six hundred. It seems to me, if the London University is to become the university for the metropolis and outlying towns which have no university connected with them, if it would be that, in the liberal spirit which I and others have indicated, it would become, so to speak, the Edinburgh University for London; it would bring under its wings all the medi-

cal schools in London and other towns; it would have a large base, on which it would rise to eminence; and, instead of having merely six hundred or seven hundred graduates on its lists, it would have very nearly ten thousand. In other words, if the University of London had been for London what the University of Edinburgh is for Edinburgh, our graduates would have been counted by thousands at the present time instead of by hundreds; and I say that would have been a great advantange to the medical profession in England, a great advantage to the schools in London, and an infinitely greater advantage to the University, which would have become, by this time, by far the most influential university in the world, which is what I hope it will be.

The PRESIDENT read a communication just received from Sir Andrew Clark, who had promised, if possible, to address the meeting, but was prevented from doing so through indisposition.

Mr. RIVINGTON, in seconding the resolution, said: After the very full and able exposition of this subject by the President and Dr. Bristowe, it is neither necessary nor desirable that I should detain you more than two or three minutes. There is a practical grievance to be remedied, and there is a need to be supplied. Naturally, in the first instance, we look to the University of London to see whether they can meet any of our requirements. In adopting this report, it is not necessary that we should pledge ourselves in any way to the very letter of the report, nor to the very letter of all the suggestions that are made at the end. These are merely suggestions, and they are put forward as a basis upon which discussion can take place, and they form a very good basis on which we can appoint a deputation to go to the Senate of the University of London, and ask them whether they can supply our need at the present time. As a teacher of some standing in one of the schools of the metropolis, I can bear my testimony to this fact, that a number of men leave our hospitals every year who would have been undoubtedly ornaments to the University of London, who would have passed the professional part of the examination with great credit, and, I believe, have taken high honours; but, for some reason or other, partly, and chiefly, probably, because they have not been able to devote the necessary time to the early examinations in order to get up the multitudinous subjects for matriculation, or, not being equal to the effort of passing through the straight and narrow gate of the preliminary scientific examination, they have not felt justified in spending the time with the risk of failure, because the examination is not at all an equal one; it is very often capricious in its results. Chiefly on this account, I think, they have not become alumni of the University of London; and some of the best men at our schools leave, who would, as I say, be ornaments to the University of London, and very much strengthen that University, if the wise policy had been adopted of having some method by which they might be admitted within its portals. I believe the Senate of the University is very anxious and ready to receive us. One of the chief objects of this resolution which I have the honour to second is, that a deputation shall be appointed to wait upon the Senate in support of the object aimed at in the report. We can discuss the matter with them in a friendly spirit, and I have no doubt they will receive us with perfect courtesy and great readiness. Perhaps they may be able to meet us half way in our requirements. I hope it may be so. If not, it will be necessary to adopt some other means to gain the end which we have in view; because I think we cannot submit any longer to the disastrous condition of things at the present time, which is resulting in driving men away from London, where the best clinical material for education is to be found, into the arms of Scotch universities and new universities up in the northern regions. I have very great pleasure in seconding the resolution.

Mr. S. J. HUTCHINSON: I do not wish to propose any correction of this very valuable proposition which has been laid before you to-night. It is very evident it carries the sympathies of the whole meeting with it. But I would ask what it is that we are seeking to establish. We are seeking to establish a degree in medicine with the title of Doctor. I believe that is the chief idea; and the reason why I have ventured to propose an amendment is this, that there are two grand divisions—the public and the profession. The public recognises any man who is qualified in medicine and surgery as a doctor, and styles such a man doctor; but the profession knows the value of the degrees conferred by different universities, and of the diplomas conferred by different examining bodies. The amendment I venture to propose is this, that this Metropolitan Counties Branch should present a petition to the Legislature, which should endeavour to provide that every man who is duly qualified to practise medicine and surgery by examination by the existing medical bodies be registered as a practitioner of medicine and surgery, and should be entitled to call himself Dr. if he wishes to do so, or Mr., if he prefer to retain that distinction as a pure surgeon. In America, every man is called Dr. by right, and the public only recognises a man who practises medicine and surgery as a doctor. I think that is really the desire of the medical profession in England, that every man qualified to practise medicine and surgery, either separately or conjointly, should be called Doctor. I therefore venture to propose, as an amendment, that we should have some sort of law which would recognise every man qualified to practise medicine and surgery as a Doctor. I wish to say one more thing, and that is, that it is only the medical profession that recognises a difference between different degrees. The London University should be left exactly as it is. Its examination might be made as stiff as you like, because then the profession will know who are the picked men. I would have all the examinations—those of the College of Surgeons and the College of Physicians—just as they are, because the public only recognises a man who is duly qualified to practise medicine and surgery as a Doctor. I am afraid I have not put my sentiments very clearly, but I have tried to do so; and I have tried to separate the whole body corporate into two sections, the medical profession and the public. The public only recognises a medical man as a Doctor, but the profession recognises a difference between the University of London and Apothecaries' Hall. No notice has been given of my amendment, and therefore I doubt whether I shall have a seconder; but I would propose that the Legislature be petitioned by the British Medical Association, and by the medical profession at large, to allow any man who is duly qualified by any examining body recognised by the Medical Council, to practise medicine and surgery, to be registered as and be called a Doctor.

Mr. BRINDLEY JAMES: I do not mind seconding the amendment, but it does not seem to be an amendment. It has nothing to do with the resolution at all. It is quite different from the resolution: it has to do with the Legislature, and not with the London University.

Dr. BRIDGWATER: I rise with some reluctance to address this meeting, as I am one of those who entered the portals of the University in a year when we thought the approach was difficult and dangerous, but which, in the present stage of advanced science, is considered to have been by comparison an easy one. With an affection for that University, and recognising, as I have done through a long series of years, the advantages of a body which has stimulated a certain portion of this community to increased efforts to work, I do not like personally to feel that we are undermining that system without some very good reason. I have not got up in the spirit of opposing anything that has gone before, because, as one of the Committee of the Council who have drawn up these suggestions, I have gone both in heart and spirit with the movement; but I think we have to consider seriously two points with regard to the University's work. There is nobody present who would wish to see the medical examinations diminished in their searching character; and I think moreover that, though we may recognise, and I do recognise myself, that there has been a growing tendency in the University to increase the difficulties and the seriousness of the early examinations, none of us would like to ask that University to admit any number of our body into the privileges of its examination at a weaker portal than any other body of men. I think we must seriously contemplate that view. We know that the matriculation examination to many people is a serious question. I can remember myself, thirty years ago, having left school for something like four years, with what horror I contemplated what I had to do; but I set to work to do it, and I did it; and I believe I only did what any other man in this room could do if he made up his mind to do it. But at that time the object was really to test what a man had learned at school. Now, I cannot but fancy that the examinations are calculated, in the spirit of some of the army-examinations, to sift out, and rather to deter men from getting in. I think that if, by this meeting, or by a combination of our body, we bring a force to bear upon the University, acknowledging a certain stringency of examination, but beyond which we do not intend to go, we shall succeed better, when we visit the University, than if we merely have broad platitudes or lamentations. Let us feel we are equal to anything they ask; but, if we differ from them, it is because we think they ask too much.

Dr. SANSOM: I should be very sorry to interfere between the meeting and this resolution, with which I very much agree; but, inasmuch as I opposed it in Council, I am only consistent in opposing it now. I beg, with very great deference, to submit this amendment—that all reference to the University of London be expunged, but that everything else be retained which suggests the conferring of the title of Doctor, and everything of advantage that can accrue from it, on those who have been properly educated medical students, and who have

passed the examinations in medicine and surgery of the Colleges of Surgeons and Physicians. I yield to no one in my desire that every one who has passed such an examination shall be entitled to place the magic letters after his name which shall put him on a par with those who have obtained a degree in any university in England, or anywhere else, but I do say that it is a matter of impolicy to apply to the authorities of the University of London. I was almost afraid that I should be in the very feeblest minority, but I am very much encouraged to find that there are some, at any rate, who think with me in these matters. With the highest respect for, and with the most perfect co-operation with, my colleagues on the Council of this Branch, and especially the chairman, I cannot but feel that they have been under the influence of something of a fallacy. One of these resolutions seems to imply what I consider, at any rate, to be a fallacy. It says certain things have arisen in the metropolis, with regard to the reception of degrees by medical students, owing to the University of London not having adapted its requirements to those of the medical profession. Now, the University of London never was intended to adapt itself to the requirements of the medical profession exclusively. I take it that the University was established in order to confer a benefit on all the faculties, and you will easily understand that the medical faculty is only one among several; and that the faculties of arts and laws, and science and literature, and music, are all governed by the Senate of that University. The fallacy underlying the suggestions to be submitted to the Senate by the Council of this Branch is, that the University of London exists only for the benefit of the medical faculty. (*Dissent.*) I only say that was the impression made upon my mind. I am perfectly ready at once to accept that my impression was wrong; but I must ask you to take it as a fact that the University of London is not for medicine only, and is not an university for medicine particularly; but it is an university of which the medical faculty is only a branch, and not the most extensive branch. At any rate, I think it is not politic for us with regard to this great question, which is really a most important one, and one which I should like to see pushed through as fast as possible, to approach the University of London. Let us think what you will do. You approach the Senate; the Senate will take the subject into consideration. The Senate has always gone on the principle that it shall raise the general standard of human knowledge so far as in its power lies. You will perhaps get some encouragement, but it is much more likely that you will not, because the Senate will say it is bound by its past traditions. But, supposing the Senate were concurrent, would it be possible for such a great change to be made without consultation with Convocation? Certainly not. In Convocation, it is not to be expected that you will get this thing passed very rapidly. Surely there will be a very large amount of time lost before you will get one step in advance; that is what you have to think of before you pass these resolutions in their entirety. I want to know what you would like to suggest to the University of London, that is to say, to the Senate in *limine*, as a practical scheme. In the first place, I hear diverse opinions. I hear on the one side, that the standard of the matriculation examination is not to be lowered; but still, would that accomplish what you want? If you say the standard of the matriculation examination is not to be lowered, remember that at least 50 per cent. of the candidates fail to pass that examination. Very well, then 50 per cent. of your medical students, who are perhaps qualified to pass a simpler preliminary examination, would fail to pass, and therefore you are reduced to 50 per cent. In the next place, you want to decrease the severity of the preliminary scientific examination, and you rather blame the University because it interposes that examination in a medical curriculum; but, subject to correction, I think the great anxiety of the University is that the preliminary examination shall be passed before any student enters into any medical school at all. If I am wrong, I shall be corrected; if I am not, I think you are under an hallucination. In the next place, I hear from my friends that you do not wish the severity of the first M.B. and second M.B. examinations to be lowered at all; and it strikes me that those examinations are very nearly as difficult, and the proportions that pass them are very nearly the same, as in the other case, so that you will not meet the end you have in view. I guard myself by saying they are not so comparatively stiff. But, then, you must remember that the able men have been sifted out; and it is probably the men who have got through the more difficult part who will get through the other examinations. The object of my remarks is to show that, even if you had what you wish, your great object will not be gained; you will not get the number of men through with the advantage of applying the letters to their names which imply the taking of an university degree. I say it will be a much more simple plan, if you use the great powers that this Branch and the Association in general will give you, not to approach the University of London, which is governed by such traditions as I have mentioned, but to endeavour to get for the London medical students in all the hospitals a power to append to their names after they have passed the College of Surgeons and the College of Physicians the degree which they want, and to which they are as much entitled as a man who has passed the University of Edinburgh. It may be that that will be a difficult thing, and that it will be met by opposition on the part of other universities. Then, I say, make a new title. New titles have been made lately, such as B.Sc., Bachelor of Surgery. Let there be a new title, as M.C.D., Doctor of Medicine and Surgery. I think it would be rather a more honourable title than any we have already, and would be second to none in importance. Old Hudibras says:

> "The value of a thing
> Is just as much as it will bring;"

and I think the honour and value of a title like that will be measured by the honour and value of those who obtain it. I propose, as an amendment, that all the terms of this resolution referring to the University of London be omitted, the rest to stand as at present.

Dr. RAYNER: I second the amendment. I certainly should wish that we should not in any way endeavour to alter the University or to appeal to it to diminish the regulations now in force. We have seen the result of its actions in the past, and I hope that, instead of diminishing the stringency of its examinations and the length of the periods which must elapse between different parts of its examination, they may be increased.

Sir JOSEPH FAYRER: If all reference to the University be left out, what will remain?

Dr. SANSOM: I carefully considered that, and I think everything remains that is of value. My amendment will read: "That the report of the Council of the Branch on university degrees for London medical students be adopted, with the exception of those portions which relate to the University of London."

Mr. NELSON HARDY: Surely we should understand what is involved in this before we are asked to vote upon it. The fact of the adoption of the report itself includes everything to which Dr. Sansom has objected; and, further, the seconder of the proposition tells us that he does not pledge himself to everything contained in it, particularly to the three most important suggestions at the end.

The amendment was then put and lost, as was also Mr. Hutchinson's amendment.

Mr. VICTOR HORSLEY: I wish to ask a question. We have heard from the chair and from Dr. Bristowe that a part of the Council of this Branch think that the preliminary scientific is not of particular importance to a practical medical man. Am I to understand that, by the adoption of the report, that view would be endorsed? Until that question is answered, I should not be able to tell which way to vote.

The PRESIDENT: That is not included in the report. It was Dr. Bristowe's private statement and my own. I took care, in mentioning the matter, to say it was my own private statement, and that it was not the feeling of the whole of the Council.

Mr. VICTOR HORSLEY: Therefore it will not be put forward by the deputation to the Senate?

The PRESIDENT: Certainly not.

Mr. SMITH TURNER: Before you put the resolution, I would venture to call attention to the paragraph which is annotated as "Injury to Medical Education." If my memory serve me, in that paragraph there are three or four London schools mentioned as exemplifying the anomalous position in which London medical students are placed. Personally, I do not care much about those small matters, but I have heard this fact commented upon, that certain schools should be mentioned in the report, and perhaps it would be better if the names were left out, and some such term were adopted as London medical students, or London practitioners who have studied in London. There are other schools in London quite as great as those named. I think if we want to gather strength for a movement of this kind, we should avoid all causes of offence. I do not make any resolution, but simply call attention to that.

Dr. GILBART SMITH: Perhaps, as Honorary Secretary to the Subcommittee, I had better explain. The paragraph alluded to by the last speaker refers "to men educated in the metropolis of this great empire, at hospitals such as St. Bartholomew's, St. Thomas's, Guy's, the London, and others." Those hospitals were specially mentioned because they were so large. It had nothing to do with the largeness or smallness of the schools. The question was discussed both at the Subcommittee and at the Council as to whether all the schools should be named or none, and it was thought better to point out the fact

that, at hospitals of such dimensions, the men were practically denied.

Mr. TURNER: I take it the practical relation of a school to a hospital is a very important one. I therefore move that the names of these hospitals be eliminated from the report.

Dr. LAUDER BRUNTON: I second Mr. Turner's amendment. We gain nothing by putting in the names of those hospitals, and we may alienate several useful friends by inserting them. Otherwise, I thoroughly agree with all that is contained in the report, and I only wish to omit those few words.

The PRESIDENT: I can only confirm what Dr. Gilbart Smith has said with regard to this matter.

The amendment was carried, after which the original resolution was agreed to *nem. con.*

Dr. ROBERT BARNES: I did not come here prepared to make a speech, and it is quite unnecessary to do so. Anyone who has gone through that most able report, and has reflected, as I have been obliged to do for several years past, on those letters sent to the London University by Dr. Bristowe years ago, must be convinced on this point. Any teacher in London, who has observed the course of medical education, and the effect of the University of London on the schools, needs no more. As I have said before, and my words have been found fault with, the University of London has been acting as a blight on the medical schools. It does not apply merely to the medical faculty, but more or less to other faculties besides. It is impossible not to see the fallacies that surround some of the arguments brought forward for maintaining the London University as it is. It may fairly claim to have started a new era in medical and general education; it certainly raised the hospitals from the state of nepotism, jobbery, and iniquity under which they were governed. That was greatly due to the action of University College in the first place, which brought men as teachers to London simply on the score of merit, and without reference to their degrees or titles; and all the schools in London had to follow the example, in order to keep pace with University College. Then there came the University of London, supplanting it, and the hospitals became more open to outside men who had not paid heavy fees, and no doubt medical education was very much improved under the first impulse of the University; but, having started that great movement, it is now far behind its own work, and the whole system of medical education in London is suffering in consequence. It is not simply a question of the teachers' interests. For myself, I shall soon pass away; I shall not long occupy the position of a teacher, and it is of no importance to me as a teacher, but it is of vital interest to the public that the best medical education should be stamped with the highest title; but here the very best trained men in Europe or the world, as medical men, are stamped with inferiority, because they cannot get the degree which they would obtain elsewhere. That is a danger to the public. The men so trained, making the most admirable practitioners, are at a disadvantage with the public, who mistake them for inferior men. I think that is a matter of far more importance than even the interests of the schools. The London University must now reform its policy, and endeavour to keep pace with the onward progress of medicine, with which it may be said to have started. I will not say a word on the points referred to by Dr. Bristowe about the matriculation and other examinations; but I may answer an objection raised here to-night. We do not propose to lower the matriculation examination; there is no proposal to lower it; but Dr. Bristowe offered an alternative—to allow a man to have a choice of subjects, which is infinitely better. No one who has gauged the average mind of the student can fail to see that some men are gifted in one department, and some in others. They cannot all be Admirable Crichtons, which the London University thinks it can create. It may be said that it is important to keep up the London University, that the public may recognise the picked men by those who have gained degrees. A grosser fallacy was never uttered. The picked men, who have taken high honours and high degrees, are not necessarily the picked men in the profession in after years, but often will be passed aside by men who have not been crammed to pass the examination for the degree, who have had souls within to work independently, and who had cultivated the spirit of original research. These men, as a rule, do not shine at the examining boards, but they become distinguished men hereafter. Therefore, I say, that is not an argument for maintaining a select and artificial sort of Chinese standard for men who are celebrated because they have passed high examinations. You cannot impose upon the public or the profession by a false title of that kind; they must justify it by afterwork, and men who have had the opportunity of cultivating the spirit of original research will justify their work. I am afraid of trespassing on the meeting, as I did not come at all prepared to make a speech, but I cannot accept the alternative, except as a *pis aller*, of the colleges uniting to give the degree of M.D. We have an University of London imposed upon us, and we have a right to look to that to meet the requirements of the progress of science. I am not at all confident that we shall have much weight with the University, because it is not ruled by a body of the medical profession, but by men whose sympathies are not medical. It is no use blinking that fact; and I think some of the restrictions imposed on medical degrees are not intended to raise the number of practitioners, but perhaps the contrary. A title of M.D. from the colleges will never have the same influence with the public as an university degree. It can only be a nominal thing. They will say, "That is a mere title; he is not an university man;" and it will not compete in the public estimation with the M.D. of the London University. Then my friend Dr. Sansom, to whom I always listen with great satisfaction, proposes a compound title. Medicine is an unit in its essential nature. The M.D. is quite enough, and embraces everything else. I will not encroach any longer on the meeting, but I will say that, if we cannot get the London University to take a new view of its duties, so as to meet the requirements of the great medical schools of this country, we must look to some other means of putting pressure upon them; for I am perfectly persuaded that pressure must come upon them before you will get them to move. I propose:

"That, failing to obtain concessions from the Senate of the University of London, the Council be empowered to take, in conjunction with the Royal College of Physicians of London and the Royal College of Surgeons of England, such steps as they may deem necessary to facilitate the obtaining of degrees in medicine by London medical students."

The PRESIDENT: As confirming what Dr. Barnes has said, I may read a few lines written by one of the most distinguished *alumni* of the London University, whose name I may not mention, because he has requested me not to do so. He entirely agrees with this report; and he remarks that, whilst attaining to the high honour-list of the London University, he personally rather regretted that he did go in for honours, because it had taken him several years to recover from the mental strain of the examination; and he believed he should have been all the better a practitioner had he been content with passing the M.B. examination in the second division, instead of taking first-class honours.

DR. HICKMAN: I second the resolution proposed by Dr. Barnes, and, as one who has taken considerable interest in this question, and has been somewhat prominent in bringing it publicly before the profession, I may be allowed to say a few words. In the first place, I desire to thank the members of the Committee for the great and evident pains they have taken in considering this subject, and for the very full and valuable report they have presented to us. It is in no carping spirit, therefore, but with an honest desire to help towards a practical and permanent solution of this great question, that I submit to this meeting a few remarks and criticisms on the report, and the recommendations of the Committee. It is a curious fact, whether accidental or so arranged I know not, that nearly every member of the Committee is a graduate of some University, one English, one Irish, and three Scotch Universities being represented on it. Considering the nature of the report, I am inclined to think that this fact rather adds to its value, and gives it a disinterestedness which otherwise might have been, however unjustly, suspected. It leaves room, however, for the facts to be viewed from another standpoint, and far different, whilst equally reasonable, inferences to be drawn from them; and it may account for the much greater prominence given to some aspects of the question than to others, which a non-graduate would consider of more importance. But a perusal of the statements and facts the Committee have brought together, and of the remarkable and interesting tables they have compiled, must convince anyone of the great disadvantages under which English schools of medicine, English students, and English practitioners labour, as compared with those of other parts of the United Kingdom, and more especially of Scotland. Three great facts are brought out by the report: 1, the gradually increasing exodus of English students to the medical schools of Scotland, and not only of English but of Irish, and also of the Indian, colonial, and foreign students, who find their way to our shores in search of a medical education: 2, the consequent decline in prosperity of the English schools of medicine: 3, the gradual displacement, amongst English practitioners, of English by Scotch qualifications. These facts are really much understated in the report. Table II, for instance, proves clearly enough the gradual increase in the numbers of medical students in the Scotch schools, with the corresponding decrease in the numbers at the English and Irish schools; but a careful analysis of the *Medical Students' Register*, from which

this table is taken, shows that, in the year 1883, for instance, instead of 817 entries at English schools of medicine, there were but 623 (377 in London, and 246 in provincial schools); the balance, 194, is made up of Indian and foreign students, and of English students registering the commencement of their studies by "pupilage at a dispensary," or "with a registered medical practitioner." The majority of these would eventually find their way to Scotland, and have to be added to the number (596) of entries at the Scotch schools. There is no doubt that the actual number of students at the medical schools attached to the three Royal Infirmaries of Aberdeen, Glasgow, and Edinburgh, is fully equal to the number at the medical schools in connection with the twenty large hospitals in London and the provinces. I could easily corroborate this by other figures if the time would allow; but I will only now add that, if the number of students for the year 1883 had been equitably divided between the three divisions of the United Kingdom on the basis of the proportionate number of practitioners in each, the numbers would have been, for England, 1,380; Ireland, 191; and Scotland, 189. Parallel to and consequent on this invasion of Scotland by English students, is the return raid on England by Scotch graduates. We find that, of the total number of 5,219 graduates in all England, the degrees of no fewer than 3,274, or 63 per cent., are of Scotch origin, and this proportion, or rather disproportion, is annually very rapidly increasing; 20 per cent. are of English origin, and this proportion is as rapidly decreasing. The proportion of graduates to practitioners in Scotland is 70 per cent., and the average annual number of degrees conferred is 14 per cent., exactly enough to supply the whole country every seven years. In England, the proportion of graduates to practitioners is 32 per cent., two-thirds of whom, of course, are Scotch, and the average number of degrees conferred is half an one *per annum*. If the proportion and average were the same in England as in Scotland, there should be in England at least 11,416 graduates, instead of 5,219; and no fewer than 2,240 degrees would be annually conferred, instead of 80, as at present. There is, however, another great fact and another very great grievance which has been but very lightly touched upon by the Committee. We have to take into account, not only the disadvantages of our present and future English medical students, but also the invidious position of some past generations of English medical students, of a large number of the present general practitioners of England, of 3,000 or so licentiates of the Royal College of Physicians of London, a body of highly educated gentlemen who have had an education and training, gone through a curriculum, and passed some very stringent and carefully conducted examinations all quite up to the standard required for an ordinary degree, and who must be admitted to be equally worthy of the title of Doctor of Medicine with the 70 per cent. of Scotch practitioners, in the towns and villages of Scotland, or with the 63 per cent. of Scotch graduates, who compete to such advantage with them in the towns and villages of England. In endeavouring to find a remedy for the condition of things which has been described, there are the usual three courses open to us; (1) to bring down the standard of the London University degree to the level of an ordinary qualifying licence; (2) to establish a brand new university, which should grant its degrees on such terms as will open them to every industrious and intelligent student; or (3) to confer the power on the Royal Colleges of Physicians and Surgeons to grant the degree of Doctor of Medicine, in lieu of their present licences. The objections to lowering the standard of the London University are many and various. I quite agree with what Dr. Sansom said just now, that the University of London has been, very unjustly it seems to me, held responsible for the present state of things. There was a time, well within the memory of many of us, when a medical degree was but very lightly esteemed, and the English practitioner was well content with his medical and surgical licences. The degrees of the London University were little known, and were numbered by units, the undergraduates merely by scores, and Scotch degrees conferred no right to practise in England; but after the Act of 1858 was passed, and Scotch degrees were made legal qualifications in England, London University graduates gradually attained position and eminence, and the University became renowned as a medical university, degrees rose in value, and Scotch degrees became more and more sought after by those who cared not for the labour and trouble of obtaining the London degree. The country has become more and more flooded with Scotch degrees, until at last in self-defence, and from the mere instinct of self-preservation, the English general practitioner is compelled to go anywhere to get a degree, at any expense to his feelings or patriotism. The London University is not a technical university. The object of the London University has never been to adapt itself to the requirements of any particular community of the medical, legal, or any other profession, but to establish and maintain the highest attainable standard of professional acquirements in each branch of knowledge; and it is the recognition of this fact, both by the public and the profession, which gives its medical degree the pre-eminence in which it is held. The graduates of the London University, such as the mover of this resolution, are the Alpine Club men of the profession, to whom its difficult approaches and comparative inaccessibility are the great attractions; and I am quite sure that, if there were 10,000 medical graduates of the London University, Dr. Bristowe would seek another degree at some other university. There may be faults in the University of London; no human institution is without them; but it is acknowledged by all to have raised the standard of medical education, as well as of education generally, and to have elevated the character of medical teaching throughout the country. It will be much better for it to be wound up and extinguished altogether than to be modified out of all recognition, and made the *corpus vile* for a series of crotchety experiments. The Senate has always been very favourably disposed towards the Medical Faculty of the University, constituting as this does the great source of its renown; it may be induced to make some slight alterations in the regulations, and it will probably be willing to add to the number of local centres for examination, to arrange that every examination should be held at least twice a year, and perhaps to make some modification in the preliminary scientific examination by alternative subjects; but I trust that there is not the slightest chance of its diminishing the severity of the matriculation, or of its lowering the standard of the professional examinations. With regard to some other of the suggestions of the Subcommittee, it must be remembered that the London University consists of four faculties; one-third, however of the members of the Senate are medical men, most of them actually or recently distinguished teachers in various London medical schools; but, even if all the suggestions recommended by the Subcommittee to the Senate were carried out; they would be quite inadequate for the end we have in view, of allowing English students to obtain degrees on equal terms with their Scotch brethren, and some other method of bringing this about must be devised. With regard to a new university, there is no call whatever for one on the part of the faculties of arts and laws. The distinguished legal gentlemen who have spoken on the subject, have kept very silent about their own faculty, and have contented themselves with urging the advantages of one to the medical profession. A general university has many and diverse interests to consider; not only those of medicine and science, but those of arts and literature, law, pedagogy, and theology; but none of the other professions think of handing over the management and reputation of their affairs to universities or any other bodies. What would the Inns of Court, or the Incorporated Law Society, for instance, say if the London University were to propose to interfere in any way with them, or with their qualifications for practice? Are we absolutely incapable of managing our own affairs, and should the great ancient profession of medicine be tied to the apron-string of this new corporation, of whose aims and objects every one who supports it has a different idea? There is, sir, an easy and simple remedy for all the evils which have been described. Let the two Royal Colleges of Physicians and Surgeons be amalgamated into one great Royal College of Medicine, and obtain a new charter empowering it to grant medical degrees. This will give us at once a complete medical faculty; this will be, in fact, a new medical university; it will reduce instead of increasing the number of qualifying bodies; and a new body in name only, it will look back to a venerable antiquity associated with the most illustrious names in the history of medicine. The materials and machinery for such a college are ready to our hands, and only require fitting together by skilled and sympathetic workers. It would make no demand on the public purse, and impose no fresh taxes on the profession; comprehending, as it would, every examiner and teacher of eminence, there would be no lack of sympathy between the schools and the College, no want of touch (whatever that is) between the examiners and the teachers. The requirements of the profession would be satisfied, and the general and scientific culture of its members would be maintained. It should, of course, be retrospective in its action, and admit at once all those who have obtained the double qualification of the two London colleges, a qualification which, as the report declares, implies by its possession a high degree of special education. One of the great advantages of this plan is, that it might be carried out during the present session of Parliament, and might come into operation by next October. If such should be the case, I venture to predict that the entries of London students will be at least doubled, and the London schools will commence an era of prosperity that will enable them to make of still greater value the enormous wealth of

clinical material with which this huge city rather too much abounds. This amalgamation will, moreover, remedy the mistake of centuries, and put an end to that division of the profession into two ranks, which is so great a puzzle to the public, and distinction between which is as difficult for them to discriminate as it is for ourselves to define. The whole profession will be raised in political and social influence, and the President of the United College, the future occupant of the double chair of Cheselden and Linacre, of Harvey and Hunter, of Paget and Jenner, the chosen head of the great medical profession of this country, will occupy a position of dignity and brilliancy which a Prime Minister might envy, and to which a peerage could add no lustre. In a degree-conferring Royal College of Medicine, formed by the amalgamation of the two Colleges of Physicians and Surgeons, we have a scheme which can injure no legitimate interest, which will be found most widely acceptable, which can be very easily and quickly carried into execution; we have a cure for our ills which will satisfy the most ancient canons of judicious treatment, complying, as it does, with the well known maxim of Asclepiades, *Curare tuto, cito, et jucunde.*

The resolution was carried unanimously.

THE PRESIDENT: Before we part I am sure you will agree with me, that the least we can do is to record a vote of thanks to Dr. Gilbart Smith for the admirable report which he has drawn up for us. Without his aid, without his energy, it would have been utterly impossible for the Branch to have accomplished the work it has done. I am, therefore, perfectly convinced you will all agree with me in according him a vote of thanks.

Dr. GILBART SMITH: What I did was merely my duty, and without the aid of each member of the Committee and many members of the Council I could not have done it.

The proceedings then terminated.

SOUTH-WESTERN BRANCH: QUARTERLY MEETING.

A QUARTERLY meeting of the Branch was held at Chubb's Hotel, Plymouth, on February 3rd, 1885. In the absence of the President, Dr. Lewis Shapter, of Exeter, from illness, Mr. W. Square, of Plymouth, was called to the chair.

New Members.—The following were elected members of the Association and Branch: Mr. H. Appleton, M.R.C.S., L.S.A., the Lizard, Cornwall; Mr. A. E. Hayward, M.R.C.S., L.S.A., Brixham, Devon. The following members of the Association were elected as members of the Branch: Fleet-Surgeon Longfield, R.N., H.M.S. *Royal Adelaide*, Plymouth; Mr. J. T. Ashton, Paignton; Mr. A. W. Dalby, Torquay.

Papers.—The following papers were read.

1. Mr. W. E. C. Nourse: a Case of Syphilitic Periostitis, followed by Paralysis, Intestinal Obstruction, and Phthisis.—Mr. W. Square and Dr. Bampton made remarks.

2. Dr. P. M. Deas: Note on the Use of Permanganate of Potash in cases of Insanity, associated with Amenorrhœa.—Dr. Bampton, Dr. Aldridge, Mr. W. Square, and Mr. Nourse made remarks.

3. Mr. J. B. Carlyon: Notes of a Case of Intestinal Obstruction.

4. Mr. J. Jackson (Plymouth): Remarks on the Medical Aid Sick Association. This was read by the Secretary, in the absence of Mr. Jackson. The paper explained the objects of the Association, mentioned facts showing the very satisfactory progress which it was making, and urged its claims on the consideration of the members of the Branch; regretting that, so far, a very small proportion of those eligible had joined; and concluded by expressing a wish that a Committee should be appointed to further the aims of the Association.

The following resolution was moved by Mr. W. A. BUCHAN, and seconded by Dr. BAMPTON:

"That a committee of members of the South-Western Branch be appointed, to whom it should be an instruction to take steps to bring the Medical Aid Sick Association more forcibly under the notice of the members and others, and generally to promote its extension."

This was carried unanimously, and the following members were appointed to act on the committee—Mr. G. Jackson, Mr. W. A. Buchan, Dr. Bampton, and Mr. G. Thom.

5. Mr. F. G. H. Whitley showed a patient with exostosis of the frontal bone, arising from a kick at football.

6. Dr. A. Kempe exhibited and explained the advantages of a new form of long midwifery forceps, the feature of which was that the handle of one blade was constructed with a screw, so that it could be removed while the blade was being applied, and then screwed on again afterwards.

The South Devon and East Cornwall Hospital.—Before the meeting, members had the opportunity of attending the formal opening, by Lord Mount Edgcumbe, of the new buildings of the South Devon and East Cornwall Hospital, and of inspecting what, as regards situation, construction, and internal arrangements, may fairly be regarded as a model of what a hospital ought to be.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Depopulation of France.—Boldo.—Lead-Poisoning from preparing Charcoal.—Ozonometric Observations.—Cholera in the Army.—Recent Regulations concerning Army-Surgeons.—Adulterated Mineral Waters.—A Proposed Electrical Laboratory.—Catalepsy forbidden by the Police.

THE discussion at the Académie de Médecine on the depopulation of France was resumed at the last meeting, and M. Fournier gave some interesting statistics concerning the influence of syphilis on infant-mortality. The mortality among new-born infants from syphilis reaches 28 per cent. If a mother have contracted syphilis a year before the birth of her infant, it is sure to die in infancy. M. Fournier has personally observed forty-four instances of women becoming pregnant during an early period of syphilis; only one of the children born lived beyond its infancy. Among 100 syphilitic women, there were 208 pregnancies; 60 living children resulted, and 140 dead; consequently, the rate of mortality was 71 per cent. These statistics are furnished by notes taken in private practice. Hospital statistics would probably give a higher rate of mortality. Dr. Coffin stated that, at the Lourcine Hospital, among 28 pregnant women, there was only one who had a living child. M. Fournier estimates that, at the St. Louis Hospital, among 148 pregnant women, 125 lost their children in early infancy.

The plant known by the name of Boldo, which is common in Bolivia, and much used there, has recently been studied in France. In 1874, M. Dujardin-Beaumetz made some experiments with it, and observed that it acted on the urinary organs and produced somnolence. About a year ago, M. Chapoteau extracted a substance from boldo leaves, which was entirely free from any alkaloid. M. Laborde has made some experiments with this substance, which have always been attended with the same results. The substance, extracted by M. Chapoteau is an orange-yellow fluid, with a strong smell of thymol. The injection of twenty-five grammes of it into a guinea-pig throws the animal into a somnolent condition. After a few hours, the animal recovers its normal condition, and presents symptoms of faulty motor co-ordination, which persist for some time afterwards. Rabbits are not thrown into such a deep sleep; they are the most difficult of all animals to narcotise, but when the first effects of the poison pass away they appear to be more intoxicated than do the guinea-pigs. Two or three grammes are sufficient to hypnotise a small dog; noise fails to awaken it. After two or three hours of deep sleep, it wakes up voluntarily, makes a good meal, and does not appear to have been under the influence of a toxic substance. Insensibility is the invariable result of experiments with boldo. If the dose be increased, death takes place during a profound sleep, unaccompanied by convulsions or contractions. The accessory phenomena are, loss of the sense of hearing, stimulation of the urinary and biliary secretions, and local anæsthesia. Boldo apparently acts on the brain; the phenomena above described are not produced if it be administered to a frog when its cerebrum is removed.

At a recent meeting of the Société Médicale des Hôpitaux, M. Gérin Roze and M. Duguet described three cases of lead-poisoning. The patients were employed in a factory for making chemical charcoal. They were in perfect health before working in the factory, and many of the factory-workers preserved their health, whilst following their occupation, during many years, until the workroom, which was on the third floor, and was large and airy, was removed to an underground room, which was ill ventilated. The sufferers in question were employed in drying and packing the particular kind of charcoal known as *braise*, after it has been immersed in lead-nitrite, which renders it more combustible. Meat cooked over this *braise*, when consumed, may provoke lead-poisoning.

M. Pamard has presented to the Academy of Medicine a note on ozonometric researches made at Marseilles, Toulon, Avignon, and Orange. It was observed that there was more ozone in the garden of a hospital than in its wards, especially in those containing cholera-patients; but the relation of mortality with a given proportion of

ozone in the atmosphere has not been determined. M. Giraud, Director of the École Normale at Avignon, has, during the last ten years, ascertained the quantity of ozone contained in the air at different seasons of the year. Last May, the quantity of ozone diminished considerably.

An excellent report of the health of the army during the recent epidemic of cholera has appeared in the *Archives de Médecine et de Pharmacie Militaire.* Cholera broke out in the Quai d'Orsay Barracks on November 6th. Throughout the barracks, there were 64 undoubted cases, and 66 doubtful. During the epidemic, there were 15 deaths. It is estimated that there were 68 attacks and 10 deaths to every 10,000 men.

Up to the present time, army-surgeons in the reserve-corps were not summoned to the manœuvres like the other officers in the reserve and territorial corps. This year, 108 army-surgeons are convened for May 4th, to undergo the same military instruction and discipline as their military colleagues. Also, 118 army-surgeons will take part in the autumn manœuvres.

The police have discovered an association for selling adulterated mineral waters, and false Swiss pills. Two of the members of the association are medical students; there are also among them a pupil of the School of Pharmacy, and a laboratory servant. M. Charles Girard, director of the Municipal Laboratory, has visited the shops belonging to the association, and examined the waters offered for sale.

An electrical laboratory will probably be established by appropriating the sum of 325,000 francs (£13,000), the proceeds of the International Exhibition. The city of Paris consents to give a plot of ground for the purpose, but difficulties in connection with the internal administration have retarded the scheme. It is believed that the site will be soon placed in the possession of the State, and the building operations commenced.

At the fair recently held on the Boulevard Montmartre, one of the great attractions was an exhibition of catalepsy. A child was thrown into a deep sleep, and assumed postures according to the orders given. In order to increase the receipts, the period of sleep was shortened, and the child was awakened in order to repeat the performance. Her health suffered considerably in consequence. After these periods of sleep, she suffered from violent headache, and was gradually wasting away. The commissary of police was informed of the cruelty of the showman, and the inhuman and unhealthy exhibition was peremptorily stopped.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

The Whittle-Hutchinson Fund.—Annual Report of Medical Officer of Health for West Derby.—The Liverpool Gymnasium.—University College Athletic Club.—Volunteers for the Soudan.—Medical Appointments.

ON the evening of March 5th, a meeting was held at the Medical Institution for the purpose of passing the accounts of the "Whittle-Hutchinson Fund," and presenting the balance to Drs. Whittle and Hutchinson. The amount actually subscribed was £182 19s., and the sum handed over was nearly £170. Considering the short time the matter has been before the profession, this result is regarded as very satisfactory.

Dr. Carter, the medical officer of health for West Derby, has issued his annual report for the year 1884. He states that the sanitary condition of the township may be looked upon as fairly satisfactory. As usual, a summary of the cases of infectious disease is given, from which it appears that the past year was marked by an unusual prevalence of whooping-cough, measles, and small-pox. During the year, there were 27 cases of small-pox, 72 cases of scarlet fever, and 26 cases of diphtheria. At the close of the year, diphtheria was the only infectious disease existing about which there was any need for anxiety, and this was showing unmistakable signs of declining.

Liverpool is the fortunate possessor of a gymnasium which for size and completeness is, if not the finest, one of the finest in the country. Some time ago, this admirable institution had to be closed for want of funds. Thanks to the generous help of Mr. Samuel Smith, one of the members of Parliament for the city, and others, the building, with all fixtures, was purchased for the Young Men's Christian Association. Under the management of this association, the gymnasium has become increasingly popular; and, at the present time, a most valuable work is being carried on. Last week, a "Sports and Pastimes" Exhibition was held in the building, and proved a great success.

An athletic club has been formed in connection with our University College. The Committee desire to raise £500, with which they propose to obtain a cricket and football ground, to build fives-courts, lay out tennis-grounds, and fit up a small gymnasium. There is plenty of ground around the College, which can be utilised for fives-courts, tennis-grounds, etc., and probably a cricket-ground can be obtained in the neighbourhood; so that which often proves a serious initial difficulty in a large city will easily be met in this case. Arrangements, too, are being made with the Liverpool gymnasium to admit members of the University Club at a reduced rate for practice and instruction. For a long time past, the want has been felt of some club of this kind which would bring the students together; and as the new club is receiving the active support of the professors, and the students are joining in large numbers, there can be but little doubt of its ultimate success.

A number of men belonging to one of our volunteer engineer regiments volunteered, a week or two ago, for active service in the Soudan, and their offer was accepted by the Government; but, owing to the very high standard of chest-measurement, etc., fixed by the authorities, and the very stringent medical examination to which the men were subjected, only about twenty-five have been selected. They will be attached to the Royal Engineers.

Mr. C. G. Lee, honorary assistant-surgeon, has been appointed an honorary surgeon to the Eye and Ear Infirmary, to fill the vacancy caused by the retirement of Mr. Shadford Walker. Mr. James Rose, a former house-surgeon of the institution, and who has worked in the hospital for the past two or three years as an honorary clinical assistant, has been elected honorary assistant-surgeon in Mr. Lee's place.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

University Chair of Botany.—University Rectorial Address.—University Religious Movement.—Low Temperatures and Putrefaction.—Tarsotomy in Talipes Varus.—Mortality Statistics.—Glasgow Public Dispensary.

THE Chair of Botany in the University is now vacant by the resignation of Professor Bayley Balfour, who some time ago accepted the professorship of botany at Oxford. It was thought that this would involve immediate retirement from the Glasgow chair, an opinion which seemed to have been shared by the Crown authorities themselves, inasmuch as it was freely stated that a successor had actually received his commission of appointment to fill the supposed vacancy. It seems, however, that a formal resignation of his Glasgow professorship was first necessary from Professor Balfour; and, as this has now taken place, nothing stands in the way of the appointment of a successor. This will be done shortly by the Crown, so as to allow the new professor to take up his duties in the ensuing summer session. Already several candidates are in the field, among them being Dr. McNab of Dublin, and Mr. H. Marshall Ward, of Owens College.

The delivery of his rectorial address by Professor Lushington, has been fixed for Thursday, March 26th. The ceremony will take place in the Bute Hall; and, though the circumstances connected with his appointment have an element of sadness in them, the new Lord Rector is sure to receive a hearty welcome from the students of every political party. The day following the address will, it is understood, be devoted to the usual rectorial holiday. It is thought the winter session will close about April 3rd, but it is to be definitely settled this week. A meeting of the University Court will be held at an early date for the election of additional examiners in medicine, surgery, and physiology. This year, the applicants for these posts are more numerous than usual.

A well attended meeting in the St. Andrew's Hall on Sunday evening, indicated that Glasgow is prepared to assist in the very marked religious movement which is at present spreading among the Scotch universities, and which seems, in a great measure, to have emanated from Edinburgh. The deputation of students from that university which addressed the Glasgow meeting was very well received.

The effects of very low temperatures on the putrefactive processes and on some vital phenomena, was the subject of a paper read by Professor McKendrick at the last meeting of the Philosophical Society. In the preparation of his paper, Dr. McKendrick was associated with Mr. J. J. Coleman, whose cold air system is the one now chiefly in vogue for the importation of meat from the colonies. The general result of their experiments elicited the fact that continued exposure of putrescible fluids to a temperature of 120° below zero did not prevent

putrefaction, showing that the germs of the minute organisms which cause putrefaction are not killed by such extreme cold as this, and which, in intensity, is probably lower than that of the Polar regions. Heretofore, observations have been frequently conducted with the view of ascertaining exactly what amount of heat micrococci and other bacteria will resist, so that these observations of Dr. McKendrick and Mr. Coleman in the opposite direction, possess special interest and value. As there is a prospect of their continuing them with an atmosphere as much as 150° below zero Fahr., or nearly 200° below freezing point, we shall probably yet obtain some further facts of interest concerning the physical conditions which affect the lives of those minute organisms so closely related to many of the phenomena of disease, as well as all the stages of the putrefactive processes.

The pathology and treatment of talipes varus was the subject under discussion at the Medico-Chirurgical Society on the evening of March 6th. It was introduced by Dr. William Macewen, who showed some patients in illustration of his remarks. The position he apparently took up was, that the cases met with in practice might be placed in two main classes, the first of which could be dealt with by manipulations and forcible correction, with the aid of fixed splints or bandages, while the others were best treated by some form of tarsotomy, either by the removal of the astragalus, as in the cases shown, or of other portions of bone. Dr. Macewen's views were very closely criticised by those present, and the general result of the discussion seemed to be that while some cases of older children might call for such a severe measure as tarsotomy, these were the exception and not the rule; and that, instead of regarding tenotomy as an unnecessary and even useless procedure, it was the plan that, with suitable after-treatment, best cured the deformity, and yielded the most perfect results.

Our city authorities have been desirous that there should be a monthly statement of the total death-rate of the city and suburbs, so that a fair comparison might be made with the other large towns of the kingdom. The matter was remitted to Dr. Russell, the medical officer of health, for his consideration, and he is quite in favour of the proposal; but he sees such difficulty in carrying it out, that he has advised the Health Committee to give up the idea. There is no doubt that, as at present calculated, our vital statistics are somewhat misleading, as they only include the central mass of a community whose circumferential population is excluded, and thus the data for getting at the real health of the town are absent.

During the past week, the annual meeting of the supporters and friends of our Public Dispensary was held. The number of cases treated during the year was 2,449, which is in excess of last year. The point of interest in connection with this institution is, that it was established with the view of testing the acceptability of provident principles among the lower classes. From the remarks that fell from Dr. McKendrick when moving the adoption of the report, it is evident that very fair success has attended this endeavour, and that there is every reason to be satisfied with the results. Through the kindness of those interested in the institution, it has been arranged that in future the electric light will be made available on the premises for the examination of patients in the different departments of the dispensary. The arrangements are of a novel character, but seem very admirably suited for enabling the physician or surgeon to generate or shut off the light according as desired.

CORRESPONDENCE.

THE LONDON UNIVERSITY AND THE MEDICAL SCHOOLS.

SIR,—It was with no small satisfaction that, in your issue of the 28th ultimo, I noticed the determination of the Senate of the University of London to adopt the oft repeated recommendation of Convocation that the Preliminary Scientific Examination should be held twice in the year. This arrangement will be felt as a boon by those students to whom a single failure has meant a loss, not only of valuable time, but of money, and perhaps the necessity of relinquishing all hopes of a degree, or at least of the one they most coveted. It is a step in the right direction; but I believe that further changes might be made in the regulations, which would facilitate graduation without detracting from the high value at present attached to the London degrees.

But one cannot shut one's eyes to the fact that, in the outcry against the University, as in every attack on existing institutions, the assailants are divided among themselves, and are actuated by very various motives. However open to improvement the regulations of the University may be, an inspection of the roll of its graduates must convince any unprejudiced person that, taken as a whole, they do represent the *élite* of the profession, and that, therefore, it has not altogether failed in the aims it has throughout had in view. Though not enjoying the prestige attaching to the two ancient universities, I believe that an absolute majority of the graduates of a few years' standing will be found on the staffs of London and provincial hospitals, or in other prominent and honourable positions. Such men are naturally jealous of any attempts to level down the degrees of their university to those of some other universities, though they would gladly welcome any reasonable suggestions for the removal of accidental and artificial impediments in the way of graduation, which deter equally able students from seeking the same degree, or compel them to abandon it after having made the attempt.

Of late years, the Cambridge University School of Medicine has been coming to the front in popularity and numbers; yet, though the rejections at each examination reach as high a percentage as those at the corresponding London examinations, notwithstanding the high average intellectual power of the candidates, no outcry has been raised against it. The fact is, that men proceeding to Cambridge know what they have undertaken, and willingly accept the high ideal placed before them, for the attainment of which ample assistance is provided in the schools.

But grapes are sour to those who cannot reach them, if hanging immediately before their eyes; and the real wish of many who, with some degree of justice, complain of the excessively high requirements of the University in some subjects, and the unnecessary difficulties presented by the regulations, is, if truth were told, as indeed it has been by a few, that every London medical student should be enabled to graduate; in other words, that the London degree should, like some others, be equally easy of attainment with the diplomas of M.R.C.S. and L.R.C.P. With this feeling, I for one cannot sympathise. Your correspondents talk of degrees as "distinctions;" but, if every medical man were to put M.D. after his name, where would the distinction be? The Cambridge and London degrees stand out as such among others, and long may they continue to do so.

Looking at the overcrowded state of the profession, one cannot wish to see the entrance made easier; on the contrary, one would rather see it made more difficult, and should consider it an omen of better days for the science of medicine, and the status of its practitioners, if there were a more general falling off in the numbers of new entries, except where the standard of literary, scientific, and professional knowledge is pitched the highest, and the means for its acquisition are most complete. To return to the question of the regulations of the University of London, few, I believe, are prepared to deny that they are open to improvement; but, instead of joining in the vague declamation, of which we have heard too much, I would, with your permission, venture to make some definite suggestions for their modification.

First in order comes the matriculation, at which the rejections are out of all proportion to the severity of the examination. This is due, in great part, to the practice of requiring candidates to pass separately in each paper. If the ten papers were "lumped" together under the three heads of languages, mathematics, and English subjects, and a certain number of marks required in each group, proficiency in one of the subjects compensating for deficiency in another in the same group, the failures would be fewer, though the general standard of education would not be degraded. This would be better than accepting the wretched smattering of school-boy knowledge which satisfies the Medical Council; and I would remark, in passing, that the value attaching to the Oxford and Dublin medical degrees is owing mainly to their previous requirement of a degree in Arts. That so many students, on entering the London schools, find that they are precluded from graduating in consequence of their having neglected to matriculate, is a circumstance for which they or their parents alone are to blame.

The preliminary scientific examination, however, is the *pons asinorum* of the London student. That the standard in physics, at any rate, is too high, I am ready to admit; but the importance of a knowledge of the phenomena of life throughout the animal and vegetable worlds to the full comprehension of the physiology of the higher animals, on which again all pathology and rational medicine is based, is being better recognised every year; while, even as regards electricity, the subject which has been most severely criticised, and which I admit has of late been overdone, one must not forget that it is now a recognised therapeutical agent; yet how few practitioners have any accurate notion of its law, or of the methods of measuring its quantity and intensity. I would suggest that, besides holding the preliminary scientific examination twice a year, the subjects should be divided into (1) Biology, and (2) Chemistry and Physics, and that it should be

optional to candidates to take them together or separately; and that a man who, having taken the two, should fail in one, might take that at the next examination. The intermediate examination might also be held twice in each year, and a like division of the subjects adopted, which would be preferable to the present postponement of one to the following year, involving as it does a serious loss of time.

No alteration seems called for in the final examination for the M.B., for not only are the failures fewer than in the previous examination, but no loss or injury is inflicted on a legally qualified man by his being required to pursue his practical study of medicine for another year.

But a reform is wanted elsewhere than in Burlington Gardens. It is rightly said, that there is a want of sympathy between the university and the medical schools. The fact is, that the medical schools have grown up around the hospitals; instead of the hospitals being attached to the medical schools, as in every other university town at home and abroad, the schools are mere appendages of the hospital. Chemical, physical, and biological science, can no more be taught out of the laboratory than anatomy can be out of the dissecting room; yet, at the majority of the London schools, no such provision is made, except as regards chemistry, and often that is of the scantiest. Laboratories demand an outlay on apparatus and a staff of demonstrators, such as cannot be supported but by endowments, or by the fees of a large number of students pursuing science apart from medicine, as are found, for example, at University College. The consequences are seen in the enormous proportion of rejections at the preliminary scientific among the candidates from other schools, and the fact, that a considerable number of men enter at University College, and Owens College, for the preliminary scientific examination, pursuing their subsequent professional studies elsewhere. Those who do not avail themselves of the science-schools of University, King's, and Owens Colleges, are compelled to rely on book-work and cram, which too often proves a broken reed, and which it is the especial aim of the university examiners to discourage. The knowledge that they do acquire deserves to be characterised as *apparent* and *unreal;* but a sufficient and very real knowledge—robbing the examination of its terrors—can be, and is, easily acquired where opportunities for practical study exist.

The days are past for relegating the teaching of botany and zoology to junior members of the hospital staff for whom no higher (?), that is, more lucrative, chair is available. The London schools ought to combine around three or four centres at which regular and well furnished science-schools, with laboratories, etc., and where teachers, devoting their whole time to their work, might be engaged in instruction and in research. I would even go further than this. The professor, the true teacher, *nascitur non fit;* and students know it but too well. Some of us can look back for twenty years or more on men whose very tones still echo in our memories, who imparted to us their own modes of thinking, and whose characters have moulded ours; and, again, on others the subjects of whose lectures we felt we could learn much better from books, and to whom we listened with weariness or impatience.

Union is strength, and the combined schools I have proposed could find among the members of their united staffs men who would ably fill the reduced number of chairs of medicine, surgery, obstetrics, pathology, therapeutics, and forensic medicine, as Regius professors of the University; the others acting as clinical teachers in their respective hospitals, or taking up such subordinate specialties as each might feel himself best fitted for by inclination or experience. Anatomy and physiology should be taught, like other branches of science, by men devoting their whole time to these subjects, and who would impart to their students the enthusiasm with which they were themselves inspired.

In conclusion, I do not hesitate to state my strong conviction that the Senate of the University must be entirely reconstituted by a fresh charter. At present, it is a gross anachronism that an University which can boast among its graduates the leading members of the medical, legal, and other professions, should be governed by persons who, however distinguished, do not belong to, and can have no real sympathy with, it; while Convocation, that is, the University itself, is powerless. The Senate should, as in the older universities, be composed solely of graduates and teachers in the component colleges, and elected, say in equal numbers, by the members of the University and the Crown.—I am, sir, yours, etc.,

EDWARD F. WILLOUGHBY, M.B. London.

THE Marquis of Hertford and Lord Aylesford have, upon the nomination of Lord Leigh, the President, been appointed Vice-Presidents of the Warneford Hospital, Leamington.

THE PRELIMINARY SCIENTIFIC EXAMINATION OF THE UNIVERSITY OF LONDON.

SIR,—Professor Lankester, in his letter extolling the merits of "thoroughly organised colleges which exist for the purpose of teaching science," gives a warning which will not, I think, frighten those who belong to the institutions which he considers "a disgrace to the community." If the curious details of the so-called successes be as significant as the general conclusions arrived at by the medical readers of his letter, it would be well if he would publish them.

I have had a long experience of the preliminary scientific examination, and I admit that the students who attend the lectures of the examiners have a great advantage over others; and it is difficult to avoid this, if London University examiners hold such opinions of other teachers as those expressed by Mr. Lankester in his letter.

The real truth is, that science, as it is now taught in the "organised science-schools," is not in the least adapted to the requirements of the medical profession; it aims at the unattainable. I know, at the present time, a young medical student of more than average ability, who has spent three terms at Cambridge University, getting up the anatomy of the earthworm, the embryology of the amphioxus, and dissecting the other animals included in their schedule, which is not unlike that of the preliminary scientific examination of London University. This gentleman, after his academic year's work, had come to the conclusion that an earthworm had a single ovum, which he conceived to be an organ. He did not know what a "cell" meant, yet he knew the manner in which the amphioxus is developed. He could describe the kidney of a frog, but had no conception of the general structure or significance of a gland. It is very useful, no doubt, to begin with concrete rather than abstract ideas; but why select an earthworm or a river-mussel? As a matter of fact, the whole system degenerates, with nine students out of ten, into a system of cramming of the worst kind. What students preparing for the medical profession want is a knowledge of principles and methods, not of details, which are only useful to fit them for absurd examinations, conducted by specialists who know nothing, and care nothing, about the requirements of medical education. For many years, science, especially biological science, grew by the researches of medical men; now it is specialised, like everything else. The science of the specialist is usually useless to the medical practitioner; and I would ask, *Cui bono* is a student of medicine to waste a year, sometimes more, and to spend thirty or forty pounds in fees, to learn to dissect an earthworm, or to work out problems in mechanics which would be more useful to an engineer? This is surely a *reductio ad absurdum.* Let us have a simple examination in the principles of biology, unencumbered with the anatomy of invertebrates or the lower forms of vertebrates, held twice a year; and the University of London will certainly be more popular than it is at present, and much more useful. If the other examinations were also made practical, and shorn of all the elaborate technicalities with which they bristle now, the requirements of the London student would be within measurable reach of being fulfilled. It is the scientific men outside the medical profession who are damaging the cause of medical education. Let zoologists by all means educate zoologists, but let medical men educate those who are to become medical men. The profession commits a fatal error in encumbering medical education with useless and extraneous subjects.
—Faithfully yours,

BENJAMIN T. LOWNE.

65, Cambridge Gardens, Notting Hill, W.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

THE TEACHING OF PHYSIOLOGY.—A decree to provide for the expenditure of the working of the department of Physiology, namely, £300 for gas, water, etc., together with £200 for the salary of a Demonstrator of Histology for three years, was submitted on Tuesday last. The decree was supported by the Dean of Christ Church and the Warden of All Souls (Sir William Anson); the opposition being led by Canon Liddon and the Bishop of Oxford. Following the policy of the water-companies, the antivivisection party thought to starve out Professor Burdon Sanderson by cutting off his water and supplies, and leaving the University with a building, on which £10,000 has been spent, practically useless. After Sir Henry Acland, Regius Professor of Medicine, had pointed out that the inevitable consequence of adopting such a course would be to check the progress of medicine and the

acquisition of knowledge which bade fair to diminish the sufferings, not only of mankind, but of the lower animals, the meeting became exceedingly impatient; and the words of Professor Dicey, who wished to speak for, and Professor Freeman, who tried to speak against, the decree, were both drowned by cries of "Divide, divide," from members of Convocation, and a great uproar among the undergraduates. The Proctors then proceeded to take the vote, and announced that 412 had voted for the decree, and 244 against it; there was, therefore, a majority of 168 in favour of the grant. Thus ended the most crowded and most vociferous Convocation that has been held for many years. Common sense, and an earnest desire to render medical teaching more worthy of a great university, have, therefore, signally triumphed. A lecturer on Human Anatomy will now be shortly appointed, and the Physiological Laboratory will be ready for occupation by the end of the summer, so that, by the beginning of October term, the University will be in a position to undertake the teaching of Human Anatomy and Physiology, together with a complete system of instruction in the subjects of the first B.M. Examination, and of the first and second Professional Examinations of the Conjoint Board of the College of Physicians and the College of Surgeons in London. We trust that, after so significant an expression of opinion on the part of the members of Convocation, Professor Burdon Sanderson may be allowed to carry on his work free from petty hindrances, to the lasting benefit of a medical school only too long delayed.

OBITUARY.

EBENEZER PYE-SMITH, F.R.C.S.

Among the practitioners in the city of London forty years ago, few were better known or more respected than the subject of this notice. He was the son of the Rev. John Pye-Smith, D.D., F.R.S., a learned nonconformist divine, whose theological and scientific writings are not yet entirely forgotten. He was educated at Mill Hill School, under Thomas Priestley, and always kept up his knowledge of Greek and Latin. On leaving school at the age of 17, he was articled to Mr. Ashwell, a practitioner of good standing in the city, who afterwards took his degree, and became obstetric physician to Guy's Hospital. At the same time, he became a pupil of that medical school, where he followed Astley Cooper, Bright, and Addison, and dressed for Aston Key. He also attended the practice of Travers and Green, at the neighbouring hospital of St. Thomas. His chief friends were John Blackburn, the author of an early and valuable essay on excision of joints, who was lost at sea while still young; Henry Ewen, afterwards a well known practitioner in Lincolnshire; John Hilton, and Thomas Hodgkin. To the last named eminent pathologist he was warmly attached, and afterwards took part with the late Sir Stephen Lushington and others in the protest against the exclusion of Hodgkin from the hospital-staff.

At the end of his course of study in London, Mr. Pye-Smith spent several months in Paris, where he attended Magendie's lectures as well as walking the hospitals. Here he made the friendship of Dr. Gustave Monod, and of M. Bovet, of Neufchâtel. He became a good anatomist, and a skilful pathological draughtsman. It was intended that he should next go to Edinburgh and take his degree, with a view to devoting himself to obstetric practice; but a flattering offer of partnership persuaded him (probably, in the end, for his own happiness) to enter on general practice in the city. He soon after married, and took a corner house in Billiter Square. Here he practised successfully, for most of the time without a partner. Besides his professional friends, Risdon Bennett, of Finsbury Square, Henry Oldham, of Devonshire Square, Samuel Solly, of St. Helen's Place, and Thomas Peacock, of Finsbury Circus, he was intimate with Quekett, the conservator of the Museum of the College of Surgeons; Ward, the inventor of the botanical case which bears his name, and Conrad Loddijes, the orchid-grower. Dr. Cooke, of Trinity Square, introduced him to the Hunterian Society, of which he afterwards became secretary, and he was one of the original members of the Pathological Society. To both he contributed cases both clinical and anatomical.

His practice gradually extending from the city to the suburbs of Hackney, Clapton, and Walthamstow, he removed from the city, and spent the last twenty years of his professional life in that district. In 1873, he retired from practice, and, after a year's travelling in Italy, bought a house and garden at Sevenoaks, where he spent his latter years in peace and comfort, expecting the end without impatience and without dread. It came after only a few days of rapid and almost painless decay on March 9th, at the close of his seventy-seventh year.

His strict integrity and honourable professional life, his skill and sympathy in practice, his unselfish patience and charity, his warm affection and deep religious faith, were remarkable throughout his long course. In two particulars he was peculiarly happy; first, in having never had a funeral from his house during fifty years of married life, and in seeing his wife and eight children around his death-bed; secondly, in the success of the pupils whom he had in his house during the earlier portion of his career. Beside the late Dr. Oldfield, of the Indian army, Mr. James Oldham, of Brighton, and one of his sons, who is surgeon to the Sheffield Hospital, and others who did him credit at the London University or in practice, three of his pupils—Dr. Habershon, Dr. Pavy, the late Dr. Phillips—and lastly, his own son, were successively appointed physicians to his own *alma mater*, the hospital and school in which he ever took a loyal and devoted interest.

W. A. F. BROWNE, LL.D., L.R.C.S.Ed.

On the 2nd instant, at Dumfries, in his seventy-ninth year, died Dr. W. A. F. Browne, late Commissioner of Lunacy for Scotland. Dr. Browne, almost the last representative of the elder generation of psychologists, had throughout his long life held a distinguished position, professionally and officially. The son of an officer in the Cameronian regiment who lost his life in the great war, Dr. Browne distinguished himself as a student at the University of Edinburgh. He was there President of the Medical Society, and a friend and disciple of George Combe, whom he assisted in his phrenological researches, and for whom he sometimes lectured. Soon after commencing the practice of his profession at Stirling, he was offered the appointment of Medical Superintendent to the Hospital for the Insane at Montrose, the duties of which office he discharged with skill and high credit. During his tenure of this office, he published, in 1837, his most important work, entitled *What Asylums Were, Are, and Ought To Be*, a work which, teeming with the well matured results of careful experience, directing wise and humane suggestions, anticipates, in conception, most of the great reforms which have since taken place in the treatment of the insane, and some of those which still remain to be effected. With regard to a question much debated at the present time, Dr. Browne clearly indicated the total difference between the personal interests of the officers of public asylums and the proprietors of private ones; and he advocated the change from private to public asylums, for the purpose of "preventing any act to which a humane and intelligent body of the community were not parties, and of divesting the care of the insane of every occasion for the exercise of selfish and unworthy motives" (p. 175).

In 1839, Dr. Browne accepted the appointment of Medical Superintendent to the new Hospital for the Insane at Dumfries, which had been founded by the munificence of Dr. Crichton, whose name it bears. He retained this appointment eighteen years, discharging its duties with admirable success in every respect. By his humane and skilful treatment he founded its connection and established its fame, he husbanded and improved its resources, and he developed it, and left it as an institution which will endure as a monument of the best work of his own most useful life. After eighteen years in the Crichton Asylum, Dr. Browne left it for higher public service on receiving the appointment of Commissioner in Lunacy for Scotland, an office first created in 1857, and to which he was appointed with the late Sir James Coxe as his colleague. Reformed legislation in respect of the care and treatment of the insane came late to Scotland; and the Scotch have had the great advantage of standing upon the shoulders of English experience, the consequence of which has been that the condition of the insane at the present time in Scotland is greatly in advance of its condition in the country whose wealth and civilisation ought to render it inferior to none. It is needless here to dwell upon the diligence and wisdom with which the new Scotch Commissioners applied the new law. The general contentment of the community with which, at the present time, it is regarded in Scotland, while over the border there is general discontent, is a sufficient proof of this.

In 1870, Dr. Browne, while on official circuit, was thrown from his carriage, and so injured that he entirely and permanently lost his sight. During his long night of fifteen years which succeeded, he fought for and maintained his intellectual vision, so that few men were more conversant than he with the knowledge of the day and the currence of events. All the best books he had read to him as they were published, and he was himself not an unfrequent contributor to periodical literature. He had ever been an elegant writer and an eloquent speaker, and his successful struggle against his calamity was a fine

example of what may be done to remedy the defects of sense. Even in his bereavement he was a genial and delightful companion, and, as he always had been, a true and sincere friend. He leaves four children to deplore his loss, of whom the eldest, Dr. Crichton Browne, walks closely in his footsteps.

MILITARY AND NAVAL MEDICAL SERVICES.

THE ALEXANDER MEMORIAL PRIZE.

THE prize of £50 and gold medal of the value of £10 have been awarded to Surgeon John Martin, Medical Staff, for the best essay on "Antiseptic Surgery, and its Application in Military Hospitals and in the Field." The subject for the next competition is, "On the Relations between the Food and Work of the British Soldier, and their Proper Adjustment in Peace and War; on the Occurrence of Scurvy among Troops, and its Prevention; and on the Use of Preserved and Concentrated Foods, with suggestions for alterations or improvements in the existing rations and times of meals." Essays must reach the President of the Committee on or before December 31st, 1887. They are to be superscribed with a brief motto, and accompanied by a sealed envelope similarly superscribed, containing the name and address of the author. No essay must exceed fifty pages of ordinary printed octavo, which may be estimated as amounting to 20,000 words. Tables may be added in the form of appendices. The competition is limited to executive medical officers of the army on full pay; but assistant-professors at Netley are not allowed to compete while so employed.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL C. D. MADDEN, Surgeon-General in the Madras Presidency, has been appointed Surgeon-General with the forces in India, in succession to Sir Anthony Home, whose term of service will expire on March 22nd, 1885. Surgeon-General Madden will be relieved at Madras by Surgeon-General J. Irvine, who is now serving in Egypt. Mr. Madden served in the Crimea and before Sebastopol (medal with clasp, and Turkish medal), also with the 43rd Light Infantry, in the latter part of 1859 (medal). He served as Surgeon of the 4th King's Own throughout the Abyssinian campaign, and was present as Field-Surgeon of the 1st Brigade at the action of Arogee and capture of Magdala (mentioned in despatches, and promoted Surgeon-Major "for valuable services rendered during the campaign;" medal).

Surgeon W. B. MILLER, M.D., has been appointed Instructor at the Depôt and Training School at Aldershot.

The undermentioned have been appointed to do duty with the troops proceeding to England in Her Majesty's troopships stated against their names and date of sailing:

Brigade-Surgeon J. DAVIS, from Bengal, *Malabar*, March 21st.

Surgeon J. W. H. FLANAGAN, from Bombay, *Malabar*, March 21st.

Brigade-Surgeon P. B. SMITH, M.D., from Bombay, *Serapis*, April 1st.

Surgeon-Major C. WHITE, from Bombay, *Serapis*, April 1st.

Surgeon-Major P. CONNOLLY, from Bengal, *Crocodile*, April 10th.

Surgeon-Major T. J. P. HOLMES, M.B., from Bombay, *Crocodile*, April 10th.

Surgeon-Major T. RAMSAY, from Bengal, *Jumna*, April 19th.

Surgeon-Major W. B. SLAUGHTER, from Bombay, *Jumna*, April 19th.

Surgeon-Major C. HARWOOD has resigned his commission in the 5th Battalion of the Sherwood Foresters (Derbyshire Regiment), formerly the 1st Derby Militia; he is permitted to retain his rank, and to wear the prescribed uniform.

Mr. W. A. DUNCAN, M.D., has been gazetted Acting-Surgeon to the 1st London Rifle Volunteers (City of London Rifle Volunteer Brigade).

Mr. C. M. WHISTLER has resigned his appointment as Acting-Surgeon to the 6th (West) Suffolk Rifle Volunteers.

Surgeon T. W. TREND, M.D., of the 2nd Hampshire Volunteers, Surgeon A. T. NORTON, of the 12th Middlesex (Civil Service) Volunteers, and Surgeon C. F. LEWIS, of the 2nd Sussex Volunteers, have been granted the honorary rank of Surgeon-Major.

Surgeon-Major W. GRAVES, serving in Bengal, has been granted furlough for six months on medical certificate.

Surgeon J. P. CARMODY, M.D., doing duty at the station hospital at Kamptee, has been directed to do duty at the station hospital at Bangalore.

Surgeon R. KIRKPATRICK, M.B., doing duty at the station hospital at Bangalore, has been directed to do duty at the station hospital at Kamptee.

Surgeon-Major W. ROBERTSON, M.B., senior medical officer of the station hospital at Poonamallee, has been directed to do general duty at Bangalore.

Surgeon-Major W. C. GRANT, M.B., doing duty at the station hospital at Wellington, Madras, has been appointed senior medical officer of the station hospital at that place.

Surgeon-Major F. A. DAVY, M.D., on arrival from England, has been appointed senior medical officer of the station hospital at Poonamallee.

Surgeon P. M. CARLETON, M.D., has been ordered to take medical charge of the station hospital at Calcutta.

Surgeon-Major E. C. R. WARD, has been appointed to the medical charge of the station hospital at Neemuch, Bombay Presidency.

Surgeon A. WEIR, M.D., has resigned his commission in the 2nd Volunteer Battalion of the Worcestershire Regiment (late the 2nd Worcestershire Volunteers), with the honorary rank of Surgeon-Major, and permission to wear the uniform of the corps.

The death of Deputy Surgeon-General R. THORNTON is announced as having occurred on December 16th last. He entered the service on July 6th, 1846; was appointed Surgeon, April 24th, 1855; Surgeon-Major, July 6th, 1866; and retired on half-pay, with a step of honorary rank, July 5th, 1877. From *Hart's Army List*, we learn that Mr. Thornton served throughout the Eastern campaign of 1854-55, including the affairs of Bulganak and McKenzie's Farm, the battles of Alma, Balaklava, and Inkerman, the siege and fall of Sebastopol (Medal with four Clasps, 5th Class of the Medjidie, and Turkish Medal). He also served as Principal Medical Officer with the expeditionary force employed against the hostile Indians in Yucatan in 1861.

Surgeon C. P. TURNER died at Korti, Soudan, on the 6th instant, of enteric fever; he entered the service on March 31st, 1874, and was in the thirty-fifth year of his age. Mr. Turner served in the expedition against the Jowaki Afreedees in 1877 with the 51st Light Infantry (Medal with Clasp). In the Afghan war in 1878-79, he was with the Peshawur Valley Field Force during the advance to Jellalabad through the Khyber Pass, and was at the assault of Ali Musjid (mentioned in despatches, Medal with Clasp). He also served in the Egyptian war in 1882, and was at the battle of Tel-el-Kebir (Medal with Clasp, and Egyptian bronze star); and, with the Soudan Expedition in 1884, he was at the battles of El Teb, where he was slightly wounded, and of Temai (two clasps).

The medical officers accompanying the New South Wales contingent to Suakin are by name Surgeons WILLIAMS, GLANVILLE, and TROWFOOT.

INDIAN MEDICAL SERVICE.

Surgeon-Major G. A. DUNDAS, Bengal Establishment, in officiating medical charge of the 42nd N.I., is, with the consent of the military authorities, appointed temporarily to the civil medical charge of Shillong, in addition to his other duties.

Surgeon J. LANCASTER, M.B., Madras Establishment, civil surgeon at Negapatam, and officiating zillah surgeon and superintendent of the jail at Chittoor, is confirmed in the latter appointment, *vice* J. J. L. Ratton, M.D., appointed to other duty.

Surgeon A. H. LEAPINGWELL, Madras Establishment, zillah surgeon and superintendent of the jail at Berhampore, to be civil surgeon at Negapatam, in succession to Dr. Lancaster.

Surgeon W. G. KING, M.B., Madras Establishment, to be civil surgeon and superintendent of the jail at Kurnool.

Surgeon A. T. L. PATCH, M.B., Madras Establishment, doing duty with the 4th Madras Pioneers, has been ordered to do general duty in the Eastern District.

Surgeon JAMES SCOTT, M.B., Madras Establishment, doing duty with the Hyderabad Subsidiary Force, has been directed to do duty with the 4th N.I., *vice* Surgeon Patch.

Surgeon S. T. AVETOOM, Bombay Establishment, officiating in medical charge of the 13th Native Infantry at Rajkote, has been placed on general duty in the Mhow Circle.

The undermentioned gentlemen have received leave for the periods specified: Surgeon P. D. PARK, Bengal Establishment, to Cashmere, on private affairs for six months; Surgeon A. J. STURMER, Madras Establishment, Secretary to the Surgeon-General with the Government of Madras, for one year and 230 days; Surgeon-Major H. J. BLANC, M.D., Bombay Establishment, Physician to the European General Hospital at Bombay, for twelve months on medical certificate.

Surgeon-Major WILLIAM EDWARD WOOD, late of Her Majesty's Indian Army, died on the 1st instant at South Norwood at the age of 68.

NAVAL MEDICAL SERVICE.

Fleet-Surgeon H. D. STANISTREET has been appointed to the *Jumna*. Mr. Stanistreet was appointed Surgeon, August 4th, 1862; Staff-Surgeon, February 19th, 1876; and Fleet-Surgeon, July 29th, 1883.

Mr. GEORGE W. LOW, who entered the service on March 10th, 1871, and was appointed to the *Alexandra* on August 30th last, has been transferred to the *Mariner*.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:—

		From.	To.
Deputy Surgeon-General	R. Wolseley, M.D.	Aldershot	Edinburgh.
,, ,, ,,	O. Barnett, C.I.E.	Portsmouth	Suakin.
Brigade-Surgeon	G. L. Hinde	Dover	Suakin.
,,	S. B. Roe, M.B., C.B.	Cork	Suakin.
,,	S. Fuller	Gibraltar	—
,,	J. Warren	Aldershot	Suakin.
,,	W. Tanner	Dover	Suakin.
,,	J. Davidge	Malta	Egypt.
Surgeon-Major	T. Barnwell	Leeds	York.
,,	A. Allan, M.D.	Netley	Suakin.
,,	G. C. Carson, M.B.	Hulme	Suakin.
,,	J. B. Hamilton, M.D.	Dublin	Suakin.
,,	A. A. Gore, M.D.	Dublin	Egypt.
,,	W. J. Wilson, M.D.	Sheerness	Suakin.
,,	W. Creyk, M.B.	Bengal	Aldershot.
,,	R. W. Troup, M.B.	Woolwich	Gibraltar.
,,	J. A. Shaw, M.D.	Aldershot	Suakin.
,,	H. C. Collier	Gibraltar	Glasgow.
,,	J. Fleming, M.D.	Portsmouth	Suakin.
,,	C. F. Churchill, M.B.	Madras	—
,,	A. Minto, M.B.	Norwich	Bengal.
,,	W. E. Riordan	Dover	Suakin.
,,	R. Tobin	Netley	Suakin.
,,	G. J. H. Evatt, M.D.	Woolwich	Suakin.
,,	A. W. Bate, M.D.	Dublin	Suakin.
,,	J. J. O'Reilly	Bengal	Dover.
,,	H. W. A. Mackinnon	Canterbury	Madras.
,,	H. T. Chapman	—	Sheerness.
,,	T. W. Patterson	Limerick	Suakin.
,,	R. N. M'Pherson	Guernsey	Bengal.
,,	E. F. Boult	Netley	Suakin.
,,	W. F. Bennett, M.D.	Curragh	Egypt.
,,	A. H. L'Estrange	Tipperary	Curragh.
,,	R. M. Craig	Dublin	Bombay.
,,	P. T. Frazer	Weedon	Newcastle.
,,	A. H. Stokes, M.B.	Portsmouth	Suakin.
,,	G. Corry	Pembroke Dock	Suakin.
,,	J. J. Crean	Newcastle	Suakin.
,,	W. J. Fawcett, M.B.	Madras	Suakin.
,,	A. H. Anthonisz, M.B.	Liverpool	Suakin.
,,	R. V. Ash, M.B.	Portland	Bengal.
,,	F. E. Barron	Gravesend	Suakin.
,,	B. M. Blennerhassett	York	Bombay.
Surgeon	R. W. Mapleton, M.B.	Netley	—
,,	R. G. Thomsett	Portsmouth	Gibraltar.
,,	P. J. M'Quaid, M.D.	Colchester	Malta.
,,	L. B. Ward	Bengal	Woolwich.
,,	J. E. V. Foss, M.D.	Fermoy	C. of Good Hope.
,,	J. S. Forrester	Chatham	R. H. Guards.
,,	R. Smith, M.B.	Colchester	Suakin.
,,	J. Hoysted	Colchester	Suakin.
,,	W. M. James	Fort Brockhurst	Bombay.
,,	U. J. Bourke	Woolwich	Suakin.
,,	R. C. Gunning	Devonport	St. Helena.
,,	J. L. Peyton, M.B.	Longford	Suakin.
,,	B. W. Large	Dublin	Birr.
,,	R. D. Hodson	Fleetwood	Hulme.
,,	C. K. Powell, M.D.	Carlisle Fort	Cork.
,,	W. W. Kenny, M.B.	Dublin	Suakin.
,,	W. Keays	Dublin	Suakin.
,,	E. R. Power, M.B.	Chatham	Suakin.
,,	H. L. Donovan, M.D.	Curragh	Suakin.
,,	N. Leader	Kinsale	Suakin.
,,	H. E. W. Barrington, M.B.	Netley	C. of Good Hope.
,,	J. G. MacNeece	Bombay	—
,,	M. D. O'Connell	Youghal	Egypt.
,,	J. S. Langdon	Gibraltar	Egypt.
,,	R. W. E. H. Nicholson	Cork	Templemore.
,,	E. R. Cree	Pembroke Dock	Suakin.
,,	M. O. Drury	Dublin	Suakin.
,,	S. A. Crick, M.B.	Preston	Liverpool.
,,	H. J. Barnes	—	Gravesend.
,,	W. G. A. Bedford, M.B.	Jamaica	Woolwich.
,,	T. F. W. Fogarty, M.B.	Hong Kong	—
,,	J. H. A. Rhodes	Jamaica	—
,,	L. W. Swabey	Burnley	Suakin.
,,	W. Rowney, M.D.	Shorncliffe	Egypt.
,,	M. W. O'Keeffe, M.D.	Dublin	Gibraltar.
,,	J. Osburne	York	Suakin
,,	H. W. Hubbard	Chatham	Malta.
,,	R. I. D. Hackett, M.D.	Canterbury	Suakin.
,,	G. T. Trewman, M.B.	Gosport	Egypt.
,,	H. H. Johnston, M.B.	Edinburgh	Suakin.
Surgeon	J. D. Davies	Portsmouth	Suakin.
,,	W. G. Birrell, M.B.	Lichfield	Suakin.
,,	W. Kelly, M.D.	Curragh	Bombay.
,,	A. Dodd	Woolwich	Bombay.
,,	G. Wilson, M.B.	Woolwich	Bombay.
,,	F. S. Heuston	Dublin	Bengal.
,,	H. N. Thompson, M.B.	Winchester	Hong Kong.
,,	J. I. P. Doyle	Shorncliffe	Jamaica.
,,	N. Manders	Chatham	Suakin.
,,	S. F. Freyer, M.D.	Aldershot	Suakin.
,,	R. S. F. Henderson, M.B.	Woolwich	Suakin.
,,	H. Mitchell	Dover	Suakin.
,,	S. Butterworth	Jersey	Suakin.
,,	I. R. Lane, M.D.	Aldershot	Suakin.
Captain of Orderlies	F. Fernandez	Western District	Cork District.
,,	H. J. Sylvester	Woolwich	Suakin.
,,	W. A. Moss	Portsmouth	Southern Dist.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Thursday, March 12th.

Poisons Bill.—This Bill, which was down on the paper in the name of the Lord President of the Council (Lord CARLINGFORD) for second reading, was not discussed to-day, owing to the measure not being printed.

HOUSE OF COMMONS.—Monday, March 2nd.

The Medical Act Amendment Bill.—Mr. A. O'CONNOR asked what was intended with regard to the Medical Act Amendment Bill.—Mr. MUNDELLA: This matter is at present under consideration, but I am not yet in a position to make any definite statement upon it.

Friday, March 6th.

Dr. Crichton Browne's Report on Overpressure.—Mr. LEIGHTON asked the Vice-President of the Committee of Council whether any action had been taken by the Department or the London School Board in consequence of Dr. Crichton Browne's report, presented last year to Parliament; and whether anything was likely to be done to mitigate the evils of overpressure therein declared to exist.—Mr. MUNDELLA: The London School Board is at present conducting a searching inquiry into the allegations made in Dr. Crichton Browne's report, all of which relate to London schools. The Education Department has taken no steps in consequence of that report, inasmuch as, long before anything was heard of it, provisions were introduced into the Code which, by general testimony, have done all that the central government can do to prevent overpressure.

Monday, March 9th.

Rags and Cholera.—Mr. LABOUCHERE asked the Secretary to the Local Government Board whether he was aware that, since the prohibition on the importation of French rags had been removed, a large number of bales of rags had been imported from French ports; and whether he would take steps to see that such bales coming from foreign ports were disinfected before they were carried inland by rail, as it might be that they consisted of accumulations of rags containing cholera-germs.—Mr. G. RUSSELL: There is no doubt that a large number of bales of rags have been imported from French ports since our order expired on the 1st instant. We know of no instance of cholera being imported in rags, and we have allowed such a period to elapse since the date of the last known case of cholera in Europe, as would materially reduce any possible danger. It does not appear that it would be further reduced by any of the customary processes of disinfection in use at English ports.

Thursday, March 12th.

Patent Medicines.—Dr. CAMERON: I beg to ask the Chancellor of the Exchequer whether he has yet received from the Board of Inland Revenue those reports on the Medicine Stamp Tax which, in the House of Commons on August 7th, he undertook to "study with care;" and if so, what action he proposes to take in the matter?—The CHANCELLOR OF THE EXCHEQUER: Yes, Sir, I have considered this question in conjunction with my noble friend, the President of the Council. We have under consideration the propriety of introducing a Bill or Bills on the subject, but I cannot say when it will be possible to introduce them.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL ETIQUETTE.

SIR,—C. is in two clubs, the surgeons to which are W. and M.; he is taken ill, and sends for E., the qualified son of M., who attends him for five days. On the evening of the fifth day he is not so well, and sends for both E. and W. E. tells the messenger he will either go alone, or take M., his father, with him, after which, if they still wished it, he would meet W. This message is sent to W. verbally. W. writes back to E. suggesting that he (W.) shall visit C. alone. E. at once replies, by note, telling W. if he thinks he is justified in going alone, he (E.) must retire from the case. Without waiting for this reply, W. visits C., and tells his friends he has come alone because E. refused to go. Will you kindly state your opinion on W.'s behaviour? Was he, under any circumstances whatsoever, justified in visiting C. alone?—I am, etc., X.

*** It would have been well had "E.", on receiving the message from "C.," at once assented thereto (as was, *de facto*, his ethical duty), instead of demurring and expressing his intent "either to go alone, or take M., his father, with him; after which, if still wished, he would meet "W." It is scarcely necessary to add that "C." had a perfect right to elect "W." if he so willed; but unless "E." had absolutely declined to see the case with "W.," without the intervention of "M.," and it were distinctly so understood, "W." was not justified in visiting "C." alone; and, in so doing, would be violating a well known rule of professional etiquette.

SIR,—I am medical officer of a club. I had frequently attended the family of R., a member of the club; all the cases did well. I am attending R.'s son; he has symptoms of the early stages of typhoid fever. I prescribe dilute nitric acid, spirit of nitric ether, syrup of lemon-peel and water, and state my opinion of the nature of the case. He is progressing satisfactorily. There is no expression of dissatisfaction. On making my visit one morning, I am informed that Mr. B., a neighbouring practitioner, has been to see him. Mr. B. never communicates with me about the case, and he continues attending. A year afterwards, Mr. B. sues R. for payment of his account (the committee of the club having refused to pay it). In defence, R. states that Mr. B. said that my treatment was wrong, and that he promised a certificate to that effect. Mr. B. denies this in court, and to me in writing afterwards. I am not cited as a witness in the case, and know nothing of it till my attention is called to report of trial in local prints.

Was Mr. B. justified in seeing the case at all? When he found the treatment was not wrong, should he have continued attendance without communicating with me? Should my name have been dragged into public prints without my knowledge? What action should be taken in the matter? J. H.

*** Assuming the statement made by "J. H.," a year after the incident occurred, to be an accurate record of the facts of the case, we remark that the conduct of "Mr. B., a neighbouring practitioner," should have been governed by the following rule, extracted from the *Code of Medical Ethics*, page 36. "When a practitioner is called in to, or consulted by, a patient who has recently been, or still may be, under the care of another, for the same illness, he should, on no account, interfere in the case, except in an emergency, but request a consultation with the gentleman in previous attendance. If, however, the latter refuse this, or have relinquished the case, or if the patient insist on dispensing with his services, and a communication to that effect be made to him, the practitioner last consulted will be justified in taking charge o the case." Failing in this, he ("Mr. B.") would be guilty of a grave breach of professional etiquette.

As to "what action should now be taken in the matter," it is scarcely necessary to observe that, in the absence of detailed information relative to the (if any) professional or other injury sustained by our correspondent in consequence of his late patient's conduct, and that of the superseding practitioner, we are not in a position to advise; we also note a like silence as to the course he pursued on finding "that Mr. B. had been to see the patient" without the knowledge or assent of himself, the practitioner in attendance. If, however, a clear statement of the facts on which he more especially seeks our counsel be forwarded, it shall receive careful consideration.

THE DUTIES OF CONSULTANTS.

THE continued silence of "E.," in the matter of the personal statement specially solicited from him by our aggrieved correspondent, "J. E. S.," leaves us no alternative but to base our comments on the case as submitted by the latter; respecting which we deem it only fair to remark that, to our mind, and especially under the inciting circumstances, his narration bears the impress of an honest and dispassionate statement.

Our view of the several points submitted will be found embodied in the following remarks on the duties of practitioners in consultations, namely, that consultative discussions should be regarded as private and confidential; that neither by word nor manner should either of the parties to a consultation covertly allege, or in any way, confidentially or otherwise, intimate to the patient, his friends, or other persons, that he had dissented from the diagnosis or treatment. (A proceeding so unethical would not only be dishonouring to the individual practitioner, but a reflection on the faculty.) In fact, no statement should be made, or discussion relative thereto take place, before or with the patient, or his friends, except in the presence, and with the consent, of the faculty in attendance on the case; and no opinion or prognostication, other than those mutually assented to after deliberation, should be expressed.

We are of opinion, moreover, that, under the special circumstances of the case, "E." should have insisted, as a *sine quâ non*, on the retention of the professional services of "A," or himself have retired. The contrary justly exposes him to adverse criticism.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

DR. BERNARD AND THE METROPOLITAN ASYLUMS BOARD.

WE have had placed in our hands a copy of a correspondence that has passed between the Metropolitan Asylums Board, the Local Government Board, and Dr. Bernard, the Medical Superintendent of the Small-pox Asylum Hospital at Stockwell, which merits some comment.

It would appear that, on January 7th last, the Metropolitan Asylums Board forwarded a letter to the Local Government Board, in which they submitted a resolution that had been come to by the Committee of Management, whereby it was decided that the Small-pox Hospital at Stockwell should be practically abolished, and that it and the Fever Hospital should be consolidated, under the sole charge of Dr. McKellar, the Superintendent of the Fever Hospital, isolation-wards being reserved for the occasional admission of small-pox cases, and praying that the central department should determine the appointment of Dr. Bernard, who, for the last nine years, has acted as the Superintendent of the Small-pox Hospital at that place.

On February 19th, the Local Government Board forwarded a copy of the letter of the Asylums Board to Dr. Bernard, and, in doing so, pointed out to his attention Article 52 of the General Order of February 10th, 1875, in regard to Fever and Small-pox Hospitals, which, in substance, is the same as that governing the appointment to, and retention of office by, all poor-law medical officers who are permanently appointed, and concluding by asking Dr. Bernard what observations he had to make prior to the Board giving a decision thereon.

In the reply of Dr. Bernard to the Department's letter, he points out that, so far as he is aware, he has performed his duties to the satisfaction of the managers and of the Board's Inspectors, and he argues, we consider very justly, that it would be manifestly unfair to dismiss him from his appointment, after some years' service, without pension or compensation of any kind; and he prays the Department to direct the managers either to assign him some compensation, or to cause them to grant him a pension for his past services, seeing that they are about suddenly to deprive him of the appointment without any recognition whatever.

What the decision of the Department may be we will not presume to determine, but we can hardly believe that they will sanction this high-handed procedure of the managers of the Asylum Board; we trust, rather, that they will direct such compensation to be made, or pension granted, as shall be equitable and just under the circumstances.

If the request of the managers be literally complied with, a death-blow will given thereby to permanence of appointment, as it will be within the competence of any and every board of guardians similarly to dispense with the services of their medical officers whenever and wherever they are so minded.

A VALUABLE APPOINTMENT.

THE post of medical officer of health to the district of St. Luke, Middlesex, has become vacant by the resignation of Dr. F. W. Pavy, who has held the office twenty-five years. The vestry of the parish have, it is reported, decided on a course of action, in reference to a successor, which has called forth certain comments from the *Islington Gazette*. We quote them entire, as they show a very just and generous appreciation of the value of the services of such an officer as is required. "The St. Luke's Vestry have a curious notion of the status of professional men. They have just resolved to appoint a medical officer of health at a salary of £150 a-year, with the stipulation that he shall not engage in private practice, but devote the whole of his services to the parish; that is to say, they require a highly educated gentleman, with superior scientific attainments, for a pittance of two pounds seventeen shillings and nine pence per week. We are not aware how much St. Luke's pays its parish beadle, but we may safely hazard the assumption that the medical officer will not be financially very much better off than the functionary with the gold hat-band, and he will certainly be inferior to most of the clerks in the vestry offices. What sort of work they expect to get from a medical officer of health who will accept so miserable a position we cannot imagine; but, as they appear to be determined to secure every atom of his services for their magnificent stipend, we should suggest that he be requested to

do odd jobs in his spare time, and clean the vestry's door-plate. If the medical profession respond to this tempting bait, we shall be curious to see what sort of sanitary work will be the outcome of so dignified an appointment. Metropolitan medical officers of health are supposed to be specialists in hygiene, and most of them take high rank in their profession. Does St. Luke's really expect to secure the entire services of a *savant* for £150 a year? The notion is ridiculous, and it says little for the intelligence of those who entertain it. The parson of Goldsmith, who was 'passing rich on forty pounds a year,' was not much worse off in his day and generation than will be the poor modico who, having gone through years of costly training, consents to sell the whole of his opportunities to the Vestry of St. Luke's for little more than the salary of a working bricklayer."

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 5th, 1885.

Emmett, Richard, St. George's Hospital.
Inmon, George Arthur Ferdinand, King's College.
Parr, Arthur Charles Edward, King's College.

MEDICAL VACANCIES.

The following vacancies are announced.

BELMULLET UNION.—Medical Officer, Knocknalower Dispensary. Salary, £110 per annum and fees. Applications to Mr. O'Donnell, Honorary Secretary, Kilcommon Lodge, Belmullet. Election on March 20th.

BURTON DISPENSARY.—Dispenser. Salary, £80 per annum. Applications to Mr. Allen, 69, Branstone Road, Burton-on-Trent.

CHELSEA HOSPITAL FOR WOMEN.—Resident Medical Officer. Salary, £60 per annum. Applications by March 31st.

CHESTER GENERAL INFIRMARY.—House-Surgeon. Salary, £80 per annum. Applications by March 28th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Medical Officer. Salary, £100 per annum. Applications by March 26th.

COLONIAL HOSPITAL, Fiji.—Dispenser. Salary, £150 per annum. Applications to Mr. R. Bremridge, 17, Bloomsbury Square, W.C.

CROOM UNION.—Medical Officer, Adare Dispensary. Salary, £145 per annum and fees. Applications to Mr. O'Flaherty, Honorary Secretary. Election on March 23rd.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Clinical Assistant. Applications by March 19th.

GENERAL HOSPITAL, Birmingham.—Resident Medical Officer. Salary, £130 per annum. Applications by March 28th.

GENERAL INFIRMARY, Hull. — House-Surgeon. Salary, 100 guineas per annum. Applications to the Chairman of the House-Committee by March 21st.

HALIFAX INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary, £50 per annum. Applications by March 26th.

HOSPITAL FOR INFECTIOUS DISEASES, Bootle-cum-Linacre. — Resident Medical Officer. Salary, £100 per annum. Applications to the Chairman of the Health-Committee, Town Hall, Bootle-cum-Linacre.

LITTLEMORE PAUPER LUNATIC ASYLUM, near Oxford.—Resident Assistant Medical Officer. Salary, £100 per annum. Applications by March 15th.

NATIONAL DENTAL HOSPITAL AND COLLEGE, 149, Great Portland Street.—Lecturer on Dental Materia Medica. Applications by March 20th.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, Liverpool.—Resident Medical Officer. Salary, £80 per annum. Applications to Robert Calder, 4, Commercial Court, 17, Water Street, Liverpool, by March 19th.

NEW ROSS UNION.—Medical Officer. Fethard, No. 1 Dispensary. Salary, £115 per annum and fees. Applications to James Neill, Honorary Secretary, Arthurstown. Election on March 16th.

PARISHES OF WESTRAY AND PAPA WESTRAY, Orkney.—Medical Officer, Public Vaccinator, and Officer of Health. Salary, £82 per annum. Applications to J. Scott, Inspector of Poor, Westray by Kirkwald, by March 25th.

PARISH OF STRATH, Skye.—Medical Officer. Salary, £180 per annum. Applications to R. J. Gibson, Inspector of Poor, Broadford, Skye.

PORTSMOUTH LUNATIC ASYLUM, Milton, near Portsmouth.—Assistant Medical Officer. Salary, £120 per annum. Applications by March 16th.

PROVIDENT MEDICAL INSTITUTE.—Medical Officer. Salary, £150 per annum. Applications to the Secretary, 4, Bath Street, Bath, by March 17th.

ROYAL ACADEMY OF ARTS.—Professor of Chemistry. Applications by March 23rd.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House-Surgeon for six months. Applications by March 17th.

SUSSEX COUNTY HOSPITAL.—Assistant-Physician and Assistant-Surgeon. Applications by March 25th.

ST. LUKE'S (MIDDLESEX) VESTRY.—Medical Officer of Health. Salary, £150 per annum. Applications endorsed "Medical Officer" by March 24th.

ST. MARK'S HOSPITAL FOR FISTULA, etc., City Road, E.C.—Honorary Surgeon and Honorary Assistant-Surgeon. Applications by March 19th.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square.—Honorary Physician. Applications by March 23rd.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, etc., Henrietta Street, Covent Garden.—House-Surgeon for six months. Honorarium, 25 guineas. Applications by March 21st.

TIVERTON INFIRMARY, Devon.—House-Surgeon. Salary, £100 per annum. Applications to the Honorary Secretary, Old Blundells, Tiverton.

VENTNOR CONSUMPTION HOSPITAL.—Clinical Assistant. Applications to Dr. Coghill, St. Catherine's House, Ventnor.

WEST LONDON HOSPITAL, Hammersmith.—Assistant Surgeon. Applications by March 30th.

MEDICAL APPOINTMENTS.

CUTHBERT, C. Firmin, M.R.C.S., L.S.A., appointed Honorary Assistant-Surgeon to the Children's Hospital, Gloucester.

LAKE, Wellington, M.R.C.S.Eng., appointed Surgeon to the Walthamstow Town Dispensary, *vice* F. A. Best, M.R.C.S.Eng., retired.

POLLARD, Reginald, M.B.Durh., M.R.C.S.Eng., appointed Assistant House-Surgeon to the Western General Dispensary, Marylebone Road, N.W.

ROSE, James, M.R.C.S., L.R.C.P.Lond., appointed Honorary Assistant-Surgeon to the Liverpool Eye and Ear Infirmary, *vice* G. Stone, L.R.C.P. and S., resigned.

SMITH, Eustace, M.D., appointed Consulting Physician to the Merchant Seamen's Orphan Asylum.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTH.

EVANS.—On February 27th, at Sutton Coldfield, Warwickshire, the wife of Alfred H. Evans, M.R.C.S., of a son.

DEATH.

EVANS.—On March 3rd, at Sutton Coldfield, Warwickshire, Helen, the dearly loved wife of Alfred H. Evans, M.R.C.S.

VICTORIA HOSPITAL FOR CHILDREN, CHELSEA.—It has long been considered desirable to alter the situation of the out-patient department, which is now immediately under the wards of the in-patients; but the committee of management have been unable to undertake the task from want of funds. They have now, however, decided to commence the building on the land already the freehold property of the charity, at a cost of £6,550, of which sum £3,000 has been given or promised, and it is earnestly hoped the balance will soon be made up. The ceremony of laying the memorial stone has been undertaken by Her Royal Highness the Princess Louise, and will take place during the month of June. Donations should be sent to the treasurer, Mr. Martin R. Smith, 1, Lombard Street, E.C.; or to the secretary, at the hospital.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Royal College of Surgeons of England, 4 P.M. Professor William Arthur Brailey: On Some Points in the Anatomy and Physiology of the Eye.—Medical Society of London, 8.30 P.M. Dr. Routh: The Alleged Constitutional Treatment of Diseases of the Uterus and its Appendages. Mr. Walter Pye will show a case of Natural Repair, after Gangrene of the Scrotum.

TUESDAY.—Royal College of Physicians of London. Dr. Hermann Weber: Croonian Lecture on the Hygienic and Climatic Treatment of Consumption.—Pathological Society of London, 8.30 P.M. Dr. Dickinson: Violet Pigment-Discharge from the Mouth. Dr. Samuel West: Aneurysm of the Splenic Artery rupturing through the Stomach. Mr. Treves: A Congenital Deformity. Dr. Turner: Superficial Slough in the Stomach (card); Growth of the Kidney invading the Vena Cava (card). Dr. Silcock: Osteitis Deformans. Mr. D'Arcy Power: Synovial Cysts in connection with Joint-Disease. Mr. Battle: Primary Sarcoma of the Penis. Dr. Norman Moore: Cavity in the Lung of an Infant; Renal Disease in an Ox (card). Mr. Stephen Paget: Dislocated Hip. Dr. Percy Kidd: Fatal Hæmoptysis from an Hydatid of the Lung. Dr. Chaffey: Pyo-salpinx in a Child aged 4 (card).

WEDNESDAY. — Royal College of Surgeons of England, 4 P.M. Professor William Arthur Brailey: On Some Points in the Anatomy and Physiology of the Eye.

THURSDAY.—Royal College of Physicians of London. Sir Andrew Clark, Bart.: Lumleian Lecture on Some Points in the Natural History of Dry Pleurisies.—Harveian Society of London, 8.30 P.M. Mr. W. Adams Frost: The Early Treatment of Concomitant Squint. Mr. F. Treves: Resection of the Intestine.

FRIDAY.—Royal College of Surgeons of England, 4 P.M. Professor William Arthur Brailey: On Some Points in the Anatomy and Physiology of the Eye.—Society of Medical Officers of Health, 7.30 P.M. Mr. A. Wynter Blyth: The Action of Disinfectants on Micro-Zooides.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.— Samaritan Free Hospital for Women and Children, 2.30 P.M.— Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.— Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.— Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M. —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye; M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12,

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30 Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE TITLE OF DOCTOR.

SIR,—In the JOURNAL of January 31st, at p. 255, Dr. Balfour, Vice-President of the Royal College of Physicians of Edinburgh, has written to inform the Licentiates of the College that they have no right to the title of Doctor of Medicine. From time immemorial, the Licentiates of the London College had the title of Doctor conceded to them by courtesy, just as the sons of dukes have the title of "Lord." This continued till the College of Edinburgh began to license physicians in general after the Medical Act, 1858. Then the London College made their former Licentiates Members, and made a lower degree of Licentiates, whom they called Surgeons. The Dublin College of Physicians always gave their Licentiates the title of Doctor; and it was understood that the Edinburgh Licentiates had as good a right to the title as those of any of the other Colleges of Physicians, at least as good right as the M.B.'s have to it who put it on their door-plate and cards, and have done so from time immemorial in England, without any objection being made; but, no sooner did the Edinburgh Licentiates begin to use it, than the Universities made a great outcry against them using it. We say, let the M.B.'s give up using the title, then the Licentiates may be urged to give it up, but not till then. As for myself, this does not concern me, as I have the title otherwise.

But there is another thing we have to speak about in the conduct of the Edinburgh College of Physicians—namely, the last list of the College was sent to the Licentiates with the title of Surgeon (printed). Now, the Edinburgh College of Physicians have no legal right to create surgeons, and no right to call their Licentiates surgeons. The proof of this I find in a "Ratification in Parliament of a gift and patent granted by King William and Mary in favours of the Surgeons of Edinburgh," wherein the charter of Charles II to the Edinburgh College of Physicians is mentioned as follows: "Atque similiter quum in memoriam revocamus in literis illis patentibus a Serenissimo Rege Carolo Secundo beatissimæ memoriæ concessis quibus Medici Edinburgenses in Collegium eriguntur Chirurgorum et Chirurgorum-Pharmacopœorum Edinburgensium privilegia sarta et tecta seu integra et indemnia Chirurgis ibidem reservantur et præstantur atque cautum est et declaratum quod non obstantibus prædictis literis patentibus prædictos Chirurgos et Chirurgos-Pharmacopœos solos et omnino potestatem Edinburgi habere curandi omnia vulnerum genera collisiones ossium fracturas et dislocationes contusiones tumores ulcera et similia et omnia accidentia ab his orta quæ solius Chirurgiæ operationum sunt subjecta at morbi omnes internæ originis medicis solis committendi sunt (exceptis ut supra excipitur). Atque si quæ inter Medicos et Chirurgos-Pharmacopœos lis aut controversia de hisce rebus oriatur, ratum esse et judicatum volumus prædictum Medicorum Collegium nullam habere potestatem erogandi mulcturam in Chirurgos," etc.

Then the King and Queen's grant says: "Et volumus et definimus hos veros rectos et fixos inter utramque artem futuros perpetuo limites. Et ut omnes Judices nostri atque subditi hæc in commodum Chyrurgorum et Chyrurgorum-Pharmacopœorum cum omni favore quantum admitti potest interpretantur. Et denique ut in omni controversiâ inter Medicos et ipsos Chyrurgos Magistratus et Senatus Edinburgensis sint soli et in primâ instantiâ, judices," etc.

Now, sir, as from these charters it is seen that the Edinburgh College of Physicians has no power to give the right, privileges, nor title of Surgeon, but "omnium privilegiorum quibus permissi ejusdem Collegii fruuntur participes facit," its Permissi or Licentiates, why should it withhold from them the title of Medicus (Physician), by which they are entitled in the charters, and by which they can appeal to the judges to admit them into the privileges of a Physician (Medicus), as stated in the charter, that is, "the cure of all internal diseases," or "from internal origin?"—I am, yours, etc.,

32, South Tay Street, Dundee. W. GALLOWAY, L.R.C.P.E.

PREVENTION OF HABITUAL ABORTION.

SIR,—I would suggest to your correspondent "J. G.," whose letter appeared in the JOURNAL of January 10th, page 109, to try the virtues of viburnum prunifolium, or black haw, as a preventive of abortion, providing, as you yourself suggest, there be no "specific cause" as a factor in its production.

For some years, it has been tried on this side of the Atlantic by physicians in good standing with decided success; but I have not observed its use recorded in British journals.

In my own practice, I have many times during these last nine or ten years had every reason to be pleased and satisfied with its results in cases where the uterus had acquired the habit of aborting. In one well marked case, a lady who had seven successive abortions about the third month, with no evident change in her circumstances or condition other than the administration of viburnum, was enabled to carry on gestation to the full period, and delivered of a healthy well developed child. The preparation that I have used chiefly is Parke, Davis, and Co.'s fluid-extract, in doses of 20 minims to half a drachm three times a day; but, if symptoms are threatening, these doses should be given every hour for a day or two. It can, I think, be obtained in London at Burgoyne and Burbidge's, Coleman Street.—Yours, etc.,

Brussels, Canada. WILLIAM GRAHAM.

THE MENSTRUAL WAVE.

SIR,—In a short contribution, entitled, "The Menstrual Wave," which appeared in your impression of February 14th, attention is called to the important truth that menstruation is not merely a local, but, in every sense, a constitutional process, and reference in support of this view is made to the comparatively recent investigations of Dr. Reinl, of Franzensbad, on the temperature during the catamenial and intermenstrual epochs. As the attention of many may be called by the above annotation to the bibliography of the subject, allow me to recall to your notice the work done by Dr. Wiltshire in this direction, part of which has appeared in the pages of this JOURNAL.

I believe no man in this or any other country has shown so profoundly as Dr. Wiltshire, how deeply the whole of the female organism is affected at the time of menstruation, not only in respect of temperature, but also as regards the vascular and other systems. To my knowledge, he has taught and demonstrated these facts for more than ten years at St. Mary's Medical School; and in the Lettsomian lectures given before the Medical Society in January, 1877, he further developed his views. Again, his valuable lectures on the Comparative Physiology of Menstruation, published in your columns in March, 1883, demonstrated how profoundly the systemic phenomena of the rut were also manifested in the lower creatures; while some condensed abstracts of his lectures on the Physiology and Pathology of Menstruation, which appeared in the JOURNAL of February, 1884, show the wide and comprehensive survey he has for many years instituted into the systemic phenomena of reproduction.—I am, etc.,

MONTAGU HANDFIELD-JONES.

EXAMINATION OF DRINKING-WATERS.

SIR,—Will any of your readers kindly give me their experience of Horsley's pyrogallic acid test in the determination of the presence of nitrates and nitrites in water? Wanklyn's method is, no doubt, the best, but costs too much in money and time for constant use in rural districts, where every second house has its own well. If there are any grave objections to Horsley's process, will anyone be good enough to inform me where I can get a description of any other process of water-examination which will supplement the silver test and the microscope? This is a subject which is of great interest to many other medical officers of health as well as to your obedient servant, SAUERKRAUT.

*** By far the most accurate method of determining nitrates in water is the "mercury" method; but, as this involves the use of gas-apparatus, it will probably not find favour with "Sauerkraut." The indigo-method, after some practice, also gives very satisfactory results, and can be performed without any costly apparatus. Both methods are fully described in Frankland's *Agricultural Chemical Analysis* (Macmillan and Co.).

THE INSTITUTE OF CHEMISTRY.

JOSEPH J. MOONEY.—1. Candidates for the associateship of the Institute of Chemistry must pass through a course of three years' study in chemistry, physics, and mathematics at some college approved by the Council. 2. They have also to pass an examination in practical chemistry. 3. All particulars can be obtained on application to the Secretary of the Institute of Chemistry, 9, Adelphi Terrace, Strand.

"A SURGEON" has not enclosed his card. We would advise him to write a letter to the Registrar of the General Medical Council, the body charged with the administration of the Medical Act.

NEPHROTOMY.

MR. KNAGGS writes to us that the report of the case of Nephrotomy, which is published in the JOURNAL of February 28th, page 432, contains an error. In the report for August 19th, two drachms (ʒii) of tincture of hyoscyamus are stated to have been prescribed three times a day; it should read half a drachm (ʒss). He adds that the after-progress of the case was not satisfactory. Phthisical symptoms developed in the lungs, threatening a rapid course, and the patient went back to her friends in the country.

CHRONIC SUPPRESSION OF URINE.

SIR,—If any of your readers could throw any light upon the pathology of the case which I am about briefly to relate, I should feel much obliged, as neither from any books within my reach, nor from my professional brethren who have seen the case with me, have I been able to get any satisfactory explanation.

M. P., aged 30, a single lady, had scarlatina three years ago, followed, as a sequela, by some obscure affection of the left sciatic nerve, occasioning constant pain and lameness. Four months ago, she got cold, which was followed by severe neuralgic pain in the back, sides, and abdomen. These pains, together with great hyperæsthesia of the surface, generally, have continued up to the present. They were associated at times with other symptoms—nausea and vomiting, insomnia, tenesmus, strangury, etc. She has obstinate constipation; menstruation is regular, but slight. She never perspires, and her kidneys, for the last four months, have only excreted urine at intervals of from four to eight days, and then only from twenty to thirty ounces of high-coloured urine, sometimes loaded with lithates, sometimes clear, but always free from albumen or sugar, and of specific gravity 1020, or thereabouts.

That the urine is not excreted there can be no doubt, as she has a nurse with her day and night, and her bladder during the interval is always empty. She takes a fair quantity of food for a person confined to bed, and the suppression of urine does not appear to affect her general health. She comes of a gouty family, and is of a neurotic temperament. I need not say that she has had drugs in great variety; none of them, however, seemed to have the slightest effect upon the secretion of urine. Her temperature is always normal, and her pulse ranges between 80 and 100.

I am quite at a loss to know what can be the cause of this condition. Does the nervous system preside over the secretion of urine to such an extent that it will even prevent the fluid from exuding through the walls of the renal capillaries for eight days at a time? What becomes of the urea and uric acid? I cannot find traces of either in the condensed moisture of her breath. Is the condition common or rare? These are the questions to which I seek replies.—Your obedient servant, ANURIA.

NUMEROUS TAPPINGS.

SIR,—Having seen, in the BRITISH MEDICAL JOURNAL of February 14th, a case of tapping several times, reported by Dr. Farrar, I enclose a short account of a similar case which came under my care some years ago, in which I tapped 65 times in ten and a half years. The last time, sharp peritonitis was set up, which appeared to have closed the sac, and the patient lived two years afterwards in comparative comfort, without requiring the operation again, and then died from cardiac disease at the age of 76.

The patient was aged 64 at the time of the first tapping. The quantities removed were as follows.

1865, February	58	pints.
,, August	54	,,
To July 1875, 63 times, averaging 36 pints ..	2,268	,,
	2,380	
Add one-fourth for weight	595	
Total	2,975	pints,

or 371 gallons and 7 pints.

—Yours truly,
Leominster. WM. EDWARD HYDE.

CONSECUTIVE TWIN-PREGNANCIES.

SIR,—With reference to Mr. Hannay's note on Four Consecutive Twin-Pregnancies in the JOURNAL for January 10th, page 70, I would like to comment on the frequency of twin-pregnancies among the negro population of the island of Trinidad.

On December 14th, 1884, I delivered a woman of twins, who, in her immediately preceding confinement, two years ago, also had twins, both living and healthy at the present time. I know of another case of two consecutive twin-pregnancies. The birth-returns also seem to show a greater frequency of single twin-pregnancies as compared with English subjects, though not so great as in some of the nations represented in Puech's table (*Playfair*, 2nd edition, p. 177).—I am, etc., BEAVEN LAKE, M.D.Lond.,
Government Medical Officer, Trinidad.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. Styrap, Shrewsbury; Dr. Henty, London; Mr. W. Carey, Hounslow; Mr. G. Evans, London; Mr. G. A. Ibbetson, London; Mr. Thomas Thornton, Canterbury; A Surgeon; Dr. J. J. Welpley, Bandon; Dr. J. O. Affleck, Edinburgh; Mr. H. Bigg, London; Mr. R. Smith, Winchfield; Dr. J. A. McWilliam, London; Mr. W. Emerson, Dalston; Mr. T. G. Parrott, Bournemouth; Mr. J. Rose, Liverpool; Dr. Willoughby, London; The Secretary of the Journal of the British Dental Association, London; Mr. R. Scaife, Market Weighton; Mr. J. Hardie, Manchester; Mr. W. Marriott, London; Mr. H. W. Fagge, Lutterworth; Mr. A. J. Garland, Oamaru, New Zealand; Our Birmingham Correspondent; Mr. Clifford Smith, London; Mr. A. Patton, Finglas, co. Dublin; Dr. Macpherson, London; Dr. Banch, New York; Dr. F. Simms, London; Dr. Eustace Smith, London; Mr. McGowan, Bradford; Mr. G. Murray, London; Mr. W. Lake, Walthamstow; Mr. J. Brindley James, London; Mr. McLaghlan, London; Mr. W. Whitehead, Manchester; M.B.; Dr. Whiteford, London; Mr. M. D. Makuna, Ystrad; Mr. J. Sutcliffe, Stalybridge; Mr. E. Watson, Isleham; Dr. Mackey, Turvey; Mr. W. H. Webb, Kingsbridge; Mr. E. Morgan, London; Mr. Otto Hehner, London; Dr. C. Cameron, M.P., London; J. S. D.; The Secretary of the Parkes Museum, London; Mr. E. Downes, Eastbourne; Mr. D. Murdoch, London; Mr. H. Sell, London; Dr. Farquharson, London; Mr. E. Norris, London; Dr. A. Thom, jun., Crieff; Mr. George Cowell, London; Mr. W. Brydon, Hawick; Dr. J. Maunsell, Bath; Mr. W. Glosford, London; Mr. W. A. Thomson, Ampthill; Dr. C. Parsons, Dover; Dr. J. Malony, Dublin; Mr. M. Parry-Jones, Dulwich; Mr. M. Phillips, Whitley; Mr. R. H. Matthews, Eden Bridge; The Director-General of the Medical Department of the Army, London; The Secretary of the Mahomed Memorial Fund, London; The Secretary of the Pathological Society, London; The Secretary of the Society of Medical Officers of Health, London; Dr. J. Rogers, London; Mr. P. Reginald, London; Sir E. Lechmere, London; Dr. Aitken, Rome; The Secretary of the Cancer Hospital, Brompton; Our Edinburgh Correspondent; The Secretary of the Whittle-Hutchinson Fund, Liverpool; Mr. C. F. Cuthbert, Gloucester; Dr. W. Ewart, London; Mr. F. Page, Newcastle-on-Tyne; Dr. MacFarlane, Kilmarnock; Dr. Clifford Allbutt, Leeds; Dr. E. Waters, Chester; Our Paris Correspondent; Our Liverpool Correspondent; Dr. E. Cresswell Baber, Brighton; Mr. W. J. Beatty, Stockton-on-Tees; Mr. J. Hunter, South Queensferry; Mr. Ernest Sheaf, Newcastle-on-Tyne; Mr. T. Whitehead Reid, Canterbury: Mr. J. A. Francis, Edenham; Mr. C. Grindrod, Malvern; Mr. C. Lennox Peel, London; J. C. H.; Dr. Lucas, London; Mr. T. H. Morse, Norwich; Mr. E. Garraway, Faversham; Mr. W. N. Parker, Cardiff; Mr. J. A. Myrtle, Harrogate; Mr. B. T. Lowne, London; Dr. J. Lonie, Preston; Mr. R. Calder, Liverpool; Sir J. E. Eardley Wilmot, London; Our Belfast Correspondent; Our Aberdeen Correspondent; Mr. E. Berdoe, London; Dr. A. D. Macdonald, Liverpool; Mr. S. W. Sibley, London; Mr. W. W. Millard, Midlothian; Mr. J. E. Lane, London; Dr. W. Priestley, London; Mr. W. Curran, London; Dr. J. Crichton Browne, London; The Secretary of the Local Government Board; Dr. Bodington, Birmingham; Mr. R. D. Fox, Manchester; Mr. William Martindale, London; Dr. A. T. Brand, Driffield; Mr. H. W. Roberts, Lewisham; Mr. J. Russell Harris, London; Dr. Alexander Hill, Grantchester; Dr. Imlach, Liverpool; Our Dublin Correspondent, etc.

BOOKS, ETC., RECEIVED.

A Practical Treatise of Diseases of the Ear. By D. B. St. J. Roosa, M.D., LL.D. Sixth Edition. London: H. K. Lewis. 1885.

Handbook of the Theory and Practice of Medicine. By F. T. Roberts, M.D. Sixth Edition. London: H. K. Lewis. 1885.

Quasi Cursores. Portraits of the High Officers and Professors of the University of Edinburgh at its Tercentenary Festival. Drawn and Etched by William Hole, A.R.S.A. Edinburgh: T. and A. Constable. 1885.

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THE CROONIAN LECTURES
ON
THE HYGIENIC AND CLIMATIC TREATMENT OF CHRONIC PULMONARY PHTHISIS.

Delivered at the Royal College of Physicians, London, March 1885.

By HERMANN WEBER, M.D.,
Physician to the German Hospital.

LECTURE II.

Curative Treatment.—Relation of Doctor and Patient.—I. *Diet: Defective Digestion; Raulin's Researches on Mineral Substances; Milk; Times of Meals (Cures of Phthisis); Alcohol.*—II. *Air and Ventilation: Open-air Treatment; Defective Arrangements for the Treatment of Phthisis in General Hospitals; Brompton and Ventnor Hospitals; Necessity for Numerous Small Hospitals for Phthisis in the Country.*—III. *Exercise.*—IV. *Management of Skin; Clothing.*

The Curative Treatment of Phthisis.—The main points which we ought to aim at are: improvement of the general nutrition of the body, or, to use Dr. Beale's expression, of the "bioplasm," restoration of healthy respiration and of circulation in the lungs, limitation of the existing disease, and prevention of fresh outbreaks or fresh infection.

The principal means to obtain these ends are: adequate supply of food, abundance of pure air by night and day, regulated exercise, strengthening of the skin, healthful occupation of the mind. We might, perhaps, say, in other words, that we must aim at improvement of the tissue-change, by increased supply of air and nutritive material to the cells and tissues, and by perfecting the elimination of used-up material; but we must, at the same time, keep off impure air from the diseased spots, and bring to them as much pure air as possible. I shall discuss the hygienic treatment under the following heads: I. Food; II. Air and Ventilation; III. Exercise and Rest; IV. Bathing and Management of the Skin; V. Climate.

Allow me, however, sir, before I enter into these points, to say a few words on the relation of the physician to the consumptive patient. Shall the physician frankly tell the latter that his disease is phthisis? It is still the opinion of many eminent medical men that we should, as a rule, not do so. As long as phthisis was considered an incurable disease, there may have been some reason for such concealment; but now, as we know, and can tell our patients, that phthisis is a curable disease, I think the patient ought to be informed of his condition, more or less, according to the individuality; and, as far as my experience goes, this has a salutary effect. The patient is more ready to co-operate with the physician, and to bring the great and long continued sacrifices, for he becomes aware of his own large share of responsibility. I have already alluded to the circumstance that intelligence on the part of the patient and his friends is a great help towards recovery in phthisis; and that want of judgment or insight into the nature of the illness, and of the manifold dangers, and into the means of cure, renders the prognosis less hopeful, unless we are able to place the patient under the strictest superintendence of a judicious physician, or, still better, in a health-establishment, under the control of a resident medical man and his assistants, or in a well arranged special hospital. Every consumptive patient ought to be under the constant guidance of his doctor.

I. *Diet.*—All those who have been successful in the treatment of phthisis have paid much attention to the question of food. Sir Risdon Bennett and many other physicians have shown that by "feeding" alone great service can be done. If the popular idea were correct, that the appetite and digestion of consumptive patients are specially good, it would be more easy to cure phthisis; but the rule is rather the reverse. The poorer the blood and nutrition of cells and tissues, the greater therefore the want, the less is often their desire for food. The appetite is not rarely capricious, and the digestion is apt to be disturbed. It happens, also, that patients object to the diet ordered; and it is, therefore, sometimes necessary to tell them plainly that, without their cordial and constant assistance in this matter, they have no chance of recovery. At the same time, however, the fancies of the patient ought not to be disregarded. The food which he desires, if it is in any way permissible, ought to be procured for him. It ought to be varied as far as possible, and the cooking and serving of meals ought to be nice. The example of others is mostly very useful; and this is one point in favour of special establishments and health-resorts for phthisis, as at Goerbersdorf, under Dr. Brehmer; at Falkenstein, under Dr. Dettweiler. I have also seen, at Davos and St. Moritz, patients, in company with other patients, eat and drink, with regard to quantity and quality, what they would never eat in their own homes alone or with members of their families. Though it is impossible to lay down fixed rules for all cases, one rule is almost general; namely, that those suffering from active consumption ought to take the amount of food required in frequent small meals, and not in only two large meals, as in French, or three meals, as in German and Swiss, hotels. This is one of the reasons why ordinary hotels are in general not adapted to the treatment of active phthisis. In addition to breakfast, lunch, and dinner, there ought to be four supplementary meals, namely, early in the morning, between breakfast and lunch, between lunch and dinner, and at bedtime.

Before passing in review some of the principal articles of food, I wish to direct attention to the possibility that there may be important relations between the life of the tubercle-bacillus, and the quality of the food that we take, especially the saline materials, which enter into the composition of the blood, the cells, and tissues.

A short time ago, I had the pleasure of listening to a suggestive lecture delivered by Dr. Vivian Poore at the Society of Arts, in which he related the results of most instructive researches by M. Raulin on the growth of the aspergillus niger. A short account of these researches is given in Dr. Duclaux's handbook on *Fermentation*, prepared for the International Health Exhibition in 1884. After much trouble, Raulin found the following liquid the best nutritive medium of the aspergillus. It is known as "Raulin's liquid."

	Grammes.		Grammes.
Water	1500	Carbonate of magnesia	0.4
Sugar-candy	70	Sulphate of ammonia	0.25
Tartaric acid	4	Sulphate of zinc	0.07
Nitrate of ammonia	4	Sulphate of iron	0.07
Phosphate of ammonia	0.6	Silicate of potassium	0.07
Carbonate of potassium	0.6		

By sowing the spores on this fluid, two crops of aspergillus can be grown which weigh together 25 grammes; but if we prepare the fluid without the potassium, the gathering will dwindle to one gramme only; the crop has, therefore, fallen to $\frac{1}{25}$ of what it was. It will fall to $\frac{1}{200}$ if the phosphoric acid, and to $\frac{1}{150}$ if the ammonia, be withdrawn. The withdrawal of the zinc would reduce the crop to $\frac{1}{10}$ of what it was in the complete liquid; in other words, would bring it down from 25 grammes to $2\frac{5}{10}$ grammes. Duclaux points out that the zinc—in weight, only $\frac{1}{500000}$ of the fluid—increases the crop of the plant by 700 times its own weight; and he further states that, if $\frac{1}{1800000}$ of nitrate of silver be added to the nutritive fluid, the vegetation stops abruptly.

We learn from this that microbes require mineral food in the same way as plants and animals do; and if we knew exactly which mineral substances the tubercle-bacillus requires, and could, without harm to ourselves, deprive our blood, and cells, and tissues of these salts, by abstaining from food containing them, we should deprive the bacillus of the means of existence. The investigation of these matters, however, is very difficult. It is not easy to construct the best nutritive fluid for each microbe. It can only be obtained by a series of methodical researches. When the best artificial medium has been created, it must be first ascertained that the result of the sowing of the spores is always uniform, otherwise the result of the withdrawing of certain elements cannot be calculated. It is further evident that a study of agents impeding or destroying the growth may also become very important.

With regard to the different articles of food, Dr. Bidder, of Berlin, points out, from several papers by Dr. Bunge, of Dorpat, that the food of carnivorous animals contains a larger quantity of soda, and smaller of potash, than that of herbivorous animals; and he reminds us that carnivorous animals are, on the whole, less subject to tuberculosis than herbivorous animals. If it could be proved that the potash salts are more conducive to the growth of the tubercle-bacillus than soda salts, articles of food containing excessive proportions of potash ought to be taken only sparingly.

Milk is regarded by the majority of medical men as one of the best articles of food in the treatment of phthisis. It contains all that is required by the body, and the mineral matters in the best proportion. It is less irritating than other nourishing kinds of food, and is more easily digested. There are differences in the quality of milk of different animals and also of the same animal, according to the food consumed

by it, and other influences and conditions; but, when merely speaking of milk, we mean cow's milk. The dangerous substances which can be introduced by it, as the fever-poisons and the tubercle-bacillus, from cows affected by the disease, and principally those with diseased udders, are, so far as we know, destroyed by boiling. We ought, therefore, unless we are perfectly sure about the milk-supply, always to recommend the milk to be boiled. Patients often say that milk disagrees with them; but I have only rarely been obliged to acknowledge this statement as correct. In some cases, where there is a tendency to diarrhœa, or sickness, or acidity of the stomach, it is necessary to dilute it with one-sixth to one-third of lime-water, which often exercises a soothing influence on the mucous membrane of the intestinal canal, and may, besides, help to bring on the cretaceous change in caseous deposits. In other cases, especially where there is constipation, the addition of Apollinaris, or natural seltzer, or Bilin water, is useful; in others, that of barley-water; in others, a small quantity of coffee, or tea, or cocoa, renders the milk palatable to persons who have a dislike to the taste of pure milk. In many instances, the addition of rum or cognac provokes the digestibility of the milk, especially in persons accustomed to stimulating food, including much alcohol; but this addition ought to be made only under the guidance of the doctor. Where there is much pyrexia, this is a good way of administering alcohol. The quantity of milk suitable to different invalids varies very much, indeed, in the same person, at different periods of the disease, and also according to the amount and quality of other food consumed. I generally advise from one and a half to three pints in twenty-four hours; but many cases, especially those complicated with albuminuria, I restrict sometimes for weeks almost entirely to milk and milk-food.

I dare not discuss other articles of food in the same way as I have done with milk; everyone interested in dietetics will find valuable information in the works of Playfair, Frankland, Parkes, Pavy, and Bauer.

About diet in general, I will confine myself to some general rules: 1, to induce the individual to take as much nourishing food as his digestion permits, and to endeavour to increase the appetite and digestive powers by air and exercise, and sometimes by medicinal substances; 2, to give as much choice and variety as can be obtained; 3, to avoid articles of food, or of relish, of inferior nourishing value, if by these the appetite for more necessary articles is diminished, or the digestion of the latter disturbed. Such articles are, for instance, acids, salads, and especially uncooked acid fruits, sugar, and pastries—a list which might be largely increased. Potatoes ought to be taken only in very moderate quantities. They contain much potash in proportion to soda, and experience shows that the exclusive or even preponderating use of potatoes favours scrofula.

I have mentioned before that, in the majority of ordinary cases of phthisis, except the very chronic and arrested forms, it is better to take the desirable amount of food in frequent smaller meals than in two or three larger ones. I am in the habit of recommending a plan of the following kind, with many modifications according to circumstances.

At 7 o'clock, or earlier, while still in bed, a cup of milk, with a dessert- or tablespoonful of cognac, or with lime-water, or with a small quantity of tea or cocoa, and a small piece of bread and butter.

At half-past 8 or 9, after dressing, breakfast of milk, with some slightly stimulating addition, as tea, coffee, or cocoa, bread and butter, or bacon or ham, or fish.

At 11, a tumblerful of milk or koumis, or sometimes a cup of broth or beef-tea, or a sandwich and a glass of wine.

At 1 or 1.30, a substantial meal of meat or poultry, or fish, or game, with fresh vegetables, some light pudding or cooked fruit, and a glass of wine.

At 4 o'clock, a glass of milk, or koumis, or a cup of tea or coffee with much milk, and some bread and butter or plain biscuit.

At 7 P.M., another substantial meal, similar to that in the middle of the day.

At 9.30 or 10 P.M., on going to bed, a cup of milk, or bread and milk, or milk with some farinaceous food, as Hart's or Liebig's, or Nestle's, or Mellin's. At this time, if there be night-sweats, the addition of a tablespoonful of brandy is very useful.

In cases of considerable pyrexia, it would be injudicious and impossible to give as much solid food as in chronic nonfebrile, or nearly nonfebrile, cases; but it is necessary to give as much easily digestible food as the patient can digest. Our aim ought to be somewhat to check the waste, and to replace by food the increased waste. Here alcohol is of great use. Milk is often not digested in its natural state, but it must be tried peptonised and diluted with pure water, aërated water, and still better, with barley water, or thin gruel. Chicken-broth, veal-broth, beef-tea, and gelatinous substances are, in these conditions, most useful; while, in health, and in the non-febrile consumptive cases, they ought not to take the place of the more solid proteinaceous substances.

In most cases of phthisis, it is desirable to introduce into the system a fair amount of fat, and this can often be done better in the shape of bacon, fresh butter, and milk and suet, than in the form of cod-liver oil, though the latter too is most useful. There are some popular "cures" of phthisis, into which milk, or different kinds of fat, assisted by open air, enter largely. You all know the milk-cure, in the various mountain districts, from the time of the Romans to the present day; the koumis cure in Tartary. I remember, also, the buttermilk-cure in some German villages, and have often heard that, in the American prairies, consumptive patients are cured by consuming large quantities of the bone-marrow of the buffalo. Many years ago, when assistant at a clinic at Bonn, two of my poor consumptive patients left me to be cured, in a neighbouring village, by taking three times a day, or more frequently, a large plateful of a kind of porridge prepared of dog's fat and rye-meal; and certainly their improvement was most remarkable; but they had exchanged, at the same time, their indoor town-work for outdoor country-work. All these cures have two points in common: first, food rich in fat and proteinaceous matter; and, secondly, outdoor life.

I cannot close the chapter on Food without entering into the debated question of alcohol. Much as I am convinced that, in health, alcohol is rarely necessary, in phthisis, especially in the febrile stages, experience has convinced me of its great usefulness, in the majority of cases, as long as the kidneys are sound. It acts as respiratory food (Binz), and limits the waste of tissue. Brehmer, Spengler, Unger, Rüdi, Volland, Dettweiler, use it largely; Austin Flint, too, is a strong advocate. The quantity and quality required vary very much in different cases; in some, as much as a bottle and even three pints of moderately strong wine, or ten to twelve ounces of cognac or whiskey, are taken in twenty-four hours with advantage; in others, scarcely one-sixth of this amount; and again, in others, alcohol must be altogether avoided. Alcohol seems to be specially useful in those cases where a pretty large quantity can be taken without unpleasant excitement or headache, but where, on the contrary, a sense of comfort and increased strength is produced by it; where appetite and digestion are improved, flatulence and indigestion removed, and pyrexia—where it exists—is diminished. Where, on the other hand, it causes throbbing in the arteries, headache, listlessness, flushing, or great excitement, or loss of appetite for ordinary food, it is either unsuitable, or can only be taken in small quantities. The medical man must decide by careful examinations whether, and in which quantity, alcoholic drinks are to be given. The quality, too, cannot always be known without trial. In Germany and Austria, the stronger Hungarian wines are much liked; in the Alps, the red wines of the Valteline; but Madeira, Marsala, sherry, Burgundy, good claret, and some pure Italian and Greek wines, are likewise useful in many cases; and not rarely beer, cognac, and whiskey, suitably diluted, are useful in cases of weakness. Very often Dr. Dettweiler's plan, to give the amount of alcohol required in very small and frequent doses, is of great value.

[*To be continued.*]

PROSECUTION UNDER THE DENTISTS' ACT.—In the Cupar Sheriff Court on March 6th, Alexander Ross French, formerly a confectioner in Dundee, and now residing in St. Andrew's, was charged with a contravention of the Dentists' Act, 1878. The libel set forth that the accused unlawfully used the title of "Dr." French, dental surgeon, by having the same on his door-plate, lamp, and signboard at his place of residence, and with unlawfully using the titles of "D.D.S.," resident surgeon, "Dr." and "D.S.' The accused pleaded not guilty. His defence was, that he had advertised that he was "not a registered dentist," and he contended that the titles used by him did not come under the jurisdiction of British law. After evidence, the charge was found proven, and the Sheriff imposed a fine of £10, with the alternative of seven days' imprisonment.

DR. H. TOMKINS, late resident medical officer at the Monsall Fever Hospital, in connection with the Royal Infirmary, Manchester, was entertained at dinner at the Albion Hotel, Piccadilly, on March 6th, by a few of his friends and old fellow-students, the occasion being his vacating the above appointment; Dr. V. A. Wartenberg presided.

DR. PAVY, having resigned as Medical Officer of Health and Public Analyst for the Parish of St. Luke, Middlesex, is to be presented with an illuminated testimonial on vellum, under the seal of the Vestry.

THE GULSTONIAN LECTURES,

ON

MALIGNANT ENDOCARDITIS.

Delivered at the Royal College of Physicians of London, March, 1885.

By WILLIAM OSLER, M.D.,

Professor of Clinical Medicine at the University of Pennsylvania, Philadelphia.

Lecture III.

Diagnosis.—Few diseases present greater difficulties in the way of diagnosis, difficulties which in many cases are practically insurmountable. It is no disparagement to the many skilled physicians who have put their cases upon record to say that, in fully one-half of them, the diagnosis was made *post mortem*. In spite, too, of able memoirs in the journals, the disease has not been much known, and it is only of late years that the text-books have contained chapters upon it. The protean character of the malady, the latency of the cardiac symptoms, and the close simulation of other disorders, combine to render the detection peculiarly difficult.

In the group of cardiac cases in which the disease attacks a patient the subject of chronic valvulitis, the matter is usually easy enough. The existence of fever of an irregular type, and the occurrence of embolism, generally suffice to make the case clear. It must be remembered that simple warty endocarditis not unfrequently attacks sclerotic valves, and may be accompanied by slight fever. Of course, in chronic heart-disease, irregular pyrexia may arise from other causes —local suppuration, cellulitis, etc.—which must be excluded.

In rheumatic fever, a disease in which the heart is more systematically examined than in any other, if with the occurrence of a murmur the symptoms become aggravated, and assume a typhoid or pyæmic type, the recognition of the complication should be easy. The onset of severe head-symptoms in rheumatism—delirium, with high fever and coma—requires to be carefully distinguished. Fortunately, the simple endocarditis common in this disease rarely, as I shall have occasion to show, passes into the grave form.

In pneumonia, a prolongation of the course, with the supervention of typhoid or septic symptoms, should lead to a very careful examination of the heart.

The greatest difficulty is met with in those acute cases resembling the malignant forms of the fevers; here the affection may simulate typhoid, typhus, cerebro-spinal meningitis, or even hæmorrhagic smallpox. Even with the detection of a heart-murmur, the judgment may have to be suspended, and many cases die with the general symptoms of profound blood-poisoning, before the development of any special features upon which a diagnosis could be based.

From typhoid fever, with which the cases are most often confounded, the mode of onset, the pyrexia, and the abdominal symptoms offer the chief points for discrimination. The onset of severe endocarditis is more abrupt, not so often preceded by a period of failing health and progressive weakness. In a large number of cases, cardiac pain or oppression and shortness of breath are mentioned as early symptoms. The fever rarely presents, in the early days of the disease, the regularity of typhoid, and from the outset may be very high. A sudden fall to the normal, or even below, may occur; indeed, irregular pyrexia is one of the most important diagnostic signs. The combination of diarrhœa, abdominal distension, and a rose-coloured eruption, points strongly to typhoid fever. The rash, when present, is usually petechial, a rare circumstance in typhoid fever. The development under observation of pronounced murmurs, particularly of aortic and regurgitant, is most suggestive of malignant endocarditis, and the occurrence of emboli would be a positive confirmation. Rigors rarely occur in typhoid fever, while they are common in endocarditis. It is well, however, to bear in mind that, in many of the most severe cases, death may occur, as in any of the infective disorders, without the development of the special symptoms necessary for a diagnosis.

Many of the cases present the clinical features of pyæmia, a condition which may actually exist, dependent upon the ulcerative lesions on the valves; and here the diagnosis lies between an ordinary septic infection from a wound, or auto-infection from a primary endocardial inflammation.

It is interesting to note the similarity of those cases of acute endocarditis in which death occurs in a few days, without the development of any other than the valvular lesion, with those instances of rapidly fatal acute periostitis and necrosis, and also with those cases of malignant septic infection from a slight external lesion.

It seems strange that difficulties should arise in the diagnosis between malaria and malignant endocarditis, but the records of cases plainly show that for weeks or months a condition of intermittent pyrexia may occur, simulating every type of ague. The paroxysms in regularity, in order of sequence, and in the accompanying general conditions, may fulfil every condition of a quotidian or tertian intermittent; and the development of cardiac symptoms, with breathing of the pyrexial type, may alone determine the nature of the case.

Etiology and Pathology.—With a view of obtaining data upon which to base statements regarding the etiological relations of malignant endocarditis, I have gone over the records of 209 cases. As before stated, 37 of these occurred in connection with pyæmia, traumatic or puerperal. Doubtless this number could have been very greatly increased had I examined files of special gynæcological and surgical journals, but my investigation did not lie so much in these directions. In 45 cases, there was no record of any previous disease which could be taken into account as possibly connected with the endocarditis. In 127 cases, there was a history of past or existing disease with which the cardiac trouble could, with a greater or less degree of probability, be associated.

One or two general considerations may first be mentioned. The period of middle life gives the greatest number of cases. Young children are rarely the victims; there were only three or four instances under 10 years of age, and not many more over 50. The cases occurring in connection with rheumatism presented an average younger age than the others; there were 36 instances under 30 years of age, out of 51 cases in which this point was mentioned.

Of 160 cases (exclusive of traumatic and puerperal), 99 were in males, and 61 in females.

Persons debilitated by exposure or other causes, or addicted to drink, seem particularly liable to be attacked; and in such subjects, during the course of an acute disorder, this complication is much more likely to arise.

As has been already referred to, the existence of sclerotic valvulitis is a very important factor in the etiology of severe endocarditis, a very considerable proportion of the cases occurring in individuals whose valves are thickened and crumpled from chronic inflammation.

The existence of a primary protopathic endocarditis must, I think, be allowed. In 45 cases, no history could be obtained of rheumatism or other affections with which endocarditis is known to be associated. Many of these cases were of the most malignant type; in 10, death took place within a week. A specific statement of the absence of rheumatism was generally given. The onset was usually like that of a specific fever, headache, vomiting, rigors, pyrexia, and often early delirium and unconsciousness. The very acute cases resemble severe typhoid or typhus, but, when more prolonged, a pyæmic condition may develop. In a number of these cases the disease has attacked persons with chronic valve-disease, some while under treatment, others in whom the compensation was complete and the old lesions only detected at the necropsy. In 5 instances, the ulcerative process attacked aortic valves, 2 of which were fused, and had undergone the fibroid changes always associated with this malformation.

In 127 of the cases, the endocarditis was associated with other diseases, some of the most important of which we shall now proceed to consider.

Rheumatism.—Since Bouillaud called special attention to the frequency of cardiac complications in this disease, its importance in the etiology of endocarditis has been universally recognised. And, as regards the simple form of endocarditis, the general statements are quite true, but, fortunately, the graver and fatal form is much less common, much less, I think, than is usually supposed. In 53 cases, there was a history of rheumatism, past or present. I included every case in which there had been the record of an attack, recent or remote. In only 24 did the symptoms of severe endocarditis arise during the progress of the acute or sub-acute disease. In 29 cases, there was simply a history of rheumatism, often years before, and no mention of the occurrence of joint-troubles at the time of the development of the endocarditis. Dr. Ogle called attention to the fact that ulcerative endocarditis occurred very often in persons in whom no rheumatic history could be traced. Of 21 cases which he reported, some of which were probably atheromatous, in only 3 was rheumatism mentioned. In only 3 also of the Montreal cases was there any positive history of rheumatism, either before or during the attacks. The following case, under the care of Dr. Ross, is a good example of the mode of onset.

B. M., aged 22, a healthy girl until three weeks before her admission to hospital, on January 4th. At that time she was attacked with

rheumatism of the wrists and ankles, not very severe, and she did not receive any treatment. A week from the beginning of the attack, she began to have chills, two or three a day, and she became feverish. During the next week she became worse, had occasional chills, not delirious; was brought to hospital on the 4th, in a very low state. On the 5th there was delirium and incoherence. Pulse 130; temperature 100°. Double murmur up and down sternum; joint-troubles not evident. On the 6th, 7th, and 8th, she remained in the same state, no chills; temperature ranged from 100° to 102°. On the 9th, she was more restless. On the 11th a grey membrane was noticed on the fauces. On the 12th, the membrane in the throat had extended, and covered the soft palate. Temperature 103°. On the 13th she died suddenly. The necropsy revealed a large deep ulcer at the aortic ring, nearly destroying one segment, and penetrating deeply between the auricle and the left ventricle. There were small infarcts in the brain, extensive recent diphtheria of fauces.

In a larger number than in any other group, sclerotic valves were found, with the existence of which the past rheumatism could, in many instances, be connected. A primary rheumatic endocarditis was recognised by Latham, also by Graves and Stokes, and it is quite possible that some of the cases which I have grouped as protopathic represented instances of the kind in which, if life had been prolonged, joint-troubles might have supervened.

Cases of acute rheumatism sometimes occur in which there may be multiple miliary abscesses (Fleischhauer, Virchow's *Archiv*, Band lxxii), and a pyæmic condition similar to the case just narrated, but without the presence of endocarditis. Micrococci have been found in these abscesses, and the cases resemble those rare instances of idiopathic pyæmia. It is worthy of observation that a skin-eruption was most frequently noted in connection with the rheumatic cases, generally an erythema. In a case of Dr. Kirkes (BRITISH MEDICAL JOURNAL, 1863, vol. ii), it was observed on both face and hands. The occasional presence of a scarlet rash in rheumatism (Peter, *Union Médicale*, 1870), and in puerperal fever (Hicks, *Obstetrical Society's Transactions*, vol. xii), has long been recognised.

In chorea, with which simple endocarditis is so often associated, the malignant form very rarely supervenes.

Pneumonia, as Bouilland pointed out, is not unfrequently complicated with endocarditis, but the important part which it plays in the etiology of the malignant disease has not been generally recognised. In the cases I have reviewed, it stands at the head of the list of diseases in which secondary endocarditis of a severe nature develops, 54 instances having been noted, rather more than 25 per cent. of the total number of cases. For this I was quite prepared by our Montreal experience, for, in 11 of the 23 cases, the attack was associated with pneumonia. Of the occurrence of acute endocarditis in this disease, the statements are somewhat diverse. Bouillaud thought that, in a third or fourth of the cases in which there was left-sided pneumonia, there was inflammation of the serous membranes of the heart. Grisolle, in his classical work on pneumonia, states, on the contrary, that it is a rare complication, and this would certainly appear to be the conclusion of the Committee for Collective Investigation; for, in the report upon 1,000 cases, endocarditis is only once mentioned. My experience at the Montreal General Hospital is very different. I have notes of 103 *post mortem* on cases of lobar pneumonia, and the occurrence of acute endocarditis is noted in 16 cases, over 15 per cent. Of these cases, 11 were of the malignant form. An analysis of these shows that, in 6, the left lung was involved; in 5, the right; in 4, the upper lobe was affected; in 7, the lower. In 9 of the cases was there pericarditis; in 5 of the 11 cases, there was suppurative cortical meningitis. In the 54 cases which I have reviewed, in 36 the lung affected was mentioned, and in 26 the affection was on the right side, and only 10 on the left; figures which are opposed to the statement of Bouillaud, that it is in left-sided pneumonia that endocardial complication most frequently supervenes. In 15 cases, acute meningitis is mentioned, and, in one instance, the meninges of the spinal cord were also affected. The aortic valves seem more often involved than the mitral. In 17 instances, there were old sclerotic changes in the valves.

The clinical features of several cases in which the endocarditis came on during pneumonia have already been given. In many of them, as in the girl, M. D., aged 29, referred to in the second lecture, the patients are brought to hospital unconscious, and die within a few days, with symptoms of a grave cerebral disorder. In others, there is a history of ordinary pneumonia, and the case may pursue the usual course, and defervescence take place, when, in a day or so, fever of an irregular type recurs, and typhoid or pyæmic symptoms appear. The majority of the cases are of this kind. Again, some instances occur in connection with injuries, and the patient succumbs to a lobar pneumonia and endocarditis unconnected with any sepsis. Two of the Montreal cases were of this kind. In three or four cases, there were rheumatic symptoms preceding or accompanying the pneumonia, as in a case of Dr. Mussers, the remarkable temperature-chart of which is here shown.

Elderly persons were more often attacked than in the other groups. There were 10 individuals over 50 years of age. In the Montreal cases, 3 of the patients had had pneumonia before; in 1 it was the third attack, and in every one of them there was a history of either drinking habits or previous bad health. In some cases, the pneumonia had partially or entirely resolved at the time of death, in others there was red, or, more frequently, grey hepatisation.

The relation of the meningitis to the pneumonia and the endocarditis is particularly interesting. The occasional occurrence of this complication in pneumonia has been referred to by many writers, particularly Grisolle, Huguenin (Ziemssen's *Encylopædia*, Band xii), and Greenfield (*St. Thomas's Hospital Reports*, 1878). In the 103 cases, I met with it in 8 instances, in 5 of which there was also endocarditis. The frequency of the association of these two conditions in pneumonia is illustrated by the figures already given: of 25 instances of meningitis in malignant endocarditis, 15 cases occurred in pneumonia. In all the specimens I have examined, there were micrococci in the exudation, and in three cases many of the capillaries and small arteries were filled with them; and it seems natural, where the endocardium is involved, to attribute the process to embolism from the valves. But the occurrence of an identical cortical meningitis without any valvulitis shows that it may be due to other causes than the endocarditis. As Huguenin suggests, it may be dependent upon the presence in the blood of infective material derived from the infiltrated lung-tissue.

In connection with these secondary or consecutive inflammations in pneumonia, it is interesting to call to mind the not unfrequent occurrence of pericarditis, and of croupous inflammation of the gastro-intestinal canal. Dr. Bristowe some years ago noted the frequent complication of croupous colitis; and, in 103 necropsies, I have met with this complication in 5 instances; and in one there was extensive croupous or membranous gastritis.

Diphtheria is rarely complicated with endocarditis, and I have only been able to find two or three instances in which severe symptoms were present; yet, in some works, endocarditis is stated to be not an uncommon sequence. Labadie-Lagrave (*Bull. de la Soc. d'Anatomie*, 1877) regards it as such; but it is probable that what he described as vegetations are only Albini's little nodules, the remnants of fœtal structures. In 108 necropsies in diphtheria, Telamon (*Progrès Médical*, 1879) did not meet with a single case of endocarditis; and my experience has been the same in 30 *post mortem* examinations, many of which were in adults.

In *dysentery*, a few cases have occurred. Litten (*Charité Annalen*, Band iii) has recorded an instance in which there was extensive ulceration of the aortic valves; and one of the Montreal cases occurred in connection with acute colitis.

In the *eruptive fevers*, grave endocarditis occasionally develops—in typhoid, in scarlet fever, and in variola; but, in the cases I have analysed, these diseases appear of very trivial etiological significance.

In *ague*, as Lancereaux (*Gazette Médicale de Paris*, 1862; and *Archives Générales*, 1873) first pointed out, simple or severe endocarditis may develop. In some of these cases, as in the remarkable one reported by Dr. Bristowe, to which I referred in the second lecture, the paroxysms of true intermittent fever, and those of the ulcerative endocarditis, seem to run the one into the other.[1] In most of the cases, there has been only a history of severe ague, and the endocarditis has followed repeated attacks. Dr. Greenhow (*Pathological Society's Transactions*, vol. xxx) has reported a very instructive case of the kind.

Dr. Goodhart (*Pathological Society's Transactions*, vol. xxxiii) makes the interesting suggestion that ulcerative endocarditis is more frequently met with at periods in which scarlet fever, erysipelas, pyæmia, and diphtheria prevail. The Guy's Hospital records certainly seem to show that the cases appear in groups pretty close together, and at a time when the diseases mentioned are epidemic. In Montreal, we have had occasionally a "run" of cases together; but I have not noticed the connection referred to by Dr. Goodhart.

Pathology.—I approach a discussion of the pathology of malignant endocarditis with some trepidation, partly due to a sense of incompetency, and partly from a feeling that the time is scarcely ripe for a satisfactory presentation of the subject; and yet there are signs which make one

[1] Dr. Bristowe informs me that, in the case referred to, he is inclined to regard the intermittent pyrexia as dependent from the outset upon the endocarditis, and not associated with malaria.

hopeful; and it would not be rash to predict that the knowledge twenty-five years hence will be as much in advance of to-day as our information on the subject is of the time when Dr. Kirkes made his memorable investigations. A serious difficulty exists in the circumstance that we have not to deal with a single form of disease—an entity—but rather with a special manifestation in many affections; affections, too, the pathology of which is, in most instances, by no means clear. No one can doubt that the more severe cases of endocarditis present in a typical mode all the features of those diseases which we call infective, and believe to be caused by the absorption of some poison, the development of which in the blood and tissues profoundly disturbs, and finally annihilates, function.

Briefly stated, the theory of acute endocarditis which at present prevails, and the only one to which I shall refer, is, that it is in all its forms, an essentially mycotic process; the local and constitutional effects being produced by the growth on the valves, and the transference to distant parts of microbes, which vary in character with the disease in which it develops. This very attractive theory can be adjusted to meet every requirement of the case, though as yet lacking certain of those substantial data necessary for full acceptance, but which, having been furnished of late years in other diseases, we may reasonably hope will in time also be forthcoming for this.

Let us see, first, what has been done, and how far the facts at our disposal seem favourable to this view. The constant presence of micro-organisms seems undoubted; only, in the simple acute form, we need more careful observations with our improved methods. Some good observers have not been able to find them (Orth, *Lehrbuch der Speciellen Pathologischen Anatomie*, Lief. i, 1883); others declare them to be invariable constituents of the verrucose outgrowths (Klebs, *Archiv für Exper. Pathologie*, Band iv; Köster, Virchow's *Archiv*, Band lxxii). The careful application of such a satisfactory mode of staining as recommended by Gramm should readily determine this question. A study of the endocarditis of puerperal and traumatic pyæmia will be most likely to yield important information, as here the conditions are simpler, and the relation of the micro-organisms can more readily be determined. The cardiac complication in these cases is only part of a general process, excited by a local lesion, and is entirely secondary and subsidiary. Micrococci arranged in chaplets are constant constituents of the vegetations, and, in the case of puerperal fever, they have a close resemblance to those found in the peritoneal exudation. The well known observations of Koch, Ogston, and others have shown the relation of microbes to pyæmia; and the recent culture-experiments of Rosenbach ("Micro-organisms bei den Wund-Infections," *Krankheiten des Menschen*, Wiesbaden, 1884) go far towards demonstration for man what Koch had previously done in the case of the pyæmia of the mouse. In these cases, a study of the modes of growth of the micrococci of the endocarditis, and of the effects of inoculations, and a comparison of these with similar observations in the organisms of the original lesion, or of the metastatic foci, should yield results of great value in the interpretation of the phenomena of secondary endocarditis.

In rheumatic fever, we are still too far from any accurate knowledge of its intimate pathology to dwell on the possible connection of any organism peculiar to it, and the endocarditis common in its course. Klebs (*Archiv für Experiment. Pathologie*, Band ix) distinguishes the microbes occurring in rheumatic cases from those of the septic forms.

In pneumonia, micrococci undoubtedly abound in the exudation of the air-cells, and their mode of growth in gelatine is peculiar, but the numerous experiments on artificial production are not yet conclusive. The evidence is accumulating which places pneumonia among the infective disorders; and it certainly is a seductive view to take of its pathology to regard the local pulmonary lesion as excited by the growth of micrococci in the air-cells, and the various consecutive inflammations, the endo- and peri-carditis, the pleurisy, the meningitis, the membranous gastritis or colitis, as due to the penetration of the organisms to deeper parts, and their local development under conditions dependent on the state of the tissues. The processes are all of the character described as croupous, and have as common features the presence of micrococci in a coagulable exudation. We have still, however, to settle the identity of the organisms of the air-cells with those of the consecutive inflammations; but we may reasonably hope ere long to have some positive data from investigations in this disease, which, more than any other, offers favourable opportunities for the solution of these problems.

In diphtheria, as we have seen, mycotic endocarditis rarely occurs; and, in the few instances observed in association with scarlatina, variola, erysipelas, and other affections, we lack positive information with regard to the characters of the micro-organisms.

In the way of experimental investigation of the properties of the micrococci, not much has been done of a satisfactory nature. Heiberg (Virchow's *Archiv*, Band lvi) placed bits of vegetations from a puerperal case beneath the skin and in the peritoneal cavity of a rabbit without effect. Eberth (*Ibid.*, Band lvii), Birch-Hirschfeld (*Archiv der Heilkunde*, Band xvii), have produced panophthalmos in the rabbit by inoculating the cornea; and I was able to produce well marked mycotic keratitis in the same animals with fresh material from the valves of two cases. H. Young, of Manchester, inoculated rabbits with pus from an abscess in ulcerative endocarditis, and was able to detect micrococci in the blood.

No conclusive culture-experiments have yet been made. Grancher (*Journal de Médecine de Paris*, December 20th, 1884) has cultivated a microbe from the blood, taken during life with all necessary precautions, but apparently not in series, and no inoculations of animals were made. Cornil (*L'Abeille Médicale*, December 22nd, 1884) has made cultures on gelatine, but apparently no special results have been reached.

How do the micrococci reach the valves? In cases of puerperal and traumatic septicæmia, the external lesion is undoubtedly the source of infection which is conveyed through the venous system; and, in these cases, it will be remembered that the right heart is most often affected. In other instances, where the skin is unbroken, we must suppose them to gain access by the lungs or intestines, most probably the former; and, in these instances, the left heart is the chief seat of the mycosis. Whether they reach the valve with the general blood-current, as Klebs supposes, or through the coronary arteries, as Köster holds, cannot be considered settled; but, from the position of the early vegetations in a non-vascular region of the valves, and from the fact already referred to, that colonies of micrococci can be seen directly upon the endocardium, it seems probable that Klebs's view is the correct one. He suggests, in explanation of the fact that the lines of closure of the valves are the usual seat of the process, that the micrococci, circulating with the blood, are here closely pressed into the endothelium by the firm apposition of the flaps. Whether or not in any given case endocarditis will arise, depends greatly on the condition of the valve-tissue. In a case of pneumonia or other disease—such as pyæmia—in which we may suppose microbes circulating in the blood, the endothelium of normal valves may be able to resist their invasion, or, even if they do lodge and penetrate, the conditions may not be favourable for their growth; but, where an individual is debilitated, and the tissue-tone lowered, or if, as often seems the case, the valves be diseased, then the micrococci find a suitable nidus, and excite, by their growth, an endocarditis which may be of a malignant type. As Dr. Goodhart suggests (*loc. cit.*), patients with chronic sclerotic valves are walking mushroom-beds, in common times without spawn, but in periods of epidemics taking in germs by various channels, which fertilise in some cases into ulcerative endocarditis; in others, to suppurative processes. Certainly, on paper, so to speak, the view which I have thus imperfectly and hurriedly discussed seems plausible enough, and meets the requirements of the case fairly well; but let us, in conclusion, follow an important rule too much neglected, and get a definite outline for our ignorance. In the first place, we do not yet know, with sufficient accuracy, the frequency of the occurrence of microbes in simple endocarditis. Are they constantly present, or only in forms associated with special diseases? Secondly, we want full information of the various forms of micro-organisms occurring in secondary endocarditis, and of their relation to the microbes assumed to be the cause of the primary disease. And, thirdly, we are only at the threshold of inquiries relating to the culture of these organisms, to the macroscopic characters of their growth, and to the possible experimental production of endocarditis.

I cannot conclude without thanking my late colleagues at the Montreal General Hospital, by whose kindness I have had command, not only of the pathological, but also much of the clinical, material upon which these lectures were based; and lastly, sir, you will allow me to express my sincere regrets that my efforts have not been more worthy of such an intensely interesting subject, and of the distinguished audience which I have had the honour of addressing.

An industrial exhibition for the working classes of East London will be opened by the Princess Louise on May 4th. The exhibition is a philanthropic scheme, and loans of works of art and other objects of interest are invited as well as subscriptions to the prize fund. The secretary is Mr. A. McLagen, 505, Commercial Road East.

The third edition of Dr. W. H. Day's work on *Headaches* has been translated into the Russian language by Dr. J. J. Trusevitch, Surgeon to the Russian Imperial Navy.

LECTURES
ON
THE ANATOMY OF THE INTESTINAL CANAL AND PERITONEUM IN MAN.

Delivered at the Royal College of Surgeons of England.

By FREDERICK TREVES, F.R.C.S.,
Hunterian Professor at the Royal College of Surgeons; Surgeon to, and Lecturer on Anatomy at, the London Hospital.

Lecture III.

The Ascending and Descending Colon.—In the adult, the ascending and the descending parts of the colon are placed vertically, while the direction of the transverse colon is practically horizontal. It is not quite horizontal, because the splenic flexure is on a higher level than the hepatic flexure, as well as posterior to it. This mutual relation between the three chief parts of the large intestine is not to be observed until some little time after the commencement of extra-uterine life. If the colon of a fœtus from four to five inches in length be examined *in situ*, it will be seen that the descending segment is vertical, and that the splenic flexure is well marked, and is the highest point of the colic arch (Fig. 18 B). The ascending colon, however, is by no means vertical, and the hepatic flexure can hardly be said to exist. In fact, the bowel between the splenic flexure and the cæcum follows an oblique line from above downwards, and to the right. This line

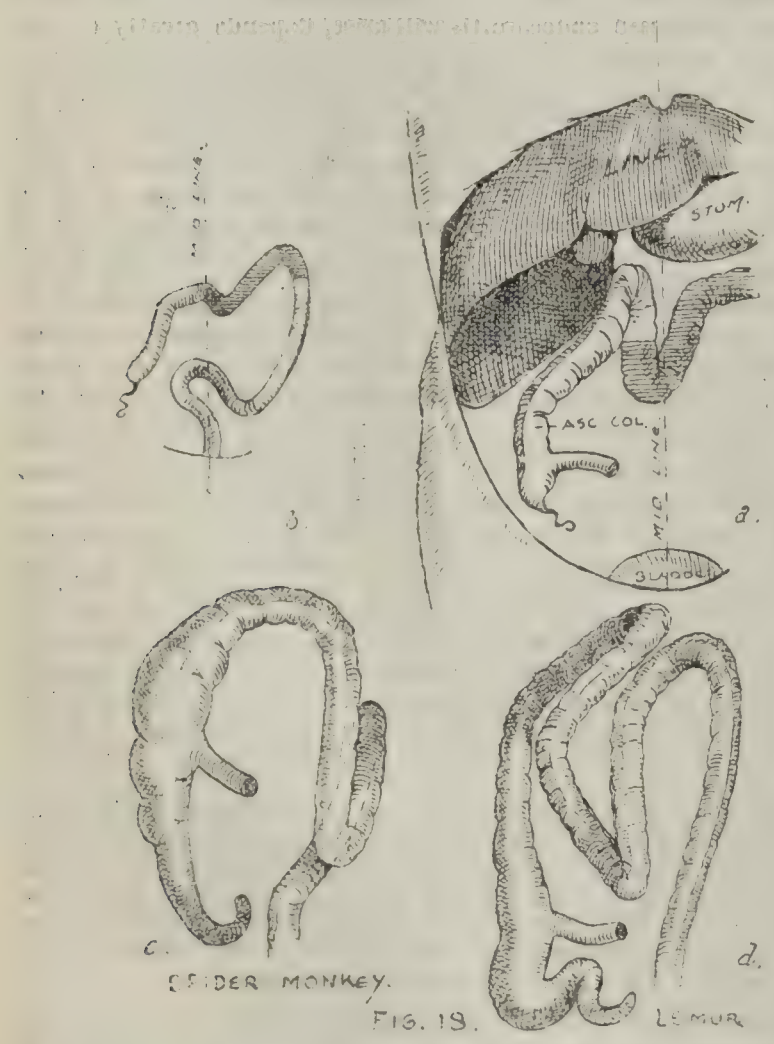


FIG. 19.

may be taken to represent the course of the cæcum as it passes from left to right in the process of development. The particular position assumed by the segment of the colon to the right of the middle line is rendered necessary by the large size of the liver, along the under surface of which the bowel runs. This disposition of the large intestine is still marked in the fœtus at full term, and may even be noticed sometimes in young subjects up to the age of two or three years. Thus the specimen from which Fig. 18A was drawn was from the body of a female child aged 2 years. It is not until the liver has regained its normal proportions with reference to the other abdominal viscera that the hepatic flexure becomes well marked, and the right segment of the colon acquires the position that is familiar in the adult.

The period at which the cæcum reaches its final resting place in the right iliac fossa is evidently liable to considerable variation. Thus, in fœtuses measuring respectively 4½ and 5½ inches, I have found the cæcum on a level with the lower end of the right kidney, while, in several fœtuses at full term, the caput coli has still occupied a position immediately under the liver, and there has been no large intestine in the place of the ascending colon.

It is well known that the cæcum may remain undescended throughout the whole period of existence. I have met with two examples of this condition in the hundred bodies examined. Both subjects were males; one was 41 years of age, and the other was 74. The disposition of the cæcum was identical in the two cases. No large intestine occupied the position of the ascending colon. The cæcum was placed on the right side, immediately under the liver, and just to the right of the gall-bladder. It was quite horizontal, continued the long axis of the transverse colon, and was included between the layers of the transverse mesocolon. The appendix came off from the posterior aspect of the cæcum. It was normal, as were also its folds. Its mesentery joined the upper layer of the transverse mesocolon. From the extremity of the cæcum, a horizontal fold of peritoneum was continued to the parietes, and upon it the edge of the liver rested. In one of these instances, the segment of colon from the tip of the cæcum to the splenic flexure measured 38 inches, and it was only to the left half of this portion that the great omentum was attached. In this instance, also, the descending colon was unduly long, measuring 15 inches. In the other example, the bowel, from the tip of the caput to the splenic flexure, measured 27 inches; the great omentum commenced 5 inches from the first named point. The descending colon was of normal length. In both cases, the remaining viscera were normal, and there were no evidences of intra-uterine peritonitis.

In two other adult bodies, the cæcum lay in the right iliac region, but both it and the whole of the ascending colon were entirely free from any peritoneal connections with the posterior parietes. The gut, from the tip of the cæcum to the hepatic flexure, was entirely invested by peritoneum continuous with the mesentery. In fact, this part of the colon was covered in the same manner and by the same fold as the small intestine; and a condition was produced identical with that met with in many animals. The portion of large bowel thus free measured eight inches in both instances. The mesentery lacked its usual attachment to the posterior abdominal wall, and its root was represented by the interval between the duodenum and the transverse colon. The membrane had, indeed, no other than its original primary attachment, and the small intestine and ascending colon formed together a loop that practically represented the condition of the great primary intestinal loop.

It is evident that, if a right lumbar colotomy had been attempted in any one of the four subjects last described, the large intestine would not have been found. In connection with these and like malformations of the colon, reference must be made to the very valuable monograph of Mr. Lockwood (British Medical Journal, vol. ii, 1882, page 574). The importance to the practical surgeon of Mr. Lockwood's work cannot be too strongly spoken of.

The average length in the adult of the ascending colon (as measured from the tip of the cæcum to the hepatic flexure) is eight inches, and of the descending colon (as measured from the splenic bend to the commencement of the sigmoid loop) eight inches and a half. The descending colon is the part of the large bowel that is least liable to variation. It is the only part of the gut, except the duodenum, that retains its original position as a portion of the great primary vertical loop. This segment of the intestine may sometimes be convoluted, and the longest descending colon that I have met with measured fifteen inches.

Considerable importance attaches, from a surgical point of view, to the frequency with which a mesocolon may be anticipated in connection with the vertical parts of the large intestine. With this anatomical circumstance, the operation of lumbar colotomy is very intimately concerned. The usual statement made in surgical text-books upon this subject, is to the effect that a mesocolon is more often found upon the right side of the body than upon the left; and this statement is used as one argument in support of left lumbar colotomy. I made a careful examination of the peritoneal investments of these parts of the colon in the 100 subjects dissected, with the following result. In 52 bodies (that is, in about one-half), there was neither an ascending nor a descending mesocolon. In 22, there was a descend-

ing mesocolon, but no trace of a corresponding fold on the other side. In 14 subjects, there was a mesocolon to both the ascending and the descending segments of the bowel; while, in the remaining 12 bodies, there was an ascending meso-colon, but no corresponding fold on the left side. It follows, therefore, that, in performing lumbar colotomy, a mesocolon may be expected upon the left side in 36 per cent. of all cases, and on the right side in 26 per cent. From the standpoint of development and comparative anatomy, it would certainly be expected that a descending mesocolon would be much more frequently met with than an ascending mesocolon. In the lower animals, the former membrane is always extensive and conspicuous. It is well marked in all species of monkey, and even in the anthropoid apes. It is the remains of the primary vertical fold of peritoneum, whereas the ascending mesocolon is a secondary production, a fold acquired by a certain phase in the development of the bowel. The line of attachment of the left meso-colon is usually along the outer border of the kidney, and is vertical. The attachment, therefore, has been moved some distance from the middle line, along which it would have originally extended. The line of attachment of the ascending mesocolon is, as a rule, less vertical, and is found crossing the lower end of the kidney from right to left, and then ascending along the inner margin of the gland. In like manner, when these folds are entirely absent, the left colon will be found to be adherent to the parietes along the outer border of the kidney, while the right will be fixed a little obliquely to the anterior surface of the lower end of the corresponding gland, and then along its inner margin. The ascending mesocolon will vary in breadth from one inch to two inches, while the fold on the left side will vary between one and three inches.

There is sometimes found connected with the ascending colon a fold of peritoneum, to which I would suggest that the name of the sustentaculum hepatis may well be applied. It is comparable with the fold from the descending colon that is known as the sustentaculum lienis. The process in question is found extending from the right side of the ascending colon to the parietes at, or a little above, the

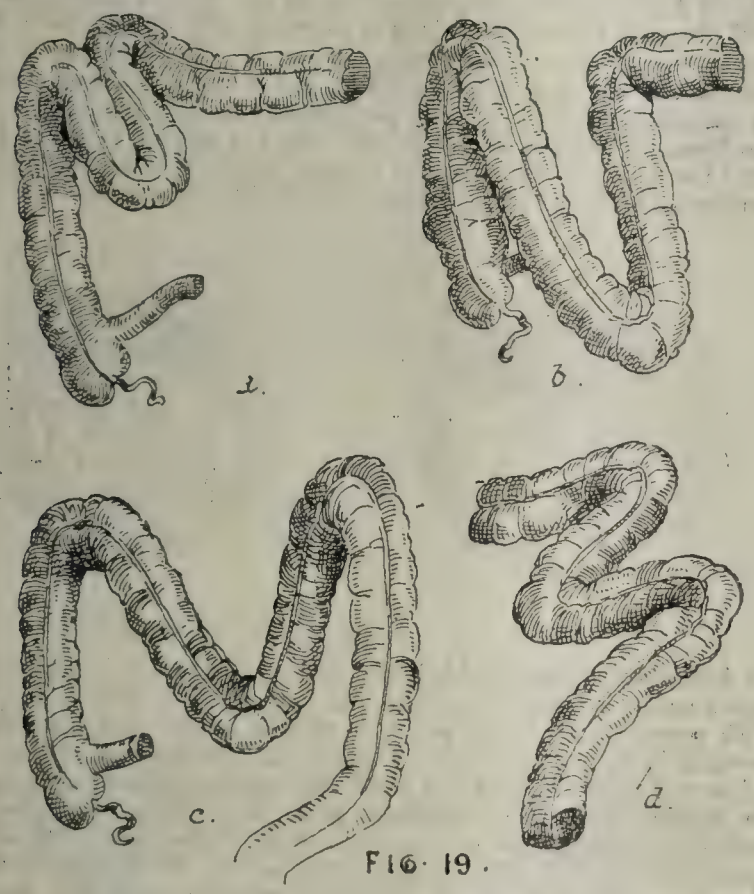


FIG. 19.

level of the highest part of the iliac crest. Its free border is concave, and looks directly forwards. Its width is about one inch and a half, and its depth (from before backwards) about two inches. It forms a shelf, upon which rests the extreme right margin of the liver. I have met with eighteen well marked examples of this fold in one hundred bodies.

It is needless to point out that the position of the liver is subject to some variation. In the fœtus, at full term, its lowest point usually reaches the crest of the ilium; and this edge may retain the same relation to the bone for several months, and even for two or three years after birth. In the adult, also, it is not very unusual to find the lowest margin of the liver extending to within a short distance of the iliac crest, and this, too, when the gland is perfectly normal in appearance. This relation is certainly more marked in women than in men, and may depend, to some extent, upon the use of stays. With three exceptions, the sustentaculum hepatis was associated with a liver that reached either the level of the iliac crest, or a point but a little way above it. It would appear as if the gland had pushed the fold of serous membrane before it, although, in each instance, the fold was a permanent one.

With regard to the exceptions, in two instances, the fold came off from the upper part of the colon, and reached the parietes at the level of the tip of the eleventh rib. In the remaining case, it came off from the hepatic flexure, and supported a liver that occupied a quite normal position. Of the eighteen individuals, eleven were females and seven males; twelve were under the age of three years, and the remainder were adults. In two instances, the fold formed, with another transverse fold that came off lower down from the upper part of the cæcum, a deep fossa, the mouth of which looked directly forwards.

The Transverse Colon.—This segment of the large intestine is liable to considerable variation in length, position, and arrangement. Its average length is 20 inches in the adult. The shortest measurements noted in this part in adults were respectively 12 and 13 inches, and the longest respectively 29, 30, and 33 inches.

It is obvious that the transverse portion of the intestine, when presenting the dimensions last named, cannot follow a straight, or evenly curved line, from the hepatic to the splenic flexure. In every adult body examined, I placed a thread transversely across the abdomen (after that cavity had been opened) at the level of the highest point on the iliac crest, and noted the relation that the transverse colon bore to it. In the majority of cases, the superficial part of the colic arch (that part that was exposed when the viscera were viewed *in situ*, before being disturbed) was either in whole, or in greater part, above this line. In the remaining instances, it was in whole, or in greater part, below it. The proportion of the two sets of cases to one another was as four to one.

The point of greatest anatomical interest in connection with the transverse colon has reference to certain remarkable bends that are sometimes formed by this part of the bowel. The bending is always in the same direction, namely, downwards, and is usually abrupt and angular. The deviations in outline produced can be conceived by imagining some part of the colic arch abruptly displaced downwards towards the pelvis, so that V- or U-shaped bends are produced. The apex of the V or the bend of the U may reach the pubes, and may even become adherent, when peritonitis has existed, to the pelvic parietes, or to some of the pelvic viscera; or one limb of the V may become adherent to the whole length of the ascending colon, and so produce what may appear at first sight to be a double ascending colon; or the other limb may attach itself in a like fashion to the descending part of the gut, and produce a similar appearance on the left side. These deviations have from time to time attracted the attention of pathologists, and I have entered somewhat fully into the literature of the subject in my Jacksonian Prize Essay. The first notice that I can find of these deviations is by Dr. Bright, in his monograph on *Abdominal Tumours*. In that work, he gives both a description and a drawing of the condition, or of at least one phase of it.

From a systematic examination of the intestine in the hundred bodies, I am disposed to think that these deviations in the colic arch may be due to two distinct causes; to the effects of distension on the one hand, and to a congenital malformation on the other. With regard to the first named cause, it is to be noted that the longest and most irregular transverse colons are met with in subjects in whom the large bowel is distended and occupied by much fæcal matter. Such individuals have probably been the subjects of chronic constipation, and have, more or less constantly, presented a distended state of the colon.

Now, if one of these long, loose, transverse colons be artificially distended with water, it will be observed that, when the distension has reached a certain degree, the centre of the colic arch begins to descend in the median line, so that a symmetrical V- or U-shaped bend is produced. In many bodies, especially in those where the bowel is loaded, slight degrees of this bending may be noticed, whereby the centre of the colic arch is brought below the umbilicus. Such a curve may probably be produced simply by the weight of the contained fæcal matter. In marked instances, the apex of the bend may reach the pubes (Fig. 19 c), and of this condition I have met with four examples. If, when such an extreme bend exists, peritonitis be present, it is easy to understand that one limb of the bent arch may become adherent to the ascending or descending colon, and so produce the appearance of a double intestine.

The bends, on the other hand, that I have ventured to think may be congenital, are of a somewhat different character, and possibly represent a return to a distortion of the colon that is constant and pronounced in many animals.

If the colon of a fœtus, of about 5 inches in length, be examined *in situ*, a sharp but slight bend will often be noticed in the transverse section just to the left of the middle line (Fig. 18 B). In the large bowel of a fœtus at full term, or even of a child of one or two years of age, a similar, but more pronounced, bend will be not unfrequently observed in the same portion of the gut (Fig. 18 A). In both these figures, the part of the bowel from which the great omentum arises is indicated by shading. In five instances, in adult bodies, I have found a bend in the right side of the colon of like description to that just named (Fig. 19 A); and, in one of the examples, the distortion was of such a degree that the apex of the bend reached the pubes (Fig. 19 B). In two of the cases, the malformation was rendered permanent by adhesions that were apparently non-pathological. In four adult bodies, moreover, I have met with a like bending in the left angle of the colon, the great omentum being attached to all the distorted part (Fig. 19 D); and here also, in two examples, the bend was secured by adhesions that did not appear to be normal. Although it may be expected that the effects of distension would tend to show themselves at the colic flexures, yet, in these nine examples, gross evidences of distension were lacking, and the bowel was not of undue length. In no instance was any other abnormality detected in the nine subjects. These distortions of the colon will be seen to bear some resemblance to those that are constant in many animals, of which examples are afforded by the large intestine of the Spider monkey (Fig. 18 C), and of a Lemur (Fig. 18 D).

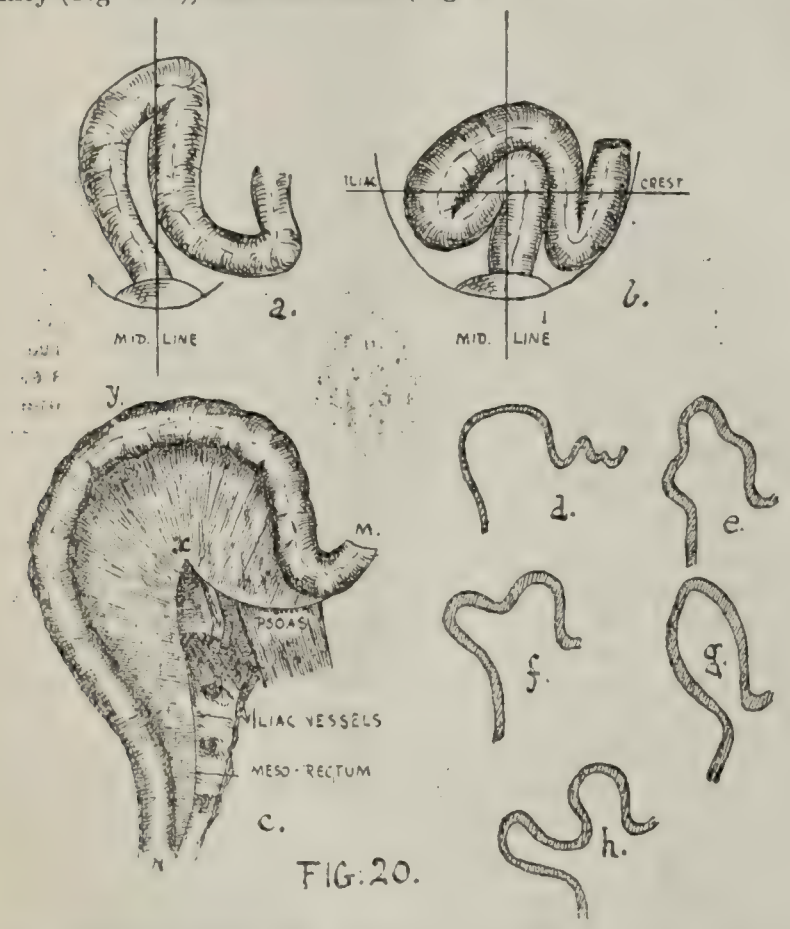


FIG. 20.

The Sigmoid Flexure and Rectum.—The accepted account of this part of the bowel that is given in anatomical text-books, is as follows. The sigmoid flexure is said to be situated in the left iliac fossa, and to consist of a double bending of the bowel in the form of the letter S. It joins with the rectum at the pelvic brim, opposite the sacro-iliac synchondrosis; it is attached, by a distinct mesocolon, to the iliac fossa, is very movable, and falls into the pelvis when the bladder is empty. The rectum is divided into three parts; the first part commences at the sacro-iliac synchondrosis, and passes obliquely down from left to right, forming a gentle curve to the right, and ultimately gaining the middle line opposite the third piece of the sacrum; it is entirely invested by a fold of peritoneum called the meso-rectum. The second part extends along the concavity of the sacrum as far as the coccyx, at which point the third part begins, and inclines at once backwards to terminate at the anus. This account is very ancient, and has been handed down from book to book through many generations. The descriptions given of the second and third parts of the rectum (the portions beyond the point of ending of the mesorectum), I would fully endorse, both as regards the direction and position of the gut, and its relations to the serous membrane. But although I began to investigate these parts with a full belief in the ancient account, I must confess that, in the hundred bodies, I have never seen such a sigmoid flexure nor such a rectum. I would go so far as to state that the flexure does not occupy the iliac fossa, that its mesocolon does not arise wholly from that fossa, that its course is not that of either the letter S or the letter Σ, and that the first part of the rectum is not disposed in the manner familiarly described. The segments of gut termed the sigmoid flexure and the first part of the rectum form together a single simple loop that cannot be divided into parts. This loop begins where the descending colon ends, and ends at the commencement of the so-called second piece of the rectum; at the spot, in fact, where the mesorectum ceases, opposite about the third piece of the sacrum. This loop, when unfolded, describes a figure that, if it must be compared to a letter, may well be compared to the capital Omega. If, at any time, new terms should be introduced, it might be well to call all that segment of the bowel between the ending of the descending colon and the ending of the meso-rectum the omega loop, and to limit the term "rectum" to the short piece of practically straight gut that is now described as the second and third parts of the rectum.

The length of this sigmoid or omega loop in the fœtus has been already mentioned. Its average length in the adult is 17½ inches The longest loop met with (in a male aged 28) measured 27 inches, and the shortest (in a female aged 70) measured 6 inches only. This latter specimen was of a very exceptional character. In a small fœtus about 5 inches in length, the coil forms a simple loop in the abdomen that is directed upwards and to the right, and that crosses the middle line (Fig. 18 B). In the fœtus at full term, the coil may have practically the same outline and position, its apex reaching to the transverse part of the duodenum (Fig. 20 A), or it may have already begun to bend down towards the pelvis (Fig. 20 B). In the adult, the most usual shape of the unfolded loop is shown in Fig. 20 C, where it will be seen to describe a fairly regular curve. In this figure, M is at the termination of the descending colon, and N at the point of ending of the mesorectum. The normal position of this loop is not in the left iliac fossa, but wholly in the pelvis. By the age of 4 weeks I have found the whole of the sigmoid flexure within that cavity. The circumstances under which the flexure is found without the pelvis are



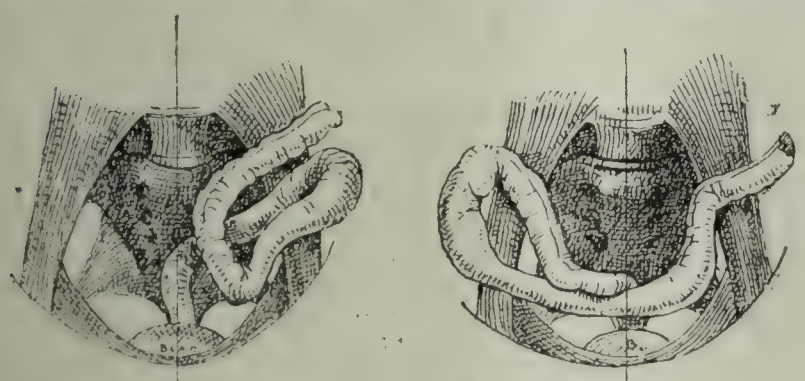
FIG. 21.

the following: when the bladder or uterus is distended, when a large cæcum occupies the pelvis, when the loop itself is greatly distended. With regard to the latter point, it may be noted that, as distension increases in the omega flexure, the loop at first rises out of the pelvis, and occupies by its apex the right iliac region; it next mounts up to the region about the umbilicus, and, in extreme distension, may reach the under surface of the right lobe of the liver. It assumes, indeed, at last, the outline and position of the fœtal sigmoid flexure. I have more than once, in the adult, found the apex of a distended sigmoid or omega loop lying in contact with the transverse colon, or on a level with the transverse part of the duodenum. In one instance, the summit of the loop was fixed by morbid adhesions to the transverse duodenum. Taking the average in all the specimens examined, the most usual arrangement of the omega loop, when *in situ*, is the following. The descending colon ends just at the outer border of the psoas. The gut here suddenly changes its direction. It crosses the muscle at right angles, and about midway between the lumbo-sacral eminence and Poupart's ligament. It now descends vertically along the left pelvic wall, and may at once reach the pelvic floor. It then passes more or less horizontally and transversely across the pelvis from left to right, and commonly comes into contact with the right

pelvic wall. At this point it is bent upon itself, and, passing once more towards the left, reaches the middle line and descends to the anus (Fig. 21 A). It will lie, therefore, in more or less direct contact with the bladder and uterus, and may possibly touch the cæcum. It is in very close relation with the coils of small gut that occupy the pelvis, and by these coils the loop is usually hidden. Other, but much rarer, arrangements of the loop are shown in Figs. 21 B and 22; the diagram, in each case, having been made from a fresh specimen while the parts were *in situ*, and before the sigmoid loop had been in any way disturbed.

The line of attachment or ground-plan of the mesocolon that attaches the omega loop, is as follows (Fig. 20 C). It crosses the psoas at a right angle, and then takes a slight curve upwards, so as to pass over the iliac vessels at or about their bifurcation. The curve ends at the point *x*. This point is either situated just to the inner side of the psoas muscle, or between the psoas and the middle line, or, as is most frequently the case, just over the bifurcation of the vessels.

From this point, the line of attachment proceeds vertically down, taking, at first, a slight curve to the right, to terminate at N. Its course is to the left of the middle line, while its ending will be upon that line. It will be seen that, at the point *x*, the mesocolon is folded a little upon itself. From this point, also, arises that part of the membrane that goes to the summit of the loop (*y*). It is here, moreover, that the mesocolon attains its greatest length, and it is, lastly, at this spot the sigmoid artery enters. The average length of the mesocolon of the omega loop is as follows: over the psoas, 1½ inches; at the point *x*, 3¼ inches; on the sacrum, 1¾ inches. There is often no mesocolon over the psoas, the gut being adherent to that muscle. When a descending mesocolon exists, it joins that of the loop; and the line of attachment is then, as a rule, directed obliquely across the psoas and the lower end of the kidney, while beyond the pelvic brim the attachment is as above described. The distance between the points M and N—the extremities of the loop—is represented by the distance between the outer edge of the psoas and the third piece of the sacrum. The ends of the loop, however, just beyond their respective terminations, are usually brought nearer together by a slight contraction of the mesocolon, the distance between the parts being then, on an average, 3 inches. A line drawn transversely across the mesocolon, at its widest part, usually measures 4 inches. Morbid contractions and adhesions are singularly common in this mesocolon, especially in old subjects, and particularly it would appear in those liable to constipation. These contractions are most common over the psoas, and many bands are often seen passing from the left layer of the mesocolon to the peritoneum over the muscle. By such contraction, a loop of the shape figured in Fig. 20 D may be produced. By somewhat similar, and not necessarily morbid, contractions, loops of the shapes shown in Fig. 20 E, F, and H, may be brought about. In the species of loop shown in Fig. 20 G, the two ends of the bowel are brought close together, so close as to be sometimes in contact. In such instances, the greatest length of the mesocolon may reach 6, 8, or even 9 inches. This is the condition that especially favours volvulus of the sigmoid loop. I have met with six instances of this form, all the subjects being adults past middle life. In one remarkable specimen, the gut from the end of the descending colon to the third piece of the sacrum measured only 6 inches. It formed a perfectly simple bend over the psoas, and had no mesocolon of any kind. It was met with in the body of a male aged 70. From the left side of the mesocolon, folds of peritoneum are often found passing down to



C. FIG. 22. D

the brim of the pelvis, to the broad ligament, to the psoas muscle, and to the iliac fossa. They tend greatly to keep the flexure in position, but are not sufficiently constant to be classified. Large fossæ or depressions may be formed between these folds when more than one exists.

The Intersigmoid Fossa.—The opening of this fossa is seen on the left wall of the mesocolon, when the loop is drawn forwards and upwards. The pouch is formed between the layers of the mesocolon, and is due to a turning in of a funnel-shaped process of the peritoneum. The opening is usually found in the mesocolon at the point *x* (Fig. 20 C), but more especially when this point lies over the bifurcation of the iliac vessels. The floor of the pouch is adherent to these vessels, and through the transparent floor the ureter can usually be seen crossing the artery. In other and less common instances, the fossa is removed from the root of the mesocolon, and is found some way up upon that membrane, it may be midway between the parietes and the gut, or found even nearer to the bowel than to the attachment of the serous fold. The long axis of the pouch is directed downwards and to the left. The orifice is round or oval, with a thin distinct sharp edge, that shows an absence of blood-vessels. The sigmoid artery lies above it, and to the right. It is by the last named vessel that the fossa is produced. This trunk is usually shorter than the mesocolon in which it runs; that membrane is therefore drawn upon, so as to present a funnel-like depression where the artery reaches it. A deepening of this depression constitutes the fossa. The fossa varies in depth from 1 to 1½ inches. It will usually lodge the forefinger up to the first joint. In one case it accommodated the entire thumb, and in a solitary instance (in a female aged 17) it was so large as to lodge conveniently three fingers up to the joints, between the first and second phalanges. When the fossa is in its usual place, at the brim of the pelvis, its direction corresponds to that of the sigmoid artery; when it is removed from the brim, it may take very varied directions. In a few specimens, the orifice of the fossa would only accommodate a No. 7, No. 10, or No. 12 catheter, although the depth of the pouch varied in these cases from an inch to half an inch. In three specimens the orifice was valvular. The true fossa is not met with in small fœtuses. It is quite rare in the fœtus at full term, although at that period it is very often represented by a funnel-shaped depression. In older subjects, it is frequently quite obliterated by the adhesions alluded to. The perfect fossa was met with in 52 per cent. of all the subjects. But if distinct funnel-shaped depressions be added to the examples of the true fossa, then the percentage reaches 65 per cent. The sigmoid artery, as it descends to the mesocolon, forms a very distinct fold in the upper layer of that membrane, that is placed at right angles to the long axis of the bowel. It would appear that it is usually about this fold—as about an axis—that volvulus takes place. From a point on the left layer of the mesocolon corresponding to this plica, another fold may arise and pass down to the pelvic brim or the broad ligament. In such a case, there will be no true sigmoid fossa. Two cases of strangulated hernia in the intersigmoid fossa have been recorded—one by Lawrence, and one by Mr. Eve, in the Erasmus Wilson lectures, delivered at the Royal College of Surgeons in 1884.

LONDON DENTAL HOSPITAL.—The twenty-seventh annual general meeting of the governors of this institution was held this week at the hospital in Leicester Square. Sir J. McGarel-Hogg, M.P., presided. The annual report set forth that the institution was daily becoming more largely resorted to by the necessitous poor. The number of cases treated during the past year was 38,304, being 2,672 in excess of that of the previous year. The general fund amounted to £1,662 0s. 10d.; donations of life-governors, £325 5s.; and the annual subscriptions, £673 11s. 6d.; the total receipts from all sources being £1,857 3s. 3d., while the expenditure amounted to £1,360 0s. 6d. The mortgage debt had been reduced by £1,500; but there was still a deficit of £3,471 3s. 11d. on the extension-account, and a special appeal was made for subscriptions to pay off this incumbrance, which pressed heavily upon the resources of the charity. The other business transacted was formal.

DONATIONS.—By the will of the late Major-General George Pope, C.B., who died in London on the 21st ultimo, the following legacies, payable on the death of his daughter, are given—namely, £5,000 to the Lord-Lieutenant of the County of Sutherland, for the construction of a harbour of refuge at Helmsdale; £3,000 for a free medical dispensary, and a further sum of £2,000 for a small hospital in connection with the dispensary, for the benefit of the needy residents in the county; £500 for the poor of that district; £1,000 to the Tain Academy, for the benefit of poor children to prosecute their studies there; £1,000 to the University of Aberdeen, for a like purpose; £2,000 to the Northern Infirmary, Inverness; £1,000 for the University of Bombay.

ABSTRACT OF LECTURES
ON
SOME POINTS IN THE ANATOMY AND PHYSIOLOGY OF THE EYE.

Delivered at the Royal College of Surgeons of England.

By W. A. BRAILEY, M.D., M.R.C.S.,
Hunterian Professor at the Royal College of Surgeons; Ophthalmic Surgeon to the Evelina Hospital; Assistant Ophthalmic Surgeon and Joint Lecturer on Comparative Anatomy at Guy's Hospital.

Lecture I.

Mr. President and Gentlemen,—I ought, I feel, to excuse myself for venturing to bring an anatomical subject before anatomists of such wide knowledge and experience. I might perhaps do so, to some extent, by an exposition of the great inaccuracies common in text-books; but I rather rely upon the facts that the anatomy of the eye is so complicated, and so wonderful, as to admit of many lifetimes of research; and that I myself have some contributions to make to our knowledge of this subject, however small they may be, both actually and in proportion to the great amount already known, and to that still greater quantity that must still remain to be worked at.

I do not propose to deal much with pure microscopic anatomy; and, therefore, I have entirely omitted the cornea, the retina, and the choroid. Nor is my work quite the coarser anatomy, but it rather concerns the tissues, which, from their size, stand intermediate between the two, and which, therefore, are in some danger of being overlooked in the ordinary course of events. In the same way, I have to direct your attention somewhat to another subject, which is also liable, from various difficulties attending its investigation, to pass unnoticed—that is, the changes that occur with advancing years.

As to the first point on the syllabus, the size of the globe, we find important differences of opinion. Gray's *Anatomy* makes the antero-posterior diameter 25 millimètres, and says that it exceeds the lateral and vertical, each, by 2 millimètres. Quain's *Anatomy*, a very reliable text-book as a rule, so far as the eye is concerned, makes the antero-posterior less than the others, which are made equal. My rather numerous measurements make the antero-posterior diameter 24.5 millimètres, on the average; the lateral, 24 millimètres; and the vertical, 23.5 millimètres. This difference between the different measurements is more constant than the absolute size of the globe. This last is known to vary with hypermetropia and myopia, which conditions may have introduced some degree of fallacy; for, though I have omitted all cases in which they were well evidenced, it is, of course, impossible to exclude all. I am unable to say anything as to variations in size of the eye in relation to that of the body generally.

With regard to the thickness and strength of the tunics of the globe, it is well known that the sclerotic is thickest at the posterior pole—that is, at and near the yellow spot, where it equals 1.1 millimètres. The cornea is 1 millimètre thick at its centre and for some distance round; just in front of its margins, it measures 1.25 millimètres.

Sections passing across the globe in a vertical plane—that is, through its equator—show important differences. Almost without exception, the lower part of the sclerotic is the thickest, and the outer the thinnest. The difference is considerable; the one measuring 1 millimètre, and the other .7 millimètre. The two remaining sides are intermediate, but the upper (.9 millimètre) is usually rather thicker than the inner (.85 millimètre). With this difference of thickness, there is a general difference of strength in the different regions. Consequently, a distending force from within will stretch the globe more in the lateral than in the vertical direction. Undoubtedly, even the normal intra-ocular pressure has some little effect, and is doubtless the reason why the lateral diameter of the normal eye slightly exceeds the vertical. Hence arises the slight difference between the lateral and vertical curves of the cornea; the former having the longest curve, on account of the aperture in the sclerotic into which it is, as it were, inserted, being rather longer transversely than vertically. The axis of the cylindrical lens, which corrects the small degree of astigmatism thus produced in nearly every person, will be situated in correspondence with the shorter vertical corneal curve.

Though, in a general sense, the strongest parts of the sclerotic are the thickest—that is, at the posterior pole, and at the ciliary region—yet there are other points to be considered in this relationship. Specially disposed fibres may give special strength; and the perforation of vessels or nerves may, similarly, be a cause of weakness. The anterior part of the sclerotic is strengthened by fibres running in a circular direction. (Fig. 1.) They are almost entirely limited to the internal



Fig. 1.

part of this region, and are almost exclusively behind the canal of Schlemm, and consequently in the sclerotic itself. Even so good a text-book as Quain's places them, in a figure which is referred to its German source, as forming a continuous layer just outside Schlemm's canal, as well as behind it. But the most interesting point which I have observed in relation to these fibres is, that a certain number lie internal to, and consequently are interlaced at right angles with, those fibres of the ligamentum pectinatum from which the longitudinal or outermost fibres of the ciliary muscle take their rise. (See Fig. 1.) These circular fibres project inwards beyond the level of the rest of the sclerotic, and form, as it were, a sort of promontory or headland, upon which the terminal fibres of the ligamentum pectinatum are split into two sets. One of the sets passes externally to join the longitudinal fibres of the sclerotic; the other, which constitutes by far the larger number of fibres, passes internally to the circular fibres, to give origin to the circular, the radial, and some of the longitudinal fibres of the ciliary muscle. But between these two sets are a few other fibres of the ligamentum pectinatum which run *through* the circular fibres of the scleral promontory, to give origin to the outermost longitudinal fibres of the ciliary muscle. As we pass backwards from the canal of Schlemm, which they limit posteriorly, the circular, which constitute the internal part of the anterior portion of the sclerotic, gradually become more oblique, till, about opposite the middle of the ciliary body, they have become merged into the ordinary longitudinally arranged scleral fibres. In consequence of this disposition of parts, the longitudinal or outer fibres of the ligamentum pectinatum, and with it the corresponding fibres of the ciliary muscle, are closely united with the sclerotic; and, in addition to this, this part of the sclerotic offers great resistance to a distending force from within. But the parts just in front of them, being tunnelled by Schlemm's canal, and penetrated by the veins leading backwards and outwards from this; and, similarly, the part behind them, being traversed by the anterior ciliary vein, and, a trifle behind it again, by the artery of the same name; constitute areas of weakness, the effect of which will be discussed later.

Also the point at which the optic nerve passes in is naturally weak. Though some of the fibres of the sclerotic pass across the entrance, constituting the lamina cribrosa, they cannot offer so great a resistance as the rest of the sclerotic, being traversed by the nerve-fibrils. Consequently, they yield and become stretched, when, as in myopia, they are weaker than normal; or become stretched and bulged backwards, notwithstanding their normal resisting power, as in glaucoma. Around the disc is a zone, over which the sclerotic is thinned, from an extension towards the eye of the space between the dural and pial sheaths of the optic nerve (Fig. 2). The presence of the arteries which constitute the arterial circle of Zinn within that part of the sclerotic, is a still further source of weakness. Just outside this again is a zone of a greater strength. The sclerotic there is thickened by the passage into it of the outer or dural sheath of the nerve. But proceeding still further beyond this in both directions, we find the sclerotic much weakened by the perforation of arteries and nerves. For example, the internal and external long ciliary nerves and arteries enter the

sclerotic very obliquely, about 4 millimètres internally and externally to the nerve respectively (Fig. 2). Each artery, shortly after its entrance, gives off a branch, which, after curving inwards considerably, and then bending again outwards and slightly upwards, like one turn

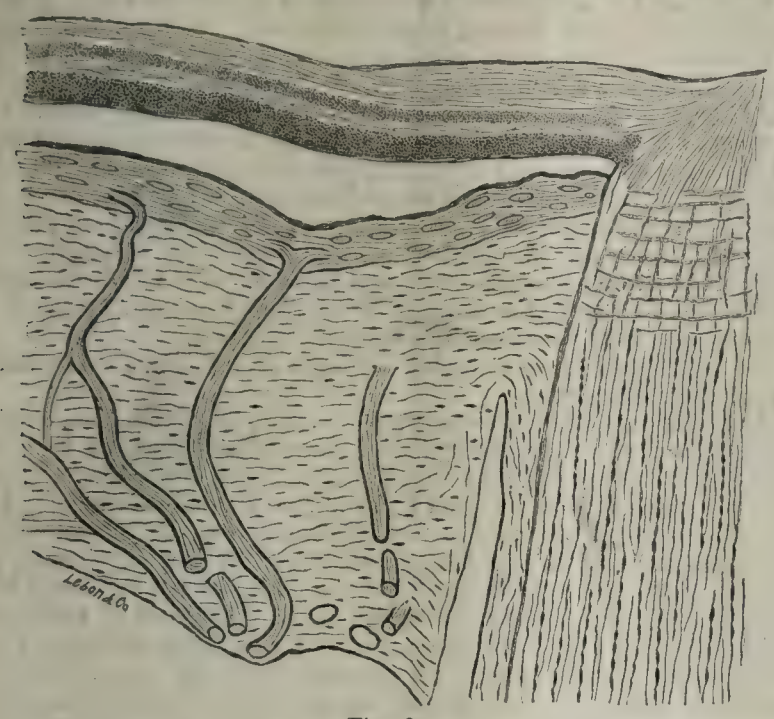


Fig. 2.

of a corkscrew, ends in the choroid at or close to the yellow spot. Between this artery and the arterial circle of Zinn is found another artery, which takes a parallel and somewhat similar course in the sclerotic (Fig. 2). As this gives off a branch to join the vessel which, proceeding from the dural sheath, forms the main part of the circle of Zinn, it will be readily imagined that the sclerotic is liable to be unduly weak in all this region.

It has already been mentioned that the sclerotic is thinner at the sides of the eye than either above or below, and the weakness hence arising is increased by the final part of the course of the long ciliary artery and nerve within its substance.

The comparatively few measurements that I have been able to make of the eyes of children tend to show that the antero-posterior diameter measures about 21 millimètres at birth. Consequently, it has increased in size about one-seventh part from birth up to adult life (twenty-five years), when it attains the full size. This is a growth vastly less than that of the body generally in the same time. The disproportion between antero-posterior, lateral, and vertical diameters, exists slightly in the infant, though it is apparently much less marked in proportion than in the adult. Probably the increasing difference as age advances is due to a slight and unequal yielding of the sclerotic in different parts. Certainly, in the glaucoma of young persons, the horizontal diameter is more increased than the vertical, and, in the vast majority of cases of astigmatism, the shortest corneal curve is the vertical.

If we compare the lateral measurements of the globe at birth and at twenty-five years with those of the lens at the same periods, we shall be struck by the great relative differences between them. The real difference is, however, not fully apparent, on account of the uncertainty as to the exact size of the lens at birth and in youth. Most authors make it nearly globular at first, that is, about 5 millimètres in lateral, by 4.5 millimètres in antero-posterior, diameter (see the figure in Todd and Bowman's *Physiological Anatomy*); but this lateral diameter is probably much less, and the antero-posterior proportionately larger, than they should be, on account of the extreme elasticity of the lens, which makes it assume a nearly globular shape directly it is taken out of the eye. The same fallacy applies, though in a much less degree, to measurements of the lens taken *in situ*, since the great want of rigidity in the sclerotic allows a collapse of the globe directly it is cut through. Probably the lateral diameter at birth should be at least 6 millimètres, and the antero-posterior about 4 millimètres. Even then the increase from 6 millimètres at birth to 8.5 millimètres at 25 years is a very large one, amounting to about 40 per cent., while the eyeball, as a whole, has grown only about 15 per cent. And this increase of the lens is still more striking if we accept the investigations of Mr. Priestley Smith, who judges, from his measurements, that the lens continues to grow throughout the whole period of life.

As to the shape of the globe in relation to age, several important points arise. The cornea is more convex in early than in adult life; also the sclerotic, in the immediate neighbourhood of the sclero-corneal junction, is, as it were, pulled in, a condition doubtless related to the existence here of the circularly running fibres previously described. This pulling-in is most remarkable, and might, indeed, be taken as indicating, in healthy eyes, the time of life; it decreases as age advances, till, in adult life, perhaps 30 years, it is scarcely observable. The projection inwards of the outer tunic at this point, that is to say, close behind Schlemm's canal, beyond the curve of the remaining sclerotic and cornea, is as much as 0.5 millimètre on each side. A corresponding furrow should, of course, be visible externally; but this is less marked than it otherwise would be, owing to the slightly greater thickness of the sclero-corneal junction in the child.

The diameter of the corneal base increases then very rapidly from infancy to adult life, in correspondence not only with the growth of the globe generally, but with the above described alteration of curve in this particular part, and the growth of the lens.

The posterior part of the globe presents less important changes. My measurements make the yellow spot 2.75 millimètres distant from the outer edge of the optic disc, and 0.5 millimètre lower. One important English text-book makes, in a figure, the yellow spot actually the higher of the two, and another puts them level. In the child, so far as I can determine it, the distance is very little less than in the adult. But there is an important difference in the relation of the insertion of the inferior oblique muscle to the optic disc and yellow spot. In the adult, the distance between the tendon of this muscle and the outer edge of the disc is 6.25 millimètres; whereas, in children, it is only about 4 millimètres. Consequently, the sclerotic stretches or yields very considerably on the immediate outer side of the yellow spot; whereas, to its immediate inner side, it changes very little. The importance of this, in relation to the visual line and to the ocular muscles, is obvious. The inferior oblique insertion is 1 millimètre below the yellow spot, and, consequently, 1.5 millimètres below the centre of the optic disc.

In the adult, the insertion of the internal rectus muscle is about 2 millimètres further forwards than that of the external, the former being about 5 millimètres, and the latter 7 millimètres, from the apparent corneal edge. The variations are, in the one case, between 4.5 and 6, and in the other between 6 and 8 millimètres.

In persons more than about 40 years old, the lamina cribrosa is the only part of the globe that yields to increased intra-ocular pressure, excepting, sometimes, the thin lateral walls, where they are additionally weakened by the presence of the internal ciliary artery and nerve. The optic disc, normally about 1.75 millimètres across from side to side, is increased to 2 or even 2.5 millimètres, on account of stretching of the lamina cribrosa. But this does not represent the full extent of the yielding of this structure, since its anterior fibres are usually so pressed upon as to have a much increased curve backwards. This widening of the mouth of the optic nerve in glaucoma thrusts aside the edge of the choroid, which normally slightly overhangs it. Consequently, the edge of the sclerotic is more distinctly visible to the ophthalmoscope than it should be, and appears as a narrow ring between the choroid and optic disc, paler than either of them. This so-called scleral ring is well seen in a partial form in many cases of astigmatism, and furnishes an additional reason for belief in an abnormal yielding of the walls of the globe in such cases. The lower margin of the disc appears to be its favourite position in astigmatism. In children, the same changes occur in the lamina cribrosa, but the eye is increased in all its diameters, though most of all in the antero-posterior. The changes are mainly in the anterior half of the eye. The cornea, which is the part especially affected, may be increased in all its diameters in the proportion of 1 to 1.7. This great increase is the cause of the appearance known as buphthalmos or hydrophthalmos. The sclero-corneal junction is perhaps the most stretched of all, the distance from the apparent corneal edge to the angle of the anterior chamber being as much as 4 millimètres instead of the normal 1.75 millimètres. It frequently happens, both in children and in young adults, that, although the circular fibres near the sclero-corneal junction resist well, the parts immediately in front of and behind them yield, so as to give rise in the one case to a marginal corneal, and in the other to a ciliary, staphyloma. Such bulgings are associated in the first case with adhesion and great atrophy of the iris, and in the second with great atrophy of the ciliary body and muscle.

Certain yieldings take place independently of increased pressure from within so far as we know, being more related to undue weakness of the tunics at particular points. Such constitute conical cornea, and the yieldings of most forms of myopia. In the former, the central

part of the cornea is unduly thinned. In the latter, though there is some little yielding of the cornea generally, and especially of the sclero-corneal junction, the main changes are at and near the posterior pole. The most common is a yielding of the sclerotic in the immediate neighbourhood of the optic disc, its outer margin being usually the most affected. This depends upon a stretching of that thinner part which corresponds to the weakened part previously described as existing between the dural and pial nerve-sheath. The neighbourhood of the yellow spot, notwithstanding the great thickness of the sclerotic there, is also weak from the perforation of arteries and nerves previously described. But why this region should bulge in myopia more than in the glaucoma of young subjects is not perfectly apparent, unless, as indeed is frequently the case beyond doubt, the perforating vessels are larger, more numerous, and more tortuous in myopia than in other conditions, or the sclerotic itself weaker.

The more resisting zone of sclerotic, which corresponds to the insertion of the outer or dural nerve-sheath, sometimes keeps the sclerotic there of its normal position and thickness; or the two defective areas may be actually continuous. In the former case, the sclerotic is usually more posterior at the edge of the disc than it is at the unyielding zone a little further out. Naturally, the myopic crescent may exist without the posterior staphyloma, and *vice versâ*. While the space between the yellow spot and the posterior pole may be increased from 2.75 millimètres to 4 or 4.5 millimètres, the yellow spot itself, by being situated further backwards, may still keep its position in relation to the visual axis, or it may be slightly removed either to the inner or the outer side. The distance from the edge of the optic disc to the insertion of the inferior oblique mnscle may be increased from 6.25 to 10 or even 12 millimètres.

I have omitted to mention one very important point in connection with the lamina cribrosa. Whilst, under ordinary circumstances, its fibres have an extremely slight convexity backwards, it happens in some conditions of intracranial disease that it is decidedly curved the reverse way. In this case, its central part remains clearly fixed to the sheath of the central vessels, but its two halves (in section) are bowed forwards, as a sail would appear when filled by a breeze.

ABSTRACT OF THREE LECTURES ON THE MUTUAL RELATION OF THE GREY MASSES OF THE CEREBRO-SPINAL SYSTEM, AND THEIR CONNECTIONS WITH PERIPHERAL NERVES.

Delivered at the Royal College of Surgeons of England.

By ALEX. HILL, M.B., M.R.C.S.,

Hunterian Professor at the Royal College of Surgeons; Fellow of Downing College; and Demonstrator of Anatomy in the University of Cambridge.

Lecture III.—The Cortex.

In the anterior part of the body, in addition to the differentiation into central grey and peripheral white tubes, a further structural change occurs in the involuted epiblast, by which a layer of grey matter is added peripherally. In this manner, we have formed portions of a peripheral grey tube, to which belong the cortex of the cerebellum, corpora quadrigemina, and cerebrum. It is with the latter only that we have time to deal.

Of the connections of the cortical with the central grey tube, and directly or indirectly with peripheral nerves, we know little. Gratiolet long ago pointed out the connection between its occipital part and the back of the optic thalamus. Flechsig has shown that fibres also pass into it from the internal capsule without becoming connected with the "basal ganglia." Our opinion with regard to its anatomical relations is based really on physiological evidence. On the first discovery of its irritability by Ferrier, and Hitzig, and Fritsch, it was assumed that it contained "motor centres" in the simple meaning of this expression. That the cells in the cortex are not in direct connection with motor nerves, but only mediately through the cells of the central grey tube, is shown by the results of ablation-experiments, which have never given rise to permanent localised paralysis, except when descending degeneration has been set up by the injury. Munk made the theory of localisation of function more palatable to physiologists imbued with Flourens's teaching, by substituting for the idea of centres with simple motor functions, which strikes one as work unworthy of our subtlest cerebral machinery, the conception that in the cortex of the brain are stored away all the sense-pictures by which our actions are accompanied. Remove from an animal this record of past effort, attainment and defeat, and it has to recommence its life with the same machinery as before, but without the knowledge of how to use it. The same sense-stimuli come pouring in and call for action, but all the early period of the animal's existence, in which the meaning of its sensations was learnt, having been blotted out, its new attempts in the business of living are as much more clumsy than those of our newborn as its wants are more serious and intricate. This theory of Munk's may overstate the case on the one side, as far as Ferrier's on the other. Until we know more of our highest cerebral functions, it will be impossible to reach the truth; but that the connection between cortical cell and muscle-fibre is somewhere broken, is shown by the experiments of Bubnoff and Heidenhain on the conditions of stimulation. The difference in effect when the cortex and when the subjacent white matter is stimulated, and the ease with which the cortex is inhibited, or thrown out of gear, by profound narcosis, may be regarded as affording us differential tests of its action.

"I propose, to-day, to consider the light thrown upon this question by comparative anatomy.

"A certain amount of extremely good work upon the external configuration of the brain was done by Serres, Leuret and Gratiolet, Huschke, and Owen; but, as long as the doctrine of Flourens, that the cerebrum was the seat of the higher faculties, and acted as a whole, held sway, the arrangement of the convolutions upon its surface was of little moment. Then the doctrine of evolution suddenly raised into importance the structural features of the cortex of the monkey's brain—in the brain, if anywhere, we might surely find proof of man's anatomical isolation; and, as the result of this search, we have monographs on the convolutions of the monkey's brain by Owen, Rolleston, and others. Again, for physiological reasons should the almost neglected cortex, whose convolutions have been regarded as having as little fixed meaning and being as little amenable to exact description as the waves and heaps of wind-blown sand, be examined with the utmost care. In the light of the theory of localisation of function, the different regions of the brain come to separate one from another almost with the distinctness of different organs. If this region is the centre for sight, and that for hearing, this region for movement of the fore limb, and that for the hind limb, we have to deal with a specialisation of function which confers a high degree of physiological distinctiveness upon the different parts; and the point which I particularly wish to bring before your notice is that this specialisation of function must, if it exist, be associated with specialisation of structure. The sense-organs and muscular system of different animals present extremely various degrees of development. Here is the brain of a mole, a blind animal, with immensely developed fore limbs; there, the kangaroo, with rudimentary fore, and prodigious hind, limbs and tail. Here is the brain of the dog, with its 120 square inches of olfactory membrane and powerful limbs; there, its comparatively near relative, the seal, with scarcely any sense of smell at all, and its muscular system principally axial. Now, I think we may lay it down as an axiom, that if, in the specialisation of function, different regions of the brain have different kinds of work to do, the extent to which they are developed will vary as the amount of work apportioned to each. One would expect to find some differentiation of structure associated with this differentiation of function; but, even if the work varies so little in kind that the structural differences of the various parts are not discernible by the methods at our disposal, at any rate, the amount of tissue set aside for each special kind of work will vary as the amount of work to be done. If the cortex be both the generator of motor impulses and the elaborator of sensory ones, its various departments will indicate by their size the number and variety of motor impulses that are daily generated, and of sensations elaborated. At first sight, one would expect that the theory of localisation could be submitted to this anatomical test as to a court of final appeal. Here is a brain, the cortex of which receives, perceives, or stores away—whatever may be the proper language in which to express the theory of localisation of function—no sensations of sight; there, one unconcerned with sensations of smell. If the regions which physiologists regard as the centres of these two functions be equally developed in the two cases, the theory must fall. If an obvious distinction in development obtain, it may stand. No issue could appear to be better defined than this; but, unfortunately, the determination of these simple data is beset with difficulties. Except for certain little understood variations in minute structure, the fissures are our only guides to the relative development of different regions of the cortex; and if the mantle be, as it were, movable beneath the fissures; if grey matter, which in this brain appears above the suprasylvian fissure, may in that brain appear below it, owing to the larger surface of the cortex mantle, which had to be gathered in in the one case, than in the other, we

have no boundaries which will serve to delimit the territories of the various functions."

[That the fissures may be accepted as homological land-marks was shown by diagrams (most of which were copied from Krueg's papers) of developing and adult brains.]

"If, however, we allow that the amount of brain-substance is the only test of its working capability, and that the fissures are an absolute guide to relative amount, we still have many difficulties to overcome before we can answer our original question. We cannot find two animals of the same order and the same family, which differ from one another strongly in some single feature; the sense of smell, for instance. The difference in the development of the sense of smell will point to wide differences in habit, necessitating great differences in general structure; and when comparing animals phylogenetically remote, we have to take into consideration the family type of brain-structure. We have to see the special divergence in development through the divergence in type, and it is only when we are thoroughly conversant with the type-structure that we can presume to point out particular aberrations from it, coincident with the sensory or muscular peculiarities of the animal.

"Again, there is a difficulty in comparing brains of different size, for this alone affects not only the depth, length, and complexity of the fissures, but also their position upon the mantle; which in larger brains rolls in towards the longitudinal fissure (pronation), in small brains rolls outwards on to the convex surface (supination). Notwithstanding these difficulties, it is impossible to resist the conclusion, that there is a distinct correspondence between the size of the various peripheral nerves and of particular regions of the cortex respectively."

[The lectures were illustrated with diagrams, and with numerous specimens from the exceedingly rich collection of brains in the Hunterian Museum. Without these, it is almost impossible to follow up the conclusions of the lecturer in detail. The brains principally chosen were from the ungulate and carnivorous types. Herbivora, it was pointed out, depend for safety almost entirely upon the eye, and upon rapidly repeated but simple movements of the limbs; carnivora depend for their food upon the sense of smell, and upon complex co-ordinated movements of the whole body. Pointing to a drawing of the cat's brain, the lecturer remarked that the cat was the last animal he would have chosen as a typical carnivore; he attempted to obtain a supply of fœtal and new-born foxes, but found that landowners have a superstitious veneration for this vermin. Kittens were, however, abundant, and he was obliged to have recourse to them *faute de mieux*. In one respect the cat is an admirable representative of its order; its complex muscularity is beautifully exhibited, as "it bursts all claws upon its foe." Of its mental attributes, he was not prepared to attempt an analysis, but he would remark that we are too much in the habit of projecting our own inner consciousness into the lower animals, we imagine that they feel and think as we do. Thought is the comparison of sensations, and while we speak of our own idle reveries as pleasant pictures, we ought to refer to those of the dog as suggestive smells. With great muscularity is associated a large sigmoid gyrus. Animals in whose daily life sensations of smell play a large part present long brains, with considerable development of the gyrus hippocampi, and of a part of the temporo-sphenoid lobes; the prolongation forwards of the latter over the fossa Sylvii being very characteristic. The development of the inner part of the occipital lobes varies with the sense of sight. Particular attention was called to the brain of the pig, as intermediate in many respects between the ungulate and carnivorous types, and the departure from its own class was correlated with the small size of its eyes, and the use of its nose in seeking food. Any attempt at an exact delimitation of the different areas on anatomical grounds is impossible, until a method has been invented by which the percentage superficies of different regions can be obtained in a large number of brains.]

FURTHER NOTE ON RHINOSCLEROMA.

By MORELL MACKENZIE, M.D.Lond.,
Consulting Physician to the Hospital for Diseases of the Throat, late Physician to the London Hospital.

The case of rhinoscleroma which was described by Drs. Payne and Semon at the last meeting of the Pathological Society (see British Medical Journal, March 7th, p. 485) having been for a short time under my observation, a few remarks from me upon it may not be inappropriate.

Señor L. was placed under my care towards the end of last December by a Spanish gentleman resident in London. The case was one of especial interest to me, as being the first example of rhinoscleroma which had come before me, and also because it had formed the subject of a valuable communication from Professor Cornil (see *Progrès Médical*, July 28th, 1883), to which I had been indebted in my published account of the disease (*Manual of Diseases of the Throat and Nose*, vol. ii, p. 416). There was no family delicacy of any kind, and the patient himself had enjoyed good health until the beginning of his present ailment, which had first shown itself four years before, and had slowly but steadily gained ground ever since. The patient looked older than he really was (18), and had a sallow, unhealthy complexion. His general appearance was far from robust. He stated, however, that, with the exception of the local trouble, he felt perfectly well. He ate and slept normally, and was free from pain, except when the affected parts were touched. There was occasional spontaneous bleeding from the nose, but never to the extent of more than a few drops at a time. His chief sources of annoyance were the complete obstruction of the nasal passages at the posterior part, and a slight but constant discharge from the anterior nares. The voice was decidedly "nasal" in tone, and the utterance was thick and indistinct. He had no dyspnœa, no cough; there was neither pain nor difficulty in swallowing. The sense of smell was almost entirely lost.

On inspection, the nose was plainly seen to be much thickened, especially about the alæ, and across the bridge. On the upper lip, close to the openings of the nostrils, were two small slightly raised patches, red in colour, smooth and glossy on the surface, and having the appearance of scars. The nostrils were altered in shape, being almost circular, and quite rigid, owing to thickening and induration of their margins. On looking into the nasal fossæ, the septum was seen to be almost completely destroyed. The two fossæ thus formed, practically, one cavity, the walls of which were irregular and roughened throughout with new growth. The neoplasm was firm and inelastic to the touch, but not absolutely hard. It gave, indeed, a sensation resembling that caused by glue that is not quite "set;" a comparison, moreover, which was naturally suggested by the somewhat glutinous appearance of the surface. Here and there the nasal walls were excoriated, and in several places shreds of thick mucus and blood-stained crusts were adherent to them. The whole cavity was exquisitely tender, and bled easily when touched. Pressure on the outside of the nose was also very painful, especially at the bridge. The posterior nares were blocked up by masses of growth springing from the septum on each side, and spreading some little way into the naso-pharyngeal space along the posterior surface of the velum.

On looking into the mouth, the uvula was found to have completely disappeared, and the soft palate was partially destroyed in the middle line, so that it looked somewhat like a pointed arch across the fauces. The whole substance of the velum was thickened and rigid, and its anterior surface had a scarred and shrunken appearance. There was some ulceration along its lower edge, more particularly on the left side, where the margin had a bevelled look, owing to the anterior layer being rather more eroded than the posterior. The ulceration extended on that side to the fauces along the anterior pillar, which was thickened, especially at its junction with the side of the tongue. Owing to this, probably, the mobility of that organ was somewhat impaired, and the patient complained of great pain when it was pulled forwards or pushed down.

Laryngoscopic examination showed the other parts of the throat to be quite normal.

Treatment.—This had consisted in attempts to destroy the new growth with the galvano-cautery and various caustic agents. Interstitial injections of salicylic acid—said by Ed. Lang (*Wien. Med. Wochenschrift*, No. 24, 1883) to have been successful in his hands—had also been tried. None of the various measures adopted had apparently in any way checked the progress of the disease. My own endeavours were entirely directed to the relief of what the patient stated to be his most troublesome symptom—namely, the stoppage in the nasal passages. With this view, I attempted to force a way into the naso-pharynx with the galvano-cautery. The patient having been placed under the influence of ether by Mr. Bailey, I succeeded in penetrating the obstructing mass with a large porcelain-knobbed electrode. A pretty free passage for the air was thus established on the left, and also, as I believed at the time, on the right, side. After a day or two, however, it was found that, whilst the left side was in a very satisfactory state, the right was still impervious. The patient was with much difficulty, induced to submit to a second operation, when I renewed my previous attempt, but without succeeding in destroying the obstacle. The patient declared himself so much satisfied with the comparative freedom of nasal respiration which he now enjoyed, that he declined to have anything further done; otherwise, I had intended to destroy the tissue with a dentist's drill, as modified for use within the nose by Dr. Goodwillie of New York (*Medical Record*, New York.

November 12th, 1881). Señor L. was directed, before his departure from England, to provide himself with a set of my nasal bougies, with which he was instructed to keep the passage as thoroughly dilated as possible.

THE CHOLERA COMMA-BACILLUS, AND ITS FUNCTIONS.

By G. F. DOWDESWELL, M.A., etc.

Towards the end of last year, I obtained from Dr. Roux, of Paris, through the kind intervention of Dr. Maddox, cultivations of the so-called cholera comma-bacillus, with a view to ascertaining whether it possesses any specific action on the lower animals, as asserted by MM. Nicati and Rietsch, and others. I found the organism to be identically similar to that of preparations obtained from Dr. Koch, and its habit of growth in artificial cultivations, in all essential points, the same as described by him. In nutrient gelatine, of various composition—pepton, with and without sugar, *bouillon* of pork, beef, or rabbit, with or without the admixture of sodic chloride (Dr. Miguel's formula)—it grew in the typical manner described by Koch (*Deutsch. Med. Woch.*, 1884, p. 191, etc.); as readily, however, in neutral as in faintly alkaline media, whether liquid or solid, at temperatures ranging from 10° to 14° Cent., or at 35° to 37° Cent., beyond which I have not tried it. In different conditions of temperature and nutrition, the form and habit of growth of this organism are subject to greater modifications even than in the case of most others. The occurrence in certain conditions, of multiplication by longitudinal fission, as observed and described by Dr. Klein, is one of the most remarkable circumstances yet recorded in the morphology of the lower fungi, and would alone render this microbe worthy of further most careful study and observation, not only from a pathological, but from a biological, point of view, in respect to the weighty question of the constancy of species, and the occurrence of variations of form and function; these will be more fully described hereafter, in relation to the question whether its characters prove it to be specifically distinct from all other similar forms. It stains readily with the usual aniline dyes, both blues and reds.

Continuing the cultivations obtained from Paris through some "generations," as a first experiment, a rabbit and two guinea-pigs were injected, the former with three divisions (one division equals 0.09 cubic centimètres), and the latter with two each, of a Pravaz's syringe, of a liquefied gelatine-culture of the microbe, into the duodenum, a small incision being made in the abdominal wall to the right of the median line, and a loop of the intestine drawn out, under narcosis. The operation throughout was performed, under strict antiseptic precautions, by the Brown Professor of Pathology, Mr. Victor Horsley, whom I have to thank for the facilities and aid he has afforded me in these investigations. The following day, all the animals were feeding well, and apparently unaffected; the rectal temperature in the rabbit and one guinea-pig was unaltered; in the other guinea-pig, it had risen about 1.0° Fahr., to 102.2°, and, on the second morning, in this animal, to 103.0° Fahr., from which it fell on the following day to the normal, the two other animals remaining unaffected in any way, while kept under close observation for fourteen days; in each case, the wound in the abdominal wall healed by first intention, and produced no inconvenience in any respect.

The next experiment, some days subsequently, was likewise upon a rabbit and two guinea-pigs, using about the same quantities of an active recent cultivation of the microbe, the operation being performed by Mr. Horsley in a similar manner to the former. In this case, there was no appreciable variation in temperature, or other disturbance, in any one of the animals used, and the operation seemed in no wise to have deranged them after the effects of the anæsthetic had passed off.

After four days, one of the guinea-pigs, which had continued perfectly unaffected, was killed, and the intestine examined. The site of puncture was perceptible in the duodenum, and there was a slight hyperæmia of the muscular coat in its vicinity; the mucous membrane was healthy, and the contents of the intestine quite normal, the fæces, in the lower part, being as firm as usual. The other guinea-pig and the rabbit remained perfectly unaffected as long as observed. After this, a terrier dog was, in similar manner, under narcosis, injected into the ileum with three divisions of a syringeful of a cultivation; the effects of the ether used were somewhat prolonged. The next morning the animal was dull, and fed but little. The rectal temperature was 103.2° Fahr., but on the second morning it was again normal, the animal feeding as usual, and unaffected in any way, as it remained till ultimately killed. Subsequently, the injection was repeated in another dog in similar manner, and also in a rabbit, each receiving two divisions of a syringe of an active cultivation. Both these animals recovered rapidly from the effects of the operation, and the next morning were as well in all respects as previously. The rabbit was then killed and examined; the puncture of the needle was not perceptible, but around its site the outer coat of the intestine was slightly hyperæmic; beyond this, nothing was to be observed. The fæces were perfectly normal, and firm in the lower intestine. The dog remained unaffected in any way.

In these injections, the cultivations employed were liquefied gelatine. In each case they were examined microscopically, and found to be pure and active; their purity, too, was readily shown by their macroscopic characters; they were of different ages, four days, fourteen days, and one month.

An injection, in similar manner, was also made in another guinea-pig, but the animal never recovered the effects of the anæsthetic and the shock, and died within about four hours. On examination, pronounced peritonitis was observed, with a considerable effusion of serum with numerous red blood-corpuscles; the fæcal matter was normal and firm as usual. A further experiment was made by feeding the dog last mentioned and two guinea-pigs with liquefied gelatine-cultivations of the microbe, the dog receiving about one cubic centimètre of it, and the guinea-pigs each about half that quantity. Twenty-four hours afterwards, one guinea-pig was killed, and the stomach and intestine minutely examined. Neither in the stomach nor in the duodenum, the reaction of which was neutral, was a single comma-bacillus to be found, and in the jejunum and ileum only one or two here and there, but very rare. Amongst the large numbers of septic organisms, in different spots of the large intestine, it was the same thing, one or two here and there, but never more. The next day, forty-eight hours after they had been fed with the cultivations, the other guinea-pig and the dog were killed, and examined in a similar manner, but in neither was a single comma to be found.

In another experiment, two guinea-pigs, both starved for twelve hours previously, received each by injection into the duodenum 0.10 cubic centimètre of an active cultivation of the microbe. No. 1 never recovered the effects of the operation, was dying in the evening, and found dead the next morning. On examination, the stomach and small intestine were found devoid of food, and only some fæces, which were quite normal, in the lower bowel; the puncture of the needle in the duodenum was not perceptible, its outer coat was somewhat inflamed, with considerable desquamation of the mucous membrane; its reaction was distinctly alkaline. Examined by the microscope, a few commas were observed here and there, but not in any number; only one or two in several fields of view, and none in the jejunum or ileum. The animal had evidently died from the effects of the operation and exhaustion; but even under these conditions of depression of the vital powers, the microbe had not developed to any extent. The other animal operated upon recovered, though slowly, and by the evening was running about and feeding. The next morning, it was killed; the incision in the abdomen had not healed as usual, the dressing was displaced somewhat, apparently by the animal scratching at it; the duodenum was slightly inflamed externally, but the mucous membrane was healthy; the puncture of the needle was not perceptible. In the stomach was a little partially digested food, but the animal did not appear to have fed as much as usual. Neither in the duodenum, the reaction of which was faintly alkaline, nor in the rest of the small intestine, could a single comma be observed with the microscope amongst the other microbes.[1] The contents of the intestine were perfectly normal.

The result of these experiments appears to show clearly that the microbe here in question is not pathogenic when injected directly into the small intestine of the animals here employed, and with the results of feeding, raise a presumption that it does not find a congenial soil for development in this situation. It is, too, well known to all who have resided in India, that dogs and pigs at least, are not susceptible to this disease by feeding on choleraic excreta; for, throughout the native towns and villages, in the absence of any latrines and sewers, these animals are the principal scavengers, but possess perfect

[1] There is often to be met with, in the intestines of these animals, a comparatively large curved cell, apparently fungoid, but two or three times the size of Koch's commas, less thick in proportion, and more acuminate; it cannot be confounded with the latter; their occurrence, in moderate numbers—five, ten or more in a field, is frequent but not universal.

immunity from any choleraic symptoms. The circumstance, however, that the microbe will not multiply in the intestines of some of the lower animals, and their immunity from cholera, together with the occurrence of the organism so largely in cholera-cases in man, may tend to support the view that it bears a relation to the disease in man, and that the lower animals owe their immunity from it to the inability of the microbe to develop in them.

In no case was there any fall in temperature whatever, nor, excepting a slight nausea in the one dog, and the death of the two guinea-pigs as recorded, was any appreciable effect apparent after recovery from the operations, which, as above stated, were performed by Mr. Horsley, antiseptically; and it is remarkable that a series of such serious operations as taking out a loop of the intestine and injecting it, should have been performed in these cases without any inconvenient results, and is a striking instance of the immense value of the antiseptic system of surgery. Everyone who has used rabbits for purposes of experiment knows how liable these animals are to septichæmia after operations—even the slightest—performed in the usual manner, but which in these cases were without any appreciable effect. This raises the strong presumption that, in those cases where, as stated by other observers, but without details of the method of operation, they have been followed by so-termed choleraic symptoms, this has really been due to septichæmia, for it would probably be quite impossible to perform any number of such operations upon rabbits, omitting antiseptic methods, without fatal results.

I had previously attempted to induce catarrh of the intestine in the animals to be experimented upon by drugs, but I found that, with rodents especially, their action was irregular, and would greatly complicate the results of the experiment.

With regard to the statement of MM. Nicati and Rietsch (*Comptes Rendus*, tome xcix, 1884, p. 928), that cultivations of the microbe emit the distinctive odour, somewhat etherial and not unpleasant, of cholera-evacuations, I have not been able to detect, in cultivations of any age, in whatever medium, any marked or distinctive fetor or odour, if, indeed, any such exists in the evacuations referred to.

With respect to this microbe being specifically distinct from all other forms, it is now amply shown that many identically similar, morphologically, occur in various situations, but it is asserted that their habits of growth are different and distinctive. This, however, is very doubtful. This character is as variable, under slightly different conditions, as are the form-phases of these organisms; the comma-bacillus, indeed, grows in the habit exactly described by Koch under certain conditions, that is, in nutrient gelatine at a given temperature; in other slightly altered conditions, its habit is widely different, and, if it be regarded, as shown in the case of Finkel and Prior's microbe, that the organisms are specifically distinct, it is not so with some similar forms that occur elsewhere; nor indeed, were this done, would it of itself suffice, by much, to prove that it does constitute the actual contagium of cholera; for, judged by the canons very clearly laid down by Koch himself (*Wundinfections-krankheiten, etc.*, p. 22), much beyond this is wanting to justify this conclusion. Koch's reports, indeed, raised a strong presumption in favour of its having a causal relation to the disease in which it had been observed, but the subsequent observations of the English Cholera Commission have greatly shaken this; and Dr. Klein's demonstration of cultivations of the comma-bacillus from the mouth, first noticed by Dr. T. Lewis, goes a long way towards disproving this, and has shown that the habits of growth of the two organisms are so very similar, that they can scarcely constitute a specific difference.

Its invariable occurrence in cholera cases is stated alike by both, but with respect to the numbers in which it is found, and that more especially in the most typical cases, the observations of the two are directly at variance, as is also the case with the most important point of their occurrence within the tissues of the intestine. Indeed, judged by the experience and explicit statement of Dr. Klein, the minute straight bacillus, which he has observed and described, has fully as good a title to be considered as constituting the virus as has the comma-bacillus. It cannot, indeed, be asserted that an organism, which is not proved to be pathogenic to the lower animals, may not, or does not, constitute the contagium in man; for, if this were admitted, we should be precluded from forming any final conclusion upon the etiology of such diseases as admittedly are not communicable to the lower animals. Nevertheless, in such cases, the difficulty of the investigation is increased, and more stringent proof that it fulfils the other requisite conditions is necessary.

That the comma-bacillus does not convey infection to man by inhalation, appears to follow from an experiment I have recently unconsciously made upon myself. In separating some other microbes by fractional cultivation in gelatine, I found that I had accidentally got a growth of typical comma-bacilli, as far as shown by the characters of the colonies, on the surface of the gelatine. This could only have arisen from atmospheric contamination, as the capsules and vessels employed were guiltless of previous cultivations, and the only instruments used were capillary pipettes, freshly drawn out. This occurred in the room of the laboratory in which I had been sitting several hours daily for some weeks past; and if present in the atmosphere in sufficient numbers to contaminate a cultivation contained in a small capsule, not exposed frequently, or for long together, it appears impossible that I, or others frequenting the room, could have avoided the introduction of some of these organisms into the respiratory passages, in whatever form they may have existed in the air.

To Dr. Koch belongs the eminent merit of having observed and described the comma-bacillus, which had hitherto escaped the notice of the numerous previous workers at this subject, and which, from their numbers and apparently invariable occurrence in this disease, deserves the most careful attention as one of its symptoms. His own investigations raised a strong *primâ facie* case that they did constitute the active contagium. This conclusion has not been confirmed by subsequent observation; neither, on the other hand, is its possibility finally disproved, and the nature of the virus must be regarded as still quite undetermined. It may perhaps be, as stated by Koch in his second official report from Egypt (*Deut. Med. Woch.*, 1883, No. 42, p. 616), that though the microbe bears some relation to the disease, it is not its actual cause. Any further opinion upon this point must rest, for the present, upon the final determination of the question whether the microbe is, or is not, specifically distinct from all other similar forms.

Beyond this question of the action of any particular organism or substance, lies the primary one, whether cholera is in any sense a communicable disease; this is yet by no means finally settled, and there are many circumstances patent to all residents in India, which must render this somewhat doubtful. Foremost amongst these is the state of the tanks of drinking-water, which has been referred to in connection with the occurrence in them of the microbe here in question; contamination of these with choleraic matter during the prevalence of the disease must invariably occur largely through the habits of the natives, more especially the Hindoos, both by bathing and constantly washing their linen in them; and were the disease essentially capable of propagation through the excreta, as frequently asserted and generally believed, the epidemic must spread much more rapidly and widely than often occurs. This consideration applies more strongly to the case of a figured or organic ferment, capable of reproduction and multiplication, than to a chemical or soluble one, which may be modified by large dilution; and this circumstance may tend to account for the discrepancy in the positive statements that have been made as to the occurrence of infection from choleraic matter in some cases, and the contrary.

This investigation was made at the Brown Institution, Wandsworth Road.

ON THE FIRST DISCOVERY OF THE COMMA-BACILLUS OF CHOLERA.

Read at a Meeting of the Royal Microscopical Society, March 11th, 1885.

By FRANCIS FOWKE, F.R.M.S.

Like many microscopists, being most deeply interested in the recent researches relating to the cholera-bacillus called the "comma-bacillus," by that eminent investigator Dr. R. Koch, of Berlin, it occurred to me to examine the current medical literature of the last epidemic of the disease in this country in 1849.

In the pages of the *Provincial Medical and Surgical Journal* and other periodicals for that year I found such evidence in the descriptions and corroborative woodcuts furnished by Drs. Brittan and Swayne, in their original and independent investigations, that I now venture to claim for them the priority in discovery of the cholera bacillus.

In laying before you some of the quotations and statements from various medical journals of that date in support of my views, I entirely disclaim all intention of impugning the originality and independence of Dr. Koch's recent discovery and researches upon this subject.

In the volume of the *Provincial Medical and Surgical Journal* for 1849, on page 600, will be found a report of a Subcommittee appointed by the Bristol Medico-Chirurgical Society to investigate the nature of cholera by means of microscopical observations. The Subcommittee consisted of Mr. James F. Bernard (Chairman), Mr. J. C. Swayne, Dr. Frederick Brittan, Dr. J. G. Swayne, Mr. Augustin Prichard, Dr. William Budd, Dr. J. A. Symonds, and Mr. John Cash Nield (Secre-

tary to the Microscopical Subcommittee). The report commences on July 9th, 1849. Dr. Brittan and Dr. J. G. Swayne having each examined specimens of rice-water evacuations which Dr. Budd had obtained from two patients in the Cholera Hospital, at the next meeting of the Subcommittee, they separately described and produced drawings of some peculiar bodies which they had noticed in those specimens. The descriptions and delineations given by these gentlemen coincided perfectly. The results of Dr. Brittan's separate observations are very remarkable. He examined a series of cases, from 3 to 20 inclusive, and published the results in his table in the *Medical Gazette*, for 1849, vol. xliv, pages 530 to 542. Dr. Brittan found some peculiar corpuscles to be constant in the intestinal discharges of cholera-patients; and similar bodies, but smaller, though well defined, were discovered by him in the matters vomited; they appeared larger and more compound in the dejections; decreased as the disease progressed favourably; and vanished with the disappearance of the symptoms. Dr. Brittan afterwards examined, under the microscope, specimens of healthy fæcal matter, and the fluid stools of typhus, typhoid, and other diseases; but failed to detect anything corresponding with the peculiar corpuscles belonging to cholera-dejections, though he discovered these bodies in cases of severe choleraic diarrhœa. From these observations, he inferred that the bodies in question were peculiar to cholera, and bore some essential relation to the disease.

Dr. Budd, in a pamphlet on "Malignant Cholera," reported that he detected bodies. identical with choleraic corpuscles, in drinking-water obtained from cholera-districts. He says: "Shortly afterwards, and being at the time aware of this discovery, I detected the same organisms, in great numbers, in almost every specimen of drinking-water which I was enabled to obtain from cholera-districts. First, in the drinking-water from Wellington Court, Redcross Street, where cholera first broke out (with any violence) in Bristol; subsequently, in the water of the Float, and in the drinking-water from King Street, in the same city; since then, again, in London, in water from Lovegrove Street, and from the Surrey Canal; and, lastly, in drinking-water from the Workhouse at Stapleton, commonly known by the name of the French Prison; being all places where, at the time the water was obtained, cholera was making dreadful havoc. This led me to examine a great number of specimens of water from healthy quarters; and, although I often found in it a good deal of matter of various kinds, organic and other, in no single instance did I see anything resembling the peculiar bodies in question."

These cells, annular bodies, or corpuscles, are described as follows. "They vary very much in size and apparent structure during the different stages of their development. The smallest are of the same size as, or even much less than, blood-globules, so that to show them properly an object-glass of high magnifying power, such as one-eighth, one-twelfth, or one-sixteenth of an inch is required; their walls refract light powerfully; fragments of them present the appearance of *small segments of circles.*" The italics are mine.

Such an important discovery as these peculiar corpuscles did not go unchallenged, for the then President of the Microscopical Society, Mr. Busk, endeavoured to show that the large bodies were nothing more than a species of uredo, a kind of smut frequently present on wheat, and that the smaller annular bodies were not sporules or an earlier stage of development of the large bodies, but starchy granules derived from the bread eaten by the patients. He concluded his last report, "we are not able to account for the origin of those peculiar discs;" but whether Mr. Busk means by this the large ones or the small ones, it does not state. Dr. Plomley (page 615 same *Journal*) in a criticism on the discovery, makes out, after examination of the cells, or fungoid bodies, that they are nothing more than altered epithelium-cells mixed with an unusual quantity of their nuclei and granules. During this discussion on Cholera, its treatment, etc., the editor of the *Provincial Medical and Surgical Journal* had to more than once interfere, and to write strong leaders on the pitiful spirit of ungenerous rivalry the critics exhibited (*vide* page 630). It appears that the Royal College of Physicians appointed Drs. Baly and Gull to examine into the truth of the new theory. The editor of the *Journal*, in a kindly article upon the subject, after mentioning that so eminent a microscopist as Mr. Busk distinctly denied the *peculiarity* of the cells, but maintained that one variety was no more or less than the common uredo or smut of wheat, and the other might be taken for modified blood-discs,[1] also adduced the opinion of the Microscopical Committee of the Royal College of Physicians on the evidence, as tending in more direct terms to exhibit the fallacy of the new theory, and then ended his leader as follows. "One cannot help feeling some regret that observations so honestly made and candidly stated, should be apparently doomed to such speedy discomfiture; but the lesson may at least be learned, that the science of medicine is, less than any other, likely to be advanced by hasty generalisations; that it is, on the contrary, a science which, *par excellence*, requires the exercise of the closest induction, while flights of fancy, even the most brilliant, will ever fail to inscribe in its annals the valuable and the true."

On page 657 of the same journal is a leading article calling the attention of the readers to the report of the Bristol Medico-Chirurgical Society, and that number of the *Journal* contains a reply by Dr. Swayne to the report of Drs. Baly and Gull,[2] on the choleraic bodies discovered by Dr. Brittan and himself. Dr. Swayne notices the total omission from the report of any reference to the number of cases from which these observations were deduced, and says that Dr. Brittan and himself had obtained their results from more than sixty cases. In this leader, the editor states that Dr. Swayne has, he thinks, "succeeded in making good his defence, and it remains for future experimentalists to disprove or confirm the presence—whether constant or occasional—of these bodies. Meanwhile, instead of carping and cavilling at the accuracy of these asserted discoveries, it is incumbent rather upon the profession to show their gratitude to the Bristol Medico-Chirurgical Society, and more especially to its Microscopical Committee, for the industry, zeal, and talent displayed in the prosecution of this interesting subject. It is true that an over active imagination may sometimes require the curb; but if all inquiry is to be thus repressed, and observations, made with great toil and some danger, are to be at once denounced as unworthy of credit, much injury to science will inevitably result, and labours which can only be made endurable by the approbation of mankind will, in an arduous profession like ours, be avoided by all but those who make them the business of their lives."

In the report of the meeting of the Bristol Medico-Chirurgical Society, the President, in taking the chair, made some remarks upon the discovery of Drs. Brittan and Swayne; he considered that the evidence remained in favour of the specific connection of these corpuscles with cholera, as shown by the careful examinations and experiments of these gentlemen, and that the support given by the opinions of such eminent microscopists as Dr. Carpenter and Mr. Quekett, was of greater value than the negative results of Drs. Baly and Gull and Mr. Busk.[2]

Dr. Swayne also stated that the bodies represented in the antagonistic report as present in the dejections of other diseases were too indefinite in form to be confounded with the cholera-bodies. Dr. Swayne illustrated his reply by exhibiting, under several microscopes, numerous specimens of perfect and imperfect cholera-cells, together with the uredo from bread and wheat, fatty bodies from cheese, calcareous particles from chalk, etc.

In a leading article in the *Lancet* for October 13th, 1849, page 406, are the following remarks.

"The profession has now before it the chief data respecting the discovery of the fungoid bodies which are believed to be peculiar to the cholera-evacuation. Drs. Brittan and Swayne, in the first instance, simply observed the cells which they have described as peculiar to the evacautions in cholera. Dr. Brittan next, on the suggestion, we believe, of Dr. Bernard, condensed the air of rooms in which cholera-patients had died, and detected similar or identical bodies in the cholera-atmosphere. Dr. Budd also detected similar cells in the waters of infected localities. Dr. Thomas Williams has also been engaged in the microscopical examination of cholera-stools, and has published confirmatory results. Thus far, everything tends to the confirmation of the primary discovery of Drs. Brittan and Swayne; and again we may, however, state as our opinion that the first fact is the really important fact, and for the discovery of that, there can be no doubt we are indebted to the joint investigation of Drs. Brittan and Swayne.

[1] Mr. Busk, in a letter to the *Medical Gazette*, vol. xliv, p. 760, withdrew his statement that the smaller annular bodies were altered blood-discs. His letter is quoted, as follows. "Since that letter was sent, I have been kindly informed by Dr. J. W. Griffith (Editor of the *Micrographic Dictionary*) as to certain chemical characters of the small annular bodies, which would seem to make it impossible that they should be altered blood-discs, as I supposed simply from their form. As I have had no opportunity of applying chemical reagents to them, my erroneous supposition is the more excusable. The statement of their true nature, I of course leave to those to whom the discovery is due."

[2] In the report of Drs. Baly and Gull, the following statement will be found on page 353 of the *Medical Times*, 1849, vol. xx. "Intermediate between these and the third class of bodies are minute oval or round corpuscles, which have an annular appearance, but on close inspection are seen to have their area filled up with a transparent substance, presenting sometimes perforations. In some specimens of rice-water fluid, oval bodies, in part having their middle filled up as here described, and in part mere rings, exist in extraordinary abundance. The rings of these bodies have been observed by Mr. Busk and Dr. Griffiths to be divided by cross lines into segments."

The first perception of the peculiar cells was the great fact. The subsequent discovery of cells in the atmosphere and water, however interesting, is altogether secondary, and conveys no merit similar to that which connects itself with the first discovery. We make these remarks in a perfect spirit of fairness, because we see in some papers Dr. Budd's name is mentioned alone, and in others, as in the series of articles in the *Morning Chronicle*, the name of Dr. Swayne is *studiously* suppressed."

On page 493 of the *Lancet* are the principal conclusions of Drs. Baly and Gull, the Cholera Subcommittee of the College of Physicians on the cholera-fungi.

"1. Bodies presenting the forms of the so-called cholera-fungi, are not to be detected in the air, and, as far as our experiments have gone, not in the drinking water of infected places.

"2. It is established that, under the term annular bodies and cholera-cells or fungi, there have been confounded many objects of various and totally distinct natures.

"3. A large number of these have been traced to substances taken as food or medicine.

"4. The origin of others is still doubtful, and these are clearly not fungi.

"5. All the more remarkable forms are to be detected in the intestinal evacuations of persons labouring under diseases totally different in their nature from cholera.

"6. Lastly, we draw from these premises the general conclusion that the bodies found and described by Messrs. Brittan and Swayne are not the cause of cholera, and have no exclusive connection with the disease; or, in other words, that the whole theory of the disease, which has recently been propounded is erroneous as far as it is based on the existence of the bodies in question.

(Signed) "WILLIAM BALY, M.D. } *Cholera*
"WILLIAM W. GULL, M.D. } *Subcommittee.*"

In a review, in the second volume of the *Medical Times* for 1849, of a pamphlet on Malignant Cholera, by Dr. W. Budd, the author is quoted as stating that he was led to regard the organism as having a relation to malignant cholera by the following considerations.

1. By the characteristics of the thing itself, which, by showing it to be possessed of a complex organisation having a definite mode of development, a specific form, and spontaneous power of growth and multiplication, stamp it at once as being of distinct species.

2. By its constant presence in cases of cholera, and its absence (with a few casual exceptions, in which a small number of stray bodies of similar character are found) in other diseases.

3. By its presence in the discharges in such infinite numbers.

This last consideration, when taken with the two former, is very striking; for, assuming the thing itself to be a definite living organism, and therefore of extrinsic origin, it becomes impossible to conceive that its presence in such countless numbers in the rice-water can be a matter of chance, a mere incident, an epiphenomenon, or anything, in fact, short of an essential character of the disease; and if essential, many other considerations are at hand to declare that the relation thus inferred to exist can only be one of cause and effect. The review of Dr. Budd's pamphlet, which appears to be an exceedingly able one, sums up the argument as follows.

It is assumed—

1. That the peculiar bodies are fungi.

2. That they exist constantly in cholera-discharges, and not elsewhere.

3. That, by reason of their complex organisation and of their number (taken with their invariable presence), they must be the cause of cholera.

4. That, as the fungi are introduced in small numbers, and are voided in myriads, they must be increased within the body, at the expense of that body, and live; the drain of fluid thus resulting producing all the other symptoms.

5. That the constant presence of the fungi in the air and water of infected districts affords evidence confirmatory of these inferences.

On page 351 of the same volume of the *Medical Times* will be found in full the report of the Cholera Committee of the Royal College of Physicians of London by their Subcommittee, Drs. Baly and Gull, on October 17th, 1849. I merely mention this for the information of anyone who wishes to read it; it is much too long to reproduce, and the principal results arrived at by the Subcommittee have been quoted.

The editor of the *Medical Times* takes the view of the College of Physicians, congratulates them on the zeal and ability which their committees have shown in this matter, and considers the question closed.

Dr. Koch, it is stated on page 596 of the Royal Microscopical Society's *Journal* for 1884, has presented to the German Government six reports on the cause of the cholera-epidemic, as the result of investigations on the excreta, and on the dead bodies themselves, of cholera-patients in Egypt and in India. The internal organs, lungs, liver, spleen, kidneys, etc., as well as the ejecta, were found to swarm with microbia of a great variety of kinds; in all cases was found one definite kind of bacillus. This was found in largest quantities in the tubular glands of the intestines, especially between the epithelium and the membrane of the gland. This particular form was also never found in the intestines or in the ejecta of those not suffering from cholera.

The cholera-bacillus is not quite straight, but is somewhat curved, in the manner of a comma, or even nearly semicircular. In cultivation, there often arise S-shaped figures, and shorter or longer slightly wavy lines.

As to the question whether their presence is simply due to the presence of the choleraic disease, which promotes their growth and development, or whether they are themselves the cause of cholera, Dr. Koch is very strongly of opinion that the latter is the true explanation, since they are never found either in the organs or the ejecta except in the case of patients who have died of, or are suffering from, cholera. They are also found in that organ which is the seat of the disease, namely, the intestines; in the first feculent ejecta, the bacilli occur only in small quantities, while in the liquid odourless ejecta they occur in enormous quantities, all other kinds of bacteria being almost entirely absent; they diminish in number as the excreta become more feculent, and have entirely disappeared when the patient is completely restored to health.

The original illustrations to the report of the Microscopical Committee of the Bristol Medico-Chirurgical Society I have had reproduced. They have been photographed direct on to the wood-block, from which the illustrations were then cut. They are figures 2 and 4 in the original, the first representing the cholera-bodies from the air and water of infected places, the second representing the cholera-bodies from vomited matter.



Fig. 2.

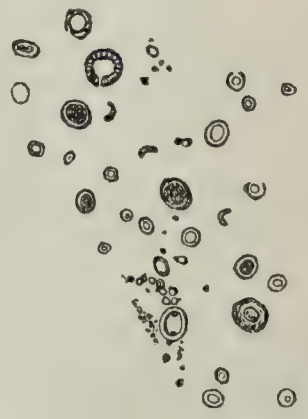


Fig. 4.

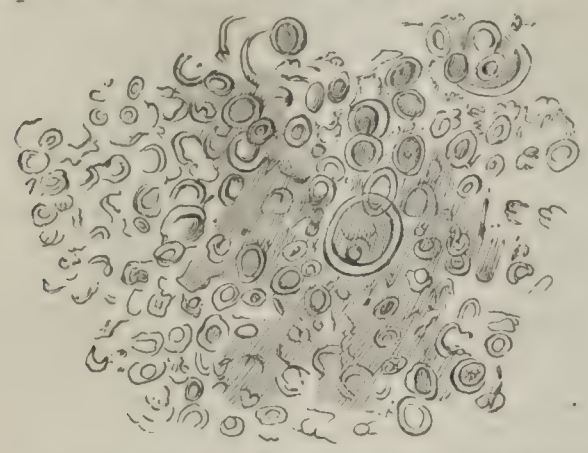
These can be compared with the accompanying photomicrographs of the acknowledged comma-bacillus of Koch, also with a magnified camera-lucida drawing from a photograph, and with a diagram and sketch from memory, by Dr. Maddox, of the peculiar kind of growth described by Dr. Klein before the Royal Society, and substantiated by his beautiful preparations and cultures, in order that the Fellows of this Society may judge whether they resemble the original figures or not.

My reasons for bringing forward this page of forgotten history in the study of the disease of cholera, is not only the interest attached to the way in which the question of the fungoid character of the disease was medically and publicly discussed in 1849, but principally to show, as far as can be now ascertained from the above report, that the comma-bacillus was known and recognised so far back as thirty-five years since, the discovery being made by two Englishmen, Drs. Brittan and Swayne. I would ask you also to compare the description of these bodies by Dr. Brittan in the first paragraph of my history and that of Dr. Koch in the latter part.

I am aware objections may be taken as to the exact shape, size etc., of the organisms figured, and the ordinary appearance of the comma-bacilli of Koch; but it must be remembered these greatly differ according to the mode of culture, age, etc. Still, I believe no unprejudiced person would hesitate to say that the similarity, considering all

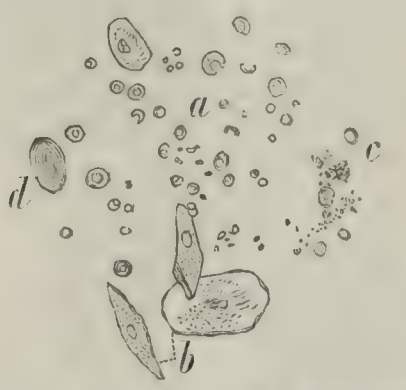
the conditions of less perfect instruments and methods of observation then in use, was not accidental, but real.

The subjoined woodcut is copied from illustrations to Dr. Brittan's paper in the *Medical Gazette*, page 531, vol. xliv.

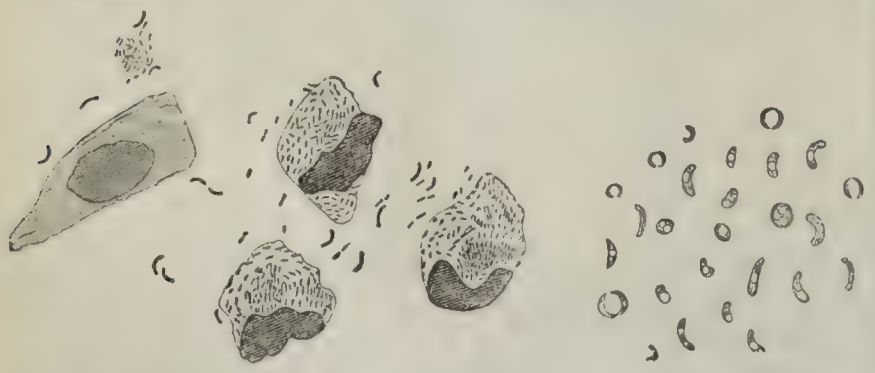


On page 531, vol. xliv, of the *Medical Gazette*, is a note to the article of Dr. Brittan: "On every opportunity that I have had of examining the intestines of those who died from cholera, these bodies have been found adhering to the mucous membrane in shreds of white matter, and very abundant; and the inference is, that in these very rapid cases they are in the intestines, though not given off in the evacuations."

The following is copied from illustrations to Dr. Swayne's paper in the *Lancet*.



Cholera-cells in vomited matter, from Case 5 (first series). *a*, Cholera-cells; *b*, Squamous and columnar epithelium; *c*, Round, clear, oily globules; *d*, Starch-grain. Magnified 420 diameters.



Dr. Klein has most kindly lent two of the woodcuts which illustrate the chapters on the cholera-bacillus, in the new edition of his most interesting work on *Micro-organisms*, which will be published next week by Messrs. Macmillan & Co. These, which are given here, can be compared with the illustrations of Drs. Brittan and Swayne, of 1849.

THERAPEUTIC MEMORANDA.

CARBOLIC ACID IN INDIGESTION.

I HAVE lately treated several cases of indigestion with carbolic acid, and the results have in each instance been so fortunate, that I am anxious to add the results of my experience to those of Mr. Dixon. I have found it most useful in that form of dyspepsia known as fermentative, accompanied by constant sour rising and eructations of gas, with pain after meals, and discomfort even after drinking milk or cocoa. My attention was first directed to it by Dr. Fenwick, who gave the glycerine of carbolic acid (1 part of crystallised carbolic acid to 4 parts of glycerine). The dose is from five to ten minims in mint-water or other convenient vehicle. As it mixes well, I think it a more safe and elegant form than a solution of the acid in water only. When there is much pain of the stomach after food, I have found it useful to add five or six minims of the liquor opii sedativus to each dose; and, when there is want of tone in the seat of digestion, and bad appetite, five to ten minims of the tincture of nux vomica will often be found serviceable. I have found these remedies also very valuable in the above combination in cases of pyrosis, where, I think, the sedative influence of the carbolic acid on the mucous membrane is far more useful than the bismuth one usually given in such cases. It is an interesting subject of inquiry whether the carbolic acid acts by arresting fermentative changes in the stomach, or by its well known anæsthetic influence on mucous membranes. I have long given one-grain pills of this remedy in cases of vomiting from various causes, and have rarely found it fail to arrest it. In some of these cases there was no fermentative condition of the contents of the stomach; some of them were cases of reflex vomiting; yet all were, with few exceptions, greatly benefited. It would be desirable that the subject should be still further discussed by those who have had experience of the drug. EDWARD BERDOE, M.R.C.S., L.R.C.P.Ed., etc.

OBSTETRIC MEMORANDA.

TREATMENT OF NEGLECTED SHOULDER-PRESENTATION.

ON January 7th, 1885, I was called to attend Mrs. L., aged 23, in her second confinement; it being late at night, and three miles away from home, I took my bag of instruments with me.

On arriving at the house, I was told by an old woman, whom I afterwards ascertained to be the midwife, that the patient had been in labour twenty-four hours, "but that she was not bad enough yet, as she had no pains worth mentioning."

On making an examination, I found the hand and arm in the vagina, and the uterus firmly contracted on the body of the child. I afterwards was told that the midwife had said in the morning that "all was not right, that there was a part in the passage, but that it would come all right yet."

I then anointed my left hand and arm with a mixture of vaseline and carbolic acid, passed it into the vagina, and attempted to return the arm; but, as usual, I found I could not do more than bend the arm up, but failed to alter the presentation of the body of the child. I then gradually, but with some difficulty, passed my hand into the uterus, which I found closely applied to the body of the child, the whole of the liquor amnii having escaped. I ultimately found a leg, and brought down the foot, on which I made considerable traction; at the same time, I got one of the women to make gentle pressure on the abdomen, to assist version; but I found that the more traction I used the more firmly the fœtus became wedged in the pelvis, and the arm and shoulder would not recede. I then asked for a skein of worsted, but, as this could not be got, they found me some very broad linen tape. I made a hitch of this, passed it over the foot, and tightened it above the ankle. I then took the tapes in my right hand, and passed my left into the vagina up to the uterus; then, as I used traction upon the leg by means of the hitch, I gradually pushed the shoulder into the uterus, then the arm, and by this means the turning became quite easy; the rest of the labour was conducted on general principles. The child, a well developed female, was dead. The mother made an excellent recovery.

The principal points of interest in this case are these. First, attempts to replace the arm in cases where the liquor amnii has escaped are useless and cause much pain; in no case have I been able to replace it, and thus alter the presentation. Secondly, by attaching the tapes to the leg, and using traction on them, it left room for my other hand in the vagina, by which means I was able to act directly on the two poles of the body at the same time. I feel sure, by this method, the dangerous operation of dismembering the child, as recommended by Dr. Donaldson, may be avoided; in many cases, the life of the child might be saved, and that without any risk to the mother.

JOSEPH THORNLEY, M.B., C.M., Halliwell Road, Bolton.

LARGE BEQUEST.—Mrs. Mary Fletcher, of Burlington, Vermont. has left 200,000 dollars (about £50,000) to a hospital which she founded.

THE suicide of a medical student is reported to have occurred at St. Louis, Missouri. Failure to pass his examination is assigned as the cause.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

MIDDLESEX HOSPITAL.

MALIGNANT ENDOCARDITIS.

(Under the care of Dr. SIDNEY COUPLAND.)

AN ill-developed, anæmic, strumous girl, 15 years old, was admitted on October 19th, 1880. She had had an attack of acute rheumatism six weeks before, and was two weeks in bed. She had not completely convalesced when a relapse began, five days before admission.

When admitted, the knees were swollen and hot, and the shoulders painful. She had never had rheumatism before, but her mother had recently suffered from rheumatic fever; her father, brother, and five sisters were healthy. Examination of the heart showed some hypertrophy, and a well marked præsystolic and systolic *bruit* and thrill. The second sound at the pulmonary cartilage was reduplicate. Physical examination of the lungs revealed nothing unnatural.

In a few days, all the rheumatic symptoms and the fever passed away. The cardiac *bruits* remained unaltered; but, on her discharge, on November 8th, the impulse was more undulatory and thrilling. A well marked systolic *bruit* at the base, traceable down the sternum, had also developed.

Three years later, on November 19th, 1883, she was again admitted, having been overworked in domestic service, and for a fortnight suffered from præcordial pain and palpitation. She had not commenced to menstruate, had frequent headaches, occasional attacks of syncope, and, latterly, swelling of the feet. She was very anæmic. The cardiac impulse was diffused and undulatory, but the situation of the apex-beat had not altered from the previous time to any degree. At the apex, the impulse was thrilling and thrusting. A loud blowing systolic murmur was heard at the apex, conducted round the axilla to the back. The second sound at the base was accentuated, and there was a venous hum in the neck. The urine did not contain albumen. The temperature ranged between 99° and 100° Fahr.

On November 25th, without any premonitory symptoms, after waking from sleep, she felt sick, and vomited three pints of dark liquid blood, mingled with clots and undigested food. She became very blanched and collapsed, the pulse falling to 54. Fortunately, no recurrence took place; and, after being for a few days restricted to nutrient enemata, she was able to take food. The degree of anæmia after this was marked; the red blood-corpuscles were 48.2 per cent., and, on December 12th, 37.8 per cent.

On December 21st, the temperature rose to 103° Fahr.; next day it was 102.4°, and fell to normal. On the 23rd, there were no local symptoms to account for this. On December 31st, she left for Eastbourne.

She was again admitted on May 24th, 1884, having, during the previous fortnight, had attacks of præcordial and abdominal pain. The apex-beat was now in the sixth space; the impulse diffused, undulating, and preceded by a thrill. Murmurs were heard as before, and again a soft basic systolic *bruit* was audible. The temperature was subnormal. She was discharged on June 20th.

She was readmitted, for the last time, on November 25th, 1884. She was then 19 years old. Since the previous year, the catamenia had appeared regularly for three months, but for the last four months there had been amenorrhœa. She was very ill-nourished, and there was marked pallor, and slight œdema of the feet. The cardiac signs were the same as before. It became apparent that she was suffering from a continued low irregular pyrexia of the remittent type. The spleen was enlarged, and she occasionally had attacks of pain over that region. The cardiac murmurs varied in intensity. The temperature in the morning was commonly a little below 99°, but was sometimes normal, and occasionally markedly subnormal. The temperature in the evening was generally 100° or 101°; not unfrequently the rise fell very far short of this. Occasionally the temperature continued to rise after the observation made in the evening, so that the highest point of the curve would be reached in the course of the following day, but, as a rule, the temperature was about 2° higher in the evening than in the morning.

January 5th, 1885.—A painful swelling and discoloration of the lobe of the left ear was noticed, followed by a similar condition of the right ear. The temperature on the previous evening had been 101°.

On January 8th, a symmetrical purpuric rash had appeared on both cheeks, and, on January 9th, a trace of albumen was first found in the urine; it was never afterwards absent.

On January 10th, the temperature was 101.4° all day; after falling to normal, it rose on the morning of January 12th to 101°.

On January 12th, fresh purpuric spots appeared on the cheeks, and on the left pinna; there were other patches over the zygoma; the eruption became confluent, and the skin felt hard. There was no rash elsewhere.

Most of the rash had faded by January 17th, when a recrudescence occurred; the skin felt as in scleroderma. On January 24th, Dr. Liveing saw the patient, and thought the rash allied to peliosis rheumatica. On January 28th, the patches on the cheeks were fading, but there was a fresh patch on the chin, and another on the nostril. The heart's action was tumultuous, and there was a rough systolic murmur at the apex, faintly heard at the base. The spleen could now be felt a hand's breadth below the costal arch.

On February 6th, a few fresh patches were noticed. The area of cardiac dulness was increased, but the murmurs were the same as before. There was a presystolic thrill, well marked. She was growing thinner and more feeble. After a few days' rally, she was, on February 26th, attacked with apoplexy. She was found unconscious, and completely hemiplegic on the right side. She remained in this condition until her death on March 13th.

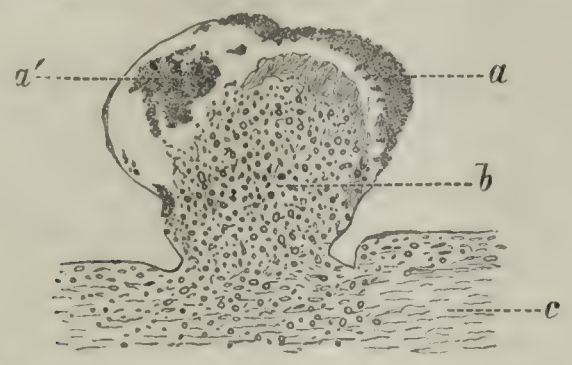
At the necropsy, there were petechial spots on both malar prominences, and symmetrical ulceration of the alæ of the nose and the pinnæ of the ears. There were no pleural adhesions, but there were some old adhesions between the two pericardial surfaces at the apex of the heart. The heart weighed 12¼ ounces. The right auricle was slightly dilated. The tricuspid valve was slightly thickened, and on its margins were a few nodular vegetations. The chordæ tendineæ were thickened. The left auricle was considerably dilated; the endocardium was ribbed, especially in the neighbourhood of the left pulmonary vein, where there was a wedge-shaped ulcer, produced apparently by the friction of the vegetations with which the mitral valve was surrounded. The mitral orifice was of the "button-hole" type, thickened, and hard; on it were numerous vegetations, some smaller and softer than others. The chordæ tendineæ were thickened and welded together. The left ventricle was rather dilated. The aortic valves were slightly thickened, but still competent. The lungs presented areas of collapse and œdema, and some lobular hepatisation. The liver was large, and its parenchyma in the condition of cloudy swelling. The spleen weighed 18½ ounces, and presented five very large wedge-shaped caseating infarctions. The kidneys, which weighed 6½ ounces and 7½ ounces respectively, were much swollen, and contained numerous old and recent infarctions. On examining the brain, the left hemisphere was seen to be much swollen, and, on making a horizontal section, a large cavity, containing a large clot and some fluid blood, was cut into; it occupied the anterior three-fourths of the left corpus ovale. No rupture into the ventricle had occurred.

REMARKS BY DR. SIDNEY COUPLAND.—This case, which is an instance of one form of "malignant endocarditis," seems to be especially worthy of record at the present time, when Dr. Osler's admirable Gulstonian Lectures have directed general attention to this obscure disease. It will be noted that this patient had suffered from mitral stenosis, which originated as a consequence of an attack of rheumatism in 1880. It is probable that, within the last year, acute endocarditis developed in the sclerosed valve, and that this acute endocarditis was an instance of mycosis endocardii; multiple embolisms were the result of this cardiac affection, producing the infarctions seen in the spleen and kidney; still it may be that the valve had become the seat of the mycosis at an earlier date, and that the attack in November 1883 marked the commencement of this stage of the disease. It is impossible to say to what the cerebral hæmorrhage was due; no embolism of a large vessel was present, but it is conceivable that multiple small embolisms might have occurred. The same difficulty exists as to the hæmatemesis; it is not possible to do more than conjecture that it may have owned a similar cause. The patches of purpura on the face may also, not improbably, be attributed to embolisms.

I will not enter into the subject dealt with by Dr. Osler, except to point out that there is no assignable reason why the valves in this case more than another should have become the seat of micrococcus invasion. It may be that her general debility and anæmia, although in part due to the rheumatism and cardiac disease, may have specially disposed her to the mycosis; just as in a case I recorded last year, where a chronic endocarditis in a tubercular subject became "malignant" or "ulcerative" *pari passu* with the development of tubercular pleurisy. The pneumonia, however, in this case, did not pre-

cede the onset of the malignant endocarditis; it was quite a late event, and was probably closely related to the apoplexy.

I am indebted to Mr. G. C. Karop for microscopic preparations of the mitral valve. The sections were stained by Gram's method; the colonies of micrococci were by this method deeply stained, and could be seen in the specimens to lie on the surface, or within the fibrinous layers of the vegetations. The drawing is taken from one of the



Mycosis Endocardii.
Minute vegetation on mitral valve.
a. Colonies of micrococci aggregated on surface of vegetation.
a'. The same embedded in the semi-translucent (fibrinous) portion of vegetation.
b. The granulomatous basis of the vegetation.
c. Superficial layers ofe ndocardium infiltrated with leucocytes.
From specimen prepared by Mr. G. C. Karop, according to Gram's method.

vegetations, and the dark masses of micrococci may be seen in both of the above mentioned situations.

DUNDEE ROYAL INFIRMARY.

MALIGNANT STRICTURE OF ŒSOPHAGUS, WITH ULCERATION INTO BRONCHUS: DEATH FROM EXHAUSTION: NECROPSY.

(Under the care of Dr. SINCLAIR.)

[FOR the clinical record of the following case we are indebted to J. MACKIE WHYTE, M.A., M.B., M.R.C.S., House-Surgeon; and for the notes of the *post mortem* examination, to A. M. STALKER, M.A., M.B., Pathologist.]

R. G., aged 68, a weaver, but formerly a soldier, was admitted on February 26th, 1884, complaining of a difficulty in swallowing, which had existed for seven weeks. He had pain behind the upper part of the sternum and between the shoulder-blades; this was at first only during meals, but had become, when admitted, almost constant. There had been no vomiting, but regurgitation followed any attempt to swallow solids. No blood had been observed in the rejected matter. Fluids could be swallowed, though the act was painful. His condition had been steadily getting worse, and he had been losing flesh rapidly. His previous history gave no help in diagnosis; there was no history of injury, or of venereal affection, or hereditary tendency to cancer. He was of average height, but very thin. His face was haggard, with dilated capillaries. The tongue was very dirty; there was a craving for food; the bowels were constipated. There was no dulness, but occasional moist crepitations were noticed in the lungs. The arteries were atheromatous; the heart was normal. Pain was experienced chiefly in the first right space near the sternum, and in the interscapular region. There was no abnormal dulness.

February 28th. Ordinary œsophageal bougies could not be passed; but a gum-elastic urethral bougie, No. 12, was got through. The obstruction appeared to be eleven inches from the teeth. The patient could swallow some soft food after this. The bougie was passed again on March 1st and 11th; but, as pain and difficulty in swallowing increased, nutrient pancreatised enemata were ordered (March 15th). These were of great benefit. On March 27th, they were omitted, the patient having no pain, and being able to take milk and soft food easily. On April 10th, it was noted that he could swallow liquids, bread, rice-pudding, and porridge, without any difficulty. About this time, a feature of the case that was present all through became very prominent. Every day he brought up a quantity of glairy mucus, varying from two to fifteen or more ounces, in much the same way as he rejected food. This appeared to be saliva that collected in the œsophagus.

In spite of his taking food well, he continued to get thinner and weaker. During May and till the end, he complained of severe epigastric pain. Œsophageal probangs, up to size 31 English scale, were passed at intervals, to maintain the dilatation of the stricture, and enemata were given when the pain in swallowing became great. But there was a steady aggravation of symptoms; and, on the evening of August 12th, death took place.

Necropsy.—An ulcerated patch was found in the œsophagus, beginning about four inches from the pharyngeal end, and extending downwards for three inches. It involved the whole circumference. The edges were raised and soft, but a section showed the wall to be thickened and firm. At one place, there was a communication with the right bronchus by an oval opening, half an inch long. On microscopic examination, the tumour was found to be an epithelioma. The stomach was small, but otherwise normal. The left lung was universally adherent by recent adhesions. Hypostatic pneumonia was present in both lungs. Some pus exuded from the divided bronchi.

REMARKS BY DR. SINCLAIR.—When this patient first came under observation, the diagnosis of his malady presented some difficulties which did not exist at a later stage. It is true that even on admission he was thin, and bore on his face unmistakable traces of suffering. But he was an old soldier, had seen service, was 68 years of age, and he had certainly no cachexia. That there was an œsophageal stricture of some kind was undeniable. A spasmodic cause was at first not an entirely untenable theory, because the patient was extremely nervous, had intervals of freedom from pain and difficulty of swallowing (after passing bougies); and no blood was brought up, either with the bougies or the regurgitated food for some time. The persistence of the obstruction and the emaciation of the patient, however, very soon put this theory "out of court." Syphilis he denied having ever had; and I found no evidence of this poison in any of his tissues. Simple stricture from a traumatic cause was never entertained, from the total absence of any history pointing in such a direction. It could hardly have been an instance of that rare affection, simple ulcer of the œsophagus, as bleeding did not occur at any early stage, and was never more than trifling in amount, from the passage of food or bougies. Aortic aneurysm, causing depression, was not to be thought of, owing to the absence of its symptoms and signs. Finally, the opinion was formed, and was confirmed by the progress of the case and the necropsy, that the cause of the obstruction was malignant disease of the tube.

The treatment adopted could not, from the nature of the case, be other than palliative; but I have no doubt that the man's life was prolonged, and his sufferings rendered more endurable, by the frequent passing of olivary-shaped bougies, which allowed liquid and soft food to pass down the œsophagus. The course pursued from March 15th to 27th is a valuable instance of the importance of rest in such cases, for he existed comfortably during these twelve days solely on nutrient pancreatised enemata, and at the end of that time it was again possible to introduce both bougies and food through the stricture.

It will be seen, from the report of the *post mortem* examination, that the case was one of primary epithelioma, causing thickening and stricture of the tube, and secondary ulceration into the right bronchus, which might have given rise to other complications had the patient lived longer.

SUNDERLAND INFIRMARY.

WOUND OF INFERIOR VENA CAVA AND RIGHT AURICLE: DEATH IN SEVENTY-FIVE MINUTES.

(By E. F. FLYNN, L.K.Q.C.P.I., late House-Surgeon.)

S. H. was admitted into the Sunderland Infirmary in September 1883. He had been stabbed.

A penetrating wound, one inch and a half in length and half an inch wide, was found on the right side, two inches internal to the right nipple, between the third and fourth ribs. Through this wound, blood and air gushed forth with every inspiration. When seen, he was pulseless and dying.

The necropsy was made twenty hours after death; rigor mortis was well marked. On tracing the wound in the right side before described, it was found to pass inwards and towards the left side through the edge of the middle lobe of the right lung. The inferior vena cava and pericardium were wounded, and the right auricle was laid open. The wound in the auricle was half an inch in width. Both the pleural cavities and the pericardium were filled with blood.

REMARKS.—The points of interest in this case are the time he survived (one hour and a quarter) and the fact that he ran a distance of twenty yards before falling. Jamain has collected seven cases of wounds of the right auricle, in which death followed in from seven hours to twenty days; but in this case, in which the vena cava as well as the right auricle was wounded, the patient lived an hour and a quarter.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MARCH 17TH, 1885.

J. SYER BRISTOWE, M.D., F.R.S., President, in the Chair.

Report on Fractures of Hyoid Bones and Laryngeal Cartilages.—The report of the Committee confirmed the general accuracy of Mr. Arbuthnot Lane's description of his specimens. One specimen of the hyoid bone had apparently not been fractured. The specimen of fracture of the cricoid bone was of especial interest, as showing that this accident could occur without giving rise to the fatal symptoms which were usually supposed to follow.

Aneurysm of Splenic Artery.—Dr. SAMUEL WEST showed a specimen from a man aged 56, who died from hæmatemesis. He had suffered from a severe attack on another occasion fourteen years previously. About Christmas 1884, and subsequently, he had been drinking freely, and suffered from diarrhœa. On January 21st, he passed a large quantity of blood by the bowel, and on the following day, when in the hospital, a tarry motion. He was a spare, muscular man, very blanched. The only diseased condition detected, on physical examination, was an enlargement of the liver. On January 28th, he suddenly vomited a pint of bright blood, and died in a short time. At the necropsy, the stomach contained two pints of bright blood. There was an ulcer on the lesser curvature; its base and edges were thickened. A small aneurysm projected through the base of this ulcer, and from this the hæmorrhage had proceeded. The mucous membrane was otherwise healthy, except that at two points there appeared to be scars of two superficial ulcers. The liver and kidneys were cirrhotic. Aneurysm in the floor of a gastric ulcer appeared to be a rare condition, as only two other cases had been recorded in the *Transactions* of the Society. A point of some importance was the fact that great pain preceded the hæmorrhage.—Dr. T. BARLOW had examined a case last autumn which very closely corresponded to the case described by Dr. West. A large ulcer, three inches in diameter, was found in the stomach. The pancreas formed part of the floor of this ulcer, and in the middle was an aneurysm of the splenic artery, about the size of a pea; this had ruptured, and given rise to fatal hæmorrhage.—Dr. NORMAN MOORE thought enlargement or aneurysmal bulging of the pancreatico-duodenalis artery, in cases of ulcer of the stomach where fatal hæmorrhage had occurred, was not uncommon.

Congenital Deformity.—Mr. F. TREVES gave a description, illustrated by photographs, of the case of the so-called elephant-man, who had been previously shown to the Society (BRITISH MEDICAL JOURNAL, December 6th, 1884, page 1140). The deformity of the skin was twofold; in the first place, there was an increase in the subcutaneous cellular tissue; this was so extreme in the right pectoral region and at the buttocks as to lead to the formation of pendulous masses; further, certain parts of the skin were also affected with congenital papillomatous tumours. The bones of the skull were deformed and overgrown, so that the circumference of the head was so greatly increased as to be equal to that of his waist. There was a hypertrophic deformity not only of the cranial and facial bones, but of the bones of the upper limb, and of the bones of the feet; the enlargement of the facial bones and the bones of the upper limb was confined to one side.—Dr. H. R. CROCKER thought that the case belonged to the same class of cases as dermatolysis and pachydermatocele. Dr. Tilbury Fox had shown a somewhat similar case, but without papillomatous growths. The association between pachydermatocele and papillomatous growths had been before pointed out, but the occurrence of changes in the bones had not, he believed, been previously observed.

Osteitis Deformans.—Specimens from a case of osteitis deformans occurring in a woman, aged 82, were shown by Mr. A. Q. SILCOCK. The femora were curved slightly and slightly thickened, and the tibiæ had an antero-posterior curve; the right tibia was specially thickened, and, on section, it was seen that the medulla was encroached upon. At the summit of the curve, the compact bone had become more porous, but no new growth could be discovered. The periosteum of the thickened bone was not obviously affected. On raising the scalp, the sutures were found to be obliterated, and the surface of the bone was smooth; the right parietal and frontal eminences were much exaggerated. The bones were greatly thickened; the thickness of the frontal bone was one inch and a quarter, of the squamous portion of the temporal bone one-third of an inch on the right and a quarter of an inch on the left, of the occipital half an inch. The superciliary ridges were greatly exaggerated. The distinction between external and internal tables and diploë was almost obliterated, except in one area; the bone was hard and compact, the dura mater was unduly adherent, and the inner surface of the cranium was rough; the bones entering into the base were not affected, but the roof of the orbit was thickened. The spine was doubly curved and twisted, but this curvature appeared to have occurred in early life, as section of the spine showed no recent changes. The viscera were all healthy; the brain weighed forty ounces, and was apparently quite normal. The case closely corresponded with that described by Sir James Paget in the *Transactions* of the Royal Medical and Chirurgical Society, vol. lx, except in the facts that no tumour was discoverable, although carefully sought for, and that the skeletal changes, other than those of the cranium, were less marked. There was nothing to add to Mr. Butlin's description of the histology; the most striking features were the great vascularity of the parts and imperfect structure and disordered arrangement of the newly formed bony growth. Sir J. Paget and Mr. Butlin attributed the bone-lesions of the disease to inflammatory changes, but Mr. Lunn had lately contended that these changes were, in reality, a weakening of the bones through atrophy and absorption, and a compensatory strengthening by the growth of new bone, which might be looked upon as a variety of callus. Mr. Silcock considered that his case was strongly confirmatory of Sir J. Paget's view, inasmuch as the new bone thrown out was present in much greater quantity on the convexity of the curve than in the concavity, that is, the new bone was thrown out where the inflammatory changes were most marked. He exhibited the tibia from a girl, aged 13; the diseased condition in this, which was probably the result of congenital syphilis, closely resembled the tibia in osteitis, and generally confirmed the view taken of the nature of the lesion. He also showed a tibia of considerable antiquity, obtained from an old sepulchre, which had all the characters of osteitis deformans.—Dr. GOODHART showed specimens of osteitis deformans, from a woman who died of bronchitis. The only tumour was a fibroid tumour of the uterus. Nearly all the bones were affected, and, though all were not enlarged, all were distinctly heavy.—Mr. STEPHEN PAGET showed specimens from two of the cases described by Sir James Paget. He had recently seen three cases of osteitis deformans; in two cases, tumours (fibrous and molluscous) had occurred in connection with the skin. He referred to a case upon which he had recently performed a necropsy, in which the cranial bones were very soft.—Mr. BUTLIN made the curious observation that he had been struck, when recently looking at the famous Neanderthal skull, with the impression that it was a diseased skull, and presented appearances not unlike those seen in the skull of osteitis deformans. In that skull the superciliary ridges were enormously developed, as in Mr. Silcock's case; and, as that was the only point in which the Neanderthal skull appeared to him to differ from the cases he had seen, Mr. Silcock's case supplied the missing piece of evidence.—Mr. J. BLAND SUTTON said that, when Schaffhausen had described the Neanderthal skull as rachitic, Professor Huxley had ridiculed the idea. As he agreed with Schaffhausen, he was delighted to find so skilled a pathologist as Mr. Butlin arriving independently at the conclusion that the skull was diseased.—Mr. EVE, who had had an opportunity of examining one of the bones referred to by Mr. Stephen Paget, said that, in his opinion, there was an evident proliferation of the cells forming the medulla. This supported the view that the disease was a subinflammatory condition. He had also found a fibrous degeneration of cartilage in several cases of osteitis deformans.—Mr. ANTHONY BOWLBY said that, in some cases, there was distinctly not only fibrous degeneration, as mentioned by Mr. Eve, but actual outgrowth of bone, as in osteo-arthritis. One such case had recently been in St. Bartholomew's Hospital; a woman, aged 62, who complained that she was becoming shorter; her spine was much bent, and the forehead very prominent, owing to prominence of the superciliary ridges.—Dr. CARRINGTON thought that, in both Mr. Silcock's and Dr. Goodhart's cases, there appeared to be not a rarefying, but a condensing, process in the bone.

Synovial Cysts in Joint-Disease.—Mr. D'ARCY POWER showed four specimens of intermuscular cysts in connection with joint-disease. From all the cases, synovial fluid had been withdrawn by aspiration. In one, the cyst had taken the place of the popliteus muscle. Similar cases had been recorded by M. Foucher and Mr. Morrant Baker; but Mr. Power believed that the present specimens more nearly resembled those of the latter observer. Synovial cysts of this nature might be the cause or the result of joint-disease. They might be formed either from a hernia of the synovial membrane of the joint, or else as an enlargement of one of the pre-existing bursæ in connection with the joint. In the former case, Mr. Power believed the mode of formation to be as follows. The joint became diseased, and, as a result of the disease, there was an increased secretion of synovial fluid. The synovia escaped at the weakest point by causing a protrusion of the

synovial membrane, and as the swelling increased in size, its course was directed by a muscle—for example, the popliteus. In other cases—and this was, perhaps, the commoner mode of formation—the increased quantity of synovial fluid escaped into one of the bursæ, which were occasionally connected with the joint. Mr. Power showed that, in three of the four cases, the joints did not present any appearances of osteo-arthritis. He also pointed out that the practice of puncturing the cysts for diagnostic purposes was dangerous, and showed a cyst in connection with the shoulder in which such an operation had led to destruction of the joint, previously, to all appearance, in a healthy condition.—Mr. STEPHEN PAGET showed a patient with a cyst connected with the left hip-joint. The patient stated that, ten years ago, he experienced some pain and stiffness of the knee, and had never been quite free from symptoms since. Three years later, he presented slight synovitis of knee and hip, for which he was treated, and went about his work for six years. Then again he came under treatment with the cyst in the groin. On one occasion, forty-two ounces of synovial fluid were let out; a year later, forty ounces were again drawn off. His hip and knee were now stiff and grated; the cyst had again filled. There were no symptoms of locomotor ataxy. He briefly referred to a second similar case.—Mr. MORRANT BAKER said that since his paper, to which reference had been made, was written, he had met with several cases of cyst in connection with the hip, one in connection with the shoulder, and one with the elbow. The important clinical point, was to recognise that such collections could be formed and attain so large a size. The imprudent tapping of such cysts might lead to suppuration and disorganisation of the joint.—Mr. EVE was understood to confirm this observation.—Mr. MARMADUKE SHEILD had seen several cases of large cysts in connection with joints. In two cases, puncture of such cysts was followed by destructive joint-disease.

Primary Sarcoma of the Penis.—Mr. WILLIAM HENRY BATTLE showed a specimen of sarcoma of the penis removed during life. The patient was a gentleman, aged 60. There was no history of malignant disease in the family, and he himself had never had any serious illness. Ten months before coming under treatment, he had first noticed a blood-stained discharge from the urethra after micturition. Gradual enlargement of the penis, unattended by pain, ensued, and he had several attacks of hæmorrhage during the last few months, chiefly after straining, but was only examined a fortnight before he came under Mr. Battle's care, having had a more serious loss of blood. He could give no information as to the exact point of commencement. He was a well built, sallow, and somewhat emaciated man. The penis was considerably enlarged at the extremity, the prepuce in a state of phimosis, and stretched over a growth, portions of which projected from the orifice, dark coloured and spongy in appearance. The enlargement extended an inch and a half into the body of the organ, was smooth and elastic, projected a little unequally, and was distinctly limited above. There was no ulceration visible. The inguinal and pelvic glands could not be made out to be enlarged. There was no pain, and no evidence that the internal organs were diseased. The urine flowed in three distinct streams. Three days after his arrival, hæmorrhage followed the detachment of that portion of the growth which had been noticed at the orifice of the prepuce. In consequence, the organ was at once amputated by means of the knife and galvanic *écraseur*, close to the pubes. There was scarcely any hæmorrhage. In the evening, he had retention of urine; a catheter was passed, and the urine gushed out both through and by the side of the catheter, giving the impression that there was hypertrophy of the bladder. No inflammatory swelling followed the operation. There was, however, a purulent discharge from the stump until he left for home a month later. He had gained flesh and strength. The patient, unfortunately, died forty-three days after the operation. His symptoms, which were great thirst, profuse perspirations, jaundice, hiccough, and probably some gangrene of the scrotum, pointed to secondary new growth in the liver. Examination of the growth showed that it was distinctly circumscribed above, whilst the free surface was fungating and shaggy. The urethra was lost in the growth. A microscopical section showed it to be a sarcoma, containing small and large round cells, spindle-cells, and, especially near the free surface, very small cells, probably of inflammatory character. To judge from published records, sarcoma of the penis was a very rare disease. One case had been brought before the Society, by Mr. T. Holmes, in 1872, a melanotic indurated sore of the penis, which consisted of spindle and fusiform cells. One other was mentioned by Dr. Gross in his *System of Surgery*; it involved the body of the organ, and spread to the pubes. The patient died after its removal. The only specimen in the London museums was from Mr. Holmes's case, in the museum of St. George's Hospital. And, although it was possible that some of the older specimens, which were labelled "Cancer," might really be sarcomatous, there was, at present, no evidence to prove it.—Mr. GOLDING BIRD said that, four years ago, he had operated on a primary melanotic spindle-celled sarcoma of the penis; no glandular enlargement was detected. The man recovered from the operation, and was alive when last seen, four months later.—Dr. SHARKEY had found that, in two cases of supposed epithelioma, the growth was really a mixed-celled sarcoma.

Dislocation of Hip.—Mr. STEPHEN PAGET showed a specimen of direct backward displacement of the thigh; the patient died of bronchitis and diarrhœa. There was extensive diffused pigmentation of the mucous and submucous layers of the intestines; he showed specimens of this. The portion of the pelvis and thigh-bones exhibited showed that the head of the bone had escaped through a rupture in the back of the synovial membrane; neither the acetabulum nor the head of the bone was fractured.—Mr. SYMONDS questioned whether the specimen was a true backward dislocation.—Mr. BOWLBY said that the situation of the rent in the capsule was more behind than in ordinary dislocations, where the rent was usually lower.—Mr. EVE agreed with Mr. Symonds.—Mr. STEPHEN PAGET thought that examination of the specimen showed that the dislocation could not have occurred during abduction.

Fatal Hæmoptysis from Hydatid of Lung.—A specimen of hydatid of the lung which had led to fatal hæmorrhage was shown by Dr. PERCY KIDD. The patient was a woman, aged 42, who had been under the care of Dr. Tatham. Fifteen years before death, she had an attack of jaundice and vomiting. One year before admission, she had "inflammation of the left side of the chest," and for two months had experienced pain in the chest, cough, and occasional hæmoptysis. When admitted, the physical signs noted were those of consolidation of the left apex without *râles*. She had little cough, and only one slight rise of temperature; but during the four months she was in hospital, with the exception of a fortnight, she had persistent hæmoptysis. This was never very free until the day of her death, when she suddenly coughed up a large piece of membrane, and, after a few minutes, two large clots; a little later, she had considerable hæmoptysis, and died. No clear fluid or daughter-cysts were coughed up at any time. At the necropsy, the upper lobe of the left lung and the upper margin of the lower lobe were in a state of pinkish-grey fibroid induration. In the upper lobe was a single cavity, of the size of a duck's egg, with thin tough walls shreddy on the surface, and infiltrated with blood. The cavity contained no blood, and no hydatid membrane. Two large bronchi led directly into the cavity. No exposed vessel or aneurysm could be found in the cavity. A second hydatid cyst on the under surface of the right lobe of the liver pressed on the hepatic duct, which was greatly thickened, but only slightly obstructed. The large bile-ducts were dilated. The stomach was filled with blood, but healthy. The membrane expectorated was typically laminated. No daughter-cysts or hooklets were found. Dr. Kidd considered that the fatal hæmorrhage resulted from separation of the cyst from the surrounding tissue, and that this separation was originated by a slight accumulation of blood between the membrane and the wall of the cavity, and completed by the act of coughing. The case in some respects resembled one described by Dr. Curnow, in the *Transactions* of the Society vol. xxxiv.

Card Specimens.—Dr. F. C. TURNER: (1) Superficial Slough of Stomach; (2) Renal Growth invading Vena Cava. Dr. NORMAN MOORE: Renal Disease in an Ox. Dr. CHAFFEY: Pyo-salpinx in a Child aged 4. Mr. D'ARCY POWER: Intermuscular Cyst in connection with the Shoulder-joint. Mr. BRUCE CLARKE: Unilateral Development of Warts. Mr. M. SHEILD: Cancer of Stomach. Dr. S. J. SHARKEY: Ulcerative Endocarditis with embolism of the left middle cerebral artery, left vertebral artery, spleen, and kidney. Mr. BATTLE: Rupture of Small Intestine. Dr. GOODHART: Osteitis Deformans. Dr. G. N. PITT: Colitis Polyposa due to chronic dysentery, and a Polypus connected with Meckel's Diverticulum.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 13TH, 1885.

THOMAS BRYANT, F.R.C.S., President, in the Chair.

Thrombosis of the Basilar Artery, with Profound Coma: Extreme Lowering of Rectal Temperature: Death in five hours and a half.—Dr. CHARLTON BASTIAN read the details concerning this case. A fairly healthy man, aged 43, having had no previous brain-symptoms, was found insensible shortly after the onset of an apoplectic attack, and admitted under his care at University College Hospital (at 6 P.M. on November 16th, 1884) in less than one hour. The patient was then profoundly comatose; his breathing was irregular and slightly stertorous;

his face pale, cold, and clammy; all the limbs were flaccid; the pupils were equal, somewhat contracted; there was no conjugate deviation of the eyes; all the reflexes were abolished; there was no cardiac *bruit;* the heart's action was tumultuous. The rectal temperature at 6.10 was 98°; at 6.20, 97°. At 7, the pulse was 80, fairly full, but irregular in force. The respiration was very irregular, consisting of a few rapid breaths, then a pause, followed by a long deep expiration. The rectal temperature was 96.2°. At 7.50, the rectal temperature was below 95°; the pulse and respirations nearly as before. The pupils were of medium size, and quite insensitive to light. At 8.45, the pulse was 100; the respirations were 17 per minute. At 10.15, the rectal temperature was still below 95°; the pulse could only be felt with difficulty, was irregular, and at times imperceptible; the respirations were unaltered; all the limbs were still flaccid. At 10.45, death occurred, the rectal temperature having remained below 95° to the end. At the necropsy, the basilar artery, in its posterior half, was found to be dilated into a small fusiform aneurysm with thickened walls; and this, and the middle cerebral arteries which came off from it, were found to be completely occluded by a soft colourless clot. The other large vessels were pervious, and only slightly diseased. The lateral ventricles contained a slight excess of serum, and the veins on their walls were all distended. No lesions were found in any part of the brain. There was no appreciable diminution in the consistence of the pons Varolii. The heart was healthy, containing no clots, and presenting no notable disease of the valves—merely some slight thickening. The thoracic aorta showed many raised whitish patches. The lungs were congested and œdematous, and showed hæmorrhagic extravasations into both lower lobes. The other organs were congested, and notably tougher than natural. Dr. Bastian pointed out that it was extremely rare for death to take place in less than twelve hours in cases of occlusion of one or other of the cerebral vessels. He had been unable to find any case on record in which it occurred so rapidly as in this instance. In the cases of thrombosis of the basilar artery, recorded by Hayem in 1868, death did not take place in less than from 16 to 21 hours. The clinical history of the present case resembled, in the closest manner, what might be found in a case of large cerebral hæmorrhage. This was seen especially in the great depression of the rectal temperature, which, in about two and a half hours from the onset of the attack, had sunk below 95°. Last year he had brought before the Society the record of a case of cerebral hæmorrhage in which the temperature in the rectum sank to 94.5°, and where, as in the present case, it continued thus depressed till death occurred three hours afterwards. The fact that thrombosis had occurred in the lower half of the basilar artery, and thus cut off, or greatly diminished, the supply of blood to the respiratory centre, doubtless accounted for the suddenness of the death. The centres for the third nerve, at the back of the anterior half of the pons Varolii, seemed to have been partially paralysed rather than stimulated. Hence, there was not the very contracted condition of pupils which often went with hæmorrhage into the pons, and had caused such cases to be mistaken at times for instances of opium-poisoning. The clinical features presented by thrombosis of the basilar artery varied greatly in different cases, according as the upper or lower half of the vessel became blocked, and also according to the rapidity or slowness with which complete occlusion occurred. The present case afforded a further illustration of the extreme difficulty, or even impossibility in some cases, of making a positive diagnosis between cerebral hæmorrhage and thrombotic occlusion of some large cerebral artery. Still, in no other artery except the basilar would such occlusion be at all likely to reduce the temperature to such a degree as in the present case. Bonneville never found the rectal temperature reduced below 98° in cases of incipient softening due to occlusion of other vessels. Lesions in the pons Varolii were altogether exceptional in the remarkable amount of variation which they might cause in the general temperature of the body. Here was an incipient softening, or the conditions leading to such a lesion, depressing the temperature below 95° for some hours; whilst in the terminal stage of softening of the pons, as he had seen, the temperature might rise as high as 110°.—Dr. HALE WHITE pointed out that the lowering of temperature in this case did not invalidate the theory which stated that there were, in the neighbourhood of the fissure of Rolando, heat-controlling centres, which, by perpetually inhibiting the thermogenetic changes in the body, kept the temperature constant. In many cases he had collected, he found that, whenever the centre or the fibres proceeding from it were destroyed, the temperature rose, owing to the cutting off of the inhibition. These cases were published in the *Guy's Hospital Reports* for last year. In those examples such as the present, where no fall took place, this could probably be accounted for by shock; and certainly this explanation would hold here, because of the great rapidity of the symptoms and the quick fatality. Had the man got over the shock, one would have expected that softening of the pons which would have ensued would, by destruction of the fibres, have caused pyrexia. About four-fifths of the cases of disease of the pons had pyrexia.—Dr. MARKHAM SKERRITT, of Clifton, had seen a case of thrombosis of the basilar artery, which followed the more usual lines. This was in an anæmic girl, who was thought to be suffering from heart-disease. When first seen, she was lying in bed, and able to move the limbs; she was quite conscious, her speech rather thick, and words blurred; the pulse, respirations, and temperature were normal. The case was then thought to be one of hysteria. Next day, she became insensible, was sweating profusely, her skin was hot; temperature 104°; the respirations were hurried; the pupils were moderately dilated, but contracting with light; the conjunctivæ were sensible to the touch; the reflexes were normal; the temperature shortly rose to 106° Fahr.; the perspiration was remarkably free, running down in streams; the breathing became stertorous; pulse 150; there was some spasm of the limbs, and the patient speedily died. On *post mortem* examination, the heart was found healthy. There was no disease of the vessels in the brain; but the basilar artery and the circle of Willis, with the exception of the anterior communicating artery, were found to be plugged, which condition was probably due to the anæmic state of the patient.—Dr. EWART thought that the fall of the temperature might be the secondary result of the fall in the respirations, and the inadequate oxygenation of the blood, and that the present case ought not to be reckoned amongst those which went to prove its connection with a fall of temperature.—Dr. BASTIAN, in reply, said he was of opinion that, in this case, the temperature was lowered from shock, in the same way as in cerebral hæmorrhage; that this lowering of temperature was exceptional when the occlusion was sudden. In more chronic diseases of the pons, the temperature frequently rose very high, possibly from the cutting off of the inhibitory influence of the cerebral heat-centres. In a case of extensive effusion into the right hemisphere, the temperature rose during the last eight hours of life, chiefly in the paralysed limb, and *post mortem* examination showed considerable flattening in the convolutions of both sides. Possibly, pressure upon the cortex might have something to do with the rise of temperature.

An Unusual Sequela of Ovariotomy.—Mr. R. BARWELL read a paper on a case. At the latter end of last October, he removed the left ovary of an unmarried woman, aged 29. The local results were perfect; but certain sequelæ ensued which had not hitherto been recorded, but, on questioning other surgeons, Mr. Barwell found the event not to be isolated, and notably that Dr. Keith, Mr. Thornton, Mr. Dent, Dr. Bantock, and others, had met with a like complication. The patient was of fair complexion, and mobile temperament. She came into Charing Cross Hospital, and it was agreed that ovariotomy should be performed. On October 28th, Mr. Barwell removed the left ovary, first withdrawing twenty-three pints of fluid; the pedicle was tied with silk, and allowed to fall back into the abdomen. The usual mode of suture was employed. During the three subsequent days, menstruation recurred, and some hæmaturia was observed; it then ceased. On the third day, the thermometer stood for two hours at 102.4°, but, with this exception, she never had a temperature worthy of notice. The deep sutures were removed after forty-eight hours. The abdominal wound was healed on November 2nd; there was hardly any tenderness in the left groin, or elsewhere. The patient, who was naturally very docile and amenable, showed, on November 3rd, a contradictory and aggressive temper; on the 5th (eighth day of operation), this had developed into insanity. On November 7th, she was so violent that she had to be secured, and this could only be effected by giving a little chloroform. A subcutaneous injection of four minims of solution of morphia only calmed her for three hours. On the 21st, with various phases of comparative violence and calm, but with incessant talking, the patient continued entirely insane, sleeping only in short snatches about two hours out of the twenty-four until the 19th. She then began to show signs of amelioration, especially in saying that she knew she was mad. On the 21st, Mr. Barwell ordered an ice-bag to the head. After this she slept more, and gradually improved. On the 28th, she would be pronounced sane. During all December, she was well enough to take walks, but was, for various reasons, kept under supervision till December 29th, when she was discharged in perfect mental and bodily health. In spite of several attacks of violence, and of struggling, the abdominal cicatrix had held well, and there was no sign of hernia; nevertheless, it was thought prudent to provide her with a belt. Mr. Barwell remarked that several views might be taken of this case. 1. There might have been hereditary tendency to insanity. 2. Insanity

might follow any of the major operations, ovariotomy not more than any other. 3. It was the result of disturbance of the urinary organs (kidney). 4. It was the result of disturbance of the generative organs. 5. It was mere coincidence. On these views, he made the following comments. 1. Great pains were taken to find any trace of mental disturbance in the patient's family. None could be discovered. Her father had died of cerebral apoplexy at an advanced age. 2. If insanity were an occasional sequela of surgical operations, the matter was not mentioned in surgical writings. 3. The amount of blood lost by the kidney, if any, was insufficient to produce grave effects. Hæmaturia was not uncommon after intraperitoneal operations performed under a carbolic spray. 4. Although disturbance of the generative organs appeared, at first sight, to offer the easiest explanation, in this case there were none of the erotic symptoms usually associated with abnormal states of that system. Perhaps some might see an analogy between puerperal insanity and mental disturbance in this case. 5. Mere coincidence might be justly considered the best way of accounting for insanity thus following ovariotomy if this were an isolated instance, but Mr. Barwell was acquainted with several other examples. Thus, Dr. Keith had had one case (after hysterectomy); Mr. Thornton, two (ovariotomy and hysterectomy); there had been a case at St. Thomas's Hospital, and one had been noted by Mr. Dent. Thus, mere coincidence would not account for the circumstances which it appeared desirable should be known in the profession.—The PRESIDENT remembered that Mr. Lawson Tait had read a paper some time ago, in which symptoms of mania had occurred during convalescence from ovariotomy. He himself had seen mania occur in two cases after ovariotomy, which did well surgically; and although in his experience of general surgical cases it was rare, he could not help thinking there was some connection between it and the operation of ovariotomy. In these cases there was no kidney-mischief.—Mr. DORAN mentioned the case of a young married woman who had had both ovaries removed for chronic inflammatory disease; she had previously presented no mental symptoms, but was the subject of an attack of mania a few weeks after the operation; she was still deranged. Insanity connected with organic disease of the genital organs was not necessarily of the nymphomania type.—Mr. MEREDITH thought the cases not quite so rare as Mr. Barwell had concluded them to be. He had seen symptoms of insanity come on two weeks after the operation; but once, for four weeks after the removal of a large tumour, weighing 70 lbs., from a single woman, aged 54, no bad symptoms resulted, and then the patient was seized suddenly with acute melancholia; she was apathetic, but not really violent. The symptoms lasted for two months without intermission, and then disappeared suddenly, and she had remained quite well ever since (four years). There were no urinary symptoms, and no hereditary tendency. He had seen acute mania following amputation of the breast.—Dr. EDIS said that patients were often very nervous, and subjected to high nerve-tension, before the operation. In many, the nervous system was immobile, and easily gave way under such provocation. He remembered the case of a farmer's wife who was hypochondriacal, with oval face, dark skin, weighing her words, as if with a sinister meaning, who, after the operation of ovariotomy, developed symptoms of melancholia. She became quite well, the symptoms lasting for ten days. He thought the symptoms of insanity were not so unusual as one might imagine.—Mr. BENHAM thought these cases might be parallel to those of puerperal insanity, which he had never seen well explained.—Dr. BLANDFORD was inclined to think there were many circumstances connected with ovariotomy which might give rise to mental symptoms. The patient had before her mind, for some time before the operation, what she had to undergo, not taking much food, and her bowels locked up with opium, and opium had a peculiar effect upon some persons of keeping them awake. He did not think the mania had anything to do with urinary trouble. The case was one of genuine mania.—Mr. BARWELL, in reply, said that, although he might not have been exactly correct in his description of the mania, he hoped its occurrence was unusual. His object had been fully achieved if he had succeeded in directing attention to the matter. Every operation, of course, must disturb the thoughts for a little time; but, in simple cases of this description, the patients recovered with remarkable ease. He thought the case of Dr. Edis was hardly comparable with his, as that case was probably half mad before the operation was performed.

Colotomy, with Delayed Opening of the Intestine.—Mr. DAVIES-COLLEY read the notes of three cases, in which, after the bowel had been found by the usual operation for left lumbar colotomy, he had delayed opening it for one, four, and six days respectively. He considered that, in the ordinary mode of operating, there was considerable risk of peritonitis, or of suppuration in the planes of connective tissue in the vicinity of the colon; and that these dangers were much diminished by delaying the opening of the bowel, until the deeper part of the wound had had time to be sealed by reparation-lymph. This plan had previously been adopted at Guy's Hospital by Mr. Howse, with successful results. The chief difficulty was to find out a mode of securing the protruding bowel in such a way as to avoid extravasation of its contents, or strangulation of its walls. This could be satisfactorily effected by means of a clamp consisting of two steel bars, upon which were placed rounded ivory studs, about half an inch apart. Upon approximating the steel bars by means of screws near their extremities, the two pairs of ivory studs could be made to hold the coats of the bowel at two points. At the first dressing, the screws should be relaxed, or the clamp might be altogether removed. By adopting this plan in two of the cases, rapid repair had followed, and there had been very little constitutional disturbance. In many cases in which the operation had to be performed on account of intestinal obstruction, it was obvious that this delayed opening of the bowel was not practicable. A similar plan might be desirable in cases of tumour of the large intestine. The loop containing the growth might be left protruding from the wound for a few days, and then removed by the knife, cautery, or some caustic agent. Again, it might be expedient in cases of colotomy to draw out a complete loop containing the whole calibre of the colon, and to remove this loop after an interval of a few days. In this way the operation would insure a perfect artificial anus, for the opening would now be the terminus, and not merely a lateral outlet of the intestinal tract.—The PRESIDENT went with Mr. Davies-Colley in all his arguments. He was of opinion that this method simplified the operation, and diminished its dangers; it tended more especially to allow the bowel to be drawn out of the wound, doing away with the chance of permitting the fæces to pass down by the diseased part below, and so cause irritation. To do away with the passage of any motion through the wound, for the first two or three days, would double the value of the operation. Sometimes to draw out the knuckle of the intestine was impossible, but in the majority of cases a fair quantity could be drawn out, and opened at a later period.—Mr. HOWSE agreed with Mr. Davies-Colley in many of his remarks. He had applied the same principles in the operation of gastrostomy, but the nutrition of the colon was very feeble as compared with that of the stomach. The method he found best was the following, namely, to use a pair of loose torsion-forceps, over which an India-rubber tube was slipped and passed as far as the wedge. By this arrangement the intestine would be held firmly for about forty-eight hours, and the risk of sloughing, if not entirely obviated, was considerably diminished. It would be an advantage to open by a small incision, about as large as a No. 8 catheter. He wished to add a few words upon the possibility of colectomy. If done at all it was best done by drawing out a loop of the intestine, at the first operation, before the parts were softened by inflammation, and adhesions set up by which the relative position of parts was obscured. When the loop of intestine had been left out for twenty-four hours, it could be cut into.—Mr. CRIPPS thought that Mr. Davies-Colley's method hardly simplified the matter, as it made two operations instead of one. He said that a ready means, in many cases of colotomy, of reaching the bowel when it was empty, was to pass a No. 7 catheter through the rectum, the instrument being attached by an India-rubber tube to a Higginson's syringe, and the intestine could thus be inflated with air, by which means the part would be made to rise in the wound.—Mr. DAVIES-COLLEY, in reply, said that the clamp was less cumbrous than the forceps. He had tried the plan of injecting air, but had not found any great advantage from it. He did not think it made the operation more easy.

Living Specimens.—The following were exhibited.

By Mr. STONHAM: A successful case of Gastrostomy, for Malignant Disease of the Œsophagus and Pharynx.

Mr. MACNAMARA: Wiring of Fractured Patella, and Wiring of Fractured Olecranon.

Mr. GODLEE: A case of old Empyema, with remarkable Deformity of Chest.

Dr. W. COODE ADAMS: A case of Psoriasis and Hemiplegia.

Dr. HADDEN: A case of Obstruction of Arteries and Veins.

MEDICAL SOCIETY OF LONDON.

MONDAY, MARCH 16TH, 1885.

W. M. ORD, M.D., F.R.C.P., President, in the Chair.

The Constitutional Treatment of Disease of the Uterus and its Appendages.—Dr. C. H. ROUTH commenced his paper by quoting a passage from Dr. Clifford Allbutt's Gulstonian Lectures (BRITISH MEDICAL JOURNAL, 1884, vol. i, p. 497, "A neuralgic woman," *et seq.*), a passage which he characterised as a severe criticism of gynæcologists. He

was not surprised at the hostility expressed; the introduction of chloroform, of the stethoscope, of the speculum, and of ovariotomy, had all encountered a similar hostility. He denied that general neuroses were more common than uterine disease, and asserted that many cases of true disease of the uterus were overlooked, owing to imperfect methods of examination; forty years ago, the ignorance with regard to disease of the female generative organs was dense; and the great advance was due to the careful and systematic examinations conducted by gynæcologists. No woman, especially if a virgin, should be examined, except when there was reason to believe that disease was making serious progress, but then there should be no hesitation. He referred to various conditions in which examination was necessary, mentioning, as examples, severe gastrodynia, associated, probably, with prolonged leucorrhœa, due to a large erosion and great uterine tenderness; if the erosion were treated by caustics and other means, the patient rapidly recovered; displacement of the uterus, the neurotic and other symptoms following, perhaps, some sudden strain; the neurotic symptoms were at once relieved when the displacement was reduced. The early stage of epithelioma of the cervix was often overlooked, owing to the disinclination which some practitioners felt to make vaginal examinations. Mucous polypi and fibroid growths were also often overlooked, for the same reasons, and the menorrhagia which they set up, was treated by general means without result. He quoted several cases of insanity connected with disorder of the sexual organs, masturbation or delusions of a sexual kind. He was not an advocate of clitoridectomy, except as a last resource, and after full consultation with at least one other practitioner; but, by this operation, young women had been saved from chronic insanity. Diseases of the ovaries and of the Fallopian tubes were also liable to be overlooked, though they might frequently be cured by operation. He was not in the habit of proceeding at once to an examination of the sexual organs; on the contrary, it was his invariable habit to examine all the other systems first, and only to examine the sexual organs when the symptoms distinctly pointed to their being diseased; in those cases, he had no hesitation in making such examinations, and would consider himself to have failed in his duty if he did not. He concluded by emphatically stating that there was nothing degrading about such examinations when properly performed.—The PRESIDENT said that all would assent to the general principle that every case should be thoroughly examined; but, in the particular kind of examination dealt with in the paper, certain qualifications of the general principle existed.—Dr. CLIFFORD ALLBUTT said that he felt that Dr. Routh's criticism had left him entirely untouched. He was quite at one with the general contention of Dr. Routh's paper, which was that, in all cases where symptoms pointed to derangement of the generative organs, it was not only permissible, but imperative, to make a physical examination. In Dr. Allbutt's opinion, no physician was justified in depriving himself, whether by reason of ignorance or of prejudice, of any physical aids to a correct diagnosis. He had never pretended that the uterus was not subject to local diseases; on the contrary, he was aware that it was very subject to local derangements, some functional and temporary, others grave and serious. The uterus was a highly vascular organ, with a copious nerve-supply. He was in the habit of comparing it with the heart in this respect. If a man suffering from palpitation and pain in the region of the heart were told that all his symptoms depended upon a derangement of the heart, he was liable to take an exaggerated view of the importance of his symptoms, and to attribute every ailment to the same cause. Thus the arrow of hypochondriasis was implanted. So with women, *mutatis mutandis*. A woman suffered from a variety of pains, aches, and disabilities; she was told that there was some derangement of the uterus, and became, in consequence, liable to attribute an exaggerated importance to the part the uterine derangement took in the production of the neurosis from which she suffered. Men were liable to the very same neurotic troubles, and there could be no doubt that women suffered from neuroses which did not originate from derangement of the uterus, though that organ might or might not share in the general disturbance. Further, as was the case with other organs, neuroses which arose in connection with the uterus might be perpetuated as general conditions, even after the uterine derangement had diminished or disappeared. Further, he might say that, in his opinion, though it might not at present meet with general acceptance, the uterus was not unfrequently secondarily affected. In conditions of general neurasthenia, he believed that functional, and eventually structural, perturbations of the uterus might be produced. He was far from wishing to be understood to say that there were no gynæcologists who practised in a scientific spirit, and from the standpoint of the general physician; but he knew that there was a large number of practitioners who treated cases of this kind from first to last as uterine without any consideration, or any adequate consideration, of the general condition. Dr. Routh had quoted certain cases, which had come under his care, suffering from uterine derangement after having undergone a long course of treatment of a constitutional kind. But the converse was equally true, for Dr. Allbutt said he saw a large number of cases which had come away from gynæcological treatment having received no benefit, or only temporary benefit. He felt very strongly that no individual could say certainly on which side the preponderance of truth lay; the appeal lay to the great jury of the medical public. He was quite willing to admit that, after making all deductions, there were a large number of cases of this class depending upon true uterine disease; all he contended was that the deductions should be made. With regard to the cases quoted by Dr. Routh, in which masturbation preceded, in point of time, the onset of epilepsy or insanity, he was very strongly of opinion that, in the vast majority of such cases, the masturbation was one evidence or consequence of an inherited instability of nervous equilibrium, that it was the first symptom of the nervous disturbance which ended in insanity or epilepsy, and not the cause. Dr. Allbutt concluded by saying that he did not wish to be classed as an obscurantist; he held very strongly that it was imperative, in certain cases, to make an examination of the sexual organs, even in virgins; but, on the other hand, he thought that the extraordinary success which attended the Weir-Mitchell plan of treatment, introduced into this country by Dr. Playfair, was strong evidence in support of his general contention.—Dr. PLAYFAIR was glad to find that Dr. Allbutt recognised the fact that the overtreatment of supposed uterine affections was not due to the scientific gynæcologists; but there was no doubt that the misunderstanding had been extensively prevalent. In common with Dr. Allbutt, he held that in the development of uterine disease a time came when the neurosis set up became the dominant feature; treatment must then be directed to the neurosis primarily, even, at first, to the exclusion of local treatment. A great deal of Dr. Routh's paper was merely killing the slain. He thought no scientific physician disputed the necessity for making physical examinations. It was only by keeping the mind clear, and impartially judging every case from a general consideration of all the symptoms and signs, that a just judgment could be arrived at, either in particular cases, or in the general subject.—Dr. ROBERT BARNES feared that the great body of physicians neglected the examination of the uterus and ovaries. The true motto was, "Interrogate all the functions." The great advance in the knowledge of uterine pathology was due to systematic examination of the organ. Any expression of opinion which appeared to contravene this was to be deprecated, and he had therefore listened to Dr. Allbutt's exposition of his position with satisfaction. In the treatment of a complex of diseases, it was evidently proper to remove any complicating disorder, as, for instance, a disorder of the uterus. He doubted very much whether disease of the uterus was ever set up by general disease.—Dr. W. A. DUNCAN thought the profession was much indebted to Dr. Allbutt for his protest against frequent uterine examinations. The majority of cases of the lesser disorders of the uterus recovered under very simple treatment, applied after a single examination. Excellent results were to be attained in the majority of cases of slight erosion, slight endometritis, and so forth, by general treatment.—Dr. GRAILY HEWITT was happy to hear from Dr. Allbutt that he did not desire to deprecate systematic physical examination of the uterus. In cases of neurosis, it was necessary to look to the general state of health antecedent to and underlying the neurosis; and he had for years recognised the importance of recognising these general conditions of malnutrition, in which the uterus shared. If girls and young women were properly fed, the gynæcologists would have little employment.—Dr. Heywood Smith, Dr. Wynn Williams, and Dr. W. R. Rogers subsequently took part in the discussion; and the PRESIDENT said he fully recognised that Dr. Allbutt, in his lectures, did not attack the system of making thorough examination of organs, but the validity of some forms of treatment.—Dr. ROUTH briefly replied.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, MARCH 5TH, 1885.

THOMAS MORTON, M.D., President, in the Chair.

Simple Apparatus for the Transfusion of Defibrinated Blood.—Mr. T. W. CARMALT JONES showed the instrument. It consisted (1) of a receiver for the blood, in which defibrination was effected by whipping; (2) of a cannula, with movable connecting-piece, for insertion into the vein of the patient; (3) of a funnel-shaped vessel, curved inferiorly like the letter L, and fitted with a perforated cap, through which pressure could be set up at the surface of the defibrinated

blood by means of an India-rubber tube and hand-ball. A short piece of tubing, furnished with a spring-clip, established the connection between the funnel-shaped reservoir and the cannula, when the latter had been introduced into the vein. The various parts of the apparatus could be thoroughly cleaned, with the exception of the connecting-tube, which required to be renewed after each operation.—Mr. JENNINGS said that, for the treatment of acute anæmia (hæmorrhage being first arrested), the intravenous injection of saline fluid was sufficient to meet the exigency in the great majority of cases. Saline fluids could be safely substituted for blood up to a quantity which bore a definite ratio to the body-weight (as ascertained experimentally in dogs); and it was only where this quantity had been exceeded by the hæmorrhage that transfusion of blood became indispensable. The nutritive value of blood was not to be underrated; and, where transfusion was indicated for the sake of nutrition, the employment of whole blood would be better than that of defibrinated blood. This could be easily effected by means of an easily managed apparatus for the transfusion of blood and saline fluid, which Mr. Jennings exhibited.

Emetics.—Dr. C. J. HARE read a paper entitled "Emetics: their present Neglect in the Treatment of Disease; Is it Reasonable? Is it Right?" The subject of the communication was one of the numerous points referred to in a previous address on "Good Remedies out of Fashion." Although not a panacea, in certain cases emetics cured in a marvellously short time; and in others they alone appeared capable of saving life. The author passed in review the various members of this group of drugs, and their doses. Speaking generally, ipecacuanha was the most useful, in doses of twenty to twenty-five grains of the powder mixed with water, or of six to eight drachms of the wine. Now and then, purgation resulted instead of emesis; but persistent diarrhœa was never set up. The chief value of emetics consisted in their mechanical action upon the viscera; the stomach was not only emptied, but its innumerable follicles were cleared by pressure, the lungs were compressed, and mucus forced out of the air-tubes, and the œsophagus, larynx, and fauces were swept clean. Allusion was made to cases of recurrent vomiting, commonly termed "bilious sick headaches," although more justly to be called "stomach-aches in the head." The persistent vomitings were endeavours of nature to expel the slimy mucus of the gastric follicles and the morbid ferments which it contained. The desired result was often at once effected by an emetic. Many anomalous ailments, accompanied by loss of appetite, nausea, the non-enjoyment of life, ill-temper, etc., were due to a similar cause, and similarly relieved. The removal of the ropy mucus was promoted by washing out the stomach by means of warm water, which excited additional vomiting. Emetics were sometimes of signal service in severe bronchitis, and in capillary bronchitis; the fear of "exhaustion" being produced by emetics was almost confined to those who never administered one. Attacks of catarrhal croup might be cut short, in children, by half a teaspoonful of antimonial wine; and in membranous croup, expulsion of the tough exudation was sometimes effected. Emetics were useful in the early stages of continued fever, of scarlatina, and of measles, and in some cases of whooping-cough. They were decidedly beneficial in the treatment of delirium tremens, and also in acute mania. By the same means, the paroxysms of ague could be greatly modified, and either arrested, or rendered more amenable to quinine. Drugs and diseases bore much the same mutual relation as in former ages; and as emetics were then found useful, so they would be now, if fashion did not prevent their employment.—In the discussion which followed, Dr. DAY referred to the value of emetics in whooping-cough, and Dr. CLEVELAND insisted upon the necessity for caution, which he had learnt by experience, and pointed out that the more habitual use of purgatives in recent practice had greatly lessened the need for emetics.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, MARCH 12TH, 1885.

JONATHAN HUTCHINSON, F.R.S., F.R.C.S., President, in the Chair.

Ophthalmia Neonatorum. — The special committee appointed to ascertain what steps could be taken for the prevention of blindness from ophthalmia neonatorum, having considered the letter of the Registrar-General to the Local Government Board referred to it at the last meeting, submitted to the Society the following report. "That as, in the opinion of the Registrar-General, the reading over of a printed form by the Registrars of Births to the parents would entail a considerable expense, this may be dispensed with; and that, in place of this reading, the following notice be printed on all official documents issued to parents in relation to the birth-registration and vaccination of children, namely: 'If the eyelids become red and swollen, or run with matter within a few days after birth, the child is to be taken, without a day's delay, to a medical man. The disease is very dangerous, and if not at once treated may destroy the sight of both eyes.'"—The adoption of the report was moved by Mr. HENRY POWER, who suggested that a deputation should wait upon the President of the Local Government Board. It was seconded by Mr. TWEEDY, and carried unanimously.

Tuberculosis of Cornea and Iris.—Mr. ARTHUR BENSON read a paper on a case of tuberculosis of the cornea and iris. The patient was a girl, aged 18, whose father had recently died of "decline," and whose sister was dying of the same. She had herself no physical signs of lung-disease, but had enlarged lymphatic glands under the jaw. Two months previously, the left eye, and six weeks later the right eye, became affected; greyish-yellow nodules formed in the cornea and iris, and increased in number and size. They resembled exactly the appearances seen in cases of tubercle of the iris, and in rabbits whose anterior chamber had been inoculated with lupus. The left eye was enucleated, and microscopically examined. There were several nodules of a translucent grey colour in the substance of the cornea. They were situated externally to the posterior elastic lamina, which, though extensively displaced and raised up by the masses, seemed to have resisted disintegration; the layer of epithelioid cells on its aqueous surface remained intact. The neighbouring cornea was infiltrated, and its structure partly destroyed, the lamellæ being separated by masses of cell-growth. The nodules consisted of an agglomeration of round nucleated cells, in the centre of which a caseating area existed. Epithelioid cells were also abundant. In places, there was an appearance as if several masses of cells had coalesced; the peripheral portions of each mass stained much better than the central. No distinct giant-cells had so far been found. The nodules on the iris seemed very similar in structure. The sections prepared for examination for the specific bacilli so far yielded only negative results, but the examination had been only very partially performed. The diagnosis was, so far, dependent upon the clinical history, the macroscopic appearances, and the anatomical peculiarities of the growth, and must therefore be left open to the possibility of error. Two inoculation-experiments had failed to yield definite results. Sections of the growths, and of inoculation-growths, as well as drawings, were shown.—Mr. W. H. JESSOP asked how soon after the inoculation the rabbits were killed; whether there was any tuberculosis of the lungs, and whether there were growths in the choroids. Mr. Watson Cheyne had shown that, when inoculation was made into the anterior chamber, the iris and choroid became infected, and subsequently general tuberculosis invariably occurred, whereas, in general tuberculosis originating in other organs, the choroid escaped; Mr. Jessop therefore inquired whether the patient now presented any symptoms of general tuberculosis.—Mr. NETTLESHIP asked whether the growths in the other eye had been scraped, and whether they had shrunk since the operation.—The PRESIDENT had seen several cases similar to Mr. Benson's in all points but one—the affection of the cornea; this was the peculiar feature of the case.—Mr. BENSON said, in reply, that the first rabbit inoculated died after one week, the second after two months; in neither animal was there any tubercle in the internal organs. Dr. Heneage Gibbes' method was the only one used; the patient had enlargement of the cervical glands, but no other evidence of general tuberculosis. The other eye had not been operated on, but the growths had shrunk a little.—The specimens were referred to a committee, consisting of Dr. Mules and Mr. Jessop, for report.

Evisceration of the Globe.—Dr. MULES (Manchester) read a paper on the preventive treatment of sympathetic ophthalmitis by evisceration of the globe, and the use of an artificial vitreous body. In reviewing the history of the operation, he stated that Mülder and Gräfe were working out the same operation at the same time as he was, but without any previous interchange of ideas. He pointed to the result of this new operation as a further proof of the correctness of the views advocated by Snellen, Leber, Brailey, and Max Kines, that travelling organisms were the cause of sympathetic ophthalmitis. The operation which he performed was identical with that performed by Gräfe; but, in addition to the operation of evisceration, Dr. Mules prepared the eviscerated globe for the application of an artificial eye, by the introduction of a hollow glass sphere or artificial vitreous, which was permanently retained; by this the shape of the globe was maintained and very good movement obtained. The results, therefore, were æsthetically good. The operation was performed as follows. The patient was anæsthetised, the hand-spray was used, and the appendages thoroughly cleansed and disinfected with 1 to 1,000 solution of

corrosive sublimate; the front of the eye was transfixed, and removed with a sharp knife at the corneo-scleral junction. He considered it better not to cut the conjunctiva. The contents of the globe were then emptied out, in any way that was convenient, taking special care to remove the ciliary body and choroid, leaving only a clean white sclera. The sublimate solution was to be allowed to run into the eye through a thin India-rubber tube, used siphonwise, during the whole time the operation was in progress. The hand-spray was also used as an additional precaution, and its use was continued till the bleeding nearly or quite ceased. The sclera was then slit between the inferior and internal recti muscles, until the glass sphere selected would enter the cavity. A catgut drain (to be removed next morning) was introduced into the lower angle of the wound, and the sclera was sewn up from above downwards. A layer of finely powdered iodoform was spread over the whole conjunctiva, and a dressing of wood-wool, in a double layer of Lister's gauze, was applied. As a precautionary measure, the patient was kept in bed for four or five days; the eye was dressed daily under the spray. If the wound were kept aseptic, the reaction was comparatively slight. If early suppuration ensued, the pain and distress were severe and prolonged. Too much stress could not be laid upon the necessity for antiseptic treatment, without which the operation should never be performed. Three sizes of artificial vitreous body had been, so far, found to be sufficient.—Mr. HENRY POWER remarked on the physiological importance of the observation that a glass globe could be introduced into the eye and set up no irritation. He had seen the operation of evisceration performed by Mr. Hancock, and was under the impression that it had been performed more frequently and earlier than Dr. Mules supposed.—The PRESIDENT had, in several cases, removed the anterior part of the eye, and cleared out all the contents of the globe. It was an operation he was still in the habit of performing in suitable cases.—Mr. C. HIGGENS had seen evisceration performed on several occasions, sometimes deliberately and sometimes accidentally. He was anxious to know on what grounds Dr. Mules believed that this operation was less likely to be followed by sympathetic trouble than enucleation.—Mr. ADAMS FROST thought the important point in the operation recommended by Dr. Mules was the thorough cleaning of the inner surface of the globe. Whether the operation presented any distinct advantages over those now in use as regards the stump left, and, if so, whether it was safe to use the glass sphere, were questions which would require to be carefully considered. He thought that, while so little was known of the mode of production of sympathetic ophthalmia, it appeared safer to adhere to the old operation of removing the globe. He supposed that the operation of evisceration must be tedious, but asked for information on that point.—Mr. HARTRIDGE suggested that some other material than glass might be used. In the event of the artificial vitreous body being broken, the globe would have to be removed at once.—Mr. MCHARDY could not recall any case in which an artificial eye had been broken when in use.—Mr. BENSON asked how long one of the glass globes had ever been worn.—Dr. MULES thought sympathetic affections were all due to the transmission of some infective cell from the infected eye to the other. In the case of the man shown when the operation was performed, the other eye was in a state of high irritation; but, after the operation and the introduction of a glass globe, all the sympathetic trouble disappeared, and he had not since been troubled in that way. He had never seen any stump after enucleation which could in the least compare with the stump furnished by the artificial vitreous body. If the glass globe were broken, then it would be immediately necessary to remove the globe. This objection, however, against the fragility of the glass globe might be got over by using a gilded globe of thin aluminium. The operation, from the time when the anæsthetic was commenced to the time when the patient left the table, lasted not more than twenty minutes.

Living and Card Cases.—Mr. M. M. MCHARDY: A case in which there was a rapidly extending isolated patch of favus on the upper lid of a woman aged 37. It had the appearance of a dry scabbed ulcer, and grew with great rapidity; it was excised, and the actual cautery applied. Microscopical sections and a drawing of the original scab were shown. The patient, who had completely recovered, was present.—Mr. McHardy also showed a man, aged 39, upon whom Argyll Robertson's new operation for obstinate ectropion of the lower lid, due to long continued chronic conjunctival inflammation, had been performed.

Dr. C. E. BEEVOR: Opaque nerve-fibres in a woman aged 35.

Mr. ANDERSON CRITCHETT and Mr. JULER again showed a patient with an obstinate vesicle of the cornea.—Mr. MCHARDY suggested that arsenic might be tried.

Mr. W. LANG: 1. Drawings of detachment of the retina in the yellow spot region; two cases, brother and sister (sister shown). 2. Case of detachment of the retina at the yellow spot region after a blow. 3. Central choroiditis with disseminated patches in the remainder of the fundus.

Mr. STANFORD MORTON: Atrophy of choroid in a man aged 55.

Mr. NETTLESHIP: A case of extensive detachment of the retina, including the yellow spot region, probably of several years' standing, in which some vision was present. The patient could count fingers, and with glasses could read Jäger 20.

Mr. ARTHUR BENSON: Drawings of cases of primary lupus of the conjunctiva.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MARCH 4TH, 1885.

J. B. POTTER, M.D., President, in the Chair.

Specimens.—The following specimens were shown. Dr. GALABIN: Uterus of an old woman with cavity distended from partial obstruction by a septum in the lower part of the cervix and upper part of the vagina.—Mr. WALTER GRIFFITH: Menstruating uterus.—Dr. HERMAN: Uterus inverted from relative shortness of the cord.

President's Address.—The PRESIDENT delivered the annual address.

Extirpation of the Uterus.—The adjourned discussion on Dr. W. Duncan's paper on Extirpation of the Uterus for Cancer, was resumed by Sir SPENCER WELLS, who considered that the previous speakers had been too decidedly adverse to the principle of the operation, especially Mr. Thornton, who condemned not only excision of the uterus, but also the use of the curette, and would limit surgical treatment to amputation of the cervix and the use of chloride of zinc. Mr. Doran's remarks on the arrangement of the lymphatics tended the same way, implying the fear that, even in the early stages, the disease might have passed beyond the possibility of removal. Dr. Playfair condemned the operation utterly, referring to the uncertainty of the diagnosis till it was too late, and preferring Sims's operation (amputation followed by chloride of zinc) to extirpation, on the ground that it afforded as much relief at a much smaller risk. He traversed Dr. Playfair's statement about his (Sir Spencer Wells') case of extirpation of the cancerous uterus, "that if the patient had been let alone, or Sims's operation done, her expectancy of life would have been as good, to say nothing of the risks of the operation." The fact was that this treatment had been tried and failed, and the operation was done after it had failed to relieve pain or discharge, and after careful consultation as to the risks of inducing premature labour. The immediate result of the operation had been satisfactory, and great relief had followed for some months before the disease returned, which ended fatally in a year. In some cases, no doubt, chloride of zinc, or bromine, or chromic acid, or the actual cautery (if the patient were not pregnant), might lead to arrest of the growth for a year or more, but, in most cases, no more good, perhaps less good, was done by these than by simpler applications. He showed a specimen of the result of Sims's treatment, carried out by Sims himself. He scraped away all the diseased tissue with the greatest care, applied chloride of zinc, and the slough which came away represented nearly the whole uterus; the patient only lived four months afterwards, and suffered as much as if no treatment had been pursued. He then compared amputation of the cancerous cervix to partial removal of a cancerous breast, and maintained that, if Sir J. Paget was not aware of a single case of recovery (that is, survival for ten years without any active return) after amputation of the breast, and yet operated in cases of cancer of the breast, one was justified in performing extirpation of the entire uterus, even if no better result followed. Again, the results of Olshausen and Schroeder led one to think that improved methods of operating might give better results in the future. There was still much to learn in the details of the operation, and improvement both in early diagnosis and early operation might give a much lower mortality, retarded return, or even complete recovery. He trusted that condemnation of the operation might not be the verdict of the Obstetrical Society.—Dr. PRIESTLEY believed that statistics underrated the frequency of cancer, and that it was commoner in some places than in others. The disease was so terrible, that all new operations should be considered with an earnest desire for their success. The two questions to be answered about extirpation of the uterus for cancer were those of (1) immediate recovery, (2) return of the disease. The answer to the first question was at present hardly satisfactory, nor was that to the second. With regard to Dr. John Williams's statement—that operation sometimes assisted the spread of the disease by removing tissues which would have impeded its progress for some time, and enabling it to attack deep parts earlier than it would if left alone—he thought this happened in some cases. He, therefore, did not, under present conditions, advocate the operation of extirpation of the uterus for cancer. He men-

tioned a case in which a tumour had been removed from the cervix, last summer, so skilfully that the cervix seemed almost natural enough to justify a verdict of mistaken diagnosis. Within three weeks, the disease returned, and soon attacked the vagina; but the patient was still alive and in comparative comfort, simply from the use of palliatives, consisting of tannin, sulphate of zinc, and iodoform in powder. The suitable cases for operative interference were those of early cancer of the cervix, in which total removal of the disease seemed possible. Some such cases remained free from disease for many years. Possibly, in some more advanced cases, removal of all within reach, followed by palliatives, might be justifiable; other cases he was disposed to leave alone. He thought that the mental distress of a patient about to undergo an operation should be remembered. He did not despair of the discovery of some remedy for cancer, especially since the latest observations on tubercle, which had some sort of pathological relation to cancer.—Dr. GRAILY HEWITT agreed that statistics were at present insufficient to determine the value of extirpation of the uterus for cancer. Removal of the cervix for epithelioma was an unquestionably valuable operation; but the treatment of cases in which disease had spread higher up was still doubtful. He had shared the responsibility of advising extirpation in Sir S. Wells's case, and thought that the result justified the opinion given. It must be remembered that the patient was pregnant, and that extirpation of the gravid uterus had not then (three years and a half ago), so far as was known, been performed. All experience justified the removal of cancer whenever possible. He insisted on the necessity of early diagnosis; in most cases, the disease had obtained a firm hold before its presence was suspected.—Dr. GALABIN said that the great majority of the speakers agreed with the view that, in ordinary cases of cancer of the cervix, the uterus should not be extirpated. This view, which was arrived at by the author of the paper after the performance of two operations, was that which Dr. Galabin had always held so firmly, that he had always been opposed to the operation, and had neither performed nor advised it. Cancer of the cervix might begin anywhere, but in the great majority of cases it began near the os externum. Thence it ascended the cervical canal so far, that slicing off the cervix with an *écraseur* almost always left some of the growth behind on the surface of the canal. But it spread even more rapidly over the vaginal cervix; and, when the uterus was extirpated, the line of section would be nearest the growth at the surface of the vagina. It was not shown that, in total extirpation, any wider margin could be given than in supravaginal amputation, which operation could be done even when the disease had reached the vagina; and, even if it were necessary to open the pouch of Douglas, this operation would still be less dangerous than total extirpation. His experience of chloride of zinc had been more favourable than that of Sir S. Wells. He did not excise the disease piecemeal, but all at once, and applied the chloride of zinc ten to fourteen days later. He generally found the line of section pass clear of all manifest disease; but in several cases in which this was not so, and the operation was therefore obviously inadequate, the results of the whole procedure had been good. In two cases, the patients had returned after more than two years, without any recurrence of the growth, but with retention of menstrual fluid from occlusion of the canal. As regards the chance of eradication, he did not think cancer of the uterus could be compared with cancer of the breast, which was generally carcinoma. In the cervix it was (in his experience) epithelioma at first, rapidly lapsing into medullary carcinoma. Cancer of the body was generally cylinder-epithelioma at first. He thought there was greater chance of eradicating an epithelioma than a carcinoma. In cancer of the body, he thought extirpation of the uterus was justifiable. The diagnosis, though difficult, was quite possible in the early stage, from examination of a fragment, to one accustomed to the healthy and morbid appearances of the uterine mucous membrane. He had had no ill consequence (such as those feared by Mr. Thornton) from the use of the curette. He generally used the blunt curette, which only removed prominent or superficial portions. In one case, after curetting and the application of nitric acid to the cavity, the patient improved so much that a mistake in diagnosis was suspected by the medical attendant. After a time, however, the disease returned.—Dr. EDIS thought that vaginal extirpation of the uterus was justified by a mortality of 28.6 per cent., which was no greater than that of ovariotomy in the early days. The mortality of supravaginal amputation was only 7.25 per cent., and the tendency to recurrence apparently no greater than in complete extirpation. Early diagnosis was a great desideratum; either patients failed to present themselves for examination, or their medical advisers put off consultation with experts till too late. Patients preferred operation to a lingering and hopeless disease. With our present limited knowledge, it could not be asserted that extirpation of the uterus for cancer was unjustifiable, if undertaken early enough.—Dr. W. DUNCAN said that he hoped the result of the debate would be to put an end to extirpation of the uterus for cancer of the cervix. Had he known the papers of Ruge and Veit on the pathology of the subject, he would not have performed his first case. In cancer of the body of the uterus, he considered the operation justified, and the curette was a valuable means of diagnosis, while he had not found any ill consequences follow its use. He did not believe that the mortality of extirpation would ever be as low as that of supravaginal amputation.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, FEBRUARY 6TH, 1885.

FREDERICK LAWRANCE, M.R.C.S., President, in the Chair.

Myxœdema.—Dr. F. D. DREWITT gave a short history of what was known of this disease from its discovery, eleven years ago, by Sir William Gull, up to the present time, and showed two typical examples. He described the symptoms, and spoke of the frequent connection with interference with the function of the thyroid gland, as shown by Mr. Horsley's operations on monkeys and Dr. Kocher's on man. In the few recorded cases of recovery, drugs seemed to have but little effect. Jaborandi had been given with the object of promoting sweating; but in one of the two cases presented, it had been given in increasing doses for several months without improvement.—Mr. HERBERT LARDER showed three patients suffering from the disease; also photographs of several other cases, and microscopic sections of the skin of a patient who had recently died. He read notes of two of the cases. The first was that of G. M., aged 49, a milkman. His mother had died of dropsy; there was no further history of interest. He had had four children before the disease showed itself. The symptoms began six years ago, after an attack of facial erysipelas, and had been slowly progressing. The second patient was J. B., aged 77, female, single. She had always lived in London, and was subject to fits when a child. There was no history of syphilis, gout, or intemperance. She had typhus fever many years ago. Her sister was said to have died in a similar condition. The symptoms commenced three years ago, and during the last year had rapidly increased. Of the eight cases of this disease which had come under the author's notice, three were males and five females, of which the two cases just quoted were typical examples in both sexes; the remaining six cases resembled them in all the marked features. In some the nervous symptoms predominated; in others, the œdema was the most marked feature. In all, the symptoms were so marked as to leave no doubt as to the diagnosis. The ages ranged from 28 to 77, the majority occurring after 40. From an etiological point of view, the evidence was worthy of a negative character. "Mental trouble" and "dropsy" were frequently noted. Mr. Larder said he was disposed to support those who took the view that cretinism, myxœdema, and cachexia strumipriva were phases of one and the same condition. He considered the evidence of its causation by loss or arrest of function of the thyroid gland as far stronger than that of any other theory.—Dr. ATKINSON read notes on a case of myxœdema. Harriett M., aged 58, single, needlewoman, was admitted to Kensington Infirmary October 10th, 1883. There was nothing of interest in the previous history. She dated the illness three years ago, with swelling of the lower extremities, beginning in the right foot and leg. At the same time, there was noticed swelling of the eyelids, and her friends remarked that her speech was thick and slow. The legs always felt cold—"full of cold water," as she expressed it. This anasarca lessened in the summer, but recurred during the winter months; it had been increasing the last six months, and the abdomen had become distended. Urine and fæces were passed involuntarily. Paracentesis abdominis was performed two days after admission, and thirteen pints of serous fluid withdrawn. Under a treatment of iron, digitalis, and a generous diet, she rapidly improved, and left the infirmary in March 1884, but returned in May. Ascites had not recurred, but her symptoms had become aggravated; the skin was dry; the extremities cold. The urine was of specific gravity 1005; no albumen. She complained of failing memory, was lethargic, but cheerful. The tongue was so large that it seemed to fill the mouth. She was up and about until January 1885. She was delirious at night. On January 20th, there was a trace of albumen in her urine. On January 25th, she got out of bed while delirious, and fell down in syncope. She did not rally, but died half an hour later. The necropsy was made on January 26th, assisted by Dr. Hadden. The heart was enlarged; there was no valvular disease. Four ounces of fluid were

found in the pericardium. The thyroid gland was much diminished in size; the left lobe very small; nodules in the right lobe. The tongue was very large. The viscera were healthy, except the kidneys, where a few small cysts were found. The anterior cerebral lobes were slightly atrophied and flattened; the weight of the brain was diminished (forty-nine ounces). The skin was examined quantitatively by Dr. Bernays, and showed a very slight increase in amount of mucin (8 per cent.).—Dr. ALDERSON made a few remarks as the medical attendant of the family of Dr. Drewitt's patient.—Dr. HADDEN gave the result of the analysis in Dr. Alderson's case, being .8 per cent. of mucin, without fat .36 per cent. He called attention to the improvement which took place when ascites came on—ascites had occurred in several cases he knew of, and phthisis in from 10 to 15 per cent.; sugar was also present in three or four cases. Alluding to the change seen under the microscope, he explained that it consisted of a plugging of the sweat-glands with a small round-celled growth, with consequent interference with their function. The hair-follicles were affected in a similar manner, the process being akin to cirrhosis of the liver. He had seen over two hundred cases of cretinism in Switzerland this year, and considered a victim with moderate intelligence undistinguishable from a case of myxœdema. He doubted whether the thyroid gland had anything to do with the changes, of which an increase in fat was always noticeable.—Mr. LUNN called attention to the disappearance of the swelling in the eyelids under treatment in one case, and the recurrence of the hair in another. He was unable to understand this, seeing that the hair-follicles were destroyed.—Dr. SEMON asked whether the result might not be the same, whether the thyroid gland was absent, or so hypertrophied as to be useless. This might account for the fact that many cretins were not goîtrous. So long as even so small a portion of the gland remained, then the symptoms of myxœdema did not appear. He alluded to the descriptions of the changes by Sir William Gull and Dr. Ord, and to the case read before the Society of German Surgeons in 1873, where extirpation of the gland was followed by symptoms resembling those of myxœdema. The symptoms did not invariably follow excision of the gland; in these cases, subsequent examination showed that portions of the gland had been left behind, and had undergone some compensatory hypertrophy. This induced condition differed in one important respect from the general run of cases, and that was owing to the gland having been extirpated in children before they had arrived at maturity, the result of which was a stunted growth and arrested mental development. He quoted such a case operated on by Dr. Sick, in a boy aged 10 years, and where, after death, no mucin was found. This patient, at 28 years, had the body of a boy of 10 years of age, and the head of a man of 28; all the other symptoms of myxœdema were present in a marked degree.—Mr. DUNN had seen thyroidectomy performed sixty-nine times, and in no case had any symptoms of myxœdema appeared.—Dr. GOOD made some remarks.—Dr. THUDICHUM thought that cases of thyroidectomy followed by myxœdematous symptoms were rare, and he considered that many of the symptoms recorded pointed clearly to bulbar paralysis.—Several members made some further remarks as to the similarity of goître and myxœdema, and as to influence of the thyroid gland in the production of the disease, and the meeting then terminated.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

MARCH 5TH, 1885.

CHARLES OLDHAM, F.R.C.S., President, in the Chair.

Jansen's Pepsin: Ingluvin.—Dr. MACKEY showed specimens of these drugs, stating that the former seemed purer and stronger than many other pepsins, and was free from unpleasant taste or odour; it had given good results in several cases of painful dyspepsia with malnutrition. Ingluvin had acted well in six cases of infantile vomiting from various causes, one-grain doses relieving the symptoms quickly, and sometimes after failure of other remedies; it was better given before food, whereas pepsin was liable to cause pain if so given, and acted better with or after a meal.—Mr. HODGSON spoke well of Bullock's pepsin, and, with regard to ingluvin, related a severe case of vomiting of pregnancy, which it cured when given before food, though it had failed when given, for several days, after the meal.—Mr. OLDHAM reported a similar case.—Dr. UHTHOFF considered the action of such remedies, like that of bismuth, to be little more than the mechanical effect of inert powders.—In this opinion, Dr. HOLLIS concurred.—Mr. EDWARDS held that vomiting and dyspepsia should be distinguished as whether due to irritability or to atony of the stomach; in the former, bismuth relieved; in the latter, pepsin or lactopeptone. This compound preparation had given him good results; and he further quoted the case of a lady with severe dyspepsia, uterine derangement, etc., much relieved by five grains of pepsin after meals, the symptoms recurring on its omission, but yielding always to its use.

Treatment of Adenoid Vegetations of the Pharynx.—Mr. E. C. BABER read a paper on the simple treatment of adenoid vegetations of the naso-pharynx, referring to their removal by the finger-nail, which he now preferred to the forceps and galvanic cautery he formerly used. In eighteen cases occurring in children between 4 and 14 years, in which this simpler method had been used, it had answered very well, and could be applied generally without anæsthetics. The vegetations were freely scraped once a week for usually four weeks, and, afterwards, an examination was made about once a month for some time. The walls of the cavity should then be carefully palpated, and the nail buried in the growth, so as to cause sloughing afterwards. Free bleeding might occur at the first operation, but might be arrested by syringing with cold water. A metallic finger-nail was not necessary, but the finger should be protected from the teeth, and, for this purpose, a dogskin glove, cut off at the tip, was better than a rubber-ring. Daily syringing with warm salt and water was often useful, unless there were tendency to erection of the inferior turbinated bodies, when it was better avoided. The writer did not think recurrence more likely with the above treatment than with that by forceps, which was, of course, suitable sometimes, especially if an anæsthetic were given; but, so far, his favourable results with the nail corroborated those of Guye of Amsterdam, and others.

Hypertrophy of Turbinated Bodies.—Mr. BABER also related a case of hypertrophy of the posterior ends of the inferior turbinated bodies, occurring in a lady, aged 49, the subject of polypi previously removed. The left nostril was obstructed; posterior rhinoscopy could not be accomplished; no tumour could be felt on palpation, and the affected part could not be reached by a wire-snare through the anterior nares. Ultimately, portions of mucous membrane were removed by straight forceps guided by the finger in the naso-pharynx, and the affected part touched by galvanic cautery, with satisfactory result. The septum was protected by a special speculum carried on the finger. Cucaine constringed the vessels as well as relieved pain, and ought to be useful in similar cases, as further shown in a paper by the writer published in the BRITISH MEDICAL JOURNAL, March 7th.—Mr. W. FURNER raised the question of diagnosis of adenoid vegetations, and of the name by which the same disorder was formerly known, and of the best treatment of polypi.—The PRESIDENT remarked on the importance of recognising the astringent action of cucaine.—Dr. UHTHOFF corroborated this by the experience of its blanching rose-coloured skin covering a cyst of the scalp.—Mr. BABER considered the cold wire snare, galvano-cautery, and alcohol-spray the best treatment for polypi.

Surgical Treatment of Children.—Dr. E. G. WHITTLE, in a paper upon points in the surgical treatment of children, referred to (1) genu valgum, (2) excision of enlarged glands, (3) tapping in hydrocephalus, and (4) hare-lip. 1. Considering genu-valgum as a subluxation, he treated it by reduction and support rather than by any operation, and estimated it not so much by the distance between the ankles in the erect position, as by seeing how close they could be brought when the child was recumbent, and the overextension of knee corrected. He advocated the employment of straight wood splints, which should be first fastened along the thigh by plaster bandages (wadding being next the limb), and then, the ankle being brought to the line of the splint, the lower part of the leg should be fastened to it also by plaster bandages. This was left on for six weeks at a time, the child being allowed to walk about, and nutrition being improved by cod-liver oil and iron. 2. As to glandular disorder, he advocated removal of any exciting cause, early opening of abscesses without much poulticing, and excision in cases of caseous degeneration. He recorded one case in which seven or eight such glands were removed at one time with satisfactory result, and another, in which long neglect resulted in sinuses, much destruction of tissue, and, ultimately, erysipelas and death. 3. The case of hydrocephalus occurred in an infant, and was remarkable from the circumstance of Southey's trocar being used thirteen times within five months, it being left in a varying time, from a few minutes to twelve hours, and removing at a time from 4 up to 28 ounces; altogether, in the whole period, 216 ounces. The malady was advanced when treatment was commenced, and the child was apparently dying from convulsion. Its nutrition improved for a time, but death occurred three days after the last operation. A *post mortem* examination was not obtained.

SUPERANNUATION.—Mr. Abraham J. Verity, late medical officer for the Bridgend district, and the workhouse and Cottage Homes of the Bridgend and Cowbridge Union, has obtained a superannuation-allowance of £29 *per annum*.

REVIEWS AND NOTICES.

SELECTED MONOGRAPHS: comprising ALBUMINURIA IN HEALTH AND DISEASE, by Dr. H. SENATOR; SOME CONSIDERATIONS ON THE NATURE AND PATHOLOGY OF TYPHUS AND TYPHOID FEVER, by the late ALEXANDER P. STEWART, M.D.; and MOVABLE KIDNEY IN WOMEN, by Dr. LEOPOLD LANDAU. London: the New Sydenham Society.

THE first of the three monographs in this new and valuable publication of the New Sydenham Society is a translation, by Dr. T. P. Smith, of Professor Senator's work on albuminuria. The translator deserves credit for having rendered into English an important treatise, which can only be read in its original form by readers well conversant with the German language, since long paragraphs on theoretical questions cannot, like many descriptive passages in anatomical manuals, be made intelligible to foreigners by the aid of a dictionary and a slight acquaintance with German grammar. *Albuminuria* is not a monograph which can be satisfactorily reviewed, but it should be read by every physician and pathologist. The question of albumen in healthy urine is considered at great length, and Professor Senator maintains the assumption that the normal transudation from the glomerular vessels is feebly albuminous in its normal state; and this satisfactorily explains, in his opinion, the presence of a minute proportion of albumen in normal urine, and the occurrence of physiological albuminuria. The influence of blood-pressure, altered composition of the blood, and changes in the renal epithelium, and a consideration of certain peculiar forms of morbid albuminuria, form the subjects of the greater part of the monograph, to which is appended a "Contribution to the Theory of Urinary Secretion," and "The Hygienic Treatment of Albuminuria." It is very gratifying to find that *Albuminuria* is furnished with a special index.

Dr. Cayley has edited the late Dr. A. P. Stewart's paper on "The Identity or Non-identity of Typhus and Typhoid Fever," read forty-five years since, before the Parisian Medical Society. The editor informs us, in a footnote, that the monograph is reprinted from a copy in the library of the Royal Medical and Chirurgical Society, which contains many marginal corrections in the handwriting of the author. It is satisfactory to find that a scientific production of such undoubted merit has been rescued from oblivion. Dr. Cayley is quite justified in observing, at the end of a brief memoir of Dr. Stewart, that to the deceased physician—one of the most active members of the British Medical Association—belongs the credit of being one of the first to see clearly the truth, and to have supported it by arguments which appear by the light of contemporary medical science to be absolutely convincing.

Dr. Landau's monograph, *Movable Kidney in Women*, has been translated, with annotations, by Dr. Champneys. Without disparaging the two treatises which precede it in this volume, we may say that it will probably be the chief factor in promoting a high demand for the latest production of the New Sydenham Society. In the first place, the subject is, relatively speaking, light; it also involves anatomical questions which will insure its popularity among the junior and scientific ranks of the profession; and it bears on clinical questions of universal interest. Above all, it essentially involves the surgery of the kidney and the relation of displacement of that gland to hernia and to diseases of the female organs. As in the case of Professor Senator's *Albuminuria*, the monograph possesses an excellent index; nor can the list of 196 references fail to be of use to the reader, who may, however, heave a sigh when he learns thereby what a terrible task it is, now-a-days, to search through the literature of any one subject. Every aspect of the question is fully considered by the author of the monograph; but criticism in detail is impossible within the limits of this review. We need hardly add that such criticism, if we could find room for it, would be entirely favourable. The anatomical portion, adorned with excellent woodcuts, merits the especial attention of all who are interested in the question, which, in its varied aspects, has frequently appeared in different columns of the JOURNAL during the last few years. The report of a Committee of the Pathological Society of London, "appointed in 1876 to inquire into the matter of displaced, movable, and floating kidneys," and the discussions on nephrectomy and nephroraphy at several English societies, have given a great stimulus to the subject in British medical literature. Having just referred to operative measures, we feel it our duty, however, to conclude this review with some important extracts of the opinions of Professor Landau with regard to prognosis.

"The prognosis of uncomplicated movable kidney is favourable as far as life is concerned. No case has hitherto been recorded in the literature of the subject in which death could be even probably attributed to it.....The prognosis of uncomplicated movable kidney has, however, grown decidedly worse since men have begun to remove healthy movable kidneys.....Of course, some of the patients (who otherwise would not have been killed by the movable kidney which gave occasion to the operation) now pay for this with their lives. Spontaneous cures of movable kidneys are commoner, especially in cases of acute traumatic dislocation, and they have been observed in cases in which emaciation, following acute febrile affections, occasioned the mobility of the kidney.....Oppolzer, Rayer, and Hare have proved the occurrence of cases after the supervention of pregnancy. In like manner, many observers have seen considerable relief to all the troubles (amounting to cure) follow the menopause, and the proper treatment of symptoms by drugs, diet, and mechanical appliances. A cure is sometimes effected by nothing more than a correct diagnosis, and an explanation to the patient of the benign character of her complaint; after which, her hypochondriacal frame of mind and numerous imaginary maladies disappear suddenly."

AN INTRODUCTION TO THE STUDY OF THE DISEASES OF THE NERVOUS SYSTEM; being Lectures delivered in the University of Edinburgh during the Tercentenary Year. By THOMAS GRAINGER STEWART, M.D., F.R.C.P., F.R.S.E., Physician in Ordinary to Her Majesty the Queen for Scotland; Professor of the Practice of Physic and of Clinical Medicine, University of Edinburgh, etc. Pp. 220. Edinburgh: Bell and Bradfute. London: Simpkin, Marshall and Co. 1884.

THE title of this work led us to anticipate greater things than its perusal has fulfilled. However useful the lectures, no doubt, were as delivered, they are disappointing as read; and all the matured experience which their gifted author brings to bear in illustration of the points which he discusses, does not save them from being fairly characterisable as good commonplace instances of oral teaching removed from its proper sphere, and raised into the searching light of publicity. We cannot expect, of course, much originality in a volume devoted to a description of the elementary facts of neuropathology. But what we did expect from these pages was the evidence of a breadth of treatment and an easy fulness of detail superior to those to be found in an ordinary course of lectures on the diseases of the nervous system.

The first 56 pages are occupied by a condensed account of the medical anatomy of the nervous system. Here no fewer than nine figures are devoted to illustrate nerve-endings, of which the first four occupy two whole pages, corresponding to a dozen lines of text. Surely the reader must either have a text-book of histology for reference, or, if he have not, such scanty descriptions can but puzzle him. Then comes a figure of the whole sympathetic system, reduced from Flower's *Atlas* to such minute dimensions as to require a magnifying glass to make it out. Again, an important diagram, showing the chief paths in the cerebro-spinal axis, occupies less space than that devoted to the delineation of the Pacinian corpuscles.

Instead of a meagre enumeration of the cranial nerves, and brief indications of their course from the centre to the periphery—as things found in the usual text-books of anatomy—we should have wished the author to give us some details as to the recent advances in our knowledge of the bulbar and spinal localisations. Why, for instance, leave unnoticed the important and interesting anatomical facts brought to light by the study of conjugate deviation? Why not point out that what, in the old anatomies, goes under the name "nucleus of the abducens," is really the motor nucleus of the two eyes outwards, innervating the external rectus of the same side, and the internal rectus on the opposite side? Why not, again, refer to analogous physiological groupings of the spinal motor cells, and explain the real origins of the spinal nerves and their functions? The "medical" anatomy of the nervous system should not be merely descriptive of accidental appearances, but, in order to become truly applicable to the wants of the clinical observer, must present facts from the higher standpoint of the arrangements of parts for function. Now, in the neuro-motor apparatus, the chief principle which governs the central structures is, that they are grouped for the co-ordination and combination of muscles into groups of action. The experimental researches of Ferrier on the functions of the anterior roots in the monkey, and the clinical observations of Remak on the localisations in the anterior cornua of man, certainly deserved to receive their due share of attention in the lectures of Professor STEWART.

The second part of the book treats of the general symptomatology of nervous diseases, and will generally be found useful by those who wish to gain a systematised elementary knowledge of the subject. There is little in it which calls for special notice. The chapter on Aphasia, however, is open to considerable criticism. We find in it a diagram, intended to embody the author's views on the subject, but which appears to us both overloaded and inadequate. No fewer than twelve "centres" are figured in it. What an "intelligence" and a "will" centre may be, we gladly leave to metaphysicians to decide; for we declare ourselves unable to realise the fact of imaginary "faculties" having distinct bodily seats of action. Phenomena of consciousness are for us concomitant resultants of widely spread cerebral processes. Looking into the question more closely, however, we find that the "will"-centre of Dr. Stewart resolves itself into the speech-centre of Broca. But how are we, then, to understand the author who pictures it as controlling the "writing-centre," which, in its turn, sends its orders to "motor and co-ordinating writing centres?"

We also fail to see how the case of Lordat, on the author's assumption, can be one of lesion of the "will"-centre; for how could he, then, have lost the faculty of reading?

The "intelligence-centre" is made to govern the "word-seeing and word-hearing centres," which are represented as mutually unconnected; whereas, the process of learning to read by postulates, and clinical experience, confirms the view that they must be intimately connected.

The whole subject of aphasia is so complicated in itself, that it is of the utmost importance to define sharply its symptoms, and to avoid every semblance of mixing it up with other disturbances of language. The beginner cannot but be confused by references, in the midst of a discussion on aphasia, to symptoms of a totally different order; this fault is, unfortunately, not avoided in the chapter now under consideration.

But we need not continue our criticism any further, though we experience a natural disappointment in finding faults where we expected to meet with perfection. Dr. Grainger Stewart's position, as teacher in the largest medical school in this country, made it our duty to assume a high standard in passing judgment upon this volume. We are quite willing to admit that it is a difficult undertaking to write a first-rate introduction to the study of nervous diseases; but it was an easy task not to publish a second-rate one. We hope, however, that, in a future edition, the author will take the opportunity of presenting us with an account of the subject worthy of its importance, and of his own reputation.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

ANTISEPTIC GENERATOR.

FOR THE CONTINUOUS ANTISEPTIC TREATMENT OF CONSUMPTION, WHOOPING-COUGH, ASTHMA, AND OTHER DISEASES OF THE LUNGS, THROAT, AND AIR-PASSAGES.

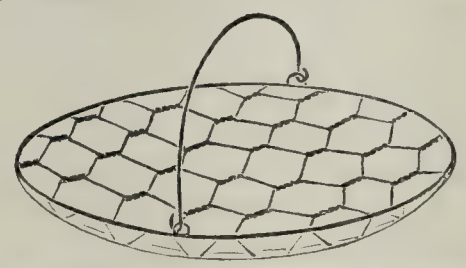
THE importance of the antiseptic treatment in diseases of the chest and throat is now fully recognised by the medical profession; and this simple apparatus, to be worn on a waistband in front of the waist, has been designed for the purpose of ensuring a constant supply of air, previously brought into an antiseptic condition, to be breathed by the patient in the ordinary manner, without necessitating the use of a special antiseptic respirator or steam-inhaler, which are often not only inconvenient and troublesome to the patient, but are less beneficial in their action than a free atmosphere which has been mixed with an antiseptic vapour, and inhaled at a short distance from the organs of respiration.

The occasional, or intermittent, use of antiseptic inhalations is not so beneficial as their almost constant use; and in many cases it is essential to the perfect success of the treatment that air, mixed with the antiseptic vapour, should be constantly breathed by the patient. The antiseptic generator is so constructed, that it favours an upward current of air charged with the antiseptics, and is intended to be worn during the day. It moves freely on the waistband to which it is attached, enabling it, if required, to be moved round to the side during meal-time without the trouble of taking off the waistband.

For night use, the small wire-basket supplied with the generator, and containing a piece of lint, on which are placed a few drops of the antiseptic employed, is suspended from the bedstead near the patient; so that, by means of the basket and generator, a constant supply of antiseptic air is kept up night and day.



In the treatment of whooping-cough, in which I have given it many trials, I have found the continuous antiseptic treatment most successful; it generally, in conjunction with medical treatment, curing the disease in from five to six weeks. I have also found it most useful in the treatment of pneumonia, abscess of the lung, incipient phthisis, pleurisy with empyema, and I have no doubt a more extended trial will prove it equally efficacious in different forms of asthma and other respiratory diseases.



Messrs. Lynch and Co., of 171A, Aldersgate Street, are the makers; but as it can be procured from any chemist and druggist, and the cost is only trifling, it is available for patients of even limited means.

For the convenience of medical men living in the country, an antiseptic, consisting of thymol, creasote, carbolic acid, and acetic ether, has been specially prepared, and is supplied with the apparatus. Additions can be made to the antiseptic to suit any particular case, or the apparatus can be used for any antiseptic which the medical attendant may wish to employ. In using the apparatus, fasten the generator outside the clothes by the band supplied; open the lid, and place ten to twenty drops of the antiseptic, according to age, on the cotton-wool inside, close the lid, and it is ready for use. The antiseptic will only require renewing twice a day. At night, the basket is used as before directed. WILLIAM HENRY TAYLER, M.D., Anerley, S.E.

MEAT-PEPTONES OF DR. KOCHS.

EFFORTS to introduce peptonised foods into the invalid's dietary are becoming numerous; and it must be conceded that, considering the novelty of the subject and its difficulties, the advances made are most creditable to manufacturers. To keep the peptonising process under proper control, and to ensure the perfect digestion of all albuminous matter without putrefactive changes, or at least deterioration in the flavour of the product, such as the development of a disagreeable and powerful bitterness, is a difficult problem; its difficulties are felt even when working on a small or laboratory scale, and must be much enhanced when dealing with large masses. A preparation now before us, manufactured in Antwerp (Rempart Kipdorp, No. 10) by the "Compagnie Peptones de Viande der Dr. Kochs," is free from all the earlier defects of such articles. It possesses a pleasant taste, closely resembling that of extractum carnis; is completely soluble in water; and, whilst it gives the characteristic reaction for peptones with sulphate of copper and caustic potash most readily, is quite free from gelatinous and undigested albuminous constituents. It is claimed for it that a quantity of 150 grammes (about 5 ounces) contains a sufficiency of nitrogenous matter for the daily supply of a healthy individual.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 21st, 1885.

THE COLLEGES AND THE STUDY OF FORENSIC MEDICINE.

Now that the two London Colleges are in a state of transition, the conjoint scheme being no longer in an embryonic, though undoubtedly still in an infantile, condition, it appears advisable that the profession should keep a watchful eye on the movements of the examining board, and likewise consider if there be anything left for suggestion before its regulations fall into their perfect working order. In December last, the President of the General Medical Council addressed a letter to the Royal Colleges of Physicians and Surgeons, including certain questions in relation to the conjoint scheme. The Committee of Management for the conjoint examining board drew up a report, of which both Colleges approved, and it will be submitted to the General Medical Council.

We trust that steps will ultimately be taken by the Colleges, not only to render attendance on lectures on Forensic Medicine and Toxicology compulsory, but also to enforce certain regulations which will, as far as can possibly be effected by regulations, encourage teachers at the medical schools to turn the attention of their pupils to the subject. It is known only too well what a signature of punctual attendance on a course of lectures may mean, though we are not so cynical as to imply, in this case, that such a certificate may mean nothing, for lectures on forensic medicine contain information of a kind that arouses the interest of the idlest or least attentive student. Still, it may mean very little, and utterly fail in its object. A gentle pressure on teachers, such as has for years been applied with good effect by the College of Surgeons in the case of practical anatomy, and a little counterpressure on the part of those teachers, such as has resulted in the same case, might end in bringing about a very thorough teaching of forensic medicine in medical schools. It would not be then looked upon as merely a subject to be studied during a few summer lectures. The chief aim of diplomas is to ensure that the British subject and all ailing persons within these realms should be supplied with medical attendants who know their profession and its responsibilities. The young practitioner will not have to wait long before questions bearing upon signs of death, infanticide, or poisoning, may be practically submitted to his consideration; and on the manner in which he can reply to questions which he has to answer in the witness-box, much of his professional reputation may depend, since his evidence becomes public, and will be exposed to the searching criticism of his patients, his neighbours, and his rivals. He will decidedly suffer should some expert, called in by the other side, expose, however unwillingly or unwittingly, a serious flaw in his skilled evidence.

It cannot be said that toxicology is very imperfectly taught in medical schools, nor that it is a subject difficult to teach, save in one most important particular; this is, the comparative rarity of cases of poisoning in the wards, and the inadvisability of demonstrating to a class the clinical symptoms in a patient who has been nearly murdered, or has attempted suicide, by poison. The detection of poisons is generally included in the practical chemistry classes. Chemistry lectures are notoriously the worst attended of all the winter courses, since students, not all eager to study what is directly essential, are very slow to appreciate a science that only indirectly concerns them; but the practical class is of a kind that appeals to many of the instincts of youth, and, where the student likes his work, he is sure to learn. Hence, in this respect, it is more the teacher than the student or the examiner that at present requires awakening. In some medical schools, a few sittings of the practical chemistry classes are devoted to toxicology, whilst in others, we fear, the only acquaintance which the student can form with poisons, is in relation to the tests for salts which happen to be poisonous, and in instruction at the materia medica lectures. It is, therefore, very important that an examining board should be particular in taking steps to ensure the study of toxicology as such, and not as an accidental part of practical chemistry. Every student should be made to detect the presence of some of the more frequent poisons in articles of food and drink, and also carefully instructed in the correct manner of preserving ejecta, contents of stomachs, or suspected food, for the purpose of placing them, if necessary, in the hands of an expert.

Several important medico-legal questions can be learned by the study of wounds during a dressership, and by the examination of pregnant patients in the maternity department of a hospital. It seems, however, advisable that the external signs of death should be more thoroughly demonstrated to students than has been hitherto the case We know of one former demonstrator of morbid anatomy who never began a necropsy without a few concise observations to his class on the external appearances of the body, the time which had elapsed since death, and the degree of rigor mortis in relation to the temperature of the room and the cause of death. He impressed on his audience how the case bore, in this sense, an aspect which might, under other circumstances, have been of medico-legal importance. Unfortunately, this kind of demonstration is not the rule, and other teachers may never even think of giving a forensic application to any of their cases, excepting when engaged in a necropsy of a subject that has actually died under more or less suspicious circumstances.

It is also advisable that obstetric teachers should instruct their classes in the appearances of still-birth by never missing an opportunity of demonstrating a still-born fœtus. Mr. Bland Sutton has already shown how much knowledge is wasted by want of careful systematic necropsies on the bodies of still-born children, such as are performed on more mature corpses in the *post mortem* room—knowledge of equal value to the student from a pathological, an anatomical, or a medico-legal aspect. Dr. Champneys has likewise shown that the bodies of still-born children are very favourable for the demonstration of the phenomena of respiration. There is, in fact, a wide field in our hospitals for the utilisation of forensic study, and we trust that the Colleges will really insure its cultivation by the students who seek their conjoint diploma.

In conclusion, it remains to be considered what are the steps which have already been taken by the Colleges. It appears that, at a meeting of the English Branch of the General Medical Council last year several members strongly recommended a separate examination in forensic medicine under the conjoint scheme. This question was submitted to the Colleges in the President's letter of recommendations, to which we have just referred. The Colleges were not in favour of a separate examination, being of opinion that the essentially forensic branch of medical science could no more be introduced into a written or oral examination than could practical vaccination or operative surgery on real patients. They will, however, let candidates understand that, under the subjects included in the third or final of the examinations held by the new conjoint board, will be included questions bearing on the medico-legal aspects of those subjects. Whether further precautions to ensure and encourage the study of forensic medicine will be taken, as above suggested, we cannot say; at present, it appears, nothing more is required of the student beyond attendance at lectures.

OSLER ON MALIGNANT ENDOCARDITIS.

THE practice of the Royal College of Physicians of looking far and wide amongst its Fellows to fill its not too numerous lectureships, is one that is more far-reaching in its effect than might at first sight appear. It would not be difficult to show that the sagacious exercise of a cosmopolitan spirit of this kind must do much to strengthen an institution in its hold upon its members, and thus the better enable it to withstand, on reasonable grounds, the disintegrating and revolutionary tendencies of time; and to listen to those known to us only by reputation must quicken our interest in their work, must make it the more intelligible to us, and, by reciprocally tightening up the bonds of fellowship between one section of the medical world and another, must do something towards establishing that perfect kinship for which we long, of which we talk so much and see so little.

It was but a few years ago that Dr. Brown-Séquard lectured before the College of Physicians; and Dr. Osler of Philadelphia, lately of Montreal, has just delivered the Gulstonian Lectures for the present year, the last of these being published in our columns to-day.

In taking for his subject malignant, or, as it is better known, ulcerative, endocarditis, Dr. Osler has chosen a theme not only to which he has himself devoted much time and thought, but also one which certainly for some time to come will give no occasion for flagging interest. Malignant endocarditis—Dr. Osler's term is preferable to that in more common use, because, as he justly observes, ulceration may be absent, and yet the infective form of disease be present—is in truth a disorder of great moment on all accounts. In the first place, it is much more common than is generally supposed; in the next, it associates itself with a variety of other diseases; its symptoms are far from uniform, some cases putting on the appearance of virulent typhoid, others dragging on, with periods of remission, for many weeks, perhaps even months; it is always a disease of great gravity, though not always fatal; and its pathology is still involved in some obscurity. Dr. Osler's lectures are a valuable exposition of the knowledge that exists at the present day; and, inasmuch as most of the recorded cases appear to have been subjected to analysis for this purpose, the information conveyed may almost rank as original work. Certainly it may be said that this is the most complete summary of knowledge of the subject which has yet been made.

It will not, we think, detract from the value of these lectures if we say that their perusal leaves us more in doubt than we were before as to what malignant endocarditis really is. All through them, their most pleasurable characteristic is, that they carry with them the assent of the reader's attention as dealing with matters within his own experience. But the survey is so unavoidably comprehensive, that one cannot but conclude that malignant endocarditis is a subject which, if by no means vague in its results, is wide, indeed, in the sum of the various pathological processes which may take part in its production in one or other of the several groups of cases.

Let us note a few points which lead to this conclusion as Dr. Osler unfolds his tale. The lesions of ulcerative endocarditis are by no means uniform. They may be vegetative, ulcerative, or suppurative, and occasionally there may be a simple superficial necrotic change without either ulceration or vegetation. It may further be added that, with local change of the slightest, the constitutional symptoms may exhibit themselves at their worst. But if all virulent local action seem to be in abeyance, how can we distinguish between a simple and malignant form of disease? May the one at any time become the other, and, if so, in obedience to what fresh provocative? Is it always the same provocative—the introduction of some external germ? If so, is it always the same germ, or may it be brought about by various forms of septic germs, the valves playing the part of an arterial throat, which may tell of contamination by scarlatina, measles, diphtheria, drain miasms, or anything else? Dr. Osler leaves this matter very much an open question, as, indeed, was unavoidable, for we do not know enough about the disease. He seems to favour the view that all acute endocarditis is of mycotic origin, Klebs and Kocher being quoted in support; and this, to some extent, converts all acute endocarditis into a sepsis of some form, and malignant would thus differ from simple acute endocarditis only in degree. To determine such points as these, the lecturer points out that more observations are required both upon the structure of endocardial vegetations in non-malignant cases, and by cultivation-experiment both in simple and in malignant forms.

There are many facts in favour of malignant endocarditis being due to the introduction of septic germs, but one need take no other than the large group of cases where the right side of the heart is affected as evidence, associated almost entirely as they are with puerperal troubles, pelvic cellulitis, and such like. Then, too, there is the fact that, in no small number of cases, the symptoms have been more like those of typhoid fever, more like typhus, or hæmorrhagic small-pox. Dr. Osler makes the statement that the disease is seldom found under ten years of age. This would, perhaps, seem to tell against a septic origin, seeing that young people are particularly susceptible to the cultivation of germs of all sorts, particularly those of such diseases as have been mentioned. But, possibly, this may not mean much, for such primary cases are admittedly rare in comparison with those that occur in valves that have undergone sclerotic changes, and these are less common, of course, by far, under ten years of age. Moreover, it is possible that Dr. Osler's sources of information did not supply a fair average of children to make the statement of much value. Certain it is that aneurysm in children, although rare, is relatively not so very uncommon, and is said to be mostly due to embolism from disease of this kind.

Then, too, the fact that a large proportion of cases is asso-

ciated with sclerotic changes of the valves, suggests many possibilities as regards the pathology of the disease. In more than three-fourths of the Montreal cases, and in sixty-one out of sixty-nine of a series of cases at Guy's Hospital, these sclerotic changes were present. Not unnaturally, one scrutinises such a frequent association as this; and it is indeed quite possible to frame a pathology for the disease which has fair claims to regard, irrespectively of the germ-theory at present in vogue. Given the extensive sclerotic condition of the skin and connective tissue from long standing ulceration in the lower part of the leg, and the surgeon has no difficulty in explaining a recrudescence of inflammation, and a rapid necrosis of the diseased tissues. Given, then, the extreme condition that is met with in the endocardium and valves, in many cases of long standing valvular disease, there being limited nutrition of the part concerned, and very probably necrolytic changes, and discharge of necrotic tissue into the systemic circulation, here there is no unlikely cause of "arterial pyæmia," to adopt the term suggested long ago by Dr. Wilks. Again, there are many of these cases in which a severe form of nephritis co-exists; excited, no doubt, in some, by embolic dust, but which, nevertheless, when present, will, in all probability, add its quota of complexity to the sum of symptoms and morbid anatomy, seeing that renal disease notoriously favours the occurrence of unhealthy and suppurative forms of inflammation. In other cases, again, the severity of the local damage appears to be, in a measure, dependent upon mechanical causes, such as friction; and although it is impossible to exclude the pre-existence, in such cases, of some unusually severe form of inflammation of the valves, there is ground for thinking that benign forms of inflammation may undergo "cultivation" into more severe forms by friction and inoculation from one surface to another; by a process, that is to say, of cell-degeneracy, independent of the existence of germs. Many, at the present day, know no "infective" process other than that by germs; but the theory of infective action of cell upon cell in vogue but as yesterday, is not all nonsense; it is only out of fashion, and to revert to it lends additional interest to the disease called malignant endocarditis.

Thus far, the reader will readily allow that we have justified the contention that, at any rate as regards its pathology, the disease is still but little understood. It may be a disease in all cases due to the introduction of germs from without, sometimes by wounds, from the uterus, etc.; sometimes, probably, by the respiratory tract, in which case a local nidus, such as rheumatic inflammation, or some sclerotic condition of the valves, is either essential, or greatly favourable, to its inception. It may, on the other hand, be a disease which is sometimes propagated by means of primary changes in the valves of necrolytic character, such as have been indicated; and although the germ-theory is undoubtedly at present in high favour, there is an abundance of valuable and fruitful work to be done before these questions are definitely settled either way.

We have left but little space to indicate the many other interesting points in Dr. Osler's lectures, but the frequency of the occurrence of pneumonia in malignant endocarditis is well brought out, as is also presented the great variety of symptoms, the disease having, at one time or another, been mistaken for most, if not all, of the malignant fevers, including typhus and small-pox. Meningitis is not uncommon with it, when the disease may be considered a cerebro-spinal meningitis; and it is sometimes so like ague that it can hardly be distinguished; and, lastly, perhaps it may be repeated how very common this disease must be, when Dr. Osler can speak of records that he has collected of over two hundred cases; and many of those who read his lectures will feel, as of many other diseases, that the half is never told. Nevertheless, it may probably said that the general body of medical practitioners have no idea how common it really is, and how necessary it is, in dealing with chronic heart-disease, to be on the alert to recognise and watch and record any febrile condition that may arise; for, although rare, pyrexial states are due to various causes. Malignant endocarditis will, no doubt, explain many a case which, at present, goes unexplained; and until observations of this kind have been made in larger number, we shall be unable to speak positively as regards the ultimate issue of these cases. No doubt, most cases die; but many run a curiously protracted course, remit, and recur; some, there can be little doubt, recover.

THE ACTIVE PRINCIPLES OF ERGOT.

In spite of the great amount of interest which ergot of rye has always excited, and of its extensive use in practice, our knowledge of its active principles, and more especially of the individual action of these active principles, must be considered as very meagre and unsatisfactory.

Recently, Dr. R. Kobert, of Strassburg, has made some important additions to our knowledge on this subject in a very able paper, published in the *Archiv für Experimentelle Pathologie und Pharmakologie*, (vol. xviii, pp. 316-380). His plan has been to isolate the active bodies in a pure state, and then to study the individual action of each, explaining, thereby, the complicated and varying symptoms which arise from the action of ergot. He has investigated three bodies obtained from ergot—ergotinic acid, sphacelinic acid, and cornutin; the latter two being now described for the first time. Impure forms of ergotinic acid have been several times obtained, and, in the various preparations which are sold under the name of ergotine, it forms the largest active constituent. Its action, however, is quite different from that generally desired as the action of ergot, as may be gathered from the account given of it. When administered to frogs it gradually produces narcosis, loss of reflex action, and stoppage of respiration, the spinal cord being so much depressed that small doses of strychnia no longer produce convulsions. Feeding rabbits, guinea-pigs, and cocks, with the acid, produced no effect on them whatever; whereas, when given subcutaneously, it caused paralysis of the spinal cord and narcosis. The explanation of these seemingly contradictory results is, that ergotinic acid, being a glucoside, is split up in the alimentary canal into sugar and an inert base. It lowers blood-pressure by paralysing the vaso-motor centre in the medulla oblongata. Extensive observations as to its effects on the gravid and non-gravid uterus were also made, with the result that it was found to possess no action on that organ.

Sphacelinic acid (*σφάκελος*) is the constituent of ergot which causes the well known gangrene. The author found that, under its influence, cocks and pigs were particularly susceptible to become gangrenous, whereas rabbits, cats, and guinea-pigs never became so. With dogs, vomiting invariably followed its introduction into the stomach. The results obtained by poisoning cocks with the acid are very striking, but vary somewhat with the dose given, and as to whether the poisoning be acute or chronic. A small dose caused the comb and beard of the animal to become dark in colour and dry.

The whole comb might gradually then recover its usual appearance, or a portion of it might remain dry, become gangrenous, and finally drop off. The tongue, hard and soft palates, and epiglottis, were also frequently affected with gangrene. When a lethal dose was given there ensued, in addition to the above symptoms, loss of appetite and diarrhœa. The animal sat as if deeply narcotised, and death ensued from vomiting and the consequent lodgment of masses of food in the air-passages. If the animal only survived for about twelve hours, the *post mortem* appearances were not striking; but if, on the contrary, it lived for a day or more, there were invariably found very marked changes in the alimentary canal. These consisted in catarrhal inflammation, very often with follicular ulcers, and countless small extravasations of blood, which often ran together to form large patches. The solitary glands and Peyer's patches were in the same condition as in a severe case of enteric fever. Occasionally, also, perforation occurred just as in typhoid fever. Profuse watery diarrhœa was always present, and the animal was perfectly unable to digest food put into its crop. If about four days elapsed before the animal succumbed, anascarca invariably occurred; the serous effusion being tinged with bile. Extravasations of blood under the various serous membranes were also usually present.

Sphacelinic acid, by its action on the vaso-motor centre, causes a spasmodic contraction of the arterioles and raises the blood-pressure. The difference in its power of causing gangrene in different animals may be explained by assuming that in some this contraction is more marked, and lasts longer, leading to gangrene, while in others it is less pronounced, causing only extravasations of blood. A small dose administered to a pregnant cat caused in thirty-five minutes uterine pains, and in forty minutes labour had fairly set in, two living kittens being born. From this one experiment, however, Kobert professes himself unable to conclude that it is the sphacelinic acid in ergot which acts on the uterus; but he promises further investigations. Continuous administration of small doses led to changes in the spinal cord similar to those described as occurring in the comb. In consequence the animal developed well marked ataxic symptoms, being unable to fly or walk properly, from the loss of co-ordinating power.

Under the heading of observations on man, the author gives a very interesting criticism of the different epidemics, and points out the symptoms in them which correspond to the action of sphacelinic acid. He also points out certain dangers arising from its use, even in therapeutic doses, such as gangrene of the lungs, gangrene of the cutis, hyperplasia of the neuroglia in the spinal cord and brain, and tabetic symptoms.

Cornutin is the name which Kobert has given to the new alkaloid which he has discovered in ergot. The amount obtainable is so extremely small, that he had great difficulty in determining its chemical relations. The only body as yet described to which it has any resemblance, is the so called ecbolin, which seems to contain a large quantity of it. The author then describes the results of his experiments with the various bases which have been from time to time described as the active principles of ergot. Of these he found trimethylamin, ergotinin, the base of ergotinic acid, and a yet unnamed base, all non-poisonous, at least in small doses; whereas picrosclerotin, cornutin, and a third, unnamed, base (Winckler) were all very toxic. The action of cornutin may be briefly described as convulsant—clonic and tonic spasms, and convulsions exactly like those of epilepsy being induced. In female animals, whether pregnant or not, the uterus is always affected, but not in a greater degree than other involuntary muscles. The effect produced is not the well known tetanus uteri of ergot, but rather irregular wavy movements which seldom cause expulsion of the fœtus. Further experiments made on isolated uteri led to the conclusion that the action on that organ only occurs when the nervous system is entire. Cornutin produces no gangrenous symptoms. The action of cornutin and sphacelinic acid, respectively, explains the cause of the occurrence of the two forms of chronic ergot-poisoning, namely, the convulsive and the gangrenous forms, both of which have been often described in the accounts of the different epidemics in Europe.

In conclusion, the author regrets that he cannot, as yet, confidently recommend any pure substance for use by accoucheurs, but points out that most of the preparations at present in use contain chiefly ergotinic acid, which, as previously stated, has no action on the uterus.

Dr. Burney Yeo will read a paper at the Medical Society, on Monday next, on "Some Points in the Etiology of Phthisis," in which he will consider some of the criticisms which have been advanced in the Report of the Collective Investigation Committee on the Communicability of Phthisis.

We are informed that Her Majesty's Government has consented to distribute gratuitously to each registered member of the medical profession in the United Kingdom a copy of the revised edition of *The Nomenclature of Diseases*, which has been prepared with much care and labour by the Royal College of Physicians. It is expected that the work will be in the hands of the profession within two months from the present time.

A CENTENARIAN.

Miss Hastings, of Malvern, aunt of Mr. G. W. Hastings, M.P. for East Worcestershire, and sister of the late Sir Charles Hastings, M.D., Founder of the British Medical Association, attained her 103rd year on Saturday last. Up to the present year, the venerable lady was in the full enjoyment of her faculties, and had fair health; but, latterly, she has somewhat failed, and is now confined to her room. She was, however, able to receive the congratulations of her near relatives on Saturday.

THE IMPORTATION OF RAGS.

It is well known that large quantities of rags, to be used in the manufacture of paper, are imported into this country from the Continent. It is recognised that such imports are dangerous to public health when they come from districts where zymotic diseases are prevalent. Certain prohibitory measures have been in force in various parts of the United Kingdom, but their general value has been practically nullified by their unequal stringency in various localities. The present time is opportune for an inquiry into this important matter. We understand that the authorities have determined not to renew the Orders in Council prohibiting the importation of rags from France and Italy, unless there should be any reappearance of cholera on the Continent. The orders lapsed on the first day of the present month, much to the relief of the paper-makers, who for some time had their trade seriously crippled for lack of material. The operation of the orders has not been wholly satisfactory. In Scotland, the prohibition has been absolute; but in England a discretionary power has been given to local authorities to admit rags collected in districts where no cholera has existed; and, while some

authorities have refused to make any exceptions at all, others have accepted almost any certificate, however worthless. The result has been, for instance, that, owing to the strict regulations of the Port of London Sanitary Committee, no rags at all have been imported by way of the Thames, whereas at Southampton almost any statement of origin has been accepted; and so the rag-trade of Southampton, instead of being nearly extinguished, has enormously increased under the operation of the restrictions, for rags which would have been refused elsewhere have been admitted there.

UNSANITARY RAILWAYS.

THE Medical Commission, which is about to make a sanitary survey of England to provide against cholera, would do well to inspect some of the overhead railway-arches of the railways which run out of London. The railway-travellers little think, when travelling over some of these lines, that, for fixed periods every day, they are inhaling the fumes from loathsome manufactures, carried on in the arches under the railway, or adjacent. At the Spa Road station of the South-Eastern Railway, the aid of chloride of lime is called in to conceal the natural or other smells of a station through which an immense number of the working population pass twice a day. The London, Chatham, and Dover Railway has a great variety of unsanitary and noisome uses for its arches. One of the latest is unique, for an undertaker has taken an arch in the passage at Loughborough Junction, through which the majority of 10,000 passengers pass twice daily, and the dead body of a man who was killed on the line above was kept here for several days. At the same station, there are stores of decaying vegetable in arches, as well as animal refuse from stables, while auctions of dirty, and possibly of disease-laden, furniture, are carried on in the only pathway open to the travelling public. In some of these arches people have taken up lodgings, and the smoke-nuisance is brought up to the tops of the parapets of the railway, so as to be on a line with the carriage windows. At this unhappy station, there is no convenience for men or women on the ground floor. On four of seven platforms, there is not the least provision for women, and one "waiting room" to a double platform is 6 ft. by 10 ft. The under part of the station is made the dusthole of the whole place, for the railway company is excommunicated by the parish, otherwise called the "sanitary authorities," and hence no dust is removed, nor roads swept. The "stuff is cleared out once a month," the railway-people say of the vile storage, and they think nothing of the evil done while the accumulation is going on. The sanitary authorities of Lambeth, who have been warned of the evils, send an inspector, who looks, and excuses himself from doing anything by saying that the place is "private" property, and that the road is "untaken to" by the parish.

FATAL BOILER-EXPLOSIONS.

As we have before pointed out, many terrible deaths might be prevented if the engine-boilers used in manufactories were efficiently inspected. The latest preventable and fatal boiler-explosion took place at Beckenham. On March 14th, a coroner's jury, at an inquest on the bodies of five men who were killed by the boiler-explosion at the Mid Kent Brickworks, at Beckenham, on the 13th ult., found "that the deceased men died from injuries received from the explosion of a boiler, through the undetected external corrosion of the shell by dampness in the setting." Here, once more, an obvious and preventable mechanical cause of a fatal disaster was "undetected," because it seems to be nobody's business to see that engine-boilers are sound and safe.

THE HOSPITAL-SHIPS IN THE THAMES.

THE Metropolitan Asylums Board deserves, as a body, the distinct and hearty thanks of Londoners for the efforts which it is making in the general welfare to limit the spread of infectious disease in our midst, and for the readiness which it manifests in acting upon any suggestions calculated to enhance the efficiency of its work. The neighbours of Sullivan's Wharf, Fulham, will doubtless not be overjoyed at the construction of a pier there for the embarcation of small-pox cases from the western districts of London; but the employment of the wharf cannot fail to be of great advantage in the removal of such cases, which at present, when they are taken to the hospital-ships, have to embark a long way below London Bridge. It is worthy of record that the managers now despatch the ambulance-steamer on its last journey at 8 P.M., instead of 6 P.M., an alteration which will have the effect of considerably reducing the number of "mild cases" left in their own homes for the night, in consequence of the Board's officers not having hitherto been able to remove them in time to meet the steamer before its start on its final journey at 6 P.M.

WANDERING LUNATICS AND THE POOR-LAW.

WE understand that Lord Algernon Percy, M.P., in consequence of the recent decision of Mr. Justice Wills, intends to put the following question in the House of Commons to the President of the Local Government Board. "Whether the attention of the Local Government Board has been called by the Guardians of the Westminster Union to the recent decision of Mr. Justice Wills, in the proceedings lately taken against the Master of the Marylebone Workhouse and other officials of that union, with regard to the reception of persons of unsound mind into workhouses; and whether the President proposes to issue any instructional letter to the masters of workhouses generally, and to relieving officers, as to their duty in this matter; and whether it is proposed to introduce any measure for the amendment of the law relating to the reception of supposed insane persons into workhouses, and for protecting Poor-law officials from the responsibilities in which they may be involved by the strict application of Mr. Justice Wills's decision."

VOLUNTEER MEDICAL STAFF CORPS.

THE Volunteer Medical Staff Corps is to be enrolled on April 1st. For the past year, however, the members of this corps have been drilling, and acquainting themselves with the many duties devolving upon them. So far are they advanced, that it is believed that the greater portion of the members of the corps will be pronounced efficient when enrolled. On Saturday, March 14th, the corps paraded, 300 strong, at Wellington Barracks, when it was inspected by Sir Guyer Hunter, K.C.M.G., in the presence of Dr. Crawford, Director-General of the Army Medical Department; Surgeon-General McKinnon; Brigade-Surgeon Don; General Elkington; General Hall; and other officers. The corps, under the command of Mr. Cantlie, executed battalion-movements with precision, and the stretcher-drill was excellent. Seven companies were on parade, drawn up in the order of enrolment, namely, Charing Cross Hospital, University College, London Hospital, St. Bartholomew's Hospital, Middlesex Hospital, St. Thomas's Hospital, and Guy's Hospital. Two companies of the corps intend to join in the march to Brighton. The company which has volunteered its services for Egypt is sixty strong; but it is understood that at present its services will not be required. It will be interesting to follow the medical arrangements for the marching column to Brighton on Good Friday, since the authorities at the Horse Guards and Whitehall Yard are anxious to complete them in the most perfect manner. It is proposed to carry them out in every detail as though the columns were acting during hostilities; an arrangement that never has as yet (except in one imperfect instance) been followed in the regular army during the progress of any war. The present medical field-service has of late been considerably improved, and this opportunity is taken to try its adaptability. It is an honour to the Volunteer Medical Staff to be singled out as the pioneers in so important a matter, and the zeal of the volunteer surgeons will, without doubt, afford every assistance to those endeavours of the Government. Bearer-companies, complete in every detail, will follow up the first

aid given to the wounded by the regimental surgeons and bearers, and will transfer the same in order to the rear, where they will pass into the hospital which accompanies the column. Of course, to carry this out, a number of men will be detailed as wounded; and these, with their tickets describing their wounds, will be attended at once by the officers of the regiment, who will leave them in safety to be taken up by the bearer-companies. These bearer-companies will number from 100 to 120 men, with the full complement of surgeons; and the hospital and brigades will be credited with their full staffs. The details are being elaborated by Surgeon Cross (Grenadier Guards), who is well known in connection with his late appointment at Aldershot as Instructor to the Army Medical Staff; and, under his efficient aid in the route as chief medical officer, we may expect to find success in the proposed scheme.

IRISH GRADUATES' ASSOCIATION.

THE annual dinner of this Association was held on St. Patrick's Day, Tuesday, March 17th, at the Holborn Restaurant. Professor W. Stokes, the President, was in the chair; and sixty-six members and guests were present, including Dr. Macnaughton Jones, President-elect, Sir W. Mac Cormac, Director-General Crawford, Drs. Quain, Playfair, Frederick Roberts, J. Thompson, Ford Anderson, C. Davidson, Benson, and the Secretaries, Drs. Daniell and Stewart; Messrs. Savory, Hutchinson, Hulke, Holmes, Croft, Keetley, F. Fowke, and Doran, and several ladies, some, as Mrs. Marshall, holding Irish degrees. The toasts to "the Queen, the Prince of Wales, and the rest of the Royal Family" were given from the chair; the President-elect proposed "the health of the Army, Navy, and Reserve Forces," to which Director-General Crawford, Major Cargill, and Surgeon-Major Baines, of the Volunteers, replied; Sir W. Mac Cormac proposed "The Visitors," Dr. Quain and Mr. Savory replying; Mr. Timothy Holmes proposed "The Irish Graduates' Association," the President replying; Dr. James Thompson, "The Scientific Societies," replied to by Mr. Hulke and Mr. J. E. Price, Secretary to the London Archæological Society; Dr. Davidson, "The Ladies," Dr. Ford Anderson replying; and lastly Dr. A. H. Benson gave the toast, "To our Next Meeting," answered by the Secretaries. The evening passed most pleasantly, and the dinner proved highly successful.

SOME FACTS FOR THE ROYAL COMMISSION.

IT has for some months been no secret that the relations between the Vestry of St. Pancras and their Medical Officer of Health had reached such a state of tension that, unless some very great change took place, it would be impossible for him to retain his office much longer. Mr. Shirley Murphy has found, as others have, that while Sir R. Cross's Act is applicable only to large areas, and so open to the "law's delays" that it is extremely difficult to enforce it, unless a general desire for better thoroughfares, or for the acquisition of the land for the erection of warehouses, etc., disarm opposition, Mr. Torrens's Act may be employed with infinitely less trouble, not only in the case of single houses, or groups of a few houses requiring demolition, but even when such are capable of being put into a state of habitable repair. For some time past he has been making raids on unsanitary property, not a few of the owners of which were members of the Vestry, and some of whom were heavy losers by the condemnations that followed his reports. At length, to give some colour to their opposition, they combined to obtain a so-called inquiry into the administration of the sanitary department, and have for several weeks been subjecting their medical officer of health and sanitary inspection to a course of harrassing examinations. Unable any longer to stand this vexatious treatment, Mr. Murphy has sent in his resignation, stating in his letter to the Vestry that, "in consequence of the unscrupulous means that had been employed to interfere with him in the performance of his work, he felt there was no hope of his being able to carry out his duties properly in face of the continued hostility of persons interested in dilapidated and unsanitary property. Feeling that the only effectual protest he could make would be to resign, he did so, giving notice, at the same time, that he should attend no more of the meetings of the special committee now sitting to inquire into the administration of the sanitary department." It is needless to state that his resignation was accepted, as the very object the aggrieved vestrymen had in view. At the same meeting, Mr. Murphy's reports on thirty-four unsanitary houses were read, the owners appearing to oppose them. One of these "gentlemen" produced an architect, who stated that he could put the houses into such a state of repair as would satisfy the Act of Parliament for a few shillings each. This "tinkering," with a view of evading the recommendations of the Medical Officer of Health and Surveyor, is only too common. Several vestrymen loudly denounced "the wholesale condemnations" of the Medical Officer, in spite of the explanations of the Clerk that he did not, and could not, do more than report, and, jointly with the surveyor, recommend certain steps to be taken, and that the condemnation was the work of the sanitary authority itself. One member only, Mr. Robinson, warmly defended the character and conduct of Mr. Murphy, and declared "that the way some men stuck out for the rights of dirt and filth was something revolting."

UNIVERSITY DEGREES FOR LONDON MEDICAL STUDENTS.

IN pursuance of the first of the two resolutions passed at the meeting of the Metropolitan Counties Branch, held on March 6th, the Council of the Branch have directed that copies of the report of the meeting should be forwarded to the members of the Senate of the University of London, and that that body be requested to receive a deputation to discuss the matter. While there are not yet sufficient grounds for a confident belief that the University will be prevailed on to take steps to provide for the existing want, it is, nevertheless, necessary that something should be done. If the number of students attending London medical schools be once permitted to fall off to any serious extent, it will, we fear, be a difficult matter to again raise it; and there can be little doubt that the inability of London students to obtain degrees as readily as their brethren in Edinburgh and Dublin can, will be found to lie at the root of all the evil. It is futile to argue that medical degrees should not be too common, so long as the graduates of the northern and Irish universities enjoy the privileges of reciprocity conferred by the Medical Act. The necessities of the times demand that London students should have facilities for obtaining degrees; and, if they cannot get them in London, they will seek them elsewhere.

THE MANAGEMENT OF HOMERTON FEVER AND SMALL-POX HOSPITAL.

ON March 14th, at the Metropolitan Asylums Board, the management of the Homerton Asylum, now called the Eastern Hospital for Fever, again came under review. It has been made apparent that there has been collusion between some persons connected with the management, and the contractors for the supplies of stores. When a committee of investigation was appointed, the chairman of the committee of management, who was a representative of Shoreditch upon the Board, the clerk of the committee, and the steward resigned. The investigation, so far as it was carried, led the committee to declare that the clerk and the steward should be dismissed, and not allowed to resign; and the former was dismissed, while the latter was held to have resigned. Then a majority of the managers, at the previous meeting, voted that Dr. Collie was unfit to be the superintendent of the asylum; the members holding that the large expenditure for stimulants—those supplied including champagne, fine clarets, Burgundy, and old ports, none of which were in the contracts as necessaries—could not have been incurred if Dr. Collie had discharged his duties. Through the chairman, Mr. E. H. Galsworthy, Dr. Collie, at

the last meeting of the managers, replied to the resolution. He acknowledged that there were grave irregularities; but he pressed that these occurred when he had many other things to do for the Board (Dr. Collie, it will be remembered, took charge of the medical superintendentship of Hampstead Asylum, in addition to his work at Homerton); and then, he said, the diet-sheet was under the charge o the superintendent-nurse. What might be called the general expenditure of the hospital was under the Board's own committee, whose servant he was. As for the alleged excessive stimulants which he gave the patients, he reminded the Board that he had always given stimulants, and he declared that by his treatment he had saved many lives. If the amount of stimulants at Homerton appeared excessive when compared with the quantity dispensed at other asylums, it was to be remembered that the worst cases came to the Homerton Asylum, and needed exceptional treatment. He distinctly refused to accept responsibility for the stimulants consumed by the committee; and, as to wine taken by the servants and officers, he pointed out that the committee had granted officers wines as part of their rations. He considered the resolution passed by the Board at the previous meeting as unfair, as he held that the Board should have called upon him for an explanation before proceeding to condemn him in such stringent terms for acting as he had acted for fourteen years. It was agreed, after a discussion, that the letter should be entered upon the minutes, and a copy sent to the Local Government Board (who have been asked to hold an official inquiry respecting the management of the asylum); and then Mr. Pell moved that the Medical Superintendent of Homerton Asylum should be suspended, pending the inquiry by the Local Government Board. Admiral Oliver seconded this motion, against which Sir E. H. Currie warmly protested, and called attention to the splendid work which Dr. Collie had done for the metropolis when it was smitten with terrible epidemics. The motion was carried by a large majority. The least that can be said of the conduct of the Board in this matter is, that the valuable services which Dr. Collie has rendered in regard to the provision of fever hospitals and other cognate matters during the last fourteen years, should have entitled him to more courteous treatment.

SCARLET FEVER AT SALFORD.

Dr. Tatham, the health-officer of Salford, has brought out, in recent numbers of his admirable *Health Bulletin*, the disproportionate prevalence of scarlet fever in that borough for some months past; indeed, he speaks of the disease as having been, "ever since the beginning of 1883, excessively prevalent" in his district. The compulsory notification of infectious disease being in force in Salford, one is able to follow the growth of the epidemic with something like precision. The cases of scarlet fever notified to the Health Department were 160, 166, 186, and 293 for the four quarters of 1883; and 245, 224, 355, and 321 in the four quarters of 1884. The total number of deaths from the disease last year was, as recorded in our table on page 510, 139. We are glad to see that the disease appears now to be subsiding; for, in the month of January 1885, 60 cases, with 9 deaths, were registered; and in the month of February, 40 cases, with only 6 deaths. The infectious hospital belonging to the corporation appears to have been largely used for the isolation of the cases, and no doubt helped considerably to check the further spread of the epidemic.

THE MORTMAIN ACT AND HOSPITALS.

A case was tried last week, before Mr. Justice Chitty, in the Chancery Division of the High Court of Justice, which illustrated the unequal incidence of the Mortmain Act upon hospitals. The late Mr. R. H. F. Pitt, by his will made in 1883, after making divers gifts, gave the residue of his property to trustees upon trust to sell and convert the same, and the testator continued: "And out of the proceeds thereof, and the money of which I shall be possessed at the time of my death, upon trust to pay my funeral expenses, etc., and upon trust to pay and divide the net residue thereof unto and equally between the treasurers for the time being of St. Thomas's Hospital, St. George's Hospital, Westminster Hospital, and Charing Cross Hospital; and I declare that my pure personal estate shall in the first place be applied in payment of the shares of St. Thomas's Hospital and Charing Cross Hospital." The object of the declaration was apparently to meet the circumstances that St. Thomas's Hospital and Charing Cross Hospital are barred by the Statute of Mortmain from participating in testamentary dispositions of realty, or personalty savouring of the realty; whereas Westminster Hospital is, by its Act of Incorporation, entitled to hold real estate; and St. George's Hospital is also, by a special Act (4 William IV, cap. 38) entitled to hold real estate to the amount of £20,000 *per annum*. The result of the decision was, that St. George's and Westminster Hospitals each receive about £1,800, and St. Thomas's and Charing Cross Hospitals about £1,050 each, the remaining portion of their intended fourths going to the next-of-kin. It was stated that St. George's Hospital had not in any way approximated the limit to its power of holding land. It was not, however, stated that the benefits to St. George's Hospital by virtue of its exemption from the prohibitions of the Mortmain Act had never reached a sum which would represent £20,000 *per annum*. It appears that the Bath Infirmary and Middlesex Hospital are also privileged hospitals.

THE DANGERS OF ARTIFICIAL DRINKS.

Mr. Karkeek, the Health-Officer of Torquay, generally contrives to give some striking or suggestive facts in each of his annual reports. Here is his contribution for this year. Some time ago, he examined a sample of water, in consequence of a death from typhoid fever having taken place, and found it to be largely polluted by recent sewage. The owner, at his suggestion, closed the well, and conveyed the stream into the drain. Last summer, he ascertained that the well had been reopened, and that the water was used for washing bottles in a house where artificial drinks were made. Of course, Mr. Karkeek was assured it was only for "washing the bottles." Even for such a purpose, the use of the water would be fraught with great danger; and the health-officer was fortunate, therefore, in persuading the proprietor again to divert the stream to its proper use, namely, flushing his drains.

UNIVERSITY COLLEGE, LONDON.

The vacancy created by the resignation of Mr. John Marshall has been filled by the appointment of Mr. Marcus Beck, to the chair of surgery in University College. Mr. Beck also becomes full surgeon to the Hospital. No appointment could have been made which would give greater satisfaction to the students of the Hospital, old and new. Mr. Beck was one of the pioneers in antiseptic surgery in this country, and his reputation rests upon a solid foundation of sound pathological and clinical work.

CLINICAL SOCIETY OF LONDON.

At the last meeting of the Clinical Society, the proceedings of which are fully reported elsewhere, three papers of much interest were read. The first, by Dr. Bastian, described a case of Thrombosis of the Basilar Artery, in which there was great depression of temperature, with death in five and a half hours. Dr. Hale White considered the lowering of the temperature was of the nature of shock, and that if the patient had survived to the stage of reaction, pyrexia would have ensued. Dr. Markham Skerritt, of Clifton, contributed an interesting case to the discussion which Dr. Bastian had started. Mr. Barwell next read notes of a case in which, on the eighth day after ovariotomy, the patient became maniacal, and remained insane for nearly three weeks. Mr. Barwell had since found that his experience was not by any means unique. Mr. Bryant had had two cases of the kind, Mr. Doran mentioned another case in which, after the removal of both ovaries, acute mania had supervened, and had not since abated, and Mr. Meredith instanced another case. Dr. Blandford, who had seen Mr. Barwell's patient, described her illness as one of genuine mania.

Mr. Davies-Colley contributed the third paper, in which he gave notes of three cases of colotomy, in which, after the bowel had been found by the usual external incision, he had delayed opening it for one, four, and six days respectively. He considered that, by this device, the risks of peritonitis and of suppuration in the planes of connective tissue in the vicinity of the colon were much diminished. He exhibited a clamp, fitted with ivory studs, by which the bowel might be retained at the lumbar aperture until it might be opened. It may be recollected that the same plan was also advocated by Mr. Bryant in his Harveian Lectures, delivered during the present session, and reported in these pages. Mr. Bryant also joined in the discussion, and advocated the plan detailed by Mr. Davies-Colley. Another Guy's surgeon, Mr. Howse, had also adopted the same procedure, with equally satisfactory results. Mr. Cripps thought the method made two operations instead of one of colotomy. But the opening of the bowel is not recognised as an operation by the patient; and, indeed, where it is practicable, the plan seems worthy of adoption on many grounds.

PROFESSOR VON FRERICHS.

We regret to have to announce the death of Professor von Frerichs. He died somewhat suddenly on the 14th instant, having had an attack of apoplexy a short time ago, from the effects of which he seemed to have been recovering. Dr. von Frerichs, who was an honorary member of the British Medical Association, was born on the 24th of March, 1819. In 1842 he commenced his career as a doctor of medicine; in 1846 he lectured at the University of Göttingen; in 1850 he went to Kiel, where he was director of the Policlinic, and of the University Hospital; in 1857 he was appointed Professor of Pathology and Therapeutics at the University of Breslau, where he was also director of the Medical Clinic and in 1859, on Professor Schönlein's death, he became professor of medicine in the University, and director of the Medical Clinic at the Royal Charité Hospital in Berlin. Professor von Frerichs celebrated last year the twenty-fifth anniversary of his directorate of the First Medical Clinic, and the rank of Baron was then conferred on him by the German Emperor. His chief work is the *Clinical Treatise on Diseases of the Liver* (*Clinik der Leberkrankheiten*), which received the Monthyon Prize of the Paris Institute, and has been translated into various languages. An English translation, by Dr. Charles Murchison, was published in 1861 by the New Sydenham Society. His other works of importance are his monographs on Bright's Disease of the Kidneys and on Diabetes.

THE DISCUSSION ON CHOLERA AT THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The meeting of this Society next Tuesday will be taken up with a discussion on cholera, to be introduced by a paper from the President. Microscopical specimens and cultivations by Drs. Klein, Gibbes, Watson Cheyne, Heron, and Professor Warden, will be on view, and the greater part of the evening will probably be taken up with questions of etiology. There will, in all probability, be an adjournment of the debate to an extraordinary meeting on Tuesday, March 31st, when the pathological and therapeutical aspects of the subject will be more especially discussed. Amongst those expected to take part in the discussion are Sir H. Acland, Mr. Watson Cheyne, Dr. Norman Chevers, Sir J. Fayrer, Dr. Gibbes, Dr. Heron, Sir Guyer Hunter, Mr. Victor Horsley, Dr. Klein, Dr. Lewis, Mr. Macnamara, Dr. Geoffrey Marsh, Inspector-General Murray, Dr. Pye-Smith, and Professor Warden.

THE PRELIMINARY SCIENTIFIC EXAMINATION OF THE UNIVERSITY OF LONDON.

At the request of the Medical Committee of the Senate of the University of London, representatives of the teaching staffs of the medical schools attended a meeting on the 18th instant, when the question of the most convenient dates for holding the two preliminary scientific examinations of the future was debated. A further question of great importance was also discussed. There was, we understand, a general opinion in favour of altering the regulations for the preliminary scientific examination, so as to make a candidate who had passed a creditable examination in two out of three subjects exempt from the necessity of again undergoing examination in those subjects in which he had been successful. The Committee will present a report to the next meeting of the Senate. Both the step which has been taken in deciding to hold the preliminary scientific examination twice a year, and that which is now proposed, are most important. In place of a single examination, at which a candidate rejected in a single subject had to waste a whole year, and then undergo the whole examination again, a loathsome and disheartening ordeal to any young man of spirit, we shall have two examinations, so that a candidate who has passed a creditable examination in all subjects but one, will be able to pass in that one six months after his failure. These alterations will certainly materially lessen the objections generally expressed against the harshness and inelasticity of the existing regulations; and will enable many more students to proceed to a degree. The Senate must next apply a somewhat similar process to the matriculation examination.

NOTIFICATION OF SMALL-POX IN THE METROPOLIS.

One of the greatest flaws in our system of public health administration is that, save as a quite exceptional and unofficial thing, a medical officer of health has no knowledge of the existence of infectious diseases in the districts adjoining his own. A particular disorder may be making serious ravages in a neighbouring place without any knowledge of it coming to his ears; and it is not until he find cases cropping up in different parts of his district, under circumstances which are inexplicable by the light of his own unassisted information, that he learns by interrogation of chance visits of business or pleasure to the place which has exported the disease. Pending the establishment of county boards, to which information of outbreaks might properly be sent, and by which it would be retailed to all health-officers under its control, publicity by voluntary effort might do something to minimise existing evils; though, of course, this would, at best, be but partial and fragmentary. What is really wanted is an organised system of intercommunication between one health-officer and another; and the only way in which this can economically be managed is through a central bureau of statistics. The Registrar-General has returned a not very complimentary reply to a suggestion of this kind sent to him from Manchester, on the ground that the information at present available would not be of sufficient value to warrant the experiment. True; but nothing is perfect at starting; and we feel convinced that, with proper management, the scheme might soon be got into working order. However, Government departments are proverbially slow, except under pressure of epidemics, to assimilate new ideas; and we shall probably have to await the threatenings of cholera before any such system is officially promulgated. Meanwhile, the Metropolitan Asylums Board is doing its best to enlighten London health-officers as to the movements of fever and small-pox in the several districts of the metropolis by sending them, on each Saturday, a "private and confidential" list of all cases of infectious disease admitted into their hospitals from every part of the metropolis within the week ended on the previous Friday. The only disadvantage of these returns is that they are arranged, not by sanitary districts, but by the poor-law unions, to whose combined wants the Asylums Board is supposed to minister. The actual figures of each union, for the latest period to which they have been made, are, at the time of writing, available only for the elect; but a tabulation of the returns for the five weeks ended the 27th ult., which Dr. Dudfield of Kensington has, with characteristic industry, made in his report for February, enables us to get a sufficiently good idea of the present geographical distribution of small-pox in London. In the last week of January, 265 cases were dealt with by the Asylums Board, of which as many as 52 came from Islington, and 36 from Southwark. In the next week, there were 213 cases, the largest

figures being 21 from Islington, 18 from Holborn, and 27 from Camberwell. In the second week of February, there were 251 cases; in the third week, 170; and in the last week, 164, making a total of 1,063 in five weeks, of which 54 came from St. Pancras, 154 from Islington, 67 from Holborn, 73 from Poplar, and 78 from Camberwell. These figures are, even by themselves, very useful and instructive; but, as Dr. Dudfield points out, their value would be greatly enhanced if a record were instituted of houses newly invaded by small-pox, and if the number of secondary cases were indicated.

A HOSPITAL TO THE MEMORY OF GORDON.

THE proposal to institute a hospital for the sick of all nations and all creeds at Port Said to the memory of the late General Gordon, will commend itself to the judgment of public opinion in this country and in other lands. Gordon spent his life in the service of humanity, and his death was an act of self-sacrifice offered on the altar of a world-wide sentiment of true benevolence. When deserted by those in whose interest he had gone forth, and from whom he had a right to expect prompt and generous succour in the hour of his great emergency, he put aside the abundant means and opportunities of seeking his own personal safety, which were manifestly at his command, and stood true as steel to his trust, and to those who had trusted him. A noble life of unselfish enthusiasm was commemorated by a death which had all the characteristics and best qualities of a heroic martyrdom. The Prince of Wales, in his brief but telling address at the Mansion House on Saturday last, described Gordon as "perhaps one of the most unselfish men ever known." The Duke of Cambridge, who knew him intimately, said: "He was absolutely the simplest-minded man I ever met with; and, though grand in his views and conceptions, and able in his administration, he had that peculiarity about him which I am now referring to, which I never saw in a man who had so constantly been placed in high and independent positions." Earl Granville, himself a man of high honour and keen sensibilities, exclaimed, "He was one of the strongest and the gentlest of men. I believe that he was absolutely free from vulgar ambition." All the speakers at this representative assembly agreed in the opinion that no more seemly method of commemorating the fame and philanthropy of Gordon could be found; and almost certainly not one more in harmony with the wishes of the departed hero, could these have been made known, is to be found than that which has been unanimously adopted. Port Said is in urgent need of a hospital. The only institution of this class on the spot, a miserable Egyptian building of the most filthy and discreditable description, is worse than useless. As Admiral Sir Edward Inglefield declared, on the authority of a consular report, the poor fellows disembarked from their ships for treatment at this abominable lazaretto, beg, with tears in their eyes, to be allowed to work through their sickness, rather than be consigned to such a den. If, by private benevolence, a good hospital can be constructed at Port Said, it will be some relief to the pent-up feeling of shame and grief that animates the heart of the nation to be allowed thus to deliver itself. Most warmly do we give the plan proposed and adopted on Saturday our unreserved support, and we are confident that, in so doing, we are simply giving words to the thoughts in the mind of every one of our professional readers. It was with grace and tact the Prince of Wales further suggested that a ward in the hospital to be constructed should bear the name of General Stewart, who shared Gordon's toil and danger, and so worthily participated in his loyal service. It is characteristic of the generous thoughtfulness of the Heir Apparent to the throne of this empire, that he could not forget the honour due to a loyal servant of the Crown and the country. We could have wished that the civil branch of the medical profession had been ostensibly represented at the meeting; but enough has been done and said to mark the appropriateness of the selection made of a memorial to General Gordon. It only remains to bespeak for this kindly enterprise the practical support it deserves; and we cannot doubt that the response to so rational and useful an appeal will be zealously accorded.

THE NEANDERTHAL SKULL.

THE present President of the Pathological Society having declared himself opposed on principle to much discussion of the specimens shown, there has been a cessation of the interesting and suggestive, if sometimes desultory, conversations which, with the tacit encouragement of several previous presidents, had become one of the characteristics of the meetings of the Society. At the last meeting, however, the force of the presidential warning being perhaps weakened by lapse of time, a short but instructive conversation followed the exhibition by Mr. Quarry Silcock of some specimens from a case of osteitis deformans, in an old woman, who had surpassed the age of four-score years in spite of the disease. Dr. Goodhart showed specimens from a much younger woman, and Mr. Stephen Paget specimens from two of the cases already recorded by his father. Two points may be noted: first, the general confirmation, against those who have seen reason to connect the disease with new growths or with atrophy, of Sir James Paget's view that the lesion is of an inflammatory kind. Those who remember his brilliant Bradshawe Lecture will be interested to note that Mr. Silcock, without apparently being aware of the coincidence, had brought the tibia from a case of syphilitic osteitis, in order to demonstrate the points of resemblance. He also exhibited, as a proof that the disease was not a new one, a tibia presenting the lesions of the disease, which had been removed from an "old sepulchre;" this piece of evidence, indefinite though it was, was capped by Mr. Butlin, who boldly expressed the opinion that the celebrated, we had almost written the notorious, Neanderthal skull had belonged to a man afflicted with osteitis deformans. As anthropologists have considered the peculiar conformation of this skull to be evidence of a distinct type, as Professor Huxley ridiculed Schaffhausen's contention that the skull was diseased (rachitic), and as theories about the racial peculiarities of prehistoric man have been built upon its conformation, it is somewhat startling to be told by a pathologist, whose judgment on this question will be generally admitted to have a special value, that this primeval skull presents the lesions of a disease which has been supposed to be brand new. Are the anthropologists wrong about the antiquity of the skull, or some pathologists wrong about the novelty of the disease? Is there no new thing under the sun, not even a new disease?

RHINOSCLEROMA.

AT a recent meeting of the Pathological Society, a case of this disease was described by Drs. Payne and Semon, the patient having already been shown at a meeting in October of last year. In our present issue, we publish a further communication from Dr. Morell Mackenzie, dealing with the same case. It will be remembered that the patient was originally sent to Dr. Semon by Dr. Martin of Paris. There is considerable interest in the fact that it is, as we believe, the first example of this rare affection shown in this country. The disease is equally rare in the United States, and, indeed, in all countries, Austria being the one to furnish most of the examples on which the present knowledge is based. The absence of discussion on the subject is to be accounted for by the fact that English pathologists have had no opportunity of studying the morbid appearances. It, however, offers many points worthy of discussion—points that are in no way peculiar to the case in question, but characteristic of the disease generally. There is its close clinical affinity to lupus and tubercular syphilis on the one hand, and to keloid and scleroderma on the other, resemhling the former in the slowness of its growth and gradual destruction of tissue, and the latter in its hardness and elasticity. But, so far, microscopical examination has thrown no clear light on the question, beyond the negative fact that it cannot be classified with any of these diseases. Dr. Payne says that the skin and upper part of the mucous membrane was invaded by a small celled growth resembling granulation-tissue, with an admixture of some larger cells of a different form. The epidermis was altered in a peculiar manner, producing concentric masses having some re-

semblance to the "nests" of epithelium; and there were also firm masses of fibrous tissue. The whole structure was entirely different from epithelium or sarcoma, or any other definite tumour-formation. Hebra classified the disease under benign new growths, together with lupus. Perhaps the most important point to be noted in the case under consideration is that the disease made its appearance when the patient was but 14, whereas the period in which most of the cases have commenced is between the ages of 25 and 40. With regard to the treatment, every kind seems, at the best, unsatisfactory, as, no matter how destroyed, the disease has always a distinct tendency to recur.

SCOTLAND.

THE village of Larkhall is, at present, suffering from another outbreak of typhoid fever. In the present instance, it has been traced to a dairy, where two members of the household were suffering from this disease.

IT is understood that the Dwellings Commission will visit Scotland at Easter, and that there will be no change in the arrangements already decided on. According to the programme drawn up, the first sitting will be held in Edinburgh on the Saturday after Good Friday.

THE LECTURESHIP ON HUMAN ANATOMY, OXFORD.

THE appointment to the Lectureship on Anatomy in the University of Oxford has been conferred on Mr. Arthur Thomson, M.D.Edin., M.R.C.S.Eng., at present Senior Demonstrator of Anatomy in Edinburgh University.

PRACTICAL SANITATION IN DUMFRIES.

THE death-rate of the burgh of Dumfries for February was 28.87 per 1,000 of the population *per annum*. The local authority have ordered a systematic visitation of the burgh by the medical officer, inspector, and surveyor; and they have, on the report of the medical officer and sanitary inspector, ordered the closing of a number of houses in the burgh as unfit for human habitation.

AMBULANCE COURSE AT LOCKERBIE.

THE course of ambulance lectures, given at Lockerbie by Dr. George Irving, having been concluded, the St. Andrew Ambulance Association deputed Dr. Brodie to examine the members of the class on the work they have gone through. Thirty-six men appeared for examination; and, at the conclusion, Dr. Brodie stated that all the members had qualified for the badge and certificate of the St. Andrew Ambulance Association.

OUTBREAK OF SMALL-POX AT KEITH.

SMALL-POX has made its appearance to rather an alarming extent in the village of Keith. To meet the emergency, the authorities have erected a temporary hospital, and already ten persons suffering from the disease have been admitted into it. The inhabitants of the place have been seized with such dread of infection, that there was great difficulty in getting anyone to assist at the burial of a young man who died in the hospital, and as no hearse was available, it was found necessary to convey the body on a barrow to the cemetery. It is to be hoped no time will be lost in calling in the aid of revaccination for stamping out the epidemic.

IMPORTANT DECISION UNDER THE PUBLIC HEALTH ACT.

A CASE of some interest, under the Public Health (Scotland) Act, 1867, has just been decided in the Glasgow Sheriff Court. It was an application by the Govan local authority to compel the owners of two adjoining properties to remove a nuisance which exists in a burn or stream running between their grounds. The existence of the nuisance was not denied, but the defence put forward was that it was created by parties further up the stream discharging sewage into it, and that these persons, as being the real authors of the nuisance, were the ones to be prosecuted. The judgment given by the Court was that, no matter who may be the cause of it, the person upon whose property a nuisance exists is, in the sense of the Public Health Act, the author of it, and, as such, is, in the first place, bound to remedy it. This is a clear decision on a very important question, and, no doubt, attains what, of course, the Act aimed at, the speedy removal of a nuisance dangerous to the public health; but it seems to throw on private enterprise the task of putting the law into further operation against those who are the real authors of the nuisance complained of and by whose action they have been involved in litigation and expense.

THE PROFESSORS OF UNIVERSITY COLLEGE, LIVERPOOL, AND GRADUATION IN EDINBURGH.

AT a meeting of Edinburgh University Court, held on Tuesday, a letter from the Registrar of Victoria University, Manchester, was considered from which it appeared that University College, Liverpool, had been admitted as a college of Victoria University, and that the professors of that college ranked as professors of that University with the professors of Owens College, Manchester, the Court resolved that such of the professors of University College, Liverpool, as were recognised under sec. VI (4) of Ordnance No. 8, Edinburgh, No. 3, as teachers of medicine, whose courses of instruction should qualify for graduation in medicine in the University of Edinburgh, should be removed from the list of such teachers, they being now entitled without any special recognition to the more extended privileges of University Professors in connection with such graduation.

MATERNITY HOSPITAL, EDINBURGH.

THE number of cases treated by the staff of the Royal Maternity and Simpson Memorial Hospital, Edinburgh, continues to increase. During 1884, the number of confinements of in-door patients was 263, as compared with 246 in 1883; while the out-door cases numbered 602 in 1884, as compared with 510 in 1883. Only three cases have died in the hospital during the year, and these were of persons who were in a very weak condition on admission. At the annual meeting of the supporters of the institution, held in Edinburgh last week, it was stated that the income had improved to a slight extent, while the expenditure had been diminished by over £50; the income, however, still falls short of what the directors would require for the purposes of the establishment. The directors added to the staff of the hospital, early last year, two assistant-physicians, and gave these appointments to Dr. Underhill and Dr. D. B. Hart; and, at the meeting, these gentlemen were reappointed. The directors directed attention to the fact that a movement for the erection of a married women's portion of the hospital had taken place during the year, and that, by means of bazaar and donations, £1,000 had been raised for the purpose; this being a good beginning towards getting the sum of £3,500 which will be required for the separate accommodation desired for married women. The medical officers were thanked heartily for their services, and the meeting resolved to take all means to raise the income of the hospital from £600 to £800 *per annum*, last year's income having been £606, and the expenditure £761, the deficiency having had to be made up from legacies.

THE SCOTCH FISHERY SCIENTIFIC EXPERIMENTS.

THE present year is seeing an active continuation of the scientific work instituted by the Fishery Board, the west coast of Scotland being just now the chief seat of operations. The yacht *Medusa*, connected with the marine station at Granton, has been engaged for some days dredging around the Cumbraes, among those on board being Mr Murray, Mr. Pearcey, and Dr. Williamson. These gentlemen have

formed a very favourable opinion of the suitability of the Cumbraes as a marine station, and have been very pleased with the result of their labours there. Rothesay may be said to be the head-quarters in the west of the scientific work, the aquarium there having been kindly placed by the managers at the disposal of the Fishery Board. Last week, a small shoal of live herrings were brought there by the gun-boat *Jackal*, from the Ballantrae fishing grounds; and the fish, which are in fine condition and quite lively, were placed in one of the large aquarium tanks, while a quantity of ova, spawned on the way from Ballantrae, were put on sheets of glass, and deposited for observation in a separate ornamental tank, where there is a quiet but constant flow of sea-water. The Rothesay investigations were conducted by Mr. Brooks, naturalist to the Fishery Board, and his assistant, Mr. Binnie. From the very thorough and complete manner in which all these researches are carried on at the various marine stations now established in Scotland, the next report of the Scotch Fishery Board should possess great interest for scientists and others.

THE SCOTCH BOARD OF SUPERVISION.

AMONGST the few Bills of this session which really appear to have a chance of passing, is the Secretary for Scotland Bill, which will transfer to an officer with the status of a Secretary of State, the control, amongst other things, of poor-law, lunacy, public health, vaccination, rivers pollution, adulteration, artisans' dwellings, and other business of Scotland. As to the details of the Bill, we express, for the moment, no opinion; but there is an undeniable advantage in having, at the head of a Government department, an officer directly responsible to Parliament and to public opinion for the conduct of affairs in his office. Now the Scotch Board of Supervision is supposed, in a dim sort of a way, to be under the eye of the Lord Advocate, who himself is an official of the Home Office. But practically the Board do as they like, and, Edinburgh being, at a safe distance from London, may be as little aggressive or troublesome as they please to the local authorities whom they are supposed to dominate. Our readers may perhaps remember a serious outbreak of typhoid fever which occurred last year in certain of the Glasgow hospitals, and which was traced by the indefatigable Dr. Russell, with the facility begotten of much experience, to the milk supplied from a farm in the parish of Kilwinning, Ayrshire (see vol. ii, 1884, page 724). The Kilwinning local authority do not appear to have much relished Dr. Russell's scathing criticisms of their inaction, and have issued a somewhat complacent report, attempting to vindicate themselves on the score of ignorance of the conditions prevailing at the farm, and suggesting that the county authority is responsible for looking after dairies and cowsheds. The Board of Supervision, with a desire to make things pleasant, acknowledged the receipt of this report, with some commendatory words as to the judicious and firm enforcement by the local authority of the law with regard to water-supply and nuisances in the parish. Whereupon Dr. Russell has arisen in his wrath, and has pointed out that this is not the first time that Glasgow has suffered from the "judiciousness and firmness" of the local authority of Kilwinning. Four years ago, there was a precisely similar outbreak of enteric fever in Glasgow, due to milk from a dirtily kept farm in this identical parish. The same excuse of ignorance was then pleaded by the local authority; but nothing has since been done by them to improve matters. Dr. Russell winds up his indictment with the following trenchant criticism of the procedure of the Board of Supervision, which, coming from an officer so experienced, and as a rule so cautious, deserves the most serious attention of the Government.

"The fact is the Board of Supervision, very much through necessity, does not deal with complaints in an effective way. There is no use writing letters, asking reports, forwarding reports for remarks, and all this fruitless stream of official correspondence. A local inquiry, held by a competent officer of the Board, would sweep aside all specious excuses and uncover the facts; but the Board has no such officers on its staff. Dr. Littlejohn (the Medical Officer) is overworked and underpaid. The Poor-law inspectors are absorbed in their special duties. It is pinched and starved in its resources, and instead of taking advantage of such occurrences as these outbreaks of fever to proclaim the fact and arouse public opinion to its support in pressing upon Government the urgent necessity for immediate reform of the sanitary administration of Scotland, it condones all defects and derelictions of duty. If the Board of Supervision would confess its inability to deal efficiently with these abuses, and boldly state the truth, that until a new Public Health Act is obtained for Scotland, reconstructing the local authorities, and strengthening the powers and the official executive of the Central Board of Control, these abuses must continue, there would be some hope of obtaining these reforms. If, on the other hand, the Board manifests no such sense of dissatisfaction with things as they are, what hope is there of the voice of the large towns being listened to, for the rural districts will never complain?"

Evidently there will be plenty of work to which the new Secretary of State can put his hand the moment he is installed in office.

IRELAND.

WATERFORD DISTRICT LUNATIC ASYLUM.

ON December 31st last, there were 298 patients in this asylum, of whom 91 were admitted during the year, 74 of these being cases of first admissions. During the year, 33 were discharged, and 24 deaths took place. The average yearly cost per inmate was £22 19s.

ADDRESS AND PRESENTATION TO DR. CONOLLY NORMAN.

THE officers and attendants of Castlebar District Lunatic Asylum have presented Dr. Conolly Norman, resident medical superintendent, with an address, accompanied by a handsome tray. Dr. Norman has been attached to the asylum for the past three or four years, and was recently appointed, by His Excellency the Lord-Lieutenant, to the resident physicianship of Monaghan Lunatic Asylum.

BELFAST UNION: THE RESIDENCE OF THE DISPENSARY MEDICAL OFFICERS.

AT a recent meeting of the Belfast Guardians, a discussion took place with reference to the residence of the dispensary medical officers in their respective districts. Ultimately, the following resolution was unanimously adopted by the Board: "That the attention of the Local Government Board be called to the minutes of the proceedings of the last and former meetings of the Belfast Dispensary Committee, in which some of the dispensary medical officers were allowed to reside out of their subdistricts; and that this Board would request the Local Government Board to withhold their sanction to such arrangements for the following reasons: 1. That, when the medical officers were appointed, one of the principal conditions of their appointment was that they were to reside in their subdistrict; some applicants at the last election for dispensary-doctors retired on hearing that this condition would be insisted upon; 2. That the residences of four of the six medical officers at present are contiguous to each other—some of them more than a mile from their subdistrict; 3. That it is a great injustice, entailing much hardship on the poor, to have the medical officer living out of his district, causing much delay in having urgent cases attended to; 4. That the medical officer should, as far as practicable, live in the centre of his district."

BELFAST ROYAL HOSPITAL.

A MEMORIAL, signed by nearly fifty clergymen of different religious denominations in Belfast, was recently presented to the Board of Management of this hospital. The memorialists state that, when members of their churches enter the hospital, they receive no intimation of their admission, unless their cases be urgent, and they express a positive wish to see a clergyman. This difficulty is intensified in the case of those who have no actual connection with any particular congregation, though belonging to the different denominations, and still more in the case of strangers. They suggest that the religion of

the patients admitted should be registered in a book to be seen only by the resident physician and the clergymen representing the respective churches.

CORK EYE, EAR, AND THROAT HOSPITAL.

THE annual meeting of the friends of this hospital was held last week, presided over by the Mayor of Cork. It is satisfactory to learn from the report, which was adopted, that the past year has been a successful one. During the previous year, a very heavy debt was cleared off by a special effort, thus enabling the committee to commence the year with a clean balance-sheet, and, notwithstanding the fact that the number of patients treated has far exceeded that of any previous year, it has been brought to a close with a small balance to the credit of the hospital. The income for the year was £573, of which only £146 was subscribed by the public, the remainder being derived from paying patients, and from unions, schools, and other institutions which sent patients to the hospital. During the year but one death took place, from inflammation of the brain, the result of neglected ear-disease. The opportunities afforded for studying the treatment of affections of the eye and ear in the hospital have been accorded to the students attending the Queen's College and others, and have been largely taken advantage of by them, as well as by several medical men from a distance. The surgical staff draw attention to the necessity for increased accommodation for the extern patients; and, still more, the great need which exists for a proper day-room, where the intern patients, except those confined to bed, may assemble during the daytime, in place of remaining in the wards both day and night. A vote of thanks to the surgical staff for their services terminated the proceedings.

THE EXAMINATION AND REGISTRATION OF MIDWIVES.

THE Lord President of the Privy Council (Lord Carlingford) received on Thursday, the 12th instant, a deputation from the Parliamentary Bills Committee of the British Medical Association, and other bodies, on the subject of the examination and registration of midwives. The deputation consisted of Dr. Farquharson, M.P.; Dr. J. H. Aveling; Dr. R. Barnes; Dr. Priestley; Dr. Meadows; Mr. S. Sibley; Dr. Holman (Reigate); and Dr. Grigg.

Dr. FARQUHARSON having introduced the deputation,

Dr. AVELING said his lordship would probably be astonished at their frequent visits to him on this question; but it was impossible for them to forget the subject, in view of the numerous cases which were constantly cropping up, and being published, of the mischief which midwives were doing. He recapitulated the steps that had been taken by the joint committee of the Parliamentary Bills Committee and the Obstetrical Society in dealing with the subject, and reminded his lordship that the draft Bill, which on a previous occasion they had the honour of submitting to him, had been sent by him to the General Medical Council, and approved by them, with some slight modifications which the joint-committee had seen their way to adopt. They were now desirous to know whether there was a prospect of any legislation taking place on the subject this session, and if his lordship would help them in forwarding the matter.

Dr. HOLMAN (Reigate) referred to two very pertinent questions which were put to him when the question came before the General Medical Council: 1. Would there be any friction between properly qualified midwives and members of the medical profession? and 2. Would the services of these midwives be accepted by the poor? What he then stated as a matter of belief, he had since verified by actual experience. In two instances within his (Dr. Holman's) observation, not only was there no friction with the medical profession, but the services of the certificated midwife were eagerly sought after by an artisan and poor population, and the untrained midwives were fast losing their practices.

Dr. ROBERT BARNES gave testimony to the good work done by the properly qualified midwife; and the dangerous, and often disastrous, consequences attending the employment of women uneducated and untrained for the duty. It was only when some catastrophe occurred that they were brought face to face with the real danger.

Dr. AVELING said it had been calculated that there were about 12,000 midwives, and that they attended fully 60 per cent. of the confinements of the country.

Dr. GRIGG pointed out that, during last year, there were only sixty persons trained as midwives in London; south of Birmingham, there was no training-school for midwives; and, for the whole of the south of England, there were only sixty women went through a regular course of training. Many were deterred by the expense of coming to London; and, until the matter was put under Government supervision, they would continue to have, as was at present the case, women of inferior stamp, who could neither read nor write.

The LORD PRESIDENT, in reply, stated that he felt most sincerely what the deputation had wished again to impress upon his mind, namely, the evils of the present haphazard system, with no public test of the qualification of midwives. He felt the importance of doing something to remedy that state of things. As to the prospect of successful legislation on the subject during the present session, he could not express himself in sanguine terms; on the contrary, he thought there was little hope of passing so comprehensive a measure this session, though he was disposed to think that, if it could be done, it would be right. Lord Carlingford concluded by saying he should be very happy to be the means of accomplishing legislation on the subject.

Dr. FARQUHARSON having thanked his lordship, the deputation withdrew.

We have every reason to believe that the action of the deputation has already borne good fruit; and that the Lord President has decided to introduce into the House of Lords, without further delay, the Bill drafted by the Joint Committee and approved by the General Medical Council.

NATIONAL SOCIETY FOR AID TO THE SICK AND WOUNDED IN WAR.

THE Council of this Society has recently issued a circular respecting the work that the Society is now undertaking in Egypt, from which we gather the following particulars. In the first place, the Council desires to express its entire approval of the work which has been already accomplished during the last five months by Major Young in Egypt. He has succeeded in causing the Society's organisation to be thoroughly recognised and accepted along the Nile route, and he has successfully established a system of evacuating the sick between Wady Halfa and Cairo by means of a steam launch and dahabeah, fitted up with special conveniences and advantages.

The operations in Egypt and the Soudan have recently become greatly extended, and it is most probable that the needs of the wounded, and especially the sick, will become greater as the summer advances. The Council is, therefore, prepared to sanction the construction of another steam launch, to be employed at a higher level on the Nile than that where the *Queen Victoria* is operating. Major Young will also be at liberty to supplement that steam-vessel with the aid of local boats, or dahabeahs, as he may find desirable.

Consequent upon the departure of a military force to Suakin, the Council has appointed a second commissioner for that district, Mr. V. Kennett Barrington. Each commissioner is to have supreme authority in his own district over the medical officers and all agents of the Society. At the same time, a thorough and complete understanding and accordance will exist between the two commissioners. The sphere of operations over which Major Young will preside, will include the Valley of the Nile, Cairo, and Suez. Mr. Kennett Barrington will take charge of that portion of the expedition which will have its headquarters at Suakin, and will include all operations extending from Suakin and Berber. A generous offer has been made by Sir Allen Young to place his yacht *Stella* at the service of the Society. This offer has been gratefully accepted, and Sir Allen Young has been appointed their Commissioner afloat attached to the Suakin ambulance. An immediate outlay will be required to defray the cost of the steam-launch and of the local boats above alluded to, and also for expenditure connected with the operations of the Society between Suakin and Suez.

A Ladies' Branch of the National Aid Society has been recently formed, under the presidency of the Princess of Wales. An understanding has been come to with this branch Society, that their work shall be carried out through the commissioners and agents of the National Aid Society. Matters connected with female nursing in the hospitals, and with the disposal of any gifts that may be sent out, will naturally be of special interest to the Ladies' Committee. The Army Medical Department having given the most distinct assurance that everything needed for the health and comfort of the troops has

been provided, and will continue to be sent out, it will be the endeavour of the Society to furnish supplementary comforts and luxuries of a nature somewhat beyond the scope which the Army Medical Department can be expected to supply. Games for the recreation of convalescents in hospital will be specially acceptable. Contributions of newspapers also will be highly welcome, provided the newspapers are in sequence, and of recent date, and illustrated papers and magazines in sequence are especially appreciated. Parcels made up according to these instructions may be sent direct to Major Young, at Shepherd's Hotel, Cairo, or may be delivered at the offices of the Society, 5, York Buildings, Adelphi, W.C., to be forwarded regularly to him for distribution. It remains to notice that the Society is now engaged in aiding the soldiers of our *own* country, and that the strict regulations which have hitherto been observed of restricting aid to those who have become non-combatants, are no longer incumbent upon the Society, although it is to be borne in mind that it is the sick and wounded who have the first claim. The circular is signed by Sir R. Loyd Lindsay, Chairman of the Council of the Society.

MEDICAL SICKNESS, ANNUITY, AND LIFE-ASSURANCE SOCIETY.

A MEETING of the Executive Committee of this Society was held on Wednesday, the 11th inst., at the residence of Dr. W. M. Ord, Brook Street, W. There were present: Dr. W. M. Ord, Dr. W. Clibborn, Dr. T. M. Dolan, Dr. De Havilland Hall, Mr. E. Bartlett, Mr. M. Greenwood, jun., Mr. J. Brindley James, Mr. F. Wallace, Mr. S. W. Sibley, and Mr. E. Noble Smith. It was reported that ten new proposals had been received in the four weeks since last meeting, making the total to date 651. The balance in favour of the Society was stated to be £4,689 2s. 10d.; and as the quarterly premiums were now being paid, this might be expected to be increased to about £5,400 in a few days. During the four weeks, £62 8s. had been disbursed for sickness-pay, and it was stated that already claims had been paid for sicknesses of a widely varying nature—from severe accidents to the ordinary forms of temporary disablement. The rate of sickness up to the present, however, compared very favourably with the data on which the tables were founded. The question of further investment of funds was considered, and it was decided to invest from £2,000 to £3,000 at a good rate of interest on the security of borough rates. All information as to this Society may be obtained of the Secretary, Mr. C. J. Radley, 26, Wynne Road, Brixton, S.W.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885 ELECTION OF MEMBERS.

Regulations for the Election of Members passed at the Meeting of the Committee of Council, October 12th, 1881.

1. There shall be a standing notice in the JOURNAL every week, of the meetings of the Committee of Council throughout the year; and stating that gentlemen wishing to be elected members of the Association must send in their names *twenty-one days* before the meeting of the Committee of Council at which they wish to be elected.
2. That a list of applicants be in the hands of the Committee of Council *fourteen days* before such meeting of the Committee of Council, and that the Branch-Secretaries be supplied with *several* copies of the list.
3. That no member be elected by a Branch, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Meetings of the Council will be held on April 8th, July 8th, and October 14th, 1885. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary, not later than twenty-one days before each meeting, namely, March 18th, June 17th, and September 24th, 1885, in accordance with the regulation for the election of members, passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 8th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, March 14th, 1885.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
IV*a*. Diphtheria, sanitary.
VI. Acute Gout.
VII. Puerperal Pyrexia.
VIII. Paroxysmal hæmoglobinuria.
X. Habits of Aged Persons.
XI. Albuminuria in the Apparently Healthy.
XII. Sleep-walking.
XIII. Cancer of the Breast.

An inquiry is now issued concerning the general condition, habits, and circumstances, past and present, and the family history of persons who have attained or passed the age of 80 years.

The replies to this inquiry will be most valuable when given by a medical man; but the questions have been so arranged that, with the exception of some on the last page, they may be answered by another person. *Partial information will be gladly received.*

There is also now issued an inquiry as to the occurrence of albuminuria in apparently healthy persons.

The Acute Gout card, which had been found too elaborate, has been made a great deal simpler, and is now re-issued.

Copies of these forms and memoranda are in the hands of all the local secretaries, and will be forwarded to anyone who is willing to fill up one or more of the forms, on application by post-card or otherwise to the Secretary of the Collective Investigation Committee, 161A, Strand, London, W.C., to whom all applications and correspondence should be addressed.

July, 1884.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—C. SIBTHORPE, Honorary Secretary, Madras.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next ordinary meeting will be held at Pontypridd, on Wednesday, April 15th. Members wishing to bring forward papers, communications, etc., are requested to send titles to one of the undersigned before March 29th.—A. SHEEN, M.D., Cardiff; D. ARTHUR DAVIES, M.B., Swansea, Honorary Secretaries.—February 25th, 1885.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the above Districts will be held at the Grand Hotel, Brighton, on Tuesday, March 24th, at 4 P.M. Dinner at 6 P.M.; charge 6s., exclusive of wine. Charles J. Oldham, Esq., will preside. The following papers have been promised: 1. The Chairman, "A Case of Hydrophobia." 2. Noble Smith, Esq., "A Case of Incontinence of Urine from Malformation Cured by Operation." 3. Dr. Withers Moore, *a*, "A Case of Locomotor Ataxy with Anomalous Symptoms;" *b*, "A Case of Meningitis." 4. Dr. Sutherland, "The Premonitory Symptoms of Insanity." 5. Dr. Ranking, "Cases of Fæcal Tumours." Messrs. Krohne and Sesemann will show some new instruments.—G. B. COLLET, T. JENNER VERRALL, Honorary Secretaries, 95, Western Road, Brighton.—March 3rd, 1885.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this district will be held at the West Kent General Hospital, Maidstone, on Friday, March 27th, at 3.30 P.M., Charles Hoar, Esq., M.D., in the chair. The dinner will take place at the "Star" Hotel, Maidstone, at 6 P.M. precisely; charge, 6s., exclusive of wine. Gentlemen who intend to dine are particularly requested to signify their intention to Dr. Hoar, 3, Rocky Hill Terrace, Maidstone, not later than March 26th. All members of the South-Eastern Branch are entitled to attend this meeting and to introduce friends.—Papers to be read: 1. Charles Frith, Esq., M.D.: "Two cases of Thoracic Aneurysm, with specimens." 2. J. E. Meredith, Esq., M.D.: "A case of complete Atresia of Vagina, with severe constitutional symptoms." 3. C. Boyce, Esq., M.B.: "A case of Intestinal Obstruction: Stercoraceous vomiting for five days; recovery." 4. M. A. Adams, Esq., F.R.C.S.: "Clinical Notes on Amaurosis." 5. A. H. Hallowes, Esq.: "Surgical Cases of Interest." Dr. Ground will exhibit some specimens of Pathogenic Micro-organisms. At 3 P.M. Messrs. Mayer and Meltzer will exhibit some new Surgical Instruments.—H. LEWIS JONES, Honorary Secretary, St. Bartholomew's Hospital, Chatham.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this District will be held at Faversham on Thursday, March 26th, at 3 P.M.; Mr. Garraway in the chair. The following communications have been promised. 1. Dr. Bowles: "Cases illustrating the difficulties of the Diagnosis of Aneurysms." 2. Mr. Wacher: "A case of Puerperal Fever treated with Warburg's Tincture." 3. Dr. White: "A Hospital for the Insane in the United States." 4. Dr. Eastes: "Empyema." The dinner will take place at the Ship Hotel at 5 P.M. Members wishing to nominate candidates for the office of representative of the Branch in the Council of the Association should send their nomination to me on or before March 31st.—T. WHITEHEAD REID, Honorary Secretary, March 5th, 1885.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.—The next meeting will be held at the Bush Hotel, Farnham, on Thursday, March 26th, at 3.45 P.M.; S. G. Sloman, junior, Esq., of Farnham, in the chair. Dinner at 6 P.M., precisely charge 7s., exclusive of wine. The following papers, etc., have been promised

Mr. Lorimer: "A case of Aneurysm of Hepatic Artery." Mr. H. Sloman: "A case of Prostatic Abscess." Mr. S. G. Sloman: "A paper on the Influence of Warmth in Health and Disease." Dr. Pearsé: "A paper on the Treatment of Diseases of the Heart."—A. ARTHUR NAPPER, Honorary Secretary, Broad Oak, Cranleigh, Surrey.

SOUTH-EASTERN BRANCH.—Members of this Branch are requested to take notice, "That candidates for the office of representative of the Branch at the Council of the Association, should be nominated by any two members of the Branch, before April 15th, and their names sent to the Honorary Secretary." The present representatives are, for Kent, Dr. Parsons (Dover); for Surrey, Dr. Holman (Reigate); for Sussex, Dr. Withers Moore (Brighton).—CHARLES PARSONS, M.D., Honorary Secretary.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, March 26th, at 5 o'clock. The following question has been settled by the Council as the one on which members should be invited to express their opinion at the said meeting after dinner: "What is your opinion on Vaccination, with reference to the three following points: 1. Is there any diminution in its prophylactic value? 2. Is calf or humanised lymph preferable? 3. Have you noticed any diseases occasioned by it?—W. M. KELLY, M.D., Honorary Secretary.—Taunton, February 26th, 1885.

BORDER COUNTIES BRANCH.—The spring meeting will be held on Friday, March 20th, at Maxwell's Commercial Hotel, Galashiels. The chair will be taken by the President, Dr. Muir, at 4 P.M., when a discussion on Pneumonia will be introduced by Dr. Lockie, of Carlisle. Dinner at 7 P.M. Notices of papers for reading, morbid specimens or patients for exhibition, should be sent to the Secretary, H. A. LEDIARD, Carlisle.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE fourth ordinary meeting of the session was held at the Grand Pump Room Hotel, Bath, on Thursday evening, March 12th, R. S. FOWLER, F.R.C.S.Ed., President, in the chair. There were also present thirty-eight members and one visitor.

New Members.—The following new members were elected. Mr. T. Jones, Bath; Mr. G. S. Pollard, Midsomer Norton; Mr. T. Martin, Temple Cloud; Mr. L. E. W. Stephens, Bristol; Dr. C. D. G. Hailes, Redland; Dr. W. Dowson, Bristol; Mr. A. J. Bisdee, Banwell.

Communications.—The following communications were made.

1. Dr. Fox brought forward Notes on Two Cases of Enteric Fever.
2. Dr. Goodridge read a paper On the Employment of Digitalis in Acute Febrile Diseases.—Drs. Shingleton Smith, Markham Skerritt, and Spender, and Mr. Lowe took part in the discussion which followed.
3. Mr. Freeman reported A Case of Successful Removal of Uterus and Ovaries, and showed the Specimen.—Messrs. Lowe and Craddock commented on the case.

JAMAICA BRANCH.

Officers and Council.—The following have been elected: *President:* J. C. Phillipps, M.D.; *President-elect:* J. Cargill, M.D.; *Secretary and Treasurer:* F. H. Saunders, Esq.; *Council:* C. Gayleard, Esq.; G. C. Henderson, M.D.; J. Ogilvie, Esq.; J. Pringle, M.B.; D. P. Ross, M.D.; A. R. Saunders, M.B.; W. H. M. Strachan, Esq. There are now thirty-three members in the Jamaica Branch, which was the first colonial Branch of the Association.

SOUTH-EASTERN DISTRICT: EAST SURREY DISTRICT.

A MEETING of the above was held at the Queen's Hotel, Upper Norwood, on Thursday, March 12th; Surgeon-Major G. K. POOLE, M.D., of Norwood, presiding.

Next Meeting.—It was unanimously resolved that the next meeting be held the second Thursday in May at Croydon.

The late Dr. Lanchester.—Upon the motion of Dr. J. H. GALTON, the President of the Branch, seconded by Dr. T. RUTHERFORD ADAMS, and supported by the Chairman, it was unanimously resolved: "That the sympathy and condolence of the members be conveyed to the family of the late Dr. Henry T. Lanchester, of Croydon, the founder and first secretary of the district, and whose lamented death had occurred since the last meeting."

Papers.—The following papers, etc., were read and discussed.

1. Edmund Owen, Esq.: Incontinence of Urine in Childhood.
2. Dr. F. H. Champneys: The Prevention and Treatment of Abortion.
3. Dr. R. M. Miller: The Infection of Diphtheria.

Dinner.—Twenty members and visitors remained to dinner.

SPECIAL CORRESPONDENCE.

LETTERS FROM THE EAST.

Holidays at Sea.—The Faculty of Idleness.—The Message to go South.—Abiding by the Ship.—The Sea-Sanatorium.—London to Port Said.—Experiences in the Mediterranean.

MR. ERNEST HART writes as follows from Malta, under date March 5th, in a letter which we are permitted to publish:

A letter from ship-board can but be a vain thing, reflecting the idleness to which it is the first function of "a holiday at sea" to minister. Of such a state, there are many who can think only with pity, some only with disdain. To be shut up on ship-board is captivity; but perhaps one which holiday-hopes and a catholic appetite render the most delightful of prisons, the least suggestive of walls and bars. Boswell said to Dr. Johnson, "We grow weary when idle;" and the laborious lexicographer replied to the effect that "that is because, others being busy, we want company; but, were they also idle, there would be no weariness; we should all entertain one another." That is a vivid picture of life on board-ship on a cruise on summer seas. The faculty of idleness is, in my conviction, one which busy men do well to cherish and cultivate. "To possess the soul in peace" is a means of physical and intellectual health, and an aid to the development of wholesome individuality. To be happily idle is a duty much disregarded, a capacity probably insufficiently esteemed, and a factor which physicians may wisely introduce systematically into their own lives, and prescribe for their patients. Undeviating devotion to what a man calls his business is commonly rated as a part of wisdom and virtue; but, if this be true, it is also only half true; and I am inclined to agree with Robert Louis Stevenson, who, in one of his charming essays, asks whether this undeviating devotion is not inevitably apt to be sustained only by undeviating neglect of many other things; and, again, whether it is at all certain that a man's "business" is the most important thing he has to do.

At any rate, in every man's life, there arrive seasons when it is well that he should step aside from the hustling crowd and struggling combat, to breathe a quiet air, dwell in other regions of thought, and understand, by inner experience, that in life there is a duty "to be," not at all less than a duty "to do." When physical infirmities accentuate this call, it need not be altogether regarded as a misfortune; and the imperative message to go South, or to dive into the far East, which wintry winds and chilly fogs bring to some of us, might well, perhaps, be more widely received and extensively obeyed.

The least propitious months in most parts of England are January, February, and March; they are the best suited for holidays at sea. We may leave behind us driving rain, low temperatures, the sharp nor'-easter, lowering clouds, and muddy streets—enemies of body and mind. There lies before the sea-going traveller, in search of health and rest, the choice of many a route. Madeira, much neglected by holiday-makers, and too long handed over to the consumptive, lies almost at our door. Eighty to a hundred hours, soon passed in the spacious steamers of the Union Company, bring us, without toil or trouble, to an island whose beauties are little explored by travellers, and almost unknown to holiday-makers. The floating house is fitted as an hotel; but, when it glides into the warm airs of the South, it is an hotel such as no land-resort can rival. The temperature ranges through but few degrees from night to morning; the thermometric variations of a land-station are unknown at sea. The surrounding air, purer than on the mountain-top, and always with us, invigorates and ozonifies, and frees us from "Listerian precautions." Whatever purity of air, diffusion of sunlight, equability of temperature, nocturnal and diurnal, can do for health, that we have at command, without effort and without preparation, on our sea-holiday. For those to whom the love of the sea has not yet become a passion; such a short trip as the delightful run to Madeira, will suffice to introduce them to the scenery of a volcanic island which knows no superior in this quarter of the globe, and few rivals in its varied beauty. At the sea-level flourish the bamboo, the sugar-cane, and a semitropical vegetation; a little higher lie fields bounded by hedges of geranium and fuchsia, in tree-like growth; and, yet higher, forests of the oak, elm, and the stately "tel." This short holiday at sea I recall, because a fortnight's trip, which sufficed to take us to Madeira and back, with a week's excursion round the island, dwells in my recollection as an unfading and delightful vision, associated with impressions of much physical benefit. A fortnight at any English resort would hardly have answered the same purpose; certainly it could not have supplied so

many brief and admirable pictures, autotyped on the album of the mind. The shock of change would have been less bracing; the absoluteness of the holiday would have been qualified by its want of isolation; and rest would have been tempered by trials of the telegraph, and pricked with postal thorns. Therefore, if anyone with a thirst for a fortnight's rest, finding in himself the force to cut the cords which bind him to the study, the desk, or the office, feel impelled to seek a far off change, which shall show him, in brief space of time, a new face of Nature, and lead him, in happy and breezy idleness, and in maritime ease, to an island which has undreamed-of beauty, Madeira may tempt him.

But it is not to Madeira that I am bound, or of which I have, therefore, any business to write. To go to sea is not necessarily a means, but may well be an end; the ocean-way is not only a path, but a dwelling-place; and a long sea-journey, ever looking onwards to fresh days of changeful beauty and freshening influence, is an element of the materia medica which I inscribe as among the most precious gifts of Nature, and a joy which is the less speakable, but the more exquisite from its dumb but deep impressions. There are, no doubt, people "who swallow the universe like a pill, and travel onwards, like smiling dolls, pushed from behind;" and for these I would be slow to prescribe a fortnight at sea, even through the Mediterranean to Egypt; whither I am now bound for the second time within these last few years. But, *experto crede*, to the worn and weary with much of the world's work; to the infirm or delicate; to the resolute man, whose mental identity is precious to him, and whose holiday-life is part of his theory of existence; or to the average and occasional tourist, who has known how to preserve enough of desire and curiosity to serve to keep him "rich in the possibilities of pleasure"—a winter holiday at sea in the Mediterranean will yield an endless harvest of pleasure and profit.

The choice may be made of a short trip to Gibraltar (five days), a longer one to Malta (ten days), or preferring, as a wise man may, to abide by the ship, he may follow her fair fortunes to Suez, and then, having reached the limits at which expanding warmth of a gentle and favouring sun is about to be rapidly transmuted to fierce shrivelling heat, he will likely turn aside to the bazaars, the coffee-shops, the mosques, the tombs, the museums, the palm-trees, the sands, the pyramids, of Cairo and its neighbourhood. Thus it is that we are idling on board the steamship *Nepaul*, of the Peninsular and Oriental Steamship Company. If you would like to know our daily temperature, I append a list of thermometric observations, which will show you the temperate and equable heat in which we have basked since we passed Ushant Point.

Thermometric Record.

Date	4 A.M.		8 A.M.		Noon.		4 P.M.		8 P.M.		Midnight.	
	Dry Bulb.	Wet Bulb.	Dry Bulb.	Wet Bulb.	Dry Bulb.	Wet Bulb.	Dry Bulb.	Wet Bulb.	Dry Bulb.	Wet Bulb.	Dry Bulb.	Wet Bulb.
March 1	56½	54	56	55	59	55	58	54½	56	53	56½	54
,, 2	57	55	59	56	64½	60	63	59	60	57	—	—
,, 3	—	—	—	—	61	59	66	63	62	58	—	—
,, 4	58	58	—	—	—	—	66	65	62	61	60	58
,, 5	59	58	62	60	64	62	64	60	64	65	63	62
,, 6	59	58	59	60	—	—	—	—	—	—	—	—

But, to appreciate our delights, you must picture the long deck overstretched with a sheltering awning, and up and down it ranks of lounging-chairs; children playing, ladies reclining, knitting, reading, sleeping, gossiping over afternoon-tea; the gentlemen in the smoking-tent aft; in a word, all the devices of a multitude who, being idle, are bent on entertaining each other. To give this scene local colour, put in the Indian ayah, with jet hair and dusky skin, dressed in white, and crouching on guard over her infant charge; the Chinese amah, with sloping slit-like eyes, and profuse beads and bangles and hair-skewers; here and there a lascar fastening a loose rope; and, penetrating through everything, the blessed sunshine, warming, vivifying, gilding, and glorifying all. Around are the Mediterranean waves, dimpling with multitudinous smile, as when the primal poets sang of the *ἀνήριθμον γέλασμα*; sometimes reflecting only the lazuline blue of a cloudless sky, and showing dreamy depths into which the imagination plunges; or sometimes the mackerel-tints of a sunset, in which the eye resolves the tints into orange, gold, emerald, and ruby, and then rejoicingly takes note of its own failure to do more than perhaps record for future memory the many-hued picture which pencils of light have spread upon the dissolving canvass of the skies. Beyond, in the midst of the many-tinted waves, there spouts a small whale; or nearer, a school of dolphins roll over in boisterous play; or at night, the constellations hang closely in the sky, and we turn with easy change of pleasure from watching Jupiter, whose four moons are easily seen with a field-glass, to the line of phosphorescent light traced by the swift keel ploughing the waves. Across the stern dart shoals of fish, which leave trails of light, and whose rapid mazy motion traces paths of endless variety, gleaming with luminous spots.

Thus far we have prosperously journeyed in search of health and rest, and in a few hours we reach Malta, where this letter will be posted. Telling you of our sea-journey, I have said nothing of Gibraltar; but I may leave this till another letter, when I will also write something of Malta; neither, however, are of much interest from our point of view. The great thing is to be at sea, and to have fine weather.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

A Medical Trial.—Protection of Infant-life.—Medical Inspection of Schools.

A curious trial, important in its bearings on professional etiquette, has just terminated. The facts are briefly these. Dr. Watelet attended the well known painter Bastien-Lepage, recently deceased. He was reproached in one of the Paris papers for having sent Bastien-Lepage to Algiers, because, according to that authority, he was suffering from syphilis. Dr. Watelet wrote a letter to the *Matin*, denying the statement alluded to, and asserted that the cause of death was cancer of the stomach. In consequence of this letter, Dr. Watelet was summoned to take his trial "for violating professional secrets with reference to the illness of M. Bastien-Lepage." Dr. Watelet has been condemned to pay 100 francs (£4) fine for infraction of the 378th article of the penal code. Whilst the trial was proceeding, Dr. Watelet received, from the Minister of the Interior, a silver medal for his devoted services during the cholera-epidemic. The editor of the *Matin* is condemned to pay a fine of sixteen francs for having published the letter written by Dr. Watelet.

At the Académie de Médecine, the question of the depopulation of France has been again discussed, but under the title of protection of infant-life. M. Lagneau predicts that France will sink to the rank of a fifth-rate power if, with the present rate of mortality, births do not increase. M. Jules Rochard suggested that if the birth-rate cannot be raised, that of mortality might be lessened, and proposed that the Roussel law should be more generally applied. M. Roussel, the author of the law, took part in the debate, and stated that a report drawn up by the prefect of Calvados, estimated the rate of mortality in that department among children newly-born up to two years of age during the years 1881, 1882, 1883, to be 7.20 per cent., 5.84 per cent., and 5.49 per cent; among children under one year the mortality was heaviest in 1882. In the department of the Seine, the Roussel law had reduced infant mortality to 8 per cent. The great difficulty in obtaining the general application of this law is the expense; in 9 departments it is not applied, and in 74 there is not any medical inspection. The prefect of Calvados in his report suggests several amendments in the law, among others that there should be a more complete inspection of children brought up by unpaid guardians, also of children who are taken back by their parents; that the commissioner should not be paid for sitting; that the age of the milk of nurses should be certified; that bottle-feeding should be prohibited in hot weather; also that nurses should be obliged to state why a previous nursling was taken away from them. The Roussel law, which was adopted in 1874, places nurslings and wet nurses under the surveillance of the police. The prefect of each department makes a yearly report to the Minister. The prefect of the police states that in the department of the Seine, 4,451 children were put out to nurse during 1883; of these, 1,581 remained from the preceding year, but the real number must be estimated at 20,071. It appears that, owing to the many formalities to be observed, wet-nurses frequently disregard the declaration exacted by the law; the prefect of the police and the prefect of Calvados recommend that these formalities should be simplified. Some of the children put out to nurse are suckled, others brought up by the bottle, and others are sent from their mothers to be weaned. In 1883, among 414 children who died, 217 were brought up by bottle, and 180 were suckled. Illegitimate children die at the rate of 11 per cent., and legitimate at 8 per cent.; this is attributed to the fact that the nurses who are entrusted with the care of illegitimate children are less regularly paid. The mortality among children boarded out tends to decrease; between the years 1880

and 1884, from 9.99 per cent., it decreased to 9.30. This improvement is believed to result from the discretion exercised in choosing nurses, and their being overlooked by the police, and examined by a medical man in the locality they inhabit, and also by one attached to the prefecture. In 1883, among 15,086 wet nurses, 33 were refused; 355 were forbidden to be wet nurses, but were allowed to be nurses for tending children brought up by the bottle.

The Minister of Public Instruction has recently issued a decree that all candidates for the entrance examination of the superior École Normal, are to be examined by a medical man, and are to be admitted if provided with a certificate that they are exempt from any infirmity which renders them unfit for study.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

University Medical Examiners.—Porro's Operation.—Loch Katrine Water.—Close of Winter Session.—Educational Endowments Scheme.—Ophthalmic Institution.

AT the meeting of the University Court held this week, the appointments of the medical examiners for graduation in medicine in the University were made. The three gentlemen chosen were Dr. A. W. Macfarlane of Kilmarnock, Dr. James Wallace of Greenock, and Dr. David Newman of Glasgow. Dr. Macfarlane will act as examiner in the department of medicine and clinical medicine; Dr. Wallace in that of surgery and clinical surgery; while Dr. Newman will, as before, take that of physiology and pathology. The appointments are for the period of four years from the 1st of April next. All of the selected candidates are graduates of Glasgow University.

The operation of Cæsarean section was performed on the 10th instant at the hospital in connection with the training-home for nurses, by Dr. William Muir. The method followed was that known as Porro's modification, in which the uterus is removed after the child is delivered, and the pedicle treated as in ovariotomy. The parts removed were shown the same evening at the Pathological Society; and it appears that the operation was rendered necessary by pelvic obstructions to delivery, which had on two previous occasions necessitated embryotomy. The mother and child are doing well.

Professor Mills has just given us his annual report on the Loch Katrine water for the twelve months from March of last year to the end of February of the present year. A perusal of the table giving the mean composition of our water-supply shows a considerable increase in its variability and unsteadiness; and it also brings out the very important point that, in the past twelve months, there has been a remarkable increase in the ratio of organic nitrogen to organic carbon. This fact is, of course, of considerable sanitary interest, especially as the authorities are now before Parliament for powers to increase the city's water-supply from the same source; and, if it indicates the probability of any sewage-contamination, steps should be taken to at once remove this.

It has now been definitely decided that the winter session of the University will end on April 3rd. This was rendered imperative, to allow of the statutory courses of one hundred lectures being delivered, as an earlier date would have made this impossible in some cases. The Rectorial address on the 26th introduces rather a disturbing element into the work and examinations of the session, and, by some of the Senate, it was hoped that it might be postponed until later, and delivered immediately after the capping ceremony in April, but this arrangement could not be carried out. The presence of the Earl of Stair, the new Chancellor of the University, will render the degree day next month more imposing. He is to preside on the occasion, and confer the degrees.

The scheme which has been framed by the Educational Endowment Commissioners for the administration of various institutions in the city has now been published. It provides for Anderson's College and the Young Chair of Chemistry connected with it, the College of Science and Arts, Allen Glen's Institution, the Technical College of Glasgow, and the Atkinson Institution. Government by trustees is done away with, and the funds of these institutions will be amalgamated and administered by a governing body of thirty-four members. Of these, two are elected by the Senate of the University of Glasgow, and one by the Glasgow Faculty of Physicians and Surgeons.

Our Ophthalmic Institution was able to show a very good record of work done during the past year, when its friends and supporters met last week to hear the annual report. The indoor cases numbered 344, and the outdoor ones over 3,000. With the exception of 58, the remainder were all benefited by the aid received at the institution. A very gratifying feature in the reports of this charity, as well as in those of our other eye infirmary, is the large sum received annually from the workpeople in the public works. Notwithstanding dull trade this year, it has been considerable. The most unsatisfactory point in the report as it appears in the public papers, is the tone pervading all the speeches delivered at the annual meeting. Such occasions should not be used for personal flattery and adulation; and when the work performed at the institution is spoken of as only fit to be ranked with the miracles of our Saviour's days, we have introduced a most objectionable and unsuitable comparison, and savouring rather of the pretensions put forward by enthusiasts such as our Salvation Army possesses.

CORRESPONDENCE.

LONDON UNIVERSITY AND LONDON MEDICAL STUDENTS.

SIR,—I beg to enclose a letter which I trust you will be able to publish, because the esteem in which Dr. Lauder Brunton is held by the profession renders anything he may have to say on the important subject concerning which he writes peculiarly valuable. I would only remark that the majority of the parents of medical students who do not reside in town, cannot afford to keep their sons in London for more than four years, that is, to give them more than £600 for their medical education; school and examination fees, £150; food, lodgings, clothes, £450; and I question if many parents get off under another £100. It follows that London students can only remain about four years at a medical school, and, consequently, the number of subjects they can master is limited by time. I say master, because, to my mind, the system of cramming for examinations is most detrimental to students, and to the usefulness of a man's future career.

I think that the honours, such as the Oxford first, second, and third class, would be more satisfactory than instituting a new degree, such as that referred to by Dr. Lauder Brunton.—Yours,

C. MACNAMARA.

[COPY OF DR. LAUDER BRUNTON'S LETTER.]

"50, Welbeck Street, Cavendish Square, W.
"March 12, 1885.

"Dear Mr. Macnamara,—Allow me to thank you much for your kind invitation to join the deputation regarding the London University.

"It seems to me that there are very many difficulties in the way of obtaining what we want from the London University. Still, I think the attempt ought to be made. If the London University complies with our wishes, and agrees to grant medical degrees on examinations similar to those which are now held for the degree of M.D. in the University of Edinburgh, the University of London will only be returning to its old traditions. At the meeting the other night Dr. Bridgwater informed us that he had taken the degree of M.B. at the University of London in 1852, when it was much easier to attain than it now is. It is, therefore, a fact that the M.B. of the University of London which is granted to men at the present time, does not represent the same degree of medical knowledge as the degree did twenty years ago. The demands made upon the candidates are much greater now than they were then. The reason of this is, that medical science has made such enormous strides within the last twenty years, that for any student to become thoroughly acquainted with its different departments requires much more time and application now than formerly. If the London University, then, were to grant its degree of M.D. to students who show that they possess such a knowledge of medical science and medical practice as renders them thoroughly competent for the practice of their profession, it will again restore to its primitive value a degree which has been gradually becoming more and more difficult of attainment. The object of theLondon University, in holding forward a degree which shall represent the highest amount of medical attainment, will be obtained, and in a much more satisfactory manner than at present, by the institution of another degree of Doctor of Medical Sciences, D.M.Sc. This second degree would represent the true value of the present M.D. of London, and define clearly the difference between it and the ordinary degree of M.D. Speaking as one who has examined in the University of Edinburgh, in the University of London, and in the Victoria University, I may say that, as far as my experience in one subject, namely, that of materia medica, goes, the standard of examination is very nearly the same in the three Universities. The difficulty of taking the degree of Doctor of Medicine in the London University does not lie in the high standard required in examinations

on purely medical subjects. It is the high standard required in the preliminary examination and in the medical sciences, together with the necessity for the student passing a number of subjects together, and being required to wait a long time before he has another opportunity for examination, if he should be so unfortunate as to be rejected. The University might perfectly well prevent any depreciation in the value of the degrees of those who have taken the M.D. London within the last few years, by granting the degree of D.M.Sc. to all those who have taken the M.D. since the regulations, which are at present in force regarding the studies and examinations for the M.D. degree, have been enacted. It seems to me, therefore, that there need be very little difficulty in the London University granting medical students the degree of M.D. on fair terms. All that is requisite is to allow them to pass a less extensive preliminary examination; demand from them a less extensive knowledge of the collateral sciences; allow them to pass in one subject at a time, and give them more frequent opportunities for examination in case of rejection. For those who are more ambitious, the degree of D.M.Sc. may remain in all its difficulty. But, while it seems to me that the University of London need have no difficulty in granting to medical students a fair degree on reasonable terms, I am inclined to think that there may be some objections in the way of the necessary modification in its constitution which the University will have to undergo. The University authorities will be very apt to object to the admission of the authorities of the Colleges of Physicians and Surgeons, and of teachers in the medical schools and other schools of London, to a share in the government of the University. Should the London University object to this, I think that a movement ought to be forthwith instituted for the foundation of an university, which might be called the Albert University. This University might include, as in the scheme proposed by Sir George Young, the various teaching bodies in London, theological, legal, artistic, scientific, literary, and medical, and might form a monument more fitting and more enduring to the memory of one who strove hard to extend education throughout this country, than the one which is erected to him at South Kensington, magnificent though the latter may be.—Believe me, yours very sincerely, T. LAUDER BRUNTON."

A TEACHING UNIVERSITY FOR LONDON.

SIR,—It seems to have been thought necessary, in pursuance of a very laudable design, to administer at the same time a few kicks to Scottish medical teaching. Dr. Gilbart Smith, in the report published at page 397 of the JOURNAL, February 21st, occupies the position of Balaam of old, for, while attempting faintly to contemn Scotland, he wholly blesses her, by so completely proving that within her borders are to be found the great homes of university medical education of the present day. Assuredly he supports the expression that figures may be made to prove anything when he reasons that, because a larger percentage of Scottish than of English candidates failed in last year's examinations for the army and navy medical staffs, that therefore "the medical education given in Scotland is not better than that given in England." While he was here constructing the fallacies of reasoning from a particular to a general, and an *ignoratio elenchi* into the bargain, he might as well have drawn the direct conclusion instead. Yet I might with equal reason argue that, because the present directors-general of these services are Scottish graduates, therefore such graduates are alone capable of filling such positions—a conclusion equally fallacious with Dr. Smith's.

Then Lord Justice Fry (JOURNAL, February 28th, p. 454) thinks that students get less information, and more easily obtain degrees elsewhere (that is, in Scotland) than when educated in London. The London student has the benefit of the fact of 25,000 beds being in the hospitals of the English metropolis, and the hungry man consumes the whole roast. What benefit does the student of St. Mary's, for example, derive from St. Bartholomew's being within the same huge boundaries? And does Lord Justice Fry imply that the information to be gained from the lectures of professors, in the medical faculty of, say, Edinburgh University, is less than that to be gained from the lecturers at any one of the London hospitals? To make good his proposition, he should have shown that not only the opportunities for clinical instruction, but all the lectures and other opportunities for obtaining information, were less in any one Scotch school than in any one London school, and this, I respectfully submit, he cannot do. In further refutation, I need not point to the long roll of Scottish graduates who have adorned, and now adorn, the medical profession in London itself; but as this movement is avowedly for the "average medical student" of London, I shall make one statement which will, I trust, enable Dr. Gilbart Smith and Lord Chief Justice Fry, amongst others, to see how the "average medical student" fares in the University of the Scottish metropolis.

In 1880, there attended that University 558 English and 679 Scotch medical students. Allowing a four year's curriculum, in 1884, 1 in 10½ of the English, and 1 in 8⅓ of the Scotch students, took the primary degrees of M.B. and C.M. There were nearly as many foreign and colonial as English graduates.

In conclusion, I would suggest that, if there formed University of London were to take the University of Edinburgh as its model, it would grant, as we have seen, not easy, but honourable degrees, and, in course of time, it might possibly succeed in being able, as Professor Cossar Ewart was at last graduation in the Scottish metropolis, to welcome its graduates "as members of one of the most famous Universities the world has ever seen."

The movement has my sympathy as the confession of an honest desire after truth, and a just means of ending much petty squabbling and quibbling argument. The time is fast coming (and I heartily wish it soon) when all medical practitioners will be able conscientiously to receive from a public now ignorant of the subject, the style and title which now belongs to doctors of medicine alone by right.—Yours faithfully, A. D. MACDONALD, M.D. Edin.

MILK-TESTING.

SIR,—The writer of the article under the above head in the JOURNAL of February 28th has made my milk-tester a peg on which to hang some criticisms upon the optical test for milk in general, and as I think that he has scarcely done justice to that test, and that he labours under some misconceptions as to its scope, I shall be glad if you will allow me to make a few observations in reply.

In the first place, in regard to the somewhat sweeping condemnation which the writer passes on lactoscopes of all kinds, it seems not unfair to assume that as men of such unquestionable authority as Vogel, Heeren, and Feser have considered the optical test sufficiently accurate to lead them to invent devices for applying it, it cannot be altogether without value. This assumption is confirmed by the opinion of the late Dr. Voelcker, who, in describing Feser's lactoscope in the *Journal of the Royal Agricultural Society*, says, "This instrument, I am informed, is extensively employed in Germany, Holland, and Denmark by dairymen, milk-contractors, and officers appointed by the authorities to test the purity of articles of food and drink, and it is reputed to give fairly accurate particulars of the quality of milk;" and he then, after giving the results of some experiments which he had himself made with it, concludes as follows: "Reviewing the preceding experiments, it will appear that, though Feser's lactoscope does not give in all cases quite accurately the amount of butter-fat in milk, and shows certain discrepancies when the milk is not quite fresh, it is nevertheless a very useful instrument for practical use;" and he adds, "I can, therefore, recommend it to all persons interested in dairy matters."

The writer of the article in the JOURNAL pits the lactoscope against Marchand's lactobutyrometer, and condemns it because its indications are not equally trustworthy; but this is like condemning an opera-glass because it does not give as good results as an astronomical telescope. The function of a lactoscope is not to enable chemists and those who possess, and are competent to use, appliances of greater precision, to pronounce authoritatively on the percentage of butter-fat in any given sample of milk, but to help people who do not possess or care to purchase such appliances, and who could not, in most cases, use them properly if they had them, to form a sufficiently accurate idea for practical purposes of the value of the milk which they may buy or sell.

From this point of view, it would have been much more interesting, and, I venture to think, valuable, to your readers, if the writer of the article had critically discussed the value of the optical test not in comparison with the lactobutyrometer, but with the only other two tests which are available to the persons I have indicated, namely, the cream test and the gravimetric test. For my own part, I have no hesitation in saying, as the result of very numerous experiments, that it will compare very favourably with both.

I am, of course, well acquainted with the sources of fallacy to which my critic refers, which were discussed very fully, from the physical point of view, by Heeren, some years ago, in an article in Dingler's *Polytechnisches Journal;* and I have done something by inquiries of my own, which I hope some day to publish, to investigate them in their physiological aspect, upon which, so far as I can find, little light has been hitherto shed. But what I wish to point out is, that these sources of fallacy, so far as they concern the variation in the size of the butter globules, and its effect in modifying the opacity of

the milk, however much they may affect the accuracy of the optical test in its application to the milk of individual cows, tend to disappear when the milk of various cows is mixed together, as my critic admits to be the case when he says, "milk, as sold by farmers and dealers, is, with very few exceptions, the mixed yield of a number of cows." In such a case, the conditions which affect the accuracy of the optical test, tend to neutralise one another, and we get a fluid of average composition, to which the optical test is fairly applicable.

In regard to the lactobutyrometer, of whose accuracy, when properly used, your contributor does not speak too highly, I may say that ample evidence has convinced me that, in the hands of persons who do not know how to use it, it will give results quite as inaccurate as can be obtained from a lactoscope. Only a few days ago, a gentleman of unquestionable intelligence, who has been using this appliance for months past, told me that the determination which he obtained from it was nearly 1.5 per cent. less than that which he saw with his own eyes obtained from the same sample of milk by a competent chemist. The fact is, that Marchand's test, if employed with the precautions which he enjoins, gives indications which are as exact as can be obtained from any method of butter-extraction; but, as generally performed, by persons whose training in the use of instruments of precision does not fit them to appreciate its niceties, the results obtained from it are considerably under the mark.

With reference to the relative merits of my own lactoscope in comparison with others, and especially with that of Feser, I shall be glad to know on what grounds your contributor has arrived at the conclusion that the latter is "far superior." He gives no facts, and it certainly is not easy to see how the difference in the mode of applying the optical test which I have adopted can lead to such great inferiority of result. I can only say, as the result of a very considerable number of comparisons between my lactoscope and Feser's, that I believe that it will be found quite as trustworthy by those who will take the trouble to make the trials. If there be any inferiority on the side of my instrument, it is certainly not in the principle of its construction, but in the details of the table of readings by which its indications are to be interpreted. If it will stand comparison on this ground, it may fairly claim superiority on the others, namely, that it is much less fragile, and that it is only one-fifth of the cost.—Yours faithfully,

Gloucester. FRANCIS T. BOND, M.D.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF DURHAM.

FACULTY OF MEDICINE.—The following Regulations for the Examinations for the Degree of Bachelor in Medicine of the University of Durham have been adopted, and will come into force on May 1st, 1885. There will be three examinations, instead of two as heretofore. The subject of Materia Medica and Pharmacy will be transferred from the Final Examination to the Second Examination, and the subjects of Chemistry and Botany from the Second Examination to the First Examination. The subjects of each examination will be as follows: First Examination: (1) Elementary Anatomy, (2) Elementary Physiology, (3) Chemistry and Chemical Physics, (4) Botany and Medical Botany. Second Examination: (1) Anatomy, (2) Physiology, (3) Materia Medica and Pharmacy. Third Examination: (1) Medicine, (2) Surgery, (3) Midwifery and Diseases of Women and Children, (4) Pathology, (5) Medical Jurisprudence, (6) Therapeutics, (7) Public Health. Candidates will be admitted to each of these examinations after duly certified attendance at a recognised medical school on courses of instruction in the various subjects of the examination, as set forth in the schedules of certificates issued by the University. Each examination must be passed in its entirety before the next can be proceeded with. As heretofore, each candidate before presenting himself for the Third or Final Examination must have spent one winter and one summer session in attendance at the University of Durham College of Medicine, Newcastle-upon-Tyne, and must have passed one of the recognised Arts Examinations. A candidate who has passed the First Examination of the Conjoint Board in England of the Royal College of Physicians of London and the Royal College of Surgeons of England, will be exempt from the First Examination of the University of Durham, except in the subject of Chemistry, on which he will be re-examined. A candidate who has passed the First and Second Examinations of the University will be exempt from the First and Second Examinations of the Conjoint Board, and will be entitled to present himself for the Final Examination of the Board on the completion of the necessary curriculum. Full particulars of the examinations, together with synopses of the subjects, schedules of certificates, and any information required, may be obtained on application to the Registrar of the University of Durham College of Medicine, Luke Armstrong, M.D., 26, Clayton Street West, Newcastle-upon-Tyne.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SERVICE.

DEPUTY SURGEON-GENERAL D. B. SMITH, M.D., formerly of the Bengal Medical Establishment, has been appointed Professor of Clinical and Military Medicine at the Army Medical School at Netley. Dr. Smith entered the Indian service as an Assistant-Surgeon on November 28th, 1855; became Surgeon-Major November 28th, 1867; and retired with the rank of Deputy Surgeon-General on March 1st, 1882. He is not credited in the Army Lists with any war-service.

The local rank of Deputy Surgeon-General granted to Brigade-Surgeon S. B. ROE, C.B., M.B., is for duty in the South-Eastern District, and not with the Suakin Expeditionary Force, as stated in the *London Gazette* of March 3rd.

Acting Surgeon G. H. CRESSEY, of the 1st Norfolk Artillery Volunteers, has resigned his appointment, on which he entered December 6th, 1882.

Acting Surgeon W. GIBB, 1st Forfar (Dundee) Volunteers, has resigned his appointment, which dates from May 24th last.

Among the sick who have arrived at Cairo from the front, we find the names of Surgeon-Major W. H. GARDE, suffering from dysentery, and Surgeon J. P. MYLES, from simple continued fever. The telegram, which is dated March 11th, adds that they are doing well.

The *Ganges* hospital-ship is reported to have reached Suakin.

Surgeon-Major J. WALKER, M.B., Surgeon G. F. A. SMYTHE, and Surgeon W. H. LENDRUM, M.D., have passed the lower standard in Hindustani.

Surgeon O. G. D. BRADSHAW died at Korti, on the 15th instant, of enteric fever. Mr. Bradshaw entered the service on the 2nd of February last year, and was in his 26th year, having been born on the 27th of January, 1859.

Brigade-Surgeon F. W. WADE is appointed to the medical charge of the Station-Hospital at Meean Meer.

Surgeon-Major D. C. GROSE is appointed to the medical charge of the Station-Hospital at Dalhousie, *vice* Brigade-Surgeon Wade.

Surgeon R. H. FIRTH, F.R.C.S.Eng., has passed the lower standard in Hindustani.

Surgeon P. MULVANY has been appointed Staff-Surgeon at Meean Meer, *vice* Surgeon-Major D. C. Grose, who has been transferred to Dalhousie.

Surgeon E. H. MYLES, M.B., has reported himself for duty in the Lahore Division.

INDIAN MEDICAL SERVICE.

SURGEON-MAJOR T. S. VEALE, M.D., Bengal Establishment, has retired from the service. He entered as an Assistant-Surgeon on January 27th, 1858; and became Surgeon, January 27th, 1870. Dr. Veale served during the Indian Mutiny in 1858, with the Bhootan expedition in 1865-66, and in the Afghan war in 1879-80, and has the medal granted for each of these campaigns.

Surgeon-Major W. A. GILLIGAN, Bengal Establishment, medical officer in charge of the Northern Bengal State Railway at Saidpore, and officiating Civil Surgeon of Durbhunga, has been appointed to act as Civil Surgeon of Chittagong, during the absence of Surgeon R. D. Murray.

Surgeon-Major D. D. Cunningham, Professor of Physiology at the Medical College at Calcutta, and official Civil Surgeon of Beerbhoom, to be Secretary to the Committee for the Management of the Zoological Gardens at Alipore, *vice* Mr. C. E. Buckland, who has resigned.

Consequent on the appointment of Surgeon-Major A. N. HOJEL to act as Physician at the European General Hospital, Bombay, the following appointments are made until further orders: Surgeon-Major G. WATERS, Bombay Establishment, to act as Professor of Physiology in the Grant Medical College; Surgeon R. MANSER, Bombay Establishment, to act as Professor of Pathology and Curator of the Museum in the Grant Medical College; and Surgeon R. J. BAKER, M.B., Bombay Establishment, to act as Professor of Materia Medica in the same College.

The undermentioned gentlemen have been granted furlough for the periods specified: Surgeon H. HAMILTON, M.D., Bengal Establish-

ment, in medical charge of the 23rd Native Infantry at Hurnui Pass, for one year; Surgeon P. de H. HAIG, Bengal Establishment, medical officer of the 1st Punjab Cavalry at Edwardesabad, for one year; Surgeon A. TOMES, Bengal Establishment, Civil Surgeon at Midnapore, for 20 months; Surgeon J. A. NELIS, M.D., Bengal Establishment, in medical charge of the 2nd Sikh Infantry, Abbottabad, for six months, from April 1st, the first 60 days being on full pay.

Brigade-Surgeon W. H. COLVILLE, formerly of the Bombay Establishment, died on the 13th instant at Lawton, in Forfarshire. He joined the service on Feb. 20th, 1856, attained the rank of Brigade-Surgeon Nov. 27th, 1878, and retired September 20th, 1882. Mr. Colville served at Bushore with the Persian Expedition, in 1857, and in Rajpootana during the Indian Mutiny Campaign.

Surgeon E. BANATVALA, on transfer from Bombay to Bengal Presidency, is placed in medical charge of depôt 23rd Pioneers at Meean Meer; Surgeon G. JAMESON, Bengal Establishment, proceeds to Egypt in medical charge of the 9th Bengal Cavalry.

Surgeon A. S. FAULKNER, Bombay Establishment, has returned from sick furlough to duty, as Medical Officer of the 19th Native Infantry at Deesa.

The services of Surgeon-Major W. M. CONAGHY, M.D., Bombay Establishment, who has been officiating as Secretary to the Surgeon-General Her Majesty's Forces at Bombay, have been replaced at the disposal of the Government in the Civil Department.

Surgeon A. MILNE, M.B., Bombay Establishment, has been placed on general duty in the Presidency Circle.

Surgeon G. J. SHAND, M.D., Bengal Establishment, has been appointed Superintendent of the Chenawan Central Jail, *vice* Surgeon W. Coates, who has been transferred.

Surgeon T. R. MULRONEY, Bengal Establishment, officiating civil surgeon at Mooltan, is transferred to Gujerat, *vice* Surgeon-Major J. R. Dean, who is proceeding on furlough.

Surgeon T. E. L. BATE, Bengal Establishment, civil surgeon, is transferred from Peshawar to Mooltan, which he joined on January 6th.

Surgeon W. COATES, Bengal Establishment, Superintendent of the Chenawan Central Jail, is appointed Civil Surgeon at Peshawar, *vice* Surgeon T. E. L. Bate.

Surgeon-Major W. A. C. ROE, Bengal Establishment, civil surgeon at Sialkot, has been appointed to the charge of the Camp of the Lieutenant-Governor.

Surgeon-Major E. PALMER, Bengal Establishment, Medical Officer of the 3rd Cavalry at Sialkot, is placed in Civil Medical Charge of Sialkot, in addition to his other duties.

Surgeon A. CHRISTIE, of the Bengal Medical Service Retired List, died at St. Andrews, Scotland, on the 13th instant. His surgeon's commission dates from August 6th, 1840.

NAVAL MEDICAL SERVICE.

STAFF-SURGEON J. B. DREW is reported as among the sick who have arrived from the front in Cairo. He was suffering from hepatitis.

Surgeon F. G. WRIGHT has been appointed to the *Bullfrog*; his commission as surgeon dates from April 29th, 1880.

Mr. C. G. MACLAGAN has been appointed Surgeon and Agent at Berwick and Cheswick.

EXAMINATIONS FOR THE RANK OF SURGEON-MAJOR.

A CORRESPONDENT, "Fair Play," is distressing himself under the impression that because the questions for the above examination arrive in India on a particular date, they must be in the hands of the surgeons many days before the examination, thus giving them an advantage over their brethren at home. "Fair Play." may make his mind easy. The same elaborate precautions in force at home to secure secrecy are observed in India; by no possibility can surgeons there see the examination-papers until they enter the examination-room, any more than their brother-officers at home.

MEDICO-LEGAL AND MEDICO-ETHICAL.

PRIVATE DISPENSARIES.

WE have so frequently and adversely commented on the reprehensible mode of seeking to acquire practice through the medium of advertisements, circulars, or cards, and the "private dispensary" artifice, combined with the "patient trap" system of immoderately low charges, that, in again expressing our views on the subject, in deference to the request of our correspondent, Dr. P., we can only reiterate the oft told tale, that Dr. J.'s extensively distributed "private dispensary" card, is accordant with the ordinary practice of charlatans, and not only repugnant to the legitimate faculty, but opposed to the true interest of the public and the dignity of the profession.

In regard to the suppressed christian name of the offending practitioner, there can, we apprehend, be little or no difficulty in obtaining it from the landlord, or, if other means fail, from the tax-gatherer. It may then be well to ascertain his legal qualifications, and subsequently to address the president of his College on the subject, in the hope that the restraining influence of the by-laws may be brought to bear upon the obnoxious member. We may also call our correspondent's attention to a paragraph on page 497 of the present volume.

IS AN L.S.A. A SURGEON?

SIR,—Under the heading of "surgeon," the rules of a lodge of Oddfellows distinctly specify that "a surgeon shall be appointed at a summoned meeting of the lodge." Is a man eligible for this appointment who holds the L.S.A. qualification only, there being at the same time a doubly qualified applicant for the appointment.—Yours, etc., J. B.

*** Considering the class of society which usually constitutes a "lodge of Oddfellows," the word "surgeon," in their customary rules, should not, in our opinion, be construed literally; for in such and like societies it is, so far as our personal knowledge extends, commonly understood to mean "medical officer," or "the doctor," the three terms, in fact, conveying to their mind one and the same thing; a not unnatural conclusion, seeing that their knowledge of the several qualifying degrees and diplomas is necessarily very limited, and calculated to render them indifferent to the distinctive qualifications of the M.R.C.S. and L.S.A.

In replying, therefore, to our correspondent's question, we must fain conclude that one who holds the L.S.A. qualification only, though not properly entitled to be called a surgeon, is eligible for the appointment, and that such election would, under the circumstances, be deemed to fulfil the intent of the club rules.

A HANDBILL.

WE are informed that the following handbill has been distributed in a midland town.

"CASH MEDICAL PRACTICE."

"A doctor of medicine, holding the diplomas of the Royal College of Physicians and the Royal College of Surgeons, England, attends at the above address daily; mornings, before 12; evening, after 6, for the purpose of giving professional advice and medicine at the moderate and inclusive fee of 1s. each patient. Persons who require visiting at their homes will please send word before 12 noon. Urgent cases will be attended to at any time."

A similar advertisement appears in a local newspaper.

It is scarcely necessary to remark that a practitioner capable of issuing that advertisement, supplemented by the "Cash Medical Practice" circular, would probably be alike insensible to professional reproach and the editorial lash. The most effectual remedy for such conduct will, in our opinion, be found in the direct subjective discipline of the two Royal Colleges, of which the offending practitioner is a reputed member, and whose official attention to the case it may be well to solicit by a note, enclosing therewith the advertisement and circular; or, better still, by a brief memorial to the President of the Colleges, embodying the newspaper and window advertisement and circular, signed by the local faculty, or by a few of the leading members.

FRIENDLY SOCIETIES AND RECEIPT-STAMPS.

SIR,—Will you kindly tell me if it is customary for medical officers of friendly societies to give receipts for payments (£2 or over) they receive as such without using receipt-stamps? I enclose my card, and am, sir, yours faithfully, M.R.C.S.

*** The exemption from stamp-duty of registered friendly societies is provided for by the Friendly Societies Act, 39 and 40 Vict., ch. 32. The following are the exact terms of such exemption (clause 15): "Stamp-duty shall not be chargeable upon any order or receipt for money contributed to, or received from, the funds of the society by virtue of its rules or of this Act." Thus, where the rules provide for medical attendance on the members, the receipt for payment would be covered by the Act, and no stamp need be affixed. Of course, an unregistered society would be governed by the ordinary common law.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

CERTIFICATION OF LUNATICS IN WORKHOUSES.

SIR,—I have no doubt your attention has been drawn to the case of Hicks *v.* Bedford and others, a full report of which recently appeared in the *Times*, and from which we find that, in summing up the case, the judge laid down a view of the law bearing on the admission to and detention of lunatics in the insane wards of workhouses, which must come in the nature of a very disagreeable surprise to many masters, relieving officers, and others, who have for many years past been in the habit of admitting and sending lunatics into workhouses for detention and treatment.

Mr. Justice Wills is reported to have stated, in his charge to the jury, that "there is no statutory power whereby any one lunatic or otherwise can be detained in a workhouse against his will, and the lunatic wards thereof can only be utilised for the temporary reception

of persons in the receipt of indoor relief who become insane, pending steps being taken to remove them to an asylum." Acting on this view of the case, the jury gave a verdict of £50 damages against Mr. Douglas, the Master of the Marylebone Workhouse, and of £200 collectively against four others who had been made parties to the suit brought at the instance of the plaintiff Hicks, who, it was shown, had been suffering from delusions at the time of her removal to the Marylebone Workhouse.

Now, this view of the provisions of the statute may be, and probably is, correct; but, if so, it has neither been so understood nor acted on, for it is only a very fractional number of the inmates of workhouse insane-wards who find their way there from the body of the house. By far the greater proportion come from outside, and, for convenience, may be arranged under three heads: 1, the undoubted paupers, of whose insanity the relieving officer has obtained an idea, and who are sent into the insane-wards, so that a medical examination might be made of their mental condition, and, if found to be deranged, with a view to their removal to an asylum; 2, persons, not paupers, who are similarly sent in on the order of the relieving officer, or taken there by their friends with the view of their being sent to the county asylum, the friends paying for their maintenance, or their being transferred to Bethlem or kindred establishments, or, it may be, to some private asylum, where their relatives are sufficiently well off to pay for their maintenance; 3, cases brought by the police. These last form by far the largest number; and they include every grade of society, as anyone conversant with workhouse-management can testify to.

Now this condition of things has gone on unchallenged for as long as I have had to do with medical relief to the poor, and that is upwards of forty years; and that such has been the practice cannot be denied, either by the late Poor-Law Commissioners, the Poor-Law Board, by the present Local Government Board, or by the Lunacy Commissioners. But now we are suddenly pulled up by a judicial decision that this procedure, which has acted beneficially in the past, is altogether illegal, and as a result thereof this verdict has been come to. It has been stated that the Lord Chancellor is about to bring in a Lunacy Act Amendment Bill. If he do, I do trust that the influence of your JOURNAL may be brought to bear, so that the framers of the Bill may make provision to deal with the admission to, and detention of lunatics in, workhouses, a little more in accordance with common sense and the fitness of things.

In conclusion, I am very pleased to state that the guardians of the Marylebone Workhouse have decided to pay Mr. Douglas's costs, etc. It is true that they could not well do otherwise, seeing that he has only carried out the practice which, to my personal knowledge, has been adopted in that workhouse for the last forty-seven years.—I am, sir, yours obediently, JOSEPH ROGERS.

31, Montague Place, Russell Square.

THE MEDICAL OFFICERSHIP OF ST. LUKE'S.

THE correctness of the statement in the article which we quoted last week from the *Islington Gazette*, that the Vestry of St. Luke had decided that the new medical officer of health should not be allowed to engage in private practice, has been called in question by some correspondents of that paper. It appears that a suggestion in the direction of such restriction was made by the Sanitary Committee, but was withdrawn on its being pointed out that the remuneration offered was not sufficient to compensate a duly qualified gentleman. In the advertisement inviting candidates for the appointment, it is stated, among other things, that the medical officer of health must reside within one mile of the parish, and attend the Vestry Hall daily. We are glad to find that so preposterous and insulting a condition as that to which reference was made last week is not among the terms of the appointment, which, even in its more favourable form, can scarcely be regarded as one of the prizes of the profession.

ENTERIC FEVER AT MARKET WEIGHTON.

WE referred, a few weeks since, to the recent outbreak of enteric fever at Market Weighton, in Yorkshire. The report of Mr. Arnold Royle, the Government Inspector, which has now been issued, confirms the impression, which was current at the time of the epidemic, that a polluted water-supply was the cause of the mischief. In all, 74 cases had occurred up to the date of Mr. Royle's inspection at the end of January. The disease was of an exceptionally mild type, but all the cases visited presented the usual symptoms of enteric fever. The water-supply of the place has been derived either from shallow surface-wells sunk in the bed above the lias clay, or from stored rain-water. There are four public wells, and all are more or less liable to contamination. Mr. Royle had one of these wells, perhaps the worst of the four, opened, and "found sewage soaking into it from the street-sewer, which was not more than two yards distant. The well was about 12 feet deep, and the water only 5 feet from the surface. An old iron pipe conveying water from the well to neighbouring premises, was found to pass through the sewer." The inhabitants have, therefore, long been accustomed to drink impure water; whilst, to aggravate matters, the heat and drought of last autumn caused the water in the wells to fall much lower than usual, the leakage of the sewers, cesspools, privies, fold-yards, etc., in their neighbourhood still continuing. The drainage appears also to be of a most primitive description. "Most of the better class of houses drain into cesspools, usually placed close to the back doors, and in dangerous proximity to the wells. The drains of the other houses communicate directly with the public sewer." The drains are defectively trapped, and the soil-pipes unventilated; whilst the privies exhibited large accumulations of contents.

We are glad to find Mr. Royle recognising in his report the readiness with which the local authority adopted his suggestions for limiting the spread of the disease. A wholesome supply of water was provided by means of water-carts; proceedings for closing polluted wells were decided on; skilled advice as to the sewerage was sought; nuisances in connection with the present system of house-drainage were dealt with; arrangements were made for the frequent and systematic removal of house-refuse and filth from the neighbourhood of dwellings; and it was decided to adopt by-laws as to new buildings, etc. The future water-supply will, it is hoped, be provided by a newly formed water-company.

SIR,—Living, as I do, within five miles of this village, I can corroborate the justice of every word in your article of February 14th; indeed, I consider your comments to be very lenient.

In the *Medical Directory* for this year, the population of Market Weighton is given at 1,881 souls, and in Mr. Jackson's letter of March 7th, he states that "my colleague, Dr. Jefferson, has had a great many cases, and I have myself now reached my seventieth, and we have had four deaths." This is the result of the continued and persevering efforts, the uphill and arduous labours, of the local authority, backed by his own advice, for many years, unmitigated zeal displayed in sanitary matters, which we are gravely told Mr. Royle praised in the most eulogistic terms. It is difficult at this time of day to credit such statements regarding the outbreak and cause of a well known and preventable disease, were it not that the sad truth stares us in the face.

There is no apology in the world necessary for your remarks, all who know anything of this lamentable epidemic of enteric fever must cordially join in your beneficent hope that the lessons these people have received "may touch their conscience, awaken their sympathy, and enlighten their intelligence."—Yours very truly, JOHN PRINGLE, M.B., Fellow of the

Holme, York. Faculty of Physicians and Surgeons of Glasgow.

THE WATER-SUPPLY OF DUMFRIES.

SIR,—The attention of the Dumfries and Maxwelltown Water Works Commissioners has been drawn to a letter signed "D. Lennox, M.D.," which appeared in your JOURNAL of February 21st, on the subject of "Dumfries Water-Supply," and particularly alleging that the water of both the North Park and Lochtown Burns, which the Commissioners are arranging to convey by pipes into their filters, in order to supply the town next summer, is contaminated by sewage, and in quality unfit for dietetic purposes.

I am directed to send you, herewith, copies of the analyses of the water of these Burns, taken by Mr. Davidson, the Commissioners' Analyst, from the results of which you will see he is of opinion that neither showed any trace of sewage-contamination. I also send you copy of an analysis, by him, of the present supply of water to the town, which the Commissioners are about to improve, if possible, although Dr. Lennox is of opinion that it is "essentially bad."—Your obedient servant, JAMES H. W. GOWAN, Interim Clerk.

Analytical Laboratory, 67, Irish Street, Dumfries,
February 28th, 1885.

I have made a careful analysis of two samples of water, marked Nos. 1 and 2, received on February 16th, from the Dumfries and Maxwelltown Water Commissioners, and have found them to contain as follows.

	Grains per Gallon.	
	No. 1. North Park Burn.	No. 2. Lochtown Burn.
Free ammonia	.0046	.0056
Albuminoid ammonia	.0058	.0070
Oxygen absorbed in 15 minutes, at 80° Fahr.	.0383	.0674
,, ,, 4 hours, ,, ,,	.0820	.1206
Chlorine	1.19	1.33
Nitrates	trace	trace
Volatile matter	1.49	1.20
Mineral matter	10.31	9.20
Total solids	11.80	10.40
Hardness	10.70°	9.6°

No. 1 was clear and bright in appearance, and deposited very little sediment on standing.

No. 2 contained a little suspended matter, which a microscopic examination showed to consist of granules of sand, vegetable matter, etc. All of these ought to be removed by efficient filtration. In both samples the albuminoid ammonia, chlorine, and nitrates, may all be considered lown amounts. It is my opinion,

from these results, that neither shows any trace of sewage-contamination.

During the month of February, the water supplied to the town was much similar to that of January, being in a fairly well filtered condition.

All the samples examined had a faint yellow tinge, in a two-foot tube, and deposited no sediment when allowed to stand.

The organic matter did not vary much in amount.

An examination made on February 26th, of sample drawn from tap in Irish Street, gave the following results.

	Grains per Gallon.
Free ammonia	.0056
Albuminoid ammonia	.0084
Oxygen absorbed in 15 minutes, at 80° Fahr.	.106
,, ,, 4 hours ,, ,,	.202
Chlorine	1.26
Nitrates	trace
Volatile matter	2.20
Mineral matter	8.60
Total solids	10.80
Hardness	8.5°

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,826 births and 3,515 deaths were registered during the week ending the 7th inst. The annual rate of mortality, which had been 20.5 and 21.4 per 1,000 in the two preceding weeks, declined again to 20.6. The rates in the several towns, ranged in order from the lowest, were as follow:—Brighton, 11.8; Hull, 14.6; Wolverhampton, 15.2; Plymouth, 15.8; Birkenhead, 16.8; Sheffield, 17.6; Birmingham, 17.7; Derby, 18.0; Blackburn, 19.0; London, 19.1; Leeds, 19.1; Salford, 19.4; Halifax, 19.6; Huddersfield, 19.7; Bradford, 21.7; Norwich, 21.7; Bristol, 21.8; Leicester, 22.2; Oldham, 22.3; Liverpool, 22.5; Portsmouth, 22.9; Nottingham, 24.4; Manchester, 26.9; Bolton, 28.9; Preston, 29.1; Newcastle-upon-Tyne, 29.3; Cardiff, 37.6; and Sunderland, 42.1. In the twenty-seven provincial towns the death-rate for the week averaged 21.9 per 1,000, and was 2.7 above the rate recorded in London. The 3,515 deaths registered during the week in the twenty-eight towns included 133 which resulted from measles, 112 from whooping-cough, 42 from scarlet fever, 33 from "fever" (principally enteric), 28 from diarrhœa, 24 from diphtheria, and 23 from small-pox; in all, 395 deaths were referred to these principal zymotic diseases, against 385 and 377 in the two preceding weeks. These 395 deaths were equal to an annual rate of 2.3 per 1,000. In London the zymotic rate was only 1.9, while it averaged 2.6 per 1,000 in the twenty-seven provincial towns, among which these zymotic rates ranged from 0.0 and 0.3 in Derby and Hull, to 4.8 in Bristol, 11.3 in Cardiff, and 18.7 in Sunderland. The deaths referred to measles, which in the four previous weeks had risen from 53 to 102, further increased to 133, and showed the highest proportional fatality in Huddersfield, Cardiff, and Sunderland. In the last mentioned town a serious epidemic of measles prevails, no fewer than 42 deaths from this disease having occurred during the week, equal to an annual rate of 17.5 per 1,000. The 112 fatal cases of whooping-cough showed a further slight decline from recent weekly numbers, and caused the highest rates in Bristol and Cardiff. The 42 deaths referred to scarlet fever also showed a further decline from those returned in the three preceding weeks; this disease was proportionally most fatal in Wolverhampton and Preston. The 32 fatal cases of "fever" exceeded by 1 the number in the previous week, and caused the highest rates in Blackburn and Norwich. Of the 24 deaths from diphtheria in the twenty-eight towns, 15 occurred in London, and 2 in Newcastle-upon-Tyne. Of the 23 fatal cases of small-pox, 16 were recorded in London (exclusive, however, of 11 deaths of London residents from this disease, situated outside Registration London), 2 in Liverpool, 2 in Manchester, 1 in Birmingham, 1 in Birkenhead, and 1 in Sunderland. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 1,144 and 1,103 at the end of the two preceding weeks, further declined to 988 on Saturday the 7th instant; 94 new cases were admitted to these hospitals during the week, against 163 and 170 in the two previous weeks. The death-rate from diseases of the respiratory organs in London was equal to 4.8 per 1,000, and was considerably below the average. The causes of 93, or 2.6 per cent., of the 3,515 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.—During the week ending the 7th instant, 830 births and 557 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had been 20.1 and 24.6 per 1,000 in the two preceding weeks, declined to 22.8, but exceeded by 2.2 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 13.3 in Perth, 15.6 in Aberdeen, 17.6 in Paisley, 18.5 in Edinburgh, 19.8 in Leith, 20.4 in Dundee, 21.2 in Greenock, and 29.0 in Glasgow. The 557 deaths registered during the week included 71 which were referred to the principal zymotic diseases, against 81 and 82 in the two preceding weeks; of these, 20 resulted from measles, 19 from whooping-cough, 12 from scarlet fever, 9 from diarrhœa, 6 from diphtheria, 5 from "fever," and not one from small-pox. These 71 deaths were equal to an annual rate of 2.9 per 1,000, which exceeded by 0.6 the average zymotic death-rate in the large English towns. The zymotic rates in the Scotch towns ranged from 0.0 and 0.7 in Perth and Greenock, to 3.0 in Leith, and 4.7 in Glasgow. The 20 deaths from measles exceeded by 5 the numbers in the preceding week, and included 17 in Glasgow, and 3 in Dundee. The fatal cases of whooping-cough, which had increased from 29 to 31 in the three previous weeks, declined to 19, of which 9 occurred in Glasgow, and 4 in Dundee. The 12 deaths from scarlet fever were 5 less than in the previous week, and included 11 in Glasgow. Of the 6 fatal cases of diphtheria, 3 occurred in Edinburgh. The 5 deaths referred to "fever" showed a further decline from recent weekly numbers, and included 4 in Glasgow. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 4.9 per 1,000, against 4.8 in London. As many as 65, or 11.7 per cent., of the 557 deaths registered in these Scotch towns during the week were uncertified.

HEALTH OF IRISH TOWNS.—During the week ending February 28th, the number of deaths registered in the sixteen principal town-districts of Ireland was 503. The average annual death-rate, represented by the deaths registered, was 30.4 per 1,000 of the population. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Armagh, 25.8; Belfast, 32.3; Cork, 32.4; Drogheda, 21.1; Dublin, 28.5; Dundalk, 48.0; Galway, 30.3; Kilkenny, 46.5; Limerick, 27.0; Lisburn, 38.7; Londonderry, 23.2; Lurgan, 51.3; Newry, 21.1; Sligo, 14.4; Waterford, 32.4; Wexford, 38.5. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 3.6 per 1,000, the rates varying from 0.0 in Londonderry, Galway, Newry, Wexford, Dundalk, Sligo, and Lurgan, to 16.2 in Waterford; the 14 deaths from all causes registered in the last named district comprising 7 more from measles, which had caused 8 of the deaths registered in Waterford during the preceding week, and 11 of those registered in the week ended February 14th. Among the 136 deaths registered in Belfast were 5 from measles, 3 from scarlatina, 4 from whooping-cough, 2 from diphtheria, and 6 from diarrhœa; and 7 of the 50 deaths registered in Cork were from whooping-cough. In the Dublin Registration District, the deaths registered during the week amounted to 205. Twenty-one deaths from zymotic diseases were registered, being 2 under the number for the preceding week, and 11 below the average for the eighth week of the last ten years; they comprised 8 from measles, 6 from scarlet fever, etc. There were 51 deaths from diseases of the respiratory system (including 36 from bronchitis, and 7 from pneumonia) registered, being 6 in excess of the number for the preceding week, but 7 under the average for the eighth week of the last ten years. The deaths of 14 infants under one year old were ascribed to convulsions. Two deaths were caused by apoplexy, 17 by other diseases of the brain and nervous system (exclusive of convulsions); and 15 by diseases of the circulatory system. Phthisis or pulmonary consumption caused 23 deaths, and mesenteric disease 9.

HEALTH OF FOREIGN CITIES.—It appears, from statistics published in the Registrar-General's return for the week ending the 7th instant, that the annual death-rate recently averaged 33.8 per 1,000 in the three principal Indian cities; it was equal to 26.2 in Bombay, 30.7 in Calcutta, and 49.2 in Madras. Cholera caused 17 deaths in Madras, 15 in Calcutta, and 3 in Bombay; 5 deaths from small-pox occurred in Calcutta, and "fever" mortality showed the greatest excess in Madras. According to the most recently received weekly returns, the annual death-rate in twenty-two of the largest European cities averaged 29.3 per 1,000, and was 8·7 above the mean rate in the twenty-eight large English towns. The death-rate in St. Petersburg was equal to 27.3, showing an increase upon that which prevailed in the previous week; the 664 deaths included 16 from fever, 15 from diphtheria, and 4 from small-pox. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did

not average more than 26.7, and ranged from 18.2 in Christiania to 35.0 in Stockholm; diphtheria caused 9 deaths in Stockholm, 5 in Copenhagen, and 4 in Christiania; 8 fatal cases of whooping-cough occurred in Copenhagen, and 7 of scarlet fever in Stockholm. The death-rate in Paris was 26.7, and almost identical with that in the previous week; 41 deaths resulted from diphtheria and croup, 35 from measles, and 4 from small-pox. In Brussels, the 195 deaths included 9 from diphtheria and croup, and were equal to a rate of 24.9. The 38 deaths in Geneva, including 2 from diphtheria and croup, gave a rate of 27.7. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rate averaged 31.5, the highest rate being 37.7 in Rotterdam; whooping-cough caused 11, and scarlet fever 4, deaths in Amsterdam; and 3 fatal cases of the latter disease were recorded in Rotterdam. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 28.1 per 1,000, and ranged from 22.5 and 23.4 in Berlin and Hamburg to 36.4 in Munich and 38.4 in Trieste. Small-pox caused 18 deaths in Trieste, 13 in Vienna, and 4 in Prague; diphtheria showed the largest proportional fatality in Berlin, Hamburg, and Dresden. In three of the largest Italian cities, the mean death-rate was 31.4, the rate being 29.6 in Rome, 31.3 in Venice, and 33.0 in Turin. Small-pox caused 11 deaths in Turin, 7 in Rome, and 3 in Venice; typhoid fever and diphtheria also showed fatal prevalence in Turin. The usual returns from Madrid and Lisbon do not appear. In Alexandria, the 140 deaths, including 5 from whooping-cough and 3 from fever, were equal to a rate of 31.5. In four of the principal American cities, the mean recorded death-rate averaged 25.6, and ranged from 20.2 in Brooklyn to 29.8 in New York. Diphtheria showed considerable mortality in New York, Brooklyn, and Philadelphia; typhoid fever caused 15 deaths in Philadelphia, and 4 in Baltimore.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Thursday, March 19th.

THE POISONS BILL.

LORD CARLINGFORD moved the second reading of this Bill. He said: The subject of this Bill for the regulation of the sale of poisons is one of considerable difficulty. It is very much easier to see the object in view and the importance of it—that of the protection of the public from abuses of poisons—than to find an effectual means for providing anything like protection for the public, which the present law does certainly not provide, and which I cannot undertake to say that any amendment of the present law, whatever amount of good it might do, would succeed in providing. But there has been, for a long time past, a widespread feeling in many quarters, that fresh legislation ought to take place upon the subject; and demands to that effect have been made over and over again upon the Government. In the House of Commons, Bills have been introduced for the purpose of improving the law relating to the sale of poisons. Many important statements have been made, and much anxiety expressed upon the subject. The Colleges of Physicians and Surgeons have addressed the Government, asking for further legislation, and, in many cases, coroners and juries have addressed the Home Office, calling their attention to cases of abuse of poisonous substances generally, and of remedies and medicines which have proved, in some cases, to be poisonous, and calling on the Home Office to provide a remedy. The Home Office has not provided a remedy, but it has called on the Privy Council to do so. The Privy Council deals with the Pharmacy Act as far as the Government is concerned, and the subject has been transferred to the Privy Council to deal with, which is the reason why it has fallen to me to propose the Bill to your Lordships. My lords, this Bill takes the law of the sale of poisons as it stands. We do not amend the provisions of what are called the Pharmacy Act of 1868, and the Arsenic Act, and one or two others relating to Ireland. It proposes to re-enact these measures in a clear and practical form within the immediate compass of this Bill, with additions, and I hope improvements, which may increase the efficacy of the law. The Bill proposes to take the whole subject of poisons out of the Pharmacy Act, leaving that Act to deal only with the question of Pharmacy properly so-called, and also to transfer to the Privy Council certain powers and duties which that Act imposed upon the Pharmaceutical Society of Great Britain. Under that Act the Pharmaceutical Society was entrusted with the power of making regulations for the dispensing and sale of poisons by pharmaceutical chemists. But they have not since 1868 seen their way to exercising those powers, and the Bill proposes to transfer that power to the Privy Council. The Bill also transfers to the Privy Council the direct duty of adding any substances which it may be thought necessary to add to the list of poisons contained in the schedules of the Bill; the list of poisons being really the most essential part of the measure. The power has hitherto been exercised by the Pharmaceutical Society with the consent of the Privy Council, but it is now proposed to impose the responsibility upon the Privy Council itself. I may shortly describe the nature of the Bill by stating the several clauses and provisions with respect to the sale of poisons which the Bill proposes to enact. Most of them are already in existence, but some of them are enlarged and others added to the present law. The Bill proposes five classes of precautions with respect to the sale of poisons. First, with respect to labelling poisons: all articles are to be labelled with the word "poison," and with the name and address of the person selling the same. With respect to the seller of poisons, everybody must be properly qualified, that is, a chemist, or chemist and druggist, or qualified practitioner; and that provision will apply, whether the sale takes place in an ordinary shop or on the premises of any company or association. It will also apply to the sale of any poison within the meaning of the Bill—within the schedule—whether the substance sold bears the Government stamp or not. As to the purchaser of poisons; poisons of certain classes will not, under this Bill—and this is a new provision—be saleable to young persons under the age of seventeen, nor to persons unknown to the seller, unless introduced by some person known to him. In the fourth place, as to the mode of selling poisons; a record will have to be kept of the sale of poisons of a certain class, and the name and address of the purchaser, and other particulars of purchase. Lastly, the keeping, dispensing, and sale of poisons will be subject to the regulations of the Privy Council. These five classes of precautions will apply to the more virulent, while some of them apply only to the less virulent, poisons. There is a special provision with respect to arsenic, now contained in the Arsenic Act, which is introduced in this Bill. Another provision which is new is with respect to the labelling of substances more or less dangerous. Substances obviously may be compounded in such a manner as to make them not poisonous in the ordinary acceptation of the term, or under ordinary conditions if taken in moderate quantities, or taken by the persons for whom they are intended, and so on. In that case, the Bill proposes that a compound of that class shall be labelled, not necessarily with the word "poison," but with the words "to be used with caution.' It is believed that that would be an useful change, because the common and indiscriminate use of the word "poison" is likely to have a dangerous effect in this matter. It is likely to make the word far too common, and to weaken the warning which it conveys to those who buy and use the article in question. These, in a general way, are the provisions which the Bill proposes to enact. I now come for a moment to the first schedule of the Bill, which is really the essence of the measure; and at the risk of repetition, although very shortly, of something I have already said, I will state to the House the nature of this part of the Bill. This schedule of poisons is obviously one which must depend upon the authority of the competent persons who have prepared it. It has been prepared with great care by a gentleman who on this subject advises the Privy Council office—a distinguished gentleman, a medical officer of the Local Government Board. I may say that we have also had the assistance of a distinguished specialist on this subject of poisons. The schedule is divided into three parts. It proposes to deal with poisons in three different ways. To begin, the third part contains a list of virulent and dangerous poisons.

This part of the Bill is quite new. The poisonous matter contained in the third part of the schedule are not now dealt with by the law at all. They are substances which are very dangerous as being things of which it will take a great deal to kill you—substances used not specially in pharmacy, which I suppose is the reason why they were not included in the Pharmacy Act, but substances largely used in manufactures, in the arts, and for domestic purposes. I believe I may take carbolic acid, for instance, as an example of one of these poisons; and there are a number of domestic articles which would come under the scientific terms contained in the schedule. These, under the Bill, will in future not be saleable unless labelled "poison," with the name of the substance, and the name and address of the seller. Then, Part 2 of the schedule contains the less intense of the substances which are commonly known as poisons, and the type of those may be taken to be laudanum. These poisons will be subject to this condition—they will be only saleable by a qualified chemist, or chemist and druggist, or a legally qualified medical practitioner. They will not be saleable to any young person; and I think there are some other conditions. Then the poisons contained in the first part of the schedule, which are the most virulent, and of which prussic acid may be taken as a type, will, in addition to all the other restrictions which apply to all classes of poisons, be subject to the condition that the buyer must be known to the seller, or introduced to him by some one whom he knows, and that the seller shall record the whole transaction of the sale in the form specified in the schedule. These, my lords, are the conditions and restrictions for the protection of the public which it is proposed to enact relating to the sale of poisons by retail. With regard to the sale of poisons by wholesale, we propose to leave the law as it now stands The dealers will be subject only to the restriction that the substances shall be labelled with the word "poison," and with the name and address of the seller. Now, I must just mention one subject which is sure to excite a good deal of interest on the part of persons who are largely interested, by way of property, in what are commonly but improperly called "patent medicines." I said just now that the restrictions upon the sale of poisons coming within the meaning of the Bill and the schedule would apply to all such sales, whether the thing bears the Government stamp or not. These so-called patent medicines, or more properly called proprietary medicines, carry the Government stamp—I think, unfortunately carry the Government stamp, because it is apt to convey a meaning to the public which it has no right to convey, namely, something like a guarantee for the nature and merits of the article sold, whereas it implies absolutely nothing of the kind, and merely certifies that the article has paid the stamp-duty to the Government. I do not know whether it is treasonable to the Treasury to call it an unfortunate duty which raises £120,000 a year; but I think it is unfortunate. However, I am obliged to deal with the facts as I find them. I must deal with patent medicines as I can. The Bill proposes to deal with them in this way. It does not mention patent medicines in any way, either by way of exemption, or by way of restriction. By the repeal of certain words in the Pharmacy Act of 1868, it puts patent medicines absolutely upon the same footing with all other medicines. It makes no distinction between cases where a certain person has compounded a certain medicine, and cases where that is not the case, nor between cases where the Government stamp is used and where it is not used. It puts them absolutely on the same footing in all cases in which the substances or compounds come within the terms of the Bill as poisonous, or the preparations of poisons. It is, of course, obvious that the vast majority of patented medicines cannot come within these terms, because, if they did, we show from the great sale they have, that the population of the country would certainly have been considerably diminished before now. But there are some of these patent medicines which are supposed to contain a serious amount of poisonous ingredients, generally opium or laudanum. Many of the most valuable medicines, of course, do contain a certain amount of poisonous substances, but the real question is, what the preparation is, and whether it is beneficial, harmless, or dangerous. Well, my lords, the Bill does not attempt to decide what a dangerous preparation of a poisonous substance in a compound is or may be. We find it impossible, others before us have found it impossible to find any definition of the word poison. I never knew a definition of the word which it would be possible to put into an Act of Parliament. I have looked into a great many Acts and have been able to find nothing to satisfy. I may tell your lordships of the definition given by Dr. Johnson, it is, "that which destroys or injures life by a small quantity and by means not obvious to the senses." That is rather a singular definition, and certainly not one capable of being made a clause in an Act of Parliament. Again, as to the preparation of poisonous matter which should be taken to constitute a substance or compound containing a poison within the meaning of the law, we have not seen our way to laying down such definition. The law, therefore, will stand in this way: the person selling any compound of this class, whether it bears the stamp or not will have to take his chance and run his risk as to the way in which he sells it. If he believes it to be innocuous, and not to come within the meaning of the word "poison" or "preparation of poison" in this Bill and its schedules, he may, of course, sell it freely without the restrictions of this Bill or of the present law, but then he will run his risk. If in the case of any particular medicine, whether it be a patent medicine or not—there is no difference made—if it should be proved upon judicial information that the compound is a poison, as a matter of common sense and within the meaning of this Bill, a poison or preparation of a poison which contains a dangerous quantity, the person having sold that article not subject to the restrictions and conditions of the Bill, if convicted, will be liable to the penalties of the Bill, and that article, having been so found to be a poison in a court of law, will not in future be indiscriminately saleable, but will come within the list of poisons, and will only be saleable within the restrictions of the Bill. Of course, if a person is selling such an article, whether the seller or the proprietor, he will then have a choice of two courses which he may take. He may either submit to the restrictions of the Bill, and to the sale of the article in which he is interested under these restrictions, and not indiscriminately, or else—which I think very likely to happen—if such a conviction took place, he may remove or reduce the dangerous poisonous ingredient, or its compound, so as to render it harmless or innocuous, and outside the provisions of the Bill. That, I think, would be a very wholesome effect indeed of the provisions of such a Bill as this. It would make it to the interest of all the compounders and sellers of these compounds, whether they have paid the Government stamp or not, to reduce to the minimum the poisonous ingredient contained in the mixture or compound, which in itself may be, no doubt, perfectly harmless, but which, with an excessive amount of poisonous ingredient, may be—as they have often proved to be—dangerous to human life and health. We have not been able to carry the definitions of the Bill to a point which, as I said just now, would make it possible to define beforehand, in any particular case of these compounds, what is poison and what is not. But we throw the responsibility—which, I think, may fairly be done, in the interest of the public, and without giviug any right of complaint to the persons interested—on the manufacturer and seller of these compounds to take care that they will be so compounded and composed as not to come within the meaning of "poisons" under this Bill. My lords, I do not know that there is more at this stage of the Bill with which I need trouble you. I do not profess to think that this, or any, Bill will, or can, provide complete protection to the public against carelessness, or stupidity or crime, but I am in hopes that the Bill will effect a considerable improvement in the law, and considerably increase that protection which we desire to afford.

Viscount BARRINGTON regretted that the Bill only applied to the sale of poisons by retail. He understood the noble lord to say that

the sale of poisons wholesale was sufficiently cared for by the existing restrictions, but he would remind the noble lord that great complaints had been made of the manufacture of papers for walls, which had been proved to be very dangerous to human life, and he trusted that something would be done in regard to this matter.

The Earl of MILLTOWN entered his earnest protest against the manner in which this measure had been brought before their lordships. Their lordships would remember that it was read a first time on the 9th of this month, but it was not until yesterday that it was put into the hands of members. If they could not have copies of Bills of this sort delivered earlier, in order to give an opportunity to their lordships to consider them, it would be far better that such measures should be allowed to be initiated elsewhere.

The Duke of MARLBOROUGH pointed out that the noble lord who had introduced the Bill had said that there was already sufficient control over the wholesale dealings in poisons; but it might not be within the knowledge of the noble lord that the wholesale dealers sometimes had private retail customers, and it might be as well to consider whether some provision should not be made for such trading. He ventured to suggest this point to the consideration of the noble lord.

Lord CARLINGFORD said he was not quite sure whether the Bill affected the case which had been suggested by the noble duke, and the matter was well worth consideration. In reply to the noble viscount, he would point out that the schedules might be enlarged; and, even if the Bill should become law, the Privy Council would have the power of enlarging them at any time. The schedules had been scientifically prepared, however; and, when he had asked why such and such substances had been left out, he was informed that, under the scientific terms in the Bill, such substances were included. In reply to what had fallen from the Earl of Milltown, he desired to point out that he had made no statement in originally introducing the Bill, and he had thought it was desirable to do so this afternoon. He had no desire to hurry the measure forward unduly, however, and he should be happy to meet the convenience of the noble lord, or any of their lordships who were interested in the Bill, as to when the next stage should be taken. Would this day week suit the noble lord?

The Earl of MILLTOWN said his remarks were quite general.

The Bill was then read a second time.

HOUSE OF COMMONS.—Thursday, March 12th.

The Metropolitan Asylums Board.—In answer to Mr. J. STUART, Mr. G. RUSSELL said the accounts of the managers of the Metropolitan Asylums District show that, comparing the year ended Lady-day, 1884, with the year ended on the same day in 1880, the expenditure, including expenditure out of loans, had increased by £187,000. Without going into the details of the expenditure, it may be observed that, since 1880, an asylum for 900 imbecile patients at Darenth has been erected, three hospital-ships for small-pox patients have been provided, the North-Western Hospital has been opened, and wharves and ambulance-stations have been established. There has also been a large expenditure on alterations and additions at the small-pox and fever hospitals since the date of the report of the Royal Commission, with the view of diminishing any risk of spread of disease from the hospitals, and also a considerable increase in the payments in respect of principal and interest of loans.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 12th, 1885.

Aldous, George Frederick, St. Bartholomew's Hospital.
Collinson, Thomas Arthur, King's College.
Ellison, Ernest Henry, King's College.
Hickey, Evan Lewis, King's College.
Raw, William Edmund St. Michael, London Hospital.

MEDICAL VACANCIES.

The following vacancies are announced.

BRIGHTON AND HOVE LYING-IN INSTITUTION.—House-Surgeon. Salary £120 per annum. Applications by April 17th.

CHELSEA HOSPITAL FOR WOMEN.—Resident Medical Officer. Salary, £60 per annum. Applications by March 31st.

CHESTER GENERAL INFIRMARY.—House-Surgeon. Salary, £80 per annum. Applications by March 28th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Clinical Assistant. Applications by March 30th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Medical Officer. Salary, £100 per annum. Applications by March 26th.

CROOM UNION.—Medical Officer, Adare Dispensary. Salary, £145 per annum and fees. Applications to Mr. O'Flaherty, Honorary Secretary. Election on March 23rd.

DONEGAL UNION.—Medical Officer, Laghey Dispensary. Salary, £115 per annum, and fees. Applications to W. Hammond, Honorary Secretary, Bridgtown. Election on March 23rd.

EAST RETFORD DISPENSARY.—Medical Officer. Applications to the Rev. W. Homfray, West Retford Rectory, Retford.

GENERAL HOSPITAL, Birmingham.—Resident Medical Officer. Salary, £130 per annum. Applications by March 28th.

HALIFAX INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary, £50 per annum. Applications by March 26th.

HOSPITAL FOR SICK CHILDREN, 49, Great Ormond Street, W.C.—Assistant Physician. Applications by April 1st.

LIVERPOOL INFIRMARY FOR CHILDREN, Myrtle Street.—Assistant House-Surgeon for 6 months. Applications to H. R. Robertson.

LIVERPOOL ROYAL INFIRMARY.—Resident Medical Officer. Salary, £100 per annum. Applications to the Chairman of the Committee, by March 30th.

PARISH OF KENSINGTON.—Resident Assistant Medical Officer. Salary, £120 per annum. Applications by March 28th.

PARISHES OF WESTRAY AND PAPA WESTRAY, Orkney.—Medical Officer, Public Vaccinator, and Officer of Health. Salary, £82 per annum. Applications to J. Scott, Inspector of Poor, Westray by Kirkwald, by March 25th.

ROYAL ACADEMY OF ARTS.—Professor of Chemistry. Applications by March 23rd.

ST. LUKE'S (MIDDLESEX) VESTRY.—Medical Officer of Health. Salary, £150 per annum. Applications endorsed "Medical Officer" by March 24th.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, Cavendish Square.—Honorary Physician. Applications by March 23rd.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, etc., Henrietta Street, Covent Garden.—House-Surgeon for six months. Honorarium, 25 guineas. Applications by March 21st.

SUSSEX COUNTY HOSPITAL.—Assistant-Physician and Assistant-Surgeon. Applications by March 25th.

WANDSWORTH AND CLAPHAM UNION.—District Medical Officer. Salary, £100 per annum. Applications by March 24th.

WEST LONDON HOSPITAL, Hammersmith.—Assistant Surgeon. Applications by March 30th.

MEDICAL APPOINTMENTS.

BROWNE, Edward George, L.R.C.S.I., appointed House-Surgeon to the City of Dublin Hospital.

FOXWELL, Arthur, B.A., M.B.Cantab., M.R.C.P.Lond., appointed Assistant-Physician to the Birmingham General Hospital.

IAGO, George John, appointed Secretary and Librarian to the Westminster Hospital Medical School.

STEPHENSON, Sydney H. A., M.B., appointed Resident Medical Officer to the Rochdale Infirmary, *vice* W. Piercy Fox, L.R.C.P.Ed., resigned.

TAYLOR, Edward M., L.R.C.S., L.R.C.P.Lond., appointed Medical Officer of the Workhouse, Whitby; Medical Officer for the East Side District, Whitby; Public Vaccinator for Whitby and District.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. C. E. Beevor: A Case of Chronic Spasms of the Upper Limbs. Dr. Burney Yeo: On Some Points in the Etiology of Phthisis.

TUESDAY.—Royal College of Physicians of London. Sir Andrew Clark, Bart.: Lumleian Lecture on Some Points in the Natural History of Dry Pleurisies.—Royal Medical and Chirurgical Society. Discussion on Cholera, introduced by a paper from the President, Dr. George Johnson, F.R.S. Microscopical specimens will be on view at 8 P.M.

WEDNESDAY.—Hunterian Society. Mr. Jonathan Hutchinson: Notes on Symptoms. Dr. Stephen Mackenzie will exhibit the Bacillus of Leprosy.—British Gynæcological Society, 8.30 P.M. Specimens by Dr. R. Barnes, Dr. Edis, Mr. Reeves, and others. Dr. Bell (Glasgow): On Dysmenorrhœa. Dr. Lamprey: Plural Monstrosities.

THURSDAY.—Royal College of Physicians of London. Sir Andrew Clark, Bart.: Lumleian Lecture on Some Points in the Natural History of Dry Pleurisies.—

FRIDAY.—Clinical Society. Mr. Mayo Robson (Leeds): A Series of Cases of Spina Bifida treated by Plastic Operation. (Two patients will be exhibited.) Mr. Barwell: Three Cases of Pistol-shot Wounds. Dr. Hadden: A Case of Choreiform Movements supervening in Infancy, and probably of Congenital Origin. Mr. J. R. Lunn: Calculus and Tumour of the Bladder; Lithotomy; Death on the Ninth Day.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M. —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W.; 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE TITLE OF DOCTOR.

SIR,—I was surprised at reading in the letter of "D.M.," in the JOURNAL of February 21st, that the Barons of the Court of Exchequer decided in 1860 that, "if a man is registered, he may call himself what he pleases." This opinion, given without any qualifying context, is new to me, as it probably is to many other of your readers. Surely the law does not permit a L.S.A., on the strength of being registered as such, to style himself "physician" or "surgeon?"

As for the prefix "Dr.", which is not even solely a medical title, it is so indefinite, is so generally applied by the public to medical men of all grades, and has been assumed almost universally by the licentiates of the Edinburgh College of Physicians, with the acquiescence, too, of many of their medical brethren, that the judges may well have sanctioned its indiscriminate adoption, and the Medical Acts do not seem to forbid its use to any registered practitioner.

There is a consensus of professional opinion that the general education and technical knowledge required in order to obtain the L.R.C.P. and M.R.C.S. qualifications in London are equal, if not superior, to those required for obtaining M.D. degrees; and putting aside the more select of the universities, whose standards are indisputably high, and whose names attached to the degree always give the value, I think no sufficient distinction for a difference of title is to be drawn between the attainments required by the colleges and universities generally.

From these views follows a practical suggestion, which I would make to meet the difficulty which, at present, so seriously threatens the prospects of medical education in London. Why should not the profession adopt the usage which the public practises, and which the licentiates of the Edinburgh College of Physicians have assumed as a law for themselves, and let every qualified practitioner who values the title of "Dr." prefix it to his name without questioning his right? In the new Medical Act, when it is obtained, legal sanction might be given to the use of the title by all who shall have obtained the certificate of the licensing boards. Dr. ——, registered medical practitioner, would then hardly need an additional title from one of the universities or colleges, unless such title should convey the assurance of really superior attainments.

I write under the impression that such alterations of the regulations of the University of London as will admit any large proportion of London students to its degrees are not likely to be obtained, and that public opinion will be adverse to the establishment of a new English university.

I may add, that I do not attach so much value as many do to the title of "Dr.", and do not, like most M.B.'s, avail myself of the right conceded by courtesy, and am tired of striving to enlighten my non-professional friends on the varying value of the title in the present chaotic state of the question.—Yours faithfully,

M.B.Lond.

THE ILLNESS OF GENERAL GRANT.

MR. J. WHITEHOUSE, of Sunderland, writes, in reference to a paragraph in the JOURNAL of March 14th.

"As to whether smoking may be the immediate cause of cancer, surgeons are not agreed; but there is a condition of the tongue which is, in many cases, the precursor of epithelioma, namely, 'leucoplakia;' and this disease is more generally considered to be caused by smoking. Mr. Barker, writing on this inflammation, in Holmes' *System of Surgery*, points out that amongst 75 recorded cases, 71 smoked, and only 4 were non-smokers. Buzenet used the term '*plaques des fumeurs*' for this disease, because he was convinced that smoking so often gave rise to it. Mr. Hulke has more than once shown that 'leucoplakia' may be the starting point of epithelioma, and out of the above mentioned 75 cases, 44 developed epithelioma, and in one only was there a family history of cancer."

CARBOLIC ACID IN INDIGESTION.

SIR,—As your correspondent, "Mr. J. F. Dixon," asks to be informed of the results which may occur from the use of carbolic acid, as suggested by him in your JOURNAL of March 7th, he may be equally interested in a review of my experience. I have administered it in similar cases (excluding tea-drinker's dyspepsia) since I first began practice, nearly seven years ago, with results quite as satisfactory as those reported by him; in addition, I have found it sometimes useful to allay vomiting caused by reflex irritation of the stomach from disease of pelvic organs in women.

The first case in which I employed it, was in reflex vomiting from uterine disease; I gave it in a bismuth mixture, with complete relief to this troublesome symptom. Its antiseptic, as well as its sedative, properties, form an useful guide to its administration. I have not used it so frequently of late, as I have found small doses of arsenic, before meals, equally satisfactory, and less disagreeable in many of the cases in which the locally sedative action of carbolic acid on the gastric mucous membrane seemed specially indicated. Its unpleasant taste, and the free dilution necessary, are objections to its employment in some instances.—I am, sir, yours truly,

WILLIAM J. MACKIE, M.D.Brux.

EUROPEAN HEALTH-RESORTS.

"F. S. D." asks for the name of a good book, or books, on the various health-resorts of Europe. Has not someone brought out a map, or tabular statement, respecting their comparative climatic conditions, rates of mortality, etc?

*** If "F.S.D." means health resorts of Europe, exclusive of spas, there are accounts of many of them in Marcet's *Principal Southern and Swiss Health Resorts* (1883), also in the first half of Madden's *Health Resorts of Europe and Africa* (1876). Dr. H. Weber's general review of Climates, including European health resorts, is about to appear in a translation from the German. We are not acquainted with any tabular statement such as is alluded to.

SUICIDE.

SIR,—I should feel much obliged if you would allow me to appeal, through your columns, to my professional brethren, to give me information with respect to the relative proportion between "attempted" and "completed suicides." If each of your readers, who can spare the time, would send me word of the ratio occurring in his own observation, my statistics (to be published in a forthcoming work on "suicide") would be thereby rendered much more valuable.—Yours truly, WYNN WESTCOTT, M.B., Deputy Coroner for Central Middlesex.

4, Torriano Avenue, Camden Road, London, N.W.

SIR,—Can you, or any of your readers, inform me whether there died, in London, in the year 1820, a medical man of the name of R. Lamb, or B. Lamb? I am not aware of any directory where I can get this information.—Yours, etc.,

QUERY.

Temperance Medical Speeches.

Sir,—I observe that a speech I made at Weymouth a short time since has given occasion to a letter in the Journal of February 21st. As the communication is anonymous, I must refrain from controversy, and content myself with merely stating that the writer has put a meaning on my words that nothing but the most strained construction could, in the slightest degree, authorise. What I said was "that while there was an improvement in the death-rate from contagious diseases on account of better sanitary laws, diseases of the organs, as heart, liver, etc., had not lessened in the same proportion, and it was on these that alcohol produced its worst effects."

I also quoted Dr. Farr and Professor Flourens, the latter "that man no longer dies but kills himself."

Your correspondent does not specify his objection, and I know not whether he disputes the fact that intemperance does increase the death-rate and diminish the duration of life proportionately.

That there is an annual excess of births over deaths, and a rapidly increasing population, are no arguments against the above statement, but show that these desired ends would be even more rapidly obtained if intemperance were entirely swept away.—Yours, etc., John H. Aldridge.

13, Anglesea Place, Southampton.

The Treatment of Dupuytren's Contraction of the Palmar Fascia.

Sir,—In the Journal of February 14th, I briefly referred to Mr. Noble Smith's theories on the treatment and etiology of Dupuytren's contraction of the palmar fascia. As to the method of treatment, I alluded to the illustrations of a case which Mr. Smith published (see last paragraph and accompanying illustration in paper in question, British Medical Journal, February 7th, 1885, p. 278), as showing the advantage of operating "on the principle of few incisions," and expressed an opinion that this case would have been benefited by a freer use of the knife. This criticism has induced Mr. Smith to accuse me of reading his article carelessly, a somewhat serious charge, and one for which there is not the slightest foundation. Having again read the original article and my note thereon, I find nothing written in the latter which requires correction.—Yours obediently, F. R. Fisher.

Grosvenor Street.

Droitwich or Nantwich.

Sir,—I, unfortunately, did not notice at the time your remarks in the Journal of February 21st, on the use of Droitwich brine-baths in chronic cystitis. I may say that I have seen great benefit arise from the use of the hot brine-baths, more especially in the gouty diathesis, where chronic cystitis and prostatic irritation have been present.—Faithfully yours, S. S. Roden, M.D.

The Literature of Massage.

Sir,—Will you kindly inform me, through the Journal, what are the best books on massage, and also who are the publishers of Weir-Mitchell on *Fat and Blood*, and if the book be still in print?—I am, etc., James Wilson.

*** J. B. Lippincott and Co. (Philadelphia and London) are the publishers of Weir-Mitchell's work. The chief works on Massage are Schreiber's *Massage* (German), Vienna, 1883; Noostrom's *Massage* (French), Paris, 1884; Graham's *Massage*, New York, 1884.

Climate of Colorado.

Sir,—In reply to a letter in the Journal of January 31st, see *The Health-Resorts of Colorado Springs and Maniton*, by S. E. Solly, M.R.C.S., with Prize Article, descriptive of scenery, etc., by Mrs. Dunbar. This book may be obtained from Mr. Goff, bookseller, Colorado Springs, price 25 cents.—I am, etc., A. J. B.

How to Fill up Death-Certificates.

Sir,—In writing a certificate of the cause of death, in a case in which the patient suffered from, say, two diseases, either of which was of sufficient gravity to be fatal by itself, which should be stated first, that which is known to have existed the longer, or that which was the direct cause? In the case, for instance, of a patient suffering from disease of the heart, for some years, and from erysipelas of the head with meningitis, for a few days, should the certificate run that he died of "morbus cordis and erysipelas," or of "erysipelas and morbus cordis," the erysipelas being the more important factor in causing the death? Do the words primary and secondary, in connection with causes of death, refer to the importance of the causes, or to the order in which the respective diseases attacked the patient?—I am, etc., W.

*** The words primary and secondary do not refer to the order in which the diseases have occurred, but to the importance of the diseases in bringing about death. The terms were introduced in order to prevent the return of such certificates as "dropsy." In a case of the kind suggested by our correspondent, the form which the certificate should take must be left to the individual judgment of the medical attendant, who alone can form an opinion as to whether the patient owed his death to heart-disease somewhat accelerated by erysipelas, or *vice versâ*. Each book of certificates issued by the Registrar-General contains some explanatory notes on this subject, and a model certificate.

Night-Air.

"A member of the British Association" will probably obtain the grounds for forming a judgment from Dr. Angus Smith's *Air and Rain* (Longmans). It is, of course, as important to ventilate sleeping-rooms during the time they are occupied, as sitting-rooms during the day. It is, moreover, easier to ventilate an ordinary bedroom, without allowing draughts to impinge on the occupant, than an ordinary sitting-room.

Text-Books on Medicine.

A Country Surgeon will probably find *The Theory and Practice of Medicine*, by Dr. Bristowe, published by Messrs. Smith, Elder and Co., the most generally useful book on the practice of physic. The fifth edition was published last autumn. The third edition of the *Elements of Practical Medicine*, by Dr. Alfred Carter, of Birmingham, was also published last autumn by Lewis; it is perhaps the smallest recent book on the subject, and contains a great deal of information in a very small space. A sixth edition of Dr. F. T. Roberts's well-known *Theory and Practice of Medicine* has also been recently published by Lewis.

Lancing the Gums.

Sir,—Having followed this discussion, which has become somewhat hackneyed I would venture to offer a few remarks, viewing the question from a different standpoint, in order to show that there is some *rationale* in the use of the lancet. Though dentition is physiological, the transition from the physiological to the pathological is but too easy; and this, I believe, is especially true at the present day. There is a tendency to deviate from the normal, as witnessed, for example, in pregnancy, parturition, etc., and our active interference is more frequently called for. Whilst agreeing with Mr. Edmund Owen that an improved diagnosis of children's ailments has done much to abolish the indiscriminate lancing of olden time, I still think that the cases actually requiring the lancet are probably more numerous at the present day than ever they were, owing to an increased susceptibility of the nervous system in the infant, inherited from its parents. Compare the intricate environment of to-day with that of times gone by; and since the organism must correspond with its environment, to which it owes its development and growth, what a change must have occurred in the individuals of this generation! Many have a nervous system strung up at high tension, the balance of which is easily upset by slight causes. This was ably pointed out by Dr. Crichton Browne in an address delivered some years ago, where he alluded to new nervous diseases springing up as the outcome of our mental wear and tear. To this we may add the fact that, whereas formerly the law of "survival of the fittest" prevailed, nowadays, owing to the enormous improvement in every branch of our art, we are able to preserve even the weakly members of the race; so that we have, on the one hand, a highly intricate and trying environment; on the other, a number of individuals physically incapable of grappling with its requirements. This may serve to explain why physiological processes frequently deviate from the normal, and require our interference.

With reference to the occasions when gum-lancing is called for, I think the safest rule is, first, to make sure that no other source of irritation is present which might cause the symptoms, and, being satisfied upon this point, use the lancet fearlessly. If the operation be done rapidly and skilfully, I believe the pain is comparatively trifling. The relief is probably chiefly due to the depletion of the swollen gum; and everyone must occasionally have seen an actual collection of sero-sanguineous fluid over a molar tooth, demanding the lancet as much as a gumboil in the adult.—I am, yours truly, William S. Paget, M.D.

Great Crosby.

Sir,—I have no desire to prolong unnecessarily the correspondence on lancing the gums, but it is incumbent on me to say that I did not wish to unduly discredit the statement of our incredulous friend relative to the practice of lancing the gums in America and on the Continent. I was very guarded in what I said, namely, "Mr. Joll is, I think, under a misapprehension about the practice of lancing the gums being in disfavour on the Continent and in America." I based this remark on what I had heard from an American physician, who was very intimate with me, and passed a great deal of his time whilst he was in London in seeing patients with me, also on my attendances on the children of Americans and Germans.

Mr. Joll is in error when he says he gives "authorities." He merely quotes from one American author, who may or may not be one of the many doubtful leaders of medical opinion.

Again, Mr. Joll is inaccurate when he maintains that I asserted there was a frightful amount of mortality amongst children in France and America. I said in America and some parts of the Continent. My authority is Stillé.

I take this opportunity of saying I quite agree with Mr. Brydon that improper feeding is often the cause of convulsions, as well as of many other deviations from health, and that the gum-lancet is by no means a panacea for all the diseases of children. No medical man ever contended it was. We are all fallible, and liable to make mistaken diagnoses.

I rejoice that the outcome of all that has been said and written on this subject is to strengthen my belief in the value of a well-tried remedial agent being powerful for great and lasting good to some of our little patients. If tracheotomy has been the means of saving life, so has, fortunately and undoubtingly, the simple operation of lancing the gums been equally successful. Such is the experience of such observers as John Hunter (as quoted in the Journal by Mr. Harle), Marshall Hall, Braxton Hicks (than whom, perhaps, there is no better living authority), Hare, Clement Godson, and a host of others. Let us "prove all things, and hold fast that which is good."—I remain, sir, your obedient servant, Richard Paramore, M.D.

Hydrochlorate of Cucaine.

Sir,—Would kindly let me know what is the best method for making a solution of the above? Does a solution keep well, or is it injured by light? Has it been used internally; and if so, with what results? Reference to a good article on the drug would oblige.—Yours, etc., Alpha.

*** Hydrochlorate of cucaine isreadily and freely soluble in water; in a weak aqueous solution a fungus grows; but if it contain 5 per cent. or upwards, it keeps well, or, if made with chloroform-water, the weak solutions keep well also. Further, see "Cucaine and its Salts," a "Supplement to the *Extra Pharmacopœia*," by Martindale.

Practice in Southern India.

Sir,—A young medical man, proceeding to Southern India, would be glad of hints from any of your correspondents as to preservation of health, also as to the most prevalent diseases there, and books bearing on their treatment; also as to necessary instruments required in a foreign and native practice. An early insertion will oblige.—Your obedient servant, Anxious.

Collecting Societies.

W. W.—The company referred to by our correspondent is one of the class known as "collecting societies," spending about fifty per cent. of their income in management-expenses. Their business, or part of it, is done by paid house-to-house canvassers, who use the names of local medical men (when they can get them) to induce people to take small life-assurances combined with medical attendance. The rates are rather below those paid for medical attendance on the ordinary male sick-club; and, as the lives include females as well as males, and are less carefully selected, the bargain is by no means good, while the use made of the medical officer's name and professional reputation is certainly not pleasant.

The Climate, etc., of Nelson, New Zealand.

Sir,—The object of this short note is to give medical men and others in England an unbiassed idea of the suitability or otherwise of this climate for certain classes of disease. Speaking generally, the climate of Nelson may be described as warm, temperate; and it differs markedly from any other locality in New Zealand in the small amount of wind. New Zealand in general is decidedly windy, especially Cook's Straits; but Nelson, although in close proximity to the most windy part, has less wind than most places on the globe. This is one important reason that renders it a good place for pulmonary disorders.

The following are the chief directions of the wind and the associated weather: north-east, warm and rain (usually); north, sea-breeze in fine weather; north-west, gales and high tides; west to south, the so-called "Waimea" or "spirit" wind, very characteristic of Nelson, usually blows hard during the day, dying down to a perfect calm at night; always a very dry wind; south-east, squally and cold in winter.

On reference to a map, Nelson may be seen to lie at the head of Bluid Bay; and it is completely shut off from the colder southern regions by ranges of mountains. This absence of wind is somewhat relaxing, especially in summer; healthy strong people feel enervated by it, but it is this very point which (in my opinion) renders Nelson (the only place in New Zealand) a suitable climate for the phthisical.

As regards rainfall, about forty-five inches fall *per annum*, and it is distributed throughout the year; July, August, November, and December are the wettest months; January, February, and March, the driest. Thunder-storms are remarkably unfrequent; they mostly occur in winter, accompanied with south-east weather. Fogs are exceedingly rare down on the flat, though the hill-tops are very commonly obscured by mist and cloud. During the four years and a half I have resided in Nelson, I do not remember one single fog down on the flat; this is another point of difference from many other places in New Zealand.

The subsoil varies much. This is not to be wondered at in a country so hilly, and which has in former times been much disturbed with earthquakes. In some places, it is clay, in others, gravel; of course, the latter are to be preferred, for sanitary reasons.

With regard to earthquakes, slight shocks are not uncommon; according to the old settlers, they are not nearly so severe as they used to be.

There are extensive mud-flats near the town, between tide-marks; they are covered by the sea every twelve hours, and I have never been able to trace in them a distinct source of disease. In time, no doubt, they will be all reclaimed and brought under cultivation.

The average winter (May to September) temperature, taken from 8 to 9 A.M., is 40°; the average summer (December to March), 60°. In the shade, even in the hottest weather, it seldom rises above 80°, and the minimum winter temperature at night is not often below 30°, though occasionally such minima as 25° or 23° do occur. The sun's heat in summer is very great, and, were it not for the sea-breeze, which always blows in proportion to the heat of the sun, the temperature in the shade would be very much higher than it is. The sun's heat, even at midday, is never sufficient to deter people from walking or working out of doors. The sun's heat in winter is a delightful temperature—in fact, a fine winter's day in Nelson is the perfection of weather. Children play about on the shores in the same way that they do at an English watering-place in summer; and a strong point in favour of the climate is, that there are a great many such days.

The diurnal variations of temperature are pretty extensive, and this holds, not only as regards the difference between day and night (often as much as thirty degrees), but between one day and another. I have occasionally observed a difference of twenty degrees between the temperature on one day and that at a corresponding time on the next. These sudden variations are trying to many constitutions; they are, however, observed all over New Zealand.

Nearly all plants that grow in Great Britain flourish in Nelson. Owing to the small area of flat land near the town, agriculture is far behind other New Zealand districts; but fruit and hops are largely produced, and are important industries. Unfortunately, the mildness of the climate not only favours the growth of plants, but also of insect-blights, of which there are a great number, and they are very destructive.

With regard to the diseases of Nelson, one thing to notice is the absence of malarial fevers. I have never seen a case of ague, and cannot hear of one having ever occurred here. There is, however, a good deal of periodic neuralgia, which yields to quinine, and so this may be its representative. Dysentery is not uncommon; it is, however, seldom fatal. Pulmonary diseases, here as elsewhere, are frequently met with. I have seen several cases of phthisis originating in the district in people born here. The climate is not a specific for consumption, but it is undoubtedly beneficial, especially for cases that have originated in a bleak cold climate, such as the United Kingdom. The proportion of pulmonary diseases is decidedly less than in the old country. Heart-disease is rather common, owing to the relaxing effect of the climate on the muscular tissue of the heart. Puerperal cases do well; deaths in childbed are very rare. Surgical cases generally do well, probably owing to the pureness of the atmosphere and the accompanying absence of germs. Goître is rather common amongst the young people born here, especially the girls, and is, I believe, due to the proximity of the hills. Nelson may be regarded as a valley surrounded on three sides by hills. The water-supply is excellent.

In conclusion, the chief characteristics of the climate of Nelson are the large amount of fine bright sunny weather and the very small amount of wind.—I am, etc.,

Jas. Hudson, M.B.Lond.

Spray in Ovariotomy.

Sir,—The following is an extract from a recent work by Dr. Emmet (*Principles and Practice of Gynæcology*, p. 715). "In this country I do not know of any prominent operator who employs the carbolic acid spray."

This statement implies that the writer is not persuaded of the value of spray in ovariotomy. My own experience has led me to an opposite opinion; indeed, I should not like to do a laparotomy for any purpose without antiseptic spray. I have been led to this conclusion by the results of 183 cases of removal of cystic ovaries, of which I have lost only 21; but more especially by the result of the last hundred of these cases, only 10 of which were fatal, while 38 were consecutively successful. I feel that to omit the antiseptic spray would be to deprive the patient of one of the ready and efficient elements of success. As I can hardly hope for much better results than these I have cited, and being quite content to let well alone, I shall hesitate before disturbing my present plan of operation by giving up a detail to which I attach much importance.—Very respectfully, your obedient servant,

John Homans.

161, Beacon Street, Boston, U.S.A.

Carbolic Acid.

M. G. Ducrot (Lyons).—We do not know of any journal specially devoted to carbolic acid, nor of any special book on the subject. As regards its surgical uses, there are the various books on Antiseptic Surgery, namely, Sir William Mac Cormac's and Mr. Watson Cheyne's, and several smaller ones (Beatson's, etc.).

COMMUNICATIONS, LETTERS, etc., have been received from:

The Secretary of the Clinical Society, London; The Secretary of the Royal Medical and Chirurgical Society, London; The Registrar of the Royal College of Physicians, London; Mr. A. Foxwell, Birmingham; Our Berlin Correspondent; Our Edinburgh Correspondent; The Secretary of the Durham University; Mr. E. M. Taylor, Whitby; Dr. P. Boulton, London; Mr. R. Freeman, London; Dr. J. W. Moore, Dublin; Dr. D. Newman, Glasgow; Our Birmingham Correspondent; Mr. C. J. Symonds, London; Dr. J. Roche, Kingstown; Mr. W. Thomas, Rhyl; Mr. W. Jones Morris, Portmadoc; Mr. T. Stott, London; Mr. H. L. Jones, Chatham; Mr. J. Thompson, Nottingham; Mr. Simeon Snell, Sheffield; Mr. H. L. Symonds, London; Dr. Styrap, Shrewsbury; The Secretary to the Brighton and Hove Lying-in Institution; Mr. D. Biddle, Kingston-on-Thames; Mr. R. J. H. Scott, Bath; Dr. Gogarty, Canterbury; Dr. J. Rogers, London; Our Glasgow Correspondent; Mr. J. Ackland, Exeter; Mr. S. H. A. Stephenson, Rochdale; Mr. J. Whitehouse, Sunderland; Dr. Bradley, Dudley; Dr. D. H. Cullimore, London; Mr. Machamara, London; Dr. Redfern, Belfast; Dr. Brailey, London; Dr. Alexander Hill, Grantchester; Our Paris Correspondent; Dr. R. Gooding, Blackheath; Mr. Malcolm Morris, London; Dr. R. N. Wolfenden, London; Dr. Parsons, Bristol; Dr. H. Campbell Pope, London; Mr. A. Teevan, Sydney; Mr. J. M. Thompson, London; Mr. M. Barker, Sandown: Mr. Nunn, London; Mr. R. M. Boodle, Cirencester; Dr. Miller, Upper Norwood; Dr. A. Wilson, Leytonstone; Our Aberdeen Correspondent; Mr. E. G. Browne, Dublin; Mr. J. Pringle, Holme; Mr. C. O. Elkerton, London; Dr. A. B. Brabazon, Bath; Dr. Coleman, London; Mr. John Clare, Hanley; Dr. Power, Portsmouth; Dr. Parsons, Dover; Dr. W. H. Tayler, Anerley; Our Liverpool Correspondent; Dr. C. R. Drysdale, London; Mr. John Deans, Bournemouth; Dr. Gordon, Glasgow; Mr. G. Fleming, London; Dr. J. H. Aldridge, Southampton; Mr. Samuel Stretton, Kidderminster; Mr. G. Hodgson, Bootle; Mr. John Gould, Hatherleigh; Messrs. Cassell and Co., London; Mr. W. N. Parker, Cardiff; The Secretary of the Dental Hospital of London; Mr. G. J. W. Garnham, Chippenham; Mr. G. Eastes, London; Mr. A. A. Napper, Cranleigh; Mr. F. R. Walters, London; Mr. R. Benham, London; Mr. C. Puzey, Liverpool; Mr. G. J. Iago, Balham; Mr. B. Brooks, Hull; Dr. Champneys, London; Messrs. Maw, Son, and Thompson, London; Mr. W. J. Tivy, Clifton; Mr. E. F. Flynn, Sunderland; Dr. C. E. Prior, Bedford; Mr. W. Hall, London; Mr. W. Fenwick, Glasgow; Mr. G. S. Carden, Teignmouth; Dr. C. W. Suckling, Birmingham; Our Dublin Correspondent; Our Manchester Correspondent; Our Belfast Correspondent; Mr. R. E. Cooper, Durham; A Member; Mr. G. S. Crisford, London; Mr. S. Murphy, London; Mr. J. L. Clifford Smith, London; Dr. E. Dingley, Wolverhampton; Director-General T. Crawford, London; Mr. G. F. Dowdeswell, London; Mr. A. Cotgreave, Wandsworth; Mr. E. Ponsonby, Dublin; Mr. T. S. Lowe, Bath; Mr. H. O'Neill, Belfast, etc.

BOOKS, ETC., RECEIVED.

Manual of the Antiseptic Treatment of Wounds. By W. Watson Cheyne, M.B., F.R.C.S. With Illustrations. London: Smith, Elder and Co. 1885.

Injuries of the Spine and Spinal Cord. By H. W. Page, M.A. London: J. and A. Churchill. 1885.

The Microtomist's Vade-Mecum. By A. B. Lee. London: J. and A. Churchill. 1885.

Ten Years' Experience (now Fourteen Years) in Works of Intermittent Downward Filtration. By J. Bailey-Denton. London: E. and F. N. Spon. 1885.

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LECTURES
ON
SOME POINTS IN THE NATURAL HISTORY OF PRIMITIVE DRY PLEURISIES.

Delivered at the Royal College of Physicians of London.

By Sir ANDREW CLARK, Bart., M.D.,
Fellow of, and Lumleian Lecturer to, the Royal College of Physicians.

Lecture I.

I purpose in this and in the following lectures, to consider some points in the natural history of primitive dry pleurisies. Upon secondary pleurisies, upon pleurisies provoked by pneumonia, pyæmic blocks, tubercle and neoplasms of every sort, it is not at present my intention to dwell. By a dry pleurisy, I mean such an inflammation of the pleura as issues in an exudation of lymph into the substance and upon the surface of the membrane, unaccompanied by an amount of serous effusion sufficient to yield physical signs conclusive of its presence.

Entering upon this inquiry, we are met by the question, Do such pleurisies exist? And on the side of affirmation, as well as on the side of denial, are ranged some of the highest authorities in medicine; and even when it has been admitted by the weight of evidence that dry pleurisies are pathological as well as clinical entities, their influence in originating secondary disease of the lung has been hotly contested. From the days of Laennec until now, the most opposite opinions upon this subject have been advanced; and whilst one leader has declared primitive dry pleurisies to be mere clinical curiosities, another has asserted that they invade the lung, and produce secondary and serious changes therein.

The study of this controversy is at once sad and edifying; for, whilst it shows us, even in the highest order of minds, how difficult it is, in the search for knowledge, to be, in the philosophic sense, impersonal, it makes plain to us the puerility as well as the peril of dogmatism and of finality in scientific statements.

The scope of my inquiry is narrow, and the results of it are but few and imperfect. Nevertheless, I indulge the hope that they will not be found entirely useless, since, whatever may be thought of the inferences drawn from the cases forming the subject of this inquiry, the cases themselves will remain for future study; and, touching one of the most important questions of the age in which we live, may excite to fresh investigation others more qualified than I am to pursue it with profit. Furthermore, it will be to many disappointing to find that the direction of my inquiry will make it more interesting to the student of clinical medicine than to the student of pathological histology. But herein may lie the justification of my small endeavours; for, whilst I remember that the traditions of this College make it sacred to the advancement of knowledge for its own sake, I cannot forget that they make it also sacred to the forcing of that knowledge into fruit for the uses of men.

In the present lecture, I shall set forth the grounds which have led to the institution of this inquiry. In the second lecture, I shall consider the anatomical constitution of dry pleurisies, their varieties, the changes which they undergo, and the influence which they exert on the evolution of pathological changes in the lung. In the third and last lecture, I shall relate, in as far as they are known to me, the clinical peculiarities of the chief affections of the lung originating from dry pleurisies; and I shall conclude with a series of propositions which appear to be justified by the facts collected in the course of this inquiry.

In proceeding to set forth the grounds of this investigation, I find myself embarrassed by the number and variety of materials at my command. A critical examination, however, soon makes it plain that they fall naturally into groups, that the groups may be arranged in the order of an increasing complexity and importance, and that a single instance selected from each group will fairly represent the whole.

Now the grounds of this inquiry are, in the first instance, cases; and I have collected and related them in abstract with as much care as I could command. Nevertheless, they are all of them in varying degrees incomplete, and in some few particulars they may be even inaccurate. For a literal and sustained accuracy in narrative is one of the rarest gifts granted to men; and the difficulties encountered in relating a case, and in recording its progress with minuteness and exactitude over a period of years, are so great, that I cannot understand how, unless exceptionally, they are so commonly and easily overcome.

Furthermore, after long study of a case, the sum of our knowledge of it comes to be made up partly of bare facts capable of literal record, partly of complex facts, into the account of which our own subjectivity more or less largely enters, and partly of subjective impressions which, if they do not actually combine with the naked facts, so colour them that sometimes they are practically transfigured. I recognise this peril, from which I suspect no one is wholly privileged, and I have endeavoured, in the narration of my cases, to purge them of subjective adulterations, and to present them in their baldest objective forms; but to say that I have been entirely successful, would be to assume that I am more than entirely human.

Lastly, the cases are not related in chronological order; but they are related in such an order as seems best calculated to set forth the progress of primitive dry pleurisies, and the way in which they invade, alter, and destroy the lungs.

Case I.—In 1866, I was consulted by a gentleman, 35 years of age, married, a traveller, and of somewhat irregular habits. He was fair and moderately nourished, but looked pale and ill. His family history was good; and of his personal history, he said that he remembered having suffered from no special complaint, but that latterly he had been often ailing and sometimes rheumatic. He consulted me on account of an odd feeling which he had in his left side, and described it as "resembling the movement of something out of joint."

On examination, I found a grating pleural friction round the whole base of the left lung; but neither in the upper part of that lung, nor in any part of the right lung, could other indications of disease be discovered. Except in the region of pleural friction, the breath-sounds, the vocal resonances, and the percussion, were normal. There was neither cough nor expectoration, but deep breathing produced general discomfort in the left side; there was no constitutional disturbance; and beyond a slight gastro-hepatic catarrh, no signs of disorder elsewhere. Two months later, the pleural friction had extended to the whole lower half of the left lung, but no material change had occurred in the local or general condition of the patient.

Twelve months after the first examination, the patient had failed in general health, and suffered from a little cough, mucoid expectoration, and breathlessness on exertion. Pleural friction and creaking were heard at places throughout the lower third of the left lung. A superficial crackling or crepitation could be evoked by deep breathing or coughing; vocal resonance was diminished; there was dulness to percussion, and the tactile vocal fremitus was feeble. The lower part of the side appeared to be slightly contracted; the cardiac impulse was visible under the left nipple; the right ventricle was slightly dilated; the pulse was 76; the temperature was normal; and there was no evening fever.

I did not see this case again; but a year afterwards I heard that he had been for a few months insane; that his chest had given no signs of trouble, and that he had just emigrated to New Zealand.

Case II. (See Appendix, Note 1.)—In February, 1874, Mr. Hutchinson requested me to examine, in his wards, a man who had somewhat suddenly developed pulmonary symptoms of an obscure kind. The patient was 34 years of age, tall, well built, and well nourished. He complained merely of urgent dyspnœa. His face was dusky, and expressive of great anxiety. He breathed with great difficulty and labour; the thorax appeared to be inflated and incapable of complete recoil on expiration; the veins of the neck were distended; the skin was of a bluish tint; and the extremities were cold and damp. Examination of the chest yielded few definite results. There was nowhere dulness to percussion, or any recognisable change in the tactile vocal fremitus. Everywhere the breath-sounds were loud harsh blowing, and here and there accompanied by a fine and moist or a rustling and dry crepitation. Throughout the axillary region of the right side, and over the lower two-thirds of the back, there was heard a superficial moist crackle or large crepitation, sometimes replaced by friction. Like sounds were heard in disseminated circumscribed patches in corresponding regions of the opposite side.

The action of the heart was rapid and irregular; epigastric pulsation was strongly marked; the pulse was small and running; the temperature was under 100°. The tongue was swollen, furred, and

bluish; the abdomen was distended; the bowels were confined; the scanty urine was loaded with purple lithates, and free from albumen. The patient was restless, had slept little, and was occasionally delirious. On the day following my examination, he died.

After death, both lungs were found to be emphysematous. The greater part of the right pulmonary pleura was coated with a thickish layer of loose, soft, reticularly arranged lymph, more or less adherent to the subjacent membrane, and containing in its meshes a turbid yellowish glutinous fluid. Both the lymph and the subpleural areolar tissue were studded with small extravasations of blood. In the lung immediately beneath the pleura, were narrow, irregular, and interrupted tracts of pneumonic consolidation. Similar appearances, to a much less extent, were found on the pleura and in the lung of the opposite side. The heart was dilated and somewhat soft. The valves and their corresponding orifices were free. In a few of the smallest branches of the pulmonary artery, plugs were found.

Case III.—In January 1873, Dr. Stephen Mackenzie called my attention to a patient in Harrison Ward of the London Hospital. He was about thirty years of age, tall, florid, thin, and healthy-looking. He had been admitted for bronchitis and gastric catarrh. As the bronchial attack subsided and its attendant *râles* disappeared, there was noticed all over the right side a very superficial crackling and crepitation. It was just recognisable by the hand placed lightly over the side; it was little influenced by deep breathing or by coughing; and, when listening with the stethoscope, the impression made upon the mind was that the crackling was produced either in the walls of the chest or in the parts immediately subjacent. After a few weeks, the patient was discharged from the hospital at his own request. He was in all respects well, except that the superficial crackling and crepitation remained unaltered.

A year afterwards, this patient was readmitted into the hospital. I did not myself see him on that occasion; but I was told that he had had a slight bronchial attack; that, after its subsidence, the right lung was found in the same state as before; and that the left lung was unaffected.

In 1876, I had an opportunity of re-examining the patient. Except for a slight cough, mucous expectoration, and shortness of breath on exertion, he was fairly well, and able to follow his work. The left lung was quite free from any signs of disease. The right side moved less freely in breathing, looked slightly flattened and contracted, and the cardiac impulse was near the sternum, below the cartilage of the fourth rib. Over the lower third, from the front of the axillary region to the spine, there were marked dulness, diminution of tactile vocal fremitus, feeble breath-sounds, and impaired vocal resonance. During forced inspiration, practised after coughing, there could be heard, in places, creaking or obscure friction and some deeper sounding coarse moist crepitation. There was no notable change in the condition of the heart. The pulse was under 80. The temperature was slightly subnormal.

Case IV.—In June 1875, I was consulted by a young man for cough, expectoration, and pain in the right side. He was eighteen years of age, tall, fair, and moderately nourished. The family-history was good. Fourteen months before his visits, he contracted a right pleurisy, and since then his chest had not been well. Nothing abnormal was discovered in the digestive, circulatory, genito-urinary, or nervous systems. On examining the chest, it was found that the cardiac impulse fell between the fifth and sixth ribs, two inches in front of the nipple. The heart's action was strong and regular; the pulse was 68. The temperature was normal. The left side was normal in form and movement. The right side was slightly flattened, moved less freely on inspiration, and, except at the upper fourth, was dull to percussion. The tactile vocal fremitus was unaltered. Auscultation revealed, in the dull region, superficial creaking leather-sounds, bronchial breathing, increased vocal resonance, superficial clicking, and large moist crepitation.

This patient went to South Africa. I saw him two years afterwards, on his return to England, and he declared himself to be quite well. A careful examination brought to light no evidence of disease, except in the right side of the thorax, which was flattened, contracted, and a little twisted. The corresponding shoulder was depressed, whilst the lower angle of the scapula projected outwards from the ribs. Over the lower four-fifths of the right lung, there was complete dulness to percussion, diminished tactile vocal fremitus, feeble breath-sounds, no *râles*, and much impaired vocal resonance. During forced inspiration, creaking, and sometimes little grating sounds, were heard. I have not seen the patient again. (See Appendix, Note 2.)

Case V.—This was the case of an unmarried American gentleman, 52 years of age, a patient of Professor Pepper of Philadelphia, who had recommended him to go to England for the benefit of change. He complained of general ill-health, of a nearly dry teasing cough, of shortness of breath, weakness, and indigestion. He was pale, thin, anxious-looking, depressed, and supposed to have had syphilis at a date not recorded. The illness for which I was consulted, began in 1877 with an obstinate and incoercible right dry pleurisy. He went to Colorado, Florida, and the Sandwich Islands, with no resulting benefit. Subsequently he visited Toronto, and there began to improve.

At the time of examination, the patient was suffering from gastric catarrh, and had a suspicious-looking ragged ulcer, about the size of a sixpence, on the posterior wall of the rectum, within an inch of the anus. The urine was of fair density and slightly albuminous. The heart was beating feebly, a little to the right of its normal situation; there were no murmurs; the pulse was 84, small and compressible; temperature normal. The left lung on examination yielded no signs of disease. The right side of the thorax was a little flattened, and on inspiration moved much less freely than the left. Over the lower two-thirds, and chiefly from the anterior border of the axillary region to the spine, there were almost complete dulness to percussion, diminished tactile vocal fremitus, feeble and irregular breath-sounds, slightly increased vocal resonance, and no *râles*. Deep forcible inspirations brought out superficial rustling crepitation, creaking leather-sounds, and at one or two parts grating friction. The patient complained of general pains which disturbed his sleep, and of stiffness and achings of the joints.

Nine months afterwards, I re-examined the patient. His general health was much improved, but the condition of the right lung was unaltered, and there was still a trace of albumen in the urine.

Case VI.—For this case I am indebted to the kindness of Dr. Goodhart. Unfortunately, no dates are given in the record. Nine years before death, the patient was admitted into Guy's Hospital, for chronic interstitial nephritis. Soon afterwards, he had an attack of right dry pleurisy, followed by hæmaturia. Four years, and again two years before death, the patient had hæmoptysis. The physical signs were reported to be those of bronchitis and of phthisis. The patient died unexpectedly and suddenly, with signs of failing action of the kidneys.

On inspection after death, it was found that the right lung was surrounded by a greatly thickened pleura, at some parts a third of an inch in thickness; that the whole upper lobe was converted into a mass of fibroid tissue, traversed by slightly dilated bronchial tubes; and that it seemed as if the fibroid invasion had arisen in and extended from the inflamed pleura. Part of the lower lobe was simply collapsed, and penetrated by tracts or bands of fibroid tissue, which, starting from the pleura, were lost in the lung. A similar, but less advanced condition, existed in the summit of the left lung. The heart weighed 11½ ounces; two of the aortic valves had fused into one, and the third was enlarged. The kidneys were slightly granular on the surface, but there was no marked cortical wasting. There were, however, some recent epithelial changes and intertubular congestion.

Case VII.—This case occurred in a gentleman, 76 years of age, whose family was reported to be free from any taint of phthisis. Summoned, in 1870, to see him on account of a small recurring hæmoptysis, I was informed that at about 18 he had had a right pleurisy, which "persisted in a curious way" for many months; that almost ever since that time he had suffered from his chest; that he had had several attacks of hæmoptysis; that he was liable to frequent and severe colds; and that, notwithstanding these facts, his general health had been fairly good, and he had been, between his attacks, equal to the ordinary duties and enjoyments of life.

The attack of hæmoptysis having ceased in a few days, I was able to examine the chest with some care. The heart was found to be beating against the cartilage of the third rib on the right side. This was flattened and irregularly retracted; the shoulder was depressed; the scapula at its lower part projected outwards from the ribs; the neck was swollen, and its superficial veins were distended and tortuous; and here, as well as in the face, the skin was of a pale dull leaden hue.

The whole side, front and back, except at the apex, was dull to percussion; the tactile vocal fremitus was rather increased; the breath-sounds were of the hollow bronchial variety, loud, harsh, and blowing; there was no vesicular breathing, but, instead of it, there were large, moist, gurgling rhonchi; and the vocal resonance along the course of the bronchial tubes was bronchophonic and almost pectoriloquous. At the base of the lung, the physical signs were of a similar character, but much less advanced. Over the summit of the lung, the tactile vocal resonance was diminished; the breath-sounds, though feeble and harsh, were of the normal type; and the vocal resonance, except at the inner end of the clavicle, was diminished. The per-

cussion-note over the summit of the lung was of a tubular character, and resembled the sound which, in children, one can elicit by tapping the upper part of a lung, the lower part of which is surrounded by fluid. The left side was enlarged, rounded, and moved fully and freely on inspiration. Tactile vocal fremitus was everywhere distinct; the percussion-note was more than naturally clear and resonant; the breath-sounds, the vocal resonance, the respiratory rhythm, and the pleural movements were everywhere normal.

Six weeks after the first, I made a second examination of the patient, when he had returned to his normal state. I found that he suffered from a slight catarrhal dyspepsia; that the urine, of low density, contained always a little albumen; that he had a habitual slight cough, with muco-purulent expectoration; that, when he was struck with a severe bronchial attack, the cough became paroxysmal, and ended in vomiting; and that he suffered from time to time with pains about the right shoulder and side. During this examination, I heard but few *râles*, but a creaking leather-sound—a sound as of the creaking of a new saddle—was clearly audible during deep inspiration.

I did not again see this gentleman, who subsequently died of bronchitis, under the care of Drs. Huxley and Nankivell, at Torquay.

Since these notes were written, I have learned from Dr. Toogood many interesting particulars of this patient's case. Chief among them is the circumstance that the patient suffered occasionally from attacks of dry pleurisy on the right side.

Case viii.—In the early part of 1870, I was summoned to see a gentleman, complaining of pain in the lower part of the left side, which he considered to be an attack of internal gout. The patient was 60 years of age, tall, thin, and somewhat infirm, but vivacious. He had suffered from regular attacks of gout for many years, until the last five years, when the attacks became irregular, and when, as the patient alleged, instead of occurring in the foot or hand, they occurred in the lower and back part of the left side.

On examining the chest, I found slight dulness over the lower and back part of the left side, increased tactile vocal fremitus, harsh grating friction, feeble breath-sounds, and slightly modified vocal resonance. The patient was himself conscious of the pleural friction, and it could be felt by the hand laid lightly on the chest. Nothing abnormal was discovered in the right lung. There were uneasiness in the left side and shoulder, pain and slight cough on deep inspiration, some slight difficulty of breathing on exertion, and a little viscid frothy expectoration, discharged with difficulty. The heart was large, weak, irregular, and murmurish in the mitral area; the arteries were slightly thick.

The patient suffered a good deal from indigestion. The bowels were sluggish. The urine had a density of 1018, frequently deposited showers of uric acid, and contained traces of albumen. There were no signs of disease in the nervous system. The skin was for the most part harsh and dry; but now and then there were partial sweatings. The hands and feet were deformed by repeated attacks of gout.

The patient was a generous liver, and dined almost daily *à la mode* in the company of his friends.

The patient continued in much the same condition until June, when he went to the south of England, and I lost sight of him for two years. During his absence, it was said that his chest was quite well, but that he had had repeated attacks of ordinary gout.

Towards the close of 1872, I was again summoned to see this gentleman in London, and I found him in every way worse. He had frequent paroxysms of cough, ending partly by cough, partly by vomiting, with expectoration of a fœtid muco-purulent matter often stained with blood. He was breathless on exertion, and he had pain, aggravated by coughing, round the base of the right lung. The sputum contained areolæ of elastic tissue, and made sure the diagnosis of an excavation in the lung.

The whole base of the left lung was now completely dull to percussion; the tactile vocal fremitus was diminished, and, except at one point about to be noticed, the breath-sounds were feeble, and the vocal resonance diminished. At the point excepted, in the middle of the posterior base, and a little way above the upper limit of hepatic dulness, the breath-sounds were cavernous, and the voice bronchophonic. Occasionally, either no cavernous breathing was heard in this locality, or else there were bubbling or gurgling *râles*. Immediately after free expectoration, the breath-sounds were hollow; some hours afterwards, and before the occurrence of a paroxysm of coughing, auscultation gave no evidence of the presence of a cavity. The right lung was entirely free from any sign of disease.

The heart, drawn a little upwards, was weak, irregular, and indistinctly felt. The pulse, frequent and quick, beat over 100 times a minute. There was not only no elevation of temperature, but the temperature, unless on exceptional occasions, varied from one to two and a half degrees below the standard of health.

The digestion was much disturbed; the bowels were obstinately confined, and the patient was troubled with hæmorrhoids. The urine was now abundant and pale; it contained habitually traces of albumen, but there were no casts.

The patient was thin, weak, ailing. The face, and particularly the eyelids, were puffy. The finger-ends were swollen. The superficial cervical veins were distended. The skin was yellowish and dry. There had been no serious attack of external gout for many months. The nervous system was unstrung, and the temper had become irritable. The nights were restless, and vaso-motor storms were frequent. On this occasion, I saw the patient only twice or thrice. He did not improve much; and, thinking that he needed more frequent relays of food and more ample supplies of wine than my regulations for management permitted, he sought the advice of another physician, who understood his constitution better than I, and who held more liberal views respecting its management.

In 1875, the patient again came under my care. He was thin, weak, and worn; his feet and legs were œdematous; he was depressed in spirits and irritable in temper; his nights were sleepless, and his days distressed by frequent paroxysms of exhausting cough. The expectoration was abundant, muco-purulent, and sometimes almost unbearably fœtid. On occasions, the fœtor disappeared for days, and the expectoration consisted only of a frothy viscid or watery mucus, dotted with tiny pellets of pus or of blood. His breathing, always short and shallow, turned into distressing breathlessness when he ascended a flight of stairs. The digestive organs were greatly disordered; flatulent attacks, with palpitations, were frequent; the bowels were irregular; and the urine, having a density of 1012, contained about 5 per cent. of albumen, but no casts. The skin, harsh and dry, had a pale bluish or leaden tint. The eyelids were œdematous; and the right side of the neck and chest, as well as the right upper arm, were traversed by gorged and tortuous veins. The heart, drawn upwards and outwards, lay behind the third rib; its action was weak and irregular; and in addition to a low pitched murmur in the mitral area, there was a loud roaring systolic close to the cartilage of the third rib at its junction with the sternum, and thence along the course of the aorta.

About this time, Mr. G. W. Mackenzie was associated with me in the charge of the case; and to his skill, judgment, and firmness was due the improvement which subsequently occurred in the patient's condition. By careful management, chiefly hygienic, the patient improved greatly in general health; but the signs of local lung-disease, although quiet, persisted. Returning to the duties and pleasures of society, and continuing therein, the patient in autumn caught a severe cold. This was followed by small attacks of generalised gout, an increase of albumen in the urine, œdema of both lower extremities, and failure of general health.

Again, after a time, the general condition of the patient improved; but as the bronchial catarrh persisted, and as there were evidences in the sputum of advancing lung-disease, the patient was sent to Torquay, and placed under the care of Dr. Usher Huxley. There, for some months, the condition of the patient's chest improved; and with the exception of daily paroxysms of cough ending in vomiting, habitual but scarcely felt breathlessness, and occasional attacks of irregular and tumultuous action of the heart, the patient suffered little, and enjoyed his limited life.

On a certain day, however, the patient having got chilled, he began to have irregular accessions of fever. The appetite failed, the albumen in the urine increased, a pleuritic effusion appeared in the right side, the breathing became oppressed, the heart slowly failed, and the patient, falling into a state of stupor, died.

To Dr. Usher Huxley I am indebted for an account of the necropsy, and for that part of the affected lung which included the naked-eye evidences of disease. The base of the left lung was surrounded by several layers of adventitious pleural membranes, varying in consistence and character. The innermost of these layers appeared to extend through the interlobular fissures, and along the blood-vessels into the substance of the lungs, which was hard, tough, dark, and cut with difficulty. Within an inch of the posterior surface of the lung, and near its base, were two irregular cavities containing a blood-stained purulent matter. The walls of both cavities were shaggy, and in the immediate neighbourhood of one of them were a few small knots of fibroid tissue about the size of hemp-seed. There were no bronchial dilatations. The blood-vessels were everywhere thickened. The lymphatics of the interlobular fissures were here and there swollen, knotted, or saccular, and contained at some parts small clots, and at others masses of a cheesy consistence and aspect. The upper part of

the lung contained no deposits of any kind ; the free margins and isolated central portions of lung were emphysematous ; the pleura investing the summit was much thickened ; except for patches of pleural thickening, the right lung was apparently unaffected by disease. The heart was dilated and soft, the valves were roughened, and the aorta was atheromatous and slightly dilated. The kidneys were congested, the capsules adherent, and the cortex granular. Nothing of the nature of tubercle as ordinarily understood was anywhere found.

Case ix.—In 1866, a man was admitted into the London Hospital, and placed under my care, complaining of severe pain in the lower part of the right side, passing upwards as high as the nipple, and downwards as far as the umbilicus. He was 23 years of age, tall, dark, thin, and by occupation a costermonger. There was no family history of phthisis, and the patient himself had enjoyed good health until the appearance of the illness for which he had been admitted. He confessed, however, to the habitual and free use of alcoholic beverages. A week before admission, the patient had a rigor, followed by severe pain in the right side, cough, fever, and considerable prostration. The whole facts of this case were carefully studied and recorded by my colleague, then my clinical clerk, Mr. J. McCarthy. From his notes I have extracted all that seemed to bear directly upon my present purpose.

The patient complained of dry cough, of pain in the right side made atrocious by coughing or by deep inspiration, of loss of appetite, and of great prostration. The lower part of the right side moved imperfectly on inspiration. The tactile vocal fremitus was slightly diminished. There was no marked dulness to percussion. Over the whole base one heard with the stethoscope pleural friction, superficial moist crackling, and, at scattered circumscribed places, bronchial breathing with increased vocal resonance. Between those places, the respiratory sounds were rather feebly heard through the crackling and friction. Examination of the upper part of the lung yielded no signs of disease beyond a few mucous *râles*. The left lung was apparently healthy. The heart's action, unaccompanied by any abnormal sound, was frequent and weak. The pulse, small and compressible, was 110 ; the temperature was 103° ; the tongue was loaded ; the bowels were confined ; the urine was scanty, and deposited purple lithates. The patient looked and felt very ill.

After a week, the patient had frequent distressing cough, with muco-purulent expectoration and occasional attacks of dyspnœa, with severe pain in the right side. The physical signs remained practically unaltered. Fever continued, and the patient took little food, had restless nights, and was extremely prostrate.

At the end of a month, the patient was much worse. The physical signs, still of the same general character, had extended to the whole lower third of the right side, and there was extreme tenderness over the hepatic region. Coarse moist crepitation, with mucous *râles*, were heard throughout both lungs. There were harassing cough, thin muco-purulent expectoration, and occasional attacks of breathlessness in the midst of shallow and painful respirations. The pulse was 120 ; the temperature at night was 104° ; there were occasional chills during the day, and sometimes profuse sweats at night. The patient lay upon his back, took little food, and expressed himself as very ill. The tongue was loaded, and the breath fœtid. Constipation alternated with diarrhœa, and light with dark fæces. The urine, more abundant in quantity, contained a little albumen. Exploration of the right side with a fine trocar showed that there was no free fluid in the pleural sac. Several physicians, who at this time examined the case, suspected it to be one of acute tuberculosis, with secondary pleuro-pneumonia of the base of the right lung.

Before the patient's death, about two months after admission, new physical signs arose in the base of the right lung, two inches below the nipple. Over a circumscribed space, dull to percussion, there were heard cavernous breathing, pectoriloquy, and, on coughing, a hollow, gurgling rhonchus.

After death, it was found that the structural evidences of disease were confined almost entirely to the lower third of the right lung and the upper surface of the liver. The base of the lung was surrounded by a thick layer of loose, yellowish, soft, and almost diffluent lymph, infiltrated at parts by a fluid resembling pus, but composed of degenerating cells of various forms, with granular *débris*. The old membranous exudations in contact with the pleura were quite firm, and could be traced throughout the lower part of the lung in two forms, as white tough intersecting bands, and as a dense, hard, almost formless, fibroid infiltration. At the lower part of the base, near the anterior surface, there were found pyriform bronchial dilatation, and one or two minute cavities.

Throughout the intercurrent portions of lung two different structural changes were visible. The first consisted of disseminated rounded caseous lumps, for the most part confined within the limits of the pulmonary lobules, but sometimes extending beyond them. Histologically, the lumps resembled the consolidations begotten in caseous pneumonia, and were, at one or two points, melting into excavations. The second kind of structural change was due to the presence, in small numbers, of spheroidal greyish or yellowish bodies, about the size of hemp-seed, and resembling tubercles. They had not, however, the arrangement of parts and structural characters of veritable tubercle. They were divisible into two groups ; the members of one group were mere knots of fibroid tissue; the members of the other appeared to consist of choked and distended lymphatic spaces, traversed by an adenoid reticulum.

In the abundant soft lymph lying between the under surface of the lung and the diaphragm there was found an abscess, about the size of a large walnut, and this abscess could be followed through the diaphragm into the liver, where there existed another abscess of a like size and character. Round about this abscess, and within the space of an inch from it, were several spheroidal masses, each about the size of a very small cherry, of a yellowish colour, and not unlike the caseous lumps in the lung.

In the pleura of the under surface of the lung, in contact with the soft diffluent lymph, I observed, and recorded with illustrations in my workbook, the presence of cup-shaped depressions, bordered and lined with flattened nucleated epithelial cells. I did not, at the time of examination, understand the nature of these bodies, and was disposed to regard them as mere alveoli of mechanical production. The researches of Recklinghausen, Ludwig, and Klein make it now probable that those bodies were temporary or permanent stomata. Besides these stomata communicating with lymphatic spaces, there were found other minute openings leading by tortuous channels into the pulmonary parenchyma.

Nothing of importance was found in any of the other organs or tissues of the body.

Case x.—In May, 1878, a gentleman consulted me for severe pain in the left side, teasing cough, slight breathlessness on exertion, and recurring irregularity of the heart. The patient was 61 years of age, spare, florid, dark haired, light eyed, and although disposed to stoop a little, well preserved. He was regular in his habits, fairly moderate in the use of alcohol, active, and a considerable smoker. The family history was characterised by rheumatism, gout, heart-disease, and asthma.

In the past personal history of the patient, the most notable events were indigestion, often recurring, rheumatism, some stray visitations of gout, and two or three attacks of pleurisy of short duration.

The attack for which the patient consulted me was of a week's duration, and was ascribed by him to having got chilled whilst driving late in an open cab. The lower half of the left side was slightly contracted, and expanded imperfectly on inspiration. The tactile vocal fremitus was, at most parts, greatly diminished. There was complete dulness to percussion ; grating friction and a superficial rustling crepitation obscured the normal breath-sounds ; the pitch of the vocal resonances was lowered and curiously uneven. A few mucous rhonchi, with sparse coarse moist crepitations, were heard over the upper part of the same side. A few sibilous and sonorous rhonchi, with large moist crepitations, were heard throughout various parts of the right lung. The heart, drawn a little outwards, was weak and irregular ; a systolic *bruit* was heard within both the mitral and the aortic areas. Nothing special was noted in the condition of the digestive, urinary, or nervous systems. Both hands, the knees, and certain parts of the spine exhibited osteo-arthritic changes.

I had no opportunity of seeing this patient again until July, 1883, when, in conjunction with Mr. Gifford Ransford, I had charge of him until his sudden and unexpected death in March, 1884.

In the early part of June, at Aix-les-Bains, the patient was seized with a sharp attack of pleurisy, and was placed under the care of Dr. Berthier. It is probable that the character of the thoracic signs led to a suspicion of fluid effusion, for I understood that an exploratory needle was used, and that no fluid was found.

At the time of examination, the patient complained of frequently recurring paroxysmal cough, ending in vomiting of muco-purulent, sometimes fœtid, expectoration ; of severe pain in the left side ; of breathlessness on exertion, of night-sweats, of slight fever, and of great prostration. The left side of the chest was irregularly contracted and flattened, and rose feebly on inspiration. Over the lower two-thirds there were diminished tactile vocal fremitus, and complete dulness to percussion. The breath-sounds generally were feeble, hollow, distant, and, at most parts, the vocal resonance was lowered in pitch and diminished in tone. At two places, one below the lower angle of the scapula, and the other about an inch external to it, the breath-sounds were cavernous ; the large moist *râles* had a

metallic quality, and there was loud bronchophony. Throughout the upper two-thirds the percussion-note was superresonant; the respiratory murmur, of normal type, was loud, harsh, and accompanied by medium sized moist crepitations; the vocal resonance was increased. Nothing abnormal was discovered in the right lung.

The muco-purulent expectoration, of ordinary histological characters, contained areolæ of elastic tissue from the lung; but, although several times sought for, no tubercular bacilli were found. When the sputa were fœtid, micrococci were abundant. The heart, drawn upwards and outwards, was enlarged, weak, and irregular; at the place of impulse, a loud systolic *bruit* was heard; and, in the pulmonary area, there existed another *bruit*, louder in pitch and fuller in tone. The temperature, falling in the morning, rose in the afternoon to 101°. There were slight chills and sweats.

The digestive organs were much disordered; the tongue was loaded, and the breath unpleasant. With anorexia and thirst, there was much flatulence; the bowels were irregular. The urine, at one time loaded with urates or depositing uric acid, was at other times limpid and slightly albuminous. Nothing worthy of notice was found in the condition of the nervous system.

For months, the patient steadily improved, and the condition of the left lung became quite passive. There were, it is true, occasional bouts of paroxysmal coughing, some morning expectorations of the usual kind, and breathlessness or palpitation on exertion, but they did not materially interfere with the patient's comfort in life, and he did not himself give them any consideration.

Curiously enough, however, as the condition of the lung and of the general health improved, the osteo-arthritic trouble returned, became slowly worse, attacked the neck, shoulders, back, hips, and hands, and was the cause of much suffering.

In February 1884, the patient began to improve, and, in the early part of March, he had gained flesh, and become in every way much better. But, on the 10th of this month, being in his usual condition, and exceptionally free from trouble, he suddenly began to cough up blood, and in a few minutes expired.

The necropsy was made by Mr. John Morgan and Mr. Gifford Ransford. The whole left lung was united by layers of thick, dense, hard pleural lymph to the walls of the chest, and was removed with great difficulty. The lung was much diminished in size, dense and leathery to the touch, and invested by several layers of adventitious pleural membranes, varying in thickness and character at different parts. About the middle of the lung, where these membranes were thickest and most closely connected, they had, when cut, much of the aspect of a fibrous growth, and, seen apart from their visceral connections, could have been easily mistaken for one.

When laid fully open, the lung appeared, for the most part, of a dark red colour, and was found to be dense, hard, tough, and cut with difficulty. Fibrous bands passing from the pleura, and intersecting at various angles, traversed the middle portions of the lung, and compressed small bronchial tubes and blood-vessels. In the base of the upper lobe, and nearer the posterior than the anterior surface, there were two ragged irregular cavities. One, about the size of a walnut, contained curdy matter and blood; the other, rather smaller, was empty. Several bronchi in the neighbourhood contained clots of blood. The summit of the lung was encased in a thick capsule of laminated and indurated lymph; but the lung-substance itself was substantially free from disease. Except at its anterior and inferior free margins, where there was much vascular emphysema, the immediate base of the lung, although greatly congested and traversed by intersecting fibrous bands, was pervious to air, and free from any marked consolidation. The bronchial tubes were nowhere dilated. The right lung, beyond some pleural thickenings, exhibited no sign of disease. The bronchial glands were enlarged, but not caseous. The heart was enlarged, soft, dilated, fatty. The mitral valve was rough, irregularly and finely nodulated, and incompetent. The aortic valves were atheromatous and incompetent; and the aortic lining was irregular, rough, and studded with patches and streaks of atheromatous deposits. In the sputum, many times examined during life, no tubercular bacilli could be found.

Case xi.—In 1851, the patient, then a tall, stout, healthy bricklayer, 42 years of age, with a good family history, fell from a scaffolding, and, having injured his right side, was admitted into the London Hospital, under the care of Mr. Luke. There it was found that he had fractured two of his right ribs, and was severely bruised. After two months, the patient was discharged from the hospital, and, although declaring himself well, had frequent cough, with blood-stained expectoration.

In 1857, the patient came under my care for hæmoptysis. He was still stout and healthy looking, and declared himself to be quite well, except for pain in the right side, a troublesome cough, and spitting of blood. A careful examination of the patient elicited no signs of disease, except in the right side of the thorax. There, in the mammary and mid-axillary regions, were slight dulness to percussion, increased tactile vocal fremitus, pleural grating, large moist crepitation, and moderately heightened vocal resonance. Coughing and deep inspiration produced sharp pain about the nipple. The pulse was 76, and the temperature 98.2°.

In 1860, the patient again fell under my observation, and had altered much for the worse. He had become bald; his face, pasty and œdematous, wore an expression of suffering; his abdomen was loaded with fat; and he moved about with difficulty on account of shortness of breath. He still declared that there was nothing the matter with him but cough, profuse expectoration, pain in the right side, and dyspnœa on exertion.

Inspection of the chest showed that the disease had considerably advanced since 1857. The right side of the thorax, between the clavicle and nipple, was retracted, and rose feebly on inspiration. The corresponding side of the neck was swollen, and the superficial veins, distended with blood, were not emptied during inspiration. In the retracted region, there were found dulness to percussion, slightly diminished tactile vocal fremitus, pleural grating or creaking, bronchial breathing with coarse moist crepitation, and some increase of vocal resonance. These signs in more or less degree were found in the mid-axillary and scapular regions. In the summit of the lung, the respiratory sounds were harsh, and accompanied by crepitation; in the base, no evidences of disease were found. The left lung appeared to be normal. The expectoration, which was abundant and gelatinous, or muco-purulent, consisted of a mucoid stroma having imbedded in it leucocytes, blood-discs, granule-cells, and epithelium.

The heart was large, somewhat feeble, and beating at the junction of the cartilage of the fifth rib with the sternum. The pulse was 80; the temperature 98.8°. No notable signs of disease were found in any other part of the body.

In 1866, the patient had lost flesh, strength, and colour, and his whole appearance suggested the existence of malignant disease. The face had a leaden tint; the features were full, and the under eyelids baggy with serum; the neck was swollen; the right arm was œdematous; and the right side of the thorax, greatly retracted, was covered by the ramifications of overdistended veins. The movements of inspiration were shallow, laboured, and frequent; the heart was seen beating to the right of the sternum at its junction with the fourth rib; and periodical paroxysms of cough, making the face livid, and sometimes ending in vomiting, discharged quantities of muco-purulent phlegm. In this phlegm were found, from time to time, areolæ of elastic tissue from the pulmonary alveoli. Beyond some fine moist crepitations near the summit in front, nothing of moment was found in the left lung. Examination of the right lung yielded the results which follow. In the supraclavicular region, there were found superresonant percussion-note, increased tactile vocal fremitus, hollow bronchial breathing, prolonged expiration, crackling, clicking, and crepitating rhonchi and bronchophonic vocal resonance. In the infraclavicular and mammary regions, there were found great retraction of the thoracic walls, scarcely visible expansion on inspiration, diminished tactile vocal fremitus, blowing, and at some parts cavernous breathing, clicking, crackling, and crepitating rhonchi, and bronchophonic or pectoriloquous voice. In this region, also, the expiratory sounds were greatly prolonged, the rhonchi had a metallic quality, and pleural creaking or grating was sometimes audible. In the lung below these regions, the respiratory sounds were jerking and harsh; the expiration was prolonged; and with both movements of breathing, fine moist crepitations were heard. Percussion and the resonances were unaltered.

The action of the heart, drawn, as already mentioned, to the right, was feeble and frequent. A low pitched systolic murmur was heard at the base. The pulse, small and compressible, beat about eighty times in the minute. No unsoundness was detected in the arteries. The extremities were cold, and the feet slightly œdematous.

The tongue was loaded; appetite impaired; thirst considerable. The liver was enlarged, and descended more than an inch below the free margins of the lower ribs. The bowels were irregular, and external hæmorrhoids sometimes distressed the patient.

The urine was abundant, and low in density. It contained about 5 per cent. of albumen, but deposited no casts. The skin was acting well, but there were neither night-sweats nor chills. The evening temperature was 97.8°.

About this time, the patient was examined by most of my colleagues, and there was much discussion amongst us as to the nature of his malady; but the balance of opinion turned in favour of malignant disease.

The patient remained for many months in the hospital. The physical signs of disease of the right lung continued, after seven months, substantially unchanged; but in all other ways—in appetite, flesh, strength, colour, and sense of well being, the patient had become, to use his own phrase, "another man." Feeling thus much better, and anxious to get into some sort of work, the patient was, at his own request, discharged from the hospital.

At the end of eighteen months, the patient was found to be in extreme poverty, and becoming rapidly worse in health; and on October 1st, 1868, he was readmitted into the London Hospital. At this time, the condition of the chest was much the same as when last examined; but in one or two places, about the middle of the upper lobe of the left lung, there were signs of fresh disease: slight circumscribed dulness, moist crepitations, jerking inspiration, increased resonances. The heart was still displaced to the right; there were systolic murmurs at the base; the pulse at the wrist was small, feeble, and under 80. The temperature was, about midday, 97.4°.

It was, however, in his general condition that the patient had relapsed, and become worse than at any previous time. With pallid and dusky hue of face; with greatly swollen neck, traversed by gorged and tortuous veins; with wasted body and œdematous legs; with short and laboured breathing, interrupted almost to suffocation by paroxysms of cough; unable to move about without sweats and tremors, he looked the picture of suffering and weakness. The tongue, of a bluish hue, was thickly coated with a yellow fur. Only fluid food could be taken; there was much flatulence; attacks of diarrhœa were frequent. The urine was of low density, moderately albuminous, and deposited granular and hyaline casts. The extremities were cold and blue. The skin acted freely, and fell often into profuse sweatings. No notable sign of disease was discovered in the examination of the nervous system. Nothing done for the patient gave him relief. He became slowly weaker; and at length, after seventeen years' conflict with his malady, he succumbed.

The thorax and abdomen alone were examined after death. The heart and great vessels lay beneath and a little to the right of the sternum, corresponding to the third, fourth, and fifth intercostal spaces. The heart was large, soft, and loaded externally with fat; there was no demonstrable valvular imperfection; the lining membrane of the aorta and small portions of the pulmonary artery were atheromatous. The veins at the root of the neck were partially compressed by adhesions connecting the upper lobe of the right lung to the neighbouring parts. It was only by the free use of the knife that the right lung could be removed from the chest. Greatly diminished in size and irregular in form, surrounded by a tough fibrous capsule, at some parts over an inch and a half in thickness, and having disposed along its inner surface, from the apex to near the base, a flattened mass of lobulated yellow fat, the organ, on superficial inspection, looked more like a tumour than a lung.

A longitudinal section having been made, it was seen that the fibrous capsule investing the lung consisted of several closely superimposed layers of different character and thickness; that, where uncut, the outer surface was rough, uneven, and obscurely warty; that, from the inner layers, fibrous bands of unequal breadth penetrated the lung, and, passing along the interlobular septa, or accompanying the vessels, or surrounding the smaller bronchi intersected in various directions, produced areolæ of varying size and form; and that, chiefly at the intersections, but also occasionally elsewhere, the fibrous bands exhibited small, hard, tough, nodular swellings. Corresponding to the place where the ribs had been fractured, the adventitious pleural membranes were infiltrated with flakes and particles of calcareous matter.

The upper two-thirds of the lung were intensely congested, and riddled with small, ragged, irregularly shaped cavities. Here and there were small consolidations, due to the presence in the alveola of an amorpho-granular obscurely fibroid matter. The pulmonary arteries, and at some parts the pulmonary veins, were thickened. Once, in a lobular branch of the artery, a nodule was seen, almost entirely obliterating the lumen of the vessel, and growing from its inner wall. Almost everywhere the adventitia was thickened, not apparently by cell-proliferation, but by a nearly homogeneous infiltration. In several instances in which small branches of the pulmonary artery were apparently much compressed or thickened, the alveolar territory to which it was distributed was in a condition either of fatty usure or of atrophic emphysema. This relation between the state of the vessel and the state of the lung was so frequent, that one was disposed to regard it as causal. Some of the larger bronchial tubes in the upper part of the lung were dilated, whilst their walls had become thin and soft, but tough. At these parts, the ciliated epithelium was replaced by a subspheroidal one, the cartilages were wasted and inelastic, and the muscles had apparently undergone fibroid degeneration. Here and there, an early division of the interlobular bronchi was found almost obliterated, and the alveoli connected therewith were collapsed.

Immediately beneath the pleura, throughout the whole extent of its diseased portions, the lung exhibited uninterrupted lines or patches of pneumonic consolidation. In the worst part the consolidation was of the croupous sort, but at several points, where the consolidation was larger, and in immediate relations with lymphatic spaces or vessels, it was caseous. At some parts in the midst of the fibroid induration, the alveolar walls were greatly altered in structure, and the alveoli contained a matter composed of free nuclei, leucocytes, epithelioid cells and pigment globules. The alteration of the alveolar walls was considerable; they were thickened, the epithelium lining them was subspheroidal, and arranged sometimes in a single and sometimes in a double or even triple layer. Some of the alveolar capillaries were obliterated, others were dilated, almost saccular, all of them appeared to be thickened. The intervascular spaces, much larger than in health, had a fibrillated appearance, and were crowded with oval nuclei irregularly disposed. Once or twice an alveolar wall was seen to be nodulated; and both in structure and arrangement the nodule resembled a minute fragment of a nucleated fibroma. The lower third of the lung was intensely congested, and yielded, on pressure, an abundant frothy, blood-stained, muco-purulent matter. On its surface, and particularly at its free margins, the lung was emphysematous; but emphysematous patches were found also about the centre of the lung, close to, and sometimes in the midst of, the fibroid induration. The left lung, of large size and a greenish red colour, was connected by loose adhesions to the costal pleura. The whole lung was greatly congested, and yielded, on pressure, an abundant frothy sanguinolent serum. In the middle of the upper lobe there was a group of bodies which, in their naked-eye characters, could not be distinguished from what are called veritable tubercles or grey granulations, about the size of hemp-seed, spheroidal, and projecting above the level of the cut surface of the lung; they were greyish, semi-transparent, dense, hard, tough, and free from every trace of caseous change. Each body, composed for the most part of fibro-corpuscular elements interspersed with epithelial-like cells and short nucleated fusiform fibres, might have been regarded, according to the subjective attitude of the observer, either as a mere fibrous knot, or as a true tubercle.

The irregular layers of new membrane constituting the capsule of the lung were of two kinds, but not alternately arranged. The one kind was hard, close, and similar to a lamellar fibroma; the other resembled a loose areolar tissue, in the trabeculæ of which were branched connective tissue corpuscles, and in the meshes thereof decaying leucocytes and epithelial-like cells. The bronchial glands were enlarged and loaded with pigment, but not caseous. The juice, in addition to the normal lymph-corpuscles, contained, in enormous numbers, spheroidal multinucleated cells in a state of active endogenous proliferation. The liver and spleen were enlarged and congested. The capsules of both organs were greatly, but irregularly, thickened; in the former, cirrhotic changes were beginning. Both kidneys were enlarged, and much congested; their capsules were opaque, thickened, and adherent. The capsular surface of each kidney was obscurely granular and mottled; but there was little wasting of the cortical substance. In many of the arteries, however, there was thickening of their outer and inner coats.

I have, in this case, described some of the pathological changes found, after death, at greater length than the scope of these lectures will fairly warrant; but I excuse myself on the ground that they affect questions of fundamental importance, and that, having followed the case throughout its whole course, I may venture, with less hesitation than will be necessary in the other cases, to deal with the conclusions which the study of the case seems to justify one in drawing from it.

Case xii.—I now proceed to relate briefly the history of a case which, in the group of advanced and complex cases, represents that section of it composed of patients who have continued to live. This case is the last which I have chosen for the illustration of my subject, and at the close of the lecture it will be submitted to your own examination.

The patient is unmarried, and a potman, but, as is alleged, of temperate habits. The father died some years ago of consumption; the mother, with a brother and sister, are in good health. The patient himself never had any illness until September, 1875. About that time he had a chill, from which he speedily recovered. On October 28th, whilst walking in the street, he became

suddenly cold, giddy, faint, powerless, and fell to the ground. Consciousness was retained throughout. Carried home and put to bed, he was seized with a sharp cutting pain in the left side, shortness of breath, dry cough, and recurring chills.

On the 29th, the patient recovered power; but after this time losing ground in other ways, he was received into the London Hospital on November 2nd. On examination after admission, the following facts were recorded. The left side of the thorax moved, on inspiration, less freely than the right; over the lower three-fourths, the tactile vocal fremitus was increased; and in the same region there were dulness to percussion, large moist crepitations, bronchial breathing, increased vocal resonance, and scattered patches of grating pleural friction. Examination of the right lung yielded no evidence of disease therein. The heart's action was weak and frequent; pulse, 94, small and impressible; temperature, 101°; respiration, 28. The tongue was furred and dry; the breath was fœtid; there was complete anorexia; the bowels were confined; and the urine was scanty, high coloured, and loaded with purple lithates. The skin was dry and harsh, and the face flushed; the eyes were bright, and the pupils dilated. The patient complained of headache, general pains, a sharp stitch in the left side, dry cough, and *malaise*.

A week after admission, an effusion of serum had occurred in the left pleura, the heart was pushed to the right of the sternum, and the patient's breathing had become rapid. Within a month, all signs of fluid in the left pleura had disappeared; the heart had returned to its normal position; and, but for an uneasy sensation throughout the lower part of the left side, the patient said that he would be well. The pulse, respiration, and temperature were almost natural. Round the base of the lung, however, there were loud grating pleural frictions, and deep inspiration or cough produced pain.

When the patient was dismissed, some months afterwards, the pleural frictions were still present, but he expressed himself as being in other respects well.

During the following year, the patient was readmitted into the hospital with dry pleurisy of the right side. The patient was in poor general health, looked pale and ill, suffered from gastro-hepatic catarrh, and had scanty high coloured urine, slightly albuminous, and free from sugar, but loaded with purple urates. The heart occupied its natural place in the thorax, was free from signs of disease, and beat about 80 times a minute. Throughout the mammary and axillary regions of the right side, there were grating or rubbing pleural frictions, and pain on inspiration or coughing. The respiratory murmur was feeble and interrupted, and the resonances were diminished; but, in as far as it could be ascertained, there were no pulmonary *râles*.

The left side of the thorax moved less freely than the right, and it was irregularly flattened. There was dulness to percussion in the infraclavicular, mammary, axillary, and mid-scapular regions; the tactile vocal fremitus was slightly diminished; the breathing throughout was feeble and hollow; coarse moist crepitations accompanying both respiratory movements were heard in several places; and the vocal resonance, varying at parts, was, on the whole, increased. An inch below the outer end of the clavicle there was a patch of dulness, equal in size to a florin, where there were heard bronchial, almost tubular breathing, a few small moist *râles* of metallic quality, and bronchophony. Here and there intermittently pleural creaking or grating was heard. The patient had a short hacking cough, a moderate amount of muco-purulent expectoration, and breathlessness on exertion. The sputum consisted of a mucoid stroma, having embedded in it leucocytes, young epithelium, pus-globules, granule-cells, and much amorpho-granular matter in little masses or streaks. No elastic areolæ were found. A systolic *bruit* was heard in the pulmonary area; the pulse was 84; the temperature was 99°.

The patient remained in the hospital until June, 1877. During all those months he improved in general health. The condition of the left lung remained without material change until the time of his discharge. And although on the right side the pleural frictions were often absent for weeks, they always returned for longer or shorter periods, and appeared to be causally connected with changes slowly advancing in the middle and lower part of the lung. In these regions, the intercostal spaces were deeply retracted; there was diminished movement on inspiration; dulness to percussion had become considerable; the respiratory murmurs, feeble, hollow, and distant, resembled those heard in moderate pleural effusion, and vocal resonance was muffled. There was no displacement of organs, and various alterations of the position of the patient produced no perceptible change in the outlines of the area of dulness.

On readmission to the hospital in 1882, the patient was found to be much worse than when he left it in 1877. Pale, thin, weak, breathless, he complained of troublesome cough, with a good deal of muco-purulent expectoration, and of acid and flatulent disorders of digestion. Furthermore, he had a small strumous-looking abscess over the second lumbar vertebra, and chronic enlargement of both testicles, unconnected with any venereal affection.

On examination of the chest, it was seen to be retracted, chiefly on the right side. Its movements during respiration were shallow, frequent, and irregular, and the intercostal spaces were everywhere deepened. Over the upper half of the left lung there were dulness to percussion, slightly increased tactile vocal fremitus, pleural creaking, moist metallic crepitations, bronchial breathing, and increased vocal resonance. An inch below the outer end of the clavicle, and over a space of the size and form of a florin, there were to be heard cavernous breathing, large moist *râles*, and loud bronchophony. In the supraclavicular region, the respiratory sounds were merely feeble and hollow.

In the upper third of the right lung, no evidences of disease were discovered. The lower two-thirds were retracted, and rose little on inspiration. There was complete dulness to percussion; the tactile vocal fremitus was much diminished; the respiratory murmur was feeble; no *râles* were heard, but there were distinct pleural rustlings, creaking, and friction; the vocal resonance was muffled and distant.

The state of the digestive organs was unsatisfactory; the tongue was coated, and the breath fœtid; the tonsils were enlarged and stuffed with cheesy lumps; acidity, flatulence, and sensations of burning accompanied the digestive processes; the liver, rather small, was pulled upwards by the contracted lung; the bowels were irregularly and inadequately relieved. The urine, turbid from a little mucus, had a density of 1.016, contained about a twentieth of its bulk of albumen, and, according to West's process, yielded, with an average daily discharge, two per cent. of urea. The heart, occupying its normal position, was slightly enlarged; at its base, within the pulmonary and aortic areas, a systolic *bruit* was heard; the pulse was 84, of moderate volume and strength; the arteries were soft. The evening temperature stood at 98.4°, the morning at 97.2°. The skin was rather harsh, dry, and indisposed to sweating. Nothing of moment was discovered in the examination of the nervous system. The morning sputum, not exceeding two drachms of muco-purulent matter, contained elastic areolæ from the pulmonary alveoli. The areolæ had become so changed as to admit of being broken by proper manipulation. In the sputum of the drier cough of the afternoon and evening, moulds or casts of the tonsillar crypts were occasionally present. They resembled, but with ordinary care could be easily distinguished from, the elastic areolæ of the pulmonary alveoli.

On leaving the hospital in 1883, the patient had greatly improved in flesh, colour, and strength. The digestion had become good; albumen was found only occasionally in the urine, and the percentage of urea had risen. The condition of the lungs had also improved; it is true that the physical signs of structural disease remained practically unaltered, but cough and expectoration had ceased, breathlessness was less, and the patient declared that he had no discomforts in his chest.

When, in February 1884, the patient again came under my professional care, he had again fallen into deplorable health, and was in every way worse than he had been at any former time; thin and pale, bent and breathless, showing an uncertain gait and œdematous legs, it seemed as if his malady had greatly advanced, and as if life must be drawing to an end. Nevertheless, a careful examination was sufficient to show that, although there were cough, expectoration, and breathlessness, there was no material change in the actual physical condition of the respiratory organs. The patient's relapse was plainly due to failure in other parts of the organism, brought about by a bad hygienic management, and by recurring bronchial and gastric catarrhs.

The tongue was thickly furred; there were little appetite and much thirst; acidity, flatulence, weight, and pain frequently distressed the patient; the bowels were irregularly and inadequately relieved, and the fæces were deficient in bile. The urine, having a daily discharge of over fifty ounces, was pale, turbid with mucus, acid, of a density of 1.014, and contained, according to the old tests, about a tenth of its bulk of albumen.

The signs of a cavity under the outer end of the left clavicle had become much less marked; and the sputum, carefully and repeatedly examined, contained no elastic areolæ from the lung, and no tubercular bacilli. The heart's sounds were muffled, seemingly from the development, since last examination, of some alveolar emphysema; the pulse was 104, small and compressible; the extremities were bluish and cold. The thermometer recorded an evening temperature of 98°.

Once more, under hospital care, the patient rapidly recovered, and, when discharged in August 1884, he expressed himself well. No signs of active disease were to be discovered in the lungs; the digestion was good; albumen had disappeared from the urine; flesh, strength, and colour had been recovered; and, beyond breathlessness on slight exertion, the patient felt nothing of which he could much complain.

On the 13th of March of the present year, I examined, for the last time, the subject of this case. As usual, after leaving the hospital, he had failed in health, and become pale, thin, weak, and nervous. He complained of morning retching, of an occasional choking sensation in his chest, relieved by the "breaking of phlegm which he could never get up;" of a slight, dry, hacking cough; of breathlessness on much exertion, and of epigastric cramp when he was hurried. He said, however, that he would be well, but for the morning retching; and, being closely examined with respect to this, he would not allow that it could be in any way connected with his manner of life.

The tongue was furred, the breath foul, and the appetite capricious. Various discomforts were felt in the course of digestion, particularly a churning and burning, relieved by vomiting. The bowels acted daily; there were no hæmorrhoids. The urine, turbid when voided, was acid, phosphatic, moderately albuminous, and deposited after standing a flocculent sediment, consisting of phosphates, epithelium, pus-cells, and some mucus. The head of the epididymis of each testicle was enlarged, nodulated, and tender. The thorax was irregularly flattened, from before backwards, and from above downwards. The left side was more rounded, larger, and more movable than the right. The left clavicle was higher, and less prominent than its fellow; the shoulders were depressed; the breathing was shallow, laboured, abdominal, and very frequent; during inspiration, the supraclavicular spaces retracted; there was no venous engorgement of the neck. In the upper part of the left side in front, and in the greater part of the right side, the intercostal spaces in breathing were moved in the same manner as the abdominal muscles.

Over the upper fourth of the left lung there were found diminished expansion; dulness, of tympanic tone, to percussion; generally increased, but at some spots diminished, tactile vocal fremitus; hollow bronchial breathing; at some parts, a just audible vesicular murmur, and almost everywhere loud bronchophony. There were no *râles;* but, in the lower and outer part of this region, a superficial rustling, rubbing, or creaking, could be occasionally heard.

Between the third and sixth ribs, there were found slight dulness of tympanic type, moderate tactile vocal fremitus, broncho-vesicular breathing, distant inspiratory crepitations, diminished voice-resonance. At the lower border of the sixth rib, the gastric percussion-note was heard. Over the summit of the right lung, there were found diminished expansion, tympanic dulness to percussion, increased tactile vocal fremitus, hollow breath-sounds, increased voice-resonance, and no *râles.*

From the middle part of the lung to its base, especially in the axillary region, there were found decreasing expansion, diminished tactile vocal fremitus, feeble bronchial breath-sounds, pleural rustling or creaking, and muffled voice-resonance. No *râles* were heard anywhere throughout this lung.

The area of superficial cardiac dulness was increased; the impulse of the heart could be seen in the fourth intercostal space, just below and about an inch outside the nipple. In the second intercostal space, within an inch of the sternum, the auricular contractions were visible.[1] The first sound was muffled and murmurish, the second loud and reduplicated. The pulse was 94, small and compressible. The evening temperature was 98°. Except at the extremities, which were cold and damp, the skin was thin, rough, and dry. No sign of disease was discovered in the examination of the nervous systems.

I have brought the patient here to-day, and he may be seen in one of the rooms below.

The justice of introducing this case as one of primitive dry pleurisy may be, I confess it, fairly questioned. Sprung from a phthisical father, and the subject of strumous tonsils and testicles, some might plausibly contend, with the fashion of the time in their favour, that the primitive disease was tubercular, that the dry pleurisies were only its secondary manifestations, and that, arrested by fibroid evolution, substitution,[2] or invasion, the case was one of ordinary tubercular phthisis, which, in the felicitous diction of Dr. Moxon, was "writ old." But, more than this, it might be contended that, as some of the lymphatic vessels arising in the deeper parts of the lungs empty themselves into the subpleural lymphatic spaces, tubercular changes among the lymphatic rootlets, too far from the surface to be discovered by physical signs, would manifest the earlier of their secondary consequences in subpleural adenitis or plastic exudations. And furthermore, it might be asserted that, in the beginning of this case, tubercles did exist in the lung beyond the reach of physical exploration; that they excited secondary structural changes in the adjacent tissues; and that those changes, through the medium of the lymphatics, begot the dry pleurisies herein alleged to be primitive. All this, it is true, may be justly said. But it is also true that there is much to be said on the opposite side, and more than it would be proper for me to say on this occasion. Nevertheless, in passing, I may be permitted to remark that phthisical predecessors do not necessarily beget more than pulmonary vulnerability; that analogical arguments are not conclusive evidence; that facts ascertained upon evidence ordinarily considered adequate are not to be rejected upon merely theoretical grounds; that radical departures from all the several characters which collectively constitute a given type of disease demand, even if conditional, either a conclusive proof of unity, or a separate recognition of anatomy; that the true criterion of the nature of a case lies less in the pathological changes which it exhibits after death, than in the completed history of its origin, course, and issues during life; and that, if the case just recorded were made one with every other form of pulmonary phthisis, through the causal agency of a bacillus, loyalty to knowledge, and service to society, would alike require some more rational explanation than has yet been given; why, within the limits of an unity, real or imagined, forms of disease widely differing in their symptoms, signs, course, complications, duration, and issues should be refused a distinctive, although still dependent, recognition. I do not know whether, through this refusal, the loss to science or to society is the greater; but I am sure that the loss to both is great, and I shall advert to it again.

Here I must bring to an end this narration of cases. Every one of them represents but inadequately the group to which it belongs, and from none of them can be obtained a connected, and, as far as our present knowledge extends, a complete view of the subject-matter of our inquiry. But when all these cases are collated, compared, and otherwise critically considered, one case will be found to illustrate or explain another; the more complete will in some measure supplement the less complete; and from the pathological changes found in those cases in which necropsies were made, we may fairly form probable judgments of the pathological changes which would have been found in other cases in which necropsies were forbidden. In this way, it may happen that we shall at length succeed in getting a larger and better knowledge than now we possess of the origin, course, and issues of dry pleurisies. And, although it must be that this knowledge shall prove in many ways defective, and in some even inaccurate, it will at least suffice to provoke inquiry, and to make plainer and easier the way for those who follow in the search for what remains to be corrected and discovered therein.

[1] Perhaps these movements were really due to a retracted lung and a dilated pulmonary artery.

[2] Cruveilhier, Boudet, Blase, Bricheteau, and perhaps Pollock and Moxon.

PRESENTATION.—Mr. Josiah J. Sarjant, the Senior Medical Officer of the Worcester Amalgamated Friendly Societies Medical Association, numbering 5,626 members, has been presented with a massive black marble and gold dining-room clock, a piece of plate, and two porcelain figures, upon the occasion of his marriage, accompanied by an illuminated address.

DONATIONS AND BEQUESTS.—Mr. Benyon, of Englefield House (the President), has given £1000, and Mr. M. H. Sutton, of Reading, £100, to the Royal Berkshire Hospital, Reading.—The Duke of Westminster has given £500, and Mr. William Brander £100 (being the first instalment of £500), to the Building fund of the new Great Northern Central Hospital.—Mr. John Penny, of Chetnole, and Bath, formerly proprietor of the *Sherborne Journal*, bequeathed £200 to the Yeatman Hospital at Sherborne, and £200 to the Dorset County Hospital at Dorchester.—Mr. Henry Skynner, of Temple Chambers, Fleet Street, bequeathed £552 10*s.* to St. Bartholomew's Hospital, *i.e.*, £500 for a "Robert Charles Skynner" annual prize for the best examination in human anatomy, and the best treatment in scarlet and rheumatic fevers, in memory of his Brother, and fifty guineas to the general funds; and fifty guineas each to the Seamen's Hospital Society, St. Mark's Hospital for Fistula, St. Mary's Hospital, the London Hospital, the Cancer Hospital, and the Hospital for Consumption and Diseases of the Chest; and certain freehold and leasehold properties at Richmond, Hackney, and Kingston, to the Seamen's Hospital Society.—Mr. George Trist, of Old Broad Street, and Sydenham Hill; bequeathed £200 to the Sussex County Hospital at Brighton, £50 to the Charlwood Dispensary, and £50 to the Sydenham Home for Sick Children.

THE CROONIAN LECTURES
ON
THE HYGIENIC AND CLIMATIC TREATMENT OF CHRONIC PULMONARY PHTHISIS.

Delivered at the Royal College of Physicians, London, March 1885.

By HERMANN WEBER, M.D.,
Physician to the German Hospital.

Lecture II.

(Concluded from page 576.)

Curative Treatment.—Relation of Doctor and Patient.—I. *Diet: Defective Digestion; Raulin's Researches on Mineral Substances; Milk; Times of Meals (Cures of Phthisis); Alcohol.*—II. *Air and Ventilation: Open-air Treatment; Defective Arrangements for the Treatment of Phthisis in General Hospitals; Brompton and Ventnor Hospitals; Necessity for Numerous Small Hospitals for Phthisis in the Country.*—III. *Exercise.*—IV. *Management of Skin; Clothing.*

II. *Air and Ventilation.*—Although it is generally acknowledged that impure air is the foremost cause of phthisis, and although Dr. Henry Mac Cormac, Dr. B. W. Richardson, and others, have preached not only this, but also that pure air is the most important means of cure, yet we all must confess that, in practice, the first principles of air-treatment are, with rare exceptions, most imperfectly carried out. Wherever climate permits, an entirely open air and tent-life is the best help in the treatment of phthisis; but this is not easily practicable the whole year round in our climates, although much might be done in this direction. Fear of the inclemency of the weather is far too great amongst the public as well as the profession. Patients affected with chronic consumption, without or with only moderate and partial pyrexia, ought to spend the greater part of most days in the open air, and ought not to be deterred by a little rain, or mud, or low temperature, or by the fact that they begin to cough when they come out of the close house into the open air. Arrangements ought to be made by which invalids are enabled, warmly dressed, to sit in the open air, sheltered from wind and rain. It is here where the degree of intelligence of the patient forms an all important element in the chances of success. It is necessary, as I have already stated, to give the patient and his friends an idea of the nature of the illness and the means of cure, and to obtain their intelligent, courageous, and persevering co-operation. The patient must see that, though it is more difficult to carry out the open air principles in an inclement climate, it is yet infinitely more injurious to him to shut himself up in close rooms than to use every possible moment of even an indifferent day to walk or sit in the open air. The improvement of the appetite, the digestion, and the strength, the diminution of night-sweats, of restlessness, and mental depression, are in most instances so marked that the invalid, after some time, begins to have confidence, and to feel that his life is rendered more bearable, even if no cure can be effected. We must always bear in mind that, even in the midst of large towns, the air in open places, and even in the streets, is very much purer than within the houses. The researches of Angus Smith have shown this with regard to the proportion of oxygen and carbonic acid, and other impurities; and those of Miquel, with regard to the number of microbes in the air at Paris, manifest this in a most striking manner, their proportion within the wards of the Hôtel Dieu and of the Notre Dame de la Pitié being much larger than in the Rue Rivoli.

As, however, the greater part of the twenty-four hours is spent indoors, the arrangements of the house, and of the rooms, are of the greatest importance. The invalid ought to have sunny rooms, sitting as well as bed-room; for, though the sun does not shine at night, the vivifying influence which it exercises on the air of the bedroom during the day, does not disappear at once with the cessation of the sunshine, but lasts through the night and longer. Two thousand cubic feet is not too much space for each inmate, and by good ventilation the air ought to be frequently renewed by day and by night. The temperature ought, if possible, never to exceed 62° Fahr., and the open fire is by far the best producer of artificial warmth; gas ought to be entirely excluded. The bed ought to be open on all sides; and the ordinary consumptive invalid ought not to be longer than eight or nine hours in bed, even if the body-temperature be somewhat raised during some hours of the day. It is a horrible custom to keep such invalids during the greater part of the day in bed, unless the weakness be extreme. In all diseases, it would be an useful subject of discussion when a patient is to be in bed, and when not; when he is to take exercise, and when to sit or lie still. But in phthisis the long stay in bed, and particularly in the bedroom, is certainly injurious; breathing, ventilation, lungs, circulation, appetite, tissue-change, almost everything is unfavourably influenced. In acute forms and stages of phthisis, when there is much fever, I do not advise the patient to take active exercise, or to fatigue himself by sitting up during any length of time; but it is certain that during this time pure and fresh air is as necessary as and even more so than, during the non-febrile stages. The bed of the patient ought, therefore, to be placed so that he receives as much open air as possible, without exposure to actual wind or draught. In summer, and also in winter, weather permitting, a couch or bed ought to be placed on a balcony or terrace, or in an open field or garden; the patient ought to be carried to it, and, properly covered, lie there from morning to night, or as long as possible. Some of my patients have spent, during weeks, or even months, a great part of the day in hammocks slung up between trees, with great advantage. The change from the ordinary bed-treatment in a close room, to this open air couch or hammock treatment, is an infinite gain to the patient, who breathes more, eats better, is more cheerful, sleeps more soundly, and is less troubled with perspiration. The pyrexia, likewise, often rapidly decreases.

I shrink, at present, from touching the open air treatment of the poor at their homes, except so far as they likewise should be taught to be as much as possible in the open air, and to sleep with open windows; and I may add that I have seen many instances where a change to open air occupation in all weathers, from indoor work in close workshops or bakehouses, has led to an arrest of disease, and recovery. I must enter, however, a little more fully into the treatment of poor consumptive patients in our general hospitals situated in large towns. There they have usually only between eight hundred and twelve hundred cubic feet of air per head, with ventilation through open windows, which cannot be efficiently carried out without draught, and is, in winter, often sadly neglected. The majority of these patients, even if there be only moderate and partial pyrexia, spend the whole, or by far the greater part, of every day in bed, which, as I have already said, ought not to be, excepting in acute cases, or stages, or in excessive weakness; but if, after the subsidence of the pyrexia, they be out of bed, standing or sitting, or walking about in the wards, they are exposed to draughts, and frequently contract fresh attacks of bronchitis or pleurisy, or other illnesses due to chill; and thus take further steps in their downward course. Although I have always been fond of hospital work, these considerations have for a long time been a source of worry to me, whenever I stood at the bedside of my consumptive patients; and, in despair, I have more than once said that they were at the worst place in the world; and yet the hospital to which I am attached stands on an open spot at Dalston, and has small plots of ground attached to it, where convalescents can sit and walk; while the hospitals in the interior of London are mostly deprived of this advantage. This is, indeed, a subject, gentlemen, which deserves your serious thought; and I earnestly entreat you, if you agree with me, to enlighten the public, and to use your influence to procure better accommodation for the treatment of consumptive patients of the poorer classes.

I know that many medical men, and, perhaps, some of those whom I have the honour of addressing, are not in favour of special hospitals. If the general hospitals be well arranged for the treatment of phthisis, and situated in good air, some of my objections fall to the ground; but these favourable conditions are rarely met with. Very much better are the arrangements in the Brompton Hospital for Consumption, especially in the new building, which I had the advantage of seeing quite recently with Dr. Theodore Williams. Each of the three floors devoted to in-patients consists of a corridor, 10 feet in width; a large central dining-room; ten wards, 13½ feet high, holding from 1 to 8 beds, 46 in all. The average floor-space per bed is 115 feet, the cubic space being 1,400 feet. The ventilation is maintained independently of the windows and fireplaces, and supplies 4,000 cubic feet per hour to each patient. The air is admitted by numerous openings placed on a level with different floors—on the east and north into the galleries, on the west and south into the wards, the greater portion being heated by passing over coils of hot-water pipe; a part is admitted directly. The quantity of hot and cold air can be modified at will, and the temperature is capable of being evenly maintained. The foul air is drawn off from the corridors, wards, etc., through extracting flues built in the walls, and furnished with openings at floor and ceiling. These flues run into large air-ducts beneath the roof, which communicate with four towers heated by steam coils, forming the exhausting chambers. With these arrangements, it is possible for patients to walk about in the corridors, or to sit in the central hall and converse

with one another, without being exposed to draughts and chills. It was a great pleasure to see almost all the patients out of bed. The drawbacks unavoidable with the situation in London, especially with the east and north-east winds, are the ordinary contamination of the air, and the occasional fogs; and the fair results obtained show how much good can be done by judicious treatment and arrangement in spite of such a grave natural defect.

Infinitely more advantageous is the situation of the National Hospital for Consumption at Ventnor, with which I have been acquainted for many years past, and which I have lately again visited under the guidance of Drs. Coghill and Robertson. The Undercliff is so well known to you, that I need not give a description of the delightful and healthy situation. The peculiarities of the arrangement are, you know, that the whole hospital is built in blocks for twelve patients each; that all the patients' rooms face the south; that each patient has a separate sleeping-room of from 1,500 to 1,750 cubic feet, and, in the newest block, 2,000; that each six patients have a separate sitting-room, 3,000 cubic feet space, and each block (12 patients) has an additional room of 3,000 cubic feet, in which breakfast, tea, and supper are served; that male and female patients dine separately in large rooms at the end of the blocks. There are various arrangements for the renewal of air, which, though they would be regarded as satisfactory in other hospitals, have not appeared so to the authorities of the institution; so that in the new block, on Dr. de Chaumont's recommendation, a supply of 5,000 cubic feet of fresh air per head per hour has been adopted, and the fresh air is to be delivered at a temperature of 62° Fahr.

Between the hospital and the sea, there is a large piece of open ground for exercise and sitting in the open air. The diet of the patients is well arranged; the results of the treatment are satisfactory; and the patients are mostly very happy during their stay. What I should like to add are terraces and balconies, on which light beds or couches could be placed for febrile patients to lie on, and thus to enjoy the open air; and, further, large verandahs, glass covered, and with movable glass doors, to be opened and closed at will, so that patients might sit and walk there during wet and wind.

Further useful additions would be seats with shelter overhead, and on three sides, turnable, so that the shelter might be turned against the wind, and the patients sit there with the whole front open, even in rain and windy weather. I should also be inclined to erect in suitable places walls with reflecting surfaces, to serve as shelter from wind, and as reflectors of the sun's warming rays. Hammocks would be at times likewise a comfort.

There are also small sanitaria for consumptive patients at Bournemouth and Torquay, but the number of beds added together is almost infinitesimal compared with the number of consumptive patients belonging to the poorer classes. If there were a hundred of such hospitals, they would be a fair instalment of what is required to meet the most necessary wants. I should not recommend large hospitals, but small ones for 80 or 100 beds, with from one to three or four patients in each room, with balconies to hold one bed, so that one febrile patient could be moved into the open air; and more than one such ought never to be in the room. There should be large verandahs for exercise, and sitting in wet and windy weather, shady and sunny seats, seats as roughly sketched above, with turnable shelter to be used in windy and wet weather; and in other respects arrangements similar to those at Ventnor and Brompton. Each hospital ought to have a resident medical officer, and there ought to be ample room for exercise on level as well as on rising ground; the neighbourhood of a pine forest would be a further advantage. They ought to be in the country, or at the seaside, on account of the greater purity of the air. Even in the suburbs, the air is already much purer than in the interior of towns; thus Miquel found, in 10 cubic mètres of the air of Montsouri (a suburb of Paris), 7,600 microbes; in the Rue Rivoli, in the centre of Paris, 55,000; and a still much larger number, as already stated, in the hospital-wards, especially in the winter. It would not be difficult to find fairly suitable localities: Surrey, Kent, Berkshire, and Hampshire have good sites on the southern slopes of their pine-clad hills; for instance, between Leith Hill and Ewhurst Windmill, between East Grinstead, Frant, Wadhurst, and Ticehurst; between Ripley and Cobham; on the Chobham Ridges; between Farnborough, Minley, Bramshill Park, and Eversley; near Haslemere, on the slopes of Black Down and Hind Head. The southern coast, and also the south-eastern, offer fair localities, if care be taken in the selection of the spot, with regard to shelter, dryness of soil, and exercise-ground. The Undercliff, for instance, and the neighbourhood of Bournemouth, still possess some not yet overcrowded sites; also Torquay, Sidmouth, Lyme Regis, Dawlish, Hastings, and perhaps Sandgate. On the coast of North Devon and Cornwall, and near Llandudno and in Bute, good spots could be found.

I know, gentlemen, that small hospitals for consumption, such as I have suggested, are expensive, and that it will be difficult to find the money; but, if you are convinced of the advantage to the patients, and will use your influence, donations and legacies will come in, and in the course of time, we shall take a step in the right direction.

III. *Exercise.*—Exercise is one of the most powerful and essential means of cure. It is as necessary as air and food, because it enables the invalid to take both in a sufficient quantity to improve the nutrition, by taking up fresh material and removing the waste, and thus to fight a battle with a fair chance of success. Without exercise, I should not like to treat phthisis. To take exercise properly requires, however, the guiding hand of the physician. There are judicious persons who can be taught to become sufficiently acquainted with their entire condition and their surroundings to enable them to do neither too much, nor too little; but such persons are rare amongst consumptive invalids. In many of them, the nutrition of the brain has suffered as much as that of the stomach and lungs, and other systems, and their judgment with regard to their own state and their wants is impaired. We ought, therefore, to bear in mind that by far the majority of those suffering from phthisis require constantly to be held by "leading reins," and must be told what kind of exercise to take, how much, and at what times—walking on level, climbing gently, and with measured increase as to duration and steepness. Riding on horseback, skating, and tobogganing, are all useful exercises under guidance; but overexertion ought to be carefully avoided, and one mistake often destroys the fruit of months and years of judicious management. Up to a certain point, the sense of fatigue is a guide; but not always, for some persons feel fatigue at the beginning of a walk, and improve while taking it; and others never acknowledge to themselves the sense of fatigue. The physician alone can measure the amount of strength, and how it can be maintained and increased by gradually increasing exercise. Climbing is especially useful, as it brings the whole systems of circulation and respiration into play, and leads to expansion of the lungs and thorax, and strengthening of the respiratory muscles. Regulated climbing for a course of weeks and months, in suitable cases, has a wonderful effect on every organ and function of the body; not only respiration and circulation, but the digestion, the action of the skin, sleep, mental power, resistance to changes of temperature—all show the beneficial effect, and we scarcely doubt that this is due to an improvement of Beale's bioplasm or "living matter" in the cells. Riding on horseback, as already recommended by Sydenham, is likewise excellent exercise, exhilarating and accelerating the circulation, and, through this, the respiration; and it has been the principal means of treatment in several cases of recovery under my observation. Riding on donkeys may, in some localities, be substituted for horse-exercise. Tricycling is likewise useful to some invalids. Pulmonary gymnastics—that is, a methodical deep inspiration, followed, after a pause, by full expiration, practised in pure air, several times a day, are very useful in chronic non-febrile cases. Well arranged exercises of the upper extremities materially assist the expansion of the apices and the subclavicular regions.

Where active exercise is impossible from great weakness, or forbidden from inflammatory complications, the movement in a Bath chair is especially to be recommended; and, by turning the head against the wind, it can be used in almost all weathers. Open carriage exercise is likewise good; but there ought to be only little wind, or some arrangement for sheltering from the wind, by having, for instance, the front hood up, and sitting with the back to the horses, which can be well arranged in landaus. Those who have the chance of being rowed in a boat up and down a river, or on calm days on the sea, often derive great benefit from this mode of motion. In some cases, under my observation, well arranged journeys, in agreeable company, in rowing boats, or small yachts, or steamers up the Thames, the Rhine, the Maine, the Neckar, the Danube, the Isar, the Seine, and Meuse, have had very beneficial effects on body, as well as on mind, and the latter ought never to be forgotten in phthisis. In some very chronic cases of nerve-prostration, with inability to walk and to take food in sufficient quantity, massage can, with advantage, take the place of active exercise, being a powerful accelerator of tissue-change, and leading to increased breathing and improved circulation. I have as yet had only a few cases in which I have recommended a plan somewhat analogous to that of Weir Mitchell and Playfair, though very much less energetic, but with evident advantage on nutrition, and on muscular and mental energy. It appears to me, as far as my experience goes, that there should be no active lung-symptoms. The

open-air treatment has been combined in those cases with massage, the patient having been placed, during a great part of the day, on a couch on the balcony or in the garden ; walking exercise was not allowed during the first part of the massage-treatment, but was gradually substituted for it.

IV. *Strengthening of the Skin.—Weakness of the skin* is one of the prominent features, as well in the tendency to phthisis, as in the developed disease, and ought always to be taken into consideration, and remedied, if possible. A slight change of external temperature, or exposure to a slight draught, a change of clothing, is apt to produce chill, which, by reflex action, is thrown on the lungs ; it is also a frequent source of bronchitis and catarrh of the lungs, and also of digestive derangements, and a great obstacle to recovery in phthisis. Constant exposure to the open air and exercise are the best tonics for the skin, and often suffice by themselves ; but, in many cases, these must be combined or preceded by the judicious use of hydrotherapeutics. The skin has never been altogether neglected in England, either by medical men or by the public ; while, on the Continent, the neglect was incredible, and is still so in many localities : hence systematic hydrotherapeutics have had their origin on the Continent ; and in the treatment of phthisis, too, Brehmer was the first to introduce them with special modifications—namely, powerful cold douches to the chest, of very short duration. Unger, Spengler, Dettweiler, and others, have continued and modified this system. Jaccoud, Sée, and other French physicians, are powerful advocates for hydrotherapeutics. Much benefit is, no doubt, obtained by well adopted procedures ; but they require most careful management by the physician. Even the ordinary treatment of the skin, in itself, ought to be guided by the physician, who will not only examine the state of the skin, but also the condition of the heart and circulation in all its bearings ; the degree of reactive power must be cautiously appreciated and gradually raised. In great weakness, dry-rubbing by an attendant, of one part of the body after another, is all that can be done ; then rubbing of the chest with a moist towel, and dry rubbing afterwards ; later on, a very rapid sponging with tepid, and again later with cold water, followed by a short return into bed, and a light warm breakfast. It requires already a considerable degree of reactive force to bear with advantage, on rising in the morning, the sponging of the whole body by cool or cold water, followed by brisk friction, as daily practised by the majority of us in health, and forcibly recommended by J. Henry Bennet, whose views on the hygiene in phthisis have exercised good influence. A rapid plunge into cold water is, in many cases of fair reaction, the best plan ; in others, a very short shower-bath ; and, again, in others, a tepid bath for a couple of minutes, followed by a momentary cold shower or plunge into cold water. Many sound hints on bathing, and on the management of the skin, may be gathered from the editor of the *Book of Health*, in his article on the Skin.

Although by this means the skin becomes strengthened, yet the invalid ought never to neglect woollen-clothing, from head to foot. He ought not to overload himself with heavy garments while walking or riding ; but he ought to have plenty of warm wraps when he sits down, or takes passive exercise. The influence of dress on health has been well discussed in a paper by Mr. F. Treves, in the *Book of Health ;* and Pettenkofer's little book, translated into English by A. Hess, is full of useful information.

THE Duke of Devonshire has been elected President of the Chesterfield and North Derbyshire Hospital for the ensuing year.

BEQUESTS AND DONATIONS.—Miss Mary Clark, of Albert Road, Regent's Park, has bequeathed £400 to the British Home for Incurables, £300 to the Central London Ophthalmic Hospital, £250 to the Royal Free Hospital, £250 to University College Hospital, £250 to the City of London Hospital for Diseases of the Chest, £200 to the Hospital for French Refugees, £200 to King's College Hospital, and £200 to the Royal Westminster Ophthalmic Hospital.—The Birmingham and Midland Counties Sanitorium has received £250 under the will of Mr. Peter Roxburgh.—Mr. Wm. Brander has given £100, being the first instalment of £500, to the building fund of the new Great Northern Central Hospltal.—Mr. Wm. Hartridge, of the Stock Exchange, has bebueathed £200 to the Earlswood Asylum for Idiots, and £200 to the Royal Hospital for Incurables.—The Norfolk and Norwich Hospital has received £100 under the will of the Rev. John Shuldham, of Wood Norton.—Mr. William Jones Loyd has given £100 to the building fund of the new Great Northern Central Hospital.—The Trustees of Prison Charities have given £31 10s. to the Seaside Branch of the Metropolitan Convalescent Institution at Bexhill.

ABSTRACT OF LECTURES
ON
SOME POINTS IN THE ANATOMY AND PHYSIOLOGY OF THE EYE.

Delivered at the Royal College of Surgeons of England.

BY W. A. BRAILEY, M.D., M.R.C.S.,
Hunterian Professor at the Royal College of Surgeons ; Ophthalmic Surgeon to the Evelina Hospital ; Assistant Ophthalmic Surgeon and Joint Lecturer on Comparative Anatomy at Guy's Hospital.

LECTURE II.

THE ciliary body next demands our attention ; and, in connection with it, I propose to make some remarks upon the suspensory ligament of the lens. I have at once to admit that every point in the anatomy of this region is by no means clear to me. I shall indicate these weak spots as we encounter them. The total thickness of the ciliary body and folds is 1.6 millimètres, of which 0.7 millimètre is constituted by the folds themselves, the measurement being made where they are highest ; its total length is 4.5 millimètres. In the adult, it attains its greatest thickness in front, that is, about the level of the origin of its muscular fibres, and it tapers off gradually backwards to its termination at the ora serrata. The ciliary folds are 1.5 millimètres in length, and their anterior terminations, which are on the base of the iris, project 0.5 millimètre in front of the level of the ciliary body. The longitudinal, radial, and circular fibres of the ciliary muscle shade off gradually into each other. The outermost of the longitudinal fibres are those which I pointed out at my last lecture as arising from those fibres of the ligamentum pectinatum which have traversed the circularly running fibres of the sclerotic of this region. The radial fibres of the ciliary muscle not only converge towards the axis of the eye, but are in reality slightly oblique, passing backwards from their origin, some to the right, and others towards the left, so as to decussate with their neighbours. This obliquity is still more marked in the so-called circular fibres, till at last the innermost of them have, in reality, a nearly circular course.

It follows, therefore, that the apparent relative number and development of these three sets of fibres will depend upon the position of the ciliary muscle, or, rather, of the ciliary body which contains it. If this be placed well forwards, so that a considerable portion of it lies in front of the termination of the ligamentum pectinatum, we have an apparent increase in the circular fibres at the expense of the others. If, on the other hand, the ciliary body and its contained muscle be stretched somewhat backward, the circular fibres appear very few, most of them being now so oblique as to be included among the fibres commonly called radial. Now, in the child, the ciliary body is situated more anteriorly with regard to the ligamentum pectinatum than in the adult. Consequently, very many of the most internal or oblique fibres have now really become circular in their course, and this portion of the muscle seems very large in antero-posterior section (Fig. 3). But as the ciliary body, and with it, o



FIG. 3.

course, the muscle, recedes with advancing years, the longitudinal and radial fibres appear increased at the expense of the rest. This alteration in the position of the ciliary body is associated with the disappearance in adults of the circular ridge which projects internally just behind Schlemm's canal, and which has been described as resulting from a pulling in, as it were, of that part of the sclerotic.

The same result will be produced in infants by glaucomatous dis-

tention of the eyeball, and it is well seen in many microscopic specimens in my possession. Equally so will it be brought about in the glaucoma of adults by the tendency of the globe to assume the spherical shape under distension. The increased size of the eyeball, with its usually deeper anterior chamber in myopia, will lead to exactly the same result; whereas the hypermetropic eye, being smaller than normal, will contain an apparent excess of circular fibres. It will thus be seen that I regard the distinction originally drawn by Iwanoff, and accepted by every subsequent writer, as to the relative development of the three sets of fibres of the ciliary muscle in myopia, emmetropia, and hypermetropia, as entirely illusory. If the anterior part of the myopic eye remain undistended, its so-called circular fibres are as numerous and well developed as in any other. As to the degree of development of the muscle at different ages, it appears an extraordinary thing that, notwithstanding the extreme softness and elasticity of the lens in the child, the muscle in infancy is not less large than in the adult. In the same way, it seems remarkable that, even in extreme old age, it shows no falling off in its size, notwithstanding that it can have no influence whatever upon the now rigid and unyielding lens.

Another interesting physiological point is to be noted in relation to the action of the ciliary muscle. When this is powerfully exercised, as in near vision—say at six inches—the object does not appear to the observer materially larger than when it is at a much greater distance, say at three feet. But the retinal image must be much larger in one case than in the other. Consequently, the mind must make allowance for the known nearness of the object. The same thing is seen when distant objects are viewed by an emmetrope through a concave lens. The accommodative effort thus necessitated is associated with an apparent reduction of the size of the object.

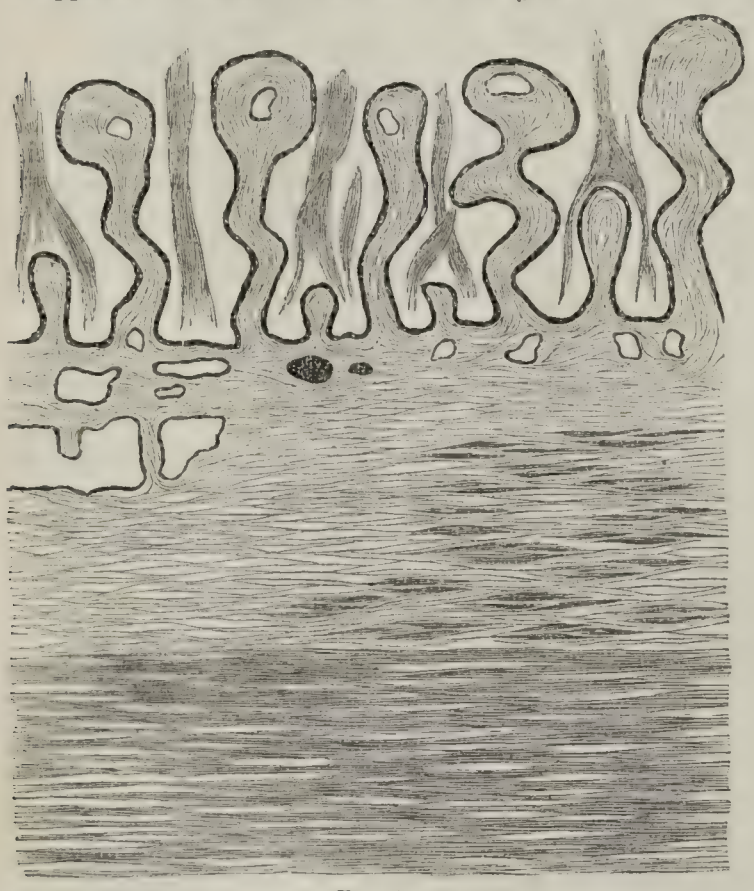


Fig. 4.

Leaving the ciliary body, or rather the ciliary muscle, to which we have so far almost exclusively devoted our attention, I pass on to the ciliary folds. These longitudinal ridges, which crest the anterior part of the ciliary body, are about seventy in number. Each of them is about 1.5 millimètres in length, of which 1 millimètre is borne upon the ciliary body, and the other, .5 millimètre, projects forwards from it, ultimately reaching and being continuous with the base of the iris. Their extreme height is .7 millimètre, and their real thickness very slight, though it is apparently much increased by the remarkable way in which they are convoluted from base to summit (Fig. 4, cross section), and, to a less degree, from in front to behind. Their appearances in microscopical section are very various and misleading. Nothing but a very thick section, or, better still, the entire half of an eyeball, will show them in proper side view. From the remarkable folding which they exhibit, no longitudinal section, if ever so straight, will show an entire fold; but it will shave off the prominent portions of its lateral folds, giving the appearance of numerous holes, each surrounded by a pigmented line, or will cut through the whole fold obliquely, severing the crest, and giving the remaining part an undulating black line as its upper boundary. Or the overhanging crest may project backwards from its remaining front attachment like a plume; or it may be cut so as to be only united further back, in which case the plume will project the reverse way. The extreme front part of the ciliary body is excavated into pits, the ridges between which are continuous with the ciliary folds, so that a cross section through this extreme anterior part in a vertical plane will show a number of apertures edged with black, as seen towards the side of Fig. 4, or a black patch, where the bottom of a pit has just been left.

To summarise very briefly, as regards the ciliary body, the differences between children and adults. In the former, the extreme front part is situated considerably in advance of the origin of the muscular fibres from the ligamentum pectinatum. The greatest thickness is behind this origin, and the ciliary body has here a peculiarly rounded outline. The ciliary folds are situated more in advance, so that the thickest part of the ciliary body is perfectly free from them. They are distinctly shorter, and are more directed forwards, as are also the fibres of the suspensory ligament of the lens. Consequently, the lens of the child is situated more in advance as regards the ligamentum pectinatum than that of the adult. This is doubtless related to the greater convexity of the child's lens, the whole arrangement being probably to gain space in the vitreous chamber, which tends to be diminished, not only from the smaller size of the eye, but from the greater relative thickness of the lens. From what has been said, it will be perfectly understood that the peripheral part of the anterior chamber of the aqueous humour is more narrow in the child, and why, in buphthalmos, notwithstanding the great enlargement of the cornea, the iris-periphery becomes so often applied to the comparatively unyielding circular-fibred corresponding part of the anterior wall of this chamber.

The anatomy of the pars ciliaris retinæ and of the suspensory ligament of the lens, the so-called zonule of Zinn, next demands our attention.

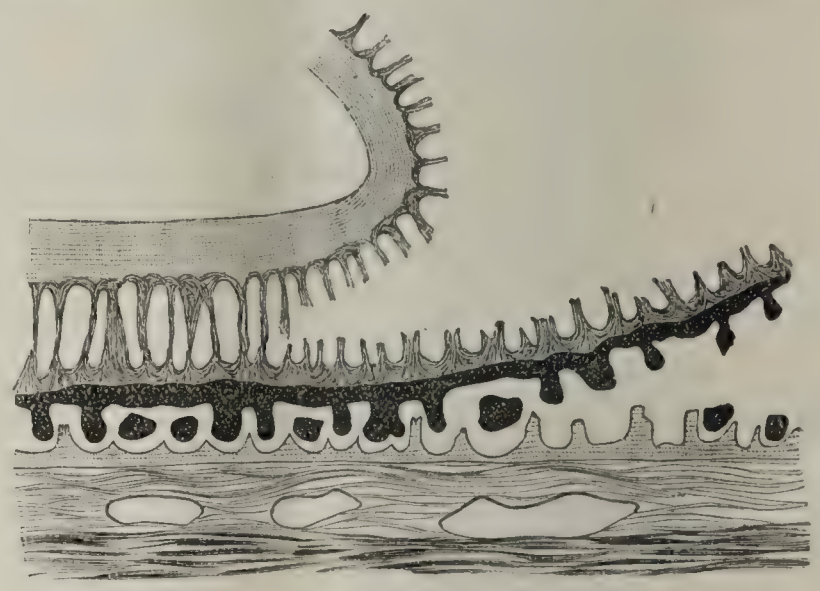


Fig. 5.

The generally received account, so far as I can understand it from the text-books, is, that a layer splits off just in front of the ora serrata from the anterior surface of the hyaloid membrane, the two forming a triangular space, the canal of Petit. The posterior layer, the hyaloid proper, goes to the posterior lens-capsule; the anterior, which is fibrillated longitudinally, goes to the anterior lens-capsule. The points, in which what I believe to be the true description differs from the other, will become apparent as we go on. The already described muscular part of the ciliary body is lined on its inner aspect by connective tissue, which is simply a continuation of that in which the muscular fibres, all except the outermost, are embedded. This connective tissue layer is again lined, towards the interior of the eye, by a structureless basement-membrane, which consists of two laminæ. The outermost one is of uniform thickness, but the inner one is projected inwards in places, so as to form a series of pits, in which groups of pigment, bearing nucleated cells, are embedded (see Fig. 5). I am unable to say whether these spaces are closed internally by the basement-membrane, in which cases they would constitute closed loculi, or whether they are simply pits having the conjoined bases of the elements of the pars ciliaris retinæ as their only roof. The fact that

there appears to be a continuous pigment-layer on the internal surface of the isolated pigmented masses contained in the spaces formed by the basement-membrane, the two apparently running into each other, appears to indicate that the spaces are only pits, and are not roofed in by the basement-membrane. Internal to this is the pars ciliaris retinæ, which may be divided into three zones. The posterior zone, seen in equatorial section in Fig. 5, has the elements composing it of elongated shape. Their summits are firmly united to the closely overlying hyaloid membrane, and to each other. An exaggeration of the spaces between the individual fibres constitutes the condition known as œdema of this region, which is frequently found in association with, though less common than, œdema of the adjacent anterior part of the retina proper. Fig. 5 also shows these elongated elements broken through their centres, and their internal part remaining in close union with the hyaloid membrane. The middle or gently undulating zone of the pars ciliaris retinæ (Fig. 6), has its nucleated elements somewhat shorter. Several of them appear to diverge as they rise from their base, thus foreshadowing probably the origin of other longitudinal ridges. The hyaloid membrane is now separated from them by a distinct interval (Fig. 6), and the connection between the

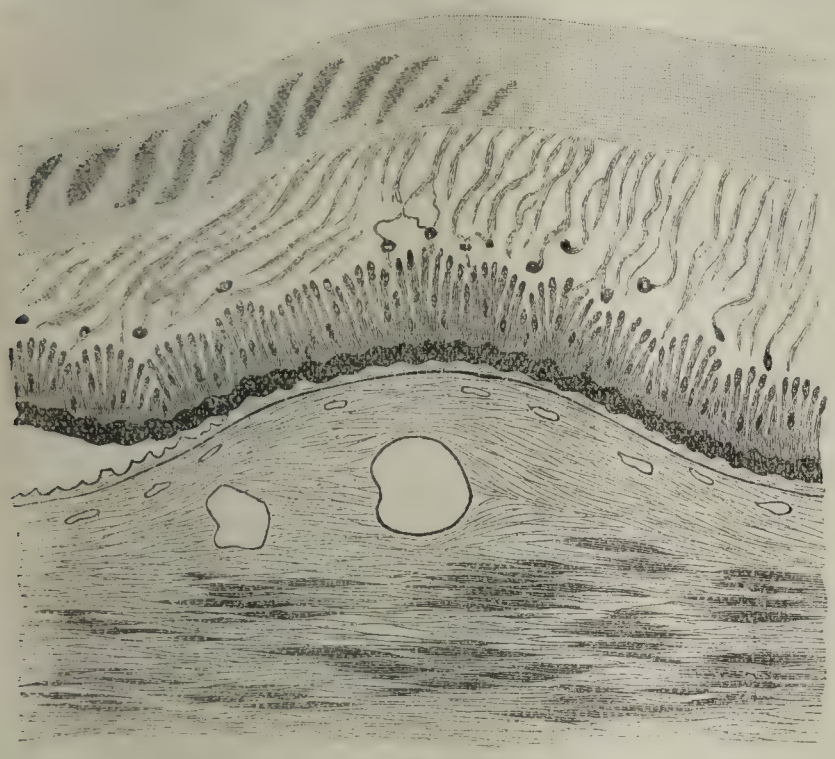


Fig. 6.

two is kept up by numerous rather short and broad fibres, which rarely are swollen into staining nuclei as they near the pars ciliaris. The ultimate destination of these fibres is not certain. Some clearly run down between the elements of the pars ciliaris, and it is possible that they may end in the processes sent inwards by the innermost lamina of the basement-membrane.

In the more anterior part of the same undulating zone of the ciliary body, there is a distinct membrane which roofs in the elements of the pars ciliaris, the two being connected by regularly arranged membranous processes, which apparently run down between the elements. This membrane should, of course, be continued backwards, so as to be visible in Fig. 6. I am unable to account for its absence there, or to say how it ends posteriorly. Certain portions of cut fibres are seen, visible in this more anterior part between the hyaloid and the arched membrane; but I can find with certainty no fibres issuing from the latter to join the hyaloid. The deeply ridged most anterior zone of the ciliary body (Fig. 4) has its nearly cubical nucleated elements roofed in over the summits and sides of the folds by a delicate membrane, which is presumably continuous with that of the front part of the middle zone. At the bottom of the grooves, between the folds, the membrane is not distinguishable; but numerous fine fibres arise, which are soon united into coarser bundles, which pass towards the axis of the eye. Though in Fig. 4 these appear twisted and irregular, I suspect that they are flattened and arranged edge to edge in the normal condition, so as to block up the entrances to the grooves. This is probably all the easier then, since the ciliary folds are presumably much thicker then than they appear after death.

I have already mentioned the hyaloid membrane of the vitreous body. I am constrained to regard it as a distinct membrane, since it can be seen, in some sections, distinctly separating from the vitreous body itself. But, except for the greater consistency of the hyaloid, the two appear to have the same structure, or rather the same want of structure; for, though both may appear finely fibrillated in microscopical specimens, this is probably merely a condition induced by the reagents employed. Some of these fine fibres clearly pass from the one to the other.

The suspensory ligament of the lens is best studied in sections made in the direction of the antero-posterior axis of the eye. The hyaloid is seen to separate from the posterior, or flat part, of the pars ciliaris retinæ, just where the elements constituting this become somewhat shorter. Immediately in front of this point, a layer of fibres splits off from the under or external surface of the hyaloid. These will, at first, simply ridge its surface, and probably give rise to the marking seen on this structure in Fig. 6. The fibres from the pars ciliaris retinæ now run to these fibres, instead of to the hyaloid itself. Seen edgeways, as in longitudinal sections, these fibres appear extremely fine, whereas, in equatorial section (see Fig. 6) they look much broader. They are probably riband-like. The longitudinal fibres of the suspensory ligament not only receive fibres from the pars ciliaris, but also give off numerous fibres to it, and a few are also given off to the hyaloid. A second sheet of fibres splits off from the hyaloid, much anterior to the rest, indeed, nearly as far forwards as the origin of the ciliary folds themselves, and proceeds forwards to join company with the rest. Where the fibres of the suspensory ligament reach the highest part of the ciliary folds, they are divided into two sets; one set, though firmly bound down by the fibres seen in Fig. 4, which join them at an angle, keep on much in the same course as previously, to be inserted in a zigzag line on the anterior surface of the capsule of the lens near its margin. The other set changes its course at an angle where the fibres shown in Fig. 4 join it. Its fibres run backwards as well as upwards, to be implanted, in a similar manner, on the posterior lens-capsule. Between these two sets of diverging fibres, a small triangular space will be enclosed at the margin of the lens. I do not suppose that this space is what is described as the canal of Petit. Undoubtedly there is a space in this neighbourhood which is capable of being injected with air, and even with mercury. I imagine that one of its boundaries must be formed by the hyaloid membrane and margin of the lens. Another would be the internal aspect of the ciliary body. The anterior wall would be still wanting. This has been supposed to be formed by a membrane which should close the mouths of the grooves between the ciliary folds (Fig. 4), extending from them to the anterior lens-capsule. This membrane would then separate the canal of Petit from the posterior aqueous chamber. As, notwithstanding very careful search, I have not been able to identify this membrane in microscopic preparations, I can only conclude that the fibres seen in Fig. 4, and the fibres of the hyaloid into which they are inserted, together constitute, when arranged side by side, a sort of membrane having the capacity to retain water or mercury injected behind it.

Proposed Removal of St. Luke's Hospital.—An application has been made to the churchwardens and overseers of the parish of St. Luke, on the part of the inhabitants, to join in a memorial to the authorities of St. Bartholomew's Hospital for the removal of St. Luke's Hospital from Old Street to Dulwich, but the request was not acceded to.

Presentation.—Mr. De Vere Hunt, of Bolton, has recently received a pleasing evidence of gratitude from the father of a patient whom he attended in January on account of some injuries received during a football-match. The present consists of a well-furnished and valuable case of surgical instruments, with an inscription denoting that it is presented "in grateful remembrance of January, 1885."

The Hospital for Sick Children.—The Earl of Rosebery presided, on March 25th, at Willis's Rooms, over the thirty-third anniversary festival of the hospital in Great Ormond Street for sick children, and was supported by Lord Aberdare, Viscount Gort, Lord Crewe, Sir James Paget, Sir E. Henderson, and others. After the usual loyal toasts, the Chairman proposed "Prosperity to the Hospital for Sick Children," and said it was always painful to witness disease, but in ths case of children it was all the more saddening, as being so inconsistent with the beauty and bloom of childhood. That hospital not only did a great and good work in attending to the diseases of children whose parents were in such circumstances as to prevent their being properly nursed at home, but it also secured two other benefits—it afforded opportunities for the professional study of all the diseases of children, and assisted in the training of nurses. An appeal was made on behalf of the hospital. Subscriptions and donations amounting in the aggregate to £1,267 were announced.

AN ADDRESS

ON THE

BRITISH GYNÆCOLOGICAL SOCIETY: ITS FOUNDATION AND OBJECTS.

Delivered at the First Meeting of the Society.

By ALFRED MEADOWS, M.D., F.R.C.P.,

Physician-Accoucheur and Lecturer on Diseases of Women and Children at St. Mary's Hospital: President of the Society.

GENTLEMEN,—My first duty, privilege, and pleasure in taking this chair, is to thank the Fellows of the British Gynæcological Society for the great honour they have conferred upon me in electing me as their first President. There are always circumstances connected with the foundation of a new scientific society, which, in my judgment, make the selection of its first officers, and, notably, that of the president and secretaries, a matter of much deeper importance, both to the welfare of the society, and to the special branch of knowledge which that society is intended to cultivate, than attaches to the selection of their successors; for, in the older societies, those whose reputation is made, whose usefulness is established, whose position is therefore won, and their existence maintained as much, perhaps, by tradition and past history as by present work and exertion, their corporate life goes on in an almost automatic fashion. To them, therefore, the selection of their officers is a matter of much less moment than it is to a society which has to carve its way in the scientific world, to demonstrate its utility, and even to prove the necessity for its existence. The relative responsibility of the chief officers in the two cases hardly admits of comparison, and it is, in my estimation, a singular privilege and honour, equalled only by its responsibility, to be the first chosen representative of such a society as this, one which has been called into existence for the express purpose of cultivating more thoroughly than can be done without it a special branch of human knowledge, a particular department of medical practice, equal at least in importance to either of the other three departments of medicine, surgery, and obstetrics.

In making these remarks, I am sure I do not overestimate the importance of my office in this Society when I contemplate the work we have to do, the aims we have set before us, and the determination which, I believe, animates us all to make for this Society an honourable and useful position among the other scientific societies. Enthusiasm in our work, devotion to our subject, unselfishness in our purpose, a true scientific spirit, a deep conviction of the utility and even the necessity for such a society—all these combined must be productive of a successful issue. I would also venture to hope, and to feel every confidence in hoping, that, avoiding all petty rivalries, eschewing all unworthy jealousies, and conducting the affairs of the Society with true dignity of purpose, and animated by kindly consideration for the opinions of those who differ from us, we may win for this Society, if I may so say, a social status, both in the profession and out of it, which shall command respect for its opinion, and admiration of its work. I cannot doubt that the proud position which I occupy to-night, as your first President, is due quite as much, perhaps more, to your too kind appreciation of my efforts to advance the study and practice of our department of medicine as to any special fitness of mine to preside over a society which, I confidently believe, is destined very speedily to take a foremost rank among the scientific societies of this country. I hope I need not assure you that nothing shall be wanting on my part, so far as my time, opportunities, and abilities extend, to earn the confidence you have reposed in me, to win for our Society the respect and esteem of the profession at large, and, above all, to do that for which, in the terms of our first law, "the British Gynæcological Society is founded," namely, "to promote the science and art of gynæcology in the British Empire"—a noble purpose truly, when we consider all that that object implies. I must add that I feel the more confident of success in my efforts to promote the objects of this Society when I remember that I have the invaluable assistance of two secretaries who are indefatigable in their work, and whose zeal is well tempered with wisdom and discretion. Already the Society owes much of its success to their exertions. Dr. Heywood Smith was one of the first to found the Society; indeed, it was he who first spoke to me on the subject, while Dr. Fancourt Barnes has, to my knowledge, worked day and night since its first institution, and he may well be proud of the result.

I suppose that one of the first duties incumbent on a new scientific society is to show the *raison d'être* of its existence. Why are we here to-night? What grounds have we for desiring to establish this Society? What need is there for its foundation? In a word, why do we as a society exist? My answer is a very simple and straightforward one. We hold that the science and art, the study and practice of gynæcology, are yearly growing in importance and interest, and that there is no society at present existing outside our own which fully satisfies our wants, or comes up to our just expectations and requirements. Some of us have felt the need of such a society as this for many years past, till at last the conviction in our minds has developed into action, and the result thus far has exceeded our most sanguine expectations, for already our roll of original founders numbers no less than 266, thus demonstrating in the surest and most practical manner that this Society fills a want which the profession at large, and especially our brethren in general practice, have long been conscious of. No doubt it may be urged, by some who are ignorant on the subject, that the sister Society of Obstetrics already occupies the ground which this is intended to cover, but it is no detraction from the usefulness of that society to say that, if it seeks to represent exclusively not only all that relates to obstetrics, but also all the diseases of women and children, it simply aims at the impossible, and those of its members who have at heart the true interests of gynæcology should welcome the foundation of this Society, and do their best to promote its objects. The mass of material on the subject of gynæcology which exists even in this great city alone, to say nothing of the rest of Great Britain and Ireland, is more than can be grappled with and utilised by any society, which includes also in its aims the advancement of the great subject of obstetrics. In proof of this statement, the following facts are surely sufficient. There are, in the course of the year, ten meetings of that society of two hours each, giving a total of just twenty hours. Of these, at least two hours are consumed in the presidential address, the reading of the minutes, and other formal matters of business, leaving a residue of only eighteen hours in the whole year which are to be devoted to the three subjects of gynæcology, obstetrics, and the diseases of children. Assuming that each subject has its fair share of attention, we get just six hours *per annum* devoted to the study and practice of gynæcology. No wonder, then, that for many years past we gynæcologists have felt the need of another society, and we may well congratulate ourselves that now we shall have no less than eighteen meetings a year, of one and a half hours each, giving us, in all, twenty-seven hours for the discussion of subjects exclusively gynæcological. I do not wish for one moment to disparage the great work which the Obstetrical Society has done and is doing, but the quarter of a century which has elapsed since that Society was founded has seen marvellous changes, and wonderful development in the science and art of gynæcology, and I maintain it is impossible now for such a society as the Obstetrical adequately to represent the increasing importance of this subject, or to devote to its study that time, care, and attention which we gynæcologists think it deserves. We have, in fact, outgrown that Society, and having arrived at years of discretion, we have decided at length to cut adrift from our pupilage, and to endeavour to stand alone. At the same time, we recognise no necessary antagonism to the sister science and society of obstetrics; on the contrary, we desire to be co-workers in one great field of medical practice, believing, as we do, that there is ample room for both, but convinced also that the growing importance of our branch of medical science imperatively demands that it should have a society of its own.

As one of the original Fellows of the Obstetrical Society, I can well remember its foundation, and I know that those who started it had chiefly in view the study and improvement of obstetrics; this, indeed, is abundantly evident in the opening address of the first president, Dr. Rigby, who, both in that and the subsequent address which he delivered in his second year of office, never once alluded to the subject of gynæcology, but devoted his attention entirely to that of midwifery; indeed, his mind on the subject is clearly shown by the statement which he made, namely, that "the great object, and that which will form the great strength and importance of this (the Obstetrical) Society, is the collection of valuable facts on questions of obstetrics;" and Dr. Tyler Smith, the second president, expressed the same opinion when he said, "the chief business of an obstetrical society should be to diminish the mortality of childbirth." No one who reads those addresses would imagine for a moment that the Obstetrical Society of that day had anything to do with the diseases of women. I am quite aware that the Society endeavours to, and does successfully, cultivate the study of gynæcology; but, with the best intentions in the world, it cannot

be true to the spirit of its founders, and, with the time at its disposal, devote sufficient attention to the many important topics connected with this department of practice.

And here I would mention another very noteworthy fact, as collateral evidence of the necessity for such a society as this, and of the wisdom and foresight of those who are its founders. Quite recently, the managers of the International Medical Congress, which is to be held at Washington in 1887, have decided to sever the connection between gynæcology and obstetrics, and have made of each a separate section; thus publicly expressing their opinion, in which, I need hardly say, we entirely concur, that each subject is of sufficient importance to be treated separately, and to have a section to itself. I cannot help thinking that this example is not unlikely to be followed by other medical associations.

So far, then, as the subject-matter is concerned, its importance and its merits fully justify the steps we have taken; and, though it is sometimes said that we ought never to prophesy unless we know, I will on this occasion venture to prophesy, and with absolute confidence in its fulfilment, that, if the affairs of this Society are wisely, judiciously, and impartially administered, if no favouritism is shown to individuals in the selection of men to fill important offices, except the favouritism which is rightly due to honest work well done, to faithful services rendered to the Society, and, above all, to undoubted ability in those selected for their respective offices—if these are the motives which are to guide the managers of this association, and if the rank and file of the Society will lend their helping hand and contribute their quota of work to the common store, then there can be no question that our future will be a brilliantly prosperous and successful one, and the good work which the Society is founded to carry on will redound to the credit of each individual member, and be of incalculable benefit to the whole human family. This, gentlemen, and nothing less than this, will justify our existence; and this, I am satisfied, we all intend our Society to be and to do. And, when we look at the vast store of materials which this country possesses, and especially this great city, with its many special hospitals, and its special departments in the general hospitals for the treatment of the diseases peculiar to women; when we consider the ability, zeal, and earnestness, not to say enthusiasm, of the workers in this department of practice, and the honest efforts and intentions of those who founded this Society, I cannot have the slightest doubt that, in a very few years, this association will take the very foremost rank among the gynæcological societies of the world. Only ignorance of the subject, or motives of a not very creditable order, can question the propriety of its foundation; and to those who urge that there is no room and no necessity for two societies having similar aims in view, I can only reply that we, at all events, have no doubts and no misgivings as to our position in the matter, nor have we any doubt as to the need for an obstetrical society also; but, while we admit this, we claim for the British Gynæcological Society a scientific position certainly not inferior to the sister society of obstetrics.

Admitting, then, the need for such a society as this, and fully appreciating the work which it is called upon to do, let me for a few moments glance at some of its special features as they are portrayed in the laws which you have passed to-night. First, let me point out that the Society is incorporated under the Companies Act of 1862, as amended by the Act of 1867, section 23. There are obvious advantages in this incorporation which it is unnecessary for me to allude to.

Next, I would remark that, by our laws, "all duly qualified medical practitioners shall be eligible for election as Fellows of the Society." Thus it will be seen that the constitution of the Society is upon the broadest possible basis; and that, as the profession has accepted women into its ranks, so this Society, by its laws, does not exclude them. At the same time, of course, it must be remembered that any applicants for admission into the fellowship of the Society must run the gauntlet of the ballot-box, whatever their sex may be, for the ballot is always supposed to be, and is, the leveller of all distinctions, not excluding sex.

Another feature, and one which I feel sure will prove very attractive and useful to our Fellows, especially to those living some distance from London, and who are thereby prevented attending societies, is the intended quarterly publication of a Journal of Gynæcology, containing not only an account of the transactions of the Society, but also a report of the progress of gynæcology at home and abroad. Such a journal, appearing at short intervals—for we hope in time that it may be published bi-monthly—will be of great use and much practical interest, not only to those of our own Fellows who are unable to attend our meetings, but also, I venture to think, to the great mass of our brethren in general practice throughout the British Empire. It will also be of much greater value to those who read original papers, or exhibit specimens of unusual interest at our meetings, that their contributions should be published earlier than would be the case if they appeared in a yearly volume of transactions. It has always seemed to me a great drawback to original workers who read papers at our societies that their contributions, if published in full in the society's transactions, may have to wait many months before publication, and can only appear in abstract in the medical journals; or if, for the sake of early publication, they appear in full in the latter, then they are but briefly mentioned in the transactions of the society, which thus becomes shorn of much of its value and interest. All this our quarterly journal will obviate, and I feel confident, therefore, it will not only be a commercial success so far as the funds of the Society are concerned, but will be far more interesting and attractive to our own Fellows.

There is yet one other novelty provided by our laws, which, I believe, will prove very attractive, and may become of much value and importance. I allude to that law which allows that "the Council shall have power to arrange for meetings of the Society in the large towns of Great Britain and Ireland on such occasions as they may think fit." This provision will not, of course, affect the ordinary fortnightly meetings, but is intended rather to supplement them by meetings held in any part of the United Kingdom, wherever it may appear that a successful gathering is likely to result. Speaking for myself, and I doubt not I might add other officers and Fellows of the Society, I should look forward with much interest and pleasure to such occasional meetings in some of the large towns of the kingdom, where gynæcology is both taught and practised in the most advanced way. Take, for instance, the town of Birmingham, where our friends, Dr. Savage and Mr. Lawson Tait, would, I am sure, be able to give us infinite pleasure and instruction by their pen, their scalpel, and a visit to their wards; other Fellows, I have no doubt, could arrange meetings of great scientific interest and value.

Lastly, it is intended that special opportunity shall be afforded for a full and free discussion of the various exhibits brought forward at our meetings. I am sure this is a matter of the first importance. It has often struck me as very regrettable that specimens in connection with which most important questions of diagnosis, pathology, and treatment are associated, and upon which most valuable discussions might be held, are quietly disposed of with only a few cursory observations, and probably no critical discussion at all, merely in order that "the paper of the evening," as it is called, may be brought forward; not unfrequently, too, these papers, while they show much learning, much book-lore, and much of that sort of experience which is derived rather from the bookshelf than the bedside, are sometimes singularly wanting in practical value, and do not help us at all in actual clinical experience.

These are the kinds of papers which I hope the Gynæcological Society will not be anxious to obtain, and for which I trust we shall never be willing that the discussion on valuable specimens and cases shall be curtailed. I earnestly hope—indeed, I feel confident—that the Fellows of this Society will strive continually, by the sound practical character of their work here, to advance our art, as well as to elevate and perfect our science. We ought to endeavour, as far as we can—those of us, at least, who have special knowledge derived from special and exceptional experience and opportunities—to make this Society do a great and real educational work. Even the most experienced among us may learn much at our meetings, for we are all, even the oldest, students in a very true sense. How much more, then, may those of our Fellows who are busily engaged in general practice profit by attendance here, listening to the tale of carefully recorded cases and the calm sober judgment and criticism of men whose lives are spent in the special study and experience of this department of practice. On the other hand, I would earnestly invite those gentlemen who are engaged in general practice to favour us with some of their experiences, to tell us of their difficulties and doubts, and, if they ever make mistakes or meet with failures, as I am quite sure *we* often do, to give us the benefit of such experience, in return for anything they may learn from us. In short, if this Society fulfils its proper mission, it may, and in my opinion it ought to, become a great educational institution; and remember, gentlemen, that there is quite as much—indeed, perhaps more—to be learnt by the record of failures and mistakes as by the dry and rather wearisome details of uninterrupted successes. I can quite understand that, to those of us who do occasionally have failures, and who do sometimes make mistakes, the record of never-ending success in others is apt to induce a rather irritating and pugnacious spirit. I trust, therefore, we may be occasionally cheered and comforted by a story of failure and a confession of error. I know that it requires a little courage to stand up in such

a Society as this and make a public confession of this sort, but common honesty requires the sacrifice, and depend upon it those who make it have their reward in the satisfaction of knowing that they have done something to prevent the repetition of such error or failure in others; besides, it is not improbable that courage of the kind I refer to may prove to be somewhat contagious. Let me give you an illustration from my own experience, and perhaps my example in this instance may have an attractive following hereafter; for I think you will agree with me in the opinion that, if none but successes are ever recorded here, we may ourselves become rather weary and satiated with that commodity, and our Society will be in danger of the charge that it is unreal and untrue.

My story is this. Many years ago, I was amputating, with the single wire *écraseur*, a cervix uteri for hypertrophic elongation. No anæsthetic was administered, as experience had taught me that the operation was not a very painful one. I was, however, struck by the fact that the patient suffered a great deal of pain, which I thought was rather due to her cowardice than to any fault of mine. It is, I suppose, human nature to imagine that, if anything seems to go wrong, it is no fault of ours. The first day or two after the operation, there were more than the usual symptoms of irritative and inflammatory fever, suggestive, indeed, of peritonitis; and, on the second day, there was incontinence of urine. On the third day, an examination was made to discover the cause, when a condition was revealed which led me to examine the specimen of amputated cervix, which I had ordered to be preserved as a good illustration of the disease for which the operation was performed. I then discovered that the specimen also illustrated something else, for on one side of the cut surface there was a portion of the unfortunate patient's bladder, about the size of a shilling; and, on the other side of the same surface, a piece of peritoneum from Douglas's pouch, of about the same dimensions. Hence was explained at once the incontinence of urine, and the inflammatory fever of the first few days following the operation. I had afterwards the satisfaction of successfully performing on this patient an operation for the cure of vesico-vaginal fistula. She was discharged perfectly well and happy, leaving me a sadder but a wiser man. The end of my story is that I detailed the case, and showed the specimen, at the Obstetrical Society, thus illustrating what, I hope, may sometimes happen here, the record of a failure and a mistake. On that occasion, I had the satisfaction of hearing the late Dr. Marion Sims and other equally competent operators affirm that my experience was by no means unique, for the same thing had occurred to them, only they had not previously the courage to declare it. I need hardly say that, since that time, I have been much more careful to see that neither the bladder nor the peritoneum are in the way of my *écraseur*, and many times I have been obliged to decline operation in these cases because I found it could not be done without this accident occurring.

And here I am reminded of another topic upon which I wish to make a few remarks, namely, the claim of the gynæcologist to the surgical treatment of all cases of disease, malformation, or other abnormal condition of those organs with which he has specially to deal. Of course, those practitioners who do not choose to operate in the cases to which I have referred are not compelled to do so by any consideration, moral, ethical, or utilitarian; some of them, perhaps, would not be very successful if they did. But their refusal cannot for an instant affect the rights of those who take an opposite view of their duty, and who honestly and conscientiously fail to recognise either the logic of the position taken up by the former, or the right of those who, practising pure surgery, as they choose to call it, refuse to the gynæcologist the right to operate upon the uterus in one case, while they concede the right in another. It seems to me utterly absurd and illogical to expect the obstetric teacher to lecture upon the Cæsarean section, for instance, and to describe minutely all the steps and details of the operation, and yet refuse to allow him to operate. I am not aware that at present this operation is described in any text-book on surgery, whereas it certainly is described in all works on practical or operative midwifery. The same remark, I believe, applies to such operations as ovariotomy, the removal of uterine fibroids, and the extirpation of the uterus; no work on general surgery with which I am acquainted gives any description of these operations, while every work on gynæcology which aims at completeness does. Surely, then, it is for the gynæcologist, and not for the surgeon, to treat such cases. Again, how absurd it seems to permit the obstetrician to operate upon cicatrices of the vagina where they obstruct the progress of delivery in childbirth, and yet not allow him to close up an opening into the vagina from either the bladder or rectum. Surely, if it be legitimate to do the one, it cannot be wrong to do the other; certainly not as a matter of principle, still less on any logical pretext. Conventional rules may, of course, be framed on hard and fast lines, but they cannot command the assent of reasonable men unless they are framed on a reasonable basis; and to say that I may restore a ruptured perinæum if there be a resultant prolapsus uteri, but that I may not do the same operation if the sphincter ani is torn, and fæces incontinently prolapse, is certainly neither reasonable nor right, and as such must be rejected. The truth is, that the whole spirit of the times is against these restrictions, and the generation of gynæcologists who are coming to the front will not tolerate such limitations of their just rights; they know that their moral position is a strong one, and that there are sound scientific reasons for the claim which they advance to have full right to treat all the diseases and abnormal conditions of the female generative organs, no matter whether the scalpel or the pen is the instrument required. Such is the position which this Society will, I am sure, maintain and enforce on the question at issue, and I cannot doubt that in time the profession will recognise the wisdom and justice of the claim, even if they do not admit it now.

These, then, are some of the reasons which seem to me not only to justify, but to require, the foundation of this Society; and I sincerely hope that, in our work and conduct here, we shall keep these aims steadily in view. I would venture also very earnestly to impress upon all those, especially our younger Fellows, who intend to take a prominent part in the practical and scientific work of the Society, to strive to make their work such as shall be permanent, redounding not only to their own credit, but, what is of far higher importance, work which, while adding to the total sum of human knowledge (and only permanent work can do that), shall, at the same time, diminish the amount of human suffering, and even add to the duration of human life. And surely we need not go far to seek for materials upon which labour may be well expended. Questions of the deepest importance seem to crowd upon the mind when we begin to think of the work there is to do; and though gynæcologists may well be proud when they contemplate the triumphs which their art and science have won during the past quarter of a century—triumphs far exceeding those which any previous century has produced—yet I feel confident that a still more brilliant future is before us, and that further triumphs have yet to be won in the department of gynæcological surgery. Certain it is that operations are performed now which, only a generation ago, were never dreamed of, and which, when first suggested, were denounced as not only unscientific, but even immoral; yet these are now performed with an amount of success which contrasts favourably with any other capital operation. I venture to assert that greater advances have been made in this department of surgical practice than can be claimed by what is called "pure surgery" within the same period; and I believe that the "pure surgeon," as he is sometimes rather strangely called, has learned much from the operating gynæcologist, however unwilling he may be to recognise or acknowledge it. Nor, I think, can it be doubted that the gynæcologist who performs all the operations which properly belong to his department, has added vastly more to our stock of knowledge, and done far more for the good of mankind, than he who either cannot or will not perform them. I may also, I believe, go further, and say that, as a matter of fact, whatever the explanation may be, the operating gynæcologist is far more successful with his operations than when they are performed by the general or pure surgeon; and as regards the performance of such operations as ovariotomy, or for other abdominal tumours, I question whether it is wise that these should be attempted in the wards of a general hospital, as is, I know, sometimes done. Our gynæcological triumphs were certainly not won under such circumstances, and I am quite sure we could not maintain them in the like conditions.

I lately read, with much interest, the inaugural address of the President of the Clinical Society, Mr. Thomas Bryant, and was struck by his earnest appeal to his medical brethren, the physicians, to aid the surgeons in the matter of diagnosis, especially in cases within the domain of abdominal surgery. Such an appeal seems to me yet further to strengthen the claim for which I am contending, for if the gynæcological physician possesses in an especial manner, as the result of his special experience, the faculty of diagnosis in abdominal cases, as I fully believe he does, surely, if he be an operator at all, he ought to be allowed to operate in cases of this sort. By so doing, he will not only quicken his diagnostic skill, but his operations will probably be more successful, as his knowledge of the diseases of the parts operated on is more precise and intimate.

Of late years physiology has been more prominently associated with some of our surgical work. The operation of ovariotomy in cases of uterine fibromata, is proof of this proposition, for is it not true that the justification for this operation in the cases referred to is based entirely on the physiology of the subject? If the function of the ovaries be

not the chief factor in the growth and development of those tumours, then I do not see on what ground the operation for their removal is founded. And here I am reminded of a physiological question which surely ought to be settled by such a society as this, namely, the influence of the ovaries and the effect of ovulation in the production of menstruation. It is no doubt well known to you that one of our most distinguished Fellows, and certainly one of our most brilliant operators, Mr. Lawson Tait, denies that the ovaries have anything to do with the function of menstruation, at least, in originating that act. There must be plenty of evidence now to determine this question; and a small working committee to collect and sift this evidence, and present it to us for discussion and criticism, would, I think, be doing a very useful work, and one peculiarly appropriate to the objects of this Society.

Another question which we ought to be able, with our vast opportunities for observation, finally to determine is the value of the so-called antiseptic mode of operating, and more particularly the use of the carbolic spray in abdominal surgery. I mention this specially because I suppose there are no operations equal to that of opening the abdomen in which the alleged value of the spray could be more thoroughly tested and appreciated. I believe there is no other society in existence which can bring to bear upon this question such a vast array of surgical experience. We have already in our ranks some of the most practised operators in abdominal surgery, and our combined experience would surely be sufficient to determine such a question as this, for I suppose that the clinical experience of this Society, estimated by the total number of beds in our special and general hospitals which are held by the Fellows of this Society, far outweighs that of any other society. It is this fact, I take it, which will give such weight to our discussions on disputed gynæcological topics, and which must necessarily command attention and respect. All this, however, only makes it the more important that the opinions we express and the judgment we form should be most carefully thought over, and be the result of calm unprejudiced observation at the bedside; if otherwise, then our discussions will be only misleading, and our experience nothing less than a delusion and a snare. On this topic of antiseptics, so far as the carbolic spray is concerned, I must confess that my own experience is decidedly adverse. I have tried and tested it most carefully, and so unbiassed was I when I began this practice, that for a time I was strongly and favourably impressed with it. I thought that many of the cases of ovariotomy and other abdominal sections which I performed, some of them of a particularly severe and dangerous kind, and many of them performed in a general hospital, though under the most favourable conditions, owed their success chiefly to the spray; but at length, feeling the inconvenience of operating in a fog, especially in London in dark November days with a still worse fog outside, I abandoned the practice, and found that my success was quite as great without as with the carbolic spray. Accordingly, I have now quite given up this mode of procedure, not only in private but also in hospital work, where, if anywhere, it might be thought that it was most urgently called for, and would show the most satisfactory results. I am bound, however, to say that I do not think the carbolic spray exercises the smallest beneficial influence, while I am painfully aware of its great practical inconvenience.

Speaking of ovariotomy, I am reminded of another question of much importance about which I think we have now sufficient experience to enable us to give a clear and decided opinion; namely, as to the best mode of treating the pedicle. I have been an ovariotomist long enough to have seen all methods adopted, including clamp, cautery, and ligature of all sorts. I have tried them all myself, and I speak with the experience of nearly five hundred cases when I say that I am a strong opponent of the clamp, and a very lukewarm supporter of the cautery, for the simple reason that I have lost cases from subsequent hæmorrhage from the stump, and that I have had to tie bleeding vessels after its use; whereas with the ligature no such accident has occurred, and I cannot remember any case in which evil has resulted, directly or indirectly, from its employment.

I have already incidentally alluded to the operation of ovariotomy in the treatment of fibroid tumours of the uterus. This is a subject which is at present quite in its infancy, and no doubt the Society will watch over its growth and development with keen interest and pride; for I cannot but think that a great future is opened up by this operation, which is of far-reaching significance and importance. We must, however, obtain accurate information of the physiology of those organs before we can fully determine their pathological tendencies, or gauge the full measure of the therapeutical value of their removal; for it is probably not only in the surgical treatment of uterine fibroids that ovariotomy is destined to play an important part, nor is it merely for organic diseases of the uterus that removal of the ovaries may be required. Are there not some affections of the nervous system in women which we can trace distinctly to morbid ovarian action, and which, hitherto, medicines have entirely failed to cure—cases of a peculiarly distressing kind, which render life almost unbearable, and in which this operation seems to hold out a reasonable hope of success? Here, again, I think our Society offers the best field for determining this question, and we may look at no distant date for a record of success in this direction. Besides this, experience is, no doubt, daily accumulating as to the value of ovariotomy in the treatment of uterine fibroids. One such case is at present under my care, in which the results, so far, are most satisfactory; and I have had three others in which success was complete and undoubted, the tumours almost entirely disappearing, and their distressing symptoms subsiding within a short time after removal of the ovaries; in two of them, menstruation ceased immediately after the operation, and in one it only recurred twice.

In close connection with this subject, reference should also be made to the wonderful success achieved by Mr. Lawson Tait in the operation with which he has made us familiar, namely, the removal of the Fallopian tubes. I feel sure that, when the diagnosis of the cases in which this operation seems called for is made a little clearer by further experience, we shall have placed in our hands a method of treatment which is singularly successful, and which marks one of the greatest advances of modern times in gynæcological surgery.

It is, perhaps, too much to hope or expect that this or any other society will be able for many a long year to settle the disputed questions connected with the so-called mechanical system of uterine pathology. I refer more especially to the legitimate, scientific, and therefore successful, employment of pessaries, or other mechanical treatment for the various forms of uterine displacement. And yet I cannot help thinking that, if we could approach this subject in a purely scientific spirit, with minds absolutely free from any intentional bias, viewing it as a question to be determined only by clinical observation, with a minute appreciation of facts, and a thorough knowledge of physiological and pathological processes, surely there could not be much difficulty in determining where the truth really is; and so putting the whole matter on a sound scientific basis, with the certainty of success, and with a freedom from that opprobrium which, I fear, attaches to the question at the present time. It can neither be to the advantage nor to the credit or dignity of our branch of medical practice that this question should remain as it is, for both the public and the profession alike have the impression that mechanical treatment, and especially the employment of pessaries, is far too frequently resorted to in cases of uterine displacement, and sometimes even where no displacement exists. It behoves us all, therefore, to try and remove this impression, which I believe is, for the most part, unfounded, by exact scientific methods, by careful clinical observation, and by the application of sound principles of pathology.

Turning now from the surgical, or mechanical, aspect of our department, many questions present themselves for consideration from the purely medical side, and I would fain hope that the experience of the Fellows of this Society will be so recorded that our medicinal treatment of some of the diseases of women will be put upon a much more exact, more certain, and more successful basis than exists at the present time. We know already that some drugs have a specific action upon the uterus, others again upon the ovaries. But the list of these known drugs is far too small, and it ought, I think, to be considerably increased. We have many drugs that act specifically upon the liver, the bowels, the kidneys, the skin, the salivary glands, the heart, the spinal cord, etc. Why should we not have an equally numerous list from which to select when we come to treat the uterus or the ovaries? At present, it must be confessed, we are lamentably weak in this respect, but surely the work of this Society is not to be merely a record of surgical experience; we want especially to enrich our therapeutical knowledge, and this can only be done by careful clinical observation, by accurately recorded symptoms, both of the disease itself and of its modification by treatment, so that, if possible, we may deduce therefrom some broad generalisations.

I hope, in the coming year, we shall have many accurate histories of exact therapeutical observations, so that our first year of existence may add distinctly to the treasury of useful knowledge from which our professional brethren may draw for the benefit of those who may come under their care.

There are a few drugs, certainly, which we may regard almost in the light of specifics in certain diseased conditions of the female generative organs; at all events, their physiological, and therefore therapeutical, action is perfectly well known and understood. I have already alluded to the physiological action of ergot; and my experi-

ence leads me to regard quinine and nux vomica as possessing similar powers. If, as I believe, we may regard the physiological action of any drug as determining its therapeutical value and property, what we want are exact physiological experiments tested by clinical observations. There can, I suppose, be no doubt that ergot acts directly upon the involuntary unstriped muscular fibre wherever it is met with; that its action, therefore, is by no means limited to the uterus, and that it has a very distinct effect upon the muscular coats of arteries and capillaries; hence, in poisonous doses, it causes such contraction of these vessels that the blood is driven into the veins, which accordingly become distended, and the patient assumes quite a livid hue. This phenomenon I have observed again and again, and the explanation must, I think, be that which I have just given. Here, then, we have a fact which might be turned to therapeutical account.

As an example of a pelvic anodyne, with special reference to the ovaries, I know of none that can compare with conium, or, better still, with the alkaloid conia, used in the form of vaginal pessary. In all cases, whether neuralgic or inflammatory, in which the ovaries are the seat of pain, conia is, to my mind, quite a specific. No drug that I know of acts with equal certainty and success. Lastly, I suppose we are all agreed that bromide of potassium exercises most powerful influence upon the ovaries. No drug, in my experience, can equal it in controlling ovarian mucorrhagia; it not only limits the flow in these particular cases, but it seems, also, to exercise a distinct and controlling influence upon ovulation itself; hence, if Mr. Lawson Tait will allow me to say so, its value in checking ovarian mucorrhagia, so far as regards its too frequent periodicity, for it certainly increases the length of the menstrual interval; in other words, it controls too frequent menstruation, or, as I should say, too frequent ovulation. Now, we want more of such remedies as those I have mentioned, remedies which we can prescribe with almost absolute knowledge of their therapeutical value and effect, and we may look to the experience of the Fellows of this Society to supply many more examples of this kind. It will be by papers on such subjects, giving us exact experiments and observations, more probably than by the record of our surgical experiences, that this Society will fulfil what I hope may be regarded as one, if not the chief, of its functions, namely, to educate the mass of our professional brethren in the therapeutical branch of their calling in these particular cases. Nothing, I think, could more fitly demonstrate its utility than the record of such experience, and such work as this would, I am sure, earn and receive the gratitude both of the profession and the public.

Gentlemen, I trust you will forgive me for having detained you so long. I have endeavoured as briefly as I could, and I know very imperfectly, to give a slight sketch of the work and office of this Society, as the subject presents itself to my mind. No one, I think, will venture to deny that, with such objects in view, the founding of this Society, if it be true to its mission, is a great and useful work. I earnestly hope that in all our discussions we shall ever keep in view this primary purpose, and that we shall meet here with the ever-present consciousness that our work is not only scientific, but noble and grand, as all truly scientific work is, and must be, from the very nature of the case. I trust that the brilliancy of our discussions will never be tarnished by personalities, and that we shall ever bear in mind that criticism in matters of opinion, be it ever so sharp and incisive, is not a matter which need or should give any personal offence. He who feels offended at such criticism is thinking more of himself than his work; be it ours to think more of our work than ourselves, so that when we shall have passed away our work may still live on, and do good suit and service in the cause of suffering humanity, for then, assuredly, we shall not have lived and worked in vain.

THE UNFOUNDED ACCUSATION AGAINST A MEDICAL MAN.—In our issue of the 7th instant, we drew attention, under the above heading, to the case of Parker *v.* Whitefoord, tried in the Court of Queen's Bench, before Mr. Justice A. L. Smith and a common jury. To the opinion then expressed we refer our readers. We now learn that, so far from Mr. Whitefoord being exonerated from pecuniary liabilities, he has had to pay, not only the award of £10 damages, but his own and the costs of the plaintiff's solicitors, which have been reduced by the taxing master from £102 15s. 4d. to £71 17s. 10d. It appears to us that no other course was open to this gentleman but to defend his reputation from the aspersion on his character which the plaintiff and her adviser sought to cast on him; and, from the correspondence put before us as to the plaintiff's mental condition, and her immediate surroundings, we feel that Mr. Whitefoord merits, at the hands of the profession, their sincere sympathy, especially after the expression of opinion of the jury, concurred in, as it was, by the judge.

REMARKS
ON
THE ETIOLOGY OF ASIATIC CHOLERA:

A Paper read before the Royal Medical and Chirurgical Society, in reference to some points stated in the President's Address.

BY E. KLEIN, M.D., F.R.S.,
Lecturer on Histology at St. Bartholomew's Hospital.

MR. PRESIDENT AND GENTLEMEN,—In this most interesting address, to which we have just now been listening, there are two passages, referring to the etiology of cholera, about which I will take the liberty of making a few remarks. 1. The first is: "Cholera is believed to result from the action of a specific contagium or morbid infecting agency, which may enter the system, either with the air through the lungs, or with food, water, or other liquids through the alimentary canal;" and 2, "The intestinal discharges are the means by which the disease is conveyed from the sick to the healthy. In this respect, there is a close resemblance between cholera and enteric fever."

1. Cholera, when it appears and spreads in Europe, is the result of importation from an infected locality. For this there is such overwhelming evidence, that it is not necessary to enter into the details of the history of the epidemics that visited the European countries. Now, what is it that is imported, or, with other words, what is the infective agency? That cholera has been imported by linen and clothes coming from an infected locality, of this there are several well established examples; but, amongst these, there are some, like the one mentioned by Professor Hirsch (Conferenz zur Erörterung der Cholerafrage, *Berlin. Klin. Woch.*, No. 31, 1884)—when articles (linen, clothes, sweets) brought from an infected country (St. Louis, U.S.A.) have become the source of infection in Mühlhausen (Thuringia), in 1873—in which the articles had not been soiled by cholera-patients. And, similarly, there are cases known where infection was carried from one locality into another by persons themselves not sick with cholera. From this it follows that the infective agency is not necessarily associated with choleraic dejecta, but that, independently of these, it may pass from an infected locality into a new one.

The infective agent must be a living entity, since it is possessed of the power of self-multiplication. After the infective agent is introduced into a locality, cholera-cases may occur within short intervals of time in distant centres, and from here spread to wider areas; hence the conclusion is inevitable, that that agent has, since its introduction, undergone self-multiplication, has spread into those distant centres, and here has produced infection. Since no chemical substance is capable of fulfilling this condition of self-multiplication, it follows that the infective agent must be a living entity.

Two alternatives present themselves:—*a*, the infective agent and actual virus are identical; and *b*, the infective agent is not the virus itself, but is the producer of the virus. In the first instance, we have to deal with an organism which, having entered a susceptible person, here multiplies to an enormous extent and produces the disease; the morbid products, themselves charged with the new brood, are themselves the contagium. Such is the case in the true infectious diseases, like anthrax, tuberculosis, gonorrhœa, erysipelas, glanders, etc. In the second instance, the micro-organisms are extraneous, but produce a ferment which is the virus; the micro-organism does not enter the body, but lives and multiplies outside this, and as a result of its activity produces a chemical ferment, which when introduced into the system acts as the virus. This is exemplified in cases of septic poisons, the ptomaines. The disease set up by these ferments is then equivalent to a chemical poisoning. In these instances, as a necessary consequence, the morbid products contain neither the organism nor the virus.

Now, does what is known of cholera fulfil the conditions of the former or latter group of diseases?

I maintain that cholera cannot belong to the first group of diseases for these reasons. The general opinion as to the incubation-period of cholera is, that it varies between one and two days; but there are several carefully observed cases, where the incubation could not have extended to more than from half an hour to a few hours (see Professor Drasche's account of cholera-cases in a laundry in Vienna, 1873, as described in a pamphlet, *Der Pilzfund bei der Cholera*, Vienna, 1884).

It is quite out of question that, if the cholera-virus itself were a living entity, that is, a micro-organism, this having entered the system of a person could, within so short a space of time, have multiplied to such an extent as to set up the disease. These cases of rapid infection can only be explained by assuming that the virus is a ferment which is formed outside the body, which is absorbed by the system, and produces acute poisoning. The whole course of the disease and the symptoms eminently favour the theory that it is due to a chemical ferment acting on the blood, the nerve-centres, and the organs of circulation.

Another reason why cholera-virus and the infective agent, that is, the micro-organism, are two things, and why cholera cannot be an infectious disease of the same group as anthrax, tuberculosis, and others, is that in cholera the body of the patient, notably the choleraic evacuations, do not contain organisms that have any causal relation to the disease. In the true infectious diseases, the specific organism multiplies within the infected body, is present in the morbid products in great numbers, so that each particle of these products possesses infective property; but in cholera this is absolutely not the case.

2. This brings us to the second passage referred to in the president's address, namely: The intestinal discharges are the means by which the disease is conveyed from the sick to the healthy. What is the evidence on which an assertion like this one is based? It is well known that linen soiled with choleraic evacuations has been capable of conveying infection; there are, likewise, several well established cases where water, into which choleraic fæcal matter had found entrance, and which been drank, had produced infection. But does this prove that the choleraic evacuations contain the virus, or even the infective agency? By no means; for is it not known that linen and articles that had not been soiled by choleraic evacuations have also been able to convey infection? Is there not available an overwhelming amount of evidence, to show that water that had become contaminated with choleraic dejecta, either directly by the evacuations, or indirectly by the washing of linen soiled with choleraic evacuations, when drunk by a large number of persons, did not produce infection. There is hardly a tank, a ditch, or pool, in town or village in India, at any rate in Bengal, but where, at ordinary non-epidemic times, isolated cases of cholera occur where the choleraic evacuations of these cases find access into the water; and although this is drank, or used for all kinds of domestic purposes by a large number of people living around these tanks, still no infection occurs. If the choleraic evacuations contained the virus, there ought to be—owing to the habits of the natives in India—severe epidemics of cholera, continually, in almost every town of Bengal, and outside. It follows, then, from this, that in those instances where linen soiled with choleraic evacuations, or water contaminated with choleraic evacuations, had conveyed infection, it was not the choleraic evacuations *per se*, but something added to it, which produced infection. And this something cannot be contained in the evacuations *per se*, but is something extraneous, seeing that in an overwhelming number of instances the evacuations themselves prove harmless. It further follows from this, that the view of the "contagionists," according to whom cholera is directly communicable from the sick to the healthy by means of the evacuations, cannot by any means be correct. How is it possible to reconcile this view of the contagionists with the well known facts that, when in any cantonment in India cholera appears amongst the troops, they are moved into camp, and although those that have been infected in the cantonment carry the disease into camp, still no new cases occur; how is one to reconcile this view of the contagionists with the well known fact that the attendants on cholera-patients, all those that handle the evacuations, the patients of the wards amongst whom cholera-cases are distributed, remain unaffected? Cases of cholera amongst hospital-attendants, both those that attend cholera-patients, as well as those that do not, may, and do, occur in epidemics; but then the hospital itself has, like any other house, become a cholera-locality (Pettenkofer).

The fact as to immunity of certain localities, Versailles, Lyons, Birmingham, and others, speaks the same language. Isolated cholera-cases imported into these localities remain isolated, although the cholera-evacuations are there, and are not disposed of in any manner different from other localities in which such cases lead to an epidemic.

It follows from all this, that the infective agent and virus are not present, and are not necessarily dependent on the choleraic evacuations, but that they are present in a soil extraneous to the body of a patient, and dependent on locality, and, of course, on season.

The contagionists make the perfectly gratuitous assumption that cholera is a directly communicable disease. Of course, if the choleraic infective agent be a bacterium present in the cholera-evacuations, then it follows as a necessary corollary that the disease must be directly contagious. But this seems to be putting the cart before the horse. The evidence that cholera is not and cannot be a directly communicable disease is overwhelming, and therefore any bacterium, however peculiar, present in the choleraic evacuations cannot be connected with the infective agent.

What are the facts brought forward by the contagionists, such as Koch?

The comma-bacillus of Koch is a curved rod of almost uniform thickness, sometimes slightly pointed at the extremities, its length about half that of a tubercle-bacillus, its thickness about the same as that of

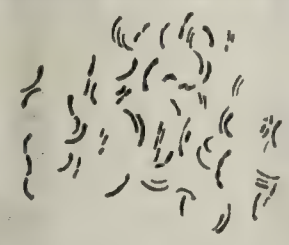


FIG. 1.
From a preparation of mucus-flakes of the fluid in the ileum of a case of typical cholera. Magnifying power about 700. Numbers of comma-bacilli of different lengths are shown amongst numbers of small straight bacilli.

the latter. But the comma-bacilli vary in curvature and length within considerable limits, some being just curved while others are almost semicircular, some being twice and three times as long as

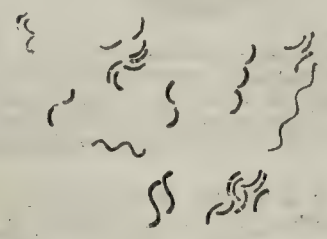


FIG. 2.
From an artificial cultivation of choleraic comma-bacilli in gelatine peptone. Magnifying power 700. Most of these are single curved bacteria, a few are joined end to end in twos, thus forming S-shaped organisms; and a few are in chains of several placed end to end.

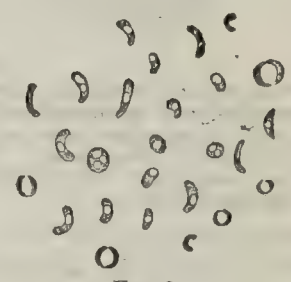


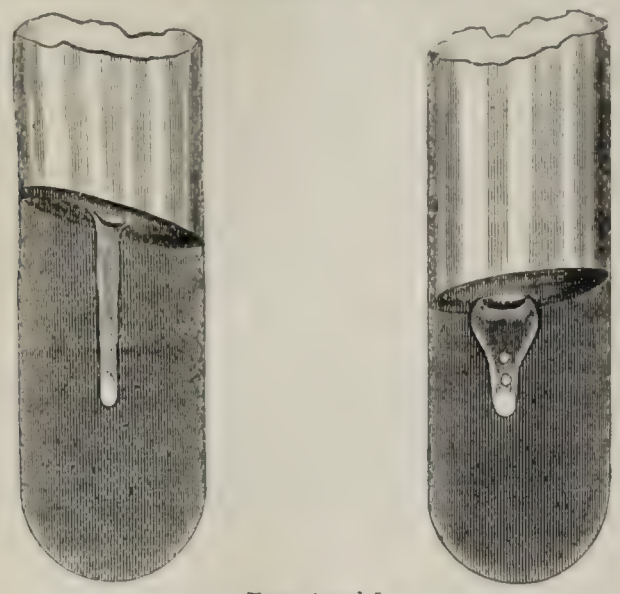
FIG. 3.
From an artificial cultivation of choleraic comma-bacilli in Agar-Agar peptone at the ordinary temperature of the room after several weeks. The comma-bacilli change by vacuolation into planoconvex, then bi-convex, and finally circular organisms; these by division give origin to two semicircular comma-bacilli. Magnifying power about 700.

others. They are motile, and divide transversly. In Agar-Agar mixture, kept at ordinary temperature, length-divisions may be observed, see Fig. 3. After transverse division they may remain joined end to end, and then forming an S-shaped corpuscle. But sometimes, particularly in artificial cultivations in broth and in liquefied gelatine after several days, they remain joined end to end even after repeated division, and then form either a wavy or spiral-like organism. But the type is represented by a single curved rod. For this reason it is not correct to speak of them as comma-bacilli nor as spirilla, since they correspond to what is generally considered a vibrio.

The comma-bacilli are present, amongst many other putrefactive bacteria, in very varying numbers in the choleraic evacuations, sometimes very scarce, sometimes numerous; in the mucus-flakes taken from the lower part of the ileum of some typical rapidly fatal cases of cholera very soon after death they were present in small numbers; in the upper part of the ileum and in the jejunum they are either very scarce or altogether absent. The longer the examination is delayed, of course within certain limits, the more probably are the comma-bacilli found abundantly in the flakes, but not to the exclusion of other bacteria. They are totally absent from the mucous membrane itself, inclusive of the epithelium of the surface, loosened but not detached. No organisms of any kind are found in the tissue of the intestine, in the blood, and other tissues; putrefactive bacteria, including comma-bacilli, are capable of growing after death into the clefts and spaces of the intestinal wall from the internal cavity.[1] (English Cholera Commission.)

[1] In this respect, it must be mentioned that, when they are thus present in the tissue of the ileum, there is no difficulty of demonstrating them in sections stained with the ordinary aniline dyes. But there came a number of acute typical cases of cholera under observation, where sections of the lower part of the ileum, stained with a great variety of aniline dyes in various modifications (Ehrlich's, Weigert's, Koch's, and others), in single and double staining, did not reveal a single comma-bacillus or any other bacterium in the tissue of the ileum, not even in the superficial epithelium, which had become loosened, but not yet quite detached.

The mucus-flakes of the small intestine, taken from a typical rapidly fatal case immediately after death, contain, besides detached epithelial cells, numbers of lymph-corpuscles, some perfect, others swollen up and disintegrating. Soon after death all disintegrate. These lymph-corpuscles or mucus-corpuscles contain, in varying numbers within their protoplasm, straight minute bacilli much smaller



FIGS. 4 and 5.
Pure cultivation of choleraic comma-bacilli in gelatine-peptone-broth. The two tubes had been inoculated at the same time with the same comma-bacilli, and were kept under precisely the same conditions. In both, the surface of growth is marked by a depression. At the bottom of the growth is a whitish precipitate of masses of comma-bacilli. The rest of the channel is filled with almost clear liquefied gelatine.

than the comma-bacilli, being one-half or a fourth their length, and more or less pointed. These small straight bacilli are non-motile, they are never missed in a free state in the mucus-flakes, and when grown artificially they form spores. Neither the comma-bacilli nor these small bacilli show in their mode of growth, in artificial cultivations in various media, greater peculiarities than other putrefactive bacteria. The peculiar mode of growth of the comma-bacilli in gelatine mixtures and in Agar-Agar mixtures is shown in the accompanying woodcuts.[2]

Both the comma-bacilli and small straight bacilli grow well in alkaline and neutral media, and are not killed by acids, although they do

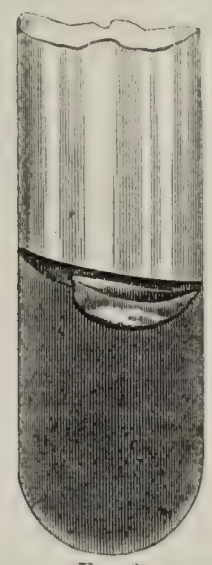


FIG. 6.
Pure cultivation of choleraic comma-bacilli in gelatine-peptone-broth. The inoculation had been made, not in a channel, as in the previous figures, but on the surface. There is also here a depression of the growth on the surface, and in the extent of the growth the gelatine is liquefied, with a whitish precipitate at the bottom.

not show growth in them, or only to a very limited degree.[3] Neither the comma-bacilli nor the straight small bacilli can be considered as connected with the cause of cholera.

[2] Mr. Watson Cheyne, in a subsequent criticism, maintained that these short straight bacilli are only young forms of comma-bacilli; this I consider a perfectly gratuitous statement. I am quite sure that, in artificial cultivations of pure comma-bacilli, there is nothing of the sort; when straight bacilli occur, they are due to contamination.

[3] This assertion is based on the following experiments. 1. Choleraic comma-bacilli have been grown in meat-broth peptone-solutions of distinctly acid reaction. The growth was limited, but there was growth. 2. Choleraic comma-bacilli were mixed with HCl (1:1000) and kept so for fifteen minutes. With a droplet of this mixture, culture-tubes containing alkaline meat-broth, or alkaline meat-broth peptone, were then inoculated, and exposing these to a temperature of 35° to 38° C. for two to three days, a copious growth of typical comma-bacilli will be found. From these tubes, inoculations are then made of nutritive gelatine, and pure typical growths of comma-bacilli are the result. But inoculating with the comma-bacilli, after exposure to the acid, nutritive gelatine directly, no growth is obtained. Saying, then, that the choleraic comma-bacilli do not grow in faintly acid media (Koch) is altogether a different thing from saying that the choleraic comma-bacilli are killed by weak acids. From the fact that the comma-bacilli of the saliva cannot be made to grow in alkaline nutritive gelatine, no conclusion can be drawn as to their being different in mode of growth from the choleraic comma-bacilli. The above observations on the choleraic comma-bacilli in HCl. clearly established this; but I have succeeded in producing growths of the salivary comma-bacilli in alkaline nutritive gelatine, which growth presents all the characters typical of the choleraic comma-bacilli. Such growth was accomplished by growing the salivary comma-bacilli first in neutral medium for one or two generations, and then from this, inoculation of alkaline gelatine was established.

The results of the experiments performed by Nicat and Rietsch, by Koch and others, namely, death following in some of the animals after injection of choleraic mucus-flakes, or of cultivations of comma-bacilli, into the cavity of the small intestine, were not due to cholera, but were clearly due either to the operation, or to septicæmic poisoning.[4] Rodents, carnivorous animals, and monkeys, must be considered unsusceptible to cholera.

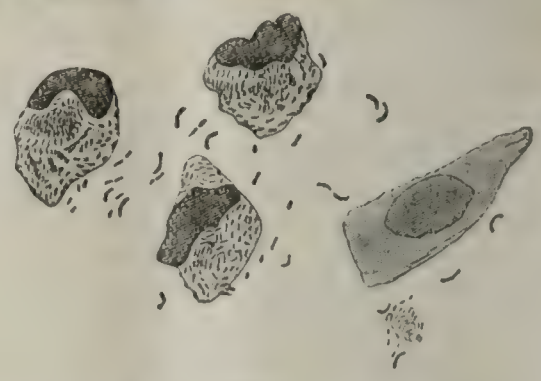


FIG. 7.
From a preparation of mucus-flakes of the ileum of a case of typical cholera. Comma-bacilli and minute straight bacilli, singly or in masses. Three lymph-corpuscles containing in their interior numerous small straight bacilli.

Comma-bacilli of various species have been discovered in other diseases of the alimentary canal, in the fluid of the mouth of normal persons (Lewis), in old cheese (Deneke). The comma-bacilli found by Finkler and Prior in cholera nostras, differ in mode of growth from Koch's comma-bacilli of cholera; so do those found in diarrhœa due to other causes; but those of the fluid of the mouth are identical with Koch's comma-bacilli in many respects.

[4] The experiments made in India, injection of choleraic mucus-flakes (full of comma-bacilli), recent and old, and of pure cultivations of comma-bacilli, into the duodenum, blood, peritoneal cavity, etc., of rabbits, cats, dogs, and monkeys, did not produce any result. Likewise Professor Horsley made, at the Brown Institution, London, a series of such experiments (injection of pure cultivations of choleraic comma-bacilli, recent and old, into the duodenum of rodents, and of a large number of dogs, the operation being performed antiseptically), and no result was produced. Mr. Watson Cheyne subsequently stated that, in a large number of experiments performed by him on rabbits, he had two positive cases—two animals did die with diarrhœa. It would be most important to know whether Mr. Cheyne made these experiments antiseptically, and what was the duration of the illness. That rodents, particularly rabbits, occasionally die in consequence of slight operations, and that such animals show in 50 per cent. of the cases diarrhœa, is a familiar fact to all who have had experience in these matters; and likewise that such animals do not in many instances contain in the blood or tissues any trace of bacteria. But granting, for the sake of argument, that the animals operated upon died in consequence of the injection with the comma-bacilli, does this prove that the comma-bacilli are the cause of cholera in man? Not at all. I refer to the observations of Bienstock, who isolated from normal human fæces a bacillus which proved fatal to some rodents.

ACCESSORY MAMMARY GLANDS.—Luschka has classified supernumerary mammary glands under two distinct divisions: mamma erratica and mamma aberrans. Mamma erratica is a true supernumerary mammary gland, developed on any part of the body excepting its normal position, the front of the thorax. Mamma aberrans signifies a gland that lies on or near the pectoralis major, but has a distinct outlet for its ducts, separate from the true nipple. This condition is rare. Dr. Cohn exhibited a case before the Berliner Medizinische Gesellschaft, on February 25th. It was not an instance of milk-fistula, which generally arises from a wound, or from abscess. The patient, in this case, it is true, had inflammation of the natural gland on the left side, and quite accidentally found out that milk dribbled away from the axilla. On careful examination, a duct was found opening in the axilla. It was covered with skin, and, on pressure of the integument around it, milk squirted out.

OBSTETRIC MEMORANDA.

TWIN-MONSTROSITY: ALLEGED MATERNAL IMPRESSION.

A. T., aged 42, married nineteen years, had ten children, the eldest eighteen years old. Menstruation ceased last March, and she expected her confinement about the middle of November, at which time she consulted a medical man, who told her that if she went much longer she would probably have twins, she replying that she did not care so long as they were not "Siamese."

On January 22nd she went to the Lying-in Hospital, and stated that she thought there was "something wrong with her," and that hæmorrhage had previously occurred. On the 23rd, having been sent for, I found she had been in labour since 10 P.M. on the previous night. On examination, the head was found pressing on the perinæum, and all pains had ceased. This being the case, I immediately applied the forceps, and delivered the head without difficulty; but it was not until after prolonged traction that the shoulders partially emerged, when I discovered that there was an outgrowth from the chest which prevented any further movement in that direction. I therefore passed my hand round the lower part of the abdomen, and delivered the breech and legs. The child was now entirely born, but finding it connected from the neck to umbilicus with another child still in the uterus, I laid hold of the legs of the second, and delivered it without difficulty. The placenta followed in a few minutes. There was only one cord, proceeding from a common umbilicus. The children, both born dead, were males. In the ordinary position they faced one another, but the connecting link was sufficiently lax to allow them to lie partially side by side. In every other respect they were perfectly formed, and weighed eleven pounds.

The next day, when the mother heard of their condition, she told the nurse that, in March last, she went to see the "Two-headed Nightingale," and fainted at the sight.

I regret to say that the occurrence so affected her that, three days afterwards, she committed suicide by jumping out of a window.

B. R. JOHNSTON, M.R.C.S.Eng., L. and L.M.K.Q.C.P.I.
16, Devonshire Road, Claughton, Birkenhead.

APPLICATIONS OF CORROSIVE SUBLIMATE AND GLYCERINE IN EPITHELIOMA OF THE CERVIX UTERI.

THERE are few things in the way of palliative treatment that have given me greater satisfaction than the use, in a case of epithelioma of the cervix uteri, of a lotion, or injection, containing one-fourth of a grain of corrosive sublimate, and half an ounce of glycerine, to a pint of water. Before using it, a patient of mine had, for seven or eight months, been subject to paroxysms of agonising pain, and to frequent hæmorrhages, which were occasionally profuse. Immediately upon its employment, and for the last three months of her life, the hæmorrhage became merely nominal; and, instead of agonising pain, there was simply the distress consequent upon irritation (by the tumour) of the bowel and bladder, the latter of which became perforated a week before death. I attribute the beneficial change to the very marked reduction in the amount of infiltration. The lotion was used continuously, with very few exceptions, twice a day during the three months, and I shall certainly adopt the same treatment in the next case I have, even before recovery is despaired of. In the case referred to, it was not tried until the curative effects of chromic acid had been tried in vain.

D. BIDDLE, Kingston-on-Thames.

THERAPEUTIC MEMORANDA.

INFLUENCE OF CUCAINE IN RECTAL OPERATIONS.

As the statement of what a new drug fails to do is nearly as important as the record of its successes, I venture to send my experience with cuca in the treatment of a case of rectal ulcer just within the anus. Being desirous of avoiding the discomfort almost inseparable from the administration of anæsthetics, I applied a solution of cucaine-hydrochlorate (sixteen grains to the ounce) to the neighbourhood of the ulcer, by means of a small glass syringe, painting being impracticable, on account of the painful spasmodic contraction of the sphincter ani. The application was successful in causing analgesia of the mucous membrane, but this did not remove the painful spasm of the sphincter, so that I had subsequently to perform the operation in the usual manner, under chloroform. Whether a larger quantity or a stronger solution would have been more successful, I am unable to conjecture, as it is difficult to determine how far the muscular contraction was due to reflex irritation from the ulcer, and how far of the nature of cramp or exaggerated tonic contraction.

F. R. WALTERS, F.R.C.S., M.D., 29, Moorgate Street.

CUCAINE IN SENILE GANGRENE.

FOR some time past, many articles have appeared in the BRITISH MEDICAL JOURNAL respecting the action of cucaine as a local anæsthetic. I have recently tried its effects in a case of senile gangrene, occurring in an active and excitable man aged 67. He had worked hard, both mentally and physically, and the heart's action was very feeble. About fifteen years ago, he had a serious attack of suppressed gout and congestion of the liver, and, some time after this, he suffered from diabetes. He informed me that his father and grandfather both died of gangrene of the feet. He became a resident in this neighbourhood about three years since, and came under my care for the first time five months ago, suffering intermittently from indigestion and sluggish liver; this was followed by œdema of the feet, and a return of diabetes, which, under suitable treatment, soon disappeared.

Shortly after this illness, he complained of pain in the second and third toes, which continued to increase, and, at the same time, the toes grew dark in colour, eventually becoming unmistakably gangrenous. The gangrene gradually extended to the dorsum of the foot for about three inches; the pain was perfectly agonising. Amongst other applications, I tried poppy-fomentations; linseed-poultices saturated with laudanum; painting the part with equal parts of tincture of aconite, opium, and chloroform; also an ethereal tincture of belladonna, none of which gave the slightest ease. At night, the patient had a draught of bromide of potassium and hydrate of chloral, twenty grains of each, with eight grains of Battley's solution of opium; this had frequently to be repeated before sleep could be obtained.

I now thought it to be a fair case for a trial of cucaine, and accordingly applied a four per cent. solution of the hydrochlorate, first rubbing it into the sound skin contiguous to the gangrene, and afterwards applying a piece of muslin saturated with the solution. Over all, a piece of gutta-percha tissue was placed, to prevent evaporation, the gangrenous part being dressed with carbolic oil. The result of the first application was highly satisfactory, the pain diminishing considerably; the subsequent applications, made once a day, were followed by a most decided relief, so that half of the night-draught was sufficient to procure sound sleep for many hours.

Of course, cucaine was not used with an expectation that it would either cure, or even arrest the progress of the disease, but with the hope that it might mitigate the excruciating pain, which it did in a most decided and satisfactory manner up to the last, thus affording as much comfort to the friends as it did relief to the suffering patient.

JOHN GOULD, Hatherleigh.

TREATMENT OF GOÎTRE BY INJECTIONS OF IODINE.

HAVING read with great interest Mr. Victor Horsley's recent lectures on the thyroid body, I consider that some of his remarks respecting treatment ought not to be allowed to pass without comment. He very correctly states that "the operative treatment of ordinary goître, whether cystic or adenomatous hypertrophy, is summed up most briefly under the headings injection and excision;" and he goes on to say that "the danger of simple injection is only one, it is true, but extremely serious, namely, sudden death."

Fearing that this opinion as to the great danger of injection of goîtres may deter many from undertaking what has been, in my hands, a most safe, successful, and comparatively painless operation I shall give my experience of the use of iodine-injection in adenomatous goîtres. This is limited to 33 cases, which I injected 290 times, using from 30 to 60 minims of tincture of iodine for each injection; on an average, each case was injected about nine times. In most of my cases, both lobes of the thyroid gland were goîtrous. I, therefore, as a rule, performed an injection into both lobes at each sitting. In no case was even faintness produced by the operation; and the only discomforts I observed from the injections were now and then neuralgic pains in the teeth and behind the ears, lasting for a few minutes, and, in one case, a rather troublesome hoarseness was produced, which lasted for about ten days, and then entirely disappeared.

In all my cases, I succeeded in reducing the goîtres considerably, the majority being perfectly cured in from three to six months. In no case did I fail to reduce the circumference of the neck around the

goître less than two inches; and in one severe case of long standing, in a patient aged 19, who suffered from great dyspnœa and dysphagia owing to the pressure of a large adenomatous goître, I reduced the circumference of the neck four inches after twelve injections, using thirty minims of tincture of iodine each time, thus entirely removing the dyspnœa and dysphagia.

In performing injection of iodine for goître, puncture of the trachea or of any large vein must be carefully avoided, a particularly safe spot for puncture being between the anterior jugular vein and the sterno-mastoid muscle on either side. In large goîtres, the injections ought to be done in various parts of the swelling where the goitrous hypertrophy is greatest, and not confined to one spot only; and the injections ought to be repeated every week for three or four weeks, doing both sides, if necessary, at each sitting, and, subsequently, every second or third week, for perhaps three or four more sittings, until a marked diminution is perceived in the circumference of the neck. Some diminution will generally be observable within ten days from the first injection.

A screw hypodermic syringe is the best for the iodine-injections, and the needles ought to be very sharp and clean, as they become easily corroded by the action of the iodine.

Having drawn up from thirty to sixty minims of tincture of iodine into the syringe, before screwing on the needle, adjust the needle to the syringe, and force a few drops of the iodine in the syringe through the needle, so as to effectually expel all air from the needle itself; and, having well oiled it with carbolic oil (1 in 20), push the needle, to the depth of about an inch, well into the goître, and, raising the syringe higher than the point of puncture so as to avoid injecting air, should any remain in the syringe, slowly inject the iodine. When this has been done, rapidly withdraw the needle, pinching up the skin around it to prevent any escape of the iodine.

Care ought to be taken to avoid tight collars while the process of injections are being carried out, and the neck must not be strained or pressed in any way.

Having practised iodine-injections in adenomatous goîtres for several years, adopting the foregoing precautions, I consider the treatment most successful, rapid in its effects, and safe; it is incomparably superior to the tedious and most unsatisfactory treatment by the application of iodine externally and iodide of potassium internally.

W. J. Tivy, F.R.C.P.E., F.R.C.S.E.

CLINICAL MEMORANDA.

HYSTERICAL DROP-WRIST.

On reading the cases of hysterical paraplegia reported by Dr. Suckling and Mr. Mason Pooley in the Journal for January 31st, it occurred to me that a case I treated two years ago may be one of some interest.

I had an urgent call to see E. D., a girl, aged 16, who had suddenly lost the use of the extensor muscles of the wrist. There was no history nor appearance of lead-poisoning, nor injury to the trunk of the musculo-spiral nerve; but, about a year previously, I had treated a ganglion at the back of the wrist by seton. Some good-natured friend had prophesied that she would have paralysis of the hand, and she had brooded over it until she again came under my care. Sensation over the whole arm and fore-arm varied much in a few minutes, at one trial a portion of skin appearing anæsthetic, and very shortly hyperæsthetic. It will be observed that (as in Dr. Suckling's case) there was a "traumatic history." The treatment consisted in impressing on her mind that she would recover, a free use of mistura aperiens alba, and stimulating liniments freely applied. She was well in a week.

Vere G. Webb, L.K.Q.C.P.I, 1, Gladstone Avenue, Wood Green, N.

SURGICAL MEMORANDA.

VESICO-VAGINAL FISTULÆ.

In the number of the British Medical Journal for March 14th, 1885, Dr. Tytler suggests dilatation of the female urethra, and introduction of the left forefinger of the operator into the bladder, in order to press down the anterior vaginal wall, and so facilitate the paring and stitching of the edge of the fistula.

I have always found that, unless the fistula be about central between the neck of the bladder and uterus, the finger would be too short to be of any use; while a metallic depressor, which I am in the habit of using for this purpose, answers perfectly, and does away with any necessity for dilatation of the urethra, and the possible cystitis which may follow. This staff being held by an assistant, whose hand is above the pubes, and well out of the way, leaves the operator with both hands at liberty and an unobstructed view.

The cases that find their way to me are usually either exceptionally severe or difficult, owing to being situated in out-of-the-way corners. A fistula now under my care is high up behind the pubic arch on the right side of the patient, and could not possibly be reached through the urethra by the left forefinger of the operator, even if his finger were a preternaturally long one.

Percy Boulton, M.D.,
Physician to the Samaritan Free Hospital.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 24th, 1885.

George Johnson, M.D., F.R.S., President, in the Chair.

On the Etiology, Pathology, and Treatment of Cholera. By George Johnson, M.D., F.R.S.—The object of the opening address was to submit for discussion the main points relating to the etiology, pathology, and treatment of cholera. Cholera was believed to result from the action of a specific contagium or morbid infecting agency, which might enter the system either with the air through the lungs, or with food, water, or other liquids, through the alimentary canal. In whatever way the poison was introduced, facts were mentioned which tended to prove that it entered the circulation, and that it there probably underwent increase by the conversion of some blood-constituents, which were then excreted through the mucous surface of the alimentary canal, and were ultimately expelled by vomiting and purging; and thus the patient recovered. In the more severe cases, collapse occurred. That this was not the result of the liquid discharges from the system, was shown, Dr. Johnson considered, by the notorious fact that, in the most rapidly fatal cases, there was rather an inverse than a direct ratio between the degree of collapse and the amount of the liquid discharges. A complete arrest of the discharges during collapse was a sign of fatal import; while, on the other hand, there was a continuance of the discharges, in a greater or less degree, during recovery from collapse. The effect of various and opposite modes of treatment was also inconsistent with the theory that the worst symptoms were the result of the liquid discharges. Those methods of treatment appeared to him to have been most successful which had been least repressive in their tendency. The sudden onset and the rapid passing away of extreme collapse were inexplicable by copious exhausting discharges. That the main and essential cause of choleraic collapse was a greatly impeded circulation through the lungs was proved, he thought, by the appearances found after death, and by the complete explanation thus afforded of the chief symptoms of collapse. When the chest was opened soon after death in collapse, the left cavities of the heart were found nearly empty; while the right cavities, the pulmonary artery, and the systemic veins, were distended with blood. Extreme contraction of the pulmonary arterioles was the only probable explanation of this arrest of the circulation. The thickening of the blood was the consequence and not the cause of the impeded circulation. The small stream of blood through the lungs during collapse, with the resulting defective oxidation, explained the suppression of bile and urine; while, in the case of nursing women, the mammary secretion, which was not an oxidised product, continued. The marvellous temporary relief afforded by injecting a hot saline solution into the veins, he attributed to the warmth of the liquid relaxing the arterial spasm, and thus allowing the blood to pass on; while the beneficial effect which had often resulted from venesection was explained by its lessening the distension of the right cavities of the heart, and so increasing their contractile power. Reference was made to other causes of arrested pulmonary circulation, such as pulmonary embolism, exclusion of air, and the inhalation of nitrous oxide gas. He held that intestinal discharges were the means by which the disease was conveyed from the sick to the healthy. In this respect there was a close resemblance between cholera and enteric fever. With regard to prevention, he believed that quarantine was as powerless to exclude cholera as to shut out typhoid fever. The true preventive means were the enforcement of cleanliness and the complete disinfection of the choleraic discharges. An indiscriminate opiate and repressive treatment in the diarrhœal stage was believed to increase the danger of collapse, by preventing or retarding the escape of the morbid poison. An evacuant or cleansing method was consistent with the true theory of the disease, and had been amply justified by a large experience, more

especially by such results as had been recorded by Drs. McCloy and Robertson, in a paper published in the 50th volume of the *Medico-Chirurgical Transactions*. The object and the results of a rational evacuant treatment were, not to increase the discharges from the blood into the alimentary canal, but to prevent the retention and to quicken and facilitate the expulsion of offensive morbid secretions from the stomach and intestines. That treatment of choleraic diarrhœa was the best which most speedily arrested the discharges without subsequent ill effects. On the other hand, the only safe use of opium was to allay irritation after the expulsion of noxious materials.—Dr. KLEIN was invited by the President to give an account of his researches into the etiology and pathology of cholera, and the substance of his remarks will be found in a paper at page 650.—Mr. WATSON CHEYNE said that he would not attempt to discuss fully the theories advanced by Dr. Klein as to the virus and modes of action of cholera, but they seemed to him very doubtful; to take one instance, Dr. Klein stated that, when a patient was affected by cholera, he was not affected by a virus, but by the products of the virus, and that the evacuations themselves did not contain that virus which, apparently, on Dr. Klein's view, only flourished outside the body. For instance, if the arrival of a cholera-patient in an island were followed by an outbreak of cholera, this theory would yet suppose that he brought with him not the virus but only the products of the virus. There were three main points which demanded attention. First, could we find any definite organism in cholera which especially attracted our attention? Secondly, was such organism always present? Thirdly, did we ever find it elsewhere? Koch defined a comma-bacillus as a curved organism which, when grown in gelatine in tubes, had certain characters; on potatoes, certain other characters; and in plate-cultivations also special characters. The sum of these characters gave us a definition of the comma-bacillus. The idea seemed to have got abroad that Dr. Koch defined the bacilli found by him in Asiatic cholera by their microscopic appearances, and that they were comma-shaped. This was, perhaps, a pardonable error for those who had not been working at cultivation-experiments, but Mr. Cheyne was surprised that anyone who had been following Koch's work should have supposed anything of the kind. Indeed, to those working at these subjects, it was evident that Dr. Koch did not attach a diagnostic importance to the curve, for he likened it to the bacillus of glanders, which was also curved in the tissues. How was he to distinguish the two if the curve were the only diagnostic point? He distinguished them by their other characteristics. Koch did not think that, because this organism grew in a certain way in gelatine, it was therefore pathogenic. Could anyone say of any organism seen in cultivation that that organism would prove on trial to be or not to be pathogenic? Dr. Koch was simply teaching us to recognise, by its characteristics, this bacillus from others. As to the second point, its invariable presence in Asiatic cholera, Mr. Cheyne thought that observers were pretty unanimous. The only points of difference between Dr. Klein and other observers in this matter was as to the numbers present, and as to whether they were found in the intestinal wall as well as in the contents. The estimate of the numbers present depended very much on the way in which the examination was made. If the microscope alone were trusted to, a very much smaller estimate would be made; for it was not easy to determine with the microscope what were and what were not Koch's comma-bacilli, especially when they were growing rapidly; for in the early stage many were straight. This was probably the reason why, in acute cases, Dr. Klein found few curved bacilli. Mr. Cheyne had been particularly struck by one instance, where he had made cultivations from a case which had been ill about twenty-four hours, and in which he found, by cultivation, that certainly over 90 or 95 per cent. of the bacilli present were comma-bacilli. He had not, until some weeks later, examined the specimens of the evacuations, which he prepared at the same time that the cultivations were made; he then found that the proportion of distinctly curved bacilli seen by the microscope was very much less indeed, though there were numbers of other small thickish organisms, which he now had little doubt were young comma-bacilli. Considering the situation in which they were described to have been found, he was inclined to think that many of the small straight bacilli, of which Dr. Klein had spoken, were, in fact, young comma-bacilli. In the next place, with regard to their situation, Dr. Koch had said that they grew in the intestinal walls, especially of the lower part of the ileum. Dr. Klein had suggested that the growth might have occurred after death, because he had failed to find them in cases which he had examined very shortly after death. Mr. Cheyne said that he had had a similar want of success, but did not accept Dr. Klein's suggestion as the probable solution. To instance two cases, in which the examination was made, in the one case very shortly after death, in the other twelve hours after death, the result was in both instances negative. He was inclined to suggest that either Dr. Klein and himself had not examined the same part of the intestinal wall as Dr. Koch, or—and this was more probable—that, owing to the difficulty, admitted by Koch and others, of staining the bacilli in the tissues, they had failed to demonstrate their presence, where Dr. Koch, with his longer practice, had succeeded. The third point, whether the comma-bacilli of Koch were found anywhere else than in Asiatic cholera, was, he thought, the cardinal question. This was the state of facts on this point. In every case of cholera, whether it were in India, in Egypt, in France, in Italy, or in Spain, the comma-bacilli described by Koch were present. Therefore, if this bacillus did not accompany the choleraic virus, it must be very generally distributed throughout the world; in fact, it must be commonly present in every individual. There ought, therefore, to be little difficulty in finding it. Now, Dr. Koch had stated that, having this fact in view, he had searched for these organisms in saliva, in fæces, in all sorts of decomposing materials, and in other diseases, and had failed to find them. To this statement, made last summer, he still adhered after further prolonged and exhaustive investigation. When Dr. Koch said that he had searched for these organisms, he meant that he had not only used the microscope, but had tested the materials by cultivation; and when Dr. Koch said that he had failed in this search, he meant that he had not found an organism which presented the same microscopic appearance, together with the same characteristics of growth, as that discovered by him in Asiatic cholera. Not that there was only one comma-bacillus; several were known, for instance, Finkler's, Deneke's, Miller's; of all of these, specimens were shown to the Society; these all differed in a way that could be easily recognised from each other and from Dr. Koch's comma-bacillus. Dr. Klein had stated that he and Dr. Gibbes had found large numbers of comma-bacilli in the evacuations of dysentery and diarrhœa. But were they Koch's comma-bacilli? Before making this statement, did Dr. Klein in every, or any, case make cultivations of these curved bacilli, and satisfy himself that they were Koch's organisms, or was he only speaking from microscopical examination? He hoped that, when he published his full report, he would state precisely the number of cases in which this statement was made on the strength of microscopic observation alone, and the number in which he separated these curved bacilli by cultivation, studied their mode of growth on gelatine, potatoes, and so on, and found them identical with Koch's cholera-organism. Did Dr. Klein consider that these bacteria were identical with Koch's comma-bacillus? If not, why did he mention them? It was a very interesting fact, no doubt, but we were searching for Koch's cholera-bacilli, and if the microscope alone were trusted to, the observation was not in any way decisive. In two cases of English cholera which Mr. Cheyne had examined last summer, the dejecta contained large numbers of comma-shaped bacilli and spirilla. He was, at that time, most anxious to get cultivations of Koch's comma-bacillus; therefore, he spared no pains in the attempt to cultivate these curved bacilli; but, though he had used the same material and methods that were afterwards quite successful in the case of Asiatic cholera, he entirely failed to cultivate any of the curved bacilli. The only case really remaining for consideration was the comma-bacillus of the saliva. Dr. Koch said, in his report, that he had carefully investigated saliva and the accumulations about the teeth without finding the cholera-bacillus; and when Koch stated that he examined anything for bacilli, it did not mean that he merely looked at it with the microscope, but that he cultivated from it as well. Dr. Lewis called attention to the presence of comma-shaped bacilli (resembling Koch's) in saliva; but he brought no proof that they were the same. Dr. Klein, however, now stated that he could cultivate these comma-shaped bacilli from saliva. Dr. Koch had never been able to obtain the cholera-organism from saliva, and had informed Mr. Cheyne that he had entirely failed to cultivate from saliva any comma-shaped organism which liquefied gelatine. This was the result obtained not only by him, but by all the workers in his laboratory, where one of the exercises given to those who were studying the method of detecting the cholera-bacillus was the examination of saliva. Professor Miller, of Berlin, a dentist, had examined the saliva from hundreds of patients; and, at last, from one carious tooth, he succeeded in obtaining a comma-shaped bacillus which liquefied gelatine. On further investigation, this turned out to be closely allied to, if not identical with, Finkler's bacillus, and not with Koch's. During the last four months, Mr. Cheyne had made cultivations from his own saliva and that of others, and had failed to cultivate the comma-bacilli of the saliva. Dr. Klein had said that it was a matter of no difficulty if there were plenty of comma-bacilli present. Through the kindness of Dr. Thin, he had investigated the saliva in a case in

which numbers of these organisms were present. He had entirely failed to cultivate them, although the conditions as to material and temperature were precisely those most favourable to the cholera-bacillus.—Dr. KLEIN asked what material was used.—Mr. CHEYNE replied that he had used the same as he used for the cultivation of the comma-bacillus.—Dr. KLEIN observed that that would account for the failure to cultivate this bacillus.—Mr. CHEYNE thought that, if that were so, the organism must be a different organism from Koch's cholera-bacillus.—Dr. KLEIN assented.—Mr. CHEYNE said that, this being the case, Dr. Klein was at one with him on this point; it therefore appeared that the organism was also present in Asiatic cholera, and was never found elsewhere. What, he asked, was the significance of these facts? If Koch's bacillus had nothing to do with cholera, it was certainly very remarkable that he should have searched for these bacilli in saliva, English cholera, and elsewhere, and failed to find them; yet the very first cultivations he had made from unselected cases of Asiatic cholera, with the same materials and the same methods, were completely successful. He thought it very remarkable that the only case in Paris in which he had failed to find these organisms was a case which had just been admitted into the ward as one of cholera by the nurse, but which had not yet been seen by the physician. When seen by the physician, it was pronounced not to be a case of cholera, and was removed to the general wards. It was a very striking fact, if this organism had nothing to do with cholera, that it should be always present in Asiatic cholera, whether in India, Egypt, France, Italy, or Spain, that it should always accompany the disease, and that it had never been found anywhere else. But what struck him as most remarkable, was the close correspondence between the characters of this organism and certain striking facts as to the etiology of cholera narrated in Mr. Macnamara's work on Asiatic cholera. Of these he would only mention two—namely, that the virus of cholera was destroyed by dilute acids and by decomposition; Koch's cholera comma-bacillus was also destroyed by these agencies. Dr. Klein had referred particularly to the case of a tank containing comma-bacilli which people were drinking without the occurrence of cholera among them; but this fact proved nothing against Koch's view. It might equally be interpreted as showing that the people were not in a suitable state to take cholera. Dr. Klein would, doubtless, admit that the tubercle-bacillus was the ultimate cause of tubercle; and yet he must also admit that many must inhale this bacillus without becoming tubercular. Why was this? Probably because the soil was not in a fit state for their growth. Dr. Klein would, of course, admit that the bacillus anthracis caused anthrax; and yet he had made the interesting observation that at one time the air of his laboratory contained anthrax-spores, apparently in great numbers; and he must admit that in this case the anthrax-bacilli, though inhaled by himself and others, did not cause anthrax; yet woolsorters' disease was known to be often due to inhalation of these bacilli. He would not go into the question of inoculation-experiments further than to mention his own results. Out of fifteen or sixteen injections, he had only two positive results, but in these two cases the results were quite definite; there was diarrhœa, what seemed to be painful cramps, and after death the intestines were found to be red, particularly Peyer's patches, in some of which there were even hæmorrhages. He was perfectly satisfied that these were not cases of septicæmia, for he had examined the blood and tissues for bacteria without finding any; nor did inoculation of animals with blood produce any effect. In the septicæmia of guinea-pigs, large numbers of bacteria were present in the blood. He was surprised that Dr. Klein should have suggested that Dr. Koch did not employ aseptic precautions, for Dr. Koch's method of operating had been published in full detail, and Dr. Klein would observe that Dr. Koch used aseptic precautions quite as rigorous as could be employed. He asked the Society to observe that he was not definitely maintaining that this new bacillus was the cause of cholera, but only that it was a new bacillus, hitherto only found associated with Asiatic cholera.—Professor WARDEN described, in a very few words, the antiseptic precautions which Koch had taken in his experiments. The animal was shaven, the abdomen washed with dilute carbolic acid; and the water in which the cultivations were diffused was boiled. The operators also were under very careful precautions. Under these conditions, experiments with Finkler's bacillus were entirely without results. It was further worth adding that Dr. Koch did mention the small straight bacilli which had been alluded to that evening.—Sir J. FAYRER had listened with great pleasure and interest to the discussion, and had learnt a great deal from it; but still he felt bound to say he was not one iota nearer to the *causa causans* of cholera.—The PRESIDENT announced that a special meeting would be held on Tuesday next, March 31st; and, to give time for a full discussion, it would be half an hour earlier than usual, namely, at 8 P.M.

Specimens were shown at the meeting of various bacilli, including the comma-bacilli of Koch, Finkler, Deneke, and Müller, with a view of demonstrating both their microscopical characters and their naked-eye appearances when cultivated in gelatine, both in tubes and in plates, and also on potatoes. Dr. Klein also showed specimens of cultivations in alkaline gelatine of the comma-bacillus of the mouth, which he had succeeded in cultivating; and Professor Warden showed one specimen of the intestinal wall from a case of cholera in which the *post mortem* examination was made two hours after death, where many bacilli could be seen in the tissue; and also a section of Londer's, showing the curved appearance of that bacillus in the tissues.

MEDICAL SOCIETY OF LONDON.

MONDAY, MARCH 23RD, 1885.

W. M. ORD, M.D., President, in the Chair.

Recovery from Spontaneous Gangrene.—Mr. WALTER PYE showed a patient illustrating the extraordinary powers of repair after gangrene of the scrotum. The patient was a man, aged 50, whose illness began with shivering, followed by inflammation about the penis; gangrene was present twenty-four hours later. In four days the gangrenous swelling burst, and discharged an offensive fluid. The patient was seen for the first time at this period, and there was very extensive gangrene, involving, among other parts, the penis, scrotum, and perinæum. External urethrotomy was performed. The slough came away on the ninth day, leaving the testes and penis bare. An abscess formed a week after this in the left iliac fossa, and burst a week later. In the course of two months, the parts exposed became completely covered by the action of natural processes alone.—The PRESIDENT suggested that at the root of the disease there was a condition allied to noma.—Dr. SANSOM thought that the history and physical characteristic of the case did not agree with that of noma.—Mr. PYE, in reply, expressed his doubt as to the nature of the case, which appeared to be an instance of quasi-spontaneous gangrene.

Clonic Spasms of Upper Limbs.—Dr. C. E. BEEVOR read a paper on a case of clonic spasms of the upper limbs, with anæsthesia of the left side, in a girl aged 16, who had scarlet fever ten years before she came under observation, and, six months after the fever, began to have twitching of the head and face to the left, and movements in both arms. She came under treatment by Dr. Barlow for choreiform movements affecting all the limbs seven years ago; movements had persisted ever since. A year ago, the left arm alone was affected with pronation, extension of the elbow, and adduction of the shoulder, but voluntary movements were possible; she also had occasional rapid twisting of the head, and both eyes were turned to the left. In October, 1884, the right arm was affected in a similar way, and the left arm became anæsthetic and analgesic. When the patient was shown at the meeting, the movements of the left arm were much quieter, but the limb was almost completely paralysed, and anæsthetic and analgesic. The anæsthesia also affected the whole left side of the trunk, head, and neck—except the face, which was only somewhat anæsthetic—down to the umbilical level. Below this level there was a less degree of anæsthesia. In the area of complete anæsthesia, touch, pain, heat and cold, and sensibility to a strong faradic wire-brush were all abolished. In the conjunctiva, nostril, mouth, tongue, and fauces, on the left side, sensibility was deficient. In the left arm there was complete loss of muscular sense to weights and passive movement. Sight was not affected, nor the field of vision; the other senses were not affected, and there was no optic neuritis. In the arms, the muscles affected corresponded, according to Ferrier and Yeo's experiments, to the sixth and seventh cervical nerves. The case was probably an instance of a functional or hysterical nature. The movements were irregularly rhythmical, about sixty to eighty per minute, ceasing during sleep; and, though simulating chorea, were much more regular, and affected only certain muscles; the movements of one arm were synchronous, but the two arms did not move, as a rule, at the same time.—The PRESIDENT said that the case involved many hypotheses. The subject of the significance of deep reflexes, and of their importance in diagnosis, was one which might afford a good subject for discussion. He inquired whether the phenomenon of "transference" had been observed.—Dr. HADDEN had seen three very similar cases, but, in all, the symptoms came on very suddenly. All three patients were hysterical; the affection closely resembled canine chorea, a disease which ended in paralysis, and, as a rule, was fatal. He had found, in dogs, areas in which numerous leucocytes were present around the capillaries. He suggested that nerve-stretching might be of value.—Dr. BEEVOR, in reply, said that he was of opinion that the case might become rapidly cured. He had not attempted to produce "transference."

The Etiology of Phthisis.—Dr. BURNEY YEO read a paper on some points in the etiology of phthisis, in which he dealt with certain criticisms to which the Report of the Collective Investigation Committee had been subjected.

BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, MARCH 11TH, 1885.

ALFRED MEADOWS, M.D., F.R.C.P., President, in the Chair.

THE inaugural meeting of the Society was held at 11, Chandos Street, on March 11th, at 8.30 P.M. There were present 72 Fellows, and 10 visitors.

Uterine Fibroid Tumour.—Dr. WALLACE (Liverpool) showed a specimen consisting of part of the body and fundus of the uterus involved in a mass of multiple fibroid tumours, submucous, intramural, sessile, subperitoneal, and pedunculated subperitoneal. With these were both ovaries and oviducts. The tumours had been removed by abdominal section. The patient was a widow, 39 years old. The operation was undertaken on account of intense pain from locking of the pedunculated subperitoneal portion beneath the pelvic brim.—Dr. ROUTH thought it would have been better to delay the operation.—Dr. EDIS concurred in the opinion expressed by Dr. Wallace, as to the expediency of removing tumours of this nature when the symptoms were sufficiently urgent to justify an operation.—Dr. BANTOCK thought that the time was not far distant when it would be considered the best practice to remove these tumours at a much earlier period than was now the rule.—Mr. LAWSON TAIT said that, although the operation still showed a mortality of 25 per cent., Dr. Wallace's proceeding was fully justified. It was further an illustration of the propriety of early interference instead of waiting until the patient was half dead from the progress of the tumour, or from acute peritonitis caused by its death.

Pyosalpinx.—Dr. AVELING exhibited two Fallopian tubes and ovaries which he had removed from a patient, in the Chelsea Hospital for Women, suffering from double pyosalpinx. The tubes together contained fifteen ounces of pus.

Fistula caused by a Pessary.—Dr. BANTOCK exhibited a Blackbee's vaginal pessary, which he had removed from a patient aged 67, in whom it had caused a vesico-vaginal fistula. The pessary had been worn fourteen months, and was incrusted with vaginal phosphates. The pessary in question was faulty in construction and dangerous in action.—Dr. AVELING said that all spring pessaries were bad. He had lately removed one which had eaten into the vaginal wall.—Dr. SINCLAIR COGHILL (Ventnor) attributed the improper use of pessaries in many cases to want of a proper anatomical knowledge of the relations of the pelvic organs, which were often erroneously described in text-books.—Dr. DOLAN (Halifax) said that the Society was doing good work in directing attention to the use and abuse of pessaries. The teachers of obstetric medicine in the metropolis should instruct students in the true use of the pessary.—Dr. HEYWOOD SMITH considered that, as misplacements resulted in, or were occasioned by, abnormal conditions of the vagina, pessaries must be constructed to obviate such misplacements irrespectively of the normal state.—Dr. BARNES had a patient in St. George's Hospital, in whom a large opening had been made into the bladder by a cotton-reel which she had introduced to cure leucorrhœa. He thought a memorandum should be given to every patient, in the form of a prescription, stating that a pessary had been applied, with directions when it should be removed or examined.—Mr. BURTON (Liverpool) said that medical men were often blamed for pessaries being left in too long, when the oversight was really owing to stupidity or carelessness on the part of the patients themselves. He himself always gave full instructions to patients wearing instruments, and he believed that other practitioners did the same.

President's Address.—The PRESIDENT delivered an address, which is published at page 646.—A vote of thanks to Dr. Meadows for his able address was proposed by Dr. BARNES, seconded by Mr. LAWSON TAIT, and carried by acclamation. The meeting then adjourned.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, MARCH 19TH, 1885.

THOMAS MORTON, M.D., President, in the Chair.

The Early Treatment of Concomitant Squint.—In this paper, Mr. W. ADAMS FROST submitted that in practice the truth and importance of the following propositions was not sufficiently recognised. 1. This form of squint seldom recovered spontaneously. 2. It led, in a few months, to very great impairment of the vision of the squinting eye. 3. The majority of cases could, in the early stages, be cured by correcting the hypermetropia with glasses. The binocular character of this form of strabismus, and the distinction between a "fixed" squint and an alternating one, were briefly illustrated by means of Mr. Priestley Smith's model. The popular notion that children squinted from imitation or caprice, and that they grew out of it, was entirely erroneous. Among the cases treated at St. George's Hospital during the last four years, 60.5 per cent. presented amblyopia of the squinting eye. Amblyopia never appeared while the squint was alternating. Of the cases in which there was no amblyopia, in the above series, 41.6 per cent. were alternating. It commenced directly the squint became fixed. Hundreds of eyes were lost every year from neglected squint. If, when all accommodation was rendered impossible by the application of atropine, the squint disappeared, it would almost certainly cease by correcting the hypermetropia. Spectacles could be given at a very early age. Mr. Frost had often ordered them for children under 4 years, and had never found reason to regret having done so. When a child was too young to wear glasses, treatment might be postponed if the squint were really alternating; if it were fixed, either an operation was necessary, or the other eye must be covered, to save the squinting eye from amblyopia.

Resection of the Intestine.—This paper was read by Mr. FREDERICK TREVES. The operation in question dated from about the year 1878, although many isolated instances had been recorded much earlier. About 150 cases were now on record. The operation was applicable to both the small and the large intestine, and had been performed for the following conditions: (1) simple and epitheliomatous strictures; (2) neoplasms other than cancer; (3) extensive matting of the bowels, involving obstruction; (4) irreducible intussusception; (5) gun-shot and allied injuries of the bowel; (6) gangrenous gut in hernia; (7) fæcal fistulæ. It might also be applied to certain perforating ulcers of the intestine. The operation implied merely the application to the intestine of a simple and recognised plan of treatment which was adopted in corresponding conditions to other parts of the body. In most of the affections named, enterotomy and colotomy offered the only other means of treatment; they gave temporary relief only, leaving the cause of the disturbance untouched. In another series of cases, the removal from the body, as early as possible, of gangrenous and putrid parts was obviously indicated. Lastly, the mortality in gun-shot wounds of the bowel was so exceedingly high, that the operation had in these cases great claims to consideration. The manner of operating was illustrated by enterectomy, and there were two procedures. In one, the divided ends were united by sutures immediately after the resection; in the other, the part was excised, and an artificial anus established, which was closed after a time by a second operation. The abdomen having been opened, the loop to be excised was drawn out and placed upon a sponge. The gut above and below was secured, either by the fingers of an assistant, or by special clamps introduced by Rydygier, Bishop, Makins, and Treves. The gut was excised, and with it a triangular piece of the mesentery, the cut edges of the latter being united by a few points of suture. If the bowel were to be united, the best material was Chinese twist, applied by Hagedorn's needle and needle-holder. Of the various sutures, the Czerny-Lembert was the best. A row of sutures was introduced involving only the mucous membrane, and a second row involving only the peritoneum. About fifteen points of suture were needed for the first row, and about twenty-five for the second. Of the two methods, the second was by far the better. Most of the patients were not in a condition to bear a protracted operation. Moreover, the first method did not give complete relief to the obstruction, did not ensure emptying the bowel above the obstruction, and involved great risk from fæcal extravasation, owing to the distended state of the gut, and to the great risk of gangrene along the suture-line. Moreover, there was great difficulty in uniting the much dilated upper segment to the shrunken segment below. The mortality of the operation was discussed, its simplicity urged, and a hope was expressed that its application would be cautiously and more widely extended.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, MARCH 6TH, 1885.

FREDERICK LAWRANCE, M.R.C.S., President, in the Chair.

Fracture of Occipital Bone: Tetanus.—Mr. BRUCE CLARKE showed a boy aged 9, who was convalescent from a compound starred fracture of the occipital bone. Tetanus with emprosthotonos set in on the thirteenth day.

Peritoneal Abscess following Enteric Fever.—Dr. THOROWGOOD read notes of two cases of peritoneal abscess following attacks of enteric

fever. Case I was a girl aged 10. Illness commenced on December 2nd, with symptoms of true peritonitis; typhoid spots appeared subsequently. The temperature dropped to normal on December 23rd; and on Christmas day a swelling appeared at the umbilicus, which, on being punctured, discharged a large quantity of fœtid pus. A drainage-tube was inserted, and beef-tea, brandy, and tonics were given; and, notwithstanding congestion of the base of the right lung, the wound was quite healed by January 17th. The patient made a good recovery. Case No. II was a woman, aged 30, admitted into the West London Hospital on October 14th, 1884. The attack commenced on September 27th, with rigors, followed by vomiting and diarrhœa. The temperature on admission was 100° Fahr.; pulse 132. There was a good deal of abdominal pain and tenderness; and, on October 17th, two typhoid spots were observed, together with pea-soup motions. On the 21st, an abscess was opened under the jaw, which discharged healthy pus. On November 2nd (temperature was 101° Fahr.; pulse 132), a troublesome cough supervened, followed by a copious expectoration of pus mixed with blood. There was dulness, with crepitant *râles* at the base of the right lung. On November 6th, the abdomen was noticed to be swollen, and there was distinct fluctuation, which gradually became less perceptible as the abundant expectoration of pus continued. The patient died of asthenia on January 26th, 1885. At the *post mortem* examination, pus was found in the abdomen, similar to that expectorated. A large abscess-cavity was found quite distinct from the rest of the peritoneal cavity, and the pus had worked its way upwards, piercing the diaphragm on both sides.—Dr. TRAVERS wished to know what Dr. Thorowgood's own opinion was with regard to the second case, and alluded to the fact that the cause or origin of many of these abdominal abscesses was very obscure, no cause frequently being discoverable. He mentioned the case of a friend of his, in whom a communication had been established with the lung on one side, and who had acquired the power of breathing with the other lung alone, except for the express purpose of expectorating the gradually accumulated pus.—Dr. THOROWGOOD, in reply, said that he inclined to a diagnosis of typhoid fever, but could not affirm it, as no evidence of ulceration was found in the intestines at the necropsy.

Hemiplegia in a Child.—Dr. HERRINGHAM showed a child, aged 3½ years, in whom hemiplegia had come on fourteen months ago. There was at that time palsy of the left arm and leg, and of the lower facial muscles of the left side, with almost complete palsy of the third nerve on the opposite side. Rhythmical tremors of the left side, increased by exertion, began even before the palsy was noticed. The right third nerve had now almost recovered, but contraction and rigidity had set in on the left side, and were increasing. The child was in good health and was growing fast. There was no mental defect nor optic neuritis, and no history of rheumatism or syphilis. The heart was normal. Iodide of potassium, arsenic, and tonics had been without effect. The diagnosis was a lesion in the right crus cerebri. In answer to certain gentlemen, who on a previous occasion had diagnosed it as a case of chorea, Dr. Herringham said that no one who had watched the case could possibly take that view, as the symptoms were distinctly different in every essential particular, unless, indeed, they took chorea to mean "anything that shakes." Its chronicity militated against the possibility of its being due to a cerebral tumour.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, MARCH 4TH, 1885.

T. H. BARTLEET, F.R.C.S., President, in the Chair.

Deformity of Wrist Treated by Excision of the Radius and Ulna.—Dr. THOMAS showed a patient on whom he had resected about an inch from the centre of the shafts of the left radius and ulna, to remedy severe angular ankylosis of the wrist. The bones of the forearm had been fractured in 1881, and, during the treatment, a deep slough formed on the posterior aspect, leaving a cicatrix about two inches in length, closely adherent to the bones. The wrist was firmly ankylosed in a position of acute flexion, and the use of the arm was further impaired by an unreduced dislocation at the elbow. The cicatrix was dissected away, and about an inch of the bones removed. It was found that the wrist-deformity was very little affected immediately, though considerable improvement ultimately followed. The ends of the two bones were placed together, the corresponding periosteum being united by fine catgut-sutures. Considerable opening out of the angle of the wrist was secured, so that the arm was much more useful than before.

Adeno-sarcoma of the Breast.—Mr. JORDAN LLOYD showed a tumour which had grown in the breast of a girl, aged 19, within a period of eight months. The tumour was movable in all directions; at times painful, and rapidly growing; the skin was full, and traversed by large veins; the glands in the axilla enlarged. The whole breast was excised, the skin plentifully sacrificed, and the axilla thoroughly cleaned out. The patient had done well since. Microscopic sections were shown, proving the growth to be an adeno-sarcoma.

Estimation of Urea.—Dr. SUCKLING showed Squibb's apparatus for the estimation of urea, and recommended it as being cheap, portable, and accurate.

Cerebral Syphilis.—The patient, under the care of Dr. SUCKLING, who read notes of this case, was a woman, aged 30, who had had two miscarriages last December. She was taken ill with severe pains in the head, vomiting, and vertigo, and was confined to bed for three weeks. She attended the Queen's Hospital as an out-patient in February, and had been treated with iodide of potassium in increasing doses. There were paresis of the right side, with increase of the deep reflexes; paralysis of the right third nerve, and peripheral paralysis of the left facial nerve, "the reaction of degeneration" being well marked. Dr. Suckling pointed out the multiplicity of the paralyses as being very characteristic of syphilis, and indicated the probable situation of the growths. There was no optic neuritis. The hemiplegia and paralysis of the third nerve were improving rapidly under the administration of thirty-five grains of iodide of potassium thrice daily, but the facial paralysis remained unaffected.

Peripheral Monoplegia.—Dr. SUCKLING also showed a case of peripheral monoplegia in an infant aged five months. The paralysis dated from birth, great difficulty being met with in delivering the shoulder. There were anæsthesia and contraction. The reaction of degeneration was present in a severe degree. He believed the accident to be a very common one, and urged the necessity of immediate treatment.

Spontaneous Rupture of the Œsophagus.—Dr. PURSLOW showed a specimen of spontaneous rupture of the œsophagus into the left pleural cavity, from an infant aged eleven months. There was no appearance of ulceration in the wall of the stomach or œsophagus, and no trace of a foreign body. The child was admitted with bronchitis twelve hours before death, and the fatal termination was sudden and unexpected, and preceded by convulsions.

Concomitant Internal Strabismus.—Mr. EALES read a paper on concomitant internal strabismus, and drew attention to its being almost invariably associated with hypermetropia. He then explained the mode in which the defect in focus brought about the squint, and, having alluded to astigmatism and certain other conditions causing defective vision in one eye, pointed out how uni-ocular defect contributed, in a large degree, to the occurrence of strabismus. He maintained that the essential cause was the hypermetropia, and that most cases, if taken in time, might be cured without operation by wearing suitable glasses. He thought operation should not be resorted to till glasses had failed to cure the squinting, and considered them necessary adjuncts in the after-treatment. He thought that the cure of squint by atropine-drops, without the aid of glasses, was most improper, as the patient's vision was then bad for both distant and near objects. He had, in a few cases, cured squint by eserine-drops but found this result to be very rare. He thought this method of treatment only worth a trial in children too young to wear glasses.

WOLVERHAMPTON DISTRICT MEDICAL SOCIETY.

THURSDAY, MARCH 5TH.

J. McN. BALLENDEN, M.D., President, in the Chair.

Inguinal Hernia.—Mr. VINCENT JACKSON showed two children, lately operated upon for the radical cure of a severe form of inguinal hernia. The operation consisted in ligaturing and excising the sac, and closing the external ring with silver wire sutures. No truss had been worn since the operation, and its curative character had been well tested, as each child had been a sufferer from whooping-cough since its performance.

Epithelioma of Tongue.—Mr. VINCENT JACKSON also showed a tongue removed on account of an epithelial cancer of the left side; the point of interest being the fact that, although the excision was slowly performed by the chain-écraseur, yet, upon detachment, both lingual arteries required ligaturing.

Adjourned Discussion on Puerperal Fever.—Mr. CROCKETT then continued the discussion adjourned from the last meeting, by reading a paper on puerperal fever, which, after alluding to the varied nomenclature and treatment, he divided into the three varieties of "inflammatory," "sapræmic," and "septicæmic;" and subdivided all cases

into autogenetic and heterogenetic. As to treatment, he strongly insisted on thorough antiseptic precautions, and thought that the hyposulphites promised to be useful.—The debate was continued by the Chairman, Drs. Totherick and S. Smith, and Messrs. Newnham, Jackson, and Magrane.

Dr. LYCETT then exhibited an instrument for facilitating the radical cure in pyopneumothorax, and also an instrument for dilating the cervix uteri.

REVIEWS AND NOTICES.

CONTRIBUTIONS TO THE TOPOGRAPHICAL AND SECTIONAL ANATOMY OF THE FEMALE PELVIS. By D. BERRY HART, M.D., F.R.C.P.Ed., Lecturer on Midwifery and Diseases of Women, School of Medicine, Edinburgh; Assistant-Physician, Royal Maternity and Simpson Memorial Hospital, Edinburgh, etc. Edinburgh: 1884.

ONE of the healthiest signs in the history of contemporary obstetrics and gynæcology is the demand for anatomical knowledge of that class which has long been familiar to the general surgeon. A still more satisfactory feature is the increasing supply of works affording such knowledge. These publications can hardly be prepared except by authors cognisant of the principles on which anatomy should be taught. Every word committed to paper, and every diagram and illustration, must be derived directly from the subject, or, at least, from an accessible authority, to which the reader can refer in the dissecting-room or library for proof. The sources of self-deceiving fallacies are fewer and less subtle than those which may affect pathological works, and infinitely less than such as tend to vitiate surgical complications. Hence a writer is generally competent to judge for himself if he can write an anatomical treatise; but this is far from being the case when the preparation of a pathological or clinical book is contemplated. There can also be no doubt that the study of anatomy should be encouraged amongst practitioners, many of whom are too ready to avow that they have forgotten a great deal of anatomy, knowing that they dare not admit that they have forgotten some of their clinical knowledge, even if they should feel that such is, unfortunately, the case.

In regard to the work under consideration, it is self-evident, for the reasons we have above stated, that it could not be even attempted by anyone who only possessed a superficial knowledge of the subject, as it is of a class where mere compilation is an impossibility. The name of its author is, however, an especial recommendation, and his previous works have established his authority. The contributions form a large atlas, illustrating frozen sections on Braune's principles. No doubt we must never forget that freezing produces several unnatural changes in a body, nor must we fail to remember the difference between a corpse, with its empty pulseless arteries, and a live subject. The changes in the lips and the sharpening of the outline of the nose after death are very suggestive in this respect. Dr. HART wisely prints the words "frozen serum" on certain interstices between the viscera represented in his diagrams; and every schoolboy, besides Macaulay's, is aware of the difference in bulk of any liquid before and after freezing, and this rule applies to the fluid within the interstices of the tissues. Nevertheless, such sections are amongst the most valuable preparations of soft parts that can possibly be procured and preserved.

The plates include a fine sagittal mesial section of the pelvis, two sagittal lateral, and several axial coronal sections, some diagrams in relation to structural anatomy, and a diagram of a bony pelvis, explaining the direction of the sections in the other plates. The sagittal mesial section is exceedingly valuable, and deserves to be copied in future text-books on anatomy or obstetrics; it shows at a glance the absurdity of the still prevalent notion that the vagina lies against the curve of the sacrum, and demonstrates very clearly the level of the point of the coccyx, and its relations to the soft parts.

The subjects chosen for sections have not been entirely free from pathological changes, as, in one of them, traces of old pelvic cellulitis existed, drawing the uterus somewhat to the left; but this condition is not to be regretted, as some most instructive appearances are in consequence displayed in the illustrations. Thus the left, or affected, broad ligament has been greatly thickened, and a portion of the cavity of the bladder lies completely to the right of the uterus.

The author dwells, in his explanatory text, on four subjects suggested by the sections, namely, the position of the uterus and its appendages; the relations and boundaries of the ischio-rectal fossa; the structural anatomy of the pelvic floor, with special reference to prolapsus uteri and what occurs during parturition; and the relations of the ureters in the operation of excision of the entire uterus, through the vagina, for carcinoma of the cervix. The sections confirm His's opinion, that the long axis of the ovary, lying at the side towards which the ovary is displaced, is vertical, while that of the other ovary is more or less transverse. It would have been more satisfactory had Dr. Hart dwelt more on the true position of the fimbriæ of the Fallopian tube—a subject of high importance in relation to the transit of the ovum, to the pathology of tubo-ovarian cysts, and to the changes observed in the region of the tube and ovary, when chronic perimetritis has existed. In Plate IV, the ovarian fimbria appears to be represented in its correct position, that is, running upwards and inwards on the surface of the ovary; but it would have been better had the author placed an indicating letter against that fimbria, so as to distinguish it from the others, which appear to run towards the infundibulo-pelvic ligament. The relations of the ischio-rectal fossa are very satisfactorily displayed.

It is in regard to the structural anatomy of the pelvic floor that Dr. Hart holds very special views. In a previous work, he maintained that the pelvic floor is a compact unbroken layer, except during certain stages of parturition and in the genu-pectoral posture after air is admitted into the vagina; that the vagina and urethra are slits in that floor, running parallel to the conjugate of the pelvic brim, that is to say, at an angle varying from 60° to 100° to the horizon; and that ordinary intra-abdominal pressure presses the pubic segment against the oblique sacral one. Extraordinary intra-abdominal pressure dislocates downwards that part of the pelvic floor lying in front of the anterior rectal wall, pressing down the uterus, which is attached to the top of the vaginal wall, causing prolapsus uteri. Between the anterior rectal and posterior vaginal walls is, therefore, a line of cleavage, at which the hernia of prolapsus uteri occurs. The pubic segment is drawn partly above the brim during parturition, whilst the sacral is driven down and thinned out. As intra-abdominal pressure rarely forces intestine into the space of loose tissue between the bladder and the anterior vaginal wall, it is not surprising that anterior vaginal enterocele is rare.

In studying the sections which are illustrated in the *Topographical and Sectional Anatomy of the Female Pelvis*, as well as by dissecting fœtal pelves, Dr. Hart has found that the urethra and vagina are separated from the surrounding parts by a perfect ring of loose connective tissue. This tissue separates the urethra from the pubis (retropubic fat), and is continued laterally over the inner aspect of the obturator internus and levator ani, passing posteriorly between the rectum and the posterior vaginal wall. All the structures included in this ring, not excepting the uterus and its appendages, constitute the displaceable portion of the pelvic floor; whilst the tissue attached to the sacrum, the bowel in the pelvic floor, and the lateral structures just described as external to the ring of loose tissue, are all fixed constituents of the floor. Thus, in a complete prolapsus uteri, all the latter structures remain in their place, whilst the ureters follow the displaceable elements in the floor. Dr. Hart then proceeds to show how not only the perinæum, but also the ring of loose tissue, may be strained and relaxed, so that, in tedious labour, the displaceable portion of the pelvic floor may be greatly relaxed from its connections with the fixed part. Hence result prolapses and displacements.

Dr. Hart demonstrates that the ureters are not nearly so close to the cervix as is often supposed, being about one inch distant from the vaginal portion of the cervix, and one inch from the side of the uterus, so that they could only be injured by very wide cutting.

We have shown, by the above summary of its contents, that Dr. Hart's *Contributions* must be awarded a high rank amongst illustrated works on the anatomy of the female pelvis, on account of the experience of the author, the excellence of the illustrations, and the important discoveries concerning the relations of the pelvic viscera, which they so clearly illustrate.

ADULTERATION OF MILK.—Henry Page, Wanstead, who was brought before the magistrates at West Ham for selling milk which, upon analysis, was declared to have been adulterated with 17 per cent. of added water, pleaded guilty, and, in defence, said it was a "soaking wet day" when the sample was taken; and he suggested that, when he lifted up the lid of his can, some rain must have dropped in. The bench, unfortunately for the offender, thought there were other and less accidental means by which the adulteration might have been effected, and consequently imposed on the delinquent a fine of 40s. and costs.

1. A Practical Treatise on Urinary and Renal Diseases. By Wm. Roberts, M.D., F.R.S. Fourth Edition. Assisted by Robert Maguire, M.D. London: Smith, Elder, and Co. 1885.
2. Études sur la Pathologie du Rein. Par Cornil et Brault. Paris: Félix Alcar. 1884.

There are two books of the present time which, we feel confident, will not fade entirely out of memory with the present generation; these are, Murchison on *Diseases of the Liver*, and Roberts on *Urinary and Renal Diseases*. Our ground for this confidence is, that they are both based on the widest observation of disease, and teem with facts which year by year become more fruitful of meaning. It is to be regretted that books like these should undergo the process of being brought up to date by some other than the master-hand. This operation is a sacrilege, something like marrying a man's widow, and at the same time defacing the children he has left.

Everyone should be by this time familiar with the general scope and character of Dr. Roberts's book, which deals not simply with Bright's disease, but with all forms of urinary and renal diseases which come under the notice of the physician. His account of urinary calculi is probably the best in our language, while equally full accounts of the less common diseases, such as cystic degeneration, cancer of the kidney, paroxysmal hæmoglobinuria, parasites in the kidney, etc., are not to be found in any other systematic work by an English writer. For the practitioner, the book abounds in valuable information, especially of a practical kind. All the chemical procedures are clearly described, and are simple and trustworthy. In all matters of clinical chemistry, there is no better guide than Dr. Roberts. Perhaps one of the best chapters in the book is that on obstructive suppression of urine; it affords abundant evidence of the close, accurate, clinical observations for which we specially prize this book.

We must confess to some disappointment with the attempts to bring the various subjects up to date. While admitting the difficulty of the task, we have seen it recently so well done by Lépine and Havelburg, that there is less excuse than there would have been had the whole labour devolved on the present editor.

Perhaps the most serious omission is the failure to take account of the recent writings on the morbid anatomy of Bright's disease, and the repetition of the old opinion found in the edition of 1876 that the dual doctrine of Bright's disease has been placed, by the writings of Johnson, Wilks, and Dickinson, "beyond reasonable doubt." This opinion is certainly not that of the younger school of pathologists in this country.

Urobilin has been shown by MacMunn to be produced by oxidation, not by reduction of bilirubin, as stated here on the authority of Maly. Febrile urobilin is not mentioned among the urinary pigments. The iodine-test for bile-pigment is not given, though it is often better than nitric acid. We would suggest that to dilute the urine with water in an urine-glass, and then to add nitric acid or weak solution of iodine, affords a much better demonstration of the bile-pigments than mixing the two drops on a piece of white porcelain.

For the determination of uric acid, Haycraft's silver method is not given. We would direct attention to the excellent remarks of Dr. Roberts on oxaluria, with which we cordially agree.

More than once throughout the book it is stated that the excretion of urea in all forms of Bright's disease is always diminished, though the careful observations of Grainger Stewart and Bartels have shown that, in the contracting kidney, the urea excreted remains about normal, so long as the quantity of urine secreted continues to be large.

Ozonic ether, an excellent test for pus, is not mentioned, nor are we told of the use of pepsine to dissolve clots in the bladder in cases of hæmaturia.

The chapter on Hæmoglobinuria has been rewritten. When a patient is having paroxysms every day, or oftener, we believe the hæmoglobin does not disappear entirely, as here stated, though the urine becomes lighter; it may be detected by testing with guaiacum and ozonic ether. The chocolate-sediment contains very little detritus of blood-corpuscles, and is chiefly composed of amorphous urates. The prognosis as to ultimate freedom from the attacks is given more cheerfully than we should have thought the knowledge we possess warrants, but it is a point on which we have much to learn. Gull's view, that the attacks sometimes have a traumatic origin in the first instance, is not unsupported, as is here suggested; cases published by Rosenstein and Botkin confirm this opinion, and merit our authors' attention.

The subject of Bacteruria is new, and the chapter will be read with interest.

In speaking of food-albuminuria, the notion advanced by Brunton and Power, that a difference in the coagulation-point exists between food-albuminuria and that of Bright's disease, is quoted, although its accuracy has been seriously called in question.

The account of the retinal changes omits all mention of Eales's careful report on the state of the fundus in one hundred cases of granular kidney. Gowers's observation on the diminution in the size of the retinal arteries is quoted, but the qualifications given by him are not stated. He says "it is not invariable, even when the tension of the pulse is very high."

In discussing uræmia, the statement is allowed to pass that the normal blood contains ammonia, although this is now known to be erroneous.

Recent papers of merit on many other subjects are left unnoticed, notably that of Stevens on suppurative nephritis, and Windle on sarcoma of the kidney.

As a monument of the genius and industry of its author, and as a mine of information of the most valuable kind, Roberts *On Urinary and Renal Diseases* deserves a place in the library of every medical practitioner; but we feel strongly that this edition fails to give an adequate representation of the present state of our knowledge in many of the departments of disease which it discusses.

Cornil and Brault's beautifully illustrated volume is characterised by the precision and logical arrangement of facts and arguments which constitute a distinguishing feature of French scientific literature; but, to our mind, it is very far from being a satisfactory or conclusive work.

The authors appear to have studied their subject too exclusively from the standpoint of morbid anatomy and experimental pathology, and too little from the only real source of knowledge, clinical observation. They maintain strongly the doctrine of duality. They divide nephritis into two groups—1, diffuse nephritis; and, 2, systematic nephritis, the latter being subdivided into glandular and vascular. While admitting that a diffuse lesion may give rise to either a large or a small kidney, they contend that the typical small red kidney is purely vascular, while they claim that, under some circumstances (for example, chronic lead-poisoning) the lesion may affect the tubes only.

We allow that, anatomically, such distinctions may be made, but we believe that they cannot be established clinically, and that cases which run the characteristic course of the so-called "cirrhotic kidney," generally show, *post mortem*, the lesions of diffuse nephritis.

We think that the different results quoted at page 157, as following cantharides-poisoning in rabbits, go to support the view that the process in all cases is the same, and that its incidence depends upon its intensity at some given time. We dissent altogether from the opinion that the small red kidney is not inflammatory.

If these skilful histologists would publish a series of cases, not picked for their own purposes, but selected as presenting the typical clinical characters of the so-called different forms of Bright's disease, giving the clinical and anatomical details, we should be quite open to conviction. This, and this only, seems to us the method by which the discussion can be set at rest.

While many of the drawings are excellent, others are very poor, notably those showing the formation of cysts and the changes in the vessels.

The plan recommended in preparing the kidney, is by hardening in a one per cent. solution of osmic acid, preceded by immersion for one or two days in Müller's fluid, or alcohol if there be much fat present, the tissue being again hardened in alcohol before cutting. Freezing does not seem to be recognised as a means of obtaining thin sections.

Permanganate of potassium has been much extolled as an emmenagogue. Dr. T. L. Dix, in a communication to the *Druggists' Circular*, says that the black oxide of manganese is more efficient, cheap, and easily given. A more eligible preparation is said to be that thrown down in a solution of a soluble salt of manganese by carbonate of ammonium. This consists at first of carbonate, which, by exposure, becomes manganoso-manganic oxide. Dr. Dix says that both this, and the black oxide, have proved "most efficient agents in amenorrhœa and dysmenorrhœa." In fact, it is so efficient in the former as to supply reasons for thinking it would, if timely given, prevent conception and produce abortion within the first two or three weeks of pregnancy."

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 28th, 1885.

THE POISONS BILL.

BY the provisions of this new Bill, it is proposed to consolidate into one Act all previous legislative enactments dealing with the sale of poisons. This Act will govern all sales, both in Ireland and Great Britain. The provisions of the Arsenic Act of 1851 are also transferred to the Bill, and this measure will put an end to the necessity of keeping a special book in which to record the sales of the drug. Carbolic acid, we notice, is included in the third part of the schedule, so that it may be sold by persons not registered as chemists. Whether it is desirable to permit the sale of so powerful a toxic agent to pass into the hands of grocers and others, who in all probability would know very little of its action and uses, is perhaps open to question. The provisions of Clause 13 are of some importance to medical men. It appears that, if any medicine prescribed by a legally qualified practitioner, for external use only, contain any substance mentioned in the first part of the schedule, in such quantity as to be poisonous, the bottle in which it is contained must bear the word "poison." This is a wise enactment, and will do much to lessen the number of those unfortunate accidents which are now-a-days of too frequent occurrence.

In the recent debate on the new Poisons Bill, in the House of Lords, Lord Carlingford spoke at some length on the subject of the patent medicine stamp-tax. He condemned, unhesitatingly, the custom of permitting proprietary medicines to bear the Government stamp, on the ground that it was impossible to disguise the fact that the stamp was taken advantage of by unscrupulous people, to make ignorant purchasers believe that the contents of the bottle had been analysed by authority, and had received official endorsement, whilst in reality, it meant nothing of the kind, and was merely a certificate that the article had paid duty. The only argument that could be used in favour of the retention of the tax was that it brought in a certain sum of money to the Treasury. In the new Bill, it was not proposed to deal with patent medicines in any way. It was not meant that they were exempt from the provisions of the Act, but simply that nothing was said about them. "I am obliged," he said, "to deal with the facts as I find them; I must deal with patent medicines as I can. The Bill proposes to deal with them in this way. It does not mention patent medicines in any way, either by way of exemption, or by way of restriction..... It puts patent medicines absolutely upon the same footing with all other medicines. It makes no distinction between cases where a certain person has compounded a certain medicine, and cases where that is not the case, nor between cases where the Government stamp is used, and where it is not used."

The law, therefore, will in future stand as follows. A person in selling any compound containing poison, whether it bear the Government stamp or not, will do so at his own risk. If he believe it to be innocuous, and not to come within the meaning of the word "poison" or "preparation of poison," as used in the Act, he may sell it freely without the restrictions of the Bill or of the present law—but he will do so at his own risk. If, in the case of any particular medicine, whether it be a so-called patent medicine or not, it should be proved upon judicial investigation that it comes within the meaning of the Bill as containing dangerous quantities of poison, the person having so sold the article will be subject to the restrictions and conditions of the Bill, and if convicted will be liable to a penalty; and that article having been proved to be a poison will not in future be indiscriminately saleable, but will be saleable only under the restrictions of the Bill. This is clearly a most unsatisfactory state of affairs, and we confess to a feeling of disappointment at finding that the Lord President has not had the courage of his opinions. He dilates at considerable length on the iniquity of the tax, and ends up with the lame and impotent conclusion that he is not prepared to take any action in the matter.

Dr. Balthazar Foster, the President of Council of the British Medical Association, in a letter to the *Times* of August 13th, writing on this subject, says: "Passed originally as a means of raising revenue for the war against Napoleon, this Act has survived to the present day in direct contravention of our policy of free trade, till now, under its most recent interpretation, it threatens to cripple commercial enterprise, and to obstruct scientific inquiry. Its baleful effects in giving a quasi-Government sanction to many worthless preparations, and thus bolstering up a nefarious traffic, cannot be too strongly condemned, more especially as the poor and the ignorant are the chief sufferers." It will be remembered that, at the meeting of the British Medical Association held at Belfast in August last year, it was pointed out (1) that it was unjust to impose a tax on medicines; (2) that the Act, as recently interpreted, promised greatly to impede the importation and use, especially in hospital-practice, of medicines of foreign origin; and (3) that the Government label issued under the Stamp Act was largely taken advantage of by patent medicine manufacturers to give the appearance of Government endorsement to their productions, and lead the public to suppose that the properties of their medicines were sanctioned by authority.

The *Times*, commenting on these statements, remarks: "These varied proposals hardly admit of dispute If a medicine be good, it is assuredly unjust to raise its price by a tax; while, if it be deleterious, or if it does not possess the properties which its makers advertise, it is wrong that it should bear a Government label, which may mislead the buyer."

It will be remembered that, at the last meeting of the Parliamentary Bills Committee, it was decided that an influential member of Parliament should be invited to ask the Chancellor of the Exchequer if he had received from the Board of Inland Revenue those reports on the medicine stamp-tax which, in the House of Commons, on August 7th, he undertook to study with care; and, if so, what action he proposed taking in the matter. In reply to Dr. Cameron's question to

this effect, the Chancellor of the Exchequer stated that he had considered the question, and had consulted with the Lord President of the Council. After this statement, it is to be hoped that some decided action will be taken in the matter, either in the form of a separate Bill, or preferably as an amendment to that now under consideration.

We are glad to find that the Earl of Milltown has given notice that, on the motion to go into Committee, he will move that the whole question be referred to a Select Committee; so that there is every probability of immediate action being taken in the matter.

THE INTERNATIONAL SANITARY CONFERENCE.

PROPOSALS have long been on foot for holding another International Sanitary Conference, to discuss the question of quarantine, and, if possible, to draw up international regulations; for various reasons, however, the proposal has never taken practical shape until recently. The Conference which will probably soon assemble had its origin in a proposal made by the Italian to the English Government in August, 1883, to hold an International Conference at Rome; the primary object was to concert a line of action with regard to the regulation of quarantine against cholera. After many delays and much discussion of the grounds upon which Great Britain would be willing to take part, it has been finally arranged that the Conference shall meet at Rome next month, unless any fresh European complications arise in the interval. Dr. Thorne Thorne, Assistant Medical Officer to the Local Government Board, will be one of the English delegates; but Sir Guyer Hunter, who, it was expected, would act as the other delegate, may not be able to leave England if the Conference sit next month. The questions to be raised at the Conference have been materially narrowed, as a result of the preliminary negotiations which have been going on for the last year and a half; its deliberations, however, will, unquestionably, have considerable commercial and political significance.

The conference, held in Vienna in 1874, recognised the futility of quarantine, and recommended, in its place, the system of medical inspection. The conference further recommended to those States which refused to accept this system that, in imposing quarantine, the period should be rigorously limited; the maximum period allowed, under any circumstances, was ten days, and the time occupied by the voyage was to be included in this. These recommendations have never been acted on. When the epidemic appeared at Toulon, last year, Spain put all vessels from French ports into quarantine for ten days in addition to the voyage; Italy imposed fifteen days, unless the passage had occupied more than ten days, and in that case the period of detention was another ten days; Austria imposed ten days, Turkey fifteen, Greece eleven, Russia fifteen. In this way a voyage, which in the ordinary course would have occupied a week, might be made to last for more than four weeks.

There is reason to believe that the views of some of the Mediterranean powers, especially Italy and France, with regard to quarantine, have undergone considerable modification, owing to the experience gained during the last epidemic. The work of the Conference will thus be materially simplified, and the chance of a successful issue of its labours greatly increased. Egypt, as appears to be the case with every other topic of the day, must come in for a large share of attention. The sanitary administration of that country has long been supposed to be of importance to Europe. In January, 1881, the Egyptian department charged with sanitary affairs was, by a decree of the Khedive, subdivided, the internal administration being committed to a board sitting at Cairo; the external relations of Egypt were to be regulated by the "Conseil Sanitaire Maritime and Quarentinaire." All the European maritime powers are represented on this board, which is, nevertheless, not an international board, but is strictly part of the Egyptian administration. The decree which constituted this Board threw upon it the duty not only of preventing the introduction of epidemic or epizootic diseases into Egypt, but also of preventing the transmission of these diseases to other countries. As might have been anticipated, this latter duty, and the peculiarly lax constitution of the Board, have led to endless difficulties, which have had a most injurious effect on trade without rendering any public service. The reform of this Alexandrian Board must undoubtedly be one of the subjects discussed at the Conference which is about to assemble.

There is good reason to hope that the majority of the powers will be practically unanimous in adopting the system of medical inspection, and, *a fortiori*, will not be willing to grant quarantine powers to any board sitting in Egypt. The only responsibility devolving on the Government of that country is with regard to the introduction of disease within its own borders; and, in accordance with the recent policy of this country in Egypt, it is held that the Egyptian Government should manage its own affairs, while giving every facility to other Governments to obtain correct information. Then, with regard to the importation of cholera from the East, through Egypt and the Suez Canal, the most feasible arrangement would seem to be to allow each power to make its own arrangements with the Egyptian Government, the only stipulation being that ships should be allowed, under all circumstances, to pass through the Canal in quarantine, all communication with either bank being forbidden. If any power is not satisfied with this, it can arrange with the Egyptian Government to put ships going to its own ports into quarantine.

MEDICAL STUDENTS AND THE STUDY OF CHEMISTRY.

THE specialisation of the sciences has become intensified in the course of the nineteenth century to an extent of which the sages of past days could hardly have dreamed. Many branches of science, properly so-called, are, in reality, and for all practical purposes, not branches at all, but are distinct in themselves. Each may be, and is, linked to other departments of knowledge; but this does not render it less special, for the individual student, who is often bound by circumstances to concern himself with one science alone, and not only to devote himself to its study, but to look with disfavour upon a superficial but necessary consideration of some collateral branch of learning.

Of all the sciences, chemistry may, perhaps, be spoken of as that which is the greatest in itself, and, at the same time, has the widest application. No other branch of knowledge has such intimate relations with other sciences, and with the fine and the industrial arts, including the art, as well as the science, of healing. It is so closely connected with both of the two great provinces of science proper, biology and physics, that it is hard to say to which it belongs. Its relation to medicine is close and yet ill defined. Nobody denies that the student of medicine must "know a little chemistry," yet few are satisfied with the manner in which it is at present taught to

future practitioners. All who have had any experience of medical education must have felt serious doubts, from time to time, of the advantage of that regulation which enforces upon the student compulsory attendance at chemistry lectures during the first winter session. As all admit that the science should be studied, and must be aware that the later sessions would be still more unfavourable for the purpose than the first, it has come to pass that, for many years, the advantage of insisting on instruction in chemistry before admission to the professional curriculum has been strongly urged from several quarters.

It is satisfactory, therefore, to learn that the Colleges of Physicians and Surgeons, in considering the recommendations of the General Medical Council, have expressed their opinion that it would be better that chemistry and chemical physics were made a branch of preliminary education. Unfortunately, a perfect measure, or a thorough and sweeping reform, however evident or necessary, is almost too much to expect from corporations. It is to be hoped, however, that the colleges will not be left at rest until chemistry is definitely laid down as a necessary subject for preliminary study; until a strict, fair, but not too difficult, system of examination in the science is required of all candidates, previously to their admission into a medical school; and until that stone-in-the-hinge of anatomical study, the first year's chemistry lecture, is abolished for ever, or, if retained within the walls of a medical school, reserved for students who have not passed their preliminary examination. With regard to this latter reservation, many, however, are not in favour of it, believing that it were better if chemistry were studied elsewhere before entering the professional school. A "preliminary" student would be, as experience has already proved, exposed to great moral and intellectual disadvantages during the winter session, and these disadvantages would increase as his class grew larger. The best, indeed, the only good way, for a young man to begin his labours at a medical school, is to plunge immediately and earnestly into the study of anatomy and physiology, without let or hindrance from educational or local regulations. Everything that checks the first year's student from pursuing such a course is harassing to him, if he be industrious, and most pernicious if he have a tendency to be idle or indifferent. The typical first-year's workers form a well recognised and a popular class; but a "preliminary" caste of students at a medical school would ever be in a false position; their work would be irksome, and their relations to their colleagues disagreeable.

The disadvantages of the study of chemistry at a medical school being evident, and its necessity before entering into professional study being recognised, it is clear that qualifying bodies should be careful, before passing new regulations, to define what they are to expect from preliminary candidates. Demand always brings supply; and, if good chemistry-examinations were instituted, good lecturers could be found; and, independently of the older universities, there are now numerous educational and collegiate establishments where a youth proposing to enter the medical profession could attend a course of lectures on chemistry. The lecturers already attached to the medical schools could then turn their entire attention to what would be of real benefit, not only to their pupils, but also to themselves. They could teach toxicology and physiological chemistry, and greatly improve their position in the eyes of the students thereby; for they would be looked upon, not as gentlemen bound to give a tedious and obstructive course of lectures to young men who ought to be dissecting, but as teachers who, like the lecturers on anatomy, physiology, histology, and materia medica, confine their instruction to matters which directly concern the student and his profession.

THE SANITARY REGULATION OF THE MILK-TRADE.

Mr. Talbot's Committee of last year on the private Bills of corporations, was hardly so conspicuous a success that its practical reappointment this session can be regarded with any special hopefulness. At the same time, there is a certain convenience in having all the Bills of one class dealt with by the same Committee, and presumably on the same principles. It is obviously idle to expect that anything will be done this year to codify our present public health law, or to lay down the bases of permissible deviation from it on the part of individual corporations; so that Mr. Talbot's new Committee will probably content itself by carrying out Lord Melbourne's doctrine of non-interference to as great an extent as is compatible with decent consistency. It is of no use to complain of this under present parliamentary conditions, and the only thing that can just now be done is to see that the corporations and the Committee do as little mischief as possible.

It was upon the motion for second reading of the Bradford Corporation Bill that the watchful Mr. Hopwood obtained the assent of the Government to the nomination of a Select Committee; and we may take it therefore, that this Bill will be first on the list of the measures which the Committee will consider when it starts business on the 21st of April. There is one clause in the Bradford Bill which will be much canvassed, and which, as it raises questions of legal jurisdiction, will probably be opposed on behalf of the Government. Dr. Hime, the local medical officer of health, being impressed—as everybody must be who studies the subject—with the powerlessness of the local authorities of towns in preventing the spread of disease by means of milk coming from dairies situated outside their districts, has drafted a clause in the Improvement Bill of his corporation, now before Parliament, which would make the neglect of a dairyman, living outside the borough, to furnish a list of his customers on request, an offence committed within the borough, and which would make the borough by-laws as to dairies applicable to such extra-urban milksellers. Theoretically, the proper remedy is no doubt to be found, not in this overlapping of sanitary jurisdiction for a particular purpose, but in the uniformity of dairy-regulations throughout the kingdom. Whilst, however, the law is in its present inefficient and moribund state, this desirable consummation cannot even be hoped for; and Dr. Hime, unwilling to see his borough exposed to outbreaks of disease for lack of a little proper regulation, has suggested the clause which has given the Privy Council so much concern.

We have no sympathy with mere red-tape quibbles, and may, therefore, the legal question apart, give a hearty endorsement to Dr. Hime's proposals. It is obvious that if, by means of information obtained through a list of customers, it were ascertained that disease had been caused by milk from a farm outside the borough boundary, this information could not lead to any further action being taken by the town authority, unless the second branch of the clause in the Bill, to which the objection of the Privy Council applies, could be put in force. The families of the unfortunate victims whose lives or health had been sacrificed would, no doubt, be informed where the source of their calamity lay, and probably the milk-seller would lose the custom of these families. But, from a sanitary point of view, this might

not be an unmixed advantage, as the milk-seller would, in that case, seek fresh customers, and spread disease among other families. The sanitary authority of the district in which such a milk-seller retailing infected milk resides may have no direct interest in the milk-supply, as the whole of such milk may be, and frequently is, retailed outside their boundary. It happens very frequently that, near large towns, the neighbouring farmers sell the whole of their milk in the towns and outside the boundary of their own district. It would appear reasonable that, under such circumstances, the farmer should be amenable to some regulations to prevent his selling infected milk out of his district. Let us suppose that a sanitary authority, having learned the prevalence of disease among the customers of a certain milk-retailer resident in the borough, ultimately discovers that this milk-retailer purchases the whole of his milk from one or more farmers resident outside the borough. Should the source of the disease be brought home to a particular farmstead, the authority is then powerless to take any effective steps to prevent further mischief, or obtain redress for evils inflicted. To expect a rural authority to take action against its own constituents at the instance of a neighbouring corporation, involving thereby an admission of local supineness, and to incur trouble and expense where they suffer no inconvenience, is out of the question.

For these reasons, and others which might be adduced if it were necessary, we trust that the Bradford Corporation will stick to their guns, and get the clause discussed upon its merits. They seem, indeed, to have made up their minds to this, for they have issued a pamphlet, in which Dr. Hime is encompassed with so great a cloud of witnesses to the necessity and reasonableness of his clause, that it is difficult to believe Mr. Talbot's Committee can set it aside. The health-officers of well nigh every large town in the kingdom have written to Dr. Hime, expressing, without an exception, their agreement with the clause, and their sense of its importance. If it be argued, as perchance it may be, that it is impossible to override the general principle of law, that an offence must be tried by the court in whose jurisdiction it is committed, the retort is easy, that, under the Sale of Food and Drugs Acts, where milk coming from the country is seized on its arrival in a town, and it is found to be adulterated, the offending dealer is summoned by the sanitary authority of the town in which the milk is delivered. In all essentials, the two offences of supplying adulterated and polluted milk are parallel; and it is difficult to see why the Privy Council should object in the one case to what is specially sanctioned by the law in the other. As we have said, the health-officers of all the large towns and cities have made Dr. Hime's cause their own; and the progress of the clause before the Select Committee will be watched, therefore, with no common interest.

THE Library of the Royal Medical and Chirurgical Society will be closed from Good Friday to Easter Monday, both days inclusive.

WE learn that the *Indian Medical Gazette*, which, during its nineteen years of life, has earned for itself a high reputation, will, in future, be published by Messrs. Thacker, Spink, and Co.

THE death-rate of Hastings for the fourth quarter of last year was 15.85 per 1,000, or 1.08 below the average of that quarter for the last ten years.

WE understand that the Poisons Bill has been under discussion in the Privy Council Office for a considerable time. The schedules especially have been the subject of prolonged consideration. In their preparation, the Medical Officer of the Local Government Board has had the assistance and advice of Dr. Thomas Stevenson, of Guy's Hospital.

THE first annual report of the Vaccination Officers' Association has been published. The Society was inaugurated on February 16th, 1884, and appears to have at once got to business, for it found time to discuss a great variety of points connected with vaccination before its session closed. It now numbers 44 members and 24 honorary members, and with a balance, albeit a small one, on the right side of the account, it must be held to have commenced its career very prosperously.

DR. DE CHAUMONT has been visiting Poplar on behalf of the Local Government Board, with the view of ascertaining what precautions or other means have been adopted in that district for preventing the spread of cholera, should it break out in the metropolis. The desire of the Local Government Board appears to be that all patients should be moved into hospital, and that no patient should be moved more than a mile.

ABERNETHIAN SOCIETY.

THE annual general meeting of this Society took place on Thursday, March 19th, for the election of officers. The result of the ballot was as follows:—*Presidents:* Dr. E. W. Roughton, Mr. W. T. H. Spicer. *Vice-Presidents:* Mr. C. P. Crouch, Mr. A. Lyndon. *Honorary Secretaries:* Mr. F. W. Andrews, Mr. W. T. Gardner. *Additional Committeemen:* Mr. G. E. Colby, Mr. A. R. Farrar.

SMALL-POX BY CORRESPONDENCE.

A CURIOUS but important case, in which small-pox infection was conveyed in a letter, is recorded by Mr. Karkeek, in his recent report on the sanitary condition of St. Marychurch. On March 1st, last year, a case of small-pox was reported to him in the person of a domestic servant, who had seen no one ill or recovering from small-pox, and who had not been out of the town for months. Moreover, no case of the disease had occurred in St. Marychurch or Torquay for years. On inquiry, it was found that the infected person had received letters from her sister, an inmate of the West Bromwich Small-pox Hospital, "who had unfortunately sent the germ of the disease in her letter." The case was at once removed to the Torquay Sanitarium, and the only person in the household who became ill was the recipient and reader of the letters.

DALRYMPLE HOME FOR INEBRIATES.

WITH the Report of the Homes for Inebriates Association for 1884, there has just been issued a record of fifteen months' work at the Dalrymple Home at Rickmansworth. Forty-nine cases in all have been under treatment, a majority of which were received under the provisions of the Habitual Drunkards Act. The results have been highly encouraging, over 50 per cent. of the patients, whose after-history has been obtained, having done well; and 20 per cent. more having been improved. The predominating influence of inheritance as a factor in the causation of inebriety has been exemplified by twenty-five cases out of the forty-nine having shown a well marked heredity. The inebriety has occurred in father or mother in six cases; in grandparents, with uncles or brothers, in five cases; in brothers, in seven cases; and in uncles, in seven cases. Insanity had been present in the progenitors of six inmates. The patients had come from the United States, South America, Cape Colony, South Australia, and France, as well as from the United Kingdom. There had been five inebriates who drank nothing stronger, as a rule, than beer and wine. Syphilis and phthisis, with dyspepsia, were the

chief complicating diseases. With one exception, all had been well educated. This association had a severe struggle for several years before it was able to purchase the commodious house and charming grounds at Rickmansworth for its first home. This is the only retreat licensed under the Act, the proprietors of which can derive no pecuniary profit from the undertaking, and is, therefore, a crucial test, on purely public grounds, of the value of the Act. That this incomplete measure has not been wholly inoperative, is evidenced by the fact that nine patients have surrendered their liberty for the full term of twelve months each. A stronger and more efficient Act would show still better results. The association appeal for £15,000 to provide a home, under the Act, for poor inebriates; magistrates being desirous to send habitual drunkards to curative institutions, instead of inflicting fine or imprisonment, and there being no such establishment at present available, under the Habitual Drunkards Act.

EXPLOSIVE LAMPS.

ACCIDENTS in the use of mineral oil lamps are of such frequent occurrence, and often attended with such direful consequences, that good service has been rendered by Sir Frederick Abel, who, in a recent lecture at the Royal Institution, discussed this subject, and pointed out that the adoption of some suggestions would materially reduce, if not remove, the risk of accidents which attends the use of petroleum and paraffin oil. A careful investigation of the circumstances attending numerous accidents, together with a critical examination of the construction of various lamps, and the results of many experiments, had led him and Mr. Redwood to certain definite conclusions with respect to the immediate cause of lamp-accidents, and to note certain circumstances which tended to favour the production of such explosions. A partially filled lamp carried rapidly was liable to bring about an explosion, by an escape of oil-vapour and air in close vicinity to the flame, which, becoming ignited, would determine the explosion of the mixture in the reservoir. A sudden cooling of the lamp by its exposure to a draught, or by its being blown upon, as for instance in adopting the common practice of blowing down the chimney to extinguish the flame, might give rise to an inrush of air, drawing or forcing the flame into the reservoir. A small quantity of oil in the reservoir, with a large air-space, would obviously have the effect of increasing the violence of an explosion. If the wick were much lowered, so as to cause the lamp to become much heated, the chances of an explosion would be increased. Sir Frederick Abel pointed out that the character of the wick very materially affected not only the burning quality of the lamp, but also its safety; a loosely plaited wick, having much greater capillary power, was recommended. The following are the suggestions which were put forward, and which, if followed, would no doubt tend largely to diminish the annual number of deaths and fires arising from explosions caused by the use of mineral oil in household lamps. It was desirable that the reservoir of the lamp should be of metal. It should have no opening or feeding-place in the reservoir, nor should there be any opening or channel-communication to the reservoir at or near the burner. The wick used should be of soft texture and loosely plaited, and fill the entire space of the wick-holder, but should not be so broad as to be compressed within the latter, and it should always be thoroughly dried before the fire when required for use. It should be but little longer than is required to reach to the bottom of the reservoir, and never less than about one-third the total depth of the reservoir. The reservoir of the lamp should always be almost filled before use. The lowering of the flame should be carefully done, so as not to lower it beneath the metal work more than was absolutely necessary. To extinguish the lamp, the flame should be lowered until there was only a flicker; the mouth should then be brought to a level with the top of the chimney, and a sharp puff of breath should be projected across the opening. In conclusion, the lecturer expressed the hope that, pending the more thorough treatment of the subject by himself and Mr. Redwood, the points dealt with in his lecture might, on the one hand, tend to dispel groundless alarm as to the dangerous nature of petroleum and paraffin oil as illuminants, and might, on the other hand, serve to convey some useful information respecting the causes which led to accidents with lamps, and the readiness with which they might be avoided.

THE VAGARIES OF WATER-ANALYSES.

A FEW weeks ago (see p. 202 of the present volume), we chronicled a case at Enfield in which a legal dispute had arisen as to whether certain wells were polluted or not. On the strength of a favourable report from Dr. Tidy, an application for an order to close such wells was then dismissed by the magistrates; but a further report on the circumstances by the local health-officer, Dr. Ridge, which has just been published, puts a somewhat different complexion on the affair. According to Dr. Ridge, the sample sent to Dr. Tidy was a mixture of water from both the wells, which appear to be in two different roads. One of the samples alleged to have been taken from these wells was produced in court; and, on comparing this with a sample procured next day by the inspector, the health-officer found a considerable difference between them, the latter containing much more chlorine and oxidisable matter. Later on, some more samples were taken from the well specially condemned by Dr. Ridge, and sent to a professional analyst. He reported of the water that it contained a "considerable quantity of iron in solution;" and, as this iron had not been recognised before, another set of samples was collected, after an interval of nearly a month. Dr. Ridge observes: "There was no iron in the last sample, and there can be no reasonable doubt that some one must have put a preparation of iron into the well before the sample was taken on the previous occasion; and any one who knows a little chemistry is aware that iron has the property of temporarily purifying water, and would vitiate the analysis, by oxidising or precipitating organic matter." Whether this be so or not, it is evidently unsound to gauge the wholesomeness of a water by its chemical constituents only, without regard to the surroundings of the source of supply. And the surroundings of this particular well are such as to raise grave suspicions as to the quality of the water which it yields. It is a shallow surface-well, only sixteen feet deep, and in a gravelly soil. It is situated at the back of the middle of three houses, about six feet distant from the drain of the water-closet, which is not provided with any flushing apparatus. The main sewer of the road, twenty-two yards distant, was laid fifteen years ago with open joints; and the sewers in the adjacent roads were laid in the same way. (Subsequent opening of the sewer in three places, by order of the local board, has proved the accuracy of the health-officer's description.) The closet-drains of four adjacent houses—distant about thirty to forty yards from the well—were found to be leaking through open joints into the porous gravelly soil. Evidently, therefore, Dr. Ridge was entirely justified in endeavouring to secure the closure of the well in question. As Dr. Buchanan well observed, in his report to the Local Government Board on Dr. Cory's water-experiments of a few years ago, "we must go beyond the laboratory for evidence of any drinking-water being free from dangerous organic purity." The chemist can, in brief, tell us of impurity and hazard, but not of purity and safety.

ISOLATION-ACCOMMODATION FOR THE METROPOLIS.

THERE has been no indecent hurry in settling the question as to the proper authority to provide hospital-accommodation for residents in London suffering from infectious disease, who are not paupers, but whose isolation in hospital is demanded in the general interests of the community. Under the statute, the sanitary authorities of the metropolis are, of course, supposed to make this provision; but with wonderful unanimity they have, each and all, neglected to do it. The question may be said to have been under debate at any time since the great small-pox epidemic of 1871-2, though it was not until the sub-

sequent epidemic of 1876-8 that any serious effort was made to solve it. In the early part of January 1877, the Local Government Board attempted to stir up the sanitary authorities to a sense of their duty in the matter; and eventually the Government were asked to make the Metropolitan Asylums Board the hospital-providing authority for the whole population of London, non-pauper as well as pauper. An ingenious official conceived the idea of including in a Poor-law Bill, which was then in Parliament, a clause authorising the managers to contract with sanitary authorities for the reception into the managers' hospitals of cases of dangerous infectious disease occurring amongst people not in receipt of poor-law relief. Mr. Sclater-Booth, who was then President of the Local Government Board, plumed himself rather particularly upon this notable, and, as he thought, entirely satisfactory, device for shelving an inconvenient and complicated question. But, notwithstanding the passing of the Bill with this clause in it, matters have since remained pretty much as they were before, and the question has appeared as far off settlement as ever; but, stirred perhaps by fears as to the possible advent of cholera, the General Purposes Committee of the Asylums Board have recently been considering the subject again, and, something like six years after the passing of the authorising Act, have obtained an opinion from the Local Government Board that an official order is not necessary to empower the managers to enter into contracts with the local authorities. They have accordingly resolved to inform the latter that they are prepared, until further notice, to give effect to Clause 15 of the Poor-law Act of 1879, by admitting into their hospitals patients suffering from fever and small-pox, upon the orders of the medical officer of health, at a fixed charge of four guineas per case. This charge will include the maintenance and clothing of the patient when in hospital, as well as removal to and from the hospitals, but not the cost of any new clothing that may be supplied on discharge; neither will it include the cost of the funeral of any patient who may die in hospital. "The managers' responsibility, thus voluntarily assumed, for the reception and treatment of non-pauper cases, will cease immediately accommodation at the managers' disposal shall no longer be available;" and then "the duty of providing for the treatment of patients," other than paupers, will devolve, as now, upon the sanitary authority of the district where the cases may arise. The managers "cannot undertake to make any class-distinction in the treatment of patients confided to their care; and it will rest with the sanitary authority, as it may think expedient, and according to the circumstances of each individual patient, to recover all or part of the expense incurred in his maintenance and treatment in hospital." No doubt the Asylums Board, at least, are honestly anxious to do their best in this matter; but all these contracts and arrangements appear to us the merest trifling. There ought to be a common sanitary fund to defray the expenses incident to the maintenance and treatment of patients in hospital, and similar services performed for the good of the community at large. The new municipality must put a speedy stop to the patchings and compromises that at present hamper metropolitan action for preventing the spread of disease.

VOLUNTEER MEDICAL STAFF CORPS.

THE constitution of the Volunteer Medical Staff Corps, which, as we announced last week, will be formally enrolled on April 1st, will be as follows. The head-quarters will be in London, and the Director-General of the Army Medical Department will be instructed as to the officer to be appointed to the command of the Corps, and will place himself in communication with the General Officer commanding the Home District as to details connected with its organisation. The establishment will comprise one surgeon-commandant, twelve surgeons, one quartermaster, one quartermaster-sergeant, one sergeant-bugler, four company sergeant-majors, four sergeant-compounders, 14 sergeants, 40 corporals, eight buglers, and 314 privates, making a total of 400, in addition to a permanent staff consisting of one adjutant and four sergeant-instructors. The Corps has received the official sanction of the Queen, and provision for its establishment has been made in the Estimates for the ensuing financial year. We understand that the advisability of very materially extending the organisation of the Corps, so as to bring it into relation with all the Volunteer centres, is under consideration.

THE DEBATE ON CHOLERA AT THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE practical interest felt in England in cholera was very well evidenced by the large attendance at the debate at the Royal Medical and Chirurgical Society, on Tuesday, March 24th, and by the marked attention given to several long and important speeches. Dr. George Johnson opened the debate in a speech of nearly an hour, very clearly explaining his now well known pathological teachings as to the production of the state of cholera collapse by the spasm of the pulmonary capillaries under the irritant poison of the disease. This was the central fact that he gathered from the *post mortem* examinations. He had much to say on treatment, but the causation of the disease he left to others. Dr. Klein, taking up this latter part of the subject, gave the Society the benefit of his recent Indian experience, and argued, with some force and confidence, against the existence of any such specific comma-bacillus as Koch has described as the cause and agent of cholera. His arguments were carefully examined and criticised in detail by Mr. Watson Cheyne, who had had some opportunity of studying cholera in Paris last summer, and had taken up Koch's views, though with some cautious reservations. The Society repeatedly showed its sense of obligation, both to the observer and the critic. As there were many others anxious to speak, a special meeting at 8 P.M. was arranged for Tuesday, March 31st, when it is hoped it may be found possible to conclude the debate. On Monday and Tuesday, 23rd and 24th, Professor Warden, of Calcutta, who had specially come over from Dr. Koch's Laboratory of Berlin, exhibited at the rooms of the Royal Medical and Chirurgical Society an excellent series of specimens, showing the cultivations in various media of the comma-shaped bacilli. Among the most interesting of these were specimens of mixed cultivation on plates, on which these various organisms, which were growing together on the same plate, could be discriminated easily by naked eye characters.

PROFESSOR GALLARD ON THE REVIVAL OF OVARIOTOMY.

AT a lecture, delivered in Paris on March 17th, Professor Gallard claimed for his countrymen a large share of the conspicuous progress which gynæcology had made during the nineteenth century, and mentioned the invention, or rather re-introduction, of the speculum by Récamier, and the advocacy of the employment of the uterine sound, as an invaluable aid to diagnosis, by Huguier. On turning to the subject of ovariotomy, he spoke as follows: "We remember a surgeon who performed ovariotomy without hesitation, and boasted that we ought to secure one success in twenty cases, yet he never obtained even this one success. It was in order to put an end to this disastrous series of unsuccessful cases, that Nélaton went to England to learn how success in ovariotomy was obtained, and imported the experience which he acquired into France. He succeeded, and it is his school, of which M. Péan is the most brilliant and fortunate representative, that has developed the class of French surgeons to whom this operation is familiar, and whose success is beyond computation."

THE MEDICAL OFFICER OF HEALTH OF ST. PANCRAS.

AT a meeting of the Mansion House Council on the Dwellings of the Poor, held at the Mansion House on Tuesday, March 17th, the following resolution was unanimously passed. "This Council learns, with great regret, that Mr. Shirley Murphy has felt himself compelled to resign his position as Medical Officer of Health of St. Pancras, in consequence of the difficulties which he has encountered at the hands

of certain members of his Vestry, which have rendered it impossible for him to efficiently and conscientiously continue to discharge his duties. The exceptional abilities of Mr. Murphy, and his wide experience in sanitary matters, render his resignation an incalculable loss to the parish. This occurrence serves also to emphasise, in the strongest manner, the necessity for an immediate change in the relations of medical officers of health to the local authorities. In the opinion of this Council, the change should take the direction pointed out in its report, and medical officers of health should hold their office at the will of the Local Government Board only."

DEATH UNDER CHLOROFORM.

A MAN, aged 39, died last week, in the Birmingham Workhouse Infirmary, whilst under the influence of chloroform-vapour, which had been administered to him for the performance of an operation for the cure of a subclavian aneurysm. An inquest was held, and a verdict was returned of "death from chloroform, properly administered."

THE FIRST LEGALISED CREMATION IN ENGLAND.

AT the crematory erected by the Cremation Society of England, built some years ago to plans which proved satisfactory to Sir Henry Thompson, and other eminent persons, the first human cremation took place Wednesday, and proved eminently successful. The body was that of a lady of an advanced age, who had become a member of the Cremation Society, and expressly, in her last testament, declared her desire for this method of burial. A necropsy had also been previously made. The reduction of the body was accomplished in one hour, and the resulting ashes were perfectly white. The arrangements were in entire accordance with the wishes of the representatives of the deceased.

IMPERFECT TEACHING OF PATHOLOGY.

THE Court of Examiners of the Society of Apothecaries of London, have again found it necessary to call attention to the very imperfect teaching of pathology and morbid anatomy and histology. We are informed that fully three-fourths of the candidates display a lamentable ignorance of this most essential subject. It is very satisfactory to find this formal protest coming from the Apothecaries' Society, which has not set up a very high standard of examination. If such a complaint had emanated from the University of London, or of Cambridge, it would have been at once attributed, by the incriminated teaching bodies, to the "absurd standard" set up by the Universities; but coming from a body which is nothing if not practical, it will, we hope, have great weight with the deans of the medical schools in London and the provinces, to whom it has been addressed.

MEMORIALS TO GORDON.

A MERCHANT in Sheffield, who has not permitted his name to be made known, has set an excellent example, which those persons who are finding fault with the proposal to build a hospital at Port Said will do well to follow. This gentleman has announced his wish to endow a bed in the Sheffield Public Hospital, in memory of General Gordon, the bed to be called the "Gordon bed." We believe that any of the metropolitan or provincial hospitals, supported by voluntary contributions, would be very willing to have beds or wards endowed by those who think that the memory of General Gordon's noble life should be perpetuated in this country in some way which should bring its lessons home to all ranks.

DEATH OF DR. HENRY KINGSLEY.

WE regret to record the death of Dr. Kingsley, which took place at his residence, Church House, Stratford-on-Avon, on March 18th. Born in the year 1818, Henry Kingsley graduated as a Doctor of Medicine at Marischal College, Aberdeen, in 1854; and he was admitted a Fellow of the Royal College of Physicians of Edinburgh in 1858. For some years he held a lucrative practice at Brinklow, in Warwickshire; and he removed to Stratford-on-Avon about thirty years ago, when he was at once elected honorary physician to the Borough Infirmary. Popular and successful as a physician, Dr. Kingsley found leisure to take a leading part for very many years in the public work of his town. As a magistrate, as a hospital-physician, as an alderman, as a member of the school-board, as mayor on two occasions, and as a member of various educational and charitable trusts, he was indefatigable in his efforts to promote the well-being of his fellows. The handsome new hospital-buildings which were opened at Stratford last year owe their erection to his initiative and influence, and their successful completion to his untiring devotion to the details of their construction.

OUR MEAT-SUPPLY.

IT is stated by a correspondent of the *Standard* that the sale of horse-flesh as beef for human food has become so large at Manchester, that a Local Government inquiry was held there on March 25th by Mr. Edmund Burd, of the Local Government Board, to consider the question of investing the corporation with power to impose conditions and control the sale by registration of the places where it is sold, or in other ways, it being proposed, among other things, that labels should be attached to the meat, stating that it is horse-flesh. The action of the corporation has been taken in consequence of a memorial from the Butchers' Association; and evidence was given to the inspector of the extent of the sale, the Presidents of the Manchester and Salford Butchers' Associations stating that they knew that, at the present time, upwards of 100 horses a week were slaughtered within the district. There was great difficulty in detecting the sale of unsound and unwholesome horseflesh, and this meat was also largely used for other purposes. By the aid of powerful machines, it was chopped so small that no inspector could detect it, and, in different guises, it was palmed off on the public.

THE DENTISTS' REGISTER.

AT the Wandsworth Police-court last week, Mr. A. G. Yeates, of Wandsworth Road, appeared to answer a summons at the instance of Mr. Robert Hugh Hodgson, charging him with using the title of a "surgeon dentist," contrary to the provisions of 41 & 42 Vict., c. 33, not being registered. Mr. Morton Smith appeared to support the summons, and said he believed the defendant had never been registered. His card bore the letters "R.D.S.," meaning a registered dental surgeon. Counsel produced a copy of the *Register* for the present year, in which the defendant's name did not appear. Mr. H. R. Jones, who defended, said his client was registered, and produced a certificate to that effect dated 1879. Mr. Smith said the certificate had taken him by surprise. The defendant represented on his card that he was a registered dental surgeon, which clearly he was not. Mr. W. J. C. Miller, Registrar of the General Medical Council, was called, and said the defendant's name appeared in the *Register* of 1880, but not since that time. The name was erased through a change of residence. Mr. Paget said the question was whether the defendant had been guilty of an offence under the Act. He inquired whether the defendant was entitled to be registered. Mr. Miller replied that he would not register the defendant's name without the order of the Council. Mr. Paget dismissed the summons, and on the application of Mr. Jones, who said the parties were rival practitioners, ordered the complainant to pay two guineas costs. Mr. Smith asked the magistrate to grant a case on the question of registration, but he refused.

DEATH ON THE TREADMILL.

AT an inquest which was recently held at Durham, as to the cause of death of a prisoner, Wm. Morgan, who died shortly after being taken off the treadmill, and who was found to suffer from heart-disease, a state of things was revealed, according to the account in the local paper, which calls for further inquiry. It seems that the death-rate at Durham Prison has averaged for some time back one a week. What-

ever may be the number of inmates, this rate is excessive, so much so, indeed, as to be hardly credible. It is scarcely conceivable that, under the careful system of supervision to which English prisons are now subjected, any unsanitary conditions could exist which could give rise to such a high death-rate; we must, therefore, seek for a cause elsewhere. Is it not possible that the "fons et origo mali" may be in the class of prisoners subjected to punishment? We do not sufficiently recognise the fact that a large number of prisoners convicted of what might be termed moral offences—drunkenness, vagabondism, etc., are subjects of organic disease of one or most vital organs, induced by habitual excess; and that, directly these are deprived of their customary stimulus and subjected to prison-discipline and low diet, the victim succumbs to the previously dormant disease. Frequently there are no very evident symptoms of chronic organic changes under ordinary circumstances. Fatty degeneration of the heart and of other organs may exist without recognisable signs until certain conditions arise which set a train of symptoms in motion, which then may never be arrested. This is notably the case in degeneration of the muscular fibres of the heart, a too frequent offspring of dissolute habits. Whilst, therefore, such an untoward occurrence as death on the treadmill is much to be deplored, and whilst the necessity of careful examination before giving a certificate of fitness for punishment cannot be urged too strongly on the medical officers of prisons; yet, at the same time, to the medical mind, the possibility of overlooking a disease, liable under altered circumstances to give rise to sudden death, is quite conceivable. Not so, however, with the public; and, therefore, the question naturally arises, Is the treadmill a fit punishment for any one? or rather, should it not be relegated to the limbo of the stocks and other remnants of barbarism? In these days of reformatory discipline, it seems anomalous to have any form of punishment without some ulterior and higher object. "The mill" is not useful, and has proved itself occasionally injurious. It would, therefore, be well for those in whose hands penal authority lies, to see if they cannot devise some mode of punishment which, whilst sufficiently deterrent, shall be free from direct danger to life, and which would embrace in its energy some reformatory principle a more useful object than grinding wind.

PROFESSOR MORISON WATSON.

We deeply regret to hear of the death of Professor Morison Watson, which took place on Wednesday morning, March 25th, at the early age of 40. His share in the reports on the scientific results of the *Challenger* expedition is well known; and, while holding the appointments of Professor of Descriptive and Practical Anatomy, Curator of the Medical Museum, and Dean of the Medical School at Owens College, Manchester, he applied himself assiduously to original anatomical work, as well as to the instruction of pupils. He contributed some valuable monographs to the *Journal of Anatomy and Physiology*, and to the archives of several learned societies. Our Manchester correspondent, in the Journal of February 14th, mentioned Professor Watson's sudden attack of hemiplegia, after a demonstration at Owens College, on February 3rd. Every symptom of extensive cerebral hæmorrhage developed itself, and he gradually sank, being almost continuously unconscious till his death.

THE GORDON HOSPITAL.

The War Office authorities have consented to allow one of the engineer officers now in Egypt to proceed to Port Said and make a report upon the condition of the place and the appropriateness of the proposed site for a hospital in memory of General Gordon. The committee, having considered in detail the various points on which they required information in regard to Port Said, determined also to ask for the services of a medical officer, who should, in conjunction with the engineer, report upon the matter from a sanitary point of view. They further invited Surgeon-General Sir W. Guyer Hunter, M.D., and Dr. Kirker, R.N., of Haslar, both of whom have an intimate and recent knowledge of the state of Port Said, to afford them information on the same subject. The committee were unanimous in the determination, before allowing any portion of the fund to be spent for the purposes of a hospital at Port Said, to exhaust every means of ascertaining the condition of that place as to sanitary and other requirements, and the desirability or otherwise of the particular site proposed. The officers deputed to make the necessary inquiries have been requested to report freely and frankly upon the matter, and the result will, doubtless, be that the hospital will be erected on the best possible site, and in a manner which will satisfy the various important requirements of an institution of the kind. Meanwhile, the subscriptions to the fund are flowing in steadily, the total being little short of £11,000.

LAPAROTOMY FOR TRAUMATIC ANEURYSM OF THE ABDOMINAL AORTA.

Professor Loreta, of Bologna, operated, on December 18th, upon a sailor, who was suffering from an abdominal aneurysm, caused by a blow. An incision was made from the ensiform cartilage to the umbilicus, the aneurysm exposed, and its cavity filled up with two mètres of silver-plated copper wire. Twenty days later, no trace of pulsation remained in the sac. On March 9th, the patient had quite recovered, and was able to resume his duties.

SCOTLAND.

A demonstration of the "Excelsior" health exercising-apparatus was given in the Royal Infirmary, Aberdeen, on Saturday last, in presence of the staff and some of the students.

The Keith Medal in the University of Aberdeen, instituted in memory of the late Dr. Keith, has been gained by Mr. George Findlay. The subjects of examination are surgery and clinical surgery.

It has been arranged that Dr. Garden, one of the surgeons to the Royal Infirmary, shall conduct the examinations for surgery and clinical examinations at the approaching examination for degrees in medicine and surgery in the University of Aberdeen. This is due to the absence of Professor Ogston in Suakin at the seat of war in Egypt.

HILLSIDE HOME FOR INCURABLES.

During the last year, sixty-seven patients have been treated in the Hillside Home for Incurables at Perth. At the eighth annual meeting of the subscribers to the institution, held last week, which was well attended, and was presided over by the Lord Provost of the city, it was stated that the income for the year had been over £3,081, and that the capital fund at the end of the year amounted to £2,825 10s.

THE NOISE OF A THOROUGHFARE AND THE EDINBURGH UNIVERSITY AND ROYAL INFIRMARY.

A question of considerable interest to the public and to the profession in Edinburgh is at present engaging the attention of the Town Council. The Middle Meadow Walk, which divides the East Meadows from the West Meadows, and which, at present, is only a thoroughfare for foot-passengers, at its northern end passes between, and separates from each other, the new university buildings and the eastern pavilions of the Royal Infirmary. At present, an effort is being made to have this walk opened for carriage-traffic, and a considerable portion of the public, and more especially of those residing in the recently erected district of Warrenden Park, are urging the matter strongly. A good deal can be said on their side of the question, as the only other routes by which the inhabitants of that district can reach town or their residences are long, circuitous, and largely invaded by tramway-rails. On the side, however, of those who

oppose the opening of the walk for carriage-traffic, it is urged that danger would be caused to the numbers of children who frequent it The more serious objection, however, is, that the noise caused by vehicular traffic would disturb the patients in the pavilions in the Infirmary which are contiguous to the walk, and would seriously interfere with the teaching of clinical medicine in the wards, and the teaching of histology, physiological and pathological, in the class-rooms in the New University Buildings. These objections were strongly urged by a deputation which waited on the Town Council on Monday, and which included Professor T. R. Fraser, Dean of the Medical Faculty, and Professors Grainger Stewart, Greenfield, and Chiene. It will be seen from the foregoing that a good deal can be said on both sides of the question, and the Town Council has wisely decided to take time to decide so difficult a question. Should it be decided to open the walk for vehicular traffic, the roadway would doubtless be made so as to occasion the least possible noise. Should it be decided otherwise, no one will be worse off than he was before.

AMBULANCE-WORK AND THE POLICE.

LATELY about forty of the members of the Edinburgh police-force have had a course of ambulance-instruction from Dr. Keith. Examinations have been held in the work gone over, and with the satisfactory result that an average of 80 per cent. of marks was got; one policeman attained 96 per cent. available marks; the lowest obtained 65 per cent. The energetic Chief Constable intends taking steps for the purpose of procuring distinctive badges to be worn by the officers who have passed successfully; and next season he contemplates approaching the authorities with the view of securing ambulance-training for all the members of the force. This is a wise step, as the educated services of policemen in cases of accident would be invaluable in many cases, where, at present, from lack of proper training, although their goodwill may be abundant, the power of rendering efficient aid is deficient.

OUTBREAK OF SMALL-POX AT KEITH.

AFTER stating last week that an outbreak of small-pox had occurred at Keith, we expressed the hope that no time would be lost before reverting to revaccination. We are glad to learn that the local authority, on the recommendation of the medical officer of health, Dr. R. S. Turner, have acted with great promptitude. As soon as the first case was reported, a meeting of the local authority was held, at which it was resolved to recommend the inhabitants of the town to be revaccinated. This was done by handbills circulated over the place, and a time was appointed when any inhabitant might be revaccinated free of cost by the medical officer of health. Care was taken also to have everyone who might possibly have been exposed to the infection revaccinated. It is now more than a fortnight since the last case was removed to the hospital, and, so far, the disease has been entirely confined to three houses. All danger of a serious epidemic seems to have been obviated by the prompt and well directed action of the local authority, which may be congratulated on the success of the manner of isolation, disinfection, and revaccination adopted.

IRELAND.

ENNIS DISTRICT LUNATIC ASYLUM.

THE total number of cases under treatment during the past year was 382, and, on December 31st last, there remained in the asylum 301 inmates. In August, Dr. Nugent reported favourably on the condition of the institution. Only four invalids were confined to their beds, and no restraint whatever was in use.

COST OF MEDICINES IN THE CORK UNION.

THE annual amount paid for medicines in this union of late years having been considerably in excess of that expended in previous years, a committee of the guardians, some time since, was appointed to investigate the matter. The expenditure on this head appeared to be out of all proportion to the number of inmates treated in the workhouse, and the committee very wisely determined to advertise for tenders for the supply of drugs. Last week they accepted the offer of a Dublin firm, by which they calculate to effect a saving of about £500 a year in the cost of medicines to the house and dispensaries.

LOCAL GOVERNMENT BOARD FOR IRELAND.

DR. GEORGE PLUNKETT O'FARRELL, of Boyle, County Roscommon, and Dr. John Todd, of Newtown-Stewart, County Tyrone, both of whom were poor-law medical officers, have been appointed medical inspectors under this Board.

HIGH DEATH-RATE IN DUBLIN.

THE death-rate in Dublin during the month ending March 14th, has been very high. For the last week of this period, the deaths registered represented an annual rate of mortality of 39.4 in every 1,000 of the estimated population. Omitting the deaths of persons admitted into public institutions from localities outside the district, the weekly death-rate for the above period was 29.8, 28.5, 32.0, and 37.2. Attention was very properly called to this high mortality at the last meeting of the Executive Committee of the Dublin Sanitary Association; and it was pointed out that the death-rate for Dublin ranked, along with that of Waterford, as the highest in the three Kingdoms, with the exception of Sunderland, where the death-rate was 48.3 per 1,000. The exceptional death-rate in Sunderland was caused by a large mortality from measles, 45 deaths being attributed to that disease. Measles is also very prevalent in Dublin at present. There were 27 cases of the disease admitted to the Dublin hospitals during the week ending March 14th, and eleven deaths during the same period in the city.

MEDICAL WOMEN FOR INDIA.

THE first annual report of this Association has been recently published. It is just two years since the movement was started. It owed its origin to the fact that a great proportion of the women inhabitants of India are forced by custom to lead a life of seclusion so complete, that they are not allowed to see a male practitioner, however urgent may be their need of medical aid. If great peril should overcome the native repugnance to the male physician, the "Doctor Sahib," upon being called in, is introduced by the husband or father into the sick-room, but a thick curtain intervenes between him and the patient. A hand is put out round the curtain in order that the pulse may be felt, but the rest of the consultation is conducted through the male member of the family. In short, the physician is expected to make a diagnosis of an unseen presence. Some natives who, in ordinary cases, would admit the male doctor, still exclude him from the treatment of diseases peculiar to women. The success of women doctors in England and America suggested a way out of the difficulty by bringing doctors of their own sex within reach of the women of India. An American resident in Bombay, Mr. Kettridge, in conjunction with a Parsee gentleman, Mr. Sorabji Shapurji, originated the scheme, and the idea once started was most favourably received. In January, 1883, subscriptions were solicited in Bombay, and, in two months' time, forty thousand rupees were subscribed to meet the expense of bringing out two lady doctors and starting a dispensary. The movement was mainly a native one. All the three great sections of the native community, Hindoos, Mahomedans, and Parsees, were represented in the list. Indeed, there was hardly a wealthy native in the city who did not give.

At this stage of the movement, two native gentlemen came forward with offers. A Parsee, Mr. Pestonjee Cama, offered 169,000 rupees to build a hospital, and Mr. Jaffer Suleiman, a Mahomedan, gave 20,000 rupees for the erection of a dispensary. In November, 1883, the Duke of Connaught laid the first stone of the hospital, which is to contain 50 beds; and, in December, the first woman doctor of India, with the exception of one lady in Madras, arrived in Bombay. Last July the dispensary was opened, and the success of the undertaking publicly established. On the first day, nine women presented themselves for treatment by Dr. Edith Pechey, and, on the ninth day, there

were 300 seeking her assistance. Since then, an average of 100 patients a day has been maintained. In November last, the second lady doctor, Dr. Charlotte Ellaby, arrived, and the dispensary work has been a little more under control. But there is work for twenty lady doctors. There has been no hesitation on the part of patients in coming to the dispensary. The hospital is not yet finished, but a temporary building is almost ready, and will be in use this spring.

But it is felt that medical aid for the female population of the country should not always come from foreign sources. The women of India must learn to come to the aid of their ailing sisters. In the Parsee and Eurasian communities, and even among the Hindoos, there are women ready to be taught; and now medical education is made accessible. The Grant Medical College has been induced to open its doors to female students. Already twelve young women, Parsees and English born in India, have completed their first year of medical study. Finally, the University of Bombay has admitted, since 1883, all female students to compete for degrees on the same terms as male students. Thus, the medical career is now open to all the women of India.

The first subscriptions have assured the services of two lady doctors for three years. The munificence of Mr. Cama and Mr. Jaffer Sulieman has provided a hospital and dispensary. The Government of Bombay has promised to maintain the hospital, and the Municipality of Bombay already provides for the working expenses of the dispensary. But when the three years are past, that is, at Christmas, 1886, will come the grave question of the salaries of the doctors. It is hoped that the Government may then take charge of the hospital for women, just as it does with the other hospitals of Bombay, and pay the necessary salaries and expenses of this and all other similar institutions that may be founded; and it is suggested that the hospitals for women should be placed under Government as a branch of the Medical Department of India.

HOSPITAL ARRANGEMENTS WITH THE SUAKIN EXPEDITIONARY FORCE.

We have been favoured with a copy of the sanitary, medical, and other memoranda supplied for the information of the officers of the Medical Staff of the Suakin Expeditionary Force by Director-General Dr. Crawford. It bears date, "Medical Department, War Office, February 14th, 1885," and is rather a voluminous document, comprising nineteen folio printed pages. The separate subjects, under each of which directions are given with more or less fulness, are very numerous. It will suffice to mention the headings of the principal among them to show the varied questions with which they deal; but we will quote in more detail the nature of the hospital accommodation which has been provided for the expedition, and the means which have been furnished for medical assistance in the field.

The paper does not contain an account of the climate and medical topography of the country which will probably be traversed by the troops in the forthcoming military operations between Suakin and Berber. It is stated that a special "Report on the Egyptian Provinces of the Soudan, Red Sea, and Equator," has been compiled in the Intelligence Branch of the Quartermaster-General's Department, and the medical officers are informed that this work should be referred to for general information on the subject. It is mentioned, however, with reference to the subject of climate, that the temperature in the hot months, before the rains occur, is stated to be from 81° to 86° Fahr., but the nights cool; and that the rainy season generally commences early in May, and continues, off and on, to the end of October.

The principal directions and memoranda furnished in the paper are distributed under the following headings: Diseases; Diarrhœa and Enteric Fever; Water; Water-carriers or Bheesties; Filters; Country Supplies; Rations; Lime-juice; Medical Comforts; Ice; Port Medical Officer and Provision for Infectious Diseases; Sanitary Police; Conservancy; Disposal of Refuse; Disposal of Dead Animals; Sanitation on the March and in Camp; Clothing; Dieting; Transport; Staging System; Medical Inspections; Disinfectants; Organisation at the Base; Wounded in Action; Treatment of Wounds; Irrigation; Flies; Tetanus; Dressings; Splints; Records of Cases; Diary; Antiseptic Solutions; Ophthalmia; and details of units and equipments of the various establishments for affording medical assistance to corps in the field. The paper concludes with some general memoranda on the forms, books, and stationery supplied; the returns and reports required; records of men sent from the front to the base; the disposal of arms and accoutrements of the sick; and other such matters. A mere enumeration of the subjects just brought to notice shows the heterogeneous nature of the matters to which medical officers are required to give consideration when they are in attendance on the sick and wounded of an army on active service in the field.

It will be chiefly interesting, however, to observe what hospital-establishments have been despatched for the service of the sick and wounded of the expeditionary army. The nature and numbers of these establishments are described in the document before us; but the details of their equipments, and of the grades and numbers of the hospital staff and attendants attached to them, are not given. Revised Regulations for the Medical Department of the War Office are referred to for information on these points. It appears that these regulations have not yet been published, but it is stated that they are now in the press, and will shortly be issued for general information.

The medical assistance, as regards the hospital arrangements, seems to have been provided on a very liberal scale; but, considering the trying climate and unhealthy character of the country, it is not likely to be in excess of what will probably be needed. The hospitals, and the other establishments designed for affording aid to the sick and wounded, are necessarily so framed as to adapt themselves to the different positions and circumstances of the troops concerned. Thus, for Suakin, the base of operations, where the sick must be accumulated in the largest numbers, we find that two floating hospitals have been provided, and a base or general hospital on shore containing 300 beds. To receive the overflow from these hospitals when necessary, there is a hospital at Suez with 200 beds. Four field-hospitals, each arranged for 100 patients, and two bearer-companies, have been sent to accompany the troops when they move from Suakin; and, further, on the force advancing into the country, a stationary hospital, intended to be used, either entire or in sections, along the line of communications, has been furnished. In addition to these hospitals for general use, each regiment of infantry and cavalry has its own supply of medical and surgical equipments, under the direction of its medical officer.

The principal hospital afloat is the *Ganges*, one of the steamships of the Peninsular and Oriental Company, which has been specially hired and fitted for the purpose. It is prepared to accommodate 23 sick or wounded officers, and about 170 sick soldiers. It is provided with punkahs. The staff consists of the principal medical officer and six others of the medical staff, one warrant officer, five non-commissioned officers, fifty men, and four female nurses. The ship has the means of supplying an ample supply of ice at all times for general use. The report states that there is a second hospital-ship at Suakin, but no particulars are furnished regarding it. It is also mentioned that a medical store-ship is to be provided.

The General Hospital on shore at Suakin is described as being fully equipped for 300 patients. It is composed of huts, which have been constructed in England and sent out to Egypt. Each hut will hold 12 patients, and afford 800 cubic feet of air-space to each patient. They are described as being well ventilated, and specially adapted for a hot climate. Punkahs are provided. In addition, two large tents, similar to those which were used by the French in the Tonquin expedition (Tollet system), have been sent out. The hospital cook-houses are made of corrugated iron, and each is supplied with three American kitcheners.

Each of the four field-hospitals is arranged for being divided into two halves for fifty patients each in case of a necessity arising for using these sections at different points. The equipment and stores of each field-hospital are packed suitably for carriage on camels, mules, or in light carts, as is also the equipment of the bearer-companies. One field-hospital is specially attached to the Brigade of Guards, and worked by the medical officers of the brigade. The means of transport supplied to the bearer-companies consist of ambulance-wagons, litters, and cacolets. It is mentioned that Lushai dandies, with native bearers, are to be sent from India; and the exigency is contemplated of the entire service for the carriage of the sick and wounded being organised from these natives in case of the men of the Medical Staff Corps being required for other duties.

The stationary hospital provided for use on the line of communications between the troops in the field and the base of operations is divisible into four complete sections for fifty patients each, and each section can be detached to form a separate hospital at different localities on the route. This hospital is supplied with changes of clothing for the men, and has a full complement of hospital-stretchers, which can be used as bedsteads, and a certain amount of bedding. The tents are of Indian pattern.

The medical equipment accompanying each regiment of infantry and cavalry consists of a pair of field-panniers, containing medical and surgical equipment, which can be carried on the back of a bat-animal or on a light cart; a field medical companion; a surgical haversack; and a circular surgery-tent. The necessary assistance to the medical

officer attached to the regiment is to be furnished from the ranks of the corps, but it is mentioned that all sick men are to be passed on to the field-hospitals. Obviously the movements of the regiments in the field would be seriously hampered under any other system.

A list of the articles supplied under the name of "Medical Comforts," that is, special articles beyond the regular hospital dietary, is given in the memorandum. It is said that they have been selected with special reference to the nature of the service in which the troops are employed, and to the character of the diseases likely to occur; and certainly, judging from their variety, the list seems so complete that it is difficult to imagine what hospital delicacies the volunteer committees, that have already begun to make public appeals for assisting the sick and wounded soldiers of the force in Egypt, will find to add to it.

The National Aid Society has organised an ambulance to be attached to the Suakin Expedition. The commissioners are Mr. V. Kennett-Barrington and Dr. Squires, both of whom have arrived at Alexandria, *en route* for Suakin. Other members of the staff, among them Professor Ogston, of Aberdeen University, whose valuable services have been transferred to the National Aid Society by the Princess of Wales's Branch, left Egypt by the previous mail. Sir Allen Young has most generously placed his steam yacht *Stella* at the disposal of the society; she is to be used as a supplementary transport for the sick and wounded, and also for taking convalescents for short cruises. The Army Medical Department has also given its hearty co-operation, and done all in its power to assist the representatives of the Red Cross, to carry out their good work successfully.

The Princess of Wales's Branch of the National Aid Society are sending out a wooden Danish house, presented by the Princess of Wales, to Suakin, whither the society has sent the necessary apparatus for fitting up a tea and coffee refreshment-tent. A similar apparatus, together with a wooden Danish club-house and the needed supply of books and games, has been despatched to Dongola. Two nurses have been sent to Suez, and two are on board the *Stella*. A large consignment of Brand's essences, preserved vegetables, various delicacies for food, and a further quantity of cucaine have been despatched to Suez for the soldiers and sailors on the Nile. Arrangements will be made by local representatives for providing from these stores comforts during the voyage for the officers and men who may be invalided home; if necessary, nurses will likewise be provided for them. The sum already expended out of the donations received amounts to over £2,000. The sub-branches at Windsor, Kensington, and Hampton Court, presided over respectively by Princess Christian, Princess Louise, and Princess Frederica, work under the central organisation in a similar manner to that adopted by the other seventeen subcommittees formed in the United Kingdom, inasmuch as they remit any funds collected by them to the treasurer, Lansdowne House; while the needlework department is supervised by Princess Frederica, to whom all who wish to make the necessary articles of clothing apply for the requisite information. One thousand pyjamas and 1,000 flannel-shirts have already been requested by the society from the Hampton Court sub-branch.

LUNATICS IN WORKHOUSES.

PERPLEXING passages in Parliament have occurred in consequence of the case of "Wicks *v.* Bedford and Others," to which we drew attention in our issue of March 14th. On Thursday of last week, Mr. J. Talbot interrogated the Secretary of State on the subject, Mr. Partridge, the stipendary magistrate, having been compelled to send a wandering lunatic to the House of Detention because the workhouse authorities would not receive him, since they had been instructed as to their legal responsibilities by Mr. Justice Wills. Sir William Harcourt said that the proper place for a wandering lunatic was the workhouse infirmary and not a prison-cell, because detention in the latter was likely to increase his malady; and this view had been taken for the last forty years. He went on to say that a board of guardians in the west of London, who had refused to admit lunatics in consequence of a supposed obscurity of the law, had done so, not because they could not admit them, but because they would not admit them, but that the statute clearly made it obligatory on the guardians to admit lunatics. Unfortunately, Sir William did not name the statute, and definite knowledge on this all important point leaves the forty years' old view of the proper place in which wandering lunatics should be detained too visionary to be adopted as a ground for practice, in view of the fact that the master of the Marylebone workhouse has to pay damages of £50 and costs of action because his subordinates detained a lunatic without statutory authority. Such a master of argument as Sir William Harcourt ought to have replied to Mr. Talbot by naming the statute under which lunatics can be legally detained in workhouses, and by the confident assurance that the verdict which the jury gave under the direction of Mr. Justice Wills against the master of the Marylebone workhouse will be reversed on appeal to a higher court. This, however, is exactly what Sir William Harcourt did not do.

Mr. G. Russell, in his reply to further inquiry on the same subject by Lord Algernon Percy in the House of Commons on March 25th, admitted that the guardians of the Westminster Union had called the attention of the Poor-law Board to the Marylebone case, in which, he said, the requirements of the statute were altogether ignored; and he trusted that the result would be a warning to the officers of other unions if there should be any disposition to adopt a similar course. But neither did Mr. G. Russell indicate the statute under which a lunatic, who has not become mad during residence in a workhouse, can be legally confined in a workhouse. Mr. Justice Wills says there is no such statute. The master of the Marylebone workhouse is smarting under the penalty he has incurred from there being no such statute, and the platitudes, if they be platitudes, of the Government officials will not heal his wounds.

Sir Henry Gordon has written a letter to the *Times* on the difficulties which the new knowledge of the law acquired in the Marylebone case, and in the case of the magistrates of Lewes, places in the way of Justices of the Peace in the discharge of their duties, as laid down in the 68th sec. of the Lunatic Asylums Act. As we have already pointed out, it is a difficult and complicated section, but it is also a most useful and important one. The wandering lunatic has to be dealt with differently from the lunatic not properly treated or not under proper care and control; the former only needing the action of one magistrate, and of one medical man; the latter that of two magistrates, and, as Sir Henry thinks, though it would seem not on sufficient grounds, the action of two medical men. Sir Henry inquires whether he can remand the alleged lunatic, if he and the medical man whom he has called in to assist him be not satisfied as to the existence of insanity needing protection or control. The power of remand is applicable to offenders against the law, and is used for the purpose of obtaining additional evidence, either for the prosecution or the defence. But lunacy is not an offence, neither ought its existence to be provable to the justice and his medical coadjutor upon evidence alone, but mainly by observation. There is therefore no reason why a justice or justices with their medical coadjutors, who have been unable to make up their minds in one day, should be prevented from making up their minds another day, the variable condition of the alleged lunatic being the main element in their determination.

The Lord Chancellor has introduced his long-promised Lunacy Bill to the House of Lords, and we shall soon know whether it be sufficient to amend the many short-comings of the lunacy law. Perchance it may contain a large development of this 68th section, whereby a handy court, composed of justices of the peace, and of medical men acting in concert, may supersede the certificate-system in regard to all lunatics whom it is needful to place under detention or control.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

Regulations for the Election of Members passed at the Meeting of the Committee of Council, October 12th, 1881.

1. There shall be a standing notice in the JOURNAL every week, of the meetings of the Committee of Council throughout the year; and stating that gentlemen wishing to be elected members of the Association must send in their names *twenty-one days* before the meeting of the Committee of Council at which they wish to be elected.
2. That a list of applicants be in the hands of the Committee of Council *fourteen days* before such meeting of the Committee of Council, and that the Branch-Secretaries be supplied with *several* copies of the list.
3. That no member be elected by a Branch, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Meetings of the Council will be held on April 8th, July 8th, and October 14th, 1885. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary, not later than twenty-one days before each meeting, namely, June 17th, and September 24th, 1885, in accordance with the regulation for the election of members, passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 8th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, March 14th, 1885.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
IVa. Diphtheria, sanitary.
VI. Acute Gout.
VII. Puerperal Pyrexia.
VIII. Paroxysmal hæmoglobinuria.
X. Habits of Aged Persons.
XI. Albuminuria in the Apparently Healthy.
XII. Sleep-walking.
XIII. Cancer of the Breast.

An inquiry is now issued concerning the general condition, habits, and circumstances, past and present, and the family history of persons who have attained or passed the age of 80 years.

The replies to this inquiry will be most valuable when given by a medical man; but the questions have been so arranged that, with the exception of some on the last page, they may be answered by another person. *Partial information will be gladly received.*

There is also now issued an inquiry as to the occurrence of albuminuria in apparently healthy persons.

The Acute Gout card, which had been found too elaborate, has been made a great deal simpler, and is now re-issued.

Copies of these forms and memoranda are in the hands of all the local secretaries, and will be forwarded to anyone who is willing to fill up one or more of the forms, on application by post-card or otherwise to the Secretary of the Collective Investigation Committee, 161A, Strand, London, W.C., to whom all applications and correspondence should be addressed.

July, 1884.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary. —C. SIBTHORPE, Honorary Secretary, Madras.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next ordinary meeting will be held at Pontypridd, on Wednesday, April 15th. Members wishing to bring forward papers, communications, etc., are requested to send titles to one of the undersigned before March 29th.—A. SHEEN, M.D., Cardiff; D. ARTHUR DAVIES, M.B., Swansea, Honorary Secretaries.—February 25th, 1885.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this district will be held at the West Kent General Hospital, Maidstone, on Friday, March 27th, at 3.30 P.M., Charles Hoar, Esq., M.D., in the chair. The dinner will take place at the "Star" Hotel, Maidstone, at 6 P.M. precisely; charge, 6s., exclusive of wine. Gentlemen who intend to dine are particularly requested to signify their intention to Dr. Hoar, 3, Rocky Hill Terrace, Maidstone, not later than March 26th. All members of the South-Eastern Branch are entitled to attend this meeting and to introduce friends.—Papers to be read: 1. Charles Frith, Esq., M.D.: "Two cases of Thoracic Aneurysm, with specimens." 2. J. E. Meredith, Esq., M.D.: "A case of complete Atresia of Vagina, with severe constitutional symptoms." 3. C. Boyce, Esq., M.B.: "A case of Intestinal Obstruction: Stercoraceous vomiting for five days; recovery." 4. M. A. Adams, Esq., F.R.C.S.: "Clinical Notes on Amaurosis." 5. A. H. Hallowes, Esq.: "Surgical Cases of Interest." Dr. Ground will exhibit some specimens of Pathogenic Micro-organisms. At 3 P.M. Messrs. Mayer and Meltzer will exhibit some new Surgical Instruments. —H. LEWIS JONES, Honorary Secretary, St. Bartholomew's Hospital, Chatham.

SOUTH-EASTERN BRANCH.—Members of this Branch are requested to take notice, "That candidates for the office of representative of the Branch at the Council of the Association, should be nominated by any two members of the Branch, before April 15th, and their names sent to the Honorary Secretary." The present representatives are, for Kent, Dr. Parsons (Dover); for Surrey, Dr. Holman (Reigate); for Sussex, Dr. Withers Moore (Brighton).—CHARLES PARSONS, M.D., Honorary Secretary.

GLOUCESTERSHIRE BRANCH.—A special and ordinary meeting of the Branch will be held on Tuesday, April 21st, 1885, at 7.30 P.M., in the lecture-room of the School of Science, Gloucester, under the presidency of Dr. Needham. *Agenda:* Special.—The adoption of the revised and amended rules drawn up by the Council. Ordinary.—A paper on "The Estimation of the Impurities in the Atmosphere," together with a practical demonstration of the same, by G. Embrey, Esq., county analyst.—G. ARTHUR CARDEW, Honorary Secretary.

SPECIAL CORRESPONDENCE.

LETTERS FROM THE EAST.

II.

At Sea.—Gibraltar.—Malta.—The Ganges.—Suggestions for the Comfort of the Sick.—Suakin and the Lady Nurses.

MR. ERNEST HART writes, under date Cairo, March 15th:—

Progress in a steam-ship is eminently scientific. The wheels, compasses, iron-plates, engines by which you are surrounded, the pulsating piston with mechanical monotonous and unceasing throb, the revolving screw, the officer on the bridge guiding this metallic monster of four thousand tons with the pressure of his hand on a button, or blinking at the sun with sextant and glass, all are images and products which show everywhere the calculated application of the finger of science. In this there is satisfaction, but no rest; there is no man aboard ship who does not quickly turn for refreshment to the changeful nature which surrounds him, and, consciously or unconsciously, live in happy thought among the elemental influences, which speak first and last, which are the oldest and the youngest, and which presently impress us as the true realities among which we move. At sea we feel ourselves to be the creatures of their moods—the winds pipe, the clouds gather gloomily, the waves lift their foaming crests; the ship reels and trembles, and we shrink before the vision of the unchained forces of nature, from which in towns we comfortably hide ourselves in the study. Then the scene changes; with even keel we glide through a smooth sea with unwrinkled and glassy surface, reflecting the intense blue of the high arch of the skies from which the austere clouds have vanished: the sunlight dances in the ripple of the boat's wake; a soft air fans the check, an invading warmth and seductive sense of restful ease complete the temptations to pass hour after hour in calm enjoyment of a life in which there is nothing to distract or irritate; hours of equable happiness without conscious thought, varied only by intervals of light and laughing occupation with agreeable trifles; and rare episodes of serious activity in mental travail. For a sea-journey subdues you easily to the medium in which you live. The gossip of the city, the crowding of the multitude, the trivial and tangled hopes and doubts; the larger aspirations, the thoughtful effect of responsible doing, these belong to the dreamland which you have left behind; for you, at least, the reality is here, where you are. The flowing sea, the moving cloud, the cooling winds, the radiant sunshine, these form the actual world of nature in which you are privileged to live, and these are now and always speaking, as in these seas they spoke long since to Greek, Phœnician and Hebrew; still renewing physical vigour, and bracing up the whole man, still whispering to the spirit in a language which has never changed, which is the same for all, and which all understand; tidings of the things far distant, unaltered and unalterable, ancient of days but having an unfading freshness; and if it fares well with us, we can still hear the faintest whisper as they did in Horatian days —*auribus erectis*—with ears erect.

From the moment that we passed Gibraltar till we left the ship at Suez, it has been well with us—each day more brilliant than that which went before. The transcript of the log would be wearisome, from its monotony of fair record; unbroken sunshine, the temperature of an English June, at its best, and without its vicissitudes; the thermometer ranging through not more than six degrees in diurnal variation, but slowly mounting day by day till, at Port Said, it had reached 72° at midday; gentle and refreshing breezes, idleness on lounging-chairs beneath the awning during the day; when evening comes, the crescent moon rises in the skies, jewelled with a million constellations, shining everywhere so brightly, that starlight is no figure of speech; for the evening star and Sirius throw distinct trails of light across the waves. For "occupations," there are reading, chess, whist, "shovel-board," and, for those who like them, charades, concerts, dancing, pacing the quarter-deck, and such other amusements as make an idle life tolerable or intolerable, according to taste.

The calls at Gibraltar and Malta allow a few hours on shore at each place. The proud rock which juts forth, a British citadel in a foreign sea, wakes a throb of pride in every English heart—an impregnable fortress, a firmly planted and well formed place of arms, dominating the Mediterranean, with miles of covered galleries, not obtruding themselves, but lying quietly beneath the rugged surface of the earth, here and there a buttressed fort, and a hundred-ton gun, but no show of strength, only the reality, the keystone of the fabric of British commerce in these seas, and doing its work effectually, but not fussily.

Just now there is a special stir; some ironclads of the Channel squadron, and a couple of transports, are lying in the roads; the harbour is alive with puffing and snorting tugs; steam-tenders labour noisily through the water; and flat gaily painted barges, striped with red and blue, row-boats, laden with fruit and vegetables, and live-stock of all kinds, swarm about the ships; steam-launches dart across, now carrying officers of the port, the ship, or the garrison, now tugging into harbour a barge laden with a crowd of blue-jackets, standing closely as they can pack, and off to shore on short leave; for steam does everything, and the smart row-boats of the man-of-war are much less seen than heretofore. We traverse the long climbing street which is the main artery of Gibraltar; we pass the governor's house, admire the markets, glowing with flowers—irises, roses, orange-blossoms, the piled up heaps of tomatoes, blood-oranges, bananas, and the like. We take a look at the barracks, and the huge "condensers," which are to add to the supply of potable water, now scant and insufficient for the crowded population; and the time has arrived for returning to the ship. The drainage of the rock presents many difficulties. The authorities are still exercised in mind whether to yield to the clamour against street-ventilators, to attempt a system of ventilation of drains by external pipes and artificial suction, or to trust to natural methods. I had occasion to discuss the subject briefly with a person holding responsible duties in this respect. Knowing the dangers, the complications, the uncertainties and frequent breakdown, and the inevitable shortcomings of any artificial system of draining or driving air through a complicated system of pipes, having numerous outlets in private houses, I ventured to express the strong opinion which I entertain in favour of a natural system of ventilation, by free inlets and large and abundant outlets, at every possible and suitable point, combined with profuse and automatic flushing. The health of the population is good, and the climate, through the winter and early spring months, agreeable. The malarious fever which once afflicted the native and, to some extent, the foreign residents, has been all but banished by efficient drainage and sanitation. There is still some trace of it; but Gibraltar, although uninviting as a health-resort, by reason of its cramped and limited site, and the absence of gardens or abundant vegetation, has, by reason of its neighbourhood to Spain, its English comforts and society, its maritime situation, its accessibility, and its mild climate, advantages not be overlooked where ties of family or friendship, or the desire for a short holiday "at sea," lead that way. At Malta "the East" opens to view. This time we saw it only at night, for our steamer arrived late in the evening, and started again at early morning; but we landed and revived our acquaintance with its staircase-streets, climbing up steps from the harbour to the summit of the rock on which it is built; its projecting balconies of green woodwork, enclosed with "jalousies," its mingled population of turbaned Moors from the neighbouring coast of Africa, swarthy Spaniards, bright robed and ragged Sicilians, the swarming native population, who breed like rabbits, and like them love to burrow in underground habitations; uniforms of all nations, but chiefly British, every language sounding in the ears; soldiers in their new Kaki dress of greyish-brown cloth with white serge caps; fatigue-parties embarking droves of mules, stores lying on the quay. These are the signs of our Egyptian campaign, for Malta is a great *entrepot* for coaling and for stores. Troops are constantly arriving and passing through, and the signs and preparations of war surround us on all sides. Meantime, here all is activity and bustle; the opera is full of Spanish ladies, shrouded by their black lace mantillas; English, Spanish, and Maltese residents, tourists in tweeds and with many shaped uglinesses of head-gear. From Malta to Tangier is but a brief sail, and here some of our company leave us for a tour along the African coast, others stay at Malta for a short holiday, and will then return to work at home. Dear to young ladies is this brief residence at Malta, with all its garrison gaieties; and for men it provides hunting across the frontier, and all the varieties of amusement and sport which the English officer knows how to organise on every soil. The climate from October till May is delightful, and none leave Malta without a good word for it.

We meet here the *Calabria*, having on board a large body of the Hospital Staff Corps, and the Peninsular and Oriental Company's steamer *Ganges*, rapidly and efficiently fitted as a hospital-ship, destined to remain, throughout the coming months, in the harbour of Suakin. Here, and later at Port Said, we had the opportunity of inspecting the *Ganges*. I need not enter into a description, of which the details have already been at your disposal in London. She is fitted for 240 sick; the wards and cabins are airy, well ventilated, and well arranged. The medical department enjoys one advantage in this campaign which the experience of the last and the subsequent investigations of Lord Morley's Committee have at length secured for them. For the first time in English military history, the principle for which we have long contended has been established. The medical officer is master in his own house. Command is given where there had hitherto been responsibility without power. The jealousy of the "combatant" service had always tied the hands of the doctor, who had to work in fetters, and to requisition various departments for the materials needed for his use. To this cause were clearly traced the delays which caused grumbling in the former campaign. The *Carthage* carried no laundry, and the hospital-linen had to be sent to Cyprus to be washed, whence it was returned to Ismailia, and, by a round-about route, reached it again at Alexandria. What a comment upon antiseptic precautions! The medical officer in charge, Surgeon-Major Gribbon, is an efficient officer, and has now his hands free. One suggestion I have ventured to make, which, if acted upon, will, I hope, prove very useful and agreeable to the sick. Suakin is one of the hottest places in the world, even hotter than Aden, which has been vigorously described as Hades with the fires just out. The suffering from the heat during the summer months cannot but be extreme, and, of course, will be most felt by the sick. The *Ganges* carries a great ice-making apparatus, constructed on the principle of producing cold by the expansion and contraction of air. Six hours' working of this apparatus will supply a full daily store of ice for all purposes. Why should not the cold air which this machine produces (at a temperature far below zero) be distributed in the meantime, by simple mechanical means, between decks through the wards? The whole of the wards might, by means of an inexpensive system of conducting-pipes, be easily kept at 60°. With the aid of a few anemometers and wet and dry bulb thermometers, under the charge of an intelligent person, the currents of air might be so regulated and adjusted, as to afford an indescribable comfort to the sick. Nor can it be doubted that such an arrangement affecting the temperature would greatly affect the recovery of the sick; for the main bulk of the cases will be of diseases incidental to heat, sunstroke being prominent in the lists. I am glad to say that this suggestion was thought well of by Surgeon-Major Gribbon, and I believe that Captain Andrews considered it very practicable.

There are four lady nurses on board the *Ganges;* and we met four others lately bound for Suakin. They have a hard duty, and will pass through trying times. Everyone speaks of the climate and surroundings of Suakin during the hot months with horror. But these ladies face the prospect cheerfully. They are well-tried and trained women; some have passed through the Afghanistan war, as well as the late Egyptian war; they have done duty at the military hospitals of Netley, Woolwich, and the Guards' hospital. Well-born, educated, and experienced; dressed in the bright uniform of grey dress, scarlet cape, and white caps, they look trim, bright, and womanly, and find everywhere a sympathetic and friendly reception. Medical and combatant officers and men alike speak well of their indefatigable attention; few medals have been better won than those which some of them wear, and which all are likely to deserve.

This letter is late, for we missed the mail at Port Suez, owing to some unavoidable delays, and the letter is posted from Cairo. Of Port Said, Suez, and Cairo, I shall speak in my next letter.

ROME.

[FROM OUR OWN CORRESPONDENT.]

The Drinking-Water of Rome.

So many volumes have been written on the waters of Rome, and so widely are the waters distributed through the city, that the visitor is always impressed by the number and size of the fountains, and the enormous volume of fluid which apparently runs to waste, or delights in the sound of the rushing stream, and studies with interest the huge figures of triton and naiad and river-god embellishing the fountains, or the varied old granite and marble reservoirs, troughs, and sarcophagi into which the water falls. No city in Europe certainly, none anywhere that I know of, has the same supply as that from the four aqueducts in use, 1,000 litres for each inhabitant; and almost all the water is of excellent quality and perfectly fit to drink, though there are of course degrees of excellence depending on the soil and geological formations from which it is drawn, and the care shown in its conveyance and storage. The present Syndic, or Prosyndic, rather, of Rome, Duke Leopold Torlonia, has lately conferred a great boon on his fellow-citizens by having an accurate analysis made of the water of each aqueduct-supply; and it is from the report of the results of the analyses that the following facts are mainly derived.

These were made in the Chemical Institute of the University of Rome, and the report is preceded by a letter from the Director of that institute, Professor Stanislaus Cannazzaro, though the practical part of the work was done by other analysts whom he appointed.

Three of the four aqueduct-supplies at present in use belong to the municipality. These are the Vergine or Trevi, the Felice, and the Paola; while the fourth, the Marcia, is the property of a company. The waters belonging to the municipality were all known to the ancients, the Trevi being the same as the Virgo of Agrippa; theFelice, the Alexandrian, or water brought in by Alexander Severus; and the Paola that of Trojan, with an unfortunate addition from the Lake of Bracciano. The Marcia is not quite the same as the old Marcian, although it is derived from very similar sources in the limestone districts of the Apennines below Subiaco (Sublaqueum), and just off the road to Tivoli. The three municipal waters have their sources in the tufa deposits from extinct volcanoes.

The waters are clear, and without smell or colour, except the Paolan, which shows a slight discoloration with the apparatus of Crookes, Odling, and Tidy; and three of them, the Trevi, Felice, and Paola, have a very faint alkaline reaction. The analysts enter minutely into the chemical processes used in determining the various inorganic constituents, and give tables showing the results.

100,000 Grammes of Water contain Grammes of	Water.			
	Trevi.	Felice.	Paola.	Marcia.
Chloride of sodium	2.114	1.649	6.146	0.643
Carbonate of soda	4.318	2.535	2.961	0.186
Nitrate of potash	1.547	1.153	0.436	0.429
Carbonate of potash	4.586	3.337	4.223	—
Sulphate of lime	2.890	3.461	3.552	0.449
Nitrate of lime	—	—	—	0.074
Carbonate of lime	13.090	21.955	4.371	19.270
Carbonate of magnesia	3.920	5.817	3.898	6.888
Silica	4.360	4.360	1.625	0.680
Sum of inorganic fixed constituents	36.825	44.267	27.212	28.619
Freed and semicombined carbonic acid	17.100	18.760	8.16	14.28

There are also small quantities of phosphoric acid, and traces of oxide of iron, iodine, lithium, and strontium in almost all of them.

To determine the organic substances in the water before its evaporation, the oxygen-process of Tidy was adopted with some unimportant modifications, while Frankland's method was used to determine the organic carbon and nitrogen in the residue after evaporation. The result was as follows, in 100,000 parts.

Water.	Oxygen consumed. Method of Tidy.		Method of Frankland.		Proportion of Carbon to Nitrogen.
	First Hour.	Third Hour.	Organic Carbon.	Organic Nitrogen.	
Trevi	0.0000	0.0096	0.027	0.0015	18 to 1
Felice	0.0032	0.0064	0.053	0.018	3 to 1
Paola	0.0064	0.0104	0.060	0.021	3 to 1
Marcia	0.0000	0.0032	0.014	0.003	5 to 1

As to hardness, it was found that the waters showed great differences. The Felice and the Marcia are decidedly hard waters; the Trevi is a water of medium hardness, while the Paola is a soft water. The Trevi, which has usually been considered the best water, is shown to contain an unusually large amount of silica and of carbonates of potash and soda, which give it, indeed, a faint alkaline reaction. These ingredients, however, do not exceed healthy limits, and are due to the disintegration going on in the lava and pozzolana. There are, too, some nitrates, though not more than half the quantity usually thought requisite to make a water even suspected. The analysts have examined two waters, the one taken at a great height on the Alban Hills, and the other from a spring which issues at a higher level than, and supplies the village of, Nemi; in both of which, without the existence of any possible source of contamination from animal organic matter, there are found even larger quantities of nitrates than in the Trevi, whose source is in the Campagna. As there are neither ammonia nor nitrites, and but the merest trace of organic matter in these springs, they argue that the nitrates must either proceed from vegetable matter in the soil, or, if of animal origin, that the long filtration through a porous and disintegrating volcanic formation, such as the tufa and pozzolana of the Alban Hills and the Campagna, must offer the most certain guarantee of the complete oxidation of such matter; and they point out that statistical data, chemical analysis, and experience, combine in showing that drinking-waters which have undergone such a prolonged filtration are perfectly pure.

The amount of organic carbon and nitrogen found in the Trevi water shows it to be very pure in these, the most essential respects; but it is a little disquieting to find that there are some differences in the analysis of the water as made at Rome, and at the fountain-head, though these differences have nothing to do with the amount of organic matter contained in it, which point to a possible pollution through the aqueduct itself, in its underground course. It has lately been maintained that this underground aqueduct has been tapped here and there by wells made into it; and where there are such wells, they would offer to Italians an easy way to dispose of much refuse. It is more than likely, however, that the pollution is simply due to infiltration of subsoil water, owing to accidental damage of the aqueduct, or to its having fallen out of repair.

The Marcia is quite free from organic impurities, but is very hard, and deposits large quantities of lime and magnesia. It is not quite so hard as the Felice, which, however, seems a softer water, since, containing a quantity of silica, the lime in it, after it is boiled, is apparently deposited mostly as a friable powder round the silica; and practical experience confirms this anomaly, as the Felice has often been recommended by me to ladies who complained of the effects of the Marcia on the skin. The Marcia is the coldest of all the waters which supply Rome, having a pretty constant summer and winter temperature of 11° Cent., or 51.8° Fahr.

The Felice contains many of the same alkaline ingredients, silica, and phosphoric acid, as does the Trevi water. It is quite free from organic matter, but contains a scarcely appreciable trace of nitrites; and either from its source being exposed, or from defects in the underground part of its aqueduct, it is very turbid after heavy rain, from the earthy ingredients washed into it.

The Paola is little used as a drinking water, and the admixture of its sources with the water from the lake of Bracciano, without any well directed filtration, must at present condemn it. It is the softest of all the waters, and hence is much more used for industrial purposes.

The few wells which existed in the city up to the outbreak of the cholera in Italy in 1884 were then closed by order of the municipality, and there is, fortunately, little chance of their being reopened.

There are one or two points in regard to the storage of the water which are quite as important as the chemical analysis. There is no such profession as that of the sanitary engineer recognised in Italy; and the Italian architects have no idea how effectually to protect the inmates of the huge houses and villas they construct from the dangers of sewer-gas, or the water which they store in cisterns and tanks from contamination. We find with the Acqua Marcia that the same cisterns are almost invariably used for water-closets, for sinks, and for drinking purposes; that their overflow-pipes are run into the soil-pipes of the closets, into the house-drains or the street-sewers direct; and that the reservoirs themselves are never attended to, are very filthy, and often exposed to the air. In some of the larger houses, and in most of the hotels, where the overflow is valuable, owing to its abundance, these pipes may be run into fountains in the courtyards or kitchens; but this is certainly only the exception. To find such pipes opening over properly trapped gulleys in the open air, or directly as warming-pipes, is impossible, except in the few villas whose proprietors are English, or have had the advice of English sanitarians. Many of the cisterns are inside the houses, often, indeed, in the kitchen, and quite unventilated. Hence the preference I have always expressed for the Trevi, which is the only water, probably, in any large city, not stored in cisterns, except in one or two instances, such as in one of the large hotels of the Piazza di Spagna, where it was found running into a reservoir below the central courtyard, whence it was pumped into a cistern on the roof—an arrangement most emphatically condemned. Almost everywhere throughout the quarter to which it is distributed, the Trevi water is drawn direct from the mouths of the iron pipes opening above the fountains in the courtyards and gardens, where it is running night and day. The Felice, too, is but rarely introduced into cisterns or tanks, and it is consequently less exposed than the Marcia to sewage-emanations; but in wet weather it is too turbid to

drink without much filtering. A little care, and some acquaintance with modern sanitary appliances, would raise all the three above suspicion as drinking-waters.

CORRESPONDENCE.

PRELIMINARY SCIENTIFIC EXAMINATION OF THE UNIVERSITY OF LONDON.

SIR,—I heartily concur with the sentiments expressed by Professor Ray Lankester in the BRITISH MEDICAL JOURNAL, March 7th, p. 506, on the subject of the preliminary scientific examination of the University of London. At this College, most of the students are working for a London degree, but our arrangements are such that no one can attempt the preliminary scientific work without staying with us an entire session, that is, from October till the end of June. My own experience goes to show that any student working at all conscientiously for one session, after getting through the matriculation, can pass the preliminary scientific examination with ease; and I am assured that, instead of the time being wasted, it gives a man a foundation which materially helps him in his future career at the hospital, and enables him really to appreciate his medical work from the first. It seems, on the face of it, absurd to attempt to teach physiology to one who is entirely ignorant of the rudiments of chemistry and physics, or to begin instruction in anatomy by a detailed study of the muscles, before even the general relations of the various organs of the body are understood.

Professor Lankester rightly remarks that "it is impossible to provide anything but false, and worse than false, teaching in these subjects (chemistry, physics, and animal and vegetable biology) for eight guineas," as advertised by certain private coaches, and adds "good teaching cannot be given for less than four times that fee." This latter statement is perfectly true in colleges which are not specially endowed.—I am, etc.,

W. NEWTON PARKER.

University College, Cardiff.

SIR,—Professor Lankester has, no doubt, just cause for his very scathing remarks (see his letter to the BRITISH MEDICAL JOURNAL of March 7th); but I scarcely think that the matter can be answered in the light and airy way that Mr. Lowne endeavours to dispose of it. This gentleman makes himself the champion of a very narrow interest; but, notwithstanding his remarks, I think that every one will admit that there are some curious teaching anomalies in our medical schools. I feel bound to say that Professor Lankester has much ground for stigmatising some of these so-called courses of instruction as a "disgrace to the community." It is perhaps not the fault of the medical schools always that they should be thus; but, none behind the scenes of medical education in the London schools can deny that the poor student is sometimes made the victim of a system of incompetence. Indeed, the College of Surgeons itself can scarcely escape this charge entirely; for is it not a fact that there have been examiners at this institution not distinguished for either competency of knowledge or examining power? I could cite instances. Is it not a fact that the teaching of such extraneous subjects as botany, or zoology, or physics, or even organic chemistry, is often relegated to incompetent persons? It has fallen within my own knowledge that it is so, and I have known men appointed to teach the two former who knew much less probably than most of the men to whom they lectured. The fact is, these subjects cannot be taught comprehensively and properly at a medical school, unless it have very large resources. The smaller schools of London have not enough resources to properly conduct the classes they deem of the first importance, namely, anatomy and physiology; and, however competent the man, he is handicapped by the penury of his institution, and simply cannot demonstrate efficiently. If botany and zoology should form part of a medical curriculum, let us have them taught properly. I think it is also a question, how far physiology should be taught in medical schools. It simply at present means cramming classes "for the College" and a little microscopy. Higher physiology is impossible in small medical schools, and difficult even in large ones. It is not easy to understand not only how, but why, some of these small schools exist at all. Let them limit themselves to teaching clinical and practical medicine and surgery, and let their students attend proper courses of instruction in other subjects (anatomy and physiology) at a centre where these subjects can be taught properly, with efficient resources and apparatus, which their accumulated fees would help to ensure. At present, the student is frequently robbed to support a system of results. Professor Lankester is quite right here. Most of Mr. Lowne's letter is, if he will excuse me saying so, manifestly absurd. There is one truth, however, lost sight of by many—that the poor medical student, who has limited time at his disposal, is compelled to get up a good many subjects which are of very doubtful value to him. He should have a rudimentary knowledge of extraneous scientific matters before he becomes a regular medical student, and medical schools ought to be relieved of this part of their curriculum. My own impression is, that schools of medicine should limit their teaching to the various branches of surgery and medicine purely; and that botany, physiology, zoology, and medical chemistry, would be best taught at a centre especially set apart and endowed for the purpose; and so a system of cramming and ridiculous rivalry between small schools, which have no reason for existence, would be suppressed. Indeed, we want, not only a regular teaching centre, but a "Redistribution Bill" for the schools themselves, with a suppression of the worthless ones; or, at any rate, very considerable reformation.—Yours truly,

A TEACHER.

THE PATHOLOGY OF CHOLERA.

SIR,—I am sure many of the Fellows of the Royal Medical and Chirurgical Society must feel it desirable that the bacillus division of the cholera-question should not be left at the point which the discussion reached on Tuesday; and that it would be useful if Dr. Klein were to take an opportunity of still further explaining his views regarding the methods and results of investigation referred to by Mr. Cheyne. There are some important matters on which it appears to me desirable that further information should be given, and more especially on one most important point which cannot be too soon made clear. The cardinal question at present is this: has Dr. Klein ever found the bacillus of cholera (Koch's) in the secretions or body of any healthy person, or of any person affected with any disease other than cholera? Although this question underlies the root of the whole matter, I carried away with me from the meeting no definite idea of what Dr. Klein's valuable experience in reference to it had been.

There are other subordinate questions, but also important ones. Has Dr. Klein, with his exceptional opportunities, ever found a case of cholera in which no comma-bacilli (Koch's) were found? Then, as regards the minute straight bacterium found by Dr. Klein in cholera (and which it appeared to me Dr. Klein showed by the cultivation-tubes he brought to the meeting to be essentially different from Koch's bacillus), we should naturally like to have any further information obtainable. It is evidently desirable to ascertain if this organism is ever found in connection with other than cholera-patients.

The determination of the specific or non-specific action of Koch's bacillus precedes in order, as well as in importance, every other question that can at present be raised in reference to cholera.—I am, etc.,

A FELLOW OF THE SOCIETY.

THE THUNDERSTORM OF JANUARY 31ST.

SIR,—With reference to Mr. Pye's letter on the thunderstorm of January 31st, which appears in the BRITISH MEDICAL JOURNAL of February 28th, p. 458, I may mention that I have been in attendance on some persons who suffered, more or less severely, from the effects of the lightning of February 26th. Towards the evening of that day, several vivid flashes of lightning, followed by (with a very short interval) loud peals of thunder, visited this part of the country. The persons who suffered from the electricity were four in number, and experienced the shock simultaneously. The house in which all four were at the time is one-storeyed, and made of stone, placed several hundred yards from the nearest dwelling, on the border of a moor or bog of great extent. During the heavy downpour of rain which immediately preceded the expected thunder-clap, these people (two females and two men) were grouped around the hearthstone. One woman was seated before the fire knitting, with a bright pair of scissors on her lap; the other female was seated also, reading. Both men were standing, one with a mason's trowel in his hand.

Immediately the lightning-flash glanced before their eyes, the knitter received, she explains, a violent blow on the right ear, and was knocked down insensible. The girl was also knocked down, but remembers no blow. On regaining her feet, however, she found one instep burned irregularly, in zigzag fashion. She experienced a tickling sensation; also "pins and needles" along the leg; but this feeling disappeared after a few hours. The mason—he who held the trowel—felt his hand involuntarily grasp the implement strongly, and so as that he could not drop it. At the same instant, he received a violent shock at the back of the neck. The whiskers were burnt close to his face at the right or opposite side.

All are quite well now, and free from any unusual feeling, except

the woman who received the shock in the ear. She tells me that she cannot endure any noise; that there is a singing in her ear; that her head feels as heavy as lead, and the bones of the skull are "as if they were cracking."

The house is a very poor one; the thatch, which was ignited by the lightning, being of straw; and certainly it is innocent of any "modern improvements." Telegraphs are not near, and telephones are out of the question. There is no excess of metal about the place. The chimney is of mud and laths. It is decidedly not an *attractive* place in any sense of the word.—I am, etc., JOHN E. DOWLING, M.D.

Ballymoe, co. Galway.

MILITARY AND NAVAL MEDICAL SERVICES.

THE WAR IN THE SOUDAN.

THE *Times* correspondent, telegraphing from Suakin on the 24th instant, says that he had that day visited the base-hospital at "H" Redoubt, to which all the wounded sent in from battle were first brought, before being transferred to the *Ganges* hospital-ship. This transference was effected as soon as possible, so as to keep the cots clear. The tents were pitched within an earthwork, which was defended by 200 men of the King's Shropshire Light Infantry. The hospital, which is in charge of Brigade-Surgeon W. Tanner, is a model of cleanliness. Every comfort is ready, including champagne, ice, arrowroot, and beef-tea. Among the wounded from Sunday's battle is Dr. Digan, R.N., who has a gunshot-wound across the armpit, and is doing well. The correspondent had also visited the *Ganges*, to which there have been 103 admissions since her arrival on the 15th instant, including Staff-Surgeon Buckle, R.N., with remittent fever. The whole of these are doing well. The ship lies at the furthest point out seaward in the harbour. The senior medical officer, Surgeon-Major G. C. Gribbon, M.B., is in charge, with four nursing sisters. The relatives and friends of the sick and wounded in this trying and difficult campaign (the correspondent adds) may rest assured that all that foresight and care can do is done.

ARMY MEDICAL SERVICE.

SURGEON-MAJOR A. J. FERGUSON has been gazetted to be Brigade-Surgeon, *vice* W. Skeen, M.D., who has been promoted. Mr. Ferguson's commissions are dated:—Assistant-Surgeon, September 1st, 1858; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1873. He was engaged in the Afghan war in 1878-80, and was present during the operations in the Mazeena Valley (medal).

Surgeon-Major JOHN ROBINSON is also appointed Brigade-Surgeon, in the place of A. M. Tippetts, promoted. He entered the service on September 22nd, 1858, his commissions as Surgeon and Surgeon-Major bearing the same dates as those of Surgeon-Major Ferguson. Mr. Robinson was likewise in the Afghan war in 1878-80, and has received the medal for that campaign.

Surgeon-Major ST. JOHN KILLERY, M.D., has also been promoted to be Brigade-Surgeon, in the stead of R. W. Carter, who has gone on retired pay. His commissions are simultaneous with those of Surgeon-Major Robinson. The Army Lists do not assign him any war-service.

Surgeon-Major W. A. GARDINER also has been made Brigade-Surgeon, *vice* C. G. Irwin, M.B., promoted, and his commissions are likewise dated the same as those of Mr. Robinson. He served during the operations on the West Coast of Africa in 1863-64.

Surgeon-Major G. S. DAVIE, M.D., has also been promoted to be Brigade-Surgeon, in the place of W. C. Boyd; who has been granted retired pay. All his commissions are also of the same dates as those of Surgeon-Major Robinson. From *Hart's Army List*, we learn that Dr. Davie served as Acting Assistant Surgeon with the Artillery of the Turkish Contingent from May, 1855, to June, 1856, in Turkey and at Kertch (Turkish medal); throughout the operations in Perak, Malay States, as Senior Medical Officer, during 1875-76 (medal with clasp); with the Peshawur Valley Field Force in the Afghan war in 1878-79 (medal); and in the Egyptian war of 1882 (mentioned in dispatches, medal, 3rd Class of the Medjidie, and Khedive's Star).

Surgeon-Major DONALD MCEWEN, M.B., has retired with a gratuity. Mr. McEwen entered the service as an Assistant-Surgeon on October 1st, 1867; became Surgeon on March 1st, 1873; and Surgeon-Major on October 1st, 1879. He is in the fortieth year of his age, and does not appear to have been in any campaign.

Surgeon-Major R. C. KIBBLER, 7th Battalion Rifle Brigade (King's Own Tower Hamlets Militia), has resigned his commission, with permission to retain his rank and wear the prescribed uniform. Mr. Kibbler was appointed Surgeon to the corps April 3rd, 1874.

Surgeon W. S. LOVE, 4th Battalion Royal Inniskilling Fusiliers (Tyrone Militia), has been promoted to be Surgeon-Major. He dates as Surgeon from March 1st, 1873.

Mr. S. H. MOORE has been gazetted Acting Surgeon to the 2nd (South) Middlesex Rifle Volunteers.

Mr. ALEXANDER MARTIN, M.B., has been appointed Acting Surgeon to the 1st Dumbartonshire Volunteers.

Acting Surgeon JAMES CANTLIE, M.A., M.B., has been appointed Surgeon-Commandant of the newly constituted Volunteer Medical Staff Corps. Mr. Cantlie resigns his position of Acting Surgeon to the London Scottish Volunteers, to which he was appointed on July 15th, 1882.

Surgeon J. L. HALL is appointed Adjutant to the same corps.

Surgeon J. M. REID has been placed on general duty in the Sind Circle, Bombay Presidency.

Surgeon E. SHERWOOD, M.D., has resigned his commission in the 1st East Riding of Yorkshire Artillery Volunteers; he is permitted to retain his rank, and wear the prescribed uniform.

Surgeon W. CRAWFORD, M.D., also has resigned his commission in the 2nd Lanarkshire Rifle Volunteers.

Special attention has been given to the medical arrangements in connection with the Volunteer Review at Brighton in Easter week. Full details of the ambulance-column, with two bearer-companies, have been officially issued. It will be under the command of Surgeon H. R. O. Cross, Grenadier Guards, Lieutenant M'Clure, 7th Middlesex (London Scottish) R.V., being Acting Adjutant and Quartermaster. No. 1 Bearer-Company will be under the command of Surgeon-Major J. Cantlie, London Scottish, and No. 2 Company under the command of Surgeon A. T. Norton, 12th Middlesex (Civil Service) R.V. The field-hospitals will be sent to Brighton and pitched there as may be directed by the Quartermaster-General for the attacking and defending division, ready for the arrival of the columns. No. 1 Field-Hospital will be in charge of Surgeon-Major W. G. Shepherd, Victoria Rifles, and No. 2 Field-Hospital will be under the command of Surgeon W. S. Burrows, Sussex Artillery.

The following officers are attached to General Graham's force at Suakin: viz., Deputy Surgeon-General Oliver Barnett, C.I.E.; Brigade-Surgeon G. L. Hinde (local Deputy Surgeon-General), J. Warren, and W. Tanner; Surgeons-Major A. Allan, M.D., G. C. Gribbon, J. B. Hamilton, M.D., W. J. Wilson, M.D., J. A. Shaw, M.D., J. Fleming, M.D., W. E. Riordani, R. Tobin, G. J. H. Evatt, M.D., A. W. Bate, M.D., T. W. Patterson, E. F. Boult, A. H. Stokes, M.B., G. Corry, J. J. Crean, W. J. Fawcett, M.B., A. H. Anthonisz, M.B., and F. E. Barrow; Surgeons R. Smith, M.B., J. Hoysted, U. J. Bourke, J. L. Payton, M.B., W. W. Kenny, M.B., W. Keays, E. R. Power, M.B., H. L. Donovan, M.B., N. Leader, E. R. Cree, M. O. Drury, L. W. Swabey, J. Osburne, R. I. D. Hackett, M.D., H. H. Johnston, M.B., J. D. Davies, W. G. Birrell, M.B., N. Manders, R. L. Colledge, S. F. Freyer, M.B., C. Birt, R. S. F. Henderson, M.B., H. Mitchell, S. Butterworth, C. J. Holmes, and I. R. Lane.

Orders have been issued from the Horse Guards calling for volunteers from the various regiments of the Line stationed in the United Kingdom to the Army Medical Staff Corps for service in Egypt.

The undermentioned gentlemen have been granted leave of absence for the periods specified: Surgeon-Major S. E. MAUNSELL, serving in Bengal, for six months on medical certificate; Surgeon E. NORTH, also serving in Bengal, for six months on urgent private affairs.

Surgeon-Major I. R. LANE, M.D., was severely wounded in the action at Hasheen, near Suakin, on the 19th instant, and died on the following day on board the hospital-ship *Ganges*. He joined the service on the 2nd of August last year, and was in his twenty-third year, having been born on the 20th August, 1862.

INDIAN MEDICAL SERVICE.

SURGEON E. CRETIN, M.B., Bengal Establishment, officiating medical officer with the 12th N.I., has been appointed to the officiating medical charge of the 15th Bengal Cavalry, in place of Surgeon-Major J. YOUNG, M.B., who has been appointed medical officer to the 12th Kelat-i-Ghilzie Regiment of N.I., at Alipore, in place of Surgeon F. J. Tuohy, who has been temporarily placed on half-pay.

Surgeon C. J. BAMBER, Bengal Establishment, officiating medical officer 1st Goorkhas at Dhurmsala, has been appointed to the officiating medical charge of the 22nd Punjab N.I. at Delhi, *vice* Surgeon L. R. Dawson, M.D., who is proceeding on furlough.

Surgeon A. F. FERGUSON, Bombay Establishment, has been appointed to officiate in medical charge of the Poona Horse at Siroor, in the stead of Surgeon A. K. Stewart, officiating staff-surgeon, Poona.

Surgeon G. E. Fooks, Bombay Establishment, who has just been transferred from general duty in the Quetta District to general duty Presidency Circle, is now appointed to the officiating medical charge of the staff and details at Asseerghur, *vice* Surgeon A. C. Thompson, who is proceeding on field-service.

Brigade-Surgeon R. W. Cockerill, Madras Establishment, Surgeon of the General Hospital, Professor of Surgery, etc., Madras Medical College, has retired from the service with the rank of Deputy Surgeon-General. His commission as assistant-surgeon dates from August 4th, 1856, and he attained to the position of brigade-surgeon on June 13th, 1884. He served in the Crimean war in 1854-55, and was at the battle of Inkerman and at the siege of Sebastopol, where he was slightly wounded in the trenches (medal with two clasps). He was also engaged in the China war in 1857-59, and was at the capture and destruction of Namtow (medal).

Surgeon-Major W. E. Allen, Bengal Establishment, who retired on December 5th last, has been granted the honorary rank of Brigade-Surgeon.

The services of Surgeon K. C. Sanjana, Madras Establishment, have been placed at the disposal of the Surgeon-General with the Government of Madras, for temporary employment in the office of the Chemistry Examiner.

Surgeon-Major W. Farquhar, M.D., Madras Establishment, Medical Officer at Ootacamund, has been appointed to the medical charge of the Army Headquarters Staff and Establishment, in addition to his other duties.

Surgeon-Major C. R. G. Parker, Madras Establishment, has been appointed officiating Medical Officer to the 1st Native Infantry (Pioneers) at Bangalore, *vice* Surgeon J. Hoey, relieved.

Surgeon W. B. Bannerman, Madras Establishment, has been ordered to do duty with the 4th Native Infantry (Pioneers) in the Quetta District, *vice* Surgeon A. T. L. Patch. The order referring to Surgeon J. Scott is cancelled.

The undermentioned gentlemen have been granted leave of absence for the periods specified: Brigade-Surgeon A. H. Hilson, M.D., Bengal Establishment, Civil Surgeon at Agra, and Principal of the Medical School, and Superintendent of the Lunatic Asylum, for 230 days; Surgeon-Major R. Harvey, M.D., Bengal Establishment, Professor of Midwifery at the Calcutta Medical College, and Obstetric Physician to the Calcutta College Hospital, for 200 days; Surgeon R. J. Taaffe, M.B., Bengal Establishment, Civil Surgeon at Kurnool, for one year; Surgeon J. Moorhead, M.D., Bengal Establishment, Civil Surgeon at Mymensingh, for three months in extension of his present furlough; Surgeon-Major J. F. Fitzpatrick, M.D., Madras Establishment, Zillah Surgeon at Coimbatore, three months' privilege leave from March 10th; Brigade-Surgeon J. Houston, M.D., Madras Establishment, Surgeon to the Mysore Government at Bangalore, for one year and ten days; Deputy Surgeon-General J. M. Joseph, M.D., Madras Establishment, Western District, Cannanore, for 60 days from March 5th.

Surgeon-Major R. Boustead, Surgeon A. C. Thompson, and Surgeon F. Burness, of the Bombay Establishment, and Surgeon J. Smyth, M.D., of the Madras Establishment, have been detailed for service with the Suakin Expedition.

Surgeon G. A. Cones, Bengal Establishment, has been temporarily transferred to half pay.

Surgeon-Major E. H. R. Langley, Bombay Establishment, has been promoted to be Brigade-Surgeon. Mr. Langley entered as Assistant-Surgeon July 23, 1858, and attained the rank of Surgeon-Major July 23, 1870. He served in the China war in 1862, including the operations against the Taepings at Shanghai, and received the medal for the campaign.

THE NAVY.

The following appointments have been made at the Admiralty during the past week: Surgeon E. R. Dimsey, to the *Rapid;* Surgeon E. Corcoran, to the *Mariner;* Surgeon T. Dunlop, M.B., to the *Orwell;* Surgeon M. Ronan, B.A., to the *Flora*; Surgeon D. B. Bookey, to the *Frolic*; Surgeon A. B. Murdoch, M.B., to the *Hector*; Fleet-Surgeon W. Graham, to the *Tamar*; Surgeon A. S. Nance, to the *Shannon*; Surgeon H. J. Gordon, to the *Tamar*; Surgeon A. F. Harper, to the *Sealark*; Surgeon E. B. Townsend, to the *Seaflower*; Surgeon E. W. von Tunzelmann, to the *Martin*; Surgeon G. A. Dreaper, to the *Nautilus*; Surgeon W. H. O'Meara, to the *Pilot*; Surgeon W. W. Jacobs, to the *Liberty.*

Surgeon H. B. Guppy, M.B., has been placed on the retired list of his rank. Mr. Guppy was appointed Surgeon on September 30th, 1876, and joined the *Lark* schooner, employed surveying on service in Australasia, on July 5th, 1881.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

WHOM CAN WE HANG?

The pertinence of the above suggestive query could not be more forcibly exhibited than in the suspension of Dr. Collie, the Medical Superintendent of the Homerton Fever Hospital, from his duties, on the report of the subcommittee of the Asylums Board, which runs as follows:—"That the result of the inquiry of the subcommittee, as set forth in their report, dated the 18th February, 1885, shows, in the opinion of this Board, the unfitness of the present Medical Superintendent for the office he holds."

The lavish expenditure, and general mismanagement, exhibited by the Asylums Board, has been the subject of indignant protest at meetings of the boards of guardians and ratepayers; and, therefore, it became necessary for the Asylums Board to get up some sort of defence. The preparation of this defence was delegated to a subcommittee, who, in their report (*inter alia*) recommended the dismissal of Dr. Collie; but as the Board could not do this summarily without proof of grave misconduct on his part, they have suspended him from his duties, pending an official inquiry, which, we presume, will be held on that gentleman's management.

Not waiting for the formal notification by the department of his suspension, with the customary request that the department would be desirous of hearing what observations he may have to make, Dr. Collie has forwarded a defence of his management to Mr. Galsworthy, the Chairman of the Asylums Board, contained in a letter to that gentleman, in which he ably and vigorously traverses the allegations of the subcommittee, and clearly shows that a large portion of the extravagant outlay was not in any way traceable to him, seeing that he had neither directed such expenditure, nor had ever had any official connection therewith.

In the particular point where his management was possibly assailable, that of the expenditure on stimulants for his own hospital, he shows, by the statistics of Homerton, Stockwell, and the Liverpool Road Hospitals, that whereas the admissions into his hospital were relatively the largest, and the cases were derived from the most unhealthy districts of the metropolis, and those where destitution was greatest, yet that the mortality under his management was much less than in either of the other two establishments.

He also points out, with much show of reason, that he has held his office for fourteen years, and his employment of stimulants, in the treatment of fever-cases, has never been previously objected to, or officially challenged.

We shall watch with interest the action of the department, and the decision at which they may arrive in the case submitted to them by the managers.

LUNATICS AT LARGE.

We recently had a letter addressed to us by Mr. Smith, a medical gentleman, resident at Heckfield, Hants, in which the writer solicited our advice as to how he should pursue to recover a fee from the Wokingham Board of Guardians, which he felt he was entitled to under the following circumstances.

He (though not the District Medical Officer) had been requested by the relieving officer to visit and examine a person in the neighbourhood alleged to be of unsound mind. He did so, and certified that in his judgment the man was insane, and that he required to be restrained. He subsequently attended before the justice, but that functionary declined to countersign the certificate, and the man was allowed to remain at his own home. On sending in his claim to the Wokingham Guardians, that Board refused to pay the fee of £1 1*s.* for the service rendered on the order of their own relieving officer.

Mr. Smith having appealed to us, we advised that a letter should be written to the guardians, intimating that, if the fee was not at once paid, a summons would be taken out against them. This has had the desired effect; the guardians, though still denying their liability, paid the money.

As regards the lunatic, we learn, that he has since made a most determined attempt to strangle himself with his wife's apron-strings—access to knives and cutting instruments having been interdicted by Mr. Smith's orders. We fear we shall hear of many similar instances of suicide, perhaps of murder, now that such strange notions are abroad as to the liberty of the subject, especially when that subject is deprived of reason.

THE CASE OF DR. BERNARD.

We regret to have to announce that the Local Government Board has intimated to Dr. Bernard, Medical Superintendent of the Small-pox Hospital at Stockwell, that they concur with the desire of the Metropolitan Asylums Board in their determination to consolidate the control of the Fever and Small-pox Hospital in Dr. McKillar's hands; and, in virtue thereof, a three months' notice has been served on him, determining his appointment. It would appear therefrom that Dr. Bernard's appeal for compensation or a pension on the loss of his appointment has been simply ignored.

LIABILITY OF WATER-COMPANIES.

Sir,—I am in want of information anent the liability of water-companies, in the event of their supplying the public with water of a dangerously impure, or at the least highly suspicious, nature. A friend recommended Dr. Hime's *Acts of Parliament relating to Sanitation*; but I cannot procure it. I wish to learn the present state of the law on sanitary matters, and would be grateful for a suggestion of any short and succinct treatise on the subject.—I am, etc.,

P. H. W.

*** On the general subject of the state of law on sanitary matters, Dr. Hime's little *Handy Guide to Public Health* (Baillière, Tindall, and Cox, 20, King William Street, Strand), is as good a book as can be found. As, however, our correspondent writes from Scotland, he may prefer Dr. Aubrey Husband's *Sanitary Law* (E. and S. Livingstone, Edinburgh), which gives a digest of the sanitary Acts of both England and Scotland. But neither book will give any information as to the liability of water-companies in the event of their supplying the public with impure water; for the very sufficient reason that there is no such liability. Theoretically, no doubt, it would appear that Lord Campbell's Act (9 and 10 Vict. cap. 93) must apply to cases of this sort, that actions for damages are maintainable against water-companies by the families of persons whom any wrongful act, neglect, or default of such companies has killed; and, of course, that the person himself, if injured but not killed; can have his own action for damages. But the difficulties in taking any such course at law would be extreme. The proof generally as to the epidemic might be complete; it might be shown to the satisfaction of a jury that a fever or cholera outbreak in mass had been caused by the distribution of a certain water, which the company had suffered to be polluted with sewage; but with all this clearly shown as to the epidemic generally, it might still be scarcely possible for any individual victim of the company's malfeasance to prove (if this had to be proved) that his particular attack came from the direct operation of that and no other cause. The point is a very important one, and, in any amendment of the Public Health Act, the wilful or neglectful distribution of polluted water to the public ought to be made punishable in a very much higher degree than at present. It may be useful to add that, on all technical questions connecte with water-supply, Messrs. Michael and Wills's *Law of Gas and Water*, o which a third edition has just been published by Messrs. Butterworths, is the book to consult.

INDIA AND THE COLONIES.

INDIA.

Water-Supply of Madras.—According to the *Indian Medical Journal*, quoting from the *Mail*, the Madras Government has accepted a tender made by M. L. Cornet, of Pondicherry, for sinking an artesian well at Madras. The approximate cost of the undertaking will be 15,475 rupees. The necessary apparatus is to be brought from Paris.

The Lahore Medical School.—The Lieutenant-Governor of the Punjab presided at the annual distribution of prizes at the Medical College on December 8th. The report showed that the institution was making steady progress, especially in the direction of producing female practitioners. The Lieutenant-Governor commented on the amount of misery suffered by native women from the want of skilled medical treatment arising from the prejudice against having male practitioners, and hoped that the present movement would soon put an end to it. He severely blamed the natives for the meagre support accorded by them to the medical institutions of the province. While the comparatively few Europeans last year subscribed over 10,000 rupees, the contributions from the natives amounted to only 3,000 rupees.

Presentation to Dr. D. B. Smith.—On February 5th, the members of the India Club in Calcutta gave a farewell *soirée* in honour of Dr. D. B. Smith, the newly appointed Professor of Military Medicine at Netley. An address, read by Dr. K. D. Ghose, and a gold watch, were presented to Dr. Smith by his old friends and pupils, who assembled in great force. In the address, reference was made to the distinguished services rendered by Dr. Smith in the field during the Indian mutiny, and his zeal and energy as a teacher while Professor at the Calcutta Medical College, and to his ready sympathy and skill, willingly afforded alike to rich and poor, especially to the refugees from the Orissa famine in 1866. Dr. Smith made a suitable reply, and took farewell of those present.

Cholera.—This disease is reported to be prevalent in six districts of the Bombay Presidency. At Nassick we learn that during a fortnight at least 72 persons died of it in the town and neighbourhood. Dr. Leahy, and the Sanitary Commissioner, Dr. Peacock, have been doing all they can to check the spread of the disease. In Bombay, a temporary hospital has been opened, and medical attendance has been engaged. Dr. Blanc urged, in view of the prevalence of cholera among the pilgrims at Nassick, the necessity of employing a staff of men to look to the sanitary arrangements of the different places where cases of cholera might occur in Bombay. The Municipal Commissioner has given assurance that whenever the necessity arises, he will take every possible measure to keep the disease from spreading in the town. It is stated that there were as many as 45 deaths from cholera in Bombay during the week ending the 25th February.

MAURITIUS.

Outbreak of Fever.—Some alarm, it is said, is being felt in Mauritius at what is supposed to be a fresh outbreak of the fever which proved so fatal in many parts of the island a few years ago. A very bad outbreak has already taken place in the western suburb of Port Louis, which is chiefly inhabited by the very poorest classes. It is said that there is scarcely one house free from fever, and in many families as many as ten or twelve persons have been attacked, frequently with fatal results.

MEDICO-LEGAL AND MEDICO-ETHICAL.

UNQUALIFIED PRACTITIONERS AND QUALIFIED ASSISTANTS.

A question of some importance as to the construction of the Medical Act of 1858 was decided by Mr. Justice Pearson on March 18th. It was an action brought by Mr. Davies, acting as a medical practitioner, though not legally qualified, against a former assistant, Mr. Makuna, who is a qualified medical man, claiming an injunction to restrain the defendant from carrying on his medical profession within ten miles of the plaintiff's residence. An agreement had been entered into between the two parties, in which the plaintiff was described as a medical practitioner, and the defendant as a medical assistant, and by which the defendant agreed to act as the plaintiff's assistant; and the defendant covenanted that he would not, during the next five years after the termination of his assistantship, except with the written consent of the plaintiff, carry on the profession of doctor of medicine, surgeon, apothecary, or surgeon-accoucheur, or any of them, within ten miles of the plaintiff's residence. The defendant acted as assistant for several months, and, on leaving, commenced practice on his own account in the same place as the plaintiff.

The main defence was that the plaintiff, not being a legally qualified medical practitioner registered under the Medical Act, was not entitled to maintain the action; but this was not upheld, and an injunction was granted. The defendant, Mr. Makuna, intends to appeal.

We have no sympathy with Mr. Davies, nor with unqualified practitioners generally; but we must confess that the defendant appears to be still less deserving of sympathy. If he knew, when he entered into the contract, that Mr. Davies was not qualified, he has no cause for complaint; and if he did not know this, he is not prejudiced, on properly retiring from his engagement, in being held to his bargain not to practise against Mr. Davies. An honourable feeling ought, we imagine, even if the appeal be allowed, to restrain Mr. Makuna from entering into practice at Ystrad Rhondda.

A COURT OF HONOUR.

Sir,—From time to time, we see valuable space occupied in the medical papers in the discussion and ventilation of breaches of professional morals. These constant disputes and squabbles are not calculated to improve the status of the profession in the eyes of the public.

Could not, or would not, the British Medical Association form a Court of Honour; or if it have not the power, could it not obtain power? This Court must be composed of men of untainted honour (and, thank God, such men are to be found in our profession), and should have power to enforce its decrees by suspension or removal of offenders from the *Register*. To such a tribunal an injured man could appeal with confidence against an offender, and thus the profession might be saved from much scandal. Again, in cases in which a breach of honour, not of law, is involved, how many years of worry would be saved to many an honourable man who has the misfortune to have a black sheep located near him, in cases (and I am sorry to confess these are not rare) in which a

man takes advantage of the opportunities offered by a position as locum tenens or an assistantship, to set up in opposition to his employer or his successor.

In such a case, the breach is of honour, not of law, and the injured man has no redress, the offender being generally of low origin, and thick skinned in matters of etiquette. In such a case as this, what a blessing a Court of Honour would be, not only to the injured man, but to the profession at large!

Again, we should be saved from the exhibitions, becoming now so common in our law-courts, where professional jealousy ends so often in public scandal.

I make this suggestion in the hope that the Association may take the subject up, and enable the profession to wash at least some of its dirty linen at home; and, by enabling medical men to punish breaches of professional honour and etiquette, to place our noble profession as far as possible above reproach.—I am, sir, your obedient servant,

HONOUR.

PRIVATE SICK-CLUBS.

"To start a club" (so-called, but, *de facto*, a private dispensary of an obnoxious kind) on the lines laid down by "Chirurgeon," would, in our opinion, be very objectionable and "unprofessional." We therefore would strongly dissuade him from seeking to establish it; for there cannot, we think, be a doubt that the proposed "house-to-house visitation," together with the "fortnightly collection of the subscriptions by a collector," would be justly regarded as something very near akin to trade-craft, and, so far, incompatible with the dignity of the profession.

If a dispensary for the working classes be a necessity, we would advise our correspondent to consult his local professional brethren, with whose co-operation there would, we apprehend, be little difficulty in inducing the public to found and support one; and, in such event, he may honourably seek an appointment as one of the medical officers.

NEWSPAPERS AND UNQUALIFIED CONSULTANTS.

DR. A. E.—In reference to the deceptive newspaper-paragraphs and testimonials, issued by an illegal practitioner and a self-elected "consultant" to a so-called "provident" dispensary, we deem it our duty, for obvious reasons, to refrain from commenting on the papers relating to the institution. We must, however, express our regret that publicity and approval should have been so injudiciously accorded to it (though evidently under an erroneous impression) by the newspaper-press. In the case alluded to, the general respectability and influence of the journals in question have, it is believed, tended not a little to mislead the public, and ensnare them in the meshes of the charlatan. Be that as it may, it is scarcely necessary to add that the intending patient will do well to consign the papers to the flames, and the prospective fee to his or her own pocket.

FEES FOR DEATH-CERTIFICATES.

SIR,—Will you kindly inform me if a registered practitioner can charge a fee for granting a certificate of death on the form supplied by the Registrar. I have always understood that a medical man could not charge a fee for such a certificate, but there are no directions given on the printed form regarding a fee. The reason why I inquire of you is that a practitioner in this town—a M.B. of Edinburgh, too—was called to a patient of mine when I was out of the way. My patient was charged five shillings for the journey (five miles), and five shillings for the death-certificate; the medical man having arrived a little before the object of his visit—a newly born child—died.

In my opinion, such a charge is unprofessional, but I wish you to tell me if the medical man is entitled to charge for the death-certificate.—Yours faithfully,

DEATH-CERTIFICATE.

*** By the Registration of Births and Deaths Act, 37 and 38 Vict., cap. 38 (1874), Section 20, it is enacted as follows: "In case of the death of any person who has been attended during his last illness by a registered medical practitioner, that practitioner shall sign and give to some person required by this Act to give information concerning the death, a certificate stating to the best of his knowledge and belief the cause of death." And by Section 39 of the same Act, it further enacts: "That every person who refuses or fails, without reasonable excuse, to give or send any certificate in accordance with the provisions of the said Acts, shall be liable to a penalty not exceeding forty shillings for each offence."

Under these circumstances, it appears to us that the medical practitioner must, according to the Act, give, without fee or reward, a certificate of the cause of death to the person required to register such death, under a penalty of forty shillings; but we see no reason, if the practitioner in question has to pay a visit to the residence of his late patient, or has an interview or consultation with some relative at his own house, in order to ascertain the particulars as to exact age, full name, etc., or other information required in the certificate—as distinct from the actual cause of death—why he is not entitled to charge his ordinary consultation- or visiting-fee, as the case may be.

HOSPITAL AND DISPENSARY MANAGEMENT.

HOSPITAL FOR EPILEPSY AND PARALYSIS.

THE report of the governors and supporters of the Hospital for Epilepsy and Paralysis and other diseases of the nervous system, read at a meeting held on Wednesday, showed that there had been a marked increase in the number of in-patients during the year, the total having been 141, as compared with 78, 64, and 125, in the preceding years, whilst the "attendances" of out-patients had been 7,688, as compared with 7,531 in 1833. The receipts from all sources during the year were £2,439, out of which there remained a balance of £80, or the same as at the close of the preceding year.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Thursday, March 19th.

The Poisons Bill.—The Earl of MILLTOWN has given notice, on the motion to go into Committee on the Poisons Bill, to move that it be referred to a Select Committee.

Thursday, March 26th.

The Lunacy Bill.—The LORD CHANCELLOR, in a very carefully considered and lucid speech of an hour-and-a-half, introduced to the House of Lords "A Bill for the amendment of the law relating to lunatics." After a short historical review of the subject, showing the complexity of the present law, and the difficulties which had been felt by the Commission of 1877 in agreeing upon any method of revision, he proceeded to detail the present proposal. The chief point touched upon was the method of issuing certificates, and in this matter the cardinal proposal was to follow the provisions of the Scotch procedure. In cases of great urgency, the certificate of a single medical man, along with that of a magistrate, was to be sufficient for committal; but this was only to hold *ad interim* for not more than seven days, and for further detention of the patient it must be replaced by another, such as was to be always used in less urgent cases. In this second, or non-urgent certificate, an application was to be made by a relative of the patient, and endorsed, as under the present law, by two medical practitioners acting separately and under certain restrictions; and beyond this, the signature was required of a judge of county court, stipendiary magistrate, or justice of the peace, who should have satisfied himself that the evidence adduced by the medical witnesses was sufficent. To the person affixing this legal signature considerable discretionary powers were to be allowed, and he might even order a fresh inquiry. To this, which was the main proposal of the Bill, several provisions were added, tending to give much greater facilities than at present for admitting single patients, or those who would at present be sent to private asylums into public asylums, though not necessarily on the same terms as all the other patients. It was hoped that some of the objections which could not help attaching, or being imputed to attach, to private asylums, might be thus obviated. No mention was made of any changes in the system of inspection, increase of the number of inspectors, or fusion of the Chancery patients with the main body. In the course of his speech, the Lord Chancellor bore very warm testimony to the untiring way in which the Commissioners had performed their fatiguing duties, and especially to the life-long and generous devotion which Lord Shaftesbury had shown to the toil of his commissionership.

The Bill was read a first time and ordered to be printed, but was not further discussed. We have no time or space this week to enter into its many details.

HOUSE OF COMMONS.—Thursday, March 19th.

The Irish Pharmacy and Poisons Acts.—Mr. GIBSON asked the Vice-President of the Committee of Council whether Her Majesty's Government intended this session to introduce a Bill embodying the suggestions of the Pharmaceutical Society of Ireland for the amendment of the Pharmacy Act (Ireland) and the Poisons Act (Ireland).—Mr. MUNDELLA: A Bill has already been introduced in the House of Lords dealing with the sale of poisons, and it was read a second time last night. The recommendations of the Pharmaceutical Society of Ireland relate to two subjects, namely, some changes in the constitution of the society and some in the law affecting the sale of poisons. The Government have thought it right to limit the Bill they have introduced to the latter branch of the subject, and it will be found that some of the recommendations of the society have been adopted. The draft Bill was referred to the Irish Government, and the clauses applying it to Ireland were prepared by them.

Wandering Lunatics.—Mr. J. TALBOT asked the Secretary of State for the Home Department, whether his attention had been called to a report of a case at the Westminster Police-court, in the *Times* of March 17th, according to which an alleged lunatic was refused admission to the workhouse, "a course which was adopted, it was stated, in consequence of a recent legal decision;" whether, according to the same report, Mr. Partridge said, "It would be very inconvenient to send lunacy cases to the House of Detention, even if it were legal to do so, which he very much doubted;" whereupon Inspector Chisholm said, "it was even more inconvenient and, apparently, less justifiable, to detain lunatics in the cells at police-stations;" and that Mr. Partridge remarked "that it was to be hoped there would be fresh legislation on

the subject before long; there must be an altered state of things;" whether eventually Mr. Partridge said he had no alternative but to send the man to the House of Detention, and said, "magistrates at present did not know what course to pursue;" and whether Her Majesty's Government proposed to take immediate steps to prevent alleged lunatics being confined in prisons.—Sir W. HARCOURT said that the proper place for a wandering lunatic was the workhouse infirmary, and not a prison or a police-cell. To send a lunatic to a prison or a police-cell, was likely to increase his malady. That had been the view taken for the last forty years with respect to lunatics, either before or after trial. According to that view, powers were given by statute, and duties imposed upon the Secretary of State, upon a certificate that a man was insane, to send him to a lunatic asylum. But, to his great surprise, he had lately seen it stated that that was an illegal power exercised by the Secretary of State. Nothing could be more undesirable than that a lunatic should be kept three months or more in prison awaiting his trial, for there were no means provided in prison for the proper care of lunatics. The law provided that a man who was a lunatic should be sent to a lunatic asylum.—Mr. TALBOT asked whether the right honourable gentleman was aware that a Board of Guardians in the west of London had come to the conclusion that they could not keep their lunatics in the workhouse, and that the consequence was, that the lunatics were sent to prison.—Sir W. HARCOURT was understood to reply that the guardians referred to had acted in consequence of a supposed obscurity in the law. The statute to which the subject was referable was, however, sufficiently clear to make it obligatory upon them to admit lunatics. It was not that they could not admit them, but that they would not.—In answer to Mr. M'COAN, Sir W. HARCOURT was understood to reply that, under a statute which had existed for forty years, when a lunatic was committed to prison he could rightly be sent to an asylum.

The Lunacy Bill.—In answer to Mr. W. CORBET, Sir W. HARCOURT said that a Lunacy Bill would be introduced very soon in the House of Lords.

Tuesday, March 24th.

Reception of Insane Persons into Workhouses.—Replying to the question of Lord ALGERNON PERCY, given in the JOURNAL of March 21st, Mr. G. RUSSELL said the guardians of the Westminster Union have called the attention of the Board to the decision of Mr. Justice Wills in the Marylebone case. It appears that, in that case, a woman, who was not a pauper, and who was alleged not to be under proper care and control, was, by stratagem, removed to the workhouse, and was detained there against her will for a period of fourteen days, and that the requirements of the statute were altogether ignored. The publicity which has been given to the decision in this case will be a warning to the officers of other unions if there should be any disposition to adopt a similar course. It does not at present appear to the Board to be necessary to issue a circular letter on the subject, neither would they be prepared to propose legislation for legalising action such as that in the case in question.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, March 9th, 10th, 11th, and 12th, the following candidates were successful.

For the Licences to practise Medicine and Midwifery.—G. Brown, Sandycove, co. Dublin; G. F. Collins, Dublin; J. Hobbs, Dublin; G. St. J. Oldham, Pontefract; R. J. L. Rowley, Sale, Cheshire.

For the Licence to practise Midwifery only.—A. L. Blake, Clonbur, co. Galway.

At a special examination for the Licence in Medicine of the College, held on Wednesday and Thursday, February 25th and 26th, the undermentioned candidate was successful.

W. A. Goodall, M.D. Univ. Vict. Coll. Toronto, 1884, Galt, Ontario, Canada.

MEDICAL VACANCIES.

The following vacancies are announced.

BETHLEM HOSPITAL.—Two Resident Medical Students. Applications to A. M. Jeaffreson, Esq., Bridewell Hospital, Blackfriars, E.C.

BOYLE UNION.—Medical Officer, Workhouse. Salary, £100 per annum, with £15 yearly as Consulting Sanitary Officer. Election on April 4th.

BOYLE UNION.—Medical Officer, Boyle No. 1 Dispensary. Salary, £135 per annum and fees. Applications to H. Lawrence, Honorary Secretary, not later than April 4th.

BRIGHTON AND HOVE LYING-IN INSTITUTION.—House-Surgeon. Salary £120 per annum. Applications by April 17th.

BRISTOL FORESTERS' MEDICAL INSTITUTION.—Medical Officer. Applications to Mr. E. S. Burgess, 34, Horfield Road, Kingsdown, Bristol, by March 31st.

CAMBRIDGE FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Medical Officer. Salary, £210 per annum. Applications to W. P. Littlechild, Vine Cottage, Queen's Lane, Cambridge, by April 25th.

CHELSEA HOSPITAL FOR WOMEN.—Resident Medical Officer. Salary, £60 per annum. Applications by March 31st.

CHESTER GENERAL INFIRMARY.—House-Surgeon. Salary, £80 per annum. Applications by March 28th.

CRANBROOK UNION.—Medical Officer and Public Vaccinator for the District of Hawkhurst. Salary, £55 per annum. Applications by April 7th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Clinical Assistant. Applications by March 30th.

GENERAL HOSPITAL, Birmingham.—Resident Medical Officer. Salary, £130 per annum. Applications by March 28th.

HARTLEPOOLS FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary, £130 per annum. Applications to T. Tweddell, Commercial Terrace, West Hartlepool.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistants. Applications by April 18th.

HOSPITAL FOR EPILEPSY AND PARALYSIS, 32, Portland Terrace, Regent's Park.—Assistant-Physician and Registrar. Applications by March 31st.

HOSPITAL FOR SICK CHILDREN, 49, Great Ormond Street, W.C.—Assistant Physician. Applications by April 1st.

LIVERPOOL ROYAL INFIRMARY.—Resident Medical Officer. Salary, £100 per annum. Applications to the Chairman of the Committee, by March 30th.

MANCHESTER ROYAL EYE-HOSPITAL.—House-Surgeon. Salary, £70 per annum. Applications to the Chairman of the Board of Management by April 14th.

PARISH OF KENSINGTON.—Resident Assistant Medical Officer. Salary, £120 per annum. Applications by March 28th.

RATHDRUM UNION.—Medical Officer, Arklow Dispensary. Salary, £135 per annum and fees. Applications to J. Hannagan, Honorary Secretary, Ballyduff. Election on April 4th.

ST. GEORGE'S HOSPITAL, S.W.—Assistant Dispenser. Salary, £100 per annum. Applications by April 1st.

STRABANE UNION.—Medical Officer, Newtownstewart Dispensary. Salary, £140 per annum and fees. Applications to Rev. Leslie Lyle, Honorary Secretary. Election on April 6th.

UNIVERSITY COLLEGE HOSPITAL, London.—Third Assistant-Surgeon. Applications by April 14th.

WEST LONDON HOSPITAL, Hammersmith.—Assistant Surgeon. Applications by March 30th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Applications by April 23rd.

MEDICAL APPOINTMENTS.

BASSETT, H. Thurstan, M.B.Lond., Surgeon to the Birmingham and Midland Skin and Lock Hospital, *vice* J. W. Taylor, F.R.C.S.Eng., resigned.

CHAPMAN, George, M.R.C.S., L.S.A., appointed Medical Officer and Public Vaccinator for the parish of Yoxall, Lichfield Union, *vice* W. J. Ramsden, L.R.C.P. L.R.C.S., resigned.

EDWARDS, F. Swinford, F.R.C.S.Eng., appointed Assistant-Surgeon to St. Mark's Hospital for Fistula and Diseases of the Rectum.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTHS.

KINNEIR.—On March 22nd, at Gordon House, Horsham, Sussex, the wife of F. W. D. Kinneir, M.R.C.S., L.S.A., of a son.

TINKER.—On March 16th, at Brookland House, Hyde, Cheshire, the wife of Frederick Howard Tinker, L.R.C.P., M.R.C.S., of a daughter, stillborn.

DEATHS.

COATES.—On the 25th instant, at Endless Street, Salisbury, William Martin Coates, F.R.C.S., aged 73 years.

FOULDS.—On the 12th instant, at Chesterfield, Samuel Foulds, M.R.C.S.Eng., L.R.C.P.Lond., Honorary Surgeon to the Chesterfield and North Derbyshire Hospital, aged 50.

MILLER.—On the 17th instant, at Eye, Suffolk, Emily, the wife of W. W. Miller, M.D., aged 54.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Walsham: On the Treatment of Caries of the Spine in the Upper Dorsal and Lower Cervical Region by a Combined Jacket and Collar of Porous Felt. Dr. Woakes: On Necrosing Ethmoiditis, and its Relation to the Development of Nasal Polypus.

TUESDAY.—Royal Medical and Chirurgical Society, 8 P.M. Adjourned Discussion on Cholera.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown by Dr. John Williams and others. Dr. Murphy: Sequel to a Case of Ovariotomy. Dr. John Williams: On the Circulation in the Uterus, with some of its Physiological and Pathological Bearings. Dr. Bousquet: Note sur un Cas d'Absence Totale de l'Utérus et d'Occlusion du Vagin. Dr. W. H. Day: Case of Uterine Fibroid, complicating Labour, treated by Enucleation.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.— Samaritan Free Hospital for Women and Children, 2.30 P.M.— Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.— Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.— Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M. —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W.; 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE LITERATURE OF MASSAGE.

SIR,—*Massage* is the French for shampooing, a word in familiar use among us, and understood by everybody. Why is it to be discarded for a French word which means just the same thing?—Yours faithfully, D.

EMIGRATION SERVICE.

"M.B., C.M." desires a reply to the following queries. 1. How are appointments, as surgeon, in the Coolie Emigration Service, from the East to the West Indies, procured? To whom should one apply, and what influence, if any, would be of use? 2. What is the pay? 3. Is there a limit as to age?

"M.B., C.M." would also like replies to the same queries, with reference to the Colonial Emigration Service. What are the advantages and disadvantages of such a life?

WRITERS' CRAMP.

SIR,—Since reading the account of the treatment of this disease by means of medical rubbing, I have been experimenting with the view to discover the best means of prevention. I find that, when writing with the pen held in the usual way, between the thumb and fore-finger, my hand becomes fatigued in an hour and tired out in two hours; but when I hold the pen between my fore-finger and middle finger and support it by the thumb, I can write for three hours without any fatigue whatever. The explanation appears to be that, when writing in the first named manner, only the muscles of the thumb and fore-finger are called into play, whilst by the second method the whole hand does the work.—Yours faithfully,

J. FLETCHER LITTLE.

Ben Rhydding, Leeds.

PATENT DISINFECTING CANDLES.

SIR,—In the notice of Young's patent disinfecting candles, it is observed that, "intensely retentive of vitality as micro-organisms notoriously are, it is inconceivable that they should be affected by anything that would not first be fatal to every living thing of higher grade." May I ask what evidence there is for this assumption, and whether a scientific fact is a matter of conception? It would have been better for the writer of this notice to have explained that carbolic acid would be consumed in the process of burning, and not evaporated.—Yours, etc.,

R. J. L.

LEACH AND ROOKE MEMORIAL FUND.

SIR,—A proposal has of late been made to collect a fund for putting up in our new chapel a window to the memory of Mr. Harry Leach and Dr. Henry Rooke, who were both for many years connected as medical officers with this institution.

On behalf of a committee formed by our physicians and surgeons, I beg to bring this project under your notice, and to suggest that we would be pleased to receive any kind help in our endeavour to keep up the memory of these former members of our medical staff, who, during their long association with the Seamen's Hospital, were so widely esteemed.—Yours truly,

Seamen's Hospital, Greenwich.

W. JOHNSON SMITH.

	£	s.	d.
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G. Busk, Esq. (Consulting Surgeon)	2	2	0
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TESTS FOR SOUR BREAD.

PANIS asks for a simple and reliable method of testing bread as to sweetness, other than by taste and smell, and short of analysis.

RELIGIOUS INSANITY.

O. P. Q. desires information on the following points. Is there such a thing as religious insanity amongst the Mahommedans? If so, what is the percentage of all insane cases amongst them? What form does the insanity assume? Then, to extend the question further: Is there an insanity which is grafted upon religions still further removed from Christianity, such as Buddhists, etc.?

THE TREATMENT OF DUPUYTREN'S FINGER-CONTRACTION.

SIR,—If Mr. Reeves will refer again to my paper (*Medical Chronicle*, October 1884), he will find that I state that, in some cases, it may be advantageous to excise portions of the fascia, and that this treatment was pursued in three of the cases narrated. Whether, as Mr. Reeves seems to suggest, it will be found to be the proper proceeding to do this in all cases remains to be seen. I have operated on other three cases since my paper was published; and this further experience inclines me to think that very probably he is right.—Yours, etc.,

JAMES HARDIE.

Manchester.

TREATMENT OF SYNCOPE DURING ANÆSTHESIA.

SIR,—The cases of death from chloroform reported by Mr. Maylard in the JOURNAL of October 25th, 1884, forcibly remind me of the cases I reported in the JOURNAL of April 19th, 1884, which I treated successfully by inverting the patient; and my object in referring to it is to impress on my professional brethren the efficacy of that treatment. I note that Mr. Maylard raised the foot of the bed, but this is scarcely sufficient, as it is necessary to stimulate the nerve-centres by an immediate return of the blood by gravitation, an end which is at once achieved by lifting the patient's body by the legs until the head is the lowest part of the frame, which is perpendicular, but reversed from the normal state. The result in my case was so satisfactory, that I shall be glad to hear of this treatment having been adopted by others, as I consider it the surest means of saving life in these distressing cases.—Yours truly,

ALBERT I. GARLAND.

Oamaru, New Zealand.

SIR,—Would any of your correspondents be good enough to inform me what is the strength of the tincture of euonymin, and what strength of chrysophanic acid should be applied to kill parasites?—Yours, etc., M.D.

A MEMBER.—Notices of change of address and all other business communications should be addressed to the Manager. See standing notice under heading "Letters, Notes, and Answers to Correspondents."

THE UNIVERSITY OF LONDON AND THE MEDICAL SCHOOLS.

SIR,—I have read the report of the special meeting of the Metropolitan Counties Branch. I am in general practice, and not having taken hitherto any part in the contest now going on, and not being a teacher at a school, I may say I am somewhat an unprejudiced M.D.Lond.

My feelings are of a twofold nature. I cannot but regret what may prove a fatal wound to my university if some *modus vivendi* be not arrived at. After matriculating, in 1857, I took a degree in arts, and passed all the examinations for the degree in medicine in the first class, at the first attempt, but I never attempted honours. Such are the increased difficulties raised since, that I feel at the present time I should inevitably be plucked, giving the same ample time and work which in my student days I bestowed.

For at least five years I have said, to brother-graduates and others, that the London University was exceeding its rights, was assuming an authority which it was not intended at its inception to receive. The University of London was designed to meet the wants of a vast body in England and elsewhere, to which, for religious and other reasons, an university was not open. It was designed to promote and assist education, to make it thorough; not medical education alone, but all higher education. An assumption of superiority has crept in; and, as a haughty spirit goes before a fall, I shall not regret if our Alma Mater be brought thereby to a real sense of her duties, how broad, not how narrow, they are, to a respect for others, to an abatement of that admiration of self with which at present she is puffed up.

Universities, colleges, journals, all of you are pitiless to the poor medical student of the present day. In four or five years you expect him to attain a polish, for which (except for the gifted few) double the time is requisite; and many of your examiners try to find out, not what he does know, but what he may have failed to hear of. After preliminary work is over, how can an average student acquire a polished knowledge of medicine, surgery, and obstetrics in two years? It is an absurdity; two years are insufficient for one branch alone.

Poor student! my sympathy is with you and your suffering parent, who has to pay the cost. Medical parents, look carefully to the Latin and Greek of your boys.—I am, sir, yours faithfully, "ARS LONGA, VITA BREVIS."

*** Is not our correspondent a little less than just to the medical press? For our own part, we have taken up our parable against overpressure in medical education again and again.

SIR,—I quite agree with Dr. Hickman's remarks, in his able and eloquent speech, that there should be no lowering of standard of the matriculation examination of the University of London, for not only is it the stepping-stone to all the other faculties of the University, but it is, in a large sense, the educational test of the United Kingdom. The number of candidates has yearly increased, until in 1884 we have the grand total of 1,794.

Under these circumstances, could not this examination be modified for those entering the medical faculty, but remain as at present for the faculties of law, arts, and science?—Yours faithfully, RALPH GOODING, B.A., M.D.Lond.

Blackheath, S.E.

THE TITLE OF PHYSICIAN.

SIR,—The following official communication from the Royal College of Physicians of Edinburgh relating to the incorrect mode in which its Licentiates were addressed as "Surgeon," instead of Physician, will, I trust, prove acceptable to my fellow Licentiates.—Yours truly, JAMES ST. J. G. PARSONS, M.D.

Crofton House, Cheltenham Road, Bristol.

[*Copy.*]

Royal College of Physicians, Edinburgh, September 22nd, 1884.

Sir,—I am desired to convey the regret of the authorities that this stupidity of the printer (for it is entirely the printer's fault) should have caused you any trouble. There is no doubt of Licentiates of the College being physicians; and the word or title of surgeon, however honourable, is in no way applicable to them.

With great regard, believe me, sir, your obedient servant, J. BROOME, for Dr. WYLLIE (out of town).

J. St. J. Parsons, Esq., M.D.

ANTISEPTIC INHALATIONS.

SIR,—With reference to your remarks as to the retentive vitality of micro-organisms, and non-destructibility by weak disinfectants, and therefore the fallacy of antiseptic inhalations, I do not think the action of these remedies is to directly destroy micro-organisms, but that the antiseptic inhalations, when continuously and properly employed, so alter or check the secretions on which they thrive, that the organisms, not having their proper pabulum, die.—Yours faithfully, W. H. TAYLER, M.D.

Anerley, S.E.

TINCTURE OF BENZOIN IN INFLUENZA AND CATARRH.

SIR,—In the JOURNAL of February 28th, I was much interested to find the inhalation of tincture of benzoin recommended as a means of relief in that most unpleasant and troublesome affection, common nasal catarrh. It so happened, when I noticed Mr. Kebbell's recommendation of it, I had just the premonitory symptoms of an attack, and I was looking forward to the usual nine days' misery from it I have frequently suffered; however, I at once tried an inhalation of the benzoin, and the relief I obtained in a short time was certainly remarkable; the uncomfortable tight and stuffy feeling of the nostrils, along with the lacrymation and headache, speedily disappeared, and by repeating the inhalation frequently, by evening all the unpleasant symptoms had quite gone. The success, I think, was all the more noteworthy, seeing I had the usual exposure to the weather a country practice necessitates; and at that time the weather was cold and raw, just the necessary qualities to increase the coryza. I have recommended it also to two of my patients, and with marked success in each case. I can, therefore, quite endorse all Mr. Kebbell says in regard to it, and I am sure the thanks of many are due to him for drawing attention to such a simple remedy as the careful inhalation, by the nostrils, of the tincture of benzoin, for coryza; for of all the minor ills to which flesh is heir, a cold in the head is one of the most unpleasant and disagreeable I think, and though many remedies have been tried and recommended, hitherto few have had much success.—Yours truly, WILLIAM BRYDON, M.B., C.M.

Hawick, N.B.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. T. Holmes, London; Mr. L. Grant, New Southgate; The Secretary of the General Lying-in Hospital; Dr. James Gairdner, Crieff, N.B.; Dr. Hack Tuke, London; The Director-General of the Army Medical Department, London; Dr. Stevenson, London; Dr. A. B. Brabazon, Bath; Mr. G. Duevot, Lyon, France; Mr. B. G. Morison, London; Dr. E. G. Wake, Dartmouth; Mr. W. E. S. Stanley, Wellow, Bath; Mr. H. Campbell, London; Mr. C. P. Crouch, London; Mr. B. W. Charles, Rotherham; Mr. G. R. Nunn, Dalston; Dr. Styrap, Shrewsbury; Messrs. Thacker, Spink, and Co., Calcutta; Dr. A. Carpenter, Croydon; Mr. J. Thompson, Nottingham; H. F. S.; Mr. T. B. Goss, Bath; Our Berlin Correspondent; Mr. T. W. L. Kinneir, Horsham; Mr. E. R. Williams, Macclesfield; Mr. C. Cornish, Taunton; Mr. R. Owen, London; Dr. R. Wade Savage, London; Dr. Spencer Smyth, Forest Hill; Mr. H. T. Bassett, Birmingham; Mr. C. B. Plowright, King's Lynn; Dr. D. Thomas, London; Mr. R. Birch, Newbury; Mr. Handsley, Alford; Dr. Parsons, Dover; Dr. Burney Yeo, London; Dr. A. Duke, Dublin; Dr. Lucas, Southampton; Our Aberdeen Correspondent; Dr. R. S. Turner, Keith; Mr. J. Wilton, Gloucester; Dr. J. Crichton Browne, London; Mr. P. S. Brito, London; Mr. H. J. Pearson, Tunbridge Wells; Dr. Campbell, Liverpool; Dr. J. J. Ridge, Enfield; The Secretary of the Mansion House Council on the Dwellings of the People; Mr. J. Miles, Bristol; Mr. W. Donaldson, Llanidloes; Mr. C. T. Kingzett, London; Dr. F. Ogston, Aberdeen; Mr. C. Lennox Peel, London; Dr. H. Burden, Belfast; Mr. A. G. F. Bernard, Liverpool; Mr. Carr, Omagh; Mr. R. J. Boyd, London; A Member; Mr. J. H. Parkinson, Sacramento; Mr. Simeon Snell, Sheffield; Mr. W. Donovan, Birmingham; Dr. R. Bruce Low, Helmsley; Dr. Cullimore, London; Mr. W. W. Wagstaffe, Sevenoaks; Mr. H. A. Smith, Ealing; Mr. W. Marriott, London; Mr. J. Fletcher, Ilkley; Mr. R. Smith, Winchfield; Dr. Brailey, London; Mr. R. B. Smith, Hinckley; Mr. A. Macpherson, Chester; Our Liverpool Correspondent; Our Paris Correspondent; Our Dublin Correspondent; Mr. W. Iliffe, Derby; Mr. J. G. Clendinnen, Coseley; The Secretary of the Parkes Museum, London; Dr. W. Ewart, London; Mr. E. Noble Smith, London; Mr. H. Nelson Hardy, London; Dr. H. F. A. Goodridge, Bath; Mr. J. E. Lee, Philadelphia; Mr. John Walshe, Oldcastle, co. Meath; Dr. J. Ward Cousins, Southsea; Mr. B. Jones, Leigh; Our Birmingham Correspondent; Our Edinburgh Correspondent; Mr. James Dixon, Dorking; Dr. T. M. Dolan, Halifax; Mr. S. J. Hutchinson, Neasden; Dr. Macdonald, Liverpool; Dr. J. A. Mackenzie, Bolton; Dr. J. Beddoe, Bristol; Dr. A. T. Brand, Driffield; Surgeon-Major R. Boustead, Bournemouth; Dr. Savage, London; Dr. Norman Kerr, London; Mr. D. E. Flinn, Dublin; The Secretary of the Royal Medical and Chirurgical Society, London; Dr. Glascott, Manchester; Dr. Saundby, Birmingham, etc.

BOOKS, ETC., RECEIVED.

Harveian Lectures. By T. Bryant, F.R.C.S. London: J. and A. Churchill. 1885.

The Therapeutics of the Respiratory Passages. By Prosser James, M.D. New York: Wood and Co.

Bacillary Phthisis of the Lungs. By Germain Sée. Translated and Edited by W. H. Tweddell. London: Kegan Paul, Trench and Co. 1885.

Doctrines of the Circulation. By J. C. Dalton, M.D. Philadelphia: H. C. Lea, Bros., and Co. 1884.

A System of Practical Medicine. By American Authors. Edited by W. Pepper, M.D., LL.D. Assisted by Louis Starr, M.D. Philadelphia: Lea, Bros. and Co. 1885.

Topographical Anatomy of the Brain. By J. C. Dalton, M.D. Vol. I, II, and III. Philadelphia: Lea, Bros. and Co. 1885.

The Hunterian Oration. By John Marshall, F.R.C.S., F.R.S., LL.D. London: Smith, Elder and Co. 1885.

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THE LUMLEIAN LECTURES
ON
SOME POINTS IN THE NATURAL HISTORY OF PRIMITIVE DRY PLEURISIES.

Delivered at the Royal College of Physicians of London.

By Sir ANDREW CLARK, Bart., M.D.,
Fellow of, and Lumleian Lecturer to, the Royal College of Physicians.

Lecture II.

A careful study of the cases related with more or less completeness in my first lecture, leads naturally and necessarily to the second stage of this inquiry. A full understanding of the clinical demands a solution of the pathological problem. They are inseparably connected, and find their common origin in dynamic disturbances, which, although sometimes intangible, invisible, and incalculable, constitute the ultimate nature or essence of disease. What, then, is the nature of the visible pathological changes originating, underlying, maintaining, and continuing the symptoms and signs characteristic of the course and issues of the cases set forth as the grounds of this inquiry? But, before describing those changes as I have observed them in the course of my examinations, I must clear the way to the better understanding of them by some remarks on the minute anatomy of the lung, and on the structural characters of a blood-clot formed in freshly drawn blood.

Setting aside the earlier, and in sundry ways admirable, accounts of the minute anatomy of the lung given by Addison, Rainey, Rindfleisch, Schultze, Charot, Sappey, Lefort, and Waters, and confining our examination to the accounts more recently published by such observers as Schäfer and Klein, we shall learn from them the views received and adopted at the present time. Here is what Schäfer says (Quain's *Anatomy*, vol. ii, page 514). "After a certain stage of subdivision, each bronchial tube reduced to a small size is termed a lobular or respiratory bronchial tube, and its walls become beset with small hemispherical saccules termed air-cells or alveoli. They occur at first only here and there, and confined to one side of the tube only, but at length almost cover it, so that the tube in a great measure loses its cylindrical character. At length it ends in an enlarged completely sacculated passage termed the alveolar passage, from which are given off blind ramifications, somewhat enlarged towards their extremities, and everywhere closely beset with the air-cells. These enlarged terminations are named infundibula." In order to give as exact an expression as possible of these views, he illustrates them by a diagram given at page 516 of the work already cited. From Klein's *Atlas* and from his more recent masterly little *Handbook of Histology*, I extract the following account, which, on the whole, is the simplest, clearest, and most accurate of any hitherto published concerning the minute anatomy of the pulmonary parenchyma. "The small or intralobular bronchi are cylindrical tubes. They divide dichotomously into smaller tubes, and ultimately pass into the alveolar ducts, which take up on all sides of their circumference the lateral alveoli; the ultimate parts of the alveolar ducts are the infundibula, which take up the terminal alveoli. The alveoli are spherical or polyhedral in shape; and those belonging to the same alveolar duct or infundibulum are separated by much less tissue than the alveoli of adjacent lobules." In the *Handbook* (p. 220), it is further said "that all ducts or infundibula are closely beset in their whole extent with spherical, or being pressed against one another with polygonal vesicles—the air-cells or alveoli—opening by a wide aperture into the alveolar duct or infundibulum, but not communicating with each other. The infundibula are much wider than the terminal bronchioles, and also wider than the alveoli."

To Rainey, and to both these distinguished observers, is due the merit of having cleared away much of the confusion in which this intricate subject was until recently buried, of having discarded a complex, misleading, and useless terminology, and of having made it possible for persons not investigators or experts to form a tolerably accurate and clear conception of the anatomy of the pulmonary parenchyma and of its relations to the larger air-passages. But even yet the reform is incomplete. It is not enough to have swept away, as mere subjective expressions, such terms as primitive and secondary lobules, lobulettes, air-sacs, and the like. Others, supported by great authority, remain; and, whilst either having no correlative facts, or conveying inaccurate representations of those really existing, they suffice to keep obscure that which is simple, and to render barren, or fertile only in error, the application of anatomical facts to pathological processes and practical work.

Schäfer, for example, speaks of bronchia, bronchioles or respiratory bronchial tubes, of their endings in enlarged completely sacculated alveolar passages, and of the giving off from them of blind ramifications or infundibula, enlarged towards their extremities, and everywhere closely beset with air-cells. Elsewhere, he says: "At the end of the respiratory bronchioles, near the passage of the infundibula, all the cells which line the wall of the tube are of the non-ciliated pavement variety. But the air-cells themselves, both those which are scattered over the respiratory bronchiole, and those which cover the infundibula, as well as intermediate portions of the infundibula, which occur here and there between the air-cells, possess an epithelium of a peculiar character."

Now, in this quotation, even with the help of the context, it seems to me impossible to find a clear, connected, and exact account of the terminal air-passages, and of their relations to the pulmonary alveoli. And this impossibility, as I view it, lies less in any error committed by this distinguished anatomist than it does in the multiplication of distinctions, forgetfulness of the archetypal idea of a respiratory organ, and the use of terms which are at once confusing and useless. There are two necessary, and, as it happens, they are the only unerring, guides to the complete and accurate understanding of the structure of an adult organ. The first is the study of its comparative history throughout the animal series; and the second is the study, from beginning to end, of the course of its own development. Investigated after this manner, the difficulties encountered in understanding the minute anatomy of the lung disappear; and the relation of the air-passages to the alveoli becomes so clear, and easy of apprehension and expression, that the use of many and complex terms is neither necessary nor justifiable. The primitive type of a lung is a cylindrical tube, the sides and end of which are portioned out by delicate membranous septa into shallow cubical spaces, not communicating with each other, but only with the common lumen of the tube round which they are arranged. If one will imagine a corridor, with open cubicles fully occupying not only each side, but the further end, the floor, and the roof; if one will also imagine that no free space is left between the cubicles, that they fully occupy the sides, roof, floor, and end of the corridor, that they do not communicate with each other, except through the corridor around which they are arranged; that the corridor imagined is surrounded without loss of space on every side by corridors and cubicles similarly arranged; that all these corridors lead outwards to the exterior of the house of which they form a part; that, as all these corridors run outwards, they are joined by others without enlarging through the junction; and that at first the corridors are so short as to have only a single or double row of cubicles, whilst further outwards they have three, four, or even more—if you will imagine all these things, you will be able to frame a sufficiently clear and accurate conception of the simple way in which the pulmonary alveoli are connected with the pulmonary air-passages, and these with one another.

To describe the relation of the air-passages to the alveoli in a more formal and literal manner, we may take a lobule as the subject of description. Each lobule, more or less conoidal in shape, surrounded by areolar tissue with all its usual contents, and penetrated at its smaller end by the lobular bronchus, and by blood-vessels, lymphatics, and nerves, constitutes, as we know, a miniature lung. As soon as the terminal bronchus enters the lobule, it divides and subdivides with increasing rapidity, and but small diminution of size, until the dividing or branching process is brought to an end at the circumference of the lobule. At its entrance into the lobule, the lobular bronchus is but scantily alveolated, and its direction is moderately straight; but, in the second and third divisions, which diminish in size, the walls are alveolated throughout, and the direction is constantly changing. In the terminal portions of the air-tubes or passages which do not diminish in size, the division is extremely rapid, and the end of each passage is formed by its abrupt closure just beyond a final division. It is this fact which, when a section of lung, including the pleura, is examined from the deep surface, has led to the notion that the terminal passages or tubes form dilatations or sacs at their blind extremities. Fortunate sections and dissections parallel to the long axis of a passage demonstrate this notion to be incorrect.

If this view of the relation of the air-passages to the alveoli be accurate, and long study of the subject makes me somewhat confident

about it, there is no need for a complex and copious terminology. It will be enough to speak of the lobular bronchus, of the intralobular bronchi or bronchioles, of the interalveolar passages, and of the alveoli.

The alveoli are almost always spoken of as being hemispherical or vesicular; and their relation to the air-passages is often illustrated by reference to a racemose gland or to a bunch of grapes. Both the description and the illustration are alike erroneous and misleading. It is true that, under forced inflation, and as a result of injection and of other manipulations, the alveoli do exhibit, occasionally, a distantly hemispherical shape; but this is abnormal. Lying on the walls of the terminal passages, varying a good deal in size, and somewhat in shape, but fairly uniform in depth, they can be best described in the main as irregular cubical spaces. A single layer of a honeycomb rolled into a cylindrical tube, and closed at one end by another single layer, the cells of both looking inwards, would illustrate better than anything else that I can remember, the relation of the alveoli to the interalveolar passages.

By carefully inflating and drying a portion of lung, and examining sections of it made at varying angles to the pleura under an inch objective attached to a binocular microscope, the statements now advanced with respect to the relation of the alveoli to the interalveolar passages may be easily corrected or confirmed by any competent observer

These remarks on certain points in the minute anatomy of the lung have led me from the main subject of inquiry further than I intended or desired. I excuse myself on the ground that an accurate and adequate knowledge of this subject is essential to the just understanding, not only of pathological processes, but also of those respiratory sounds which we employ in the diagnosis of disease.

If a little freshly drawn blood be dropped upon a glass slide, permitted to clot, decolorised by gentle washing, and submitted to microscopic examination, three things, and their mode of combination, will arrest the attention of the observer; a basis-substance, arranged by wrinklings or foldings into varying sized areolæ; a faint and close network made up of minute molecular-looking fibres; and a small number of leucocytes. The fine fibrillar network will be seen to occupy the spaces enclosed by the areolæ of basis-substance. The leucocytes, imprisoned in the basis-substances, or in the fine fibrillar network, and undergoing some granular change, appear to be shooting out in all directions protoplasmic process, and to be engaged in textural development. On examining such a specimen without any knowledge of its nature, it could be easily mistaken for a delicate glioma, and would be unhesitatingly received as a conclusive example of the development of fibrous tissue from leucocytes. But a further critical study of such a specimen will make it certain that no such development is taking place; that both the areolar basis-substance and the fibrillar network are formed directly from the liquor sanguinis; that the leucocytes and their processes are in the way of degeneration; and that, whilst they and the fibrillar network will melt into a granular *débris*, the basis-substance will remain unchanged.

I have related this experiment to show how easily one may be deceived by appearances when they run along the line of one's ideas, and how much care is needed in interpreting the changes which occur in recently exuded lymph. In this matter, three structural elements are to be found—a fibroid basis-substance, fibres, and cells. The latter are either migrated leucocytes or proliferating connective tissue corpuscles; and it is held that from one or other, or both, the fibroid substances and the fibres are developed; and that the idea of the direct formation from an exudation of any sort of fibroid tissue must be definitely abandoned. In respect of the fibres formed in some kinds of lymph, this contention is doubtless correct; but, in respect of the fibres formed in at least one kind of lymph about to be mentioned, no conclusive evidence has been adduced. In those exudations which consist of a fibroid basis-substance and imperfectly formed white fibrous tissue, this theory cannot justly be maintained.

It is true that there are present in them leucocytes, and sometimes a few fusiform cells; but it is equally true that they do not exist in such numbers, nor show such changes of transition into fibroid materials, as would warrant the inference of an exclusively causal relation between them. In such instances, as in the instance of the blood-clot, one may fairly hold that the fibroid elements have been directly formed out of the exudation, and that the cells present therein have taken at least no structural share in their development.

Leaving these collateral considerations, I proceed now to consider the chief forms of exudation produced in the course of primitive dry pleurisies. These exudations may be classed under three heads; the fibrinous, the croupous, and the proliferative.

1. The *fibrinous exudation* is characterised by the scarcity of its cell-forms and its permanency; the croupous, by the abundance of its cell-forms and their rapid degeneration; and the proliferative, by the abundance of its cell-forms and the rapidity and variety of their structural developments. In no case does any one of these forms constitute the entire exudation; but in every case one variety predominates and determines the characters and the course of the changes which ensue.

In its early stage, the fibrinous exudation consists of membranes more or less extended, and more or less thick, which can be detached from the pleura without apparent injury to its epithelial surface. This membrane is greyish, sometimes semitransparent and elastic, but friable. It does not often adhere to the costal pleura, and it is more frequently found over the upper than over the under part of the lungs; indeed, its most frequent seat is around the summit of this organ. It is composed of a basis-substance studded with moleculo-granular matter, shaped into rude areolæ, or differentiated into bands of imperfectly formed fibrous tissue; and it contains embedded in it a few epithelial-cells, some oat-shaped nuclei, and here and there a nucleated fusiform cell. Sometimes the exudation presents the appearance of an irregularly honeycombed or reticulated membrane, in the meshes of which there is found a yellowish glutinous fluid, clotting on exposure to the air. In this fluid are found amorphous flakes, leucocytes, and red blood-discs. The structural constitution resembles that of the smooth membranous exudation; but it cannot be so easily removed from the pleura; and whereas the subpleural areolar tissue is, in this instance, congested, swollen, and infiltrated with a fluid containing many leucocytes, it is, in the former instance, apparently little, if at all, affected. At a later stage of its existence, this fibrinous exudation becomes denser, harder, tougher, extends into the pleural matrix, and now, opaque and yellowish, cannot be detached without injury from the pleural surface. The subjacent pulmonary alveoli are for the most part little affected, but here and there their walls are thickened without apparent proliferation, and their cavities contain a fibroid substance with epithelial cells and leucocytes embedded therein. At a later stage, however, when the fibrinous exudation invades the lungs, further changes take place. This invasion, when it takes place, moves in the first instance along the lines of the interlobular fissures, and only at a later period steals along the blood-vessels into the alveoli. In well marked cases, three striking naked eye changes slowly appear in the wake of this invasion. The interlobular areolar tissue at the affected part is converted into thickened and indurated bands, which, in some instances, contracting and compressing the lobules, give rise to the appearance, rather rare, of a true pulmonary cirrhosis. In the second place, portions more or less extended of the pulmonary parenchyma become solid, hard, tough, dark, and creak under the knife, which cuts them with difficulty. And, in the third place, along the course of the fibroid invasion, adjoining the consolidations, and at various parts of the summit and free margins of the lung, there are tracts or patches of vesicular emphysema. In the summit of a lung in which limited tubercular growths have undergone fibroid substitution, all these changes, the thickened pleura, the fibrous bands, the small consolidations, and the emphysematous patches, will be found side by side.

In addition to these changes, others less obvious will be found upon close examination. One of them is thickening of the adventitia and intima of the pulmonary arteries, and the growth from the intima of minute fibroid nodules, which sometimes fill the cavity of the vessel. Another change is thickening of the alveolar walls, with the development therein of free nuclei, not apparently engaged in tissue-development. A third change is the appearance in the fibrous bands, chiefly at their intersections, of small fibrous nodules, which resemble, and are considered to be, true grey granulations or tubercles. But neither the structural characters of the nodules, nor the history of the patients in whom they are found, justifies this interpretation. They are composed of a fibroid basis substance, having imbedded in it numbers, never large, of small free ovoidal nuclei, a few nuclear fibres, and rarely a little elastic tissue. Each consists of one mass, and not of several masses; it does not, as far as I know, contain giant-cells; and it never undergoes the cheesy change. Akin to these little nodules, there are sometimes found, in cases of long standing where there have been repeated exudations, larger lumps or flattened masses of like characters connecting the visceral with the parietal pleura, and looking like growths from which it is not always easy to distinguish them.

The pleura, once the subject of fibrinous exudation, is liable to fresh attacks of inflammation, and to the formation of new membranes, superimposed upon the old. These new layers, although resembling each other in structure, are never completely fused into one,

and on section can be easily distinguished. Between the layers there are left spaces of various sizes, filled with a glutinous fluid, containing epithelial cells, leucocytes, and a few fusiform nuclei. These spaces are coated with an interrupted epithelium, and distantly resemble lymphatic sacs. This is the form eventually assumed by the reticulated fibrinous exudation when it is permanent. When only a single thin layer of this fibrinous exudation exists, vessels are not found in it. Even when there are several layers, vascularisation, as compared with the proliferative exudation, is exceedingly scanty; and it seems probable that the development of new vessels takes place rather by channelling and differentiation, than by development through the medium of protoplastic cells.

Lastly, this form of exudation is characterised by the scantiness of its cell-constituents, by the slowness of the changes occurring in it, by its persistence, by its freedom from complication with caseous consolidations and bronchial dilatations, by the lines which it follows in invading the lung, by the rarity of its disintegration thereon, and by the insignificance of its effects upon the general health.

2. The *croupous*, or, as it was originally named by me, the *corpuscular exudation*, occurring in primitive dry pleurisies, differs in many ways from the fibrinous on the one side and the proliferative on the other. It occurs for the most part at the middle and lower parts of the lung; it is yellow, soft, thready, unplastic, and full of fluid, containing multitudes of degenerating cells, hyaline globules, blood-discs, amorphous flakes, fragments of granular fibres, granular *débris*, and countless micrococci. Sometimes, without the occurrence of pneumothorax, these accumulations escape by means of minute openings in the pleura, through the lung, and the patient recovers. A single exudation examined more closely may be divided into three parts. The first is an opaque, yellowish, and friable membrane of varying thickness, incapable of detachment from the subjacent pleura, with which it is apparently organically incorporated. The second is a loose, open, soft, areolated pseudotexture, infiltrated with fluid. The third, occupying the free surface of the exudation, consists of incohesive, soft, fringe-like processes, which often break on handling. There is seldom any strong adhesion between the costal and the pulmonary pleura. When the exudation is very abundant, and occupies a considerable space between the visceræ and parietal pleura, circumscribed portions of it are sometimes found broken down and occupied by a fluid resembling pus. For the most part, this fluid is not pus—not a fluid holding in suspension spherical globules of uniform size, structure, and mode of response to re-agents—but a fluid holding in suspension disintegrating leucocytes and epithelial cells, granule cells, and hyaline spheres, oat-shaped nuclei, and broken fusiform cells, fragments of fibres and granular *débris*.

The lung adjacent to the inflamed pleura is always affected to varying depths and in different ways. All the alveoli are congested, and contain desquamated epithelium and leucocytes. A few, but in my experience always a few, groups of alveoli are found in a state of red hepatisation. Larger and much more numerous groups of alveoli are in a state of caseous consolidation. In the subpleural areolar tissue, in the interlobular fissures, and occasionally at the entrance of the vessels into the apex of the lobule, small yellowish nodules are seen, and may be commonly traced to lymphatics, from the proliferation of which, or of their contents, the nodules appear to arise. They are composed of an adenoid reticulum and of areolæ of common fibrous tissue, in the meshes of which are found masses of lymph-corpuscles, free, rounded, or oval nuclei, nucleated fibres, and numerous multinucleated cells in a state of active endogenous proliferation. Resembling in some ways tubercular nodules, they are often declared to be tubercles.

A close examination of the outer surface of one of the earliest formed layers of exudation will sometimes bring to light the existence of two sorts of minute openings. The one are stomata, chalice-shaped cavities, with epithelial lips and linings, leading into lymphatic spaces. The other are minute openings, the mouths of burrowing and sometimes branching tunnels, which occasionally can be followed into the pulmonary alveoli. It is not improbable that, when a croupous exudation melts, it sometimes makes its way through these tunnels into the lung, and is thence discharged. In a case which I recently attended with Dr. Barnes and Mr. Merriman, a puerperal pleuritic croupous exudation led, by melting, to the formation of three small encysted empyemas. Paracentesis having been considered inexpedient, the pyoid collections were left to nature. After a week, in the neighbourhood of one of the sacs, there was heard a coarse moist crepitation; a few days later, the crepitation became a bubbling rhonchus; and shortly afterwards, some ounces of a pyoid fluid, quite different from genuine pus, were expectorated. The same procession of events attended the emptying of each sac. Meanwhile, there was no single sign of pneumothorax; and, although the thoracic walls corresponding to the empyemas were bulged, there was no displacement of the heart or of other organs. The patient is now completely convalescent.

Sometimes this pleuritic croupous exudation has a constitutional origin, and then the affection may be bilateral.

With a low capacity for organisation, this exudation exerts at times a considerable influence for evil on the subjacent lung. The effect consists sometimes in disseminated caseous or lymphoid consolidations, sometimes in fibroid changes, and sometimes, although rarely, in small excavations or in bronchial dilatations. Basic lung-disease, akin to that described by Mitchell Bruce and others, now and then arises in this manner.

The issues of this exudation are, in at least one respect, remarkable. When the case pursues a favourable course, the exudation is for the most part entirely absorbed; and I have once or twice learned from examination after death, that within a few months of an attack, every vestige of its presence has been removed. Now and then, the fluid part of the exudation is absorbed, and the residue, becoming dry, undergoes caseation. In this condition, calcareous plates and particles are occasionally deposited in it, and the patient becomes subject to obscure and often recurring attacks of pain.

3. The *proliferative pleuritic exudations* which I now proceed to describe, are of more frequent occurrence than the other two, more varied in their course, and more enduring in their larger issues and effects. They are still further distinguished in their origin from fibrinous and croupous exudations. For, whilst the latter are preceded by the phenomena of inflammation, and accompanied by an abundant fluid exudation, the former sometimes arise, increase, invade the lung, and undergo textural changes unaccompanied by any other phenomena except those belonging to a slow and simple textural growth. Indeed, this variety of proliferative exudation often passes almost imperceptibly into pleural new growths, and further on I shall have to advert to several cases of this kind.

Beginning in the subpleural connective tissue, and accompanied from the first by active cell-proliferation, this exudation passes through the pleural matrix in two ways. Accompanied, as is usually the case, with an abundant fluid plasma, the exudation reaches the pleural surface without apparent breach of continuity. Unaccompanied by any such fluid, proliferating cells, arranged in pointed groups, push their way through the pleural matrix, and, making breaches of continuity therein, reach the epithelial surface, spread rapidly thereon, and unite to form a continuous proliferating new membrane, which at various parts differs in aspect, consistence, and thickness. The even membranous form, however, is not always maintained. Sometimes, when the masses of cells and fibres are loosely disposed and soaking in a glutinous fluid, the free surface assumes the honeycombed or alveolated appearance already described in connection with fibrinous lymph. Sometimes, when accompanied by any fluid, the free surface becomes studded with clusters of granulations, nodules, or sessile warty-looking lumps; sometimes it is clothed with papillæ, or with fringe-like branching processes. In either case, adhesions are speedily contracted with the costal pleura, and the intervening space becomes slowly filled by the connecting bridles, bands, or masses of actively proliferating lymph. The meshes of the exudation become filled with fluid; and, when the meshes are large and the fluid abundant, the movements of breathing heard when listening to the chest with a stethoscope beget *râles*, which are difficult to localise and understand. After a time, the whole space between the pleural layers becomes filled with a solid exudation, and this, increasing in density and in hardness, becomes, with the visceral and costal pleura, fused into a tough, unyielding, fibrous, reticulated, and laminated mass.

The structure of this exudation varies with its age. In the beginning, or, at least, as soon as it can be examined, it consists of an obscurely fibroid, and sometimes areolated, basis substance, of a close network of fine molecular-looking fibrils, of leucocytes, nucleated cells, fusiform fibre-cells, and desquamated epithelium. In addition to these elements, there are always present, in varying amount, oval or oat-shaped free nuclei, red discs, and a few hyaline spheres. After a short time, the network of molecular fibrils entirely disappears, the basis substance remaining becomes more distinctly fibroid, and constitutes a fundamental support for other changes in progress; leucocytes, or round cells resembling them, increase; fibre-development from cells advances; new vessels shoot out in various directions; active cell-proliferation subsides, and the bundles of freshly formed fibrous tissue become arranged either in lamina, when they sometimes exhibit a striking resemblance to unstriped muscular tissue, or in areolæ, through which communication with lymphatic spaces or channels is ultimately established.

But whilst development has been thus proceeding towards the costal pleura, it has been also, in a certain number of cases, advancing into the substance of the lung. In the first instance, it is only the subpleural alveoli which are affected, and their first mode of affection is a croupous, or, more rarely, a caseous consolidation. Later on, the proliferating exudation steals along the interlobular fissures, consolidating the peripheric alveoli of the lobules, seizes upon the peribronchial and circumvascular connective tissues, enters the lobules of their roots, and travels along the terminal air-passages, blood-vessels, and lymphatics, into the alveoli. During this time, the proliferating exudation consists essentially of two parts, constantly varying in their quantitative relations to each other—of the proliferating and fibre-growing cells, and of the fibroid basis-substance already described. Sometimes, without obvious reason, the one predominates; sometimes the other; but they always concur; and, when the alveoli are affected, the cellular part always predominates in their walls, and the fibroid in their contents.

In the course of this progression of the exudation from the superficial to the deep parts of the lung, and from the root or from the circumference to the centre of a lobule, all the pulmonary tissues become affected; and the kind and degree of the affection determine the aspects which the lung shall afterwards assume, and the course which the malady will eventually pursue.

It may be said, in a general way, that the first effect upon the pulmonary textures consists in vascularity and swelling; the second, in hardening and contraction; and the third, in caseation and destruction, or more often in destruction without caseation. According to my own observations, they may, in abstract, be described in the following manner. The interlobular areolar tissue, increased in vascularity, swells, proliferates, hardens, and develops occasionally in its midst, either small, tough, fibrous looking knots, or minute lumps and lines of cheesy stuff. Increasing in breadth, the interlobular septa encroach upon the lobules, and compress them in various directions; and at the root of a lobule, where the bronchus enters, and the vessels enter and emerge, the parts become so constricted by the fibroid invasion, that their nutritive and functional activities are seriously depressed, and the integrity of the lobule as an organ is put in growing peril. The smaller branches of the pulmonary artery are greatly thickened by proliferative swelling of the outer and inner coats; and the latter, coming to look like a richly nucleated laminar fibroma, develops on its free surface granules or nodules, sometimes large enough to obstruct the lumen of the vessels. Some of the capillaries are obliterated, some are dilated, some aneurysmal, but all are thickened, and in many the centres of their endothelial plates are occupied by larger or smaller groups of proliferating free nuclei imbedded in a fibroid substance. The terminal bronchi, in the midst of the indurating exudation, are affected in divers ways. Sometimes they are thick, hard, and compressed; sometimes they are soft, loose, thin, and generally or locally dilated. There is, however, almost always thickening of the adventitia, with the occasional deposit of minute caseous lumps therein; the muscular coat is in a state of degeneration, or undergoing fibroid substitution; the elastic bands are still undisturbed; and the mucous membrane, congested, infiltrated with a fibroid basis-substance, and studded with oval and oat-shaped nuclei, has, for the most part, lost its ciliated epithelium, which is replaced by a layer, or layers, of columnar, cuboidal, or flattened cells. The alveolar walls are irregularly thickened; the intercapillary spaces are occupied by a nucleated fibroid tissue, which, at one part, destroys a portion of the capillary network, and at another projects into granulations or nodules; the alveolar endothelium is replaced by layers of subspheroidal or flattened cells; and the alveolar cavities already encroached upon by the thickened walls are, at some points, occupied by masses of a fibroid substance, with a few round or oval nuclear particles therein. From the concurrence and co-operation of these and other structural changes, the affected portion of lung is at length brought into a condition which practically, if not theoretically, must be regarded as a pathological autonomy or entity. In this state, the affected portion of lung, encapsuled by layers, more or less numerous and thick, of indurated pleural lymph, diminished in size and irregular in form, heavy, dense, tough, and uncrepitant, feels like a mass of India-rubber of unequal thickness throughout. The surface of a section made through such a lung, intersected by fibrous bands, springing from and returning to the thickened pleura, and broken by the patulous mouths of bronchi and blood-vessels drawn closely together, is of a dark reddish slate-colour, veined between the septa with whitish branching lines, studded with fibrous knots or caseous granules, and closely spotted with muco-purulent points. Cut with difficulty and creaking under the knife, the affected lung, when compressed, yields from the smaller bronchi larger or smaller quantities of inspissated pus, and, from the parts between, a sometimes scanty, sometimes abundant serum, rich in blood-discs, leucocytes, pus-globules, nucleated cells and fibres, hyaline and granule spheres, and free nuclei. Under various names, and ever since pathological anatomy has been cultivated, this condition of lung has been a subject of discussion among pathologists. It is the grey induration of Andral and Addison, the pulmonary cirrhosis of Corrigan, the fibroid pneumonia of Sutton, Bastian, Moxon, and Wilks, and the chronic interstitial pneumonia of Charcot, Wilson Fox, and Hamilton. Furthermore, this fibroid induration represents in part an early stage of the condition of lung eventually developed by the habitual inhalation of irritating particles of coal, dust, stone, or steel.

For an indefinite time, and even beyond the average duration of life, this condition of lung may, in favourable circumstances, remain stationary, and be found compatible with fair health, and all the ordinary duties and enjoyments of life.

But circumstances are not always favourable. In failure from any cause of the general health, and especially under the influence of recurring irritations of the respiratory passages, the various changes constituting the fibroid lung advance, and out of them, by metaplastic or by other methods, new ones arise. For a time, the new and advancing changes are still compatible with tolerable health. But sooner or later they assume a regressive character; the tide of action turns against the organism, and by slow degrees it succumbs. Examined at this stage, the lung exhibits, in addition to the alterations already described, sundry new ones. These are minute accumulations of fat, patches of vesicular emphysema, excavations of various forms and sizes, and, in an uncertain but not large number of cases,[1] cheesy masses and bronchial dilatations. To some of these alterations I shall devote a few remarks. Unquestionably, some of the emphysemata present in the fibroid lung are the results of physical forces acting in well defined conditions. But a certain number arise in a different manner, and for the most part they are to be found in the midst or on the borders of the fibroid indurations. It is probable that these emphysemata are produced by more or less complete obstructions of minute branches of the pulmonary artery. For, in certain experiments which I performed some years ago, I found that, by injecting sand or finely powdered glass into the jugular vein, and so producing embolism of some of the intralobular branches of the pulmonary artery, fatty usure, and then emphysema, followed in the territory supplied by the blocked vessel.

Of the excavations or dilatations met with together or separately in the degenerating fibroid lung, three deserve notice: the fibroid, the caseous, and the bronchiectatic. The simple or fibroid excavations are small, elongated, irregular, and contain a thin and, sometimes, blood-stained pus. When comparatively recent, the surface of the cavity is soft, shaggy, and congested; it is composed of mere fibroid stuff in a state of dissolution, and of fragments of the elastic areolæ of the alveoli, which, seen by the help of a simple lens, hang from it like bits of tangled thread. When of ancient date, the interior of the cavity is smooth, vascular, and apparently formed by an organised membrane; it is, however, nothing more than an infiltration and induration of the lung-substance immediately surrounding the cavity; and although the cavity in some sense secretes, its enlargement proceeds by disintegration of the free surface, and a less proportionate "filling in" from behind. The contents of this form of cavity, never a true pus, is produced in some degree by metaplastic processes, but in the main by degenerative and necrotic changes. Unless when old and stationary, elastic areolæ and the *débris* of disintegrated blood-vessels are always to be found in the contents. The caseous excavations are small or large; the small excavations appear to be formed by a process of necrotic dissolution pure and simple. In the interlobular fissures, they seldom extend, and almost always heal, through secondary fibroid processes. The large caseous excavations are also, in the main, produced by the chemical changes which finally determine necrotic dissolution; but, in a small degree, proliferative and metaplastic processes concur, and hence the presence in such cavities of pus-globules, free nuclei, and nuclear fibre.

The caseous masses sometimes found in the interior of the fibroid lung vary much in size: sometimes about the size of a garden pea, they are occasionally larger than a walnut. They are composed principally of epithelioid cells, and in small part of leucocytes, of free nucleated bodies, and of much granular *débris*, pervaded occasionally by an obscurely fibrillated basis-substance. They arise plainly enough in proliferation of the alveolar epithelium, and in the secondary textural changes which that proliferation after a time originates. Sometimes,

[1] I exclude from this statement minute alveolar caseations, almost always present in the immediate neighbourhood of lymphatic pleural exudations.

when small, the masses are surrounded by fibroid tissue. The cause of their development is difficult to determine; but as far as my own personal observations go, the conditions of their genesis are brought about by the concurrence of gradual thickening or compression of a branch of the pulmonary artery, with obstruction, more or less complete, of the neighbouring lymph-channels.

Concerning the bronchial dilatations and bronchiectatic cavities, it must be observed, in the first place, that, contrary to what might be expected in a greatly contracted lung, they are present only in a small minority of cases. The dilatations are of three kinds: cylindrical, fusiform, and globular. No single hypothesis of their mode of origin, hitherto advanced, seems adequate to account satisfactorily for the whole facts accompanying their development. Sometimes they are present when there is little induration or contraction of lung; and sometimes, when induration and contraction are extreme, they are absent. To traction of the thoracic walls, and of the interbronchial fibroid tissue, as factors in the evolution, must be added the active forces in certain conditions of inspiration and expiration, and degenerative changes in the bronchial walls. In every dilated bronchus, such changes are to be found; and they consist, for the most part, in fatty degeneration of the cartilages, necrotic coagulation of the muscular tissue, and fibroid invasion of the parts below the basement-membrane of the mucosa.

Cavities in connection with dilated bronchi arise, at least, in two ways: from necrotic solution of caseous lumps in the peribronchial areolar tissue or peribronchial alveoli, and from ulcerations of the bronchial mucosa penetrating the alveoli. When formed, these cavities become, of course, subject to the same dilating forces as the bronchi; and not only under the influence of the general respiratory forces, but also under the traction of neighbouring cicatricial bands, they assume the most varied and irregular forms.

Thus altered by the further invasion of the fibroid process and by its secondary effects, the lung, with its consolidations and cavities, its fibrous nodules and caseous lumps, presents the characters of ordinary phthisical disease, and would be commonly regarded as a variety of the tubercular process. And if it be true that the nature of a disease is to be determined, not by its completed history during life, but by the structural changes discovered after death, then it must be confessed that there is much to be said in support of the popular view of the tubercular unity of phthisical disease. And if, still further, we accept without reserve the experiments of Koch and the assertions of his followers, that in every such lung as I have just described, certain bacilli will be found, and that the terms tubercular and bacillary are co-extensive and convertible, then it must be conceded that the debate is closed and the question settled.

But, for my part, supported as these statements are by the most ingeniously devised and carefully executed experiments, I cannot accept them, in the subject under consideration, with unconditional reserve. For, in several cases of phthisical disease following upon fibroid invasion of the lung, I have failed to find the tubercular bacilli in the expectoration or in the lungs. To this it has been replied, that if the investigation had been properly conducted, the bacilli would certainly have been found. The only answer that I can make to such an assertion is this: that the process which fails to reveal veritable bacilli in fibroid, perfectly succeeds in tubercular cases. But assuming, for the sake of argument, that tubercular bacilli are to be found in every ulcerative non-malignant disease of the lung, and that, unlike every other organ in the body, it is insusceptible of any other chronic inflammatory or ulcerative process but the tubercular, our difficulties are not at an end. It is not easy to see how mere differences of constitution and soil can reconcile, with the exclusive action of a single causal agent, the widely differing histories of the affections now grouped under a single species by the bacillary hypothesis. And the difficulty is not entirely met by the reply of chronicity, when we remember how, into whatever texture or organ we pursue it, the structure of the tubercle in acute tuberculosis is always the same. It is quite true that, in the lung, a tubercle when it appears excites fibroid and pneumonic changes, and that one or the other, or both, may so increase as to completely hide the tubercular nodule; it is quite true that sometimes the fibroid and sometimes the pneumonic change predominates; and that, in the latter case, the progress of the pathological changes is speedy, and that in the former it is slow; it is quite true that, in the tubercular nodule, there is a fibrous element, and that sometimes its growth is so disproportionate to the other structural elements that it extinguishes them; and it is quite conceivable, although in over four thousand necropsies I have never seen such an occurrence, that in a veritably tubercular lung one could nowhere find, in its fibroid consolidations, conclusive evidence of the former existence of the tubercular neoplasm. All this is true, or conceivably true, but it does not refute the observations made by others as well as by me, that inflammatory and non-inflammatory fibroid products may invade, alter, and disintegrate the lung without the presence at any time of either the true tubercular nodule or of the veritable bacillus. To assert that a fibroid pulmonary induration is incapable of ulcerative excavation except through the medium of tubercular bacilli is, to say the least of it, an unproved assumption; and, for the present, at least, has no greater claims to unconditional acceptance than the assertion, made with equal confidence a year or two ago, that the presence of giant-cells in a given growth was conclusive as to its tubercular nature.

Finally, it must not be forgotten that, in accepting the bacillary hypothesis as a dogma no longer to be questioned, we shall have to range under one name diseases which, with apparently nothing in common but the presence of bacilli, are yet, not only in the same body, but even in the same organ, widely different in their symptomatic characters, course, duration, effects, and issues; and that, unless we are to lose some of the most precious parts of our recently acquired knowledge, and to ignore distinctions justly founded on concurrent clinical and pathological observations, we shall have to re-classify bacillary affections in such a manner that, whilst the bacillary supremacy remains acknowledged, the differentia giving them permanent and real, although subordinate, individualities, shall be formulated and maintained.

The homoplastic are not, however, the only changes which occur in the exudations of primitive dry pleurisies. Metaplastic changes arise; and out of the simple structural elements of the proliferative exudation are developed such changes of form and of arrangement as constitute, within certain limits and conditions, fibrous, syphilitic, leprous, and other growths. But, neither upon them, nor upon the larger considerations which they suggest, have I time at present to dwell. Reviewing the pathological changes brought about by primitive dry pleurisy, it becomes plain that they may be properly arranged, as so many pathological entities, in four divisions: the neoplastic pleuritic membranes, the fibroid lung, the bronchiectatic lung, and the fibroid phthisical lung. The complete and adequate understanding of these pathological changes is undoubtedly important, but it is not sufficient; for, although sometimes they are the direct results of injury coming from without, they are, in the majority of instances, the anatomical renderings or structural expressions of underlying states of system which are of the essence of the disease, and demand the first and chief attention. To these dynamic states we should now, naturally, turn, in order to learn how, by their integrations and disintegrations, their ceaseless groupings and shifting equilibria, they originate, maintain, transfigure, and end the varying structural forms, which are the only visible manifestations of their presence. Such an inquiry, however, would lead us into the realms of speculative pathology, and leave out of sight the clinical uses of our anatomical study. To this humbler task let me proceed; and in trying to show that the pathological entities have corresponding clinical autonomies, let me endeavour to turn the knowledge of this relationship into use for the daily business of our lives.

Before proceeding with this task it may be useful to state, more formally than I have done, the position which, at present, the bacillary hypothesis seems to hold in the scientific mind. In the first place, it is held that there is nothing autogenetically distinctive in the structure or form of a tubercle; that what alone makes a growth tubercular is the presence in it of the tubercular bacillus; that tubercular bacilli are present in all tubercular and scrofulous products, which are thus in nature essentially identical; and that their absence, at some given time, from such growths, is not a proof that the bacilli have never been present, but merely that they have been destroyed by some curative change in the tissues invaded by the parasites.

In the second place, it is held that the inoculation of certain healthy animals with the tubercular bacilli is followed invariably by an eruption of acute general tuberculosis, and that the tubercles thus begotten, as well as their successors for generations, remain inoculable and virulent.

In the third place, it is held that the inoculations of healthy animals with substances not containing tubercular bacilli are invariably infructive, or fructive only in products which are either sterile, or beget only local effects.

In the last place, it is held that the true and sole causal agent of tubercular, scrofulous, and allied diseases is the tubercular bacillus; and that the various forms which they assume and the different courses which they follow under the irritative action of the bacilli are accidental results, due to local peculiarities of structure, the influence of external circumstances, and the constitutional tendencies of the invaded organism.

But, whilst some of these contentions are proved, and some are probable, they are neither universally nor unconditionally accepted. There is a minority of persons—and I place myself among them—who contend that the exclusively causal agency of the bacillus, although extremely plausible, is not conclusively proved; that a greater number and variety of control-experiments are yet needed to satisfy a just scepticism; and that, even now, in the affections discussed, there must be admitted the existence of bacillary and of non-bacillary consolidations, and therefore of a bacillary and non-bacillary phthisis (*De la Phthisie Bacillaire*, par le Professor G. Sée, 1884).

At the present time, when men are still in the fervour of their conversion to the brilliant experimental discoveries of Koch, such protestations of a sober judgment will be regarded as unpardonable sins, and punished with suitable severity. Well, the sufferers under chastisement must console themselves with the reflection that it is only those whose judgments have been disturbed by emotion, or who have never sounded the deepest depths of knowledge, or who have not passed through the perils of its subtlest casuistries, that are exempt from difficulties, or doubts, or fears; and that, for the most part, truth is won, not by those who rush impetuously forward in its pursuit, but by those who, with open and eager mind, are yet, in patience, content to "labour and to wait."

THE CROONIAN LECTURES
ON
THE HYGIENIC AND CLIMATIC TREATMENT OF CHRONIC PULMONARY PHTHISIS.

Delivered at the Royal College of Physicians, London, March 1885.

By HERMANN WEBER, M.D.,
Physician to the German Hospital.

Lecture III.

Climates; Purity of Air the most important Element; Floating Matters; Climates of Elevated Regions; Objections Met; General Characters; Physiological and Therapeutical Actions; Swiss Alps; Peruvian Andes; Rocky Mountains; South African Highlands; Home Climates.

v. *Climatic Treatment.*—It is difficult to say anything new on the treatment of phthisis by climate, as the literature on the subject is so rich in good articles. I need only mention the names of Sir James Clark, Walshe, J. E. Pollock, King Chambers, J. H. Bennet, C. J. B. Williams, and C. Theodore Williams, Thorowgood, F. and P. Niemeyer, Rohden, Jaccoud, Biermann, Thilenius, A. H. Hassall, Sée, Symes Thompson, Marcet, Clifford Allbutt, Burney Yeo, Sparks, Denison, Solly, and Tyndale. The remarks which I am going to make can only be very fragmentary.

The difference between different cases of phthisis is so great, that it is impossible to lay down fixed rules for climatic treatment. In deciding between different climates and localities, the circumstances connected with the ætiology, the stage of the disease, the amount of destruction, the complications with diseases of other organs, are very important; but still more so, the distinction between a weak and a strong constitution, an excitable or a torpid nature, between progressive and retrogressive, active or stationary cases. Mental peculiarities, too, ought not to be overlooked—the habits of the invalid, the circumstances in which he has lived. Unlike, however, as different invalids are in these and other points, in all of them we must bear in mind that we have to deal with raw and ulcerated surfaces in the respiratory passages, surfaces which, in most cases at all events, are infected by a specific microbe, and are very susceptible to all impurities of the atmosphere, and especially to the microbe-element which abounds wherever organic decomposition, and especially putrefaction, takes place, and wherever there are congregations of human beings and animals in shut up localities; hence it is clear that purity, or an aseptic state of the air, is the first demand which we ought to make on the climates to which we send persons affected with phthisis. Temperature, the degree of moisture, atmospheric pressure, light and sunshine, electricity, wind, frequency or absence of rain and snow, nature of soil, elevation above the plain or the sea, which, in their varying combinations, form the different climates, are each and all important agents in the climatic treatment, as we have endeavoured to show elsewhere; but none is so essential to the consumptive patient as the purity of the atmosphere. After what we have said before on the necessity of pure air, and its renewal in rooms, it is scarcely necessary to add here that, in every climate, the position and the internal arrangements of the house, and particularly of the rooms in which the invalid is to live, are as important as the character of the climate of the place.

In former years, the composition of the air in its influence on health was judged principally by the amount of oxygen, nitrogen, carbonic acid, ammonia, and water; but, of late, attention has been forcibly directed to the amount of *floating matter* in the air by Ehrenberg, Pasteur, Tyndall, Maddox, and others; and a great accession to our knowledge, and a fuller appreciation of the influence of the atmosphere, has been obtained by the labours of Miquel at the Observatoire de Montsouris, near Paris, to which Professor Sée has directed my attention, and the result of which has been mentioned by Dr. Poore in his Cantor lectures already alluded to.

Miquel gives us the following interesting table of the number of bacteria found in ten cubic mètres of air, taken as nearly as possible at the same time in July, 1883:—

	Bacteria per 10 Cubic Mètres.
1. At an elevation of from 2,000 to 4,000 mètres ...	None
2. On the Lake of Thun (560 mètres)	8.0
3. Near the Hotel Bellevue (Thun, 560 mètres) ...	25.0
4. In a room of the Hotel Bellevue.....	600.0
5. In the Park of Montsouris, near Paris	7,600.0
6. In Paris itself (Rue de Rivoli)	55,000.0

This table shows clearly, as we have already pointed out, the difference between a high and low elevation, and between town and suburb; and also between indoor and outdoor air, the air in a room of the Hotel Bellevue, containing twenty-four times as many microbes as the air on the grounds outside. The difference between the air on the lake of Thun=8.0, and on the shore, that is, the grounds of the Hotel Bellevue=25.0, is likewise significant; and the low rate on the former may be ascribed to the distance from the sources of organic decomposition. We may reasonably infer that a still greater rarity of microbes will be found in the air on high sea. Similar researches into the purity of the air are being energetically pursued at Berlin, but I am not yet acquainted with the result.

Another point of consideration is: How far do climates and health-resorts assist the invalid in improving the general nutrition and power of resistance? This depends to a great degree on their enabling the invalid to be much in the open air, and take active exercise without risk of chills and consequent complications. Not all the climates, however, which allow the invalid to be much in the open air, are at the same time conducive to active exercise. Some are apt to produce a feeling of languor and diminished inclination for food, while others raise the nervous system, accelerate and improve the appetite, digestion, sanguification, and muscular energy, and facilitate the elimination of used up matter. We may, in some points, compare climates with medicines. There are such medicines as morphia, which soothe the cough and procure sleep, but check the appetite and nutrition in many people; antipyrin has a wonderful power in subduing pyrexia, but, in almost all my trials of its effect on consumptive patients, it has entirely suppressed the appetite. Such medicines ought, therefore, to be avoided in the majority of hopeful cases of phthisis, because the improvement of the nutrition is the first demand; so there are agreeable climates which soothe the cough, but diminish the appetite, and the inclination to take exercise, and can, therefore, be recommended only in exceptional cases. On the other hand, bitter remedies and tonics do not soothe the cough, but if they improve the appetite they often exercise a beneficial influence on the course of phthisis. In the same way, cold does not soothe cough, but, on the contrary, sometimes produces it at first; but, if it improve the appetite of the consumptive person, and enable him to take more exercise, it improves the nutrition, and thus exercises a beneficial influence on the course of phthisis. The consideration of such qualities of climate is all-important in the treatment of phthisis, though these characters are not shown by meteorological tables, however carefully prepared; they must be learned from personal observation, and from carefully watching invalids and their healthy companions. In these points lies the difference between what are popularly called relaxing and bracing climates. We will not, however, disregard meteorological tables and descriptions, for from these we often learn important facts about the nature and strength of wind, the frequency of mist and rain, the conditions of tempera-

ture, the degree of humidity, the amount of sunshine ; so that we can avoid sunless and depressing climates with frequent cold wind, mist, rain and drizzle, which prevent the invalids from taking a sufficiency of outdoor exercise. Unsatisfactory, however, as these influences are, there are others to be much more dreaded, as crowding together of many human beings, stagnation of air, presence of decaying substances, organic dust, lowness of situation, and dampness of soil (Bowditch and Buchanan).

Many people still cling to the idea that cold is injurious, and warmth curative, in phthisis, but this idea is quite incorrect. Another idea, that equable climates are the best in the treatment of phthisis, should likewise be much restricted. The most important point of all good climates, in phthisis, as we have said before, is the purity of the air. This is to be found : first, in elevated regions ; second, in the desert ; third, on the sea. The first two are usually considered under the great division of inland climates ; the third, under marine climates. In rapidly glancing over these divisions, we shall have the opportunity of mentioning some other localities which are used as health-resorts in phthisis, although they cannot claim pure air, or air of an aseptic character, as one of their prominent features.

Allow me, gentlemen, to begin with the climates of *elevated regions* (altitude or mountain climates), which, only in comparatively recent times, have come into favour in Europe. Although they were used in Peru at an earlier period (Archibald Smith). They were somewhat roughly treated in the beginning. A justly esteemed author on diseases of the lungs, for instance, in 1871, calls the plan of treating consumptive patients by long residence in the Alps, "a startling quasi-sensational novelty in climatic therapeutics," in reference to a paper of mine, "On the Treatment of Phthisis by Prolonged Residence in Elevated Regions," in the *Medico-Chirurgical Transactions* of 1869. In further discussing this plan, the same author speaks of the winter in an "elevated site in Switzerland," as a sojourn "amid mist, fog, damp, the fiercest cold, frost, ice, and snow." Surely, great physician though he is, he is somewhat misinformed on this subject, and has not himself visited the High Alps during winter, but has possibly formed his impressions from a writer who practises during winter in southern Italy. We will discuss the author's objections *seriatim*, as this will show the character of the climate.

The "mist" and "fog," amid which he imagines the patient to be during winter in the High Alps, exist, indeed, only in imagination. They are, at all events, excessively rare in those high valleys in winter ; and when Zurich, Berne, and Bale are for days together wrapped up in a dense mist, the sky is most blue in the High Alps, and the air perfectly transparent and transcalent. M. Billwiller, the head of the Meteorological Department in Switzerland, has quite lately organised a system of recording sunshine at different meteorological stations ; and I have, by chance, before me the comparison between Zurich and Davos, during the months of last November and January (having mislaid the number for December). At Zurich, the amount of sunshine during the month of November was 48½ hours, or an average per day of 1 hour 36½ minutes ; ditto at Davos, 128 hours, or 4 hours 16 minutes per day. During the month of January, at Zurich, the recorded sunshine was 37 hours, or 1 hour and 11 minutes per day, the same at Davos, 137.8 hours, or 4¾ hours per day. All those authors who are thoroughly acquainted with the winter in the Alps, as Spengler, Waters, Frankland, Ludwig, Volland, Addington Symonds, Theodore Williams, and Jaccoud, amongst others, have described the absence of mist and the abundance of sunshine ; and it is only a corroboration of their statements when I add that, while at Zurich, and in the whole of the lower regions of Switzerland, a thick mist entirely shut out the rays of the sun from January 18th to the 27th, six hours of sunshine were registered daily at Davos ; and what kind of sunshine this is, the dwellers in the lower regions, who have never been in the High Alps during winter, can scarcely imagine. At the end of November, 1869, I spent on the Piz Lanquard, about 10,700 feet above sea-level, and on an ice-pyramid of the Morteratsh glacier, about 9,770 feet, more than 1½ hours on two consecutive days, without an overcoat. As long as I remained in the sun, I never felt warmer in August and September at the same localities ; but, in the shade, an overcoat would have been just a comfort, though I did not feel cold, in spite of a temperature of only 20° to 25° Fahr., the air being perfectly calm. A black bulb thermometer *in vacuo*, showed in the sun between 88° and 92° Fahr., while an ordinary thermometer showed only between 31° and 32° Fahr., and the exhaled breath became rapidly condensed. This shows that the air itself was only slightly heated by the sun's rays, though the body, covered with woollen clothes, had all the benefit of the warming rays. I specially mention this difference between the black bulb and the ordinary thermometer, because it shows that the air inhaled is cold, to which point I shall later return. During these two days, a dense mist prevailed in the lower part of Switzerland and upper Italy.

2. How can the author call the air damp ? and how has he obtained this notion ? Dr. Frankland speaks of the "excessive dryness of the air at Davos," and, further on, he says : "The absence of suspended watery particles in the air has, no doubt, very considerable influence in preventing the chilling of the skin." We need only consider the facts that air at a low temperature can hold only a very small quantity of watery vapour ; and that, if that small maximum be reached, the vapour must become condensed in the shape of mist or fog, the rarity of which we have already mentioned ; and the usual transparency and transcadency show likewise that the quantity of suspended vapour can be only very small. All the authors agree on this point ; and Dr. Volland and Mr. Waters have further pointed out that also the air in the rooms is very dry—indeed, even drier than out of doors. Mr. Waters found a relative humidity in his bedroom at Davos during the winter 1881-2 varying from 25° to 35° Fahr. ; the temperature of the room being about 60° Fahr., with an open window at night.

3. "The fiercest cold and frost," of which our author speaks, is scarcely felt by the patients at Davos or St. Moritz. Spengler, Waters, Frankland, Unger, A. Symonds, Theodore Williams, Ludwig, Rohden, Peters, and myself, as well as many others, have often discussed this question. The main points which prevent the cold from being much felt are : 1, that the air is dry ; 2, that it is calm ; and 3, that the sun-heat is very great. In an excellent article, in a recent number of the *Practitioner*, on Winter Health-Resorts, the same question is discussed. "The temperature of the human body depends very much on the dryness of the air. A Canadian feels it much colder at 4° below freezing-point in London, than in Canada when the thermometer stand at 40° below zero Fahr. The dryness of the air in Canada more than compensates for a difference of 68° Fahr. Dry air has very little capacity for heat ; so that, when it is at rest, it conducts away very little heat from the body."

Wind changes the matter very considerably ; but wind, as we have said, is rare during winter in the chief Alpine health-resorts—partly through the shelter of the mountains, partly through the absence of local winds, as every place is covered with snow. In summer, there is much more wind, and it is then often very disagreeable, and, unless care be taken, chilling ; but it is not so injurious as it would be in winter.

We have spoken already of the great sun-heat, and the papers of Waters, Frankland, and others, are well known. The result of this sunshine and absence of wind is, that even rather delicate invalids can sit for many hours, lightly covered, on open terraces, and in verandahs, or on seats, along the southern slopes of the mountains, or round the ice-rink ; that they can frequently drive in sledges, and take short walks ; while the hardier ones can join in long excursions, in skating and tobogganing. The time passes quickly, and the majority of invalids manage to be more in the open air than in the Riviera.

Is the calm dry cold of the Alpine winter health-resorts injurious ? My answer is, decidedly no ! It is not only not injurious, but beneficial to all those who are suited to this climate. When warmly dressed, the invalids who are able to walk can be out, even if there be no sun, provided there is no strong cold wind ; and the majority of them can, with reasonable precautions in dressing, even walk on calm evenings. The danger of becoming chilled at the time of sunset is far less than in the Riviera climates. It is only a remnant of an old prejudice which can make us afraid of dry, calm, moderate cold. A consumptive patient is in a better condition for recovery if he lie on a couch in a judiciously selected spot in the open air, even in winter, than in a shut up room. The low temperature of the air has the obvious advantage that the bacillus and other microbes cannot thrive in it, and that putrefaction is arrested. In addition to this, the low temperature of the inhaled air leads to loss of heat, and of a large amount of water. This, we presume, acts as well in an antiphlogistic, as in an antiseptic, way ; it may arrest the disease by drying up a sore, and by checking the thriving of the bacillus within the lungs. The diminution of the expectoration observed in many cases, is partly due to it, and perhaps also that of the night-perspiration. The pulmonary circulation becomes increased in order to supply the water lost ; and the energy of the right heart and of the cells and tissues of the lungs must be likewise favourably influenced. The respiratory thoracic movements cannot escape being rendered more active ; and through this expansion of the thorax, there result strengthening of the thoracic muscles and a help to all the respiratory acts. It is not too much to say, that a great part of the favourable influence of the winter-

climate of the High Alps takes place through the increased inhalation of this cold, pure, and rarefied air.

4. We fully acknowledge the author's correctness with regard to ice and snow in the winter climate of the High Alps, but with this we find as little fault as with the calm cold air. Indeed, they are almost inseparable, for the ice and snow which cover the ground prevent dust and decay, and the microbe-laden emanations from the soil. The calmness of the air, the absence of local winds ("Thal" and "Berg" winds) is in great part due to the ground being covered with ice and snow; furthermore, where the roads are, for months together, covered with snow, the invalid can walk on them without the danger of wet feet, and the healthful exercises of sleighing, tobogganing, and skating for the more hardy invalids and their companions, are certainly not to be despised.

After having discussed the bad characters of our author's Alpine winter, we must devote a few minutes to the purity and rarefaction of the air. The purity or aseptic character is intimately connected with the cold, and ice, and snow, and also with the sparsity of population and industries. To this point, and particularly to the comparative absence of spores, I had always been inclined to ascribe the favourable influence of residence at high elevations on phthisis; and, when Professor Tyndall, in 1868, directed my attention to Pasteur's researches, published in 1862, I became strengthened in this view, which I mentioned at the Royal Medical and Chirurgical Society in 1869. The facts published by Miquel, and already quoted above, as to the absence of microbes in the Alps, at localities above 2,000 mètres, strikingly show the purity of the air. We cannot, however, be blind to the fact that, wherever a large number of human beings, especially invalids, congregate, there the purity of the air is likely to be impaired.

The rarefaction or rarity of the air, with which its lightness or diminution of pressure is intimately associated, has been the subject of many theories; for instance, as causing a starvation of oxygen, and the peculiar kind of mountain-anæmia, of the existence of which, however, I have not been able to convince myself in the Alps. What seems to be certain is, that more blood flows to the surface of the skin; that this organ becomes better nourished; that the internal organs become in proportion somewhat unloaded; and, further, that the separation of carbonic acid from the blood in the lungs is facilitated (Marcet and Chermond). I am less certain with regard to the view that a diminished quantity of oxygen, contained in a given quantity of air, leads to the inspiration of a larger volume of air, and, through this, to a greater expansion of the lungs and thorax. This theory has been held by many authorities, and has been quite lately expounded in a very plausible way by Professor Jaccoud, a great advocate of the curative effect of Alpine climates, in his valuable work on *Phthisis*, of which a good English edition by Dr. Lubbock has just been published. I am not quite prepared to say that this view is incorrect; but, as I have pointed out already, in 1869, and in later communications on the subject, the experiments of Frankland and Tyndall, on the burning of candles on the top of Mont Blanc and at Chamonix, show that, although the light-giving power of the flame is much less on the top of Mont Blanc, the quantity of stearine consumed, or, in other words, the energy of combustion, is almost precisely the same as at Chamonix. This remarkable result is ascribed, by the authors of the experiment, to the greater mobility of the atoms in the rarefied air "making atonement for the smallness of their number by the promptness of their action." I can corroborate the experience of Dr. Theodore Williams regarding the increase of the circumference of the thorax, and especially of the diseased side of the chest, in several of those cases which have shown a satisfactory progress. I am not, however, sure that this is due to the rarity of the oxygen, as the inhalation of the dry cold air already accounts for it.

Whether the thinner air of high regions is unable to hold the microbes floating, and whether in this way rarefaction is a source of purity, as Miquel seems to think, I am not able to say; but this point could, I should think, be settled by experiment.

I must deny myself the pleasure of further entering into the details of the peculiarities of mountain air and mountain health-resorts. The main physical features important to us are: 1, the purity or aseptic nature, the comparative absence of floating matter; 2, dryness of the air and soil; comparative absence of mist; 3, the coldness or coolness of the air-temperature, and the great warmth of the sun-temperature; 4, the rarefaction and low pressure of the air; 5, the intensity of the light; 6, the stillness of the air in winter; 7, a large amount of ozone.

The effects on the invalid suited to such climates are: increase of appetite; improvement of sanguification and general nutrition; strengthening of the heart and circulation; raising of muscular and nervous energy, and of activity of the skin. Under the influence of such constitutional progress, which is assisted by the local action of the aseptic dry and cold air, by increased ventilation of the lungs, and by compression of the diseased parts through healthy and emphysematous dilatation of the surrounding tissue, we observe a gradual improvement in the state of the lungs, leading to arrest of the disease and actual cure.

Duration of Stay, and Season of the Year.—The time during which an invalid ought to stay in elevated regions varies greatly according to the nature of the case, from four and six months to as many years, and general rules can scarcely be laid down. He ought to remain until he is cured, or until it is seen that the climate does not suit him. An additional advantage of these climates is, that the majority of patients can remain throughout a whole year, with occasional changes to allied, not too distant, localities. The winter season is the best in the Alps; spring is the time of general melting of the snow, and soil and air are damper than in winter; so there is more risk of chills, and, possibly, of microbic infection, than in winter, but this risk is not greater than in lower regions, where the air at the same time is more relaxing. The descent to lower regions ought, therefore, not to be the rule, as it is at present, but the exception; and this only after careful consideration, and with all due precautions as to travelling, selection of locality, rooms, etc. In summer, it is desirable to select mountain places which are rich in pine-forests, in order to have shade from the sun, and the additional benefit of the exhalation of the pines. The first part of autumn is very good, while the second forms a transition-stage to winter, and is often unfriendly. Where it can be arranged, the stay in the European Alps ought to commence in August or the beginning of September, in order that the acclimatisation can take place before the changeable transition-stage begins.

You will ask me which elevation is required to bestow on a locality the character of a mountain climate? This varies greatly, according to the degree of latitude, distance from the sea, and other circumstances, on which I cannot enter at present. The character of the vegetation is to some degree a good criterion. In the flat regions of Northern Germany, an elevation of 1,500 feet is sufficient to produce a vegetation which somewhat resembles that of the Swiss Alps at an elevation of nearly 5,000 feet, and of the Peruvian Andes at 10,000 or 11,000. The isothermal lines are likewise a help in this question. We may, perhaps, say—but only roughly—that in Europe, north of 50°, an altitude of about 1,600 feet has already some characteristics of mountain climates; while between 50° and 48° latitude, about 1,700 feet to 2,500 feet are required; and between 47° and 46° latitude, from 3,000 to 5,000 feet. I need, however, scarcely tell you that I do not think that all the climatic characters of a mountainous region in North Germany, or Northern France, at an elevation of 1,600 to 2,000 feet, can be the same as those of 5,000 or 6,000 feet in the Swiss Alps. The average air-temperatures may be similar, and also the time during which the ground is covered with snow; but the rarefaction of the air must be less great at the lower elevations; the air is heavier; the light and sun-heat are less intense; the moisture is mostly greater. About the microbes, I am not yet sure: their distribution is likely to be unequal; but, where there are only few human habitations, and few sources of organic decay and putrefaction, where the soil is dry, and especially where it consists of granite and gneiss, with absence of stagnating water, there the microbe-element will probably be scantily represented.

From what I have said, you will expect me to recommend altitude-climates in hereditary and acquired tendency to phthisis, and especially in cases with imperfect expansion of the thorax, and the so-called "phthisical habitus;" and, further, in all conditions comprised by the term phthisis, excepting those which I must describe as non-suitable—namely, 1, consumptive patients who belong to what I have described as the erethic constitution, whether the affection is early or advanced; 2, phthisis in a very advanced stage; 3, phthisis complicated with emphysema; 4, phthisis complicated with albuminuria; 5, phthisis complicated with disease of the heart; 6, phthisis with ulceration of the larynx; 7, phthisis with rapid progress and constant pyrexia; 8, phthisis with great loss of substance; 9, phthisis with considerable empyema; 10, phthisis in persons who cannot sleep or eat in high elevations, or who feel constantly cold. Some of the conditions are not permanent, but only temporary and removable obstacles.

A tendency to hæmoptysis was formerly regarded as forbidding mountain climates, but experience has shown that this is incorrect; that, in fact, hæmoptysis occurs much less frequently in high than in low regions, and is often prevented and checked by a stay in high regions (Archibald Smith, Brehmer, Spengler, Unger, Dettweiler, C. T. Williams, Denison, Solly, Ruedi, Peters, Hermann Weber).

(To be continued.)

ABSTRACT OF LECTURES
ON
SOME POINTS IN THE ANATOMY AND PHYSIOLOGY OF THE EYE.

Delivered at the Royal College of Surgeons of England.

By W. A. BRAILEY, M.D., M.R.C.S.,
Hunterian Professor at the Royal College of Surgeons; Ophthalmic Surgeon to the Evelina Hospital; Assistant Ophthalmic Surgeon and Joint Lecturer on Comparative Anatomy at Guy's Hospital.

Lecture III.

The fluids of the eye, other than that contained within the blood-vessels themselves, may be divided into three systems: first, that of the vitreous and aqueous chambers, inclusive also of the lens and so-called space of Petit; second, that of the retina; and, third, that of the uveal tract. Of these, the first is by far the most important, since the tension of the eyeball and the nutrition of the lens depend upon its integrity. It is the only one whose fluid can be collected for analysis. Notwithstanding their very diverse appearance, the vitreous and aqueous fluids are not unlike each other in composition. Each contains about 98.6 per cent. of water; and in each the chloride of sodium amounts to about .7 per cent. But the vitreous humour contains a little mucin, which is wanting in the other.

The fluid of this system is usually regarded as coming mainly from the ciliary body, especially from its folds, and to a less degree from the posterior surface of the iris. Many authorities accept also a slight inflow from the retina itself, in addition to that fluid which has traversed the retina in its passage from the choroid. One outflow, namely, that through the ligamentum pectinatum, is regarded as sufficient. Thus the course of the flow would be from the posterior surface of the iris ciliary body, and internal retinal surface, into the aqueous chamber, margin of the lens, and vitreous chamber. Then all gains the anterior aqueous chamber through the pupil, some passing directly from the posterior aqueous chamber, some from the lens substance, and some from the vitreous chamber. The latter passes round the margin of the lens between it and the ciliary folds, and along the grooves between the ciliary folds themselves. It is clear that this arrangement demands that the current passing forwards from the vitreous body should cross at right angles that entering the lens margin, and should be in direct opposition to that passing directly from the ciliary body into the vitreous chamber. Such a disposition of things is, on the face of it, somewhat improbable. I shall give the reasons upon which the foregoing view is based, and then proceed to suggest certain ways in which it may, in my opinion, be advantageously modified. In the first place, I reject the theory that fluid passes into the vitreous body from the retina. Almost the only argument in favour of it depends upon the presence of pus-cells on the internal retinal surface in suppurative hyalitis. Such cells are, in the early stages of this affection, arranged in streaks, which obviously correspond to some of the moderate sized retinal vessels. Similar cells are also found abundantly in the lymphatic sheaths of these. It certainly appears to me quite as reasonable to suppose that pus-cells are escaping from the vitreous chamber by this route as that they are invading it. The same remark applies to the numerous pus-cells which, in the same morbid condition, radiate from the optic papilla. It is true that fluid, that of the so-called retinal purple, passes from the capillary layer of the choroid into the outer retinal layers. But there is not the slightest proof that the entire retina can be traversed by fluids; on the contrary, the principle upon which all operations for retinal detachment are based is entirely opposed to the idea. In the same way, large accumulations of blood may distend the subretinal space for very long, without the least evidence of their extension to the vitreous chamber. Very extensive atrophy of the choroid, inclusive of the layer of pigment epithelium on its internal surface, may exist quite independently of any change in the nutrition of the vitreous body or in the tension of the eye.

We must admit some secretion from the posterior surface of the iris, on the evidence of cysts formed in this region. For example, I have seen two cases where fluid has been imprisoned between the base of the iris and the ciliary body by an accidental adhesion of the apices of the ciliary processes to the adjacent part of the posterior surface of the iris. The cyst thus formed became of excessive size and was bounded in front by the vastly stretched and thinned substance of the iris. Obviously, the secretion from the pigmented cells lining it had produced this great accumulation of fluid. Still, the effect of the iris-secretion upon the tension of the globe must amount to little or nothing, since the iris may be congenitally deficient without any corresponding diminution of the intra-ocular pressure.

It is beyond doubt that the ciliary body is the great agent in secretion. The fluid is elaborated by the cells of its pigment epithelium, and from them is passed inwards through the elements of the pars ciliaris retinæ. The spaces existing between these in the posterior or flat zone of the pars ciliaris are normally occupied by this fluid. An exaggeration of its amount constitutes the not unfrequently seen œdema of the pars ciliaris. Experimental removals of both iris and ciliary body have resulted in softening of the eyeball, a result not in the least surprising, considering the extent of the lesion, and the exposure to loss by evaporation, etc. Experimental injections of solutions of the readily diffusible substance, known as fluorescine, into the blood, have resulted in the appearance of this substance upon the internal surface of the ciliary body, except where this has been obviously atrophic. But it appears to me that the evidence derived from pathology is even more conclusive than that above referred to. Diminished tension is invariably found in association with atrophy of the layer of pigment-epithelium of the ciliary body. In the same way the vitreous body is altered in all cases of cyclitis, which condition frequently, if not usually, results in its shrinkage; whereas iritis alone, or keratitis, or both in association, are not followed by atrophy of the vitreous body.

The nutrition of the lens is impaired when the ciliary body is atrophied. The two structures show a certain affinity in their nutrition. For example, the lens capsule is usually calcareous whenever bony masses are found on the internal surface of the ciliary body. But it is only on the posterior three-fourths of the ciliary body that bone is formed, the anterior fourth, the region of the ciliary folds, remaining free. Similarly, in suppuration of the vitreous body, pus-cells are found far more abundantly on the posterior three-fourths of the ciliary body. Consequently, this part appears somewhat different in its functions from the remainder, and is, in all probability, more immediately connected with the separation of fluid into the lens and vitreous chamber. The anterior fourth, on the other hand, including as it does the ciliary folds, appears rather calculated to preserve some uniformity in the intra-ocular tension, being enlarged when this is lowered, and *vice versâ*. Thus, it not only occupies itself an increased space, but, by thrusting the base of the iris forwards towards the ligamentum pectinatum, would be useful in opposing a temporary check to the outflow of fluids in this region. It is, however, true that, while a moderate increase of the intra-ocular pressure increases the outflow at the ligamentum pectinatum, a great increase, by its mechanical effect on the position of the base of the iris, obstructs it altogether. Thus much increased and much diminished tension equally result in the apposition of the iris-base to the cornea.

But I apprehend that the anterior surface of the iris separates some fluid into the anterior aqueous chamber. It is morphologically a continuation of the outer choroidal surface from which, as we shall presently see, some fluid is normally separated. If the anterior chamber be emptied by puncture, it soon becomes refilled, even in ordinary cases of glaucoma with high tension; whereas, in the very rare cases where the iris is extremely atrophic, it may not be re-established. In normal tension with excluded pupil, the iris may remain flat, with the anterior chamber of the usual size and shape. In some cases of buphthalmos with excluded pupil, the anterior chamber becomes of enormous size, a condition requiring apparently some secretion from the anterior surface of the iris for its development. Fluids are certainly separated hence in certain pathological conditions, namely, in suppurative and hæmorrhagic iritis, whereas they are, as far as we can judge, absent where the ciliary body is alone affected. It should, however, be stated that the rather rapid disappearance of blood-clots from the surface of the iris, and the passage of certain inoculated substances, for example, tubercle, backwards from the iris to the choroid, are quite consistent with a certain amount of absorption by the iris itself. It has been stated that, because fluorescine solution, when injected into the blood, makes its appearance at the angle of the anterior aqueous chamber, apparently coming from the ligamentum pectinatum, there is an inflow in this position. The fact, however, may show nothing more than that a very diffusible substance readily passes from the blood of Schlemm's canal into the fluid of the aqueous chamber.

With regard to the outflow of fluid from the eye, nothing is better established than that the peripheral part of the anterior chamber is in this respect a very important region. When this is blocked by the

iris, as after perforated corneal ulcer, or in the later stages of some glaucomas, or by the lens, as in some cases of dislocation of this body, the proof is convincing. The application of the cautery to the sclero-corneal junction is said to block the outflow, thus proving the same thing. Contraction of the pupil, as after eserine or sleep, increases it, probably by the necessarily associated extension and opening out of the fibres of the ligamentum pectinatum. It is also indisputable that fluid passes, in some cases at all events, forward through the pupil. The bulging of the iris with high tension, in cases of exclusion of the pupil, and the removal of these conditions by iridectomy, constitute conclusive evidence. The refilling of the punctured anterior chamber after death must in all probability come from behind the iris; and fluids experimentally injected into the vitreous body during life, do in most cases actually make their way forwards into the anterior chamber; but the flow may be extremely small, as when hypopyon and hyphæma go very slowly; or perhaps entirely wanting, as in cases of excluded pupil, with iris flat or bulged, and tension no more than normal, and as in cases where coloured injections or hæmorrhages or abscesses in the vitreous body make no appearance in the aqueous chamber.

But there is strong evidence of an additional outflow along the optic nerve. True, coloured injections into the vitreous body give no proof of it, but, on the other hand, they sometimes fail to appear in the aqueous chamber, in which direction the passage of fluid is undoubted, and of comparatively very large amount. But injections by Schwalbe under the inner (pial) sheath of the optic nerve have filled lymph-spaces in the optic disc, and passed into the central canal of the vitreous body (canal of Cloquet), as well as into the sheaths of the retinal vessels and into the lymph-space between the retina and the hyaloid membrane. In some inflammatory affections of the brain-substance, the optic nerve, and especially the optic papilla, are swollen and œdematous, and the fibres of the lamina cribrosa bulged towards the eye, instead of the reverse way. Also numerous pus-cells are found radiating from the optic disc in suppurative hyalitis. Each of these facts might indicate a flow from the optic nerve into the vitreous chamber; but, when taken in association with the fact that pressure on the optic nerve causes swelling of the disc, with, commonly, an approximation of the iris-periphery to the cornea, and with, as I have seen in two cases, an actual undoubted rise of tension, they will coincide readily with the belief in a normal slight outflow, which may be reversed under exceptional circumstances of pressure within the eye itself, or in the optic nerve.

The retina may be very briefly dismissed. Its own waste fluid, with that from the chorio-capillaris, passes back along the sheaths of the retinal vessels into the sheaths of the central vessels of the optic nerve. The plugging of these trunks will speedily produce an œdema of the retina, the obstruction being probably a consequence of the inflammation set up around the central vessels. If the retina be detached, the fluid from the choroid accumulates in the subretinal space, until the pressure becomes the same on both surfaces of the detached retina, when it escapes by its usual route. In the affection known as iritis serosa or keratitis punctata, the other parts of the eye are so far affected that cells are found in the sheaths of the vessels of the retina and optic papilla. Thence they extend, in a very marked manner, along the sheaths of the central vessels of the nerve, extending, at the lamina cribrosa especially, over the nerve generally, though in less degree.

The fluids of the choroid have, as regards its internal layers, already been disposed of. What escapes from its external surface passes from the lymph-space between it and the sclerotic, along the sheaths of the vessels, either directly into the intersheath-space of the optic nerve, or indirectly into the same by-way of the capsule of Tenon and the supravaginal lymph-space.

In practical illustration of these points, we may note that cyclitis is usually associated with some disturbance of tension; that episcleritis may, just like the actual cautery above referred to, cause glaucoma by obstructing the outflow from the anterior aqueous chamber; and that pressure on the optic nerve may cause œdema of the disc and tortuosity of the retinal veins. But swelling of the disc may similarly be caused by inflammatory œdema of the brain-substance, or by inflammatory fluid in the intersheath-space of the nerve, in either of which cases the nerve-fibres on the papilla may themselves be swollen from soakage in inflammatory serum, as in the retinal patches of albuminuric retinitis. Also, a sudden diminution of intra-ocular pressure may cause an almost immediate non-inflammatory œdema of the disc, which may be followed by true inflammatory changes, if the wound have been sufficiently severe to cause inflammation of the deeper structures of the eyeball.

In increased intra-ocular pressure, an increased flow into the nerve would be naturally expected. This is probably the cause of the neuritis which is so invariably set up after the establishment of a glaucoma. A long continued slight excessive flow may excite neuritis, and thus account for the loss of field and redness of the optic disc common in glaucoma simplex, and which may even occur without the establishment of any rise of tension perceptible by the touch.

OUR DUTIES IN REFERENCE TO THE SIGNING OF LUNACY-CERTIFICATES.

Read before the South-Eastern District of the Metropolitan Counties Branch.

By GEORGE H. SAVAGE, M.D.,
Medical Superintendent of Bethlem Royal Hospital.

When asked by your Secretary to contribute a paper to the evening's proceedings, the *genius loci*, as it were, fixed the nature of my subject, and I decided to select one from the many burning questions of lunacy. My own wish at first was that it should be one of the more medical aspects of the subject; but, overruled by your Secretary, I chose the very serious and important one of our duties as to certifying. I think enough has been said as to lunacy-legislation, till we really know the nature of the changes which the present Government intend to make. It seems as if the present state of the lunacy law was like the ministers in a distracted Government; everyone has a special treatment for the crying ills, yet these ills do not decrease.

I do not think that the general public are at all in a position to judge as to what is needed, and I fear there are many signs that those who should lead public opinion are in a state of panic. One object of this paper is to try, in a small way, to stop this panic. At present, there is no denying that there is a very general and, I believe, groundless fear that many persons are both kidnapped and put away in asylums quite unnecessarily; that, in fact, many are detained in asylums, especially private asylums, who ought to be at large. The dread is, that these are being kept from sordid motives alone. The recent epidemic of lunacy actions has been one of the chief excitants of this feeling; and this shows how easily and falsely the public are led, for the only action that has been won is the one which shows that the lunacy laws are not so very lax, as the prosecutor was never in na asylum at all.

The public mind has been disturbed by rather boisterious articles, by specialists and others, on the question of detention in private asylums; and, if the enemies of one's peace are within one's own household, it is not surprising that distrust spreads to those outside. Medical journals too have, to my mind, made a great deal too much fuss about these matters, and have stirred up rather than allayed the storm. Any way, whatever the cause, panic has arisen, and the medical mind is full of fear. I trust that the fact of there being danger will not suffice to deter medical men from doing their duty, and I shall try to point out that I consider the signing certificates in lunacy as part of the medical man's duty. Certificates are still necessary for the legal detention of persons of unsound mind. These persons may for a time require that they should be deprived of their liberty, as much for their own sakes as for that of society. Medical men are the only people who are in a position to give an opinion as to this necessity, and thus I maintain that they have here a duty which they cannot shirk. I, for one, do not think a medical man has a right to say, "I will, under no conditions whatever, sign another lunacy-certificate." Certainly medical men are not justified in advising seclusion for patients, and yet declining to assist in the carrying out of their own directions, unless they have first of all warned the friends that they never sign certificates. Surely, if a medical man be convinced that a patient's best interest requires that he should be secluded, he should not shrink from aiding in the accomplishment of his own treatment. I think he owes the duty to himself as well as to society. My first contention is, that the medical profession is likely to do injury to itself by joining a form of trades-union which has for its object not signing lunacy-certificates. It is not a dignified course to take, and is one which is likely to injure the patients, to injure society, and do no good to anyone.

Let medical men guard themselves as well as they can, but do not let them do this to the avoidance of their duty. I repeat that I think the medical journals have done harm by their appeals to medical men not to sign.

Next, I would say that greater harm will surely arise if the better educated and better placed medical men refuse to sign the

necessary forms for treatment; for if they do not sign, the less capable will do it in all cases of emergency, and thus the best men will lose their hold on one of the most important of their medical functions. No good will be attained by an attempt at a blockade, for this can never be complete, and the patients will certainly suffer by the delay in treatment.

It appears to me that those who refuse to sign are placed in an awkward position; for they either say "I recommend a treatment which I am not prepared to assist you to get," or else they appear to agree with the general wild outcry against patients being sent to asylums at all. If the patients can as well be treated at home, why has it been so necessary hitherto to send so many to asylums? The doctor is self-condemned, by formerly signing and now refusing to sign.

Another point arises as to who should sign lunacy-certificates. I believe, for many reasons, that the family medical man is one who should take that responsible duty, and I think that, where attainable, an independent physician should be selected for signing the second. I shall be told that this last class is the one most given to decline to sign certificates at present. Many, I know, are refusing, and I believe the reasons are that the majority are not sufficiently versed in the laws of lunacy, and do not think it is worth while to get this knowledge up, and, to avoid bother, they decline to do their duty. In lunacy, there is much difficulty caused by ignorance of the clinical history. In an ordinary case of disease, the general physician is able to piece together the facts observed by himself, and the history of the development of the symptoms given by the patient or his friends. But in insanity this is different; before a certificate can be signed, the medical man must assure himself of facts of insanity present at the time; but there are many slight signs which, to the more expert, are sufficient indications of disease, which, to the less expert, would not suffice to satisfy him who has to sign the certificate. The time is nearing when a more general knowledge of insanity will make the recognition of the symptoms more easy. With the consulting physician, then, I should say ignorance of insanity and ignorance of the lunacy laws at present prevent them from fulfilling their duties. It may be supposed, then, that I should like to see a special set of men appointed to fill up lunacy-certificates; to this I should most emphatically reply "No." If we get an official set of signers, we shall get all the faults of officialism; most of the certificates will be signed, as a part of a duty to be done as easily as possible; the safety of the public will be no more secure in the hands of the official signers, than it has appeared to be in the hands of magistrates or poor-law officers. My own feeling most certainly is, that both the general practitioner and the pure physician should sign certificates for patients who require seclusion, and that they have no right to let the patient be driven from pillar to post on account of their fear, till some catastrophe happens to the patient or his friends.

There is one anomaly out of which it is hard to see any way; it is that those who are most skilled in lunacy, asylum-physicians, are prevented from signing certificates. The Commissioners look most jealously at any certificate which has been signed by an asylum-physician, at least for a fee. There are reasons why there should be no chance of a patient being confined by certificates under the man who signed them, but this has been already arranged for in the Lunacy Laws. The question of the difficulty in getting certificates is not a sentimental one, and I wish I were in a position to place before you in black and white the evidences of the tragedies which have resulted from failure to get certificates signed. I know of both suicides and homicides, which might have been prevented if medical men had not been afraid to do their duty.

To continue this paper to a practical conclusion, I must add a few special details after all this general admonition.

There are some cases in which there ought to be no doubt as to the necessity for certificates. Such are cases in which there is marked and active suicidal tendency, and also where there is direct evidence of homicidal impulses or delusions, such as lead to homicidal attacks. I know it is impossible for even the most careful expert to detect all the conditions of mind which may lead to suicide; but, as a rule, the friends have been able to find out enough to satisfy the medical man as to whether there is real danger or not. For convenience, too, I should say that, if you have made up your mind that a patient is suffering from general paralysis of the insane, there need be little or no fear of legal trouble; for though there may be threats, the mind, slowly becoming weaker, leaves the patient easily led.

There are some dangerous cases in which every precaution and every guarantee should be sought. For, though it has been frequently ruled that a man, suffering from temporary insanity due to drink, may be sent to an asylum, yet I should say that, of all the litigious lunatics, those from drink are the worst. The acute alcoholic, having experience of his former recoveries, thinks he might just as well have been allowed to get well at home, as to be sent to an asylum, and he is dissatisfied; and the chronic alcoholic is as perverse morally as a man can be, and never, even at his best, perfectly recovers his balance, so that he still harbours vengeance against those who have acted for him in his illness. The more I see of insanity, the more I feel that, of all cases, those due to drink are most unsatisfactory, both from their frequent recurrence, and the want of gratitude of the patients; so beware how you sign for these, but still do not refuse to sign, but guard yourself. A good deal has been said from time to time about getting indemnities from the friends before signing the certificates; and I have heard that such guarantees have proved of service on several occasions, rather by preventing the patient from taking an action which would involve his nearest relation in expense than from any other cause. It is interesting to hear from Dr. Hack Tuke that guarantees were in use twenty-five years ago; and I suppose this points to the recurrence of the scares, and to the recession of panic which I prophesy will follow all this storm. There are many other words of caution which I might give; but the object of this paper is accomplished if both the general practitioner and physician will take their part in allaying panic, and I believe they will do this by doing what is most certainly their duty in signing certificates.

SOME REMARKS ON THE PRESENT STATE OF OUR KNOWLEDGE OF THE COMMA-BACILLI OF KOCH.

By E. KLEIN, M.D., F.R.S.,
Joint-Lecturer on General Anatomy and Physiology at the Medical School of St. Bartholomew's Hospital.

THE reason of my making a few remarks on the above is a twofold one. 1. Certain observations were made by my friend, Mr. Watson Cheyne, at a recent meeting of the Royal Medical and Chirurgical Society (March 24th, 1885), and printed in this JOURNAL (March 28th, p. 655), which appear to me to be based on a complete misunderstanding on the part of this gentleman, as to what Koch has really said and taught as regards the choleraic and other comma-bacilli, and I am, therefore, anxious that the members present at that meeting, and the readers of those observations, should have a correct idea about these matters. 2. I wish to define more fully than I was able to do at that meeting, owing to the lack of time at my disposal, the position I hold in reference to the comma-bacilli.

1. My friend Mr. Watson Cheyne said this: "Koch defined a comma-bacillus as a curved organism, which, when grown in gelatine in tubes, had certain characters; on potatoes, certain other characters; and in plate-cultivations, also special characters. The sum of these characters gave us a definition of the comma-bacillus. The idea seemed to have got abroad that Dr. Koch defined the bacilli found by him in Asiatic cholera by their microscopic appearances, and that they were comma-shaped."

Now, I ask the reader to turn to page 22 of Koch's pamphlet (*Conferenz zur Erörterung der Cholerafrage*), or to the literal translation of it in this JOURNAL, September 6th, 1884, p. 453, and he will find this statement of Koch's: "In Egypt, ten *post mortem* examinations could be turned to account. *It is true these were only microscopically examined, for I was not then sufficiently acquainted with the qualities of the comma-bacilli, which they show while growing in food-gelatine, to be able to make use of the gelatine-process for proving the presence of bacilli.*" (The italics are mine.)

Now, where, may I ask, were the comma-bacilli discovered by Koch? In Egypt. Where has Koch stated that the comma-bacillus is peculiar to cholera, and must, therefore, bear a definite relation to the disease? In Egypt. All the beautiful investigations as to the peculiar behaviour of the choleraic comma-bacilli in gelatine were made by him subsequently in Calcutta. But their discovery, their description, and their specific relation to cholera, were asserted by microscopic examination only. And lest there should be any doubt on this point, Koch says (see the translation of his pamphlet, in this JOURNAL, August 30, 1884, p. 404): "These bacteria, which I have called comma-bacilli, on account of their peculiar shape, are smaller than the tubercle-bacilli."

Mr. Watson Cheyne further said: "Now, Dr. Koch had stated that, having this fact in view, he had searched for these organisms in saliva, in fæces, in all sorts of decomposing materials, and in other materials

and in other diseases, and had failed to find them..... When Dr. Koch said that he had searched for these organisms, he meant that he had not only used the microscope, but had tested the materials by cultivation; and when Dr. Koch said that he had failed in this search, he meant that he had not found an organism which presented the same microscopic appearance, together with the same characteristics of growth, as that discovered by him in Asiatic cholera."

This is what Mr. Watson Cheyne says, but it is not what Koch said. I ask, again, the reader to turn to Koch's pamphlet, or to its translation (BRITISH MEDICAL JOURNAL, September 6th, 1884, p. 453). This is what Koch says: "In accordance with the cholera-material that I have so far examined, I think I can now assert that comma-bacilli are never found absent in cases of cholera; they are something that is specific to cholera. As a test, a considerable number of other corpses, dejecta from patients and persons in good health, and other substances containing bacteria, were examined[1] to see if these bacilli (*i.e.*, comma-bacilli), which were never missing in cases of cholera, might, perhaps, occur elsewhere also. This is a point of the greatest importance in judging the causal connection between comma-bacilli and cholera.".....

"In all these cases, where we had to deal chiefly with diseases of the intestine, no trace of comma-bacilli was to be found. Experience teaches that such affections of the intestine make people especially liable to cholera. So one might have presupposed that comma-bacilli, if they were to be found anywhere else, must be found in these cases. Besides these, dejecta of a large number of dysenteric patients were examined without the comma-bacilli ever being met with."..... "We examined a considerable number of various dejecta, especially of children's diarrhœa, as well as that of grown-up persons; saliva also, and the mucus that adheres to the teeth and tongue, and which abounds in bacteria, for the purpose of finding comma-bacilli, but always without success."..... "Nor were they found in the sewage from the drains of the town of Calcutta, in the extremely polluted water of the river Hooghly, in a number of tanks which lie in the villages and between the huts of the natives, and contain very dirty water. Everywhere, where I was able to come across a liquid containing bacteria, I examined it in search of comma-bacilli, but never found them in it."..... "Besides these observations, I have had a considerable experience in bacteria, but I cannot remember *ever having seen bacteria resembling the comma-bacilli.*" (The italics are mine.)

"I therefore think I may say positively that the comma-bacilli are constant concomitants of the cholera-process, and that they are never found elsewhere."

Is anybody, after reading such statements, unreasonable enough to say that Koch had, at the time he wrote them, *i.e.*, after he had concluded his researches, carried on in Egypt, India, and in France, the slightest inkling that comma-bacilli occur in almost all those conditions where he failed to find them, or that at that time he considered, as he now does, the culture-test as the essential means of distinguishing the choleraic from other comma-bacilli? If Koch had had the remotest idea that there exist other comma-bacilli than those in cholera, surely he would not have spoken in that general way of *comma-bacilli*. If Koch, who in everything he says is so explicit, had known that there exist all those different comma-bacilli that we now know to exist, he would, one might reasonably expect, have said: "I have found other comma-bacilli in a variety of conditions, but they differ from the choleraic comma-bacilli in their mode of growth in gelatine." But there is nowhere a word of a culture-test, and he expressly says: "that everywhere, where I was able to come across a liquid containing bacteria, I examined it in search of comma-bacilli, but never found them in it."

I challenge anyone to show me in Koch's pamphlet, *i.e.*, when he had concluded his researches in India, Egypt, and France, and laid their results before the Cholera Conference in Berlin, one single word that would indicate that he had the slightest idea that there occur comma-bacilli other than those in cholera.

Mr. Watson Cheyne further stated (JOURNAL, March 28th, 1885, page 655): "The only points of difference between Dr. Klein and other observers in this matter was as to the numbers (that is, of the choleraic comma-bacilli) present, and as to whether they were found in the intestinal wall as well as in the contents. The estimate of the numbers present depended very much on the way in which the examination was made. If the microscope alone were trusted to, a very much smaller estimate would be made."..... I ask, again, the reader to turn to the translation of Koch's pamphlet in this JOURNAL, September 6th, 1884, page 453. This is what Koch says: "But the investigation has not only proved the existence of the comma-bacilli, but, as I have repeatedly hinted, they always stand in exact proportion to the cholera-process itself; for where the real cholera-process proper caused the greatest modifications in the intestine, they were to be found in greatest numbers; from these upwards, they diminished more and more. In the most complicated cases, they appeared almost like pure cultivations." This is plain enough; the more typical and acute a case, the greater the number of comma-bacilli in the ileum; and it is precisely this point, which, as I shall presently show, is of fundamental importance, but as regards which the English Cholera Commission emphatically differ from Koch; and this difference against Koch is shared by other independent workers (the French Cholera Commission, Dr. T. Lewis, and others), who have had sufficient experience in the matter.

2. The precise position with regard to the comma-bacilli of Koch is this.

a. Koch maintains that, in acute typical cholera, the lower part of the ileum swarms with the comma-bacilli, "almost a pure cultivation." In order to uphold his theory as to the relation of the comma-bacilli to the disease, it was essential for Koch to show that such a condition really obtains; for, the comma-bacilli being absent from the blood and other organs, and they being present in the intestine only, he was necessarily led to assume that they produce a chemical ferment which is absorbed by the system, and which produces the symptoms of the disease. In severe, rapidly fatal cases, the amount of this ferment must be great, and consequently also the number of the bacilli producing it.

But the facts are opposed to these statements, for the number of the comma-bacilli present in the lower part of the ileum stands in no relation whatever to the severity of the disease. Besides, there is this fact, that, contrary to Koch's assertion, the whole of the small intestine in several typical rapidly fatal cases presented an uniform appearance, the alterations extended equally to the whole small intestine. But in these cases, there were no comma-bacilli present except in the lower part of the ileum, and here they were present in very small numbers indeed, the *post mortem* examination having been made very soon after death.

b. The comma-bacilli of Koch do occur occasionally in the tissue of the mucous membrane of the ileum, and they can then be easily demonstrated by the ordinary methods of staining; but in these instances, I maintain, either owing to delayed *post mortem* examination, or owing to the patient having remained *in articulo mortis* for some hours, the comma-bacilli, as well as other bacteria, have immigrated into the tissue from the cavity of the ileum. Such cases will be minutely described in the report of the English Cholera Commission. Several typical rapidly fatal cases have come under observation, in which the most persevering search, the most approved methods of staining—and a good many methods generally used for staining of bacteria in the tissues, as well as new modifications of such staining methods were employed—did not reveal a trace of comma-bacilli or any other bacteria in any part of the wall of the intestine, inclusive of the lower part of the ileum at and around the Peyer's glands, not even in the superficial epithelium, loosened, but not quite detached.

c. From this the conclusion is inevitable, that the comma-bacilli occur only in dead tissues—the fluid and mucus flakes in the cavity of the intestine; and, as we descend towards the lower part of the ileum, their number increases.

d. As far as the observations hitherto go, there is no doubt whatever that the comma-bacilli of Koch are a distinct species, characterised by their behaviour in cultivations in gelatine-material, and that this distinct species occurs in the intestine of human beings suffering from cholera; but whether they occur here in numbers in consequence of the peculiar condition of the intestine in this disease, or whether they are the cause of it—that is to say, whether *post hoc* or *propter hoc*—is, I maintain, an open question, which Koch has not proved, and which he has not attempted to prove. And this question will remain unanswered until the examination of the intestine, under precisely similar but not choleraic conditions (that is, distension of the intestine, and exudation into it of clear fluid and mucus flakes) is made, and until it is found that these same comma-bacilli are always absent. That I should be obliged to prove this (as I am supposed to be by a "Fellow of the Society," see this JOURNAL, March 28th, 1885, page 675), I cannot admit; this is manifestly the business and duty of Koch, who maintains that these comma-bacilli are present only in cholera. But I propose shortly to make such an examination, and Dr. Moreau and Dr. Lauder Brunton have indicated a method of establishing such a condition.

[1] In the German original, there occur here the words: "In the same manner"; but it is quite clear that these words refer to no culture-test, but to a previous paragraph, in which he states that he had examined microscopically nearly 100 cases in all for the presence of "comma-bacilli," and had found them always.

e. I maintain that the salivary comma-bacilli, after acclimatisation through neutral nourishing media, are capable of growing in gelatine nutritive material, and then present the same appearances of growth as the choleraic comma-bacilli. Koch's comma-bacilli themselves, under varying conditions, show similar variations (as will be fully described in the report of the English Cholera Commission). To mention one only: when the choleraic comma-bacilli are mixed with hydrochloric acid (1 : 1000) for from ten to fifteen minutes, and when, after this, they are sown into alkaline nutritive gelatine, they do not grow at all, or only with great difficulty; but, on sowing them after the treatment with hydrochloric acid in alkaline broth, they grow well, and, then transferred to alkaline nutritive gelatine, they show copious and typical growth.

f. I maintain that the small straight bacilli, which were mentioned by the English Cholera Commission as occurring as constantly as the comma-bacilli in the choleraic intestine, free, in clumps and in the substance of lymph-corpuscles, are a distinct species: their very minute size (one-fourth to one-sixth of that of the comma-bacilli), their permanent shape, and their behaviour in cultivations (they do not liquefy gelatine, and grow chiefly and best on the surface of the nutritive material) prove this conclusively. That the comma-bacilli show variations in length and curvature when grown under various conditions, with this I am perfectly familiar, and these variations will be minutely described in the Report of the English Cholera Commission (see also Koch, Fig. 3, p. 8, of his pamphlet).

g. The experiments performed by Koch on animals in Egypt and in India, as well as other inquiries, led him to say that cholera is not transmissible to the lower animals. Koch had, in several instances, death in animals (rodents) after inoculation with comma-bacilli, and he has ascertained that the comma-bacilli are capable of growing and multiplying in some of these animals; but, nevertheless, he accepted the death of these animals as due to septic poisoning (see his pamphlet). Not only experiments by subcutaneous inoculations and feeding were performed by him in great numbers, but direct injection into the duodenum was practised (see his pamphlet, p. 28), but no result was obtained. Now we are told that he considers, with Nicati and Rietsch, the injection of choleraic comma-bacilli into the duodenum of dogs productive of fatal disease, owing to the pathogenic properties of these bacilli. A large number of such experiments were made by me in Calcutta on rabbits, cats, dogs, and monkeys, with choleraic mucus-flakes full of comma-bacilli, with pure cultivations of choleraic comma-bacilli, and no result was produced. Mr. Horsley, Professor at the Brown Institution in London, has made for Mr. Dowdeswell and myself a considerable number of such injections into rabbits, guinea-pigs, and dogs; no result followed. But admitting, for the sake of argument, that Koch has discovered a method by means of which he can produce death in dogs after injection of the comma-bacilli, is this cholera, and does this prove that the comma-bacilli are the cause of cholera in man?* Do we not know that there occurs in normal human fæcal matter a species of bacillus, isolated by Bienstock, which produces fatal disease in some rodents? Do we not know that in normal human saliva there occurs a species of bacterium (isolated by Pasteur and Sternberg) which produces fatal disease in animals? Is it not known that rodents, particularly rabbits, die sometimes after slight operations, and with symptoms of diarrhœa, no bacteria of any kind being found in the blood? I have isolated from human pneumonic sputum a micrococcus which produces fatal disease in rabbits, diarrhœa being one of the prominent symptoms.

CLINICAL MEMORANDA.

ACUTE MANIA, FOLLOWING A SURGICAL OPERATION.

J. K., a middle-aged farmer, previously in the enjoyment of good health, on January 11th, 1884, had the anterior part of his foot crushed in the drum of a thrashing machine. On the same day, with the assistance of Dr. Ryott, who was associated with me in the treatment of the case, I amputated part of the foot.

Between the fifth and ninth days, the plantar flap sloughed, and during this time the temperature varied from 100.3° to 101.7° Fahr. The pulse being then very intermittent and irregular, he was ordered three glasses of port wine daily.

On January 20th, the general condition of the patient was improved, and the wound was healthy and granulating.

On January 21st, it was first noted that he had definite delusions, thinking that he was driving horses, and that Dr. Ryott was going to set up a butcher's shop.

During the next five weeks he suffered from mania without delirium. He at first developed a suspicious dread of being poisoned, and showed a great antipathy towards the persons who, he stated, had been concerned in the act of poisoning. A certain shrewdness, however, was displayed; for instance, he wished to know if the richest of the poisoners would not like to square the matter by giving him a promissory note for £500. He wrote for me to come at once, and put in the postscript, "please bring your stomach-pump." His delusion passed on to have a religious tendency; nothing could be said without an invocation of the Trinity, and his conversation consisted mainly of passages from the Bible, together with references to "the Heavenly Glow." About this time, too, an obscene tendency developed itself in his conversation. He had revelations from people in another world; he had communications with me when I was at a distance; he discovered that he and I were brothers. During the whole of this time, he was quite clear on certain topics. He would direct me the way to a place to which I wished to go. He would remember, and refer to, events occurring on a previous day. On reading a letter, he would notice errors in spelling, and even the omission of stops.

On February 29th, the patient was sitting up, and did not allude to any of his delusions, beyond saying that he had gone through a great deal. After this, the patient gradually recovered his reason.

With regard to family history, I found that a paternal uncle was at one time so despondent, that he had to have a male attendant; but on being assured, by his brother, that he should never want for anything, he became all right, and continued so until his death. With this exception, the family history was negative of insanity.

ROBERT BIRCH, L.R.C.P.Lond., Newbury, Berks.

PATHOLOGICAL MEMORANDA.

A CASE OF RUPTURE OF THE HEART.

CASES of spontaneous rupture of the heart in young persons are sufficiently rare to deserve recording. In the following case, the patient, a young woman, aged 19, had been apparently healthy when she went to bed on the night before her death. She had had an attack of rheumatic fever when 15 years old, but had not lately complained of feeling ill. She had had no fainting attacks, nor was there any arcus senilis present. A slight loss of memory had been noticed quite recently.

On March 17th, 1885, a little before 7 A.M., I was sent for to see the patient, who was said to be dying. I found her lying in bed on her back, insensible, almost pulseless, her eyes closed, and pupils widely dilated. In a quarter of an hour after my arrival, the heart had ceased to beat.

On March 18th, thirty-two hours after death, the necropsy was made. The body was well nourished, and there were no marks of violence. The membranes of brain were adherent to the skull-cap; the brain-substance was healthy; and there were between one to two teaspoonfuls of serum in each lateral ventricle. On opening the pericardium, there was seen on the anterior surface, near the apex, a slit fully one inch and a half long, which led into the left ventricle, and extended irregularly upwards towards the septum. Slight pressure on the heart caused fluid blood to pour out through this opening into the pericardium, in which there was previously about an ounce of coloured serum. Several of the chordæ tendineæ were also found ruptured, and the aortic valves were incompetent through old adhesions. The lungs were congested, but not diseased; the liver was adherent to the diaphragm; the stomach was healthy, and contained partially digested food; the other organs were healthy, and the uterus unimpregnated.

The special points of interest in the case are the youth of the patient, and the almost total absence of any indication, during life, of fatty degeneration.

H. NELSON HARDY, F.R.C.S.Ed.

OBSTETRIC MEMORANDA.

TREATMENT OF NEGLECTED SHOULDER-PRESENTATION.

I HAVE read with interest Dr. Thornley's treatment of his case of neglected shoulder-presentation, but cannot allow his remark, as to my recommendation of a "dangerous operation" for its relief, to pass unnoticed.

Conceding that, in a very large proportion of such cases, under chloroform, podalic version can be performed, yet, I think, it will be allowed by most obstetricians, there are cases in which it cannot, and evisceration is absolutely called for; also that, in most of such cases, either from prolapsed cord or long continued uterine pressure, the

death of the child is apparent. Under such circumstances, I have recommended the removal of the wedged shoulder by a very simple operation—namely, dissecting a sleeve of skin from the child's arm with the finger, breaking the clavicle with the finger also—or with the blunt hook in exceptional cases—when the entire wedged mass of the shoulder-joint, including the scapula, can be drawn away through the protecting sleeve, and the subsequent version thus greatly facilitated, and, I maintain, attended with much less risk than the forcible introduction of the hand, or traction on the foot after. When the hand can be introduced into the uterus, as in Dr. Thornley's case, I should think the operation is seldom called for; but, supposing his traction with tapes, and tilting of the shoulder, had failed, how would he then have proceeded?

The expedient was favourably noticed twice in the journals, immediately after its recommendation, and again lately; and I should be glad if any who have tried it would further express their opinion.

WILLIAM DONALDSON, L.K.Q.C.P.I., L.R.C.S.I., etc.,
Llanidloes, Montgomeryshire.

THERAPEUTIC MEMORANDA.

SPIRITUS PYROXYTICUS RECTIFICATUS.

I AM acquainted with an old remedy, and I suspect it is the same as that of which Dr. Richardson speaks in the JOURNAL of March 7th. It is known to me, however, by the name spiritus pyroaceticus—a heavy yellowish liquid, with the odour and taste of ordinary methylated spirit. I have been unsuccessful in my search for it in old pharmacologia, but I can testify to its beneficial effect in phthisis, acting not only as a sedative, but also as an antiseptic in checking purulent sputa. In chronic bronchitis with fœtid expectoration, I have also found it useful. Whether its virtues are attributable to the spirit *per se*, and whether Dr. Richardson's drug is of a purer quality than mine, I cannot say; but the chief objection to the sample I used was its undisguisably nauseous flavour, being known as "furniture-polish" to humorous patients, who nevertheless, did not fail to appreciate its good effects.

It is for this reason that, as a rule, it is only applicable in the earlier stages of phthisis, when the stomach is fairly strong. I have never succeeded in making really advanced cases tolerate it for any length of time. Bartholow's mixture of a teaspoonful of cod-liver oil, with half an ounce of whisky, after meals, is far more agreeable, equally efficacious, and much more quickly assumed as a habitual dose.

J. RUSSELL HARRIS, 13, Surrey Street.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

WORKHOUSE INFIRMARY, BIRMINGHAM.

(Cases under the care of Dr. C. W. SUCKLING.)

MUSCULAR ATROPHY DUE TO LEAD-POISONING.

E. C., a man, aged 43, came under treatment on January 5th, 1885, complaining of loss of power in both hands, and inability to straighten the fingers. Seven years ago he had "brain-fever," and was an inpatient at the Queen's Hospital. This illness, he was informed, was due to his employment (gas-fitter). He suffered from colic and constipation, and had a blue line round his gums. Since this illness he had never worked in lead, but had been employed as a labourer. There was no family history of nervous disease. He had had pains occasionally in the joints, and always suffered from constipation.

Four months before he came under treatment on the present occasion, he partly lost the use of his hands, especially the left; he could not remember the exact day it occurred, but thought it came on gradually.

When admitted into the Workhouse Infirmary, a faint blue line could be seen along the margin of the gums. This had considerably diminished under the use of iodide of potassium, but the margins of the gums were still bluish. The right deltoid muscle appeared a little wasted. There was no drop-wrist, but his power of extending the wrists was feeble. The thenar and hypothenar eminences were normal. The interossei muscles in both hands were decidedly atrophied, more especially on the left side, where there were well marked furrows between the metacarpal bones on the dorsum of the hand. There was overextension of the metacarpo-phalangeal joints, with flexion of the phalangeal, when he attempted to hold his hands straight out. The grasp of both hands was very feeble; that of the right was thirty kilogrammes; that of the left, thirty-five kilogrammes. The "*main en griffe*" was present, to a slight degree, in both hands. There was no marked difference in the measurements of the two upper extremities. There were no fibrillary twitchings. He complained of his hands feeling cold, and of difficulty in getting them warm; sensation, otherwise, was perfect. Faradism to the nerves, motor points, and muscles in the upper extremity gave normal results, as did also galvanism. There was no excess of the anodal closing contraction in any muscle.

REMARKS BY DR. SUCKLING.—Is the case one of simple muscular atrophy due to lead, the prognosis of which would be favourable, or is it a case of progressive muscular atrophy, which many authorities say may be induced by lead, and which is a fatal disease? In favour of the former diagnosis, there are the following facts. 1. The thenar and hypothenar eminences are unaffected, the extensors of the wrist are weak, and the left hand is more affected than the right; this does not agree with the usual distribution of the atrophy in progressive muscular atrophy. 2. The weakness is greatly out of proportion to the atrophy. 3. An improvement has taken place under the influence of iodide of potassium; the grip of the right hand being on February 2nd 40 kilogrammes, that of the left, 45 kilogrammes. Against the diagnosis of simple lead atrophy we have the facts: (1) that the electrical reactions are normal; (2) the long interval since, according to the patient, he worked in lead. I consider that great importance must be attached to the facts that the weakness is greatly in excess of the atrophy, and to the evident improvement under the use of iodide of potassium, and am, therefore, inclined to consider the case to be one of simple muscular atrophy, due to lead-poisoning. On March 30th, the grip of the right hand was 60, of the left 63, kilogrammes.

A CASE IN WHICH PERFORATING ULCER OF THE FOOT WAS THE FIRST SYMPTOM OF LOCOMOTOR ATAXIA.

J. H., aged 40, a canvasser, five years ago had swelling of the left foot, which was said to be due to gout. Two years ago, corns formed on the under surface of the great toes, followed by sores in the positions of these corns; he was obliged to give up his employment and go into the workhouse infirmary, where Dr. Suckling saw him in May, 1884. He then had two sinuses, one on the under surface of each great toe opposite the phalangeal joint. These sinuses led down to bone, but the bone was apparently not necrosed; they discharged a sero-purulent fluid. The skin around each sinus was much thickened. The only treatment that did good was confinement to bed, when the sinuses closed up, a corn being formed in the site of each; but directly he walked about the sinuses reopened. No cause could at the time be assigned, except the doubtful history of gout. There were no symptoms of locomotor ataxy.

Dr. Suckling did not again see the man till March 16th, 1885, when he attended at the Queen's Hospital. The sinuses then were open and discharging; the patellar reflexes were gone, and the plantar were present. He complained that his knees frequently gave way under him, and that he was obliged to watch his feet, or, to use his own words, "they go anywhere." The Romberg symptom, swaying when standing with the feet together and the eyes closed, was present. The gait, when he was made to look up at the ceiling, was markedly ataxic. He had had no characteristic pains or gastric crises, and there was no disturbance of sensation. The ulcers were very sensitive to the probe. The Argyll-Robertson pupils were present.

CHOREA IN THE AGED.

G. B., a woman, aged 59, has been in the epileptic department for several years, being perfectly imbecile, and suffering from choreiform movement. Both sides of the body are affected by these disorderly movements, as well as the face and tongue.

She can answer "yes" or "no," but cannot be made to converse; and she evidently has no knowledge of time or place. She takes no interest in anything around her, and sits for hours in one place, doing nothing. Her husband says that she was always of a desponding disposition, but was well up to the age of 39. She then acquired the habit of drinking, and lost all interest in her family and home, and gradually became quite imbecile. Several years after the imbecility commenced, the jerky movements were observed. The husband of the woman gives us a strong history of insanity in his wife's family

REMARKS BY DR. SUCKLING.—Chorea in the aged is certainly rare, for this case is the first I have seen at this large infirmary, where the yearly admissions average 5,000.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 27TH, 1885.

THOMAS BRYANT, F.R.C.S., President, in the Chair.

A Series of Cases of Spina Bifida treated by Plastic Operation.—Mr. MAYO ROBSON, of Leeds, described four cases on which he had operated, and exhibited two of the patients. 1. A. S., aged 6 days, the subject of a spina bifida of the size of an orange, was operated on on October 26th, 1882. The case was fully described in the BRITISH MEDICAL JOURNAL for March 24th, 1883. The child lived and thrived for a year, when it died, after a day's illness, from teething convulsions. The site of the tumour only presented a linear scar. The interposed periosteum had not formed new bone. (The excised sac was shown to the Society.) 2. Mary A., aged 18 days, a puny, ill-developed child, had a large spina bifida in the lumbar region; the sac was thin and translucent, quite to the margin of the tumour, and the skin around inflamed. It was all excised except two narrow portions, which were sufficient to form meningeal flaps, these being covered in by skin-flaps, obtained by separation and sliding from the lumbar regions. The wound healed by first intention, but the child died from a continuation of the marasmus present before operation. At the necropsy, the whole lumbar spine and part of the sacrum were bifid. There was no meningitis. (The specimen was shown to the Society.) 3. L. J., aged 16, the subject of spina bifida in the lumbar region, of the size of the fœtal head, was admitted to the infirmary, to have tenotomy for talipes; the sac of the spina bifida began to inflame the day after admission, before any operation had been done, and produced high temperature and severe head-symptoms threatening life; it was aspirated eight times between November 13th and December 9th, the last three aspirations yielding pus. She was rapidly losing ground, and apparently sinking; therefore, on December 11th, Mr. Robson excised the sac after reflecting the skin by crucial incision; the cavity was drained for a few days. Her head-symptoms were at once relieved, and she recovered rapidly, being discharged cured twenty-four days after operation, with the wound quite healed, and only a scar where the tumour had been. (This patient was shown to the Society.) 4. D. C., aged 7, was the subject of spina bifida in the lumbar region, 7½ inches in circumference. The sac was thin and inflamed at the fundus. The skin was dissected from the sac, and the redundant sac and integument were removed; the meninges were sutured by catgut, and the skin by wire. The wound healed by first intention, and the patient was discharged cured thirteen days after operation. The child was now shown to the Society, six weeks afterwards, with a linear scar where the tumour had been. All the operations were performed strictly antiseptically, the eucalyptus atmosphere being used instead of the spray. Mr. Robson thought that the care in the after-treatment exercised by his house-surgeon, Mr. Atkinson, had helped considerably in the successful result of Cases III and IV. The points to which he would draw attention were (1) the principle of closing the meninges by bringing together two serous surfaces as in peritoneal surgery, and superimposing separate skin-flaps, the meningeal and skin-lines of suture not being opposite; (2) the great importance of observing strict antiseptic precautions, as a septic condition would probably end in the same way as these cases usually ended when they spontaneously ulcerated, namely, by meningitis and convulsions; (3) the success attending the plastic operation in cases which were absolutely not amenable to any other form of treatment, for example, where the coverings were thin, or the opening into the spinal canal large; (4) the possibility of transplanting periosteum, and its capability of surviving, as in the case read first; although, in that example, bone did not form, one might hope that the use of human periosteum, "for example, from a recently amputated limb," would give better results; (5) the successful issue of Case III, where, although the sac was acutely inflamed, its complete removal with efficient drainage effected a cure. This case presented several points of pathological importance, for example, (*a*) the increase of temperature without septicity was apparently due to tension of, or pressure on, the great nerve-centres; (*b*) the great relief given by aspiration; (*c*) suppuration in the sac was possibly due to simple tension, probably not due to septicity, as the fluid was quite sweet on every occasion; (*d*) the entire absence of brain-symptoms after operation, although the pressure on the great nerve-centres must have been considerably interfered with during the time of healing of the wound. He suggested the following as a practical classification of cases of spina bifida for purposes of treatment: (1) where no operation could or should be done; (2) where no operation need be done; (3) where an operation should be done. Class 1 included cases (*a*) where the deformity was very extensive, as in fissure of the whole or a considerable portion of the vertebral canal; (*b*) where there was complete paraplegia, as in a case which Dr. Libbey, of Horsforth, had asked him to see, where the sac was large and excessively thin quite to its margin, and where the lower extremities hung absolutely powerless; (*c*) where the sac was large, the fissure extensive, and the coverings excessively thin quite to the edge of the tumour, and no skin could be obtained to cover the meninges. But that such extreme examples even might stand a chance of cure was proved by Case II. Class 2 comprised cases in which the sac was small, and the coverings were so dense and firm as to form a good pad over the opening in the spinal column, as in the case of a girl aged 14, for whom Mr. Robson had advised a thin silver shield to be worn over the swelling, to protect it from injury, and prevent further bulging. Class III. Where some operation should be done.—(*a*) When the sac only communicated with the spinal canal by means of a small opening, it was a simple matter to dissect off the skin, expose the neck of the sac, ligature it by means of one circular ligature, and cut off the redundant meninges, bringing the skin over so as to have the line of skin-sutures quite at the side away from the pedicle. Such an operation had been performed by Mr. Edward Atkinson at the Leeds Infirmary. (*b*) Where the sac had a good skin-cover, and communicated with the spinal canal by a large opening, it was quite easy to perform the operation described in Case I, carefully closing the meninges, and, if possible, placing the line of skin-sutures away from the meningeal line of union. Such cases had been operated on successfully, not only by Mr. Robson, but by Professor Jessop U.S.A. Human periosteum might be placed between the meninges and skin; but he was not at all sure that a thin plate of bone, if formed, would be very serviceable, although he had hoped to have obtained it in the first of his cases. If the expanded neural arches were large, he thought it might be feasible to bend them towards the central line, and, by uniting them with thin silver wire, obtain a truly physiological closure of the spinal canal. He had not had a chance of trying this plan as yet. (*c*) Where the coverings were excessively thin quite to the margin of the tumour, as in Case II, the operation was more difficult and uncertain, as the skin could only be obtained by a process of sliding from contiguous parts, and the tension necessarily presented was not conducive to healing. (*d*) Where the spinal cord or the nerves were blended with the sac, which often could not be told until the dissection of the skin from the meninges was made, he should advise excision of portions of the redundant meninges at one or more places between the nerves, replacing the nervous structures in the spinal canal, and bringing over the skin-cover, keep-up free drainage between the membranes and integuments; or, if this could not be done, the membranes might be punctured; the collapsed sac, with the nerves intact, being placed in the canal, and the skin-cover made as before. It was important to remember that a silver or a leather shield should be worn over the site of the operation, in order to protect the parts from injury, and to prevent the cicatrix from stretching or giving way.—The PRESIDENT said that there was frequently great temptation to employ injections in spina bifida, but there was scarcely sufficient evidence to show the use of such a proceeding. He was grateful to Mr. Robson for bringing forward examples of this mode of treatment. In some of the four cases given, the opening through the laminæ was large, and yet good results had followed operation. He thought that these cases were a step forward as helping to their treatment. It was fortunate that in these cases the nerves were not involved in the cord. The last suggestion of Mr. Robson was probably a good one. He would possibly not perform the operation if the nerves were displaced. At the present time, a committee was sitting to inquire into the treatment of spina bifida.—Mr. R. W. PARKER said that, as one of the committee referred to by the President, he had listened with especial interest to Mr. Robson's paper. He did not think they would get much further in the treatment on account of the serious lesion with which they had to deal. The committee had thought it advisable to make a special study of the anatomical position of spina bifida. Examples had been inspected at various museums, and over a hundred specimens had been seen. In at least 95 per cent. some part of the spinal cord entered into the sac. The nerves arose from the membranous portion, to be distributed through the entire length of the cord. It was impossible to discover a radical cure. If much paraplegia were present, the operation would not be of much service. No obliteration of the sac could restore the normal condition. In the child he had just seen outside, he was of opinion that a portion of the sac still existed; probably that portion was not entirely obliterated. He thought that, in many cases of spina bifida, Dr. Morton's method of injection was available. There were cases on

record which had lived for many years after this mode of treatment had been adopted. After death, the spinal cord had been examined. No doubt temporary recovery was possible. If the membranous portion were merely covered in, cutting away might possibly succeed.—Mr. GODLEE said that such free dealing with these cases without consequent meningitis was most interesting. In cases which had been injected with Morton's fluid, some amount of meningitis was certainly set up. He had seen two cases lately in which this fluid had been so employed. Upon the first injection, slight meningitis supervened; upon the second injection, a distinct attack of meningitis resulted, accompanied by convulsions, paraplegia, and paralysis of the bladder, followed by cystitis. These cases recovered for a time. In the four cases cited by Mr. Robson, it was fortunate that the nerves were at the bottom of the sac, especially as, as Mr. Parker had remarked, it was usual for portions of the cord to be involved in the sac. That afternoon he had seen a *post mortem* examination on a child, dying from spina bifida, in which there were two or four lower sacral nerves passing to points slightly on one side of the median line. He thought that the particular kind of treatment at present before the Society should be considered very carefully, and perhaps put into practice generally.—Mr. ROBSON, in reply, said he was astonished to hear that 95 per cent. of the cases mentioned by Mr. Parker were found to contain spinal cord. Probably, in museums the most severe cases were placed. He had operated in eight cases of spina bifida, and in only one he had seen nervous structure in the sac. The filum terminale was probably partly involved in the distension. His only experience of Morton's fluid was from cases that had come under the notice of his colleagues. Bad results had generally followed this treatment in their hands, and they had, in fact, given up the use of it. Many cases had terminated fatally after its employment. The results, in the cases he had described, encouraged him to pursue the treatment he had recently adopted.

Choreiform Movements supervening in Infancy and of Congenital Origin.—Dr. W. B. HADDEN gave particulars of the case. The patient was a female, aged 22. There was nothing to note in the family history, except that a sister died of fits at the age of ten months. The mother had had no miscarriages, but was said to have suffered from albuminuria for two months before the patient was born. Labour came on at full time, lasted twelve hours, and no instruments were used. Very soon after birth, the child's head used to fall back, and she did not sit up like other children. Dentition was easy; she had had no fits and no head-injury, and had never walked better than she did now. Movements were first noticed when the child was aged seven months, but did not attract serious attention until the age of 2 years. They had persisted ever since. She began to talk between the age of 2 and 3. The catamenia appeared at 15, and had always been regular, but scanty and painful. The patient was a short, stout, well developed girl; she was quite intelligent, and read fairly, but could not write, because of the condition of her hands. The head was large and flat, but symmetrical; the hard palate, a little arched; there was no deformity of the spine. The movements were very slight when she was lying down, and absent during sleep. They were at once noticeable on attempting movement, or if excited by being watched. The face and upper limbs were mainly affected. On trying to speak, the face became contorted. The angles of the mouth were retracted, upper lip and alæ nasi raised, the forehead wrinkled, the eyelids partially closed. Hence, there were various and rapidly succeeding grimaces. An appearance of gaiety was followed by a frown, by a sniff of disdain, and by a momentary lacrymose aspect. The speech was interrupted, and the words brought out explosively. The muscles of the back and abdomen were unaffected. There were very slight movements of the tongue. The fingers were flexed at the metacarpo-phalangeal joints, and extended at the phalangeal; but this position was not fixed. The fingers were often expanded, and there were simultaneous to-and-fro movements, suggesting athetoses, but more rapid and various. Some rigidity existed about the muscles of the arms and forearms. The muscles were well developed, and responded well to galvanism. Her grasp was feeble. Her legs were short, and well developed, and, as she lay in bed, had very fair power. She could not stand or walk without help. When supported, she shuffled along, the legs overlapping, and the knees rubbing together, and the thighs being adducted. There was much resistance to passive movement of the legs; the tendon-reflexes were probably exaggerated; there was occasional ankle-clonus; sensation, both common and special, was perfect; there was no loss of control over the evacuations. The case belonged to a group which, though having individual differences, all possessed one common feature, the spastic condition of the legs and the peculiar gait. The spastic paraplegia might exist alone, with or without affection of the arms, constituting Charcot's spasmodic tabes dorsalis, or infantile spasmodic paralysis. In two cases, described by the author, there were atrophic changes in the other extremity. In addition to the present case, he had seen two very similar instances. In connection with the spasmodic paraplegia of infants, other symptoms might be present, such as fits, mental defect, nystagmus, squint, and inequality of pupils, deformity of chest, asymmetry of skull, delayed dentition, and defects of speech. The lesion in the case described was probably congenital, a porencephalous defect. Dr. Ross described a very similar case, apparently due to injury in infancy. The author had never been able to satisfy himself that infantile spasmodic paralysis and congenital athetoses were dependent on injury either during or after birth. Treatment of various kinds was tried in the present case, but without benefit.—Dr. MONEY said the matter was very interesting from several points of view. It touched upon the whole of cerebral and spinal pathology. He had much to say, but scarcely knew where to begin. He had seen two cases answering to the first of Dr. Hadden's cases. In one of the cases that had come under his notice, the condition was hemiplegic; the movements were limited to the face and one arm. He thought these cases contributed to throw light upon the pathology and physiology of the fibres which passed into the grey matter. The chief symptoms of nervous disease were here exhibited. One answered to cerebral paralysis. There was inability to send volitional impulse to the muscles. There was continuous rigidity, with, lastly, choreiform movements. One had to do with various degrees of innutrition of the nervous cells, and also with varying degrees of innutrition. As regarded the pathological anatomy, no doubt the primary lesion resided in the cortex in many cases; but sometimes the disease had commenced *in utero*, or very soon after birth, in which case the lesion had begun near the decussation of the fibres of the cord. Some cases might be due to disseminated sclerosis, although he was unaware that such an event had been verified by *post mortem* examination.—Dr. HADDEN, in reply, said he was much obliged to Dr. Money for his instructive remarks. Possibly, if the course of the fibres were arrested high up, there would be spastic condition of the arms and legs, when low down, merely spastic condition of the legs would result. This had been shown. The simple atrophy found in cases described by Dr. Ross had arisen during injury at birth.

Calculus and Tumour of the Bladder: Lithotomy: Death on the Ninth Day.—Mr. JOHN R. LUNN gave notes of this case. J. C., aged 35, married, a stoker by trade, was admitted into the St. Marylebone Infirmary, on September 8th, 1884. Four weeks before admission, he noticed his urine run away involuntarily, and had attended as out-patient at a hospital, where he was sounded. Two weeks before admission, he was obliged to give up work, and his urine became very offensive and thick. On admission, a No. 10 catheter was passed, which gave the patient a good deal of pain; the urine was loaded with albumen and pus. The prostate seemed apparently enlarged. The patient was again sounded on September 17th, when a stone was struck. Lateral lithotomy was performed on the 18th, and a large calculus removed from the bladder, weighing one and a half ounces, composed of oxalates, phosphates, and a little uric acid. In addition to the calculus, a new growth was felt, which was too extensive to remove. The day after the operation, the patient expressed himself much better, and free from pain. Vomiting set in on the third day. He passed claret-coloured urine through the wound. The left kidney was noted to be enlarged two days before he died, September 26th. *Post mortem* notes were taken forty-eight hours after death.—The wound in the perinæum looked very unhealthy, and showed no signs of healing. The bladder weighed eight ounces, was devoid of urine, and almost the entire surface was occupied by a new growth. No secondary glands were found. Both kidneys and ureters were distended with purulent matter. The right kidney weighed 8 ounces, the left 14 ounces. Mr. Lunn was indebted to Mr. Eve for the microscopical account of the growth. The structure of the tumour had the character of a soft cancer; the cells were rather small and spheroidal, with large nuclei, and were in no part observed to be arranged in walls or nests. In the softer parts of the tumour, they were aggregated in large diffuse, small and rounded masses in spaces formed by a scanty stroma, while in the firmer parts the stroma was formed by a scanty stroma, and the cells formed elongated rods and masses. —The PRESIDENT thought that the connection between growth in the bladder and calculus was not very common. Deposits had been found in these cases, but nothing that deserved the name of calculus. He remembered a case of cancer of the bladder in which the whole organ was affected, and a case in which papillomata covered the whole cystic surface. Both these cases were of very long standing. It was surprising to find such extensive disease of the bladder with stone, and no symptoms beyond those described by Mr. Lunn. He asked Mr.

Lunn if there was much bleeding in the operation of lithotomy, to which he replied there was none to speak of.

Three Cases of Pistol-Shot Wound: 1. *Abdomen;* 2. *Chest;* 3. *Head.*—Mr. Richard Barwell gave details of these cases. 1. The first case was a wound, self-inflicted with a Derringer of 4-10th inch bore. The bullet passed through the seventh costal cartilage, the diaphragm, the stomach, and, just notching the kidney, passed out of the abdomen between the first and second lumbar transverse processes. The young man survived twenty-two hours. The case was introduced partly to show the power of these small pistols, but chiefly as evidence of the very little bruising which small conical projectiles fired at short ranges produced, there being no ecchymoses around any of the openings into the viscera, etc., save a very little at the kidney-wound. 2. The second case was that of a gentleman who shot himself with a pistol of under a quarter-inch bore. The wound was within the areola of the left nipple; but the weapon must have been held obliquely, for the bullet, missing the heart by probably very little, passed through about eight inches of the left lung, and lay outside the chest near the lower angle of the scapula There was very considerable hæmorrhage from the wound, and coughing caused the blood to be driven out several feet; there was also a good deal of hæmoptysis. Strict quietude, ice, acetate of lead, and opium subdued in about fifteen hours the external hæmorrhage, but the hæmoptysis continued for six days. Pneumo- and hæmo-thorax, together with surgical emphysema, were very marked. Pneumonia came on on the seventh day. After the lapse of three weeks, during which he had been in a very precarious condition, improvement set in, which steadily, but pretty rapidly, progressed. On the thirty-fifth day, Mr. Barwell removed the bullet, which he had hitherto avoided, wishing the wound of exit from the chest to become previously closed. Seven weeks after the injury, the man was discharged from care, somewhat weak, but quite well. 3. Carl F. shot himself in the mouth and in the ear with a revolver just a quarter-inch bore, October 24th, 1884. The wound first named was on the left side of the soft palate, and, penetrating that part, inflicted another in the posterior wall of the pharynx. The bullet had never been found, and had given no trouble; it was probably encapsuled among the deep muscles on the left of the spine. The other bullet passed for three-quarters of an inch down the auditory meatus without injuring it on either side; then, continuing its directly transverse course, it left that channel by a small wound at its posterior part. A probe, passed in here, touched a substance which Mr. Barwell believed to be metallic, exactly two inches from the margin of the meatus. The depth and direction of the wound caused absention from any attempt at extraction, because it appeared to Mr. Barwell that the projectile must lie in very dangerous proximity to the lateral sinus. After forty-eight hours, abundance of clear serum became mixed with the blood discharged; it was either cerebro-spinal fluid or liquor Cotunnii; the admixture of blood, then of pus, prevented any testing for sugar. The man, who was singularly apathetic, progressed favourably, with the exception that, a week after the infliction of the wound, the parts about the angle and ascending ramus of the jaw swelled, and shortly after suppurated. On December 4th, there was in those parts sufficient disturbance to indicate that the projectile was producing considerable irritation, and ought to be, if possible, removed. Moreover, if, as seemed possible, the lateral sinus had been injured, the wound would in the five weeks have healed. With some difficulty, for it was rather large, Mr. Barwell passed a Nélaton's probe sufficiently far to obtain the lead-mark. Making a curved incision behind the pinna, he trephined the mastoid process to the depth of three-quarters of an inch; finding a small track leading still deeper, he again got on Nélaton's probe the lead-stain, but at a distance from the trephine-hole of more than an inch. The track was cautiously enlarged with a gouge, and a pair of sinus-forceps was passed down to the bullet, which, although very firmly fixed in the bone, was successfully removed. After this operation, the man had no bad symptoms; the abscess in the jaw was opened, the trephine-hole rapidly filled, and by the middle of December he was well. *Remarks.*—All these men shot themselves; the pistols were therefore held very close, and they all used weapons the projectiles of which were driven by the fulminate alone. In the last case, the muzzle was on the skin, and, in a medico-legal point of view, it was important to note that there was no mark of burn nor of powder-tattoo. This, Mr. Barwell said, in his experience, was the usual condition with weapons of that description. The other lessons from these cases were that small conical bullets, discharged at short range, bruised soft parts but very little; and, though the projectile possessed very considerable velocity, the immediate result of such wounds, unless some peculiarly vital part were hit, was small. A man might have more than one of these bullets in him, and yet be capable of a good deal of fighting. He might, indeed, after all, recover, as these cases showed, even though the wound were long and complicated. The pistol used in the last case and the bullet taken from the chest and head were shown.

It being now ten o'clock, no discussion followed the reading of this paper.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 31st, 1885.

George Johnson, M.D., F.R.S., President, in the Chair.

The Etiology, Pathology, and Treatment of Cholera.—The discussion was resumed by Dr. Heneage Gibbes, who said that, for him to enter into the results of the English Commission, would be to reiterate what had already been said, as he fully agreed with the observations made by Dr. Klein at the previous meeting. Dr. Coates had pointed out to him that the theory put forward by the President, as to the obstructed circulation in the lungs during collapse, would fully explain the symptoms of collapse. Referring to Mr. Watson Cheyne's observations on Dr. Koch's statement that, in the lower part of the ileum, there was an almost pure cultivation of comma-bacilli, Dr. Gibbes said that he had put under the microscope a cultivation made from the contents of the lower part of the ileum in a case fatal in twelve hours, and in which the necropsy was made half an hour after death. This cultivation might be seen to consist of varied forms, the comma-bacilli being few and far between. This was the usual result; and to obtain a pure cultivation of comma-bacilli, it was necessary to inoculate a large number of tubes. Mr. Watson Cheyne's suggestion, that the small straight bacilli, described by Dr. Klein, were young comma-bacilli, was disproved by the fact that they had been proved to be a distinct species by their behaviour in cultivations. They grew on the surface of the gelatine, which was not liquefied. Pure cultivation of comma-bacilli did not contain straight forms, which, when present, were due to accidental contamination. He could not admit that the failure to find the comma-bacilli in the mucous membrane was due to their not being stained, as in one or two cases where they had been present among other putrefactive forms, they were readily stained with ordinary reagents. In the large majority of typical cases where the disease was rapidly fatal, and where the necropsy was made immediately after death, sections of the lower part of the ileum, hardened in alcohol, after the method used by Dr. Koch, were submitted to every possible stain, and combination of stains without any result, for the comma-bacilli were entirely absent. Dr. Koch had stated, in his report, that the number of comma-bacilli present in the intestine had a direct relation to the severity of the disease. This did not accord with the observations made by himself and Dr. Klein, as many cases were examined where the comma-bacilli were very scarce, even in the lower part of the ileum.

Sir Guyer Hunter was not satisfied that it had been established that the comma-bacillus stood to cholera in the relation of cause and effect. He held that cholera could not be imported into a country. It had been disproved that the outbreak in Egypt had been due to importation. The outbreak in France had been attributed to importation from Cochin China, but the French Commission had been unable to confirm this assertion. In Egypt, cholera had broken out simultaneously in two widely separated parts. Another point difficult to account for on the theory of importation, was, that the disease appeared in succeeding epidemics in precisely the same localities. He recognised cholera by a certain group of symptoms, and he was unable to distinguish between so-called Asiatic cholera and cholera nostras, sporadic cholera, and choleriforme. He thought it had been distinctly proved that Asiatic cholera was not contagious. It had been shown in India that the attendants in cholera-hospitals suffered no more than the surrounding population. The mode in which cholera progressed was opposed to the theory that cholera could be carried by rivers, for both in Egypt and in India it travelled against the stream. He was compelled to disagree with the President, with regard to the use of opiates. The only way to treat the premonitory diarrhœa of cholera was, in his experience, by an opiate, combined with a stimulant. He regarded cholera as a combination of various conditions; if cholera were due to a bacillus which could be killed by decomposition, then it ought not to be found where the towns and people were filthy, whereas it was in such localities that cholera was found.

Dr. Pye-Smith observed that the intestinal lesion of cholera was formerly supposed to be an inflammatory condition; but the absence of the histological changes produced by inflammation appeared to negative this view. The rice-water discharge might be most reasonably compared to the paralytic secretion which occurred after division

of all the nerves supplying a portion of gut. Division of both splanchnics or of the vagus had no effect in producing this secretion. By experiments, conducted in conjunction with Dr. Lauder Brunton, he had shown that the nervous influence governing the secretion was localised in the smaller mesenteric ganglia. The splanchnic was not the motor nerve; on the contrary, it exhibited peristalsis, but it contained afferent fibres, the stimulation of which led to increased peristalsis. He thought that certain of the symptoms of cholera might find their explanation in these facts.

Mr. C. MACNAMARA said that a study of the history of Asiatic cholera showed that an epidemic of the disease had never originated among the inhabitants of any place beyond the confines of India; and that any epidemic of cholera that had occurred outside that country might be traced back to Hindoostan through a chain of human beings afflicted with the disease, or to articles of clothing soiled with their dejecta. Dr. Klein quoted an instance in which people and things from an affected locality, but not contaminated by cholera-dejecta, had conveyed the disease to a distant place, and also mentioned cases of persons being attacked by cholera after being exposed for only half an hour to its influence; cases coming under either of these headings were contrary to the experience of all other authorities on the subject, who had had the best opportunities for studying the nature of the disease. It was a remarkable fact, as Mr. Watson Cheyne had stated, that, about twenty years ago, he had found that the properties of the contagium of cholera were extremely like those which were now known to be characteristic of Koch's cholera-bacillus. He had found that the contagium was destroyed by acids, and that it only lived in water for a short time, and then only under peculiar specified conditions. The organism which Koch had succeeded in isolating, there was good reason to believe, produced, by its action on the walls of the small intestine of men and animals, the lesions found in Asiatic cholera. Koch distinctly challenged anyone to demonstrate the existence of an organism, except in cases of Asiatic cholera, which had the same properties as those exhibited by the comma-bacillus described by him as characteristic of that affection. That challenge clearly remained unanswered up to the present moment. In the article on Asiatic Cholera in Quain's *Dictionary of Medicine*, a case was given in which Mr. Macnamara asserted that impure water became contaminated by fresh cholera-dejecta, and a small quantity of this water was soon afterwards swallowed by 19 persons; of these, 5 were seized with symptoms of Asiatic cholera within 36 hours of the time they had drunk the water. They swallowed a small quantity of cholera-matter in impure water, and within two days were passing large quantities of the same matter, multiplied to a vast extent, it was true, at the expense of their blood and the lining of the alimentary canal. This showed the specific and pathogenic character of the cholera-dejecta, as the Broad Street case, the epidemic in our fleet in 1854, and in East London in 1866, had done. Looking at the question from another side, he found that from the year 1826 to 1864, the European regiment in Calcutta had an average of 35 cases of cholera *per annum*. In 1865, this regiment was, for the first time, supplied with pure water; and from that date up to the present, the number of cases had fallen to 2 *per annum*, and yet these Europeans were surrounded by a native population constantly suffering from cholera. The same condition of things applied to persons living in Calcutta who consumed pure water. Dr. Klein, when he referred to the attendants on the sick in India escaping the disease, must have overlooked the facts stated by careful observers, such as Dr. De Renzy, Mr. Scriven, and others, and also that 700 men attending cholera-patients in the epidemic in the North-West Provinces in 1866 contracted cholera; accidents of the kind were less common owing to the cleanliness of hospitals, and the care bestowed in removing the excreta; so, again, when he stated that although men who had been infected with cholera in cantonments, often carried the disease into camp, no new cases occurred. The history of Indian cholera supplied many cases, such as that of, among a heap of other cases, the 95th Regiment at Peshawur, in 1862, or of the Buffs at Meerut in 1867. Such instances showed such a statement as this to be misleading. Doubtless regiments moving from a contaminated water-supply in cantonments did not carry the disease, but when the cantonment-water was sent out to the troops in camp, as it was to the Buffs, the result was very different. Then, again, since railroads had been established in India, the frequency of cholera in the North-Western Provinces had been vastly increased, a fact brought out by Dr. De Renzy; the epidemics had followed one another in 1805, 1813, 1827, 1845, 1856, 1861, 1862, 1865, 1867, 1869, 1872, 1875, 1876, 1879, 1881. This was due, doubtless, to the rapid transit of natives from the endemic home of cholera in the northern parts of India. Dr. Klein's argument, that certain rodents were affected by organisms which were innocuous to others, was applicable to the difficulty experienced in producing symptoms of cholera in animals. It was evident that these organisms flourished in unhealthy secretions; and he suspected that a weak heart, or an exhausted nervous system, had much to do with causing sudden death from cholera. With reference to the pathology of cholera, he had not found the right side of the heart distended with blood and the left empty; he had made numerous necropsies to determine this point, the last series in conjunction with one of his colleagues, but he had not met with it. His convictions as to the pathology of the disease were strengthened because he had found that, when the vomiting and purging of cholera could be restrained or stopped in its early stages, the patient recovered. He was in the habit of prescribing opium, sulphuric acid, and acetate of lead.

Dr. MURRAY, from the results of his thirty-eight years' experience of cholera in India, was able to agree with the greater part of the views put forward by the President. He was, however, of opinion that the habitat of the poison was the mucous membrane of the intestine; the poison led to paralysis of the sympathetic, and the retention of effete matters in the blood. The left side of the heart was often occupied by a coagulum; he thought this coagulum was formed during the collapse which followed diarrhœa. In his younger days, he had held and acted on the eliminatory theory; but sad experience had led him to abandon it. A dose of ordinary salts, given for *malaise*, might be followed by severe diarrhœa, rice-water stools, collapse, and death; in fact, the dose of salts was followed by the onset of true cholera. The action of the mildest laxative during an epidemic was very liable to be followed by fatal cholera; this appeared to be the universal experience. The proper treatment was to check the diarrhœa at the outset; then the condition of *malaise* left was best treated by spicy stimulants. In collapse, the action of the heart might be restored by transfusion of a hot saline fluid, which, however, did not cure the disease; hot saline enemata were sometimes useful, if persevered in.

Dr. HERON said that the specimens he had shown were designed to illustrate the point that, from the beginning of the growth, it was possible to tell which was the organism described by Koch and which were other organisms which resembled it in form under the microscope. The peculiarities of the cultivations might be used to distinguish between a case of cholera and a case of vomiting and diarrhœa with collapse. He had understood Dr. Klein to agree that the comma-bacillus of Koch was peculiar to cholera, and found nowhere else; consequently, the diagnostic value of the bacillus remained. It was said that comma-bacilli had been found in dysentery, in the diarrhœa of phthisis, and in other diseases; but were these the comma-bacilli of Koch? He had searched for the organism in the diarrhœa of phthisis, but he had been unable to find the comma-bacillus of Koch. He pointed out how these facts might be utilised to ascertain whether a suspicious case were an example of true cholera; and then stated that Dr. Koch had seven assistants ready to start at once to investigate any outbreak of suspicious cases.

Dr. THIN had met with a boy in whom a large number of comma-bacilli were present in the mouth; he had attempted to make cultivations of these bacilli without success, though similar cultivations made with Koch's comma-bacilli had been successful under precisely similar conditions; this fact appeared to show that the two bacilli were specifically distinct. The facts with regard to cholera at Hong Kong were striking. Cholera introduced from the mainland of China into Hong Kong never spread beyond the person who suffered from it; this he attributed to the very good supply of water used by all the inhabitants, and obtained from lofty reservoirs on Victoria Peak.

Dr. JAMES JOHNSTON observed that, though the disease was frequently introduced, no epidemic of cholera had ever occurred in Hong Kong, for the reason assigned by Dr. Thin. Errors in diet, especially eating unripe fruit, were certainly predisposing causes of cholera. He mentioned his experience when in charge of a man-of-war, which entered the harbour of Shanghai, where cholera was raging. Some of the crew became infected. Immediately all on board were ordered to drink only distilled water; the boat steamed away north, and the epidemic ceased. In other ships, which also went north, cholera continued until the use of shore-water was interdicted, and replaced by distilled water. The treatment he found most useful was one-sixth to one-eighth of a grain of morphia, administered hypodermically, and plenty of milk and mucilaginous fluids. The most important prophylactic measure was to treat the premonitory diarrhœa.

Mr. SEDGWICK said that, at the time that he wrote his papers in the *Transactions* of the Society, on the urinary secretion in cholera, he was not aware that urea might be regarded as the binamide of carbonic acid; knowing this, he had less difficulty in understanding how the formation of carbonic acid in the tissues and blood should cease, owing

to the defective oxidation of the blood. The amount of carbonic acid expired during collapse was reduced to one-half, one-third, or even less, while the proportion of oxygen was greater. The absolute quantity of oxygen was three-fifths of the normal. The continuance of the mammary secretion did not stand alone in its resistance to cholera, for the secretion of other generative organs was not diminished in cholera. Ovarian dropsy, for instance, remained, although ordinary ascites entirely disappeared. Except under exceptional circumstances, the catamenia were not interfered with. He referred to a paper on this subject published in the BRITISH MEDICAL JOURNAL, July, 1871. His experience was opposed to the statement made by Mr. Simon, that cholera in a pregnant woman was always fatal to the fœtus. The pathological condition present in the disease was, in his opinion, a central arrest of nutrition.

Dr. MACLAGAN thought that there was other evidence than that afforded by Koch's observations that the poison of cholera was an organism. Each organism probably had its own special habitat and nidus. He thought that Dr. Pye-Smith's theory, that the shedding of the epithelium occurred after death was incorrect. He thought that it was the characteristic lesion of cholera, and that the mucous membrane of the alimentary tract was the nidus of the poison.

Mr. SCRIVEN considered that cholera might be divided into four stages: first, the stage of premonitory diarrhœa; secondly, the stage of active symptoms, purging, falling temperature, and so on; thirdly, the stage of collapse; and fourthly, the stage of consecutive fever. As a matter of fact, patients seldom passed through all four stages. If seen in the first stage, it was his practice to administer a dose of Gregory's powder. If the diarrhœa were accompanied by vomiting, he gave five grains of calomel. In the stage of active symptoms, a dose of calomel (ten grains) was the most useful treatment; it appeared to moderate the vomiting and the diarrhœa. He also allowed brandy and water in small quantities. In the third stage, no drug was of any use, and injection into the veins was the only remedy which did any good. He had seen very few cases in the fourth stage, and could not speak of its treatment.

Dr. DRYSDALE entirely agreed with Mr. Macnamara as to the mode in which cholera was diffused.

Dr. LOWNDS advocated the use of freely diffusible nutritious fluids, such as Liebig's raw soup, in the treatment of collapse.

The PRESIDENT, in reply, said that the evidence was distinctly in favour of the existence of some specific poison in cholera, as specific as that of small-pox. Dr. Parkes and Dr. Sutton had found distension of the right side of the heart, while the left side was empty, if the patient had died of collapse; this was invariably found if the examination were made sufficiently soon after death. He had seen many cases of premonitory diarrhœa, treated with opium, pass rapidly into collapse and death. Death might occur with the bowels over-distended.

MEDICAL SOCIETY OF LONDON.

MONDAY, MARCH 30TH, 1885.

W. M. ORD, M.D., President, in the Chair.

Treatment of Angular Curvature.—Mr. WALSHAM read a paper on the treatment of angular curvature of the spine in the upper dorsal and lower cervical regions by a combination of a jacket and collar of poroplastic felt.—Mr. W. ADAMS thought nothing could be better adapted to the purpose in view than the apparatus described by Mr. Walsham. Dr. Sayre's improved plaster-of-Paris jacket was equal to any apparatus previously brought forward for the treatment of ordinary cases; even in ordinary cases, however, there was no important difference between the plaster-of-Paris and the poroplastic casings; but as a mechanical support for the special class of cases to which Mr. Walsham had referred, he thought the poroplastic casing perfect in selected cases. For many cases, however, in the cervical, lower cervical, and upper dorsal regions, he recommended absolute recumbency for prolonged periods; paralysis occasionally came on; in such cases, the patient was necessarily recumbent, and it became necessary to apply extension to the head by a special apparatus. He quoted one recent case, in which complete motor and sensory paralysis came on somewhat suddenly; as soon as extension was applied, the paralysis of sensation immediately diminished; in the course of a week, sensation had generally returned, and there was some motor power.—Mr. NOBLE SMITH thought that the surgeon ought himself to adopt a suitable apparatus in every case. Mr. Walsham relied not on extension of the spine, but on straightening; in this way, a sufficient amount of pressure was taken off. By the application of this principle of straightening the spine, symptoms of paralysis might quickly be relieved. No doubt recumbency was a most important element in the treatment of these severe cases; he treated most of his cases on the prone-couch; occasionally children adopted the prone position spontaneously.—Mr. CLUTTON described an apparatus, made of leather, with an iron support for the head, practically on the same principle as Mr. Walsham's poroplastic jacket, which was in use at St. Thomas's Hospital. He agreed with Mr. Walsham that the jury-mast was inefficient and even dangerous, owing to the liability to accident. Recumbency could not always be carried out for a sufficient length of time, and even when the patient was kept in bed, an apparatus should be worn.—Mr. BERNARD ROTH referred to the treatment by passive extension. He inquired how often it was necessary to remove the jacket for ablution, and whether the apparatus was not suitable for caries high up. He had recently used Fletcher's bags in a case of caries high up.—Mr. WALSHAM agreed that recumbency in such patients was a good line of treatment. In cases of caries in the first or second cervical vertebræ, a very dangerous condition, absolute recumbency with sandbags on each side was the only justifiable treatment.

The Relation of Necrosing Ethmoiditis to Nasal Polypus.—Dr. WOAKES read a paper on a form of inflammation starting in the nasal tributaries of the ethmoid bone, involving periostitis and necrosis of the bone; the progress of the inflammation was insidious. He had collected eighty such cases; the origin of the disease was commonly to be traced to frequent prolonged catarrhs, occasionally to exanthems, occasionally to injury; it might be found at any age beyond puberty, and was generally symmetrical. If examined at an early stage, small projecting growths might be seen on the middle turbinated bone; these growths gradually enlarged, and led to displacement of the bones and distortion of the nose; in this later stage, the existence of roughened exposed bone was, as a rule, easily ascertained. In process of time, the turbinated bones became cleft, and polypoid growths became a marked feature of the case. The rapidity and extent of the necrosis varied very much, so that in an extreme case, observed by Mr. Erichsen, the sella Turcica was expelled through the nose; abscess of the antrum or polypoid degeneration of its lining membrane might follow an enlargement of its aperture of communication; in another series of cases, a rapidly progressing myxomatous growth might occur and involve necrosis of thin plates of bone. The disease appeared to be always progressive, and never to undergo spontaneous cure. The microscopic structure of the growths had been studied by Mr. Edgar Thurstan.—Mr. SPENCER WATSON thought that nasal polypi were generally due to obstruction, leading to rhinitis; he thought that necrosis ethmoiditis could not be a very common disease.—Mr. CRESSWELL BABER could not accept the theory that nasal polypi were commonly connected with necrosis; the size of the middle turbinated bone varied very much, and a large turbinated bone might be mistaken for an hypertrophied bone.—Mr. STOKER coincided with the views put forward by Dr. Woakes.—Mr. WALTER PYE thought that even in children necrosed bone might be found, if searched for, in the neighbourhood of small polypi.—Dr. WOAKES had never met with a case of polypus of the nose in which he searched for necrosis and had not found it. A normal middle turbinated bone was rarelyto be seen.

Laryngeal Disease in Locomotor Ataxy.—The PRESIDENT and Dr. SEMON showed a patient suffering from locomotor ataxy, who presented bilateral incomplete paralysis of the glottis-openers. Dr. Semon said that, even in extreme inspiration, the glottis hardly opened at all; if a similar degree of stenosis had been produced suddenly, stridor would have been extreme. The voice and breathing, however, in this patient were not noticeably disturbed. The paralysis in the case when first seen was not so marked, and the stenosis had been seen to come on gradually, under treatment. He thought paralysis of the laryngeal nerves was much commoner in locomotor ataxy than had been heretofore supposed. Professor Charcot had informed him that he had recently observed such cases; and since their attention had been drawn to the matter, Dr. McBride, of Glasgow, and Dr. Ernest Jacob, of Leeds, had met with cases which were now under treatment. The connection of the condition with laryngeal crises was obvious; and he thought that the practice of making an examination of the larynx in cases of locomotor ataxy and other diseases of the nervous system ought to become a matter of routine.

DIABETES.—Dr. Austin Flint, junior, adds four more cases of diabetes to the fifty-two reported to the American Medical Association. The patients were placed on strict antidiabetic diet, and Clemens' solution of arsenite of bromine, beginning with three drops, increased to five, was also given. Of these four cases, three were permanently relieved. In conclusion, he adds: "Diabetes has become to-day a disease easily and certainly curable, provided that the treatment be not begun too late."

BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, MARCH 25TH, 1885.

ALFRED MEADOWS, M.D., F.R.C.P., President, in the Chair.

Opening between Bowel and Bladder.—MR. REEVES exhibited a specimen showing a pathological opening between the bowel and the bladder. The opening had been occupied by omentum. Mr. Reeves had passed a small sponge on a stick through it.—Dr. BARNES had seen two cases of fistulous communication between the bowel and the bladder. In one case it followed typhoid fever; in the other case, fæcal matter passed with the urine. The opening had resulted from malignant ulceration in the small intestine extending to the bladder. —Dr. AVELING said such fistulæ were not uncommon.

Abscess of Ovary.—Mr. BURTON, of Liverpool, showed specimens of two cases of abscess of the ovary, which he had removed from a patient in the hospital for Women at Liverpool. Both Fallopian tubes were enlarged, and contained caseous looking matter. The patient had made a good recovery.—Dr. EDIS thought abscess of the ovary a rare condition.

Myoma.—Mr. LAWSON TAIT showed a large soft œdematous myoma, which he had removed six days before, from a lady, aged 53. The patient, unfortunately, had sunk to such a low state before the operation, from severe hæmorrhage, that she did not recover. On examination through the vagina, the tumour was felt presenting through the os uteri, just as if the patient were in labour. The operation had been undertaken after consultation with Dr. Matthews Duncan.—Dr. ROUTH thought that such tumours might be removed through the pelvis.—Dr. BANTOCK regarded the case as illustrating the importance of not delaying operative interference too long.

Dysmenorrhœa.—Dr. ROBERT BELL, of Glasgow, read a paper on dysmenorrhœa, in which he drew the conclusions that it arose in conjunction with stenosis; but the stenosis was not the sole cause, because the pain ceased when the flow became established. Dysmenorrhœa might accompany a neuralgic condition of the uterine walls, and frequently did so. It had been said to be due to spasm of the uterus, and had been compared to the spasm which produced asthma, and, by way of argument, it had been said that asthma was cured by a copious secretion of themucous membrane, just as dysmenorrhœa was generally relieved when the menses flowed freely. Dr. Bell held that the very reverse was the case, for it was only when the spasm in asthma ceased somewhat, that the mucous membrane was able to secrete mucus to any extent. When the spasm was severe, the nerve-centres, which controlled the mucous secretion by reflex action, were paralysed temporarily, and it was only when the irritating effect of the spasm subsided that they were able to act, when the modified irritation which remained stimulated them to free action, when a copious flow of mucus resulted, just as when a severe inflammation of the Schneiderian membrane occurred, no mucus was secreted; but, when this subsided, the more intense irritant ceased to act so powerfully on the ganglionic centres when their activity was restored, and afterwards stimulated by the moderate degree of irritation, which the less congested condition of the mucous membrane conveyed through the afferent filaments. The obstructive theory had many advocates, amongst whom were Dr. Barnes and the late Marion Sims, but Dr. Bell was unable to agree with them that fluid blood should be less able to escape without pain than the catarrhal discharge, which was copiously excreted in the inter-menstrual period. —Drs. Aveling, Barnes, Chalmers, Bantock, Edis, and others, joined in the discussion which then ensued.

REVIEWS AND NOTICES.

THE EAR; ITS ANATOMY, PHYSIOLOGY, AND DISEASES. A Practical Treatise for the Use of Medical Students and Practitioners. By CHARLES H. BURNETT, A.M., M.D. Second Edition. London: J. and A. Churchill. 1884.

WHEN a volume like BURNETT on *The Ear*, which we have had for many years on our shelves, appears in a second edition, we are naturally anxious to see what of all that has been written in otology during the seven years which have elapsed between the appearance of the two editions, is considered by the author worthy of a permanent record, and what he has to tell us from his own added experience.

In outward appearance, this edition resembles almost completely its predecessor; for, by judicious pruning, and by the use of a closer type, room has been made for much new material without increasing the bulk. In fact, the present volume numbers thirty pages less than the first edition. On the other hand, the illustrations have been increased in number from 87 to 107.

As the author tells us in his preface, the articles which have been rewritten are those on Abnormalities of the Auricle, Otomycosis, The Treatment of Chronic Otorrhœa, The Classification and Treatment of Aural Polypi, and the Diagnosis, Etiology, and Treatment of Aural Vertigo. Turning to these, and comparing them with the original edition, we notice, amongst others, the following points.

In the chapter on Abnormalities of the Auricle, the author introduces four new illustrations, two representing supernumerary appendages immediately in front of the auricle, the other two showing the ears of a boy, aged 8, in whom the left auricle was small and deformed, whilst the meatus was absent on that side, the concha presenting a slight depression where the meatus is usually found. The auricle seemed loosely attached to the head, and no osseous canal could be detected by the finger. Considerable space is devoted by the author to the subject of vegetable parasites in the ear, in the treatment of which he has now almost renounced alcohol in favour of insufflations of powdered boracic acid, borax or boracic acid in combination with chinoline-salicylate (one of the latter to sixteen of the former). Daily syringing by the surgeon is advised, followed by one of these insufflations. The less dependence placed upon fluid "applications to the ear in these cases, the better for the patient." Further on, we also find the author strongly advocating the use of powders, namely, in the treatment of chronic purulent inflammation of the middle ear.

In addition to powdered boracic acid, with the advantages of which all aurists are now familiar, we find recommended borax, "calendulated boracic acid" (Sexton), resorcin (1 pt.) with boracic acid (8 pts.), and lastly the mixture of boracic acid with chinoline-salicylate above mentioned. The "calendulated boracic acid," which the author highly recommends, is prepared by triturating together equal parts by weight of tincture of calendula officinalis and finely powdered boracic acid. Evaporate the calendula down in a water-bath, at a temperature of about 150° Fahr., to a pasty consistence, and then mix with one-half the boracic acid; evaporate to dryness, add the other half, and triturate. This to be mixed with twice its weight of pure boracic acid, and further triturated, when it is ready for use. To demonstrate the superiority of the dry "over the moist" method of treating chronic suppuration of the middle ear, the author compares fifteen consecutive cases treated by the moist method ten years ago, with the same number treated eighteen months ago by the dry system, with the result that the average duration of treatment in the old series was 212 days, whilst in the new series it is only 17 to 18 days. Another table of fifteen cases treated by the dry method is given to show the less liability to relapse after this treatment. These tables sufficiently demonstrate the superiority of the dry system, but the numbers which they deal with are far too small to allow of any exact comparison being made.

Aural polypi are classified by the author as follows: 1, *Granulation-tumours*, their structure being that of a granulation, but covered with a layer of epithelial cells, either columnar or squamous in character; 2, *Soft papillomata*, consisting of a stroma of dense, somewhat imperfectly developed, connective tissue, which sends out numerous papillary projections, each containing a capillary loop; each projection covered by a layer of cuboidal epithelium, which fills up the sulci between the pillars, and which towards the surface often becomes squamous; 3, *Fibromata;* and 4, *Myxomata.* Any of the four classes may present examples of cystic, cheesy, and teleangiectatic changes.

In his investigations on the structure of polypi, the author has been greatly aided by Drs. R. W. Seiss and W. Chrystie. Space will unfortunately not permit our following the author through his interesting chapter on Aural Vertigo. We can only add that the additions contained in the present volume enhance materially the value of this well known work.

BEITRÄGE ZUR PATHOLOGISCHEN ANATOMIE UND ZUR PATHOLOGIE DER DEMENTIA PARALYTICA. Von Dr. FRANZ TUCZEK. Berlin: 1884.

THIS is a treatise of 150 pages on the Pathology of General Paralysis, by Dr. TUCZEK, who is already known to those interested in such researches, by his articles in the *Archiv für Psychiatrie* on the Epidemic of Ergotism in Hesse Cassel in 1879, and other researches in nervous diseases. Although the conjunction of peculiar bodily and mental symptoms has made general paralysis the best marked of all the forms of insanity, there was always a difficulty in describing the character of the pathological process by which the brain was affected. Some regarded the disease as a diffused encephalitis, ending in atrophy and sclerosis.

Others considered there was no inflammation, and that the atrophy of the grey matter was the principal pathological process. Dr. Tuczek believes that the mental symptom common to all cases, is diminution of the intelligence, which is found in all general paralytics, whether they become boasting, melancholy, or maniacal, and that this diminution of the intelligence often precedes the characteristic affection of the voice. In 1881, Exner demonstrated, by a new method of staining the brain-tissue with osmic acid and ammonia, an unexpected abundance of nerve-fibres with axis-cylinders in the grey matter of the normal brain. Many of these, especially on the outer layers, ran horizontally to the surface of the convolutions, and were of fine calibre, as if they had not a long course. Dr. Tuczek has studied the pathological appearances in 17 cases of general paralysis; 13 males and 4 females. The only lesion common to them all was a disappearance of the nerve-fibres, especially in the frontal and parietal lobes. This atrophy was found to increase with the duration of the disease and with the intensity of the symptoms. In this wasting of the nerve-fibres, he finds a distinction between general paralysis (dementia paralytica), and senile dementia (dementia senilis). In none of these 17 cases of general paralysis did he find this lesion to be absent.

This is no doubt original information of an interesting character. On looking over the descriptions of the pathological anatomy of general paralysis in three recently published text-books on insanity, while we find a swollen or degenerated condition of the nerve-cells described, as well as thickening of the vessels and proliferation of the neuroglia, we find no mention whatever of the condition of the nerve-fibres. Dr. Tuczek naturally takes a pride in reindicating the "physiological dignity" of these neglected tissues; and his pamphlet will, no doubt, cause many microscopes to be directed to their scrutiny. He is disposed to believe that general paralysis commences with a degeneration of the nerve-fibres of the brain. He reminds his readers that Lissauer has found, in the spinal cords of ten cases of tabes dorsalis with sclerosis of the posterior columns, a diminution of the nerve-fibres in the pillars of Clarke, while the nerve-cells remained intact. It is by the application of a number of dyes to the nervous tissues that these results have been obtained. Sahli has arrived at the conclusion that no fibres with naked axis-cylinders exist.

Dr. Tuczek endeavours to show that the mental and nervous symptoms of general paralysis may be fully explained on the assumption that they are the result of the degeneration of the nerve-fibres. It would take a good deal of space to reproduce his arguments. He devotes eighteen pages to an account of the recovery of a patient from general paralysis. This exceptional individual—a Post Office servant, married, now 36 years old—was admitted to the asylum at Marburg on August 29th, 1877, with well marked symptoms of the disease. By June 1878, he had much improved, and he was discharged on September 7th of the same year. In May 1881, he returned to work at the Post Office. He has now been for five years quite well, both in mind and in body.

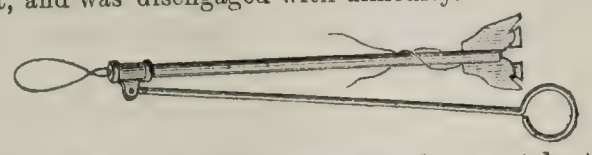
NOTES ON BOOKS.

The Year-book of Treatment for 1884. A Critical Review for Practitioners of Medicine and Surgery. Cassell and Co., Limited.—This handbook contains, within the space of three hundred pages, a wonderfully complete summary-review of the methods of treatment, new or resuscitated, which have been advocated during the year with which it deals. The volume contains twenty-three sections, and each has been intrusted to a physician or surgeon eminent for his special knowledge of the department of practice on which he has written. Thus, Dr. Douglas Powell has written the section on Diseases of the Lungs, Dr. Lauder Brunton that on Diseases of the Alimentary Canal, Mr. Bryant and Mr. Treves that on General Surgery, Mr. Reginald Harrison that on Diseases of the Genito-Urinary System, and Mr. Malcolm Morris that on Diseases of the Skin. Great judgment has, as a rule, been shown by the writers charged with the various sections; but the articles are, of course, not all of equal merit. The section on Diseases of Women, by Dr. John Williams, and that on Venereal Diseases, by Mr. Alfred Cooper, are the most interesting to read, perhaps because each is rounded off by a short summary, which gives, in a few words, the general broad effect produced on the mind of the author. The book, it may, however, be retorted, is not meant to produce a broad effect, but to supply the detail necessary to the practical worker; and this it may, without any subtraction, be said to accomplish. A full reference has been given to every article noticed and two excellent indexes, the one of authors quoted, and the other of subjects, complete the attractions of the volume for the busy practitioner. As the *Year-book* will doubtless reappear with each returning January, it may not be out of place to suggest that the editor should induce all his contributors to follow the excellent example of Dr. Felix Semon, who, to his section on Diseases of the Throat and Nose, has prefixed a list of the most important books published throughout the world on his subject during the year, giving the name of the publisher and the size of the book. The *Year-book* may be confidently recommended; the indolent man will find that, so far as is in the nature of things, it will supply the place of diligence; and the diligent will feel that it refreshes his memory, and brings, perhaps, under his notice, some facts of value that have escaped his inquiry—the grains of wheat in the bushels of chaff that he has been both to winnow.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEW SUTURE-TWISTER.

THE accompanying woodcut represents a new form of twister for wire-sutures. The old form and that of Sims had the disadvantage that, while in use, the suture got frequently wound round the stem of the instrument, and was disengaged with difficulty.



The ends of the suture wire being passed separately through the end of the tube, at each side of a small cross-bar, and pushed on till they protrude at the end, are then doubled over and slipped into slits on each side of the flat plate which forms the handle by which the tube is rotated; the wire, with ring attached by collar to the end of the tube, being held by the other hand, and used to direct the point of the twister to the spot where the suture is to be tightened. This, being twisted from above downwards, is not hidden from view, and the exact amount of tension can thus be given to a nicety in drawing together a fistula, or open wound of any kind. The instrument also makes a very useful snare, or miniature *écraseur*, for warts, piles, etc.

ALEXANDER DUKE, M.K.Q.C.P.I.,
Obstetric Physician, Steevens' Hospital.

TREATMENT OF PILES BY CRUSHING.

SIR,—I trust you will permit me to offer a few remarks with reference to your correspondent's communication in the JOURNAL of March 14th on the above subject, which I consider a direct infringement of my invention; so much so, that I venture to think that, were it the etiquette for medical men to protect their inventions of surgical instruments by the "patent laws," as in the "engineering profession," I could demand an immediate apology, with compensation for the infringement.

If Mr. E. Downes will be good enough to refer to an original article, written by myself, in the *Lancet*, vol. i., pp. 602, 1882, he will find that he has trodden over already covered ground.—I am, sir, yours truly,

R. FITZROY BENHAM.

Baron's Court, S.W., March 14, 1885.

AN IMPROVED CANNULA FOR DRAINAGE IN ASCITES, ETC.

MR. W. Y. VEITCH, in the JOURNAL for February 14th, gives a description of his improved cannula for drainage in ascites. In my opinion, he has, however, not improved upon the original little instrument devised by Dr. Southey. Mr. Veitch states that "considerable difficulty is often experienced in fixing the elastic tube to the nozzle of the cannula during the escape of serum;" and certainly, if Mr. Veitch delay to fasten on the India-rubber tubing to the cannula until after he has inserted the trocar in the skin, and subsequently withdrawn it, I can quite understand that his efforts have not been crowned with success, and that he has had to frequently abandon the rubber-tubing altogether.

The proper way to use Dr. Southey's trocars is, first, to fix the India-rubber tubing on to the cannula, then to perforate the tubing about half an inch from the end of the cannula with the trocar, and then push this latter home through the tubing and trocar. The apparatus is then ready for use, and, upon withdrawing the trocar, the small puncture in the tube is too minute to allow any serum to escape. If Dr. Southey's tubes are used in this way, the manner they are meant to be, I think surgeons will fail to appreciate Mr. Veitch's improvement, which, to my mind, is not an improvement, but only an effort to improve a simple and most efficacious instrument from a failure to understand the proper way of using the original contrivance.

EDWARD COTTERELL, M.R.C.S.Eng., L.R.C.P.Lond., Bicester.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 4th, 1885.

THE LUNACY BILL.

ON March 26th, the Lord Chancellor introduced this long promised Bill, to amend the lunacy laws; and it was read the first time. As it is, necessarily, composed of abundant and intricate detail, it is not possible, at present, to pass a definitive judgment upon its full merits. It may possibly, in its passage through Parliament become a measure of reform sufficient to appease the public demand, if its details be found to be commensurate with the important changes which are, distinctly enough, announced as its leading principles.

The first of these principles is, the assimilation of the English to the Scotch law, by the introduction of judicial intervention before the confinement of any person in any institution for the detention of lunatics. At present, the magistrate intervenes in the case of pauper lunatics, of wandering lunatics, of lunatics not under proper care and control, and of those who are neglected or not properly treated; but any other lunatic, in England, not belonging to these classes, has hitherto, been liable to be placed in confinement, upon the order of any person, without any restriction or limit, excepting the one condition that he must have seen the lunatic within a month. The change, from this indefinite person, to judicial intervention, has long been strenuously opposed by the official authorities in lunacy in this country; but the Lord Chancellor now announces that, "in the opinion of the Government, such intervention is absolutely demanded." The form of the intervention is to be an order by a judge of a superior court, or of a county court, or of a stipendiary magistrate, or of a justice of the peace, given in consequence of the certificates of lunacy of two medical men, one of whom must, if possible, be the ordinary medical attendant of the lunatic.

Within a month of the time at which the lunatic has been placed in confinement, a special report on his condition will have to be made by the superintendent of the asylum, and he must also be visited by some person authorised by the Commissioners in Lunacy. The order and certificates are to remain in force three years only, after which period they will lapse, unless renewed. Similar provisions to these have worked well in Scotland; but, in that country, the new duties which it is intended to assign to the magistrate, be he judge or justice of the peace, are discharged by officials who do not exist in England, namely, the sheriffs and their deputies, who are quite a different kind of officials from the sheriffs of English counties. Moreover, in Scotland, the number of private lunatic asylums, and of the inmates, is so small, that they may fairly come under M. Ferry's designation of *une quantité negligéable*. The Scotch enjoy a large provision of public asylums for the middle and upper classes, while England does not; and we need scarcely point out the difference between the question of confinement in a public and in a private institution. Moreover, the English justice of the peace is not quite an equivalent to the Scotch sheriff; and it is the justice of the peace, and not the judge of a superior or county court, who must needs be the frequent functionary in this new duty. The Lord Chancellor appears to have doubts of his competency; for he said that, "if their lordships could suggest any better authority, the Government would be glad to consider the proposal."

The most obvious suggestion is, that two justices should be substituted for one, following the example set in the Summary Jurisdiction Act, which greatly curtails the powers of the single justice, and so largely extends that of two acting in concert; or one justice might be allowed to give the order for confinement in a public institution, while two were required to give the order for confinement in any other place; in which case the enactment would follow the example set in the sixty-eighth section of the Asylums Act, in which one justice may order the confinement of a wandering lunatic, while two justices are required to order the removal to an asylum of a lunatic not under proper care and control.

The second leading principle of the Bill is the attempt to deal with the question of private asylums so as to secure their gradual abolition. This the Lord Chancellor indicated as the important part of his measure. There was great objection, he said, to giving private persons a pecuniary interest in the detention of lunatics; but, looking at the large number of licensed houses, it had not been thought advisable to abolish them compulsorily. In order to accomplish their gradual abolition, the Lord Chancellor has reproduced the main provisions of Mr. Dillwyn's Bill, by which the visiting justices of county asylums are empowered to provide asylum-accommodation for paying patients. If the visiting justices were required to do this thing, their action might possibly result in untying the Gordian knot which the Lord Chancellor refuses to cut; this is clearly not a proper subject for the make-believe of permissive legislation. The great test of the Lord Chancellor's measure, if it be passed, will be found in its action in the metropolitan district, where lunatics most do congregate; and yet, it is in this district that even compulsory legislation has been most neglected.

The existing law makes it the positive duty of the justices of the peace to provide asylum-accommodation for the pauper lunatics within the bounds of their jurisdiction. Yet, in January, 1884, there were in the Metropolitan district 705 pauper lunatics confined in private asylums. In the provinces, there were 693 pauper lunatics in private asylums. There were also 12,056 pauper lunatics in ordinary workhouses throughout the country. If the justices can only discharge in this manner what are supposed to be their compulsory duties, what reasonable hope can be entertained that they will discharge, adequately to the urgency of the need, the permissive duties with which the Lord Chancellor proposes to them?

Besides pauper lunatics in private asylums, there are 645 private lunatics in pauper asylums, who are all treated as paupers, if the Lord Chancellor's information be correct. We should, however, be glad to know the sources from which he has derived his information on this and on several other points. The nature of his Bill has been kept a

profound secret; yet it deals with subjects which are essentially matters of special experience; for instance, the experience of the manner in which mixed asylums have worked beforetimes. Taking into consideration the fact that wherever mixed asylums have been originally founded, as in the counties of Northampton, Leicester, and Nottingham, the pauper element has eventually been divided from the private element, and located in a distinct asylum under separate authority, the proposal to add the private element to the pauper element, even in separate wards, but under the same administration, is perhaps an experiment which no person with special knowledge of the subject would have advised the Lord Chancellor to try.

The Government have, indeed, attempted to obtain instruction as to the working of the lunacy laws in foreign countries, and they have published the results of their inquiries in a recent Blue-book. But, as might have been expected, the information conveyed to the Government by Her Majesty's representatives at European Courts and in the United States has not been very accurate as to matters of fact relating to lunacy. For instance, an important fact bearing directly upon the Lord Chancellor's Bill is that, with all the vast population of the United States, the private asylums there are quite inconsiderable in size and number. The new Blue-book gives the number of lunatics who are confined in asylums in the State of New York as 10,705, of whom 503 are stated to be in private asylums. As there are probably not so many lunatics confined in private asylums in the whole of the United States, the startled reader naturally seeks for some further information, and finds it in the fact that the Bloomingdale Asylum, containing 240 private patients, is scheduled and reckoned as a private asylum, whereas it is as much a public asylum as Bethlem or St. Luke's.

Any physician who has visited asylums in the countries to which this Blue-book refers will be filled with amazement at the swift and complete revolution which seems to have taken place in the treatment of the insane in most of them; and yet he might prudently still remain not a little sceptical as to the value of some of the information—diplomatic or other—upon which the Government appear to have relied.

ETIOLOGY AND DIAGNOSIS OF CHOLERA.

THE divergence of opinion with regard to the etiology of Asiatic cholera is extreme; and the events of recent years have tended to intensify differences which have long existed. The view held in England for many years, and generally accepted, after the admirable work of Mr. Netten Radcliffe, has been, that cholera Asiatica was a specific water-borne disease, distinct from all other diseases in which diarrhœa and collapse were prominent symptoms, and due to a specific transportable multiplying poison. The identification, by Dr. Koch, of this poison with a micro-organism present in cholera-stools, fitted in so well with the view of the nature of cholera long, and, we believe, first held and taught in this country, that it has met with very general acceptance as probable, though not proven. Many writers and administrators, however, of Indian experience, have held, and do hold, very different views. Dr. Bryden, whose knowledge of the epidemiology of cholera was unrivalled, believed that it was caused by a specific air-borne contagium; and, applying his theories to practice, was able, with almost prophetic insight, to forsee the movements of an epidemic, and thus to discharge a most important function towards the Government of India. Other observers, including Sir Joseph Fayrer and Sir Guyer Hunter, hold and strongly express the view that cholera is not due to any transportable poison or contagium.

It is a matter for regret that the discussion of the etiology of the disease, at the Royal Medical and Chirurgical Society, was not fuller; it has failed in this chiefly owing to want of time. The great length to which the President of the Society felt it necessary to review the whole subject of the etiology, pathology, and treatment of cholera, trenched so much on the short time available, that at the first meeting there was no opportunity of hearing more than Dr. Klein's exposition of his views, and Mr. Watson Cheyne's very able defence of Dr. Koch's position; unfortunately, the hour was then late, and the meeting too weary to listen long to Professor Warden, of Calcutta, who had come over from Dr. Koch's laboratory at Berlin; Sir Joseph Fayrer could say but a few words; and Professor T. Lewis, whose views would have been heard with interest, was unable to speak. Professor Warden, however, was able, on March 23rd and 24th, to give a most elaborate and interesting demonstration of the mode of growth of various comma-shaped organisms, and of Dr. Koch's methods, and thus achieved the chief object of his mission.

The question which is now so hotly debated, whether the comma-bacillus of Koch has any essential part in the production of cholera, involves many considerations of much complexity. In the first place, it has been urged that it is not a distinct species. Dr. Koch and many other competent observers contend that the general behaviour of the bacillus in cultivations, the nature of the material in which it grows best, and the phenomena which it produces in it, its characters in tubes or on plane surfaces of nutritive gelatine and on potatoes, together with its morphological features, complete a picture which is quite distinct, and serves to separate it as a distinct species from all other bacteria. This question can only be settled by specialists in mycology; the positive evidence is very strong, and must have great weight. Granting that the bacillus is a distinct species, we have next to inquire whether it is pathogenic; and the question at issue between the German and the English Cholera Commissions has now been practically narrowed to this—practically, for it may still be contended that the comma-bacillus is not a species, but a variety, or sport. At present, it must be admitted that, however probably this latter view may appear on general grounds, there is no evidence from analogy to support it, and it has not yet been worked out with regard to the comma-bacillus itself.

Those who support the view that this bacillus plays some essential part in the production of cholera are driven, in the absence of trustworthy results from experiments on animals, and in the absence of epizootic cholera, to a line of argument admittedly less sound than that which has been used to establish the pathogenic nature of the bacilli of anthrax, tuberculosis, or glanders. This particular species of organism has always been found in the acute stages of Asiatic cholera when looked for by competent observers; it has not been found under other conditions; and Dr. Koch states that it is present in great numbers in the ileum, and that cultivations made from the ileum shortly after death in acute cases yield cultures which are almost pure; this we understand to be the true meaning of the somewhat ambiguous statement which has been very commonly interpreted in a somewhat different sense. Dr. Klein joins issue both on this point and on the further statement, that the bacilli penetrate the mucous membrane. His observations on these most important points require the gravest study. The question in dispute is one of the first

consequence, as upon it the decision must largely hinge, unless, indeed, Dr. Koch has some further surprise in store with regard to experiments on animals.

It is a great pity that, in certain quarters, a disposition to make political, and even commercial, capital out of Dr. Koch's discovery and theories should have been displayed; and that quarantine should have been dragged once more into the region of disputed questions. The use or disuse of quarantine cannot be settled by laboratory-experiments; it is an affair of administration and experience. The English Local Government Board having adopted, a generation ago, views above referred to, whose accuracy would appear to be notably confirmed by the results of this very different line of research, were led by experience to arrive at the conclusion that quarantine-regulations were not only useless, but actually harmful, being, in fact, favourable to the spread of such a disease as cholera. Medical inspection and isolation of suspected cases were recommended as the rational alternative. Thus, after all, the point of chiefest importance, in the discussion at the Royal Medical and Chirurgical Society, was that very clearly brought out by Dr. Heron; if the comma-bacillus be a distinct organism, easily recognisable by its mode of growth; if it be always to be found in association with Asiatic cholera, and nowhere else, then, whether it be the cause or the consequence of that disease, its presence is a diagnostic mark. The difficulty, nay, the impossibility, of making a diagnosis by the clinical symptoms is universally acknowledged by those who have had much experience of cholera. Were a case of severe diarrhœa, followed by collapse and death, to occur in a sea-port town, it would be impossible, if we had only the symptoms and *post mortem* appearances to guide us, to say whether it were the precursor of an outbreak of true cholera, or merely an isolated example of so-called English cholera, or cholera nostras. But if this bacillus of Koch be really a criterion, as is contended, then, by simply ascertaining whether it be or be not present in a given case, we have a means of arriving at a conclusion as to whether the case is or is not an example of Asiatic cholera. Medical officers of health will be quick to see the immense value of the instrument which would thus be placed in their hands. It would reduce the practice of medical inspection almost to the exactness of a scientific experiment. Dr. Koch, it would seem, fully appreciates the importance of this aspect of his discovery. Dr. Heron stated that Dr. Koch was prepared to start at short notice, with a band of competent assistants, to examine into and ascertain by this method the exact nature of any case of supposed cholera which might occur in Germany; the investigation would take not more than a few days, and during that time the suspected person or persons could be most rigidly isolated. There is reason to hope, therefore, that Dr. Koch's great influence will be thrown on the side of medical inspection, against quarantine. The establishment of a causal connection between the comma-bacillus and cholera is of far less practical importance than this other achievement, which, it would appear, may now be fairly credited to him; namely, that he has supplied us with a means of diagnosing Asiatic cholera in the early stage.

THE library and museum of the Royal College of Surgeons will be closed on Tuesday and Wednesday, April 7th and 8th, for the Primary or Anatomical and Physiological Examinations for the diploma of Membership, upwards of four hundred candidates having entered their names.

PROFESSOR HYRTL'S jubilee has been celebrated at Vienna, and several graceful addresses were received, including one from the "Verein Deutscher Aerzte zu Prag." Besides the celebrated work on Anatomy, Hyrtl has occupied himself of late years with philological work. In 1879, he published (at Vienna) *Das Arabische und Hebräische in der Medicin*, and, in 1880, the *Onomatologia Anatomica*. Professor Hyrtl has taught anatomy to two generations of medical men, and certainly deserves to enjoy his *otium cum dignitate* so well earned.

PROFESSOR VON JAKSCH, of Prague, lately attained his jubilee year as a doctor of medicine, and the occasion was most gladly seized for showing the great respect which is felt towards this teacher of clinical medicine, especially as regards methods of physical investigation. Von Jaksch is also esteemed for his works on syphilis of the central nervous system, ulcer of the stomach, and the spontaneous cure of heart-disease, besides his later labours on acetonæmia, and, finally, the symptomatology of hysterical nervous diseases.

MEDICAL SICKNESS, ANNUITY, AND LIFE-ASSURANCE SOCIETY.

THE ordinary monthly meeting of the Executive Committee of this Society will be held on Wednesday next (April 8th), at 38, Wimpole Street, W., at 4.30 P.M., followed, at 5 P.M., by a combined meeting of the Executive and General Committees. At the latter, a report of the financial and numerical progress and position of the Society will be presented and discussed.

THE NUMBER OF SICK IN EGYPT.

A TELEGRAM in the *Times*, dated Alexandria, March 31st, states that the total number of the British forces in the Delta, the Soudan, and at Suakin, exclusive of the Australians and Indians, is 24,754, and that only 965 are on the sick-list. The amount of sickness is, therefore, under 4 per cent., a result which surely reflects great credit on the arrangements made by the Director-General of the Army Medical Staff and his subordinate officers in Egypt.

THE CHEMISTS AND THE POISONS BILL.

AT a meeting of the members of the Midland Counties Chemists' Association, held in Birmingham, on Monday, to consider the Poisons Bill, Mr. T. Barclay in the chair, a resolution was passed expressing the opinion that the provisions of the Bill were bad in principle, ineffectual for the protection of the public, prejudicial to the interests of pharmacy, and harassing to the trade.

DEATH OF MR. W. M. COATES.

THE announcement of the death of Mr. William Martin Coates, of Salisbury, will have been read with great regret by many members of the British Medical Association, who will remember him as the president of the Section of Surgery at the meeting of the Association at Ryde. Mr. Coates held a very eminent position in the city of Salisbury, where he was for many years one of the surgeons to the infirmary; and his death leaves a notable gap in the ranks of the profession.

CONGENITAL DERMOID TUMOUR OF THE TESTICLE.

ON March 3rd, Messrs. Cornil and Berger read before the Académie de Médecine, Paris, a paper on a case of scrotal inclusion. Verneuil has shown that dermoid tumours of the scrotum and testicle are teratological products, and only accidentally connected with the male sexual gland. Yet, in previous cases, the testis had never been saved when removal of the tumour was attempted. M. Berger was consulted, in July, 1884, by a boy, aged 11, who was suffering from a large tumour on the right side of the scrotum, to which it was not adherent. It was oval, fluctuating, opaque, and perfectly indolent. The testicle could not be distinguished on palpation. The tumour had been first

noticed when the child was suckling; it had grown slowly, and had once been punctured, without result. M. Berger made a fresh exploratory puncture, and a little sebaceous matter, mixed with fine hairs, was removed. At the operation, the tumour was found to be situated in the tunica vaginalis. The testicle formed its upper part, and was quite separate from the cyst-wall, which was connected with the mediastinum by a vascular pedicle. The wall of the cyst was detached from the tunica albuginea, the pedicle divided, and its vessels ligatured, and the scrotal wound closed. Six months after the operation, the right testicle appeared normal, and was perfectly movable under the scrotum. The cyst contained a quantity of sebaceous matter and hairs, also a pedunculated growth about an inch long, covered with true skin, which bore papillæ, hairs, sebaceous glands, and a few sudoriparous glands. The interior of the growth contained connective tissue, fat, nerve-cells, and ganglia, and a cyst bearing stratified columnar epithelium, resembling the intestinal mucous membrane.

THE HEALTH OF KIDDERMINSTER.

THE unhappy town of Kidderminster has no sooner got rid of its epidemic of enteric fever than it has been attacked by scarlet fever. At a meeting of the Town Council, held recently, it was reported by the Health-Officer that eight deaths had occurred during the month from that disease, and that it was still spreading. In 1884, only three deaths occurred from scarlet fever during the whole year; but no fewer than 108 deaths were set down to the epidemic of enteric fever. As showing the ravages made by that epidemic, it may be mentioned that, besides the 1,500 recognised cases of typhoid, no fewer than 1,000 persons were, according to the estimate of the health-officer, affected from the same cause.

ALLEGED DEATH FROM VACCINATION.

THE death of a child, aged three months, on March 22nd, having been attributed in the medical certificate to "blood-poisoning, convulsions, and vaccination," an inquest was held by Dr. Danford Thomas on March 28th. The child was vaccinated on March 5th by the public vaccinator, Mr. C. Claremont. The lymph was taken from a perfectly healthy infant. The mother stated that the deceased child had been quite healthy up to the time of vaccination; that, when the vaccination began to take effect, it grew drowsy, took little food, and subsequently had convulsions. Mr. C. C. Whitefoord, who gave the death-certificate, stated that he was called to see deceased on March 14th, when he found it suffering from congestion of the lungs and brain, and he was told that it had been vaccinated nine days previously. The arm was slightly swollen. The vaccination seemed to have been performed in an efficient manner. He came to the conclusion that the child was suffering from blood-poisoning, and that that had caused the congestion. A *post mortem* examination was, by direction of the coroner, made by Mr. A. J. Pepper, Surgeon to St. Mary's Hospital. He stated that death had been caused by capillary bronchitis, and meningitis, involving especially the pia mater. He further stated that there was no appearance in the lungs or brain which might not have been found quite apart from vaccination. The vaccination-marks were quite normal; there was no evidence of inflammatory or other disease in the axilla; there was no softening, infarction, abscess, or tuberculosis of internal organs. The child had been taken out on a very cold day, the seventh day after vaccination; and the symptoms which appeared after this might all have been produced by exposure to cold in so young a subject. The coroner made some remarks on the character of the certificate given by Mr. Whitefoord; and the jury returned a verdict to the effect that the child died from bronchitis and inflammation of the brain, caused by its having taken cold; that the vaccination was properly performed; and that the death was in no way to be traced to it. They added an expression of opinion that Mr. Whitefoord should have exercised greater discretion in the wording of the certificate of death, which they considered to be incorrect and misleading.

THE LEICESTER ANTIVACCINATORS.

THE extraordinary position in which Leicester finds itself at the present moment, owing to the antivaccination-crusade that is being actively prosecuted in its midst, can hardly be passed over without a word of comment. The elaborate demonstration against the Vaccination Acts which lately took place in that misguided town, amid evidences of popular sympathy, will beget, in the minds of obstinate and restless spirits in other places, a desire to emulate the picturesque law-breaking of Leicester; and we may expect to read, therefore, of further detachments of persons imprisoned for neglecting vaccination, of conveyances full of unvaccinated children, with a perverted text of Scripture above their heads, of insults heaped on an effigy of Jenner, and the rest of it. Now, the mere burning by an excited populace of Acts which they believe to be injurious, and the passing of bombastic resolutions, will not suffice to convince reasonable people of the necessity for repealing the compulsory vaccination-law. The agitators are not content with questioning the principle of compulsion, which may be admitted to be an unpleasant necessity, but they make violent tirades against vaccination generally, and, by the mere repetition of strident denials, attempt to traverse the experience of three-quarters of a century as to its prophylactic value against small-pox. Mr. Hopwood wrote to Leicester, in his usual self-confident fashion, to say that "vaccination was in no respect scientific, and it had been most conclusively proved that it would have no effect whatever upon small-pox as a cause of mortality." We do not care to label this assertion with the only epithet it deserves; but it may serve to show the kind of language that serves these wrong-headed people for argument. The experience of every epidemic in every part of the world rises up in judgment against Mr. Hopwood, and condemns him. The antivaccinators appear to believe that English authorities and statisticians are banded together to distort the figures as to vaccination and small-pox, so as to make them square with the belief current amongst all educated people as to the influence of the one in the preventing of suffering from the other. We shall be interested to learn their views on the results recently announced by the scientific commission appointed by the German Government to consider this question. We shall presently reproduce in our columns some very striking diagrams, given in the report of this commission, of the mortality from small-pox in certain foreign countries, armies, and towns, as illustrating and supporting the lesson taught by the whole of our English experience, that vaccination is our chief safeguard against small-pox. But, meanwhile, we cannot forbear quoting one set of figures which has recently appeared as the result of a house-to-house visitation in St. Pancras. Out of a total of 112,425 persons in that parish over ten years of age, 1,377 were found to be unvaccinated, 71,213 to be vaccinated, and 30,835 to be revaccinated. Amongst the unvaccinated, 857, or 62.2 per cent., were marked by small-pox; amongst the vaccinated, 2,013, or 2.8 per cent., were marked; and amongst the revaccinated, 29, or only 0.08 per cent., were marked by small-pox. We have no hope that figures such as these will convince the good people of Leicester. Apparently, the only teaching they will accept will be a smart epidemic of small-pox in their own midst.

PENNY DINNERS.

THE movement in favour of self-supporting penny dinners is slowly but surely being placed on a definite and secure basis. Mr. Mundella, M.P., presided on Saturday afternoon at a largely attended conference, held at the rooms of the Society of Arts, Adelphi, for the purpose of enabling those who had been carrying on the project during the last few months to compare experiences and results. Among those present, were several members of the London School Board. In opening the proceedings, Mr. Mundella expressed satisfaction at the progress which had been made recently in the penny dinner movement, which, he said, if not actually founded, had been pioneered by Sir Henry Peek, in his own district of Devonshire. Mr. Mundella

regretted that he was unable to take any active part in the movement, but said that he heard almost daily from Her Majesty's inspectors and others of some extension of the system, and with it, of the great advantages which the system had conferred both upon the physical vigour and the mental capability of the children. The problems for solution were more difficult in London than elsewhere, for, in the great metropolis, the rich knew very little of the poor, who were aggregated in quarters of London where the middle classes seldom intruded. He understood that the dinners had been founded in forty centres in different parts of London, and he rejoiced to believe that this movement was helping the children, not only to get education, but also physical vigour, self-respect, and independence, because to be weak was to be miserable. In his opinion, very much of the weakness of character came from the sharpness of hunger and feebleness of health of the population, and very much was now being done to build up the vigour and the intelligence of the people. Mr. Bousfield, of the London School Board, detailed the results of experiments in connection with penny dinners which he had been engaged in, and stated that, on the whole, these were of a most encouraging character. Sir H. Peek explained the method by which, in Devonshire, he had combined a system of food and education for children at the rate of 5d. per week. Lady Aberdeen narrated how successfully penny dinners had been provided in Aberdeenshire. She desired to give testimony to the great advantages which would accrue, both physically and morally, to children, if these dinners were more thoroughly adopted. Mr. S. Buxton, M.P., and Dr. Campbell, M.P., having spoken, Mr. B. Clarke read a paper on the best means of making the dinners available for children unable to pay.

THE MEDICAL AND DENTAL REGISTERS.

We have received copies of the *Medical Register* and of the *Dental Register* for 1885. The *Medical Register*, under the careful editorship of the Registrar, Mr. W. J. C. Miller, has grown somewhat in size, and contains, in addition to its various other details, a table showing the number of persons whose names were entered in, added to, or removed from, the *Medical Register* for the several years from 1875 to 1884. The number of persons now remaining on the *Register* shows a total of 25,321, in the following proportions—England, 16,911; Scotland, 4,364; Ireland, 4,046. This total represents an increase of 804 over that of the preceding year, and we have no record of so great an increase in any preceding year. Scotland alone contributes 319 in excess of her last year's record. The *Dental Register* for 1885 shows the number of registered dentists in the United Kingdom to be 5,255, and is supplemented with the usual varied and valuable data. These volumes bear evidence of the intelligent care that has been bestowed upon them.

SHELTER-HOUSES IN INFECTIOUS DISEASE.

Dr. Goldie, the Health-Officer of Leeds, is urging his Town Council to provide a sanatorium or shelter-house, where the uninfected inmates of a house in which infectious disease has broken out can be isolated until the house, clothing, etc., have been thoroughly disinfected. No doubt, this would be very desirable and useful; but we are afraid that the general Public Health Act does not give authority for the provision of means of isolating uninfected persons in the way proposed. Perhaps, however, Leeds has a private Act of its own which gives it power to provide shelter-houses.

EPIDEMIC DIARRHŒA AT HULL: A WARNING.

The fact that a very widespread epidemic of severe diarrhœa has broken out at Hull is calculated to cause some alarm in the public mind, and cannot fail to be a source of great anxiety to those entrusted with the safeguarding of this country against epidemic disease. Hull boasts itself the third port of England, and its sanitary welfare therefore becomes the concern of the whole country. It is monstrous that the niggardly policy and gross ignorance of local obstructionists should be allowed to endanger the safety of the kingdom. At the present moment, when a recrudescence of the recent epidemic of cholera, which it will be remembered reached the southern coast of the English Channel last year, is by no means improbable, the occurrence of this epidemic bowel-disorder is a very serious sign; because it shows that there are, or have been recently, sanitary conditions in the third port of England which are well known to favour the spread of Asiatic cholera. At the weekly meeting of the Hull Watch Committee on March 25th, it was stated that the medical officer of health reported that there were then 1,000 cases of diarrhœa in Hull. The disease has evidently been severe in many cases, one of the symptoms mentioned being painful cramps. As to the cause, all sorts of theories have, as usual, been started by irresponsible persons; but, as the borough engineer has officially certified that the water pumped to the town from Springhead was contaminated, and that the water from Spring Ditch (a suggestive name), which probably takes the drainage from Willerby, was seriously contaminated, with, among other things, "tufts of manure," it is more than probable that this contamination of the water-supply is the true cause of the epidemic. The Local Government Board has already made some inquiries, and we trust that it will act with vigour and promptitude. Later reports state that the epidemic is decreasing, but that there are still a great number of cases. The medical officer of health for the town and port of Hull is at all times overworked; for, to quote the words of an able and public spirited article in the *Eastern Morning News*, "the wiseacres of the corporation committed the police-force to his keeping, providing him with what has diverted his energy and divided his time." The people of Hull being thoroughly frightened, and the "wiseacres" therefore at least temporarily silenced, a deputy medical officer has been appointed, and three other practitioners have been retained to assist the medical officer of health in the management of the four districts into which the town has been divided. We trust that their efforts may be supported by the reviving common sense of the inhabitants, who should clearly understand what this epidemic means; it means that, if a patient suffering from Asiatic cholera had found his way into Hull last week, there would have been, in all probability, an outbreak of cholera. Let the "wiseacres" look to it; for, to use the only kind of argument which they are probably able to appreciate, such an outbreak would inflict such a blow on the commercial prosperity of Hull as it would not recover from in a decade. They have been warned before, by their medical officer of health, by trained and intelligent members of their own body, and now lastly by this epidemic. Let them take heed.

THE INTERNATIONAL SANITARY CONFERENCE.

A telegraphic despatch has been addressed to the Powers, in the name of the Italian Government, suggesting the 1st of May as the date of the first meeting of the International Sanitary Conference at Rome. From the point of view of further knowledge, England has nothing to hope from the Conference, to the holding of which she has, indeed, somewhat reluctantly assented. There will be a great temptation to some of the other Powers to introduce political questions into the discussions. If the Conference is to be of any scientific value whatever, it will be needful that these should be rigidly excluded from the beginning. The instructions to the Commissioners will not, we suppose, be published; but it would be satisfactory, in view of the failure of some recent conferences, to know that England was determined to keep the deliberations of this assembly at least free from the taint of Egyptian and Oriental politics, which now-a-days seems to permeate everything. The great object of the Conference is, we take it, the establishment of a common understanding as to the precautionary measures that can usefully be taken as to cholera by any country threatened with it, or imagining itself so threatened; and the sweeping away of the senseless and arbitrary quarantine-restrictions

that so injuriously affect commerce, and impose such cruel and unnecessary sufferings upon innocent people. The question of the constitution of the Alexandria Sanitary Board, urgent as it is, must perforce be left until the Powers have arrived at such an understanding; but, in any event, the Board must be reformed, and that from the bottom. As we indicated last week, there is reason to hope that the views of Italy and France, as to the utility of quarantine, have undergone considerable modification since the Vienna Conference of 1874, its futility as a precautionary measure being amply demonstrated by last year's experience. Signor Mancini has, indeed, admitted as much; and we shall expect, therefore, to learn that, as the first and most important result of the Conference's deliberations, the English system of medical inspection will be adopted by practically all the delegates, and pressed upon the earnest attention of the Governments who have not yet already accepted it.

THE BIRMINGHAM MEDICAL INSTITUTE.

THE annual meeting of the members of the Birmingham Medical Institute was held on March 26th. Dr. Thomas Underhill, retiring president, occupied the chair, and there was a large and representative attendance. The annual report was full and satisfactory, showing the steady growth of the library and an improvement in finances. Six hundred new books have been added to the library, which now contains 12,000 volumes. The reading-room is well supplied, and it has been comfortably refurnished, by the exertions of Dr. Saundby. Mr. Sampson Gamgee was unanimously elected president for the ensuing year, and Dr. Rickards and Mr. John Greene were chosen vice-presidents. Mr. W. G. Archer and Mr. J. Hunt were re-elected honorary secretaries, and Mr. Lloyd Owen and Dr. Saundby were re-appointed honorary librarians. Mr. Archer, Mr. Oakes, Mr. Solomon, and Dr. Wade were re-elected members of the committee, and Mr. Jordan Lloyd, Mr. Bennett May, and Mr. H. M. Morgan, were added as new members of the committee.

WHAT IS THE BEST SITE FOR THE GORDON MEMORIAL HOSPITAL?

WE learn that the idea of erecting a memorial to General Gordon in the shape of a hospital at Port Said, is unfavourably commented on by many of his admirers, European and Egyptian, in Egypt. It is stated that Port Said is unsuited for a hospital which would do honour to the memory of General Gordon, or be a credit to the promoters. Port Said is a small town almost outside of Egypt, with a few English families in its population, where a British seaman or a rare passenger to or from India may occasionally be landed. If it is to be open to Arabs, they have no means of access to it, as there is no railway nor proper highway to Port Said from any part of Egypt. An English hospital, such as a cottage-hospital on a small scale, would be amply sufficient for Port Said, and could be kept up at small expense; whereas the elements do not exist for a much larger hospital. One would hope that the memorial hospital will not be for the treatment of English only, but, like other hospitals in Egypt, will be open to Egyptians and others, and be Anglo-Egyptian in character, as Gordon lived much of his life for, and died for, the Egyptians. If so, its usefulness at Port Said would be very limited, and a large institution thrown away. The Egyptians do not repair to Port Said, but gravitate towards two centres, Cairo and Alexandria. At Alexandria, the English population, rich and poor, is large; it is one of the chief Mediterranean ports where British ships congregate from all parts of England. Englishmen employed in the interior of the country, who have no proper home, nor means for proper medical and surgical treatment, repair to Alexandria to enter one of the foreign hospitals there. A large number of British seamen are there left yearly for treatment in a foreign hospital, which has also given hospitality to many officers of the army and navy. There is no British hospital in Alexandria; and, of all places in Egypt, it has a strong claim for one; and for many reasons, it is the place the best suited for a memorial hospital. The hospitals already existing there would do credit to any city in Europe, but an English hospital is conspicuous amongst them by its absence, though other less wealthy nationalities have theirs. The town possesses a large body of medical men of high scientific acquirements. Egyptians and Bedouin Arabs repair thither from all parts of the country, many of them attracted by the reputation there of English surgery. We hope the Committee will not be too hasty in deciding finally on the place for a hospital-memorial, before they have made full inquiries.

SCOTLAND.

THE various classes in the Faculty of Medicine in the University of Aberdeen were closed on Friday, the 27th ult.; the professional examinations for degrees in medicine and surgery on the 30th.

THE guarantee-fund for the meeting of the British Association in Aberdeen is now over £2,000, and the Queen has intimated a subscription of £50 to this fund.

ROYAL COMMISSION ON HOUSING OF THE POOR.

IT is stated that the Royal Commission on the Housing of the Poor will commence its sittings at Edinburgh on Saturday, April 4th. The Commission will sit for four days for the purpose of taking evidence.

IRELAND.

DR. WILLIAM CLIFFORD has been elected medical officer for Adare dispensary, without opposition, in the room of Dr. Shanahan, appointed to No. 4 Dispensary, Limerick Union.

THE VISIT OF H.R.H. THE PRINCE OF WALES.

ON April 11th, His Royal Highness will visit Trinity College, Dublin, and will be received by the provost, members of the senate, and students of the university. An address will be presented in the Examination Hall, which will be joined in by the various societies of the College—the Historical, Philosophical, Theological, Biological, and the Boat Clubs. After reading the address, the Prince will visit the library. On the same evening, a conversazione will be given, in honour of the Prince's visit, by the Zoological Society of Ireland.

LOCAL GOVERNMENT BOARD.

BY recent regulations made by this Board, the medical inspectors heretofore in charge of districts, similar to the other inspectors, will now be required to attend to the various duties in reference to the administration of the Medical Charities, the Vaccination, and the Public Health Acts, which, for want of such supervision, were found to have been defectively carried out. Dr. Burke, being the Senior Medical Inspector, has been appointed for the province of Leinster, including Dublin, Dr. Woodhouse to Ulster, Dr. O'Farrell to Munster, and Dr. Todd to Connaught.

BELFAST OPHTHALMIC INSTITUTION AND EYE AND EAR HOSPITAL.

DURING the past year at the dispensary, 1,004 cases of eye-disease, 251 of ear-disease, and 70 cases of throat-disease were treated, while 59 cases of eye-affection and 11 ear-cases were treated in the wards. There is no doubt that the hospital has been the means of alleviating much suffering, and rendering valuable aid to poor persons suffering from ophthalmic and aural affections. During the winter session, a large class of students attended the clinique given at the institution three times a week, and obtained a knowledge of the eye and ear diseases which must be of service to them in their future career.

CONDITION OF THE ARMY MEDICAL DEPARTMENT.

The following is the reply of the Secretary of State for War to the report by the Dublin Branch of the British Medical Association on the present condition of the Army Medical Department. The letter is signed by Sir Ralph Thompson, the permanent Under-Secretary of State, and is one which will require careful consideration.

War Office, Pall Mall, W.

Sir,—I am directed by the Marquis of Hartington to acknowledge your letter of March 10th, enclosing, on behalf of the Parliamentary Bills Committee of the British Medical Association, a report on the present condition of the Army Medical Department.

In thanking you for the same, I am to observe that the only way in which the promotion to administrative grades can be expedited, is to apply a more rigid system of selection; and steps have been recently adopted with this view.

I am to add that, bearing in mind the very liberal terms secured to the officers of the Medical Staff by existing warrants, the Secretary of State is not prepared to reconsider the rates of pension now offered to the senior executive grade, the members of which have, in addition to pension, numerous opportunities of continuous home-employment on liberal terms.—I have the honour to be, sir, your obedient servant, Ralph Thompson.

Ernest Hart, Esq., Chairman, Parliamentary Bills Committee of the British Medical Association, 161A, Strand, W.C.

It seems obvious, at a first glance, that the remedy of a more rigid system of selection mentioned in the reply, can hardly suffice to remove the weight of the general block in promotion which is pressing on the seniors of the executive ranks of the Medical Department, and which is felt by them to be an urgent grievance. Neither is there any allusion in the letter to the second important subject of complaint, namely, the short period of home-service that can be obtained by the large majority of the medical officers, owing to the great reduction, of late years, in the strength of the department. It is evident that further action will have to be taken on these points.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

A meeting of the College was held on Monday, March 30th, the Monday before Easter, as required by statute, for the election of a President for the ensuing year. Sir W. Jenner presided, and there was a large attendance of Fellows.

The report of the Examiners in Hygiene was received, and certificates in that subject were granted to Messrs. C. Bullock, C. W. Low, W. F. Taylor, and F. J. Tuohy.

The Registrar read a letter from the Lords of Her Majesty's Treasury, promising to distribute gratuitously copies of the revised edition of the *Nomenclature of Disease* to all the registered practitioners of medicine in the United Kingdom.—On the motion of Sir Risdon Bennett, Chairman of the Revision Committee, a vote of thanks to the Lords of the Treasury, for their courtesy and liberality in connection with this matter, was passed unanimously.

Dr. George Johnson drew attention to the recently discovered MS. by Harvey, of which an extract has been given by Dr. Sieveking, and referred to the proposal which has been made to publish an autotype facsimile of it, with the text as deciphered by an expert of the British Museum. He proposed that the College should guarantee to take 100 copies, in order to ensure the publishers from loss. The proposal was cordially received, and the matter finally referred to a small sub-committee.

The Registrar mentioned the ruinous condition of the tower of Hempstead Church, where Harvey's remains are interred, and informed the College that he was about to endeavour, in his private capacity, to commence a fund for the purpose of assisting the parishioners in the re-erection of the tower. He requested permission to date his circulars for this purpose from the College itself, and this request was cordially granted.

The President read his annual address, in which he referred to the events of the past year affecting the profession in general, and the College in particular. He spoke of the readiness of the College to accept the Medical Bill of last session if it had been passed, even at the cost of anticipated corporate injury, and of the promptness with which, when the Bill was withdrawn, the College allied itself with the College of Surgeons, in order to attain, as far as possible, the desired unity of examination and qualification. The Conjoint Board being now an established fact, he thought that the attention of the College ought next to be drawn to the necessity for obtaining for London students reasonable facilities for obtaining the degree of M.D. His own belief, strengthened by the opinions of influential members of both Houses of Parliament, was that there would be no great difficulty in effecting this. Passing to the internal history of the College, the President referred to the creation of the new office of Vice-President, to which he had appointed for this year Dr. F. Farre and Dr. Fincham, who had ably assisted him. Dr. Duckworth had succeeded the late Dr. Barclay, as treasurer of the College. Dr. Quain had undertaken to deliver the Harveian Oration, and Dr. Goodhart to take the place of his late colleague, Dr. Mahomed, as Bradshaw Lecturer. The College now numbered 291 fellows, upwards of 460 members, and about 2,000 licentiates. The President then gave a careful and appreciative summary of the life and work of each of the fellows deceased during the past year; Dr. J. Hall Davis, of the Middlesex Hospital; Dr. Daniel Noble, of Manchester; Dr. Washbourn, of Gloucester; Dr. Goodeve, of Bristol; Dr. Bishop, of Paris; Dr. E. Buchanan Baxter, of King's College; Dr. Alexander Tweedie, formerly of the Fever Hospital; Dr. Barclay, of St. George's Hospital; Dr. Herbert Davies, of the London Hospital; and Dr. Mahomed, of Guy's Hospital.

Dr. F. Farre, Senior Vice-president, moved a vote of thanks to Sir W. Jenner for his address, and for his services to the College during the past year. This was seconded by Sir Risdon Bennett, and carried unanimously.

A ballot was then taken for the election of a President. The following was the result. For Sir W. Jenner, 86 votes; Sir W. Gull, 10; Sir H. Pitman, 9; Dr. Owen Rees, 4; Sir Andrew Clark, 2; Dr. Quain, 2; Dr. Wilks, 1; Sir Joseph Fayrer, 1.

Sir W. Jenner returned thanks for his re-election, and said that he rejoiced in devoting himself to the interests of the College, because he felt that they were identical with those of the profession at large.

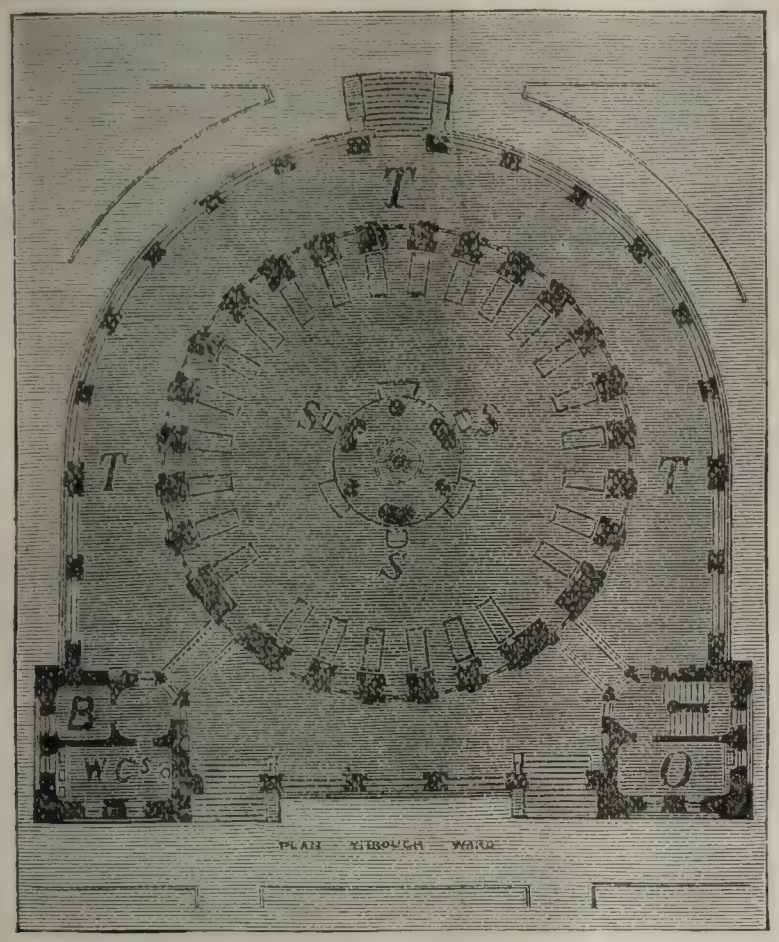
A HOSPITAL WITH CIRCULAR WARDS FOR A HOT CLIMATE.

We have recently had the opportunity of examining the plans for a military hospital with circular wards, designed for a particular site in a hot climate, by Mr. Ingress Bell, A.R.I.B.A., under the directions of Major-General Sir Andrew Clarke, Inspector-General of Fortifications and Works. The peculiarities of the site for which the hospital is intended, a narrow plateau cut into two unequal parts by a depresssion, has made it necessary to disperse the various parts of the establishment, more, it is said, than would be desirable in an ideal plan. This drawback, if such it be, and we venture to express a strong doubt on the point, has led to the isolation-blocks for infectious cases, for unruly patients, and for prisoners, being grouped together on the small detached section of the plateau.

Apart from the skill shown in adapting the plan to the peculiarities of the site, a point of interest chiefly to architects, the plans are interesting from two points of view. In the first place, each ward is quite detached from every other; and in the second place, Sir Andrew Clarke has chosen the circular form for his wards. Each ward is one story in height, and is raised, by means of a hollow basement, seven feet above the level of the ground; air circulates freely through this hollow basement, which has been so planned as to prevent, as far as can be, the probability of its ever being used for storage. Each ward is surrounded by an arcade, which shades it from the direct rays of the sun, and at the same time affords a cool airing balcony. Patients can be wheeled on to it in their beds through the windows, which open down to the ground. The roof of the ward is also protected from the sun by a second roof raised on open arches, and covering in an area equal to that of the ward. The arches are quite open for about two-thirds of the circle; on the other third, which is exposed to unfavourable winds, they are partly closed. This upper balcony will serve as an airing ground, and is a reproduction of a mode of construction common in certain hot climates, and in use, it is said, for the same purpose in Egypt, two thousand years before the Christian era. Rising above this airing ground, or "baracca," is a cupola of beautiful proportions, which gives a certain learned grace to the whole design, and at the same time subserves the utilitarian purposes of ventilation. Two square two-storied towers, connected, on the ground-floors, with the ward by cross-ventilated corridors, contain the water-closets and bath-room on the one side, and the scullery and orderlies' room on the other; in the second story of these towers are other orderlies' rooms.

Each ward is entirely isolated from its neighbours, the encircling

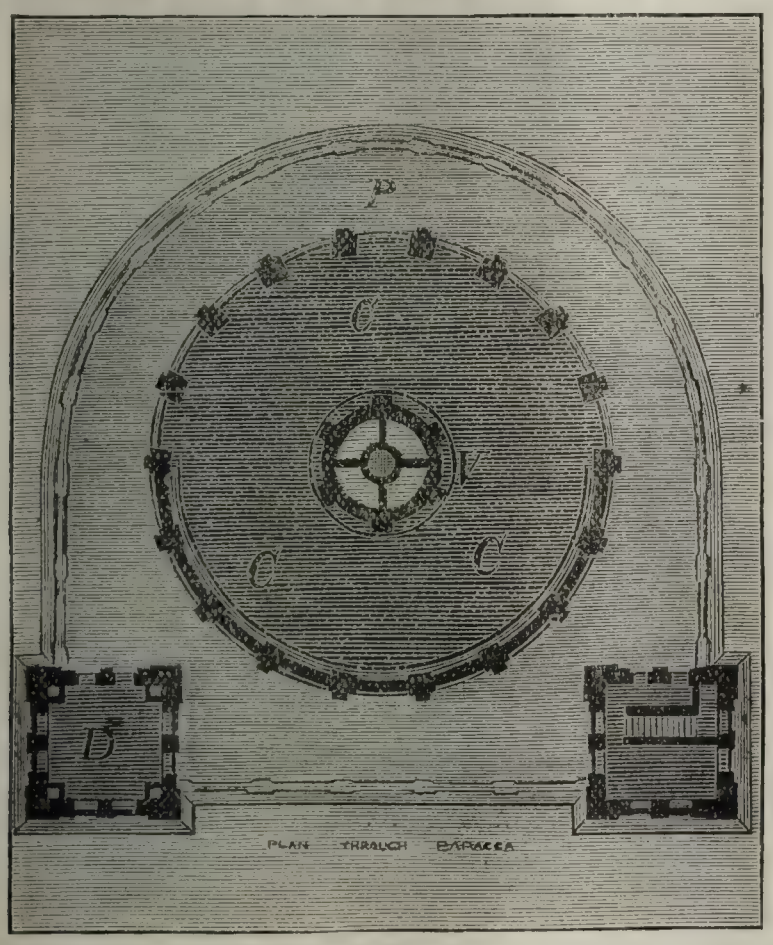
corridors of adjoining wards being separated at their nearest point by a space of sixty-five feet clear of all obstruction, and open to every wind that blows. The question of aspect has been carefully considered; the offices have been placed on the aspect exposed to the



Plan through Wards.

T. Covered Arcaded Terrace. B. Bath-room. O. Scullery and Orderlies' Room. S. Stoves.

unhealthy winds, and thus to some extent protect the wards; on the other hand, the wards are freely open to the healthy winds which



Plan through Upper Story.

Open Terrace. C. Covered Terrace. V. Ventilating Chamber. D. Orderlies' Day-room.

blow, in the situation on which it is proposed to erect the hospital, for nine months in the year. There will be a central kitchen, forming part of a small detached building, in which the dispensaries and the office and library of the principal medical officer will also be contained; diets will be distributed from this block; the scullery of each ward will contain the necessary appliances for invalid-cooking. Another detached block will contain the operating-theatre. The wards and these two last mentioned blocks are arranged in two lines, like a small squad drawn up two-deep. What may be called the front, the aspect, namely, which will be exposed to the healthy winds, consists of six circular wards; the second line is, owing to the conformation of the ground, shorter, and contains two more circular wards and the two detached blocks above mentioned. At the end of the double line, the general design is finished off by a rectangular building with a projecting semicircular apses. This building contains a chapel and a set of baths. As the site on which it is proposed to erect this hospital is only about sixty feet above the level of a harbour, and almost overhanging the water, it is proposed to sink a well in the porous stratum which underlies the site, and to pump up sea-water from this well; in this way, the sea-water for the baths will be filtered clear from impurities. The stores and the barracks of the Army Hospital Corps are entirely detached from the main area; the quarters for the medical officers are still further removed.

For drinking purposes, an excellent supply of water is available; and for other purposes, rain will be caught and stored.

The governing idea of the whole plan has been to make each ward structurally quite independent of every other. Each will contain twenty-six beds.

The wall-space to each bed will be 8 feet linear, and the floor-space 130 feet superficial. The cubic air-volume will be about 2,600 cubic feet for each patient.

The ventilation is very simple in principle. Near the ceiling, between each two windows, is an open grating, which cannot be closed; in the wall behind the head of each bed is another opening. Air will be admitted nearly all round the circle through these apertures. In the middle of the ward are six shafts, disposed circularly, three containing stoves; but the space between these shafts is quite free, except that a small fountain is placed, for ornament, in the exact centre. Standing at this fountain, and looking up, one would see a small domed roof, with a central aperture communicating with a shaft running up through the "baracca," to open in the cupola. In this shaft, close above the domed roof, it is proposed to put a revolving fan, which will extract the air of the ward, and thus augment the tendencies of natural ventilation. As the wards will be heated by steam coils, it will be easy, should this fan not be successful, or should any objection be raised to its use, to replace it by a steam coil in the shaft, which would establish an upward current. The fresh air being admitted from points along the whole circumference, and, after vitiation, being attracted by artificial means equally to the central upcast shaft in direct lines, there will be no liability of its traversing laterally the beds of neighbouring patients.

The upper airing-ground, or "baracca," could, in the case of a sudden emergency or great pressure, be used as a ward, by hanging rush-mat screens in the archways. By a suitable disposition of awnings, this "baracca" might be defended from the sun, and would then afford a most excellent ward for treating wounded men; the free ventilation, almost amounting to having the beds in the open air, being, especially in a hot climate, an advantage, rather than a drawback. A large scale model of one of the wards rendered it more easy to grasp the features of the design.

Apart from the complete isolation of each ward, the important feature is, of course, the form of the ward. The circular ward appears to be gaining popularity. One hospital on this system has already been opened; and several others, including the great Antwerp Hospital, are almost complete. In a short memorandum on their plans, drawn up by Major-General Sir Andrew Clarke and Mr. Bell, they observe that the circular form is "the logical result of attempts which have from time to time been made to improve the sanitary condition of wards of the ordinary construction by rounding off their internal angles. By degrees, the quadrants have been struck with ever increasing radius; and this proceeding strengthens the view that the ultimate solution of the problem lies in the adoption of the circular form."

MEDICAL MAGISTRATE.—Dr. William Thomson, of Anahilt House, Hillsborough, has, on the recommendation of Sir Thomas McClure, Bart., M.P., Vice-Lieutenant of the County Down, been appointed by the Lord Chancellor Justice of the Peace for that county.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

Regulations for the Election of Members passed at the Meeting of the Committee of Council, October 12th, 1881.

1. There shall be a standing notice in the JOURNAL every week, of the meetings of the Committee of Council throughout the year; and stating that gentlemen wishing to be elected members of the Association must send in their names *twenty-one days* before the meeting of the Committee of Council at which they wish to be elected.
2. That a list of applicants be in the hands of the Committee of Council *fourteen days* before such meeting of the Committee of Council, and that the Branch-Secretaries be supplied with *several* copies of the list.
3. That no member be elected by a Branch, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Meetings of the Council will be held on April 8th, July 8th, and October 14th, 1885. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary, not later than twenty-one days before each meeting, namely, June 17th, and September 24th, 1885, in accordance with the regulation for the election of members, passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 8th day of April next, at 2 o'clock in the afternoon.

Subcommittees will meet as follows. At 161A, Strand, W.C.—Tuesday, April 7th, 1885: Premises Subcommittee, 4 P.M. Committee on Legality of Committees appointed at Annual Meeting, 5 P.M. Subcommittee on Branch-Organisation, 6 P.M. Wednesday April 8th, 1885: Journal and Finance Subcommittee, 11 A.M.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, March 14th, 1885.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
IV*a*. Diphtheria, sanitary.
VI. Acute Gout.
VII. Puerperal Pyrexia.
VIII. Paroxysmal hæmoglobinuria.
X. Habits of Aged Persons.
XI. Albuminuria in the Apparently Healthy.
XII. Sleep-walking.
XIII. Cancer of the Breast.

An inquiry is now issued concerning the general condition, habits, and circumstances, past and present, and the family history of persons who have attained or passed the age of 80 years.

The replies to this inquiry will be most valuable when given by a medical man; but the questions have been so arranged that, with the exception of some on the last page, they may be answered by another person. *Partial information will be gladly received.*

There is also now issued an inquiry as to the occurrence of albuminuria in apparently healthy persons.

The Acute Gout card, which had been found too elaborate, has been made a great deal simpler, and is now re-issued.

Copies of these forms and memoranda are in the hands of all the local secretaries, and will be forwarded to anyone who is willing to fill up one or more of the forms, on application by post-card or otherwise to the Secretary of the Collective Investigation Committee, 161A, Strand, London, W.C., to whom all applications and correspondence should be addressed.

July, 1884.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary —J. MAITLAND, M.B., Honorary Secretary, Madras.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next ordinary meeting will be held at Pontypridd, on Wednesday, April 15th.—A. SHEEN, M.D., Cardiff; D ARTHUR DAVIES, M.B., Swansea, Honorary Secretaries.—February 25th, 1885.

SOUTH-EASTERN BRANCH.—Members of this Branch are requested to take notice, "That candidates for the office of representative of the Branch at the Council of the Association, should be nominated by any two members of the Branch, before April 15th, and their names sent to the Honorary Secretary." The present representatives are, for Kent, Dr. Parsons (Dover); for Surrey, Dr. Holman (Reigate); for Sussex, Dr. Withers Moore (Brighton).—CHARLES PARSONS, M.D., Honorary Secretary.

GLOUCESTERSHIRE BRANCH.—A special and ordinary meeting of the Branch will be held on Tuesday, April 21st, 1885, at 7.30 P.M., in the lecture-room of the School of Science, Gloucester, under the presidency of Dr. Needham. *Agenda:* Special.—The adoption of the revised and amended rules drawn up by the Council. Ordinary.—A paper on "The Estimation of the Impurities in the Atmosphere," together with a practical demonstration of the same, by G. Embrey, Esq., county analyst.—G. ARTHUR CARDEW, Honorary Secretary.

STAFFORDSHIRE BRANCH: GENERAL MEETING.

THE second general meeting of this session was held at the London and North-Western Railway Hotel, Stafford, on Thursday, February 26th, 1885. Present: Dr. E. T. TYLECOTE, President, in the chair, and 26 members and one visitor, Dr. Isambard Owen, of London.

Election of Members.—The following gentlemen were elected members of the Branch: Messrs. Lynam and Bucknill, North Staffordshire Infirmary; Dr. Hind, Stoke-on-Trent.

Specimens.—Dr. W. G. Lowe exhibited a tubal gestation of seven weeks' growth (a full description of this exhibit appeared in the BRITISH MEDICAL JOURNAL for March 14th).—Mr. John Hartill showed a small piece of bone—believed to be part of a rabbit-bone—which he had taken from an abscess opened by him below the head of the colon. The patient, a woman 49 years old, had complained of pain in or near the groin for more than a year. Five months ago, she suffered from inflammation of the head of the colon, attended with considerable hardness and swelling. The inflammation subsided, but the swelling and hardness never disappeared, and the woman got progressively worse. Three weeks ago, the hardness began to soften; and ten days later an aspirator-needle was passed in, but the aspirator, failing to act, a free incision was made, and the cavity washed out with carbolised water. A few days after, the bone was removed, and the woman is now improving.

Communications.—1. Dr. Reid read a paper upon the value of Cascara Sagrada as a Therapeutical Agent. 2. Dr. C. Smith made an oral communication upon the value of Cucaine as an Anæsthetic and Hæmostatic in some operations upon the eye.

Chorea and Acute Rheumatism.—A discussion took place upon these diseases. The speakers were Dr. Isambard Owen (London), Dr. B. Foster, Mr. Vincent Jackson, Mr. W. H. Folker for Mr. West, and Dr. E. T. Tylecote.

GLOUCESTERSHIRE BRANCH: MEETING.

A MEETING was held on March 17th, at the General Hospital, Cheltenham, under the presidency of Dr. NEEDHAM.

By-laws.—A discussion took place on the proposed Amendment of the By-laws of the Branch.

Conjoint Meeting.—A letter from the Secretary of the Worcestershire and Herefordshire Branch was read, accepting the invitation for an united meeting of the two Branches in May at Gloucester.

SOUTH INDIAN BRANCH.

Officers and Council.—The following office-bearers were elected at the annual meeting, held in Madras on January 9th. *President:* The Honourable Surgeon-General W. R. Cornish, C.I.E. *Vice-President:* Surgeon-Major E. F. Drake Brockman. *Committee:* Brigade-Surgeon J. H. Hunt; Surgeon-Major C. J. McNally, M.D.; Surgeon-Major A. M. Branfoot, M.B.; Surgeon A. J. Sturmer. *Provisional Members of Committee:* Surgeon G. T. Thomas; Surgeon D. F. Dymott. *Treasurer:* Surgeon-Major C. Sibthorpe. *Secretary:* Surgeon J. Maitland, M.B.

THE Queen's Bench Division, on March 16th, set aside the verdict (for the plaintiff) in the case of Page *v.* Harrison, and ordered a new trial.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At an examination, held on March 9th and 10th, the undermentioned Licentiate was admitted a Fellow of the College: David Edgar Flinn.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

On the Inertia of Vaccine-Lymph from Revaccinated Subjects.—Spasm of the Œsophagus resembling Stricture.—Charbon Bacteria in Milk.—Inoculations for Symptomatic Charbon.—Propagation of Cholera by Water.—General News.

M. BUCQUOY, at a recent meeting of the Société Médicale des Hôpitaux, maintained that vaccine-lymph taken from subjects that have been revaccinated is useless; he asserted he could cite numerous instances which strengthened his belief; among them is the following. M. Danyau vaccinated an infant; during the operation it struggled, and the lancet used cut M. Danyau's cheek, on which appeared a perfect vaccine-pustule. He removed some lymph from the pustule, and tried to vaccinate calves and infants with it. All the results were negative. At a subsequent meeting, a letter from an army-surgeon confirmed the truth of M. Danyau's observation; it stated the results obtained from three series of revaccinations. In the first series, 117 people were re-vaccinated with lymph obtained from children, and there were 78 successes; in the second, among 102 vaccinated with lymph taken from children, there were 59 successes; in the third series, among 65 revaccinations with lymph taken from adults who had been previously vaccinated, there were only 16 successes. M. Antony, also a military surgeon, has vaccinated several times with vaccine-lymph taken from children, from adults who had not been previously vaccinated, and from revaccinated adults; in the first instance, had 76 per cent. of successes; in the second, 69 per cent.; and in the third, 62 per cent. In Germany, vaccine-lymph of whatever origin is believed to be efficacious. In France, a ministerial decree of 1883 sanctions "the use of vaccine-lymph from adults who have been re-vaccinated, only when no other can be obtained."

M. Gaillard Lacombe has treated in his wards two cases of spasm of the œsophagus, which present exceptional features. In November last, a man, aged 50, was admitted. He was in an advanced stage of cachexia; he could swallow fluids, but solids or viscous fluids were rejected before entering the stomach. The condition of the patient was diagnosed as stricture of the œsophagus. An olive-shaped bougie, measuring one centimètre, was introduced into the œsophagus, but could not pass the throat; one of two centimètres overcame the obstacle and entered the stomach. Gradual dilatation was effected, and, during four or five days, an olive of one centimètre was passed. The patient ate well and regained strength. The patient was suddenly seized one day, after the instrument had been passed, with shivering fits, fever, pain in the upper part of the abdomen, and vomiting. This condition continued for two or three days, and death ensued. At the necropsy, it was observed that the œsophagus was perfectly intact, but there was extensive cancer of the stomach, and the peritoneum contained pus. Perforation of the stomach had apparently provoked peritonitis. A few months later on, a patient was admitted presenting symptoms which suggested the presence of a cancer of the stomach, or alcoholic gastritis. A bougie was passed along the œsophagus, and was stopped at the upper part of the sternum. Later on, the obstacle was overcome, but another at the cardia could not be passed. The patient was nourished by means of injections, but death ensued in a few days. The necropsy showed cancer of the œsophagus opposite to the upper part of the sternum; the cardia was perfectly healthy. M. Damaschino has successfully treated spasm of the œsophagus with cucaine.

M. Nocard has observed the bacillus anthracis in the milk of a cow dead from charbon. This fact is analogous to those observed by MM. Chamberlaut and Mossous in their experiments on small animals, such as the guinea-pig. M. Eloire, veterinary surgeon at La Capelle, has made a variety of inoculations for studying preventive measures against charbon. Intravenous injection of blood infected with charbon furnishes good results, but cannot be widely adopted. Subcutaneous inoculation in the tail of similar blood, dried in a stove, and used in the form of a powder, was successful in one hundred and twenty-one instances. The seton-method is most unsuccessful; among fifty-eight animals thus operated on, seventeen died.

M. Laboulbène, at a recent meeting of the Académie de Médicine, made a communication which confirmed M. Marey's belief that water is a vehicle for spreading cholera. There was recently an epidemic of cholera in the Canton of Aspel, in the Pyrenees. Aspel is isolated in the Pyrenean valley; the river Gers runs through it, and continues its course through other villages. Last July, a family went from Marseilles to Milhas, and took with them clothes which had been worn by cholera-patients. A few days after the arrivals from Marseilles, a woman living in the house where they lodged was seized with cholera and died after a few hours. Her daughter migrated to another village, where she died from cholera; but hers was the sole case of cholera, probably because the village had not a river or stream running through it, as is the case at Milhas, where a stream runs into the Gers. Cholera soon appeared in all the villages going down the river. Dr. Casse stated that the epidemic was especially violent in those districts of the villages which were low, and in the houses which were more or less flooded there was always a greater proportion of cholera-patients; on the other hand, the higher districts, where spring-water was drunk, were almost exempt from cholera. Before the arrivals from Marseilles, there was not a case of cholera at Aspel, nor near it. A village situated higher up the river than Milhas, in a deplorable sanitary condition, was thoroughly free from cholera, and all those below Milhas were attacked.

Dr. Petit has translated Sir James Paget's *Treatice on Surgical Pathology*, and presented it to the Académie des Sciences.

At the recent election of a corresponding member of the Académie des Sciences, M. Hannover, of Copenhagen, gained the majority of votes. The other eminent men proposed were, Sir Joseph Lister, Sir James Paget, Professor Leudet, and Professor Panum.

Professor Bouchardat retires from the professorial chair of Hygiene at the Faculty of Médecine, and becomes honorary Professor.

An amendment, passed in the Chamber of Deputies, allows M. Robin to retain his chair in the Faculty of Medicine; he withdraws his resignation.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Porro's Operation.—Ligature of External Iliac.—Philosophical Society.—Health of Glasgow.—University Rectorial Address.—Anderson's College.—Combe Lectures.—St. Andrew's Ambulance Association.—Professor Cleland on the Human Skull.

I REGRET to learn that the case of Porro's operation, to which I alluded in my last letter, has had a fatal termination. Although the patient showed symptoms of severe shock and collapse during the operation itself, she afterwards rallied very satisfactorily, and, for a few days, things looked promising; but, at the end of the first week, unfavourable symptoms manifested themselves, and death took place on the ninth day. The heavy mortality of these cases naturally raises the questions of the propriety of this operation, and also as to whether procreation is justifiable in cases of distortion necessitating this alternative or embryotomy. Perhaps future practice will see oöphorectomy, or, it may be, removal of the uterus itself, performed as a precautionary measure wherever circumstances have occurred to make it known that a living child cannot be passed through the extremely narrow passages.

At the Western Infirmary, on March 23rd, ligature of the external iliac artery was performed by Dr. Cameron for an ilio-femoral aneurysm. The patient was a man aged about 40, and had served as a soldier. The ordinary chromicised catgut was used as a ligature, and the usual antiseptic precautions were observed. The present condition of the patient is satisfactory.

Mr. Coleman read another paper, at the last meeting of the Philosophical Society, "On the Liquefaction of Atmospheric Air, and other Effects of Extreme Cold." The facts he brought forward are of great interest; and he explained very fully the means taken for obtaining that great cold and pressure which are necessary for liquefying atmospheric air. When in this condition, air boiled at about 300° below zero Fahrenheit, while its pressure at ordinary temperature would be so great, that it would require a cask of iron three inches thick to hold it. Liquid olefiant gas was the material used for obtaining the low temperatures required for liquefying the air. Mr. Coleman received a hearty vote of thanks for a paper which dealt also with the directly opposite condition of high temperatures.

Dr. Russell's health-report for the last fortnight shows our death-rate to be 30 per 1,000, as compared with 26 for the corresponding weeks of last year. March has had a high mortality from children's diseases, the persistent ravages of which, as the report remarks, make this year, so far as it has gone, remarkable, even in Glasgow, for excessive loss of child-life. The figures for January and February show this, no less than 47 per cent. of all deaths being of children under 5 years. The only towns that exceeded this proportion were Dundee and Greenock, where the death-rates of children were 49 and 51 per cent. respectively.

The chief event of the past week has been the delivery, by Emeritus Professor Lushington, of his rectorial address to the students of the University. The occasion was exceptionally interesting, in that the high office of Lord Rector has never before, in the history of Glasgow University, been conferred on one of its own Professors; and, for the first time since the University has occupied its new home on Gilmore Hill, the installation-ceremony has taken place within its own walls. As was natural, there was an absence of much of the political enthusiasm which marked the previous rectorial installations of Disraeli, Gladstone, and Bright; but there was on all sides a hearty desire to do honour to an aged scholar, the best years of whose life had been spent in the service of the University. There was a large gathering of old graduates and members of the General Council; and the stately interior of the Bute Hall was crowded in every part. Unfortunately, the defective acoustic properties of the hall, and the feebleness of the Lord Rector's voice, rendered his address inaudible to all save those in his immediate vicinity. Its subject was, in the main, the importance of attaining knowledge, looking to the beneficent results that flow from it in moulding the character and in disciplining the mind. The address requires to be fully perused to thoroughly appreciate its earnest and thoughtful tone; and, even in the present day, when so much is being said and written about the sphere of work that our universities should fill, few will be found to take exception to Professor Lushington's views as to the value of academic life, and the purposes of university training.

That the present winter session is nearly at an end, is shown by the formal closing of the medical classes at Anderson's College on March 27th, when the prizes and certificates gained by the successful students were distributed. Dr. Fergus was in the chair, and there were present most of the different professors, all of whom had satisfactory reports to make as to the number of students attending their respective classes, and the amount of work done. While the general conduct of the students throughout the session seems to have been all that could be desired, it is a matter of regret that their last appearance in public scarcely redounds to their credit. The proceedings throughout were characterised by such unseemly and ungentlemanly conduct, that it is a pity some stringent measures could not be adopted to prevent any recurrence of this state of things. A well merited rebuke was administered to them by Dr. Fergus, but the rustication for one or more sessions of some of the chief offenders would probably have a more beneficial effect. The summer session opens on May 4th.

With the view of encouraging the teaching of physiology in our schools as a branch of common education, the Combe Trustees have arranged for the delivery of a course of free lectures in Glasgow on that subject. Dr. Andrew Wilson is to be the lecturer, and the course is to be open to the teaching profession of both sexes. Not long since, Glasgow was indebted to the Combe Trustees for an excellent series of health-lectures, and now again they have come forward to assist in a most excellent and useful work among those whom it is specially necessary to interest in the study of physiology.

A very satisfactory record of work is embodied in the report of our St. Andrew's Ambulance Association for the past year. Under its auspices, instruction in ambulance-work has been very widely made available, not only in Glasgow, but in the numerous secondary centres which are forming round the parent one, and affiliating themselves with it; and we find the servants of our chief railways and the members of the police-force in many of the towns being thoroughly trained. Edinburgh, Coatbridge, Musselburgh, Portobello, Dumbarton, and Falkirk, are among the new centres. The wagons of the Association are largely used now for the transport of those severely injured; and in Glasgow alone 471 calls were made for them during the year. Of these cases, 379 were removed to the infirmaries, and, as most of these were accidents of more or less severity, the advantages to them of conveyance in proper ambulance-vans, and under the care of trained attendants, cannot be overestimated. With the view of meeting the altered circumstances of the Association, whereby it is now surrounded by a group of centres attached to it, but yet carrying on their own independent work, it is in contemplation to make certain changes in the management. The chief one is the appointment of a central executive committee, in which each centre will be represented; and by this new committee the affairs of the Association proper will be conducted. In this way it is thought that a more national character will be given to the Association, and that it will increase the confidence felt in it throughout Scotland.

"The Influence of Age, Sex, and Nationality on the Form of the Skull" was the subject of a paper read last week before the Philosophical Society by Dr. Cleland. It is not often that our Professor of Anatomy can be induced to come forward in public, but, when he does so he always attracts a good audience, and on the present occasion there was a large number of members present to hear the paper. It contained nothing, perhaps, specially novel; but old facts and views were clearly and attractively put. In the study of craniology, and in judging of the differences presented by various nations in the form of the skull, Dr. Cleland is inclined to think that delusive results are apt to follow special attention to the proportion of breadth to length, and the degree of projection of the face below the cranium, inasmuch as any type of skull might be broadened out in circumstances favourable to civilisation, while civilisation does not lengthen the base, and may even shorten it. Thus, a length of base is acquired in various savage races which is not reached in civilised nations; while, on the other hand, some of the shortest bases are found among old civilisations, as the Incas, the Hindoos, and perhaps the Chinese.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

A Marine Biological Society for Liverpool.—Proposed Extension of the Bootle Borough Hospital.—Establishment of a Branch Dental Hospital at the North End.—Financial Result of the City Ball.—Conversion of a Churchyard into a Recreation-Ground.—Appointments to the Lectureships on Art and Forensic Medicine at University College.

A MEETING was held in the Zoological Laboratory of University College on March 14th, for the purpose of discussing a proposed scheme for a thorough investigation of the fauna and flora of Liverpool Bay and the neighbouring seas. There was a good attendance, and the project was enthusiastically taken up. Details of what ought to be done, and the best manner of doing it, were given; a committee was formed, and the co-operation of all interested in the matter cordially invited. Professor Ray Lankester has written to the local newspapers expressing his full sympathy with the movement, and asking for support. The committee includes the names of the Professor of Biology at University College, Dr. Herdman, who is one of the prime movers in the matter, Professor Milnes Marshall of Manchester, and several local naturalists, besides some of the lecturers and demonstrators in the different faculties of the College. It is hoped that this may lead to the establishment of a biological station at the mouth of the Mersey. The investigations will probably be commenced early in May. One of the first steps will be the procuring the occasional use of a small steamer for dredging expeditions.

It is intended to enlarge the Bootle Borough Hospital; and canvassing for subscriptions towards this object is being actively carried on. In consequence of the extension of the Liverpool Docks towards the north, and especially the construction of the large docks for the accommodation of the enormous passenger-steamers that now cross the Atlantic, the population of the borough of Bootle has greatly increased during the past few years. The present hospital is far too small, and further hospital-accommodation is imperatively demanded. A pleasing feature of the scheme for the extension of the existing edifice is the great interest that has been displayed by the working men. A few days ago, a largely attended meeting of working men was held in the Bootle Town Hall, when those present undertook to raise sufficient funds to build and fit up a ward to be called a "Working Men's Ward." It would be well if this good example were followed by the working classes in other towns.

A branch of the Dental Hospital is to be established at the north end of Liverpool. The necessity for this, which is generally recognised, is another proof of the development of Liverpool in this direction. The division between Bootle and Liverpool is purely an arbitrary one, the two towns being directly continuous; and, therefore, the new hospital will be conveniently located for the inhabitants of Bootle.

The net proceeds of the City Ball amounted to £235 10s., which has been equally divided between the Woolton Convalescent Institution and the Consumption Hospital, in aid of which charities the ball is held annually.

It is satisfactory to be able to state that St. Luke's Church, which has perhaps more members of the profession among its congregation than any other place of worship here, is to be the first to have its at present unsightly churchyard converted into a place of quiet recreation for the public. Effectual measures have been taken by the incumbent and parishioners to avail themselves of the sanction of the corporation, to which body the church belongs, to plant shrubs and flowers where now only rank weeds flourish.

At a meeting of the council of University College on February 24th, it was unanimously decided to offer the Roscoe Professorship of Art to

Mr. W. M. Conway, of Trinity College, Cambridge, for five years. Mr. Conway has already given two courses of lectures on art at the College; and he is also well known here as the author of an excellent work on the collection of pictures in the Royal Institution in this city. At the same time, Mr. F. T. Paul, Surgeon to the Southern Hospital and Surgical Tutor at the Royal Infirmary, was appointed Lecturer on Forensic Medicine and Hygiene in succession to Dr. Ewing Whittle, who has resigned, after occupying the post for many years.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Death of Professor M. Watson.—Victoria University and Degrees for Practitioners.—New Pathological Society.—Small-Pox.

THE death of Professor Watson came at last as no surprise to his friends. Prior, however, to his first seizure seven weeks before, he appeared to most of those who knew him a strong man in the prime of life, with many years of vigorous work before him. Latterly, he had suffered from some gouty manifestations, headache, and at times temporary forgetfulness, symptoms which, read in the light of subsequent events, were pregnant with meaning. From the first seizure, it was evident to his attendants that extensive cerebral damage had occurred, and there was but scant hope of his ever being restored to an useful life in full possession of his powers. For the few weeks he lingered, he was completely helpless, and while at times there were fitful gleams of consciousness, in which he recognised and named his friends, he quickly lapsed into unconsciousness, his mind evidently wandering away into the past. A second cerebral hæmorrhage quickly brought the not unwelcome close. His remains were followed to the station, on the way to their last destination at Edinburgh, by several hundreds of his former colleagues and students. He leaves many pleasant memories behind, and a place which it will be very difficult to fill.

For some time past there have been strong hopes expressed that the Victoria University would provide facilities for qualified practitioners obtaining its degrees without fulfilling the full curriculum of lectures and passing all the examinations. But, unfortunately, the terms of the charter do not allow of medical degrees being conferred after examination only, without the attendance of lectures at one of the affiliated colleges. There is, however, I believe, a strong feeling among the medical lecturers, and members of convocation, that certain concession might wisely be made to those who were qualified at the date of the charter; and it has been suggested that such should be allowed to proceed to their final examination, after attending lectures for two years at one of the affiliated colleges, and having also passed the anatomical or first M.B. examination. This course would relieve them of the necessity of passing the Matriculation Examination and the Preliminary in Science, such examinations generally proving the real obstacle to graduation for those who have already entered upon the active work of the profession. If this concession were made by the University authorities, it would, I believe, pave the way to graduation for men who would be an honour to our own or any other University.

On the 24th ult., a meeting was held in the anatomical theatre at the Owens College, to formulate rules and to appoint officers for the newly formed Pathological Society of Manchester. The new society, which has been formed much on the model of the London Pathological, is an offshoot of the Medical Society here, and is intended to take the place of the hitherto existent Microscopical Section. The society begins under the most favourable auspices, fifty members being enrolled at the first meeting. It is certain to fill an useful position, and to be the means of bringing to light much of the pathological material that has hitherto gone to waste. It has the immense advantage of being able to meet in the pathological laboratory of the Owens College, and having the use of the microscopes and other apparatus there. It is proposed to hold meetings both in April and May, before adjourning for the summer.

We have been threatened for the last few weeks with a visitation of small-pox in Manchester, some cases of unusually malignant type being admitted into Monsal Fever Hospital three weeks ago. In the week nding March 14th, only three cases were reported; the numbers again rose to seventeen last week (ending March 28th); and fears are entertained that we are not likely to hear the last of it for some time. With the compulsory notification of infectious disease in operation, we ought to be better able to contend with an epidemic than was the case during the last small-pox visitation in 1877. There is but little scarlet fever or other zymotic prevalent here at the present time.

CORRESPONDENCE.

TREATMENT OF GOÎTRE BY INJECTIONS OF IODINE.

SIR,—Mr. Tivy's interesting paper on this subject, published under the above title in the BRITISH MEDICAL JOURNAL, March 28th, p. 653, is confessedly written for the purpose of convincing the profession that the injection of iodine into adenomatous goîtres is a perfectly safe procedure. Holding very different views on this point, I conceive it a duty to show that this belief is distinctly dangerous, and by no means in accord with facts.

I will proceed at once to prove the correctness of my statement by quotations from recent publications.

Edmund Rose (*Der Kropftod und die Radicalcur der Kröpfe*, Berlin, 1878), speaking of iodine-injections, says (p. 3): "It is well known that they—viz., the injections—are not without risk. I know myself privately of six cases, in which practitioners have lost after these operations otherwise healthy patients, either on the table or a few hours later."

Morell Mackenzie ("On the Treatment of Goître," *Annales des Maladies de l'Oreille, du Larynx, etc.*, November, 1884) says: "No case has occurred in my practice where any unfavourable results have followed the injection, nor am I aware that any accident has happened in the hands of Luton, Lücke, Stoerk, or other physicians, though single fatal cases are recorded by Schwalbe and Kocher."

Tul. Sommerbrodt ("Ueber eine Traumatische Recurrenslähmung," *Berliner Klinische Wochenschrift*, No. 50, 1882) reports two cases of persistent paralysis, in one instance of one vocal cord, in the other of both, produced by the injection; in these cases, the fluid reached and injured the motor laryngeal nerves. I may here observe, in passing, that Mr. Tivy himself appears to have had a narrow escape of this accident in his own practice. The "rather troublesome" hoarseness, lasting for about ten days, which occurred in one of his cases after injection, would seem to me to have been most likely due to a lesion, fortunately not irreparable, of one of the laryngeal motor nerves.

Paul Bruns ("Ueber den gegenwärtigen Stand der Kropfbehandlung," Volkmann's *Sammlung Klinischer Vorträge*, No. 244), speaking generally of the treatment of goître by iodine, says:—"The same indications exist with regard to the parenchymatous iodine-injections, which, following Lücke's recommendation, have been readily adopted, but which have not quite fulfilled the expectations originally entertained of them. Whilst splendid success, no doubt, is often met with, on the other hand, in numerous instances no success is obtained; moreover, the fact that the injections are by no means devoid of danger, must not be concealed. I may recall in this place, that suppuration and putrefaction of a goître, with all their subsequent dangers, have not been very rarely produced, and that sudden death has repeatedly occurred." Bruns then proceeds to quote Rose's statement, mentioned above, and dwells at some length upon the danger of injuring the laryngeal nerves; Rose, by the way, also speaks of the "often terrible suppuration" that has followed iodine-injections into goîtres,

Moritz Schmidt ("Ueber die Behandlung von Parenchymatösen Kröpfen," *Deutsche Medicinische Wochenschrift*, No. 8, 1884), who had made "thousands of injections," up to two years before the publication of his paper, had only twice seen somewhat more serious consequences, namely, considerable, and in one case, rather long lasting, increase of the tracheal stridor, which had been present before the operation. But he then met with a case of a girl, twelve years old, who suffered from a soft, parenchymatous, not very large goître. A few minutes after injection of twelve minims of tincture of iodine into the enlarged gland, extreme asphyxia supervened, and tracheotomy had to be performed at once; the child temporarily rallied, but died suddenly on the fourth day after the operation. At the necropsy, there was seen to be compression of the trachea, the left recurrent laryngeal nerve was atrophied, the right was involved in the enlarged gland, and there was fatty degeneration of the right heart. In discussing the case, Schmidt says: "One hears of sad accidents and fatal issues in other quarters. Schwalbe has described a case in which, after injection of iodine into a goître, cerebral embolism and death resulted, though he leaves it an open question, whether this was a coincidence or whether there was a causal relation. Lücke quotes two cases from Demme, one of which is perhaps identical with Schwalbe's." "I have endeavoured," Schmidt continues, "to follow up the individual cases of which I knew from hearsay. From several *confrères*, to whom I here wish to express my thanks, I received kind replies, to the effect that my information must have been incorrect; others either did not reply at all or in a curiously irritated tone. I regret this in the interest of science, though one might almost infer from it, that the reports were correct. At Freiburg, several *confrères* told me of disagreeable

accidents that had happened after injections. It appears that, in most of these cases, the patients were young individuals."

Joh. Seitz ("Der Kropftod durch Stimmbandlähmung," Langenbeck's *Archiv*, vol. xxix, 1 and 2, 1883) says: "There is something peculiar about the injections of iodine. The results are still more brilliant (than the internal use of iodine). But when one hears of the cases of sudden death, which occasionally occur, one cannot help shuddering a little before the operation. Just those practitioners, of course, who have been particularly addicted to these operations, have met with accidents which were truly tragical. *One is generally content to merely hint at them, and they are usually only reported from mouth to mouth; it is better to publish them, that the danger may be neither overestimated nor despised.*" (The italics are my own.) Seitz then details, at length, Schwalbe's case, above referred to, and two other fatal cases, which had been directly communicated to him by the practitioners who had made the injections.

The above quotations will, I trust, suffice to show, that injection of iodine into goîtres is by no means so perfectly harmless a procedure as Mr. Tivy, from his uniformly good results, is inclined to believe. To the danger, mentioned by Mr. Horsley, namely, that of injecting the iodine into a vessel, causing sudden death, two others must be added; (*a*) suppuration and putrefaction of the goître; (*b*) lesion of the pneumogastric or of the recurrent laryngeal nerve, followed in some instances by spasm, in others by lasting paralysis of the vocal cords. All these risks are so great, and their occasional occurrence has been so positively ascertained by clinical observation and by *post mortem* examination, that Mr. Tivy's statements, pointing to the contrary, must not be allowed to pass unchallenged. Nor have these accidents apparently happened from selection of unsuitable cases, or from want of operative skill. I have purposely quoted the remarks of Schmidt and Seitz, at some length, that it may be seen that most experienced operators have met with these sad accidents; and I may add that, at at the time when Schwalbe made his ill-fated injection, he had, according to Seitz, treated more than 100 cases of goître by iodine-injections, and had made more than 1,000 injections. I have, so far, had the good luck never to meet with any mishap in a number of cases and injections, not less than Mr. Tivy's; but I am fully alive to the possibility of an accident happening in my practice, and I consider it my duty, in every case, before the treatment is begun, to inform the patient, his friends, or his medical adviser, of its risks. At the same time, it will be understood, I trust, that the foregoing remarks are by no means intended to discredit the treatment by injection. In suitable cases, I have found it most useful; but I think that its risks ought not to be underrated.—I am, sir, yours obediently,

Welbeck Street, W. FELIX SEMON, M.D.

THE MANUFACTURE OF WHITE-LEAD.

SIR,—In your issue of March 7th, there is a most interesting article on the important question of lead-factories in the East End of London. Having long been physician to the Metropolitan Free Hospital, which is located in Whitechapel, I am enabled to bear witness to the amount of suffering caused by that branch of industry among the poor of that quarter. At the present time, as far as I know, there are only half a dozen civilised occupations necessarily dangerous to life; and it is, as you say, the bounden duty of all of us to endeavour to make these few as innocuous as any other business.

The majority of my patients who were attacked with lead-colic and palsy have been very poor women, and almost all of them come from the factory to which your leading article refers. The patients have almost all been employed in taking down the stacks, and removing the white lead from the plates, during which process they inhale the dust of white lead, and soon become poisoned; and I am quite persuaded that, so long as white lead is manufactured as it is at present, no hygienic precautions on the part of the poor, thoughtless, uneducated women or men will avail them in warding off the disease, which is so often fatal.

Fortunately, there are but few lead-factories in this country, and hence legislation in this matter cannot be much retarded by the sinister influence of self-interest. It would be infinitely better if we were all obliged, for a time, to use zinc or bismuth colours, even of an inferior character, than that the unfortunate people who produce our paints should die as they now do, without our preventing it in any way. I am not aware whether any other process may at this moment be available for the manufacture of white lead, but earnestly hope that, ere long, this may be found. Meanwhile, a stop ought to be put to the present torture of unsuspecting victims.—Your obedient servant,

London. C. R. DRYSDALE.

AXIS-TRACTION FORCEPS IN THE LOW OPERATION.

SIR,—The paper which appears in the JOURNAL of December 20th, coming as it does from such a high authority as Dr. J. H. Croom, will, I feel sure, be read with great interest, particularly by those practitioners who, like myself, are in the habit of using axis-traction forceps, the tractors of which are removable. The forceps which I employ was made for me by Messrs. Mayer and Meltzer, and resembles in every respect Professor A. R. Simpson's modification of Tarnier's instrument, save in the attachment of the traction-rods, which is effected by means of short (three-eighths of an inch) blunt-hooked extremities, fitting into well countersunk holes placed immediately below the fenestra of each blade.

In practice, this instrument has proved itself to possess all the advantages attaching to an axis-traction forceps; and, in addition, I have found the removability of the rods to be extremely useful in the last stage of the operation of extraction, at the same time rendering the instrument most portable.

In cases of arrest at the brim, when, after axis-traction, the head has reached the position known as "resting on the perinæum," and is, in fact, in the genital fissure, I believe that extension or flexion, according as the occiput is anterior or posterior, can be effected with greater precision by completing the delivery in the old-fashioned way; namely, taking the handles in the palm of the hand (the rods being detached), and, with mathematical accuracy, causing the head to traverse the last arc of the circle of Carus, the action being more that of leverage than of traction. If, as sometimes happens, the head, after traversing naturally the brim and cavity, become arrested in the position above indicated, I apply the blades without the tractors.

The first difficulty urged by Dr. Croom against this procedure, namely, "rotation of the blades on the head," cannot occur if the blades be secured at the lock by a thumbscrew; and, with regard to the second difficulty, namely, "delivery in a circle," as I have before hinted, I have found it rendered easier rather than more difficult.

If, sir, this letter be the means of calling forth other expressions of opinion upon this, to me, important subject, my object will have been attained, as I cannot help believing that the time-honoured forceps has still important functions of its own to fulfil, apart from those exercised in conjunction with its coadjutor, the traction-rod. — I remain, sir, your obedient servant, J. G. BLACKMAN.

Poplar House, Portsmouth.

PRELIMINARY SCIENTIFIC EXAMINATION OF THE UNIVERSITY OF LONDON.

SIR,—I trust you will allow me space to reply to Professor Ray Lankester's characteristic letter; and, as one who has had personal experience, to tell him that six months is ample time to prepare for the Preliminary Scientific Examination.

I took a year myself, and always regretted the time as wasted; for during the first six months—my first experience of London—I did no work, for the examination seemed so far off; and, during the latter part of the time, I only did an ordinary amount, except on one subject, in which I took very fair honours; nevertheless, though of very ordinary ability, I was not plucked. Moreover, I have known plenty of other men who have successfully prepared for this examination in less than six months.

The strongest reason in favour of the alteration of the examination to twice a year, is, I think, that the M.B. London is the poor man's degree.

Those with money, or a practice to drop into, come to London, take life easily, get through their four or five years at a hospital, qualify, settle down, marry, and prosper, and are looked upon with a certain amount of envy by their impecunious fellows, who see nothing but an endless vista of assistancies before them. But, at present, we impecunious ones have one comfort; if we have average ability, and do a fair amount of honest work, we can take the London M.B., and this will go some way to console us. It will not bring us a practice, but it will give us a position and a chance of good appointments, which will give us valuable experience, and lead to a practice in the end. And it is because it is the poor man's degree that the terrible barrier of "referred for one year" should be removed from the earlier examination. We know that many a man is rejected through misadventure, but we hardly realise how many are prevented from ever trying again by the long interval they would have to wait.

Now, if Professor Lankester's "poor boy" be rejected at the end of six months, he will be able to go up again at the end of another six, and his position will be no worse then than if he had taken a whole year before his first essay.

One word more. I maintain that it is absolutely incorrect to say that

the London examinations are inordinately severe. I am a man of very average ability; I have worked steadily, but not drudged, and have taken my fill of social and athletic pleasures, yet I have never been rejected at any of the five London examinations at which I have been a candidate, and I know plenty of others in the same condition.

If idle men, or stupid men, or men who have been too late in commencing, want degrees, let them go elsewhere for them; there are plenty to be got; but let us have one degree that is a real passport, and that, by the professional standing it will give him, may, to some extent, compensate the poor man for his lack of filthy lucre. I inclose my card, and am, sir, faithfully yours, B.S. Lond.

MEMORIAL TO DR. FAIRLIE CLARKE.

Sir,—Some of the friends of the late Dr. Fairlie Clarke, desirous of evincing their esteem for him, and wishing to perpetuate his memory in some practical manner, have undertaken to erect a drinking fountain in Southborough, where he spent the last eight years of his life. They have come to this decision because among his papers were found plans for a drinking fountain, with the view to the erection of one in this town, and because they feel sure that it will, to all who knew him, commend itself as a suitable memorial. To the present date, donations amounting to £80 have been promised; and if any of your readers would like to subscribe to this fund, subscriptions will be gladly received by the Rev. H. J. Bigsby, Rev. T. A. E. Williamson, General Rowlatt (all of Southborough, Tunbridge Wells), or, yours faithfully, Hy. Vere Pearson, Treasurer.

Park Road, Southborough, Tunbridge Wells.

MEDICO-LEGAL AND MEDICO-ETHICAL.

UNQUALIFIED PRACTITIONERS AND QUALIFIED ASSISTANTS.

At Ystrad Petty Sessions, on March 30th, before the stipendary magistrate, Mr. Idris Davies, of Ystrad Rhondda, was summoned for that he did, on January 10th in this year, unlawfully, wilfully, and falsely "take and use the name or title of doctor of medicine, thereby implying that he was then registered under the Medical Act of 1858."

It appeared that the defendant, Mr. Idris Davies, was, and had been for many years, medical officer to certain collieries in the neighbourhood, and had been in the habit of giving certificates to friendly and other societies for purposes of relief, and on January 10th he gave the certificate upon which the information was laid; that certificate signed "Idris Davies, M.D., L.M.I." The stipendary asked what the L.M.I. meant. Mr. Abel Thomas: "Licentiate of Midwifery, Ireland." Evidence was then called in support of the opening statement; and, at its conclusion, Mr. Abel Thomas addressed the court for the defence, denying for Mr. Davies any intention to mislead the public. He had only used the initials M.D., which he had from America, and that was not untrue; it was not a wilful falsity. He quoted the case of Ellis *v.* Kelly as bearing upon this, and pointed to the interest of Mr. Makuna in damaging Mr. Davies's reputation. In conclusion, he asked the stipendary to say that no case had been made out by the other side. The stipendary magistrate remarked that he did not think there was any wilful intention to defraud the public, but he considered that there had been a breach of the law, which would, he thought, be met by inflicting a fine of two guineas and costs.

Mr. M. D. Makuna was then charged with putting upon his door a plate announcing himself as "Dr. Makuna," thereby implying that he was a doctor of medicine, when he was in reality only a Licentiate of the Royal College of Physicians. Evidence was given showing that this was a general practice, and the case was dismissed with costs.

Sir,—Under the above heading you have partially stated the case decided before Justice Pearson on March 18th, in your last issue. In duty bound to myself, I must state that your criticism is unjust, unfair, and contrary to facts.

My grounds of contention have been these.

1. The plaintiff misrepresented himself as possessing a registrable qualification of "M.D."

2. The agreement was never completed, and the signatures of the plaintiff and the witness were subsequently added without my knowledge.

3. The plaintiff altered the terms of the agreement, allowing me private practice.

4. The plaintiff expressed his desire that I should settle in this locality, and he would give me material help.

Apart from all legal questions, I hold, and I feel myself justified as an honourable man, that I have violated no agreement. I have the fullest sympathy and confidence of the public in this locality, who have always supported me.—I remain, yours obediently,

Montague D. Makuna, M.R.C.S. Eng., L.R.C.P. Lond.

Ystrad, Rhondda.

*** We have also received a private communication from Mr. Makuna, in which he states that our criticism is "unfair, unjust, and contrary to facts." As to Mr. Makuna's first ground of contention, our criticism is not affected by the alleged misrepresentation of Mr. Davies. Though Mr. Makuna states that there was an irregularity in the agreement with Mr. Davies as to the signature of the witness, it would appear that the document was held by the Court to be proved. With respect to the third ground of contention, the agreement was varied by parole, so long as Messrs. Makuna and Davies were acting together, the two sharing the proceeds of the private practice of the former gentleman. We were not aware that the plaintiff ever expressed a desire that the defendant should settle in the locality as an independent practitioner. We disclain all intention of making a criticism that can be called unfair or unjust; but, as to our comment being contrary to facts, Mr. Makuna has not shown that a single fact alleged by us is incorrect.

TOUTING FOR CLUB-APPOINTMENTS.

R. B. S.—"Touting for another's appointments, however disgraceful in any medical man, is," as our correspondent "R. B. S." justly observes, "more so in one who lays claim to belong to an ethical society." If such still be so in the case under notice, we doubt not that, if the matter were submitted to the Medico-Ethical Association in question, the Council thereof would take cognisance of it, and exert their restraining influence over their offending member, whose "touting" self-satisfied appeal to the respective clubs can scarcely be regarded as a happy effort of a professionally cultured mind, and, in our opinion, is calculated to prejudice rather than to favourably impress the members in the matter of his candidature for the appointments.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SERVICE.

Mr. T. M. Dawson has been gazetted Acting-Surgeon to the 1st Lancashire Artillery Volunteers.

Mr. A. H. Jackson has been appointed Acting-Surgeon to the 1st Norfolk Artillery Volunteers.

Surgeon J. Wilson has resigned his commission in the 1st Newcastle-on-Tyne and Durham Artillery Volunteers, which he joined on April 22nd, 1868.

M. P. Rough, M.A., M.B., has been appointed Acting-Surgeon to the 1st Clackmannan and Kinross Rifle Volunteers.

Surgeon and Hon. Surgeon-Major E. Morris, M.D., has resigned his commission in the 2nd Volunteer Battalion of the Lincolnshire Regiment (late the 2nd Lincoln Volunteers), with permission to retain his rank and uniform. His appointment as Surgeon bears date July 11th, 1877.

Surgeon G. F. Poynder has been directed to act as Chemical Examiner for the North-West Provinces and Oude, in addition to his other duties, during the absence on privilege-leave of Dr. M. Thomson.

In a telegram to the War Office from the General Officer commanding in Cairo, dated March 27th, we find it mentioned that Dr. J. Magill, of the Coldstream Guards, was among the officers who had arrived sick from up the Nile.

INDIAN MEDICAL SERVICE.

Surgeon E. S. Brander, Bengal Establishment, officiating Civil Surgeon at Rungpore, has been directed to act as Civil Surgeon of Backergunge, during the absence of Surgeon-Major C. J. W. Meadows on deputation.

Consequent on the permanent transfer of Surgeon S. J. Thomson to the Sanitary Department, Surgeon C. W. S. Deakin, M.B., Bengal Establishment, Junior Civil Surgeon of Allahabad, is appointed Civil Surgeon (grade-station, Moradabad), but to continue in his present post till further orders.

Surgeon-Major E. A. Fitzgerald, Bengal Establishment, who has reported his return from furlough, has been posted to the Mozufferpugger district.

Surgeon D. F. Dymott, M.B., Madras Establishment Assistant-

Physician at the General Hospital, is appointed Resident Surgeon at the General Hospital, and Professor of Pathology at the Medical College, *vice* Surgeon G. T. Thomas.

Surgeon H. St. C. CARRUTHERS, Madras Establishment, has been appointed a lay trustee of St. Peter's, Negapatam, in the place of Mr. H. W. Foster, who has left the station.

Surgeon J. C. MARSDEN, Madras Establishment, has been appointed to the medical charge of the 31st Native Infantry at Secunderabad, *vice* Surgeon W. G. King, M.B.

Surgeon F. C. SMITH, Madras Establishment, has passed with high proficiency in Tamil.

Surgeon R. E. S. DAVIS, Madras Establishment, is also reported to have passed the higher standard in Tamil.

Surgeon M. P. KHAREGAT, Madras Establishment, has passed the higher standard test in Hindustani.

The undermentioned gentlemen have been granted leave of absence for the periods specified:—Dr. J. ANDERSON, Professor of Comparative Anatomy at the Calcutta Medical College, for nine months; Surgeon-Major H. M. D. ARCHDALL, Madras Establishment, Civil Surgeon and Superintendent of the Goal at Bellary, for one year and one hundred and eighty days.

Surgeon-Major T. S. WEIR, Bombay Establishment, Health-Officer to the Municipality of Bombay, has been granted an extension of leave for six months.

GEORGE PEARSE, M.D., late Director-General of the Madras Medical Department, died at Cheltenham on the 28th ult., in the eighty-eighth year of his age. He attained the rank of Inspector-General on July 11th, 1859; and was appointed Honorary Physician to the Queen on September 6th, 1861.

Messrs. J. T. W. LESLIE, DAVID PRAIN, A. T. BROWN, U. N. MUKERJI, and W. L. PRICE, have been admitted to be Surgeons on the Bengal Establishment.

Surgeon-Major W. F. DE FABECK, M.D., Madras Establishment, has been promoted to be Brigade-Surgeon. Dr. De Fabeck entered the service January 29th, 1857, and served at the siege of Sebastopol (medal with clasp), and in the Indian mutiny in 1859.

Deputy Surgeon-General W. J. MOORE, C.I.E., Bombay Establishment, has been appointed Surgeon-General with the Government of Bombay, *vice* Surgeon-General T. B. Beatty, whose period of service expired on the 1st instant. Mr. Moore entered the service on November 20th, 1852, and attained the rank of Deputy Surgeon-General September 15th, 1877. He served in the war with Persia in 1856-57, and was at the landing at Hallilah Bay, and at the capture of Bushire (medal with clasp); he was nominated Companion of the Order of the Indian Empire on May 23rd, 1882.

THE NAVY.

THE following appointments have been made at the Admiralty during the past week. E. H. WILLIAMS, surgeon, to the *Cockatrice*; P. J. BARCROFT, surgeon, to the *Imogene*; H. M. SWEETMAN, surgeon and agent at Schull; FRANCIS RENNIE, M.B., surgeon and agent at North Shields; JAMES DUNLOP, M.D., staff-surgeon, to the *Ruby*; HERBERT CANTON, surgeon, to the *Ruby*; A. C. QUEELY, staff-surgeon, to the *Mercury*; E. R. T. FASKEN, surgeon (additional), to the *Shannon*; T. W. FRYER, to be surgeon and agent at Gerran's Bay; G. W. HILL, to be surgeon and agent at St. Mawes and St. Anthony.

INDIA AND THE COLONIES.

INDIA.

HOSPITAL FOR FEMALES.—A public meeting has been held in Madras to inaugurate a scheme for starting a hospital for native females, at which Mrs. Grant Duff presided. It was suggested that the hospital should take the name of the Victoria Hospital, and that the Queen should be asked to become patroness. Subscriptions to a large amount were announced. An opposition party attempted to bring in an amendment proposing the establishment of a medical training school for women in lieu of the hospital, but they were not allowed a hearing.

NARCOTIC POISONING.—A night-nurse named Hutchins, lately employed at the North-West London Hospital, who was under notice to leave for irregularities, was found on Saturday morning in a pulseless condition, with her spectacles on, and an open book on her chest, as if she had fallen asleep while reading. On the table were five bottles labelled poison, three of them having contained laudanum, and the other two chlorodyne. At the inquest held on the body, the jury returned an open verdict.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

CERTIFICATION OF LUNATICS IN WORKHOUSES.

SIR,—Dr. Rogers's letter, in the BRITISH MEDICAL JOURNAL of March 21st, was, to me (to use his own expression), a disagreeable surprise. Dr. Rogers states that this condition of things (I suppose he alludes to the practice which gave rise to the case of Hicks *v.* Bedford) has gone on unchallenged for the last forty years. I ask, where?

The relieving officer admitted he was new to his work. The master of the workhouse detained her—the plaintiff—without getting the necessary certificate, signed by the workhouse medical officer, immediately upon the patient's admission. And, what is the most striking thing to me in the whole affair, they did not take her before a justice, and I do not think there was any evidence of notice having been given to a justice.

From the accounts in the papers, it seems that all the officials ignored every detail of the law; if they had done it intentionally, they could not have succeeded better; and yet Dr. Rogers, after forty years' experience, talks of the judge's summing up as a surprise.—I remain, sir, yours faithfully, J. CORNELIUS GARMAN.

Brewood, near Stafford.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,146 persons, 6,189 births and 3,779 deaths were registered during the week ending March the 14th. The annual rate of mortality, which had been 21.4 and 20.6 per 1,000 in the two preceding weeks, rose again during the week to 21.1. The rates in the several towns, ranged in order from the lowest, were as follow:—Birkenhead, 13.5; Portsmouth, 15.5; Hull, 16.0; Brighton, 16.8; Derby, 18.0; Salford, 19.2; Birmingham, 19.4; Bradford, 19.5; Leeds, 19.9; Bolton, 19.9; Cardiff, 20.4; Sheffield, 20.7; Leicester, 20.7; Huddersfield, 20.9; London, 21.4; Plymouth, 22.0; Preston, 22.3; Blackburn, 22.7; Norwich, 22.9; Halifax, 22.9; Wolverhampton, 23.1; Bristol, 23.4; Nottingham, 25.2; Liverpool, 25.6; Newcastle-upon-Tyne, 27.6; Manchester, 28.6; Oldham, 33.9, and Sunderland, 48.3. In the twenty-seven provincial towns the death-rate averaged 22.7 per 1,000, and was 1.3 above the rate recorded in London. The 3,779 deaths registered during the week in the twenty-eight towns included 398 which were referred to the principal zymotic diseases, against 377 and 395 in the two preceding weeks; Of these, 129 resulted from measles, 119 from whooping-cough, 41 from diarrhœa, 31 from scarlet fever, 31 from "fever" (principally enteric), 27 from small-pox, and 20 from diphtheria. These 398 deaths were equal to an annual rate of 2.3 per 1,000. In London the zymotic rate did not exceed 2.1 per 1,000, while it averaged 2.6 in the twenty-seven provincial towns, among which these zymotic rates ranged from 0.0 and 0.6 in Brighton and Derby, to 4.3 in Bristol and in Cardiff, and 20.0 in Sunderland. The deaths referred to measles, which had risen in the five preceding weeks from 53 to 133, declined to 129, and showed the highest proportional fatality in Huddersfield, Cardiff, and Sunderland. In the last mentioned towns no fewer than 45 deaths resulted from this disease, corresponding to an annual rate of 18.7 per 1,000. The fatal cases of whooping-coughs, which had been 113 and 112 in the two previous weeks, rose to 119, and caused the highest death-rates in Preston and Bristol. The 31 deaths from scarlet fever showed a further decline from the numbers recorded in recent weeks, and caused the highest death-rates in Halifax and Wolverhampton. The 31 fatal cases of "fever" also showed a slight decline; this disease showed the greatest prevalence in Norwich. Of the 20 deaths from diphtheria in the twenty-eight towns, 8 occurred in London, 3 in Liverpool, 2 in Nottingham, and 2 in Oldham. Of the 27 fatal cases of small-pox in the twenty-eight towns, 22 occurred in London (exclusive, however, of 13 deaths of London residents from this disease, in the Metropolitan Asylum Hospitals situated outside Registration London), 3 in Manchester, 1 in Bradford, and 1 in Cardiff. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined from 1,223 to 988 in the three preceding weeks, further fell to 898 on Saturday, the 14th inst.; 104 new cases were admitted to these hospitals during the week, against numbers that declined from 255 to 94 in the four previous weeks. The death-rate from diseases of the respiratory organs in London was

equal to 5.8 per 1,000, and was slightly below the average. The causes of 96, or 2.5 per cent., of the 3,779 deaths registered during the week in these twenty-eight towns were not certified, either by registered medical practitioners or by coroners.—In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,823 births and 4,018 deaths were registered during the week ending March 21st. The annual rate of mortality, which had been 20.6 and 22.1 per 1,000 in the two preceding weeks, further rose to 23.5. The rates in the several towns, ranged in order from the lowest, were as follow: Derby, 14.0; Birkenhead, 17.4; Brighton, 18.2; Portsmouth, 19.0; Nottingham, 20.2; Hull, 20.4; London, 21.4; Leicester, 21.5; Salford, 21.7; Plymouth, 22.0; Bradford, 23.1; Preston, 23.4; Norwich, 23.5; Leeds, 23.6; Sheffield, 23.6; Birmingham, 24.0; Blackburn, 26.0; Bolton, 26.1; Bristol, 27.0; Halifax, 27.0; Oldham, 27.7; Wolverhampton, 27.7; Liverpool, 28.3; Huddersfield, 29.3; Newcastle-upon-Tyne, 29.6; Cardiff, 31.7; Manchester, 32.9; and Sunderland, 44.1. In the twenty-seven provincial towns, the death-rate for the week averaged 25.3 per 1,000, and was 3.9 above the rate recorded in London. The 4,018 deaths registered during the week in the twenty-eight towns included 164 which resulted from measles, 119 from whooping-cough, 41 from scarlet fever, 37 from "fever" (principally enteric), 32 from diphtheria, 26 from diarrhœa, and 24 from small-pox; in all, 443 deaths were referred to these principal zymotic diseases, against 377, 395, and 398 in the three preceding weeks. These 443 deaths were equal to an annual rate of 2.6 per 1,000. In London, the zymotic rate was 2.3, while it averaged 2.8 per 1,000 in the twenty-seven provincial towns; among which these zymotic rates ranged from 0.0 in Brighton and in Blackburn, to 5.3 in Bristol, 5.9 in Cardiff, and 23.3 in Sunderland. The deaths referred to measles, which in the two previous weeks had been 133 and 129, rose again to 164, and showed the highest proportional fatality in Newcastle-upon-Tyne, Bristol, Cardiff, and Sunderland. In the last-mentioned town no fewer than 49 deaths were referred to this disease, equal to an annual rate of 20.4 per 1,000. The 119 fatal cases of whooping-cough corresponded with the number in the preceding week, and caused the highest rates in Plymouth, Oldham, Norwich, and Bristol. The deaths referred to scarlet fever, which had steadily declined in the five preceding weeks from 53 to 31, rose again to 41; this disease was proportionally most fatal in Wolverhampton. The 37 fatal cases of "fever" exceeded by 6 the number in the previous week, and caused the highest rate in Norwich. Of the 32 deaths from diphtheria in the twenty-eight towns, 20 occurred in London, 3 in Leeds, 2 in Liverpool, and 2 in Salford. Of the 19 fatal cases of small-pox, 19 were recorded in London (exclusive, however, of 4 deaths of London residents from this disease in the Metropolitan Asylum Hospitals situated outside Registration London), 1 in Liverpool, 1 in Manchester, 1 in Bradford, 1 in Sunderland, and 1 in Newcastle-upon-Tyne. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined in the four preceding weeks from 1,223 to 898, had further fallen to 830 on March 21st; 132 new cases were admitted to these hospitals during the week, against 94 and 104 in the two previous weeks. The death-rate from diseases of the respiratory organs in London was equal to 6.2 per 1,000, and slightly exceeded the average. The causes of 101, or 2.5 per cent., of the 4,018 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.—During the week ending the 14th ultimo, 833 births and 595 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had been 24.6 and 22.8 per 1,000 in the two preceding weeks, rose again during the week to 24.4, and exceeded by 2.3 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 16.6 in Perth, 17.5 in Leith, 18.3 in Edinburgh, 21.4 in Dundee, 22.6 in Greenock, 23.7 in Paisley, 24.3 in Aberdeen, and 29.9 in Glasgow. The 595 deaths registered during the week included 88 which were referred to the principal zymotic diseases, against 82 and 71 in the two preceding weeks; of these, 22 resulted from measles, 22 from whooping-cough, 17 from diarrhœa, 13 from scarlet fever, 8 from diphtheria, 6 from "fever," and not one from small-pox. These 88 deaths were equal to an annual rate of 3.6 per 1,000, which exceeded by 1.3 the average zymotic death-rate in the large English towns. The zymotic death-rates in the Scotch towns ranged from 0.9 and 1.7 in Aberdeen and Perth, to 4.2 in Greenock, and 5.3 in Leith and in Glasgow. Of the 22 deaths from measles, which showed a further slight increase upon the numbers returned in the two preceding weeks, no fewer than 21 occurred in Glasgow. The 22 fatal cases of whooping-cough also showed a slight increase, and included 9 in Glasgow, 4 in Edinburgh, and 4 in Leith. The 13 deaths from scarlet fever slightly exceeded the number in the previous week; 10 occurred in Glasgow. The 8 fatal cases of diphtheria showed a further increase upon recent weekly numbers, and included 5 in Glasgow. Of the 6 deaths referred to "fever," 2 were returned in Glasgow, and 2 in Greenock. The mortality from diseases of the respiratory organs in these Scotch towns during the week was equal to 5.0 per 1,000, against 5.8 in London. As many as 93, or 15.6 per cent., of the 595 deaths registered in these Scotch towns during the week were uncertified.—During the week ending March 21st, 848 births and 590 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had been 22.8 and 24.4 per 1,000 in the two preceding weeks, declined to 24.2, but exceeded by 0.7 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns the rate was equal to 13.8 in Aberdeen, 17.7 in Dundee, 19.1 in Greenock, 19.9 in Perth, 22.0 in Leith, 22.4 in Edinburgh, 29.0 in Paisley, and 29.9 in Glasgow. The 590 deaths registered during the week included 85 which were referred to the principal zymotic diseases, against 71 and 88 in the two preceding weeks; of these, 35 resulted from whooping-cough, 28 from measles, 7 from scarlet fever, 6 from diarrhœa, 5 from diphtheria, 4 from "fever," and not one from small-pox. These 85 deaths were equal to an annual rate of 3.5 per 1,000, which exceeded by 1.1 the average zymotic death-rate in the large English towns. The zymotic rates in the Scotch towns ranged from 0.0 and 1.7 in Aberdeen and Dundee, to 4.2 in Greenock and 5.1 in Glasgow. The 35 deaths from whooping-cough showed a considerable further increase upon the numbers in the two preceding weeks, and included 17 in Glasgow, 5 in Edinburgh, 4 in Greenock, and 4 in Leith. The 28 fatal cases of measles also showed a further increase upon recent weekly numbers, and were all recorded in Glasgow. The 7 deaths from scarlet fever showed a marked decline; 3 were returned in Glasgow, and 2 in Edinburgh. Of the 5 fatal cases of diphtheria, 4 occurred in Edinburgh, where 2 of the 4 deaths referred to "fever" were also recorded. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 5.1 per 1,000, against 6.2 in London. As many as 94, or 15.9 per cent., of the 590 deaths registered in these Scotch towns during the week were uncertified.

HEALTH OF IRISH TOWNS.—During the week ending March 14th, the total number of deaths registered in the sixteen principal town-districts of Ireland was 505. The average annual death-rate, represented by the deaths registered, was 30.5 per 1,000 of the population. The deaths registered in each of the past four weeks in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Armagh, 15.5; Belfast, 31.9; Cork, 31.2; Drogheda, 25.4; Dublin, 37.2; Dundalk, 26.2; Galway, 10.1; Kilkenny, 25.4; Limerick, 13.5; Lisburn, 4.8; Londonderry, 16.0; Lurgan, 25.7; Newry, 3.5; Sligo, 4.8; Waterford, 39.4; Wexford, 12.8. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 3.7 per 1,000, the rates varying from 0.0 in ten of the districts to 20.8 in Waterford; the 17 deaths from all causes registered in the last named district comprising 9 from measles. Among the 134 deaths registered in Belfast were 6 from measles and 5 from whooping-cough; and the 48 deaths in Cork comprised 4 from whooping-cough. In the Dublin Registration District, the deaths registered during the week amounted to 267. Thirty-six deaths from zymotic diseases were registered in Dublin, being 6 over the number for the preceding week, and also 6 over the average for the tenth week of the last ten years; they comprised 11 from measles, 4 from whooping-cough, 5 from enteric fever, 3 from diarrhœa, etc. Sixty-six deaths from diseases of the respiratory system were registered, being 11 in excess of the average for the corresponding week of the last ten years, and 21 over the number for the week ended the 7th ultimo; they comprised 33 from bronchitis and 16 from pneumonia. The deaths of 26 children (including 20 infants under one year old) were ascribed to convulsions. Four deaths were caused by apoplexy, 3 by epilepsy, 9 by other diseases of the brain and nervous system (exclusive of convulsions), and 12 by diseases of the circulatory system. Phthisis or pulmonary consumption caused 32 deaths, mesenteric disease 5, cancer 5, and gout 2. Four accidental deaths were registered. In 2 instances, the cause of death was "uncertified;" and in 35 other cases there was "no medical attendant."—During th

week ending March 21st, the number of deaths registered in the sixteen principal town-districts of Ireland was 523. The average annual death-rate represented by the deaths registered was 31.6 per 1,000 of the population. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Armagh, 10.3; Belfast, 33.5; Cork, 31.2; Drogheda, 29.6; Dublin, 33.7; Dundalk, 39.3; Galway, 16.8; Kilkenny, 29.6; Limerick, 36.7; Lisburn, 24.2; Londonderry, 16.0; Lurgan, 30.8; Newry, 10.5; Sligo, 14.4; Waterford, 44.0; Wexford, 17.1. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 3.7 per 1,000, the rates varying from 0.0 in Londonderry, Galway, Newry, Drogheda, Sligo, and Armagh, to 16.2 in Waterford; the 19 deaths from all causes registered in the last named district comprising 7 more from measles. Among the 141 deaths registered in Belfast were 4 from measles, 2 from scarlatina, 2 from typhus, 3 from whooping-cough, and 3 from diarrhœa. Three of the 48 deaths registered in Cork were caused by whooping-cough; and the 6 deaths in Lurgan comprised 2 from the same disease. In the Dublin Registration District, the deaths registered during the week amounted to 234. Thirty-four deaths from zymotic diseases were registered in Dublin, being 6 in excess of the average for the eleventh week of the last ten years; they comprised 16 from measles, 2 from scarlet fever, 6 from whooping-cough, 2 from enteric fever, 3 from diarrhœa, etc. Sixty-three deaths from diseases of the respiratory system were registered in Dublin, being 13 over the average for the corresponding week of the last ten years; they comprised 40 from bronchitis, 13 from pneumonia, and 3 from croup. The deaths of 14 children under 5 years of age (including 5 infants under 1 year old), were ascribed to convulsions. Four deaths were caused by apoplexy, 14 by other diseases of the brain and nervous system (exclusive of convulsions), and 10 by diseases of the circulatory system. Phthisis or pulmonary consumption caused 37 deaths, mesenteric disease 4, and cancer 4. Six accidental deaths were registered. In one instance, the cause of death was "uncertified," and in 23 other cases there was "no medical attendant."

Health of Foreign Cities.—It appears, from statistics published in the Registrar-General's return for the week ending March 14th, that the annual death-rate recently averaged 36.3 per 1,000 in the three principal Indian cities; it was equal to 26.1 in Bombay, 36.0 in Calcutta, and 53.6 in Madras. Cholera caused 9 deaths in Bombay, 13 in Calcutta, and 36 in Madras; small-pox caused 6 deaths in Calcutta, and "fever" mortality showed the usual excess in each of these Indian cities. According to the weekly returns, the annual death-rate in twenty-two of the largest European cities averaged 28.9 per 1,000, and was no less than 7.5 above the mean rate in the twenty-eight large English towns. The death-rate in St. Petersburg was equal to 34.1, showing a decline from the still higher rate in the previous week; the 606 deaths included 16 from "fever," 9 from diphtheria, and 3 from small-pox. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 27.3; it ranged from 24.8 in Christiania to 34.2 in Stockholm. In Stockholm 10 deaths resulted from measles and 7 from scarlet fever; while 9 of the 60 deaths in Christiania resulted from diphtheria and croup. The death-rate in Paris was equal to 25.6, showing a slight decline from the rates in recent weeks; 46 deaths were referred to diphtheria and croup, 25 to typhoid fever, and 22 to measles. In Brussels, the rate was 26.9, and the deaths included 7 from measles, and 1 from small-pox. The 32 deaths in Geneva included 1 from small-pox, and gave a rate of 23.4. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 27.7, the rate ranging from 23.6 in the Hague, to 31.0 in Rotterdam; measles and whooping-cough both showed fatal prevalence in Amsterdam; and 5 of the 101 deaths in Rotterdam resulted from scarlet fever. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 28.3 per 1,000, and ranged from 23.8 in Berlin and in Hamburg, to 34.1 in Munich and 34.7 in Buda-Pesth. Small-pox caused 19 deaths in Vienna, and 9 in Trieste; diphtheria showed the greatest mortality in Berlin, Dresden, and Trieste, and typhoid fever caused 7 deaths in Vienna. In three of the largest Italian cities, the death-rate averaged 34.4, and was equal to 33.4 in Turin, 34.6 in Venice, and 35.4 in Rome. Small-pox caused 20 deaths in Turin, 9 in Rome, and 6 in Venice; in Turin 7 deaths from typhoid fever were also returned. No return appears to have been received either from Madrid or Lisbon. The 160 deaths in Alexandria gave a death-rate of 36.0, and included 6 from whooping-cough and 2 from small-pox. In the four principal American cities, the recorded death-rate averaged 25.0, and ranged from 19.0 in Baltimore to 27.8 in New York. Diphtheria showed fatal prevalence in New York and Brooklyn; and 23 deaths from typhoid fever were returned in Philadelphia.—It appears, from statistics published in the Registrar-General's return for the week ending March 21st, that the annual death-rate recently averaged 36.8 per 1,000 in the three principal Indian cities; it was equal to 28.7 in Bombay, 32.7 in Calcutta, and 53.4 in Madras. Cholera caused 17 deaths in Calcutta, 16 in Madras, and 6 in Bombay; "fever" mortality showed a far greater excess in Madras and Calcutta than in Bombay. According to the most recently received weekly returns, the annual rate per 1,000 persons estimated to be living in twenty-one of the largest European cities averaged 28.3, and exceeded by no less than 4.8 the mean rate during the week in twenty-eight of the largest English towns. The death-rate in St. Petersburg was 34.1, corresponding with the rate in the previous week; the 606 deaths included 20 from "fever," 6 from diphtheria, and 2 from scarlet fever. In three other northern cities—Copenhagen, Christiania, and Stockholm—the death-rate averaged 24.9, and ranged from 18.0 in Christiania to 30.9 in Stockholm; the 113 deaths in the latter city included 14 from measles, and 7 from diphtheria and croup. In Paris, the rate was 25.4, and showed a further slight decline from the high rates in recent weeks; 41 deaths resulted from measles, 35 from diphtheria and croup, and 28 from typhoid fever. The 209 deaths in Brussels included 11 from diphtheria and croup, and 7 from measles, and were equal to a rate of 27.2. In Geneva, the 30 deaths corresponded to a rate of 21.9. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 30.5, the highest rate being 39 in Amsterdam, where 10 deaths resulted from whooping-cough, and 7 from diphtheria. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 28.8, and ranged from 22.6 and 25.4 in Hamburg and Berlin to 33.4 in Vienna and 37.6 in Prague. Small-pox caused 16 deaths in Vienna, 11 in Trieste, and 3 in Prague; 41 deaths from diphtheria occurred in Berlin. The death-rate was equal to 29.9 in Rome, and 33.1 in Venice. Small-pox caused 8 deaths in Rome, and 1 in Venice. No returns appear to have been received either from Madrid or Lisbon. The 181 deaths in Alexandria were equal to a rate of 44.5, and included 7 from diphtheria and croup, and 2 from small-pox. In four of the largest American cities, the recorded rate averaged 26.2, and ranged from 20.6 in Baltimore to 29.3 in New York. Typhoid fever caused 8 deaths in Philadelphia, and 4 in Baltimore; and diphtheria showed more or less fatal prevalence in each of these American cities.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, March 26th.

The Insane Poor.—Mr. W. Corbet asked the President of the Local Government Board whether his attention had been directed to the return of "poor-rates and pauperism" just issued, and whether the figures therein represented the total number of insane persons maintained at the public expense.—Sir C. Dilke: The return referred to does not give the total number of insane persons maintained at the public expense. The numbers given in that return are of the pauper lunatics maintained by the guardians at the cost of the poor-rates, and do not include the insane who are maintained by the counties and boroughs at the cost of the county and borough rates. It would be impossible to give accurately the cost of the insane inmates of workhouses, as distinguished from other indoor paupers, without keeping separate accounts with regard to them. An estimate of the cost, based on the cost of the workhouse-inmates, might be obtained from the unions; but it would involve, in some cases, considerable trouble, as it could only be made on a calculation of the number of days that each lunatic was an inmate of the workhouse. The return which was prepared by the Commissioners in Lunacy, and presented to the House in June 1883, contains, so far as the Board are aware, the fullest information available on this subject. The Commissioners are not subject to the directions of the Board, and the difficulty as regards obtaining such a return has already been alluded to.

Monday, March 30th.

Canned Meat for the Soudan Expedition.—Mr. Ritchie asked whether the attention of the War Office had been drawn to complaints of the condition of the American canned meat and biscuits supplied to the army in Egypt; whether it was true that hundreds of tons of the canned meat had been found to be putrid when opened, and hundredweights of biscuits in a state of decomposition.—Mr. Brand: No report has been received showing any such extensive loss of preserved

meats as that referred to. The loss of preserved meats is estimated at 1 per cent.

Lunatic Asylums in Ireland.—In reply to Mr. A. O'Connor, Mr. Campbell-Bannerman said :—There has not been time to ascertain the exact present condition of affairs in each lunatic asylum in Ireland, but I believe there is no doubt that in some asylums the number of patients is in excess of the nominal accommodation, although, taking the country as a whole, there is more accommodation than is actually required. Several asylums have already been extended, and extensions are being, or are about to be, effected in others; but it is to be observed that a serious question of local taxation, and consequent local opposition, arises in nearly every case, which needs most careful consideration.

Tuesday, March 31st.

Vaccination.—Mr. Hopwood asked the President of the Local Government Board whether the statement in the pamphlet entitled *Facts concerning Vaccination*, sanctioned by his Department, that "none of the nurses at any of the London small-pox hospitals, who have been duly revaccinated before entering on their duties ever caught small-pox," was accurate.—Mr. G. W. Russell: The Board are aware of the statement alluded to, and whilst they have no reason to doubt that it is substantially accurate, they admit that it might have been more guardedly expressed. As regards the Stockwell Hospital, it appears from the report of the medical superintendent in 1882, that four cases of small-pox had occurred amongst the staff since 1876, three of which were very mild and one severe, but in that case the infection was believed to have been contracted before the officer came on duty. At Fulham Hospital, we are aware that four nurses had slight attacks, which occurred a few days after they entered the hospital, and in each case the disease ran concurrently with revaccination. At the Deptford Hospital, there was one case; the disease was incubating at the time of revaccination. As regards the Halifax Hospital, the hon. member was informed by the late President of the Board, in May, 1881, that a small-pox patient was sent to the fever hospital, and that the matron and staff were strongly urged to be vaccinated, but they refused. The matron, three weeks afterwards, showed symptoms of the disease, and on the day following, four of the nurses were vaccinated, but in one case small-pox showed itself in two days, and in another in four days. They were, therefore, under the influence of the disease when the vaccination took place. We have no information at present as to the Sheffield Hospital, but we are making inquiry with regard to it. With respect to the Lewes Hospital, it is to be inferred from the report of the medical officer of health that the revaccination was not performed until the nurse had contracted small-pox. We have no information as to Dr. Bakewell, of the Trinidad Hospital. We believe it is not the general custom in the hospitals of the Metropolitan Asylums Board to employ nurses who have had small-pox. From the report of the medical superintendent of the Fulham hospital, in March, 1882, it appeared that at Fulham 42 out of a staff of 295 had had small-pox; at Stockwell, 16 out of 340; and at Deptford, 20 out 265. The Board are quite willing to bring under the attention of the National Health Society the particular cases to which attention has been drawn.

OBITUARY.

FRIEDRICH THEODOR VON FRERICHS, M.D.,

PROFESSOR OF MEDICINE IN THE UNIVERSITY OF BERLIN.

It was not quite a year ago, in April last, that Professor Friedrich Theodor von Frerichs celebrated the twenty-fifth anniversary of his directorate of the first Berlin Clinic. In 1859, he became Professor in the University of Berlin, to which appointment the directorate was attached. It was only last year, too, that his last work—the fruit of many years' study and unusually rich experience—was published. In the preface, he wrote: "If I step before the public again, after long silence, with a work of large dimensions, it is because the approaching autumn of my life warns me to utilise for science the products of labour collected during nearly forty years of activity, before my arranging hand is summoned away for ever." These words sound now like a melancholy prophecy, for, as we lately announced, von Frerichs was summoned to his last rest early in the morning of March 14th, after a short illness. Last autumn, he returned to his lectures in his usual health; but, in February, he became ill, and was obliged to discontinue lecturing for a while. Shortly after resuming his lectures, he had a relapse, from the effects of which he died after a few days.

The Verein für innere Medicin at Berlin held its usual meeting on March 16th, at which the President, Professor Leyden, announced the death of Frerichs, and gave a miniature picture of the life of Frerichs from the time he concluded his medical studies to the time when he had made a name for himself in the medical world.

The son of a peasant, he was born at Aurich, in Friesland, on the 24th March, 1819; he went to study at Göttingen in 1839, and took his degree in 1841, after which he practised at Aurich for a short time, and then returned to Göttingen. Here he began his scientific work under the gifted chemist, Wöhler.

Frerichs's public life really begins with the year 1849, when he was appointed to a professorship at Kiel. In 1851, he was appointed Professor of Pathology and Therapeutics at the University of Breslau, where he developed the whole fulness of his talent and energy. Brilliantly successful as a teacher, much sought after as a practitioner, he became here the most eminent clinicist. In his clinic at Breslau (says the *Deutsche Medicinische Wochenschrift*), he made his diagnosis after a careful examination of the patient, with the assistance of chemical and physical methods, over all of which he possessed a perfect mastery. Frerichs was always noted for his thoroughly clear, penetrating style; so that his lectures from the very first were always well attended. Summing up his lectures at Breslau at the end of the summer term of 1853, he said to his pupils: "The mode how to arrive at a judgment of severe cases of illness from the elements resulting from the examination of the patient, and to trace their anatomical and physiological basis, and how to eliminate single possibilities of error step by step, you have learnt in many ways. You will have soon the conviction that the most essential point of diagnostics does not lie, as many seem to think now, in the technical dexterity of physical exploration or of chemical investigation, but that the chief point is to be looked for in the thorough anatomical and physiological education of the physician, which education is alone qualified to give him the principles according to which the results obtained by the examination of the patient can be combined, and recognised, and weighed in their mutual connections."

In illustration of this passage, we may refer to the following extract from the *Berliner Klinische Wochenschrift*, No. 16 for 1884. "Frerichs belongs to those eminent minds who first cast aside the bonds of speculation and the phrases of the natural history school, and took up their position solely on the safe ground of facts. It was not brilliant phantasm, not the frivolous building up of untenable whims, but severe matter-of-fact observation, the spirit of inquiry which presupposes nothing, the tedious road of experiment, that Frerichs followed; to these he owes his success. He has repeatedly pointed out to us, in the clinic, that physiology—the knowledge of the processes of life of the healthy body—must be the constant and steadfast basis of pathology; and that it must be the inalienable point from which the diseased states of the body are to be observed and understood. In this sense, supported by an excellent knowledge of the assistant sciences, he has thought and worked from the time he came into public life till to-day. It is not specialism, but general education, that understands how to subject details to the whole, and to keep the eye open for what is important, by which the physician becomes a true searcher into the laws of nature, and does the best work."

It was Frerichs's celebrated article on Digestion, in Wagner's *Handwörterbuch der Physiologie*, published at the end of his Göttingen period, that announced him as one of the chief physiologists in Germany. In this, he discusses Liebig's theory at considerable length. Soon afterwards, his treatise on Bright's disease and its treatment raised him to the rank of the chief German clinicists. This work has been recently characterised by Professors Leyden and Senator, as "classical." This and the clinical treatise on Diseases of the Liver (*Clinik der Leberkrankheiten*), books that have been translated into almost all civilised languages (Dr. C. Murchison's English translation of the latter was published by the New Sydenham Society in 1861), will be universally held as standard works of the highest importance in clinical science. The greater part of this latter work was composed at Breslau, the remainder at Berlin, where Frerichs succeeded Schönlein in 1859. From this period till the time of his death, Professor Frerichs held the position of Director of the first German clinic, with renown.

On the celebration of the twenty-fifth anniversary of his Professorship at Berlin, he published the new work on Diabetes, referred to above. In addition to his other honours, the German Emperor conferred on him, on this occasion, the rank of baron. The motto that he then chose is characteristic of the man: it is old Frisian: "Rumy hart, klar kimming" (great heart, far-seeing glance).

To this brief sketch of this great man's life, may be added the concluding words of Professor Leyden's allusion to him on March 16th.

"Grateful and affectionate pupils will, I hope, give later a complete picture of his important life. Let us, for he was really one of us, cherish a grateful memory of him in our hearts; let him ever be alive in our minds; let us behold him before us in his tall, slender, strong figure, his noble, well-measured manners; let us hear his solemnly chosen language, and, at times, his fine attic humour. He was a man of grand gifts, of superior mental force, of strong will, of great and noble mode of thinking. His character was certainly not quite faultless. Behind the well-measured, quiet manners, that he usually exhibited, a heart of fiery passions beat. In his reckless energy he hurt many an one, but he was always free from pettiness. 'De mortuis nil nisi bonum.' Let his faults be buried in the grave with him; let all that he did that was good and great continue to live in our memories."

MEDICAL NEWS.

APOTHECARIES' HALL. — The following gentleman passed the Examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, March 19th, 1885.

Mumford, Alfred Alexander, Manchester School of Medicine.

The following gentlemen passed on March 26th.

Caskey, Jno. Shaw, London Hospital.
Rhys, Watkin Llewellyn, Guy's Hospital.
Sutherland, Jno. Russell, Glasgow University.
Walker, Thomas Greaves, London Hospital.

MEDICAL VACANCIES.

The following vacancies are announced.

BETHLEM HOSPITAL.—Two Resident Medical Students. Applications to A. M. Jeaffreson, Esq., Bridewell Hospital, Blackfriars, E.C.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £170 per annum. Applications by April 21st.

BOYLE UNION.—Medical Officer, Workhouse. Salary, £100 per annum, with £15 yearly as Consulting Sanitary Officer. Election on April 4th.

BOYLE UNION.—Medical Officer, Boyle No. 1 Dispensary. Salary, £135 per annum and fees. Applications to H. Lawrence, Honorary Secretary, not later than April 4th.

BRIGHTON AND HOVE LYING-IN INSTITUTION.—House-Surgeon. Salary £120 per annum. Applications by April 17th.

CAMBRIDGE FRIENDLY SOCIETIES' MEDICAL ASSOCIATION. — Medical Officer. Salary, £210 per annum. Applications to W. P. Littlechild, Vine Cottage, Queen's Lane, Cambridge, by April 25th.

CRANBROOK UNION.—Medical Officer and Public Vaccinator for the District of Hawkhurst. Salary, £55 per annum. Applications by April 7th.

CELBRIDGE UNION.—Medical Officer, Workhouse. Salary, £100 per annum, and £15 yearly as Consulting Sanitary Officer. Applications to S. Manning, Clerk of Union. Election on April 29th.

GENERAL INFIRMARY, Leeds.—One House-Physician and Two House-Surgeons. Applications to A. W. Mayo Robson, Hillary Place, Leeds, by April 28th.

HARTLEPOOLS FRIENDLY SOCIETIES' MEDICAL ASSOCIATION. — Assistant Medical Officer. Salary, £130 per annum. Applications to T. Tweddell, Commercial Terrace, West Hartlepool.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistants. Applications by April 18th.

HUDDERSFIELD INFIRMARY.— Junior House-Surgeon. Salary, £40 per annum. Applications to Mr. F. Eastwood, Honorary Secretary, by April 15th.

MANCHESTER ROYAL EYE-HOSPITAL.—House-Surgeon. Salary, £70 per annum. Applications to the Chairman of the Board of Management by April 14th.

MULLINGAR DISTRICT LUNATIC ASYLUM.—Assistant to Resident Medical Superintendent. Salary, £112 10s., with allowances valued at £70 8s. 11d. Election on April 16th.

PAROCHIAL BOARD OF PENNYGOWN AND TOROSAY.—Medical Officer. Salary, £100 per annum. Applications to Alex. Macdougall, Inspector of Poor, Auchnacraig by Oban.

RATHDRUM UNION.—Medical Officer, Arklow Dispensary. Salary, £135 per annum and fees. Applications to J. Hannagan, Honorary Secretary, Ballyduff. Election on April 4th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Junior Resident Medical Officer. Applications by April 8th.

STRABANE UNION.—Medical Officer, Newtownstewart Dispensary. Salary, £140 per annum and fees. Applications to Rev. Leslie Lyle, Honorary Secretary. Election on April 6th.

UNIVERSITY COLLEGE HOSPITAL, London.—Third Assistant-Surgeon. Applications by April 14th.

WEST LONDON HOSPITAL, Hammersmith Road, W.— House-Physician and House-Surgeon. Applications by April 23rd.

THE Islington guardians have increased the salary of Mr. Philip Cowen, medical officer of the Shadwell Road Workhouse, from £50 to £80 *per annum*.

MEDICAL APPOINTMENTS.

CLENDINNEN, J. George, L.R.C.S.I., L.A.H.I., appointed Medical Officer to the No. 3 Sedgley District, Dudley Union, *vice* S. G. Gilbert, M.R.C.S., L.S.A., deceased.

COOPER, Arthur, M.R.C.S., appointed Surgeon to the Westminster General Dispensary, *vice* A. B. Barron, M.B., resigned.

DAVIES, Sidney, M.A., M.B., M.R.C.S.Eng., appointed Chief Medical Officer to the Egyptian Police and Gendarmerie.

GARNHAM, G. J. Waters, L.R.C.P., L.R.C.S.Ed., appointed Medical Officer to the Chippenham District of the Chippenham Union, *vice* Francis Spencer, F.R.C.S., L.S.A., resigned.

HARRIS, Thomas, M.D.Lond., appointed Assistant-Lecturer and Demonstrator in Pathology at the Owens College, Manchester, *vice* Robert Maguire, M.D.Lond., M.R.C.P., resigned.

HEATH, James, M.B.Edin., appointed Senior House-Surgeon to the Torbay Hospital, Torquay, *vice* F. T. Thistle, L.R.C.P., M.R.C.S., resigned.

JOHNSON, Herbert, L.R.C.P., L.R.C.S., appointed Medical Officer of Health for the Borough of Whitby (Whitby Urban Sanitary District), and Medical Officer of Health for the Whitby Rural Sanitary District.

LUCAS, S. Adams, L.R.C.P.Ed., L.R.C.S.Ed., appointed Medical Officer to No. 2 District, Liverpool.

MORTON, Shadforth, M.D., M.R.C.S.Eng., appointed Surgeon to the Croydon General Hospital.

MURRAY, C. Stormont, L.R.C.S. and L.M.Ed., L.S.A.Lond., appointed Administrator of Anæsthetics to the Samaritan Free Hospital for Women and Children, London.

MURRAY, H. Montague, M.D., M.R.C.P., elected Honorary Physician to the Foundling Hospital, *vice* A. Tweedie, M.D., deceased.

RUGG, George Lewis, L.R.C.P.Lond., M.R.C.S.Eng., appointed Assistant Medical Officer of the Lambeth Infirmary.

SHADWELL, St. Clair B., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health for the district of Walthamstow, *vice* F. A. Best, M.R.C.S., resigned.

WALLER, Charles B., M.R.C.S., L.S.A.Lond., appointed House-Surgeon to the Rotherham Hospital and Dispensary, *vice* C. R. O. Garrard, M.R.C.S., resigned.

WILLIAMS, E. R., M.R.C.S., L.R.C.P.Lond., appointed Senior House-Surgeon to the General Infirmary, Macclesfield.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTH.

STAMPER.—On March 26th, at Pembroke Dock, the wife of J. Fenton Stamper, M.D., of a son.

INCREASE OF SALARIES.—The Ashbourne guardians, upon reappointing the medical officers for the year ending March 25th, 1886, increased the salaries of Mr. P. R. Littleton, Ashbourne district, and Mr. A. E. Broster, Brassington district, £15 and £10 respectively.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Pathological Society, 8.30 P.M. Dr. Dickinson: Violet Pigment discharged from the Mouth. Dr. Carrington: Atrophy of the Liver. Dr. Charlewood Turner: 1. Rupture of the Aorta; 2. Ulceration of Aortic Valves and Aorta (card); 3. Aneurysm of Splenic Artery (card). Dr. Parry Price: Deposit of Bone in Testis and Epididymis. Dr. Colcott Fox: Thrombosis of the Vena Cava, etc. Dr. Norman Moore: 1. Cavity in Lung of an Infant; 2. Renal Disease in an Ox (card). Dr. Silcock: Congenital Sarcoma of Testis. Mr. R. W. Parker: Congenital Sarcoma of Testis. Dr. Chaffey: 1. Early Sarcoma of Testis (card); 2. Congenital Malformation of the Pulmonary Veins (card); 3. Congenital Malformation of the Heart (card). Dr. Ernest Clarke: Congenital Malformation of Heart (card).—Society for the Study and Cure of Inebriety, 4 P.M. President's Address. Dr. T. D. Crother: On the Incipient Stages of Inebriety.

WEDNESDAY.—Royal Microscopical Society, 8 P.M. Dr. C. T. Hudson: New Floscules. Dr. J. D. Cox: Structure of the Diatom-Shell; Siliceous Films too Thin to show a Broken Edge. Mr. H. Mills: Filamentous Projections of Diatoms. Exhibition of Nobert's Diamonds.—British Gynæcological Society, 8.30 P.M. Specimens will be shown by Dr. Fancourt Barnes, Mr. Lawson Tait, Mr. Reeves, and others. Dr. Aveling: On a Case of Double Pyo-salpinx. Mr. Lawson Tait: A Case of Pyo-salpinx. Dr. Bantock: A Case of Hydro-salpinx. Dr. Lamprey: A Case of Double Monstrosity.

FRIDAY.—Clinical Society. Dr. Lewis Marshall (Nottingham): Cases of Amputation at the Hip-Joint by Furneaux Jordan's Method. Mr. Jonathan Hutchinson: On Amputation at the Hip in Certain Desperate Cases. Dr. Colcott Fox: On Pityriasis Circiné (Hovaud) and Pityriasis Circiné Marginé (Vidal). Dr. Sidney Phillips: A Case of Sporadic Cretinism (living specimen). Mr. Strugnell: A Case of Complete Paralysis of the Left Fifth Nerve.—West London Medico-Chirurgical Society. Mr. Percy Dunn will show Calvarium from Hernia Cerebri after Trephining in a Child; Splenic Infarct from Pyæmia; Secondary Scirrhus of Posterior Wall of Left Auricle. Mr. C. B. Keetley: Two Cases of Osteotomy of the Hip; Radical Cure of Umbilical Hernia. Papers.—Mr. S. Benton: A Successful Case of Colotomy. Mr. C. W. Chapman: Case of Suppurating Cyst of the Liver (probably Hydatid); Recovery. Mr. E. Noble Smith: Illustrations of some Orthopædic Cases. Mr. T. Pickering Pick: Subcutaneous Division of Sphincter Ani.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M. —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W.; 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

FEVER-HOSPITALS.

SIR,—As we are about preparing plans for the erection of a new infectious hospital for the borough of Derby, will you be good enough to tell me what hospitals of a similar nature you would advise us to visit, in order to see the latest improvements and most complete arrangements.—Yours sincerely,

W. ILIFFE, Medical Officer of Health.

*** 1. The most complete in the United Kingdom is at Glasgow, on the banks of the Clyde. It is on an extended scale, and for a population of 512,000, in a place full of slums, with a large number of fever-cases. Dr. Russell, Health Officer of Glasgow, would probably give all information.

2. There is a small hospital at Bath, which is good of its kind. This approaches more nearly to Derby in population and circumstances. Apply to the Town Council.

3. The best and most complete type of a fever-ward is that recently added to the fever-hospital at Islington. It is, as it were, an *edition de luxe*, and not a model for imitation on a large scale; but it is almost, if not quite, perfect in its way.

4. The best on the continent of Europe is the Moabit, at Berlin, for a population of more than a million. It is the best in the principle of its arrangement of pavilions, economy, and treatment of every variety of infectious fever in the same enclosure, that we know. It is on too great a scale for so small a place as Derby; but, where a large building is required, as at Liverpool, it would be well to look at it before making final arrangements. It was originally designed by Virchow for a cholera-hospital. Consult Dr. Mouat and Mr. Saxon Snell's work on *Hospitals* for plans and elevations.

UNAUTHORISED ADVERTISEMENTS.

SEVEN YEARS' MEMBER B. M. A.—Articles of the kind enclosed by our correspondent have appeared in a number of papers. We have already brought the matter under the notice of the Secretary of the Royal College of Surgeons, who appears to think that there is no proof that this consumption-curer is responsible for these articles. Perhaps our correspondent may be successful in convincing him.

CITRATE OF CAFFEINE.

H. T. W. S. S. T. K. S.—The so-called citrate of caffeine is soluble in about eighty parts of water. It is not a true salt, merely a mixture of caffeine and citric acid. If mixed with an equal weight of salicylate of soda, it is very freely soluble in water; so is caffeine. According to the *Extra Pharmacopœia*, twenty grains of caffeine can be dissolved in sufficient water to make one drachm of fluid, by adding 17½ grains of salicylate of soda.

CHRYSOPHANIC ACID.

SIR,—In answer to "M.D." in the JOURNAL of March 28th, 1885, I have used chrysophanic acid in an ointment, half a drachm to an ounce, for some years, with complete success. The strength of tincture of cuonymin is 1 in 16; the dose, 10 to 60 minims.—Yours, etc., H. GREY EDWARDS, M.D.

ERRATA.

IN the article on Malignant Endocarditis at pages 607 and 608 of the JOURNAL of March 21st, the sentence on page 608, column 1, lines 12 to 16, should read as follows: "Given, then, the extreme condition that is met with in the endocardium and valves in many cases of long standing valvular disease, and the very limited nutrition of the parts concerned, necrobiotic changes are quite to be expected; and necrotic tissue discharged into the systemic circulation is no unlikely cause of arterial pyæmia." In the same page, column 1, line 13 from bottom, *for* "necrolytic," *read* "necrobiotic;" column 2, line 5, *after* "probably," *insert* "be;" line 8, *for* "rare," *read* "such;" line 9, *for* "causes. Malignant," *read* "causes, malignant."

EXAMINATION OF DRINKING-WATERS.

SIR,—Replying to "Sauerkraut," when I was medical officer of health for a large rural district, I experienced the same difficulty in determining the nitrates in water, and, therefore, devised a method which is very simple, and which I found pretty correct in practice. A full description of the process, and experiments showing its degree of accuracy, is given in the *Sanitary Record* for January 3rd, 1879.

Briefly stated, the process consists in evaporating one or two cubic centimètres of the water to dryness in a capsule, adding half a cubic centimètre of a solution of brucia and ferrous sulphate, then dropping in ten drops of sulphuric acid, and comparing the red tint formed with a similar one formed by a standard solution of potassic nitrate. The process adopted by the Water Committee appointed by the Society of Public Analysts to examine the waters of Great Britain is a very good and easy one, but requires a certain amount of experience to prevent mistakes.—I am, yours, etc.,

Newcastle. T. HATFIELD WALKER, F.C.S., Analyst for City of Carlisle.

A CASE OF HEPATIC CONGESTION AND INTESTINAL DISORDER.

SIR,—While thanking Dr. Cullimore for his letter in the JOURNAL of March 7th, there are some points of my case which he seems to have failed to notice. I may here remark that my diagnosis was the same as Dr. Cullimore's, but what I consider the point of interest in the case, and it was this that puzzled me very much, how to account for the vomiting which recurred regularly at the end of every ten days. If Dr. Cullimore would explain the regularity in time of the occurrence of the emesis, I would feel much obliged.

I have been adopting partially the treatment which Dr. Cullimore advises, namely, twenty-grain doses of the chloride of ammonium three times in the day; a Turkish-bath at the end of every eight days; tea and coffee prohibited, and milk and prepared cocoa allowed; abstinence from heavy food, only food of a light kind being allowed, namely, chicken, mutton, fish, arrowroot, sop, and no vegetables of any description; a little claret allowed at dinner. I may add that, whenever medicines are given which tend to check the diarrhœa, his health always suffers. Would the knowledge of this fact affect Dr. Cullimore's treatment? The man is doing fairly well on the ammonia, but the vomiting and diarrhœa still persist. Again thanking Dr. Cullimore for his letter—yours, etc.,

J. C. H.

PRACTICE IN AUSTRALIA: A WARNING.

SIR,—You will be conferring a great benefit on many members of the profession by inserting this letter in your JOURNAL as a caution to them not to come out here. I have lately arrived, after selling my practice at home, and am struck at the enormous extent to which medical practice is overdone in the colonies; not a ship arrives but that it brings one or two medical men, in some cases with their families, and this has already resulted in disappointment and great expense, on account of their having to retrace their steps. During the past few years, so many have arrived, and the universities have also been turning out their own men, that the country is overfull, and, as a necessary consequence, underselling is going on, and, in Sydney, a gentleman has started a provident dispensary. The population which pours into America does not do so here; and if farmers are washed out in England, they are burnt up out here for want of rain; in many parts, no rain falls for upwards of a year. In the whole of these colonies, there are not, at the present moment, a dozen practices, genuine or not, for sale. Before anyone comes out, let him communicate with Messrs. Francis and Co., 31, Bourke Street East, Melbourne, or with Mr. Bruck, 35, Castlereagh Street, Sydney, medical agents. It will repay anyone to give them a fee for their information and advice. I have been told that the last named gentleman has already written home, with a view to stop the constant influx.—Yours truly,

A MEMBER.

ALEXANDER AND ADAMS'S OPERATION.

SIR,—In the JOURNAL of February 28th, Mr. Walter Rivington lays claim to priority in proposing the operation of shortening the round uterine ligaments for some forms of displacement of the uterus. He very properly thinks it just possible that some other person may have hit upon the plan before him; and, from what is already known of the subject, not a few have proposed it, and some have gone so far as to practise it on the dead body, and this before the year 1872.

In a short note on the subject by Herr Landau, of Berlin, in the *Deutsche Medizinal Zeitung*, of May 12th, 1884, I find the statement that the originator of the proposal to restore the uterus into position by drawing out the round ligaments was a certain M. Alquié, who published the proposal in the *Bulletin de l'Académie de Médecine* in 1844; further, that it is mentioned in the works of Hegar and Kaltenbach, and that it was carried out on the dead body by Freund.

It is generally understood that many people before Watt's day proposed the steam-engine, but it was reserved for this genius to make a real, active, and mighty power of it. So with regard to this operation, and a very useful one it is, as I can personally testify. Many individuals may have had the idea in their heads, and some may even have practised it on the dead body; but it remained for Dr. Alexander, of Liverpool, to make a power of it, not only to establish it as an operation that could be performed, but as one that could do more for certain cases than could be achieved by any other method of treatment. A dozen inventors who think a thing (like Mr. Rivington, Alquié, Freund, and others) cannot deprive the real inventor, who not only invents, but carries it out and establishes it, of the credit that is justly his due.—I am, yours truly,

J. E. BURTON, Surgeon to the Hospital for Women, Liverpool.

64, Rodney Street, Liverpool.

OVERPRESSURE ON NURSES.

SIR,—The assistance of trained hospital-nurses is so valuable to the community at large, and to our profession in particular, that I hope you will allow me space in your columns to ventilate one of their grievances. I refer to the unconscionable length of time nurses are frequently kept on night-duty at some of our hospitals. A lady-relative of mine thus had night-duty for six months at a stretch, and I can name another instance where a nurse was kept at this trying work for a whole year.

Now, sir, I maintain that this is unfair and unwise. I know of no other class of the community the members of which are kept at night-work for so long a spell at a time. Policemen, sailors, etc., are rarely put on night-duty for more than a month, and yet we expect women, often delicately nurtured, to do what is not expected of powerful athletic men. This, I say, is most unfair. It is also most unwise; for how can we expect a jaded sleepy nurse to devote the constant unwearying attention to her charges that their condition requires?—I am, sir, yours faithfully,

A. G. B.

THE HISTORY OF THE USE OF IPECACUANHA IN DYSENTERY.

SIR,—Dr. Macpherson's paper on the above subject, read at the meeting of the Medical Society on the 9th March last, was one of great interest. It would appear, however, that it was left to Sir Joseph Fayrer to recall the fact that it was to Mr. Docker we owed the introduction of the remedy into the practice of the British army, and the reduction of its employment to a system.

Sir Joseph Fayrer was right in thus giving honour to whom honour is due; for, although something may be credited to improved sanitation, etc., there is no doubt that the great decrease in the mortality from dysentery in India, in late years, is due to the employment of the system of treatment introduced by Surgeon-Major Docker.

Having treated a large number of cases of dysentery with ipecacuanha, in large doses, during my service in Ceylon, India, and British Burmah, I can bear testimony to its great efficacy in acute cases—a few twenty-grain doses bringing the disease promptly to a termination, when treated at an early period, as stated by Sir Joseph Fayrer. I can also bear out Dr. Cullimore's belief that, "in dysentery associated with hepatic disease, ipecacuanha, in large doses, is not well borne." Dysentery is frequently found associated with, or dependent on, hepatic congestion.

My latest experience of the treatment of such cases was given in a paper in the *Indian Medical Gazette* of July 1st, 1881; and, as the passage bearing on the treatment of this complication is short, and the subject one of much interest, I beg leave to quote it.

"When dysentery is present, complicating the hepatic congestion, I have found the treatment suggested at page 52 of my book successful, namely, a mixed treatment of alternately given ipecacuanha (20 to 30 grains) and chloride of ammonium, until the relief of the dysentery; or a full mid-day dose of the ipecacuanha; or the latter in enemata, should there be fear of vomiting, with morning and evening doses of the chloride. Or, in some cases, a mid-day dose of the chloride may be preferable, and morning and evening doses of the ipecacuanha until the dysentery is checked. In such cases, the patient, if asked, will express himself as receiving great relief from pain by the exhibition of the chloride; and, if so, it may be well to give it more frequently than here recommended."—I am, sir, yours, etc.,

WM. STEWART, M.D., Surgeon-General A.M.D. (Retired).

Mount Pleasant, Lymington.

NO CURE, NO PAY.

THE following advertisement is copied by the *Indian Medical Journal* from the *Pioneer* of January 24th.

"Wanted, an experienced doctor, who thoroughly understands all sorts of diseases of the ear, to take charge of a patient in Nepal, one of whose ears, after having discharged pus for several years, is now quite stopped, while the other ear is only partially affected. If any physician succeed in curing this patient, he will have a reward of *fifteen thousand rupees*; but he will receive nothing if he fail to give relief. Doctors agreeing to come to Nepal to take up the above case on the above conditions are requested to send up their applications, with testimonials, to Meer Subha Bulwan Singh, private secretary to His Highness the Maharajah of Nepal, at Khatmandu."

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. John West, London; Mr. W. H. Smith, Menden, near Coventry; The Editor of the *Boys' Own Paper*, London; Mr. F. Thackeray, Southend; Mr. J. Willcocks, Overton; Dr. Borrowman, Earlstown; Mr. H. T. Legat, Stockton-on-Tees; Mr. W. Buchanan, Chatham; Dr. Styrap, Shrewsbury; Dr. Heywood Smith, London; Mr. E. L. Robinson, Guernsey; Dr. G. H. Hume, Newcastle-on-Tyne; Dr. J. A. Nealson, Sierra Leone; Mr. John Taylor, Birmingham; Mr. J. McK. Ackland, Exeter; Dr. H. Campbell Pope, London; Our Dublin Correspondent; Our Glasgow Correspondent; Our Manchester Correspondent; Mr. A. H. Benson, Dublin; The Secretary of the Pathological Society, London; The Secretary of the Clinical Society; Mr. Vincent Jackson, Wolverhampton; Mr. P. S. Brito, London; Mr. T. F. Raven, Broadstairs; Mr. James Startin, London; Dr. H. Sutherland, London; Dr. J. Woodman, Exeter; Mr. Arthur Cooper, London; Dr. H. Grey Edwards, Bangor; Mr. C. Clark Burman, Belford; Our Liverpool Correspondent; Our Paris Correspondent; Dr. A. M. Edge, Manchester; A Member; Dr. A. T. Brand, Driffield; Our Aberdeen Correspondent; Mr. F. G. Connor, Cockermouth; Mr. W. Martindale, London; Mr. H. J. Barnes, Chatham; Mr. M. D. Makuna, Ystrad Rhondda; Dr. G. Henty, London; Mr. G. A. Gloag, Bristol; Dr. J. F. Stamper, Pembroke; Dr. Joseph Rogers, London; Mr. T. M. Stone, London; Mr. S. A. Lucas, Liverpool; Mr. A. De Winter Baker, Dawlish; Mr. W. R. Thompson, London; Mr. H. Drinkwater, Sunderland; Dr. J. Mackie, Alexandria; Mr. H. A. Lownds, Newcastle-on-Tyne; Dr. Kelly, Taunton; The Countess Cowper, Panshanger, Hertford; Dr. Mackey, Brighton; Dr. J. A. Lindsey, Belfast; Major-General Allen Johnson, London; Mr. J. S. Waters, Caithness, N.B.; Mr. M. Sturrock, London; Dr. A. De Watteville, London; Dr. J. S. Bristowe, London; Mr. A. H. Haggard, London; Mr. McFarland, Dungannon; Mr. J. R. Stedman, Guildford; "Thirty-six"; Dr. A. Swann, Batley; Mr. D. Mouat, Leytonstone; Mr. D. W. Martin, London; Dr. Suckling, Birmingham; Mr. Mayo Robson, Leeds; Dr. John Murray, London; Dr. Harding, Fortis Green; Dr. Thin, London; J. V., etc.

BOOKS, ETC., RECEIVED.

On the Coca of Peru. By J. L. W. Thudichum, M.D., F.R.C.P. London Baillière, Tindall, and Cox. 1885.

Traitement du Choléra. Par Georges Hayem. Paris: G. Masson.

The Prevention and Treatment of Lateral Spinal Curvature. By Mathias Roth, M.D. London: Baillière, Tindall, and Cox. 1885.

The Student's Guide to Clinical and Medical Case-taking. By Francis Walker, M.D. London: J. and A. Churchill. 1885.

Cocaine and its Use in Ophthalmic and General Surgery. By H. Knapp, M.D. London and New York: G. P. Putnam's Sons. 1885.

The Story of My Life. By J. Marion Sims, M.D., LL.D. Edited by his Son, H. Marion Sims, M.D. New York: D. Appleton and Co. 1885.

A Practical Treatise on Fractures and Dislocations. By F. H. Hamilton, A.B., A.M., M.D., LL.D. London: Smith, Elder, and Co. 1885.

Help at Hand. By the Countess Cowper. London: Wells Gardner, Darton, and Co. 1885.

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THE CROONIAN LECTURES
ON
THE HYGIENIC AND CLIMATIC TREATMENT OF CHRONIC PULMONARY PHTHISIS.

Delivered at the Royal College of Physicians, London, March 1885.

By HERMANN WEBER, M.D.,
Physician to the German Hospital.

Lecture III.

(Concluded from page 690.)

Climates; Purity of Air the most important Element; Floating Matters; Climates of Elevated Regions; Objections Met; General Characters; Physiological and Therapeutical Actions; Swiss Alps; Peruvian Andes; Rocky Mountains; South African Highlands; Home Climates.

After having discussed the general characters and influence of the climates of elevated regions, I must limit myself to a few remarks only on the principal health-resorts, as time compels me to do so, and as there already exist numerous descriptions in the English language, by professional and non-professional authors. I need not tell you that the difference between the different localities included in this class of climates is very great, and is only yet partially known and appreciated; that even in the same Alpine valley, and in the same place, there are great differences between different situations; and that the climate of the same place is by no means uniform in different years.

We naturally begin with the Swiss Alps, as they are nearest to us; and with *Davos Platz*, about 5,100 feet above the sea-level, as it was the first place resorted to, just twenty years ago, when two patients migrated there from Gorbesdorf—Dr. Unger and Mr. Richter—who there regained their health, and are still living at Davos, in active occupation. They were encouraged to give a prolonged trial to the place by Dr. Spengler, who had already written on the absence of scrofula and phthisis in the Davos valley. As I had been on the look out for a suitable place in the Alps for some years previously, in consequence of some encouraging experiences which, I might say, accident had thrown in my way, I soon afterwards began to send patients there. When I first directed attention to Davos Platz, in 1867, it was still a charming primitive Swiss village; now, numerous large and small hotels and villas stretch along the high road for more than a mile; and Davos Dörfli, a little higher up in the valley, may almost be considered as a suburb of Davos Platz. Waters, Spengler, Frankland, Unger, Clifford Allbutt, Addington Symonds, C. T. Williams, Burney Yeo, Peters, Marcet, Otter, Jaccoud, Sée, Symes Thompson, and others, have amply described the peculiarities of Davos. The presence of good physicians; the more and more improving arrangements in the hotels, including sunny terraces and verandahs; the means of varied exercise and amusement; the comparative nearness to the railway; a good road thence (from Landquart or Chur) to Davos, without an intervening high pass, are accessory, though very important to the general climatic characters of Davos Platz and Dörfli. A drawback is, that its reputation has of late years increased so rapidly that too many (frequently ill suited) cases are sent to Davos; that the number and size of the hotels and health-establishments increase at an alarming rate, so that there is actual danger that Davos may be ruined by its own original advantages; for purity or aseptic quality of the air is incompatible with the crowding together of a large number of invalids. Mr. J. Addington Symonds, the author of *Davos in Winter*, has written on this subject in the *Pall Mall Gazette* of January 14th, 1882; and I have likewise already mentioned this matter in a paper on Climate and Health-Resorts in the *Book of Health*. If Davos were to be ruined, the calamity would not be confined to the inhabitants of the valley, but would be shared by many invalids all over Europe.

Lower down in the Davos valley, at Davos Frauenkirch, a small hotel offers fair accommodation to a limited number of invalids; and further down, but high above the bottom of the valley of the Landwasser, on the sunny southern slope of the Rothhornstock, lies Wiesen, about 4,770 feet, of which Dr. Tucker Wise has given an attractive description. It is well sheltered from north and north-east, but is rather more exposed to south-west wind than Davos; and the snow does not lie quite so long. The hotels and the social attractions are not so advanced as those at Davos, but the stay is less expensive, and under the guidance of Dr. Buol, an intelligent Swiss doctor, who is a licentiate of the College of Physicians of London, good results can be obtained in suitable cases, even with limited arrangements.

The Upper Engadine is a fair rival to the valley of Davos; and the village of *St. Moritz*, about 6,000 feet above sea-level, and 280 above the lake, with the well known Kulm Hotel, and the houses of Kaspar Badrutt, represents the Davos Platz of the neighbouring valley. St. Moritz has been so well described by Dr. Burney Yeo, Mr. Lionel Tollemache, Dr. Ludwig, Biermann, and many others, that I can confine myself to a very few remarks. Davos is somewhat more sheltered, and is slightly warmer than St. Moritz, and is nearer to the last railway station, for those coming direct from England or the north. St. Moritz lies 900 feet higher, has the advantage of the snow somewhat longer, has decidedly more wind, according to the observations of Mr. Waters, has a skating-rink, and a good lawn-tennis court, in the immediate neighbourhood of the hotel, and more opportunities for exercise. On the whole, Davos has some advantages for more serious invalids; St. Moritz for hardier cases.

The best sites in the Upper Engadine would probably be found in the neighbourhood of Pontresina, on the south-western slopes of the Muraigl, or the Munt della Bescha; they would have the largest share of sunshine during the shortest days of the winter, would be in the immediate neighbourhood of pine and larch forests, and out of the way of the Maloja wind; but the hotel proprietors of Pontresina are as yet hostile to the scheme of a winter cure, fearing that their summer guests would leave them if they were to open that favourite spot for the treatment of phthisis. They are, apparently, strong contagionists. But there are sites, for instance, near Acla, about 6,000 feet above sea-level, to the right of the road from Pontresina to Samaden, over a mile from the former, where one or two health-establishments might be placed, without prejudice to the visitors of Pontresina.

Samaden has been, for many years, used by some consumptive patients as a winter resort, and the excellent fare and service at the Hotel Bernina make, to some degree, good what the absence of open and covered verandahs and balconies and terraces leave to be desired. Above Silvaplana and Campfer, on the southern slopes of the Piz d'Albana, and Piz Valaschin, good sites could be found. The establishment of the Kursaal Maloja is rather exposed to the wind, and not high enough above the upper end of the Lake of Sils to be perfectly free from damp and mist at all times of the year; but the Kursaal itself is dry, and the large corridors for indoor exercise, the arrangements for constant and abundant supply of warmed air to the rooms and passages, and the good *cuisine*, make atonement for some defects in the position. Dr. Tucker Wise, who is the resident medical officer, has given an encouraging description of these arrangements; and such improvements as sheltered outdoor seats and pavilions were in the course of erection when I was there on a visit during the autumn of 1884. Independently of permanent residence, the Maloja Hotel can do good service as a place of transition; for instance, during the melting of the snow, when outdoor exercise is difficult. A few weeks at this place will be a great advantage to visitors at St. Moritz, or even Davos, as they can walk for hours every day in well aired corridors without exposure to dampness or draught.

The localities mentioned, and Zuz in the Upper Engadine, are all the winter health-resorts in the High Alps which are open to us at present. There would be some satisfactory places in the Dolomites, as above Cortina, and perhaps Martino di Castrozza and Campiglio, but there are no arrangements for the winter as yet.

In a much lower situation, St. Beatenberg, above Lake Thun (3,766 feet), is quite sheltered from the north and east, and quite open to the south, and very sunny. It is only lately that the proprietor of the Kurhaus has commenced to keep the hotel open, and I can therefore not speak of the results. The Hotel des Avants, 3,212 feet above the sea-level, and 2,000 feet above the Lake of Geneva, has a very sunny situation, and is already out of the region of mists. The arrangements of the hotel are good, but the snow does not lie so long as at Davos and St. Moritz; and although preferable in many ways to the lower localities on the lake, it is not so bracing as the health-resorts in the Grisons. Seewis (2,986 feet), above the road from Landquart to Davos, has a cheerful, sunny, and sheltered situation. Such localities will probably, by degrees, take an important place as intermediate health-resorts for intermediate cases; for such, to use an instance, in which the usefulness of higher localities is

doubtful, or in which they are certain to be unsuitable, where, however, a surrender to the low level places is undesirable, or as temporary places, namely, as steps to the higher health-resorts. Seewis, for instance, is well adapted as a stepping-stone to Davos and St. Moritz. In order, however, to become really useful, they must provide themselves with good resident medical men, as, without this, it would be wrong to entrust to them cases requiring special care.

I must now name two localities in Germany which deserve your attention, although I can mention them only in a cursory manner; these are Gorbersdorf, in Silesia, and Falkenstein, in the Taunus. Gorbersdorf, about 1,740 feet above sea-level, is the cradle of the mountain health-resorts, and of the hardening open-air treatment in Europe, with a judicious admixture of hydro-therapeutics. Dr. Hermann Brehmer has the merit of having introduced this combination in a systematic manner, coupled with the strict supervision of the patients, essential in the hygienic as well as in the therapeutic management. Brehmer's establishment lies in a beautiful park, with a pine-clad hill belonging to it, arranged for graduated climbing. The establishment is provided with covered walks of great length, and with a winter-garden suitably warmed and ventilated. Falkenstein, about 1,500 feet, has become, under the judicious as well as energetic guidance of Dr. Dettweiler, a health-resort where not only many invalids have been improved and cured, but where they have learned how to manage themselves afterwards. The results obtained at this establishment show how much can be done in phthisis by carefully arranged hygienic management, even with imperfect climatic elements.

During the last few years, several other establishments have been formed, which are likely to become useful, and to lead to further imitation. Aussee, in Styria (2,150 feet); St. Blasien (2,500 feet), in the Black Forest; Reiboldsgrün (2,257 feet), in the midst of a forest, near the railway station of Auerbach in Saxony; and Badenweiler (1,380 feet), in a beautiful position on the south-western slopes of the Black Forest, deserve to be specially mentioned.

In Norway, the Gausdal Sanatorium, about 3,000 feet above sea-level, and 2,500 feet above Lake Mjosen, and 24 miles from Lillehammer, has been mentioned to me as a probable health-resort for consumptives.

More important to us, in the treatment of phthisis, are the health-resorts of America. In the Peruvian Andes and the Rocky Mountains of the United States, there is, indeed, an endless variety of mountain-climates. Near the equator, elevations of 6,000 and 8,000 feet have winter-temperatures similar to our summer-temperatures, and we must go still higher to find localities suitable to the treatment of phthisis. But at greater distances from the equator, we come, at elevations of about 6,000 or 7,000 feet, to climates somewhat similar to those in the Alps at about 5,000 or 6,000 feet. In the neighbourhood of Jauja and Huancayo, at elevations varying from 8,500 to 10,500 feet, several of my patients have recovered from rather advanced affections of phthisis; after I had learned the character of these climates, and had been encouraged in sending patients there by my late friend, Dr. Archibald Smith, of Lima, whose papers on these subjects are well known to you. How different, however, these climates are from the Swiss Alps, you may see from the following statement of Archibald Smith. "At Huancayo, 12° south latitude, and 75.12° west longitude, the annual range of temperature in the shade may be taken as ranging from 8° or 9° to 14° Reaumur; while at the cooler town of Jauja, with from 10,000 to 15,000 inhabitants, the range, during one whole year, has been observed not to exceed from 8° to 12° Reaumur, or from 50° to 59° or 60° Fahrenheit; with the sky always clear and sunny, and an atmosphere pure and bracing, which invites to outdoor exercise and enjoyment." From no other localities have I seen such good results as from Jauja; but also from Santa Fe de Bogota (about 10,000 feet), Quito (about 10,000 feet), La Paz (12,000 feet), Cuzco (11,250 feet), I have occasionally received good reports. Arequipa, in Peru, 16° south latitude, has lately been recommended by Dr. Dixon Hunter, with an equable temperature averaging about 65° summer and winter within the house, and outside in the shade during the day. I have no doubt that this climate is infinitely better than many others, especially the hotter regions along the sea-shore, and that consumption can be cured there; but it is somewhat too warm.

The Rocky Mountains, in the United States of America, have only been used as health-resorts in phthisis, so far as I know, during the last fifteen or sixteen years, and they seem to have met likewise at first with much opposition. At all events, about nine and ten years ago, the advice I have given to several American consumptive patients to settle at Denver or Colorado has been rather severely criticised by New York and Philadelphia physicians, especially in two cases of hæmoptöic tendency, and yet these patients did well when they afterwards carried out the advice. Manitou Springs (6,315 feet), and Colorado Springs (5,775 feet), and Denver (about 5,000 feet) are the best known localities, and have been repeatedly described by Drs. Denison and Solly; but numerous other resorts of the future are mentioned in Dr. Denison's instructive work on *The Rocky Mountains Health-Resorts.*

Dr. Frankland has quite lately mentioned to me in this territory a locality which is likely to become an important health-resort, Yellowstone National Park, accessible by the Northern Pacific Railway. It is situated on the eastern slopes of the Rocky Mountains, between 44° and 45° N. lat. "The park abounds in magnificent geysers and boiling springs on a most gigantic scale, and there are plenty of mineral waters. The boiling water and steam might be made available for warming hotels, but there is also an abundance of wood-fuel. There is so much room in Yellowstone, that there need be no overcrowding as at Davos."

Mexico, too, possesses good health-resorts, about which the well known works of Jourdanet and Guilbert contain valuable information.

The South African altitudes have been described by Symes Thompson and the late Harry Leech, and by several non-professional writers —Trollope, E. F. Sandeman, and Otter. The most important health-resorts are contained in the Orange Free States, Griqualand West, and the Transvaal. Bloemfontein (4,700 feet) is the best known place, but many others would be equally suitable, as Christiania, Bloemshoff, Potchefstroom, Witwater Rand, Pretoria, Heidelberg, Utrecht, Standerton, and Wakkerstroom. Everywhere the climate is dry, and often in summer very hot, in winter cold. I have seen some good from these localities, but the promise of "the absolutely perfect cure" held out many years ago by some inhabitants of the Free States has not been fulfilled. Whenever we recommend these regions, we must bear in mind that a sea-journey and a long land-journey are implied. Those who are good sailors will not regret the former, and the latter can be rendered beneficial if the invalid be not too weak, and do not mind expense. The best mode to reach the high regions is still a well supplied ox-wagon from Graham's Town, or Wynberg. "Wagon-travelling with the traveller's own oxen," Mr. Otter justly says, "is very slow work, not averaging more than ten or twelve miles a day; but as such an expedition is only made for the sake of health, the rate of travelling is not material; and when once a traveller has got into a district which is suitable to him, he is in no hurry to get out of it."

Many of the great mountain chains of Asia contain, no doubt, useful health-resorts; but our dependable knowledge is almost confined to the Himalayas, which enclose, you may say, all varieties of climate, stretching along as they do for about 2,000 miles, with an average width of 180 miles, and elevations ranging from 1,000 to 28,000 feet. There are, besides, the Neilgherry range, the Pulneys, the Aravulli or Aravelli mountains, the Vindhya range, the Western and Eastern Ghauts, and several other ranges. There are health-resorts varying from 4,000 to 8,000 feet in elevation. In considering these stations, we must always bear in mind the nearness of the equator; and further, that the peninsula is surrounded, excepting its broad base, by enormous masses of warm water. The periodical winds coming from these seas are saturated with vapour, which, on reaching the cooler mountain ranges, is partly deposited as rain. The emanations from the damp soil are probably laden with microbic life. The majority of the Indian hill-stations have, therefore, very different climatic conditions from those of the Peruvian Andes, the Rocky Mountains, and Swiss Alps. These circumstances may explain the contradictory views of Anglo-Indian medical men regarding the influence of their hill-stations on phthisis. The carefully drawn up report, however, of Dr. Kellett, on consumptive soldiers who spent six months (April to November) at the convalescent station of Landour, shows results which are not unsatisfactory. Very different must be the climates on the northern slopes of the Himalayas, for the atmosphere, before reaching them, has lost the greater part of its moisture, on the southern slopes, and highest ridges; these climates must therefore be drier and cooler; and very possibly Thibet (9,000 to 11,000 feet) and Cashmere (5,000 to 6,000 feet) contain most healthy climates.

I had intended to survey with you, gentlemen, the climates of Nubia and Egypt, of Algiers, Italy, Spain, the Riviera, and South-West of France; of Australia, and New Zealand; Madeira, Teneriffe, and the high seas, in their applicability to the treatment of phthisis, but time fails; and I hope you will pardon me for having spent too much time over other matters, and you will not think that I regard the regions which I pass over as useless; they have been so often and so well described by others, (and I have likewise elsewhere given an account of them), that my present omission can scarcely be regretted.

Many of the localities included in these climates possess very useful

qualities for the treatment of phthisis, and especially for those conditions and constitutions which are either temporarily or permanently debarred from the benefits of the altitude climates ; but I regret to say that, as yet, the arrangements are nowhere perfectly satisfactory. Even at the most favourite places, supplied with all the modern comforts, such as Cannes, and Mentone, and San Remo, the majority of invalids are in the habit of acting almost independently of their medical advisers, and many perish who, under strict guidance, might have been saved. The personal character and professional superiority of a Dr. Frank, or Bright, or Charles, or Siordet, or of one of the other physicians practising there, may in some, even in many cases, exercise so powerful an influence as to command willing obedience; but the whole system of this looseness of tie between medical man and consumptive patient is deplorable, and the results obtained are very inferior to those which might be obtained by judiciously arranged health-establishments, under strict medical guidance in every point of general and personal hygiene. This, however, is by many invalids not yet regarded as the principal sphere of the physician's work, but more or less as everybody's business, for which no medical man is required, and which each individual must find out for himself.

I also regret very much that I cannot properly discuss the climates of Great Britain and Ireland. These islands you know, contain, on the different coasts and in the interior of the land, a great variety of climates, which have been well described by Sir J. Clark, Thorowgood, C. T. Williams, Tripe, Buchan, and others, and I have likewise given short sketches of them. With all the differences, great as they are, between east and west, south-east and south-west coasts, and the different inland localities, there are certain traits of character more or less common to all of them, namely, a high degree of humidity ; greater warmth than is due to the geographical latitude ; comparative equability with regard to seasons and periods of the day ; an analogous degree of sunlessness and dulness of atmosphere ; and considerable movement of the air, almost amounting to windiness. All these localities, as a set off, possess hygienic arrangements which are superior to anything which is to be met with abroad, good food, and good accommodation ; they are of easy access, and do not require a complete separation of the invalid from his family.

The physiological influence on the constitution compared with foreign localities of a similar elevation, may be designated as more or less tonic and health-giving, though not exhilarating, and as requiring a certain degree of energy and integrity of constitution. We possess in these islands good climates for preventive treatment, but we are not so well provided with localities assisting the treatment of developed phthisis, where the lungs and the constitution have partially lost their integrity and energy.

We ought, therefore, to do everything to mend the defects of these our climates, and to render the good qualities available, and concentrate them if possible. Is this done at our health-resorts for the treatment of phthisis ? No, gentlemen, there are no such arrangements, or almost none, at the coasts of Devonshire, Hants, Sussex, and even the Isle of Wight, excepting the few sanitaria. Let us use our influence with our local professional brethren, who are neither deficient in knowledge nor in insight, and with the local proprietors and public, to obtain well placed and well arranged houses for the invalids, with suitable balconies, on which light couches and shelters for open-air treatment can be placed ; good large verandahs, with movable glass doors ; open and covered walks and winter-gardens, for exercise in windy and rainy weather ; seats of different nature, with turnable shelter ; quadripartite glass-covered seats, like those at Hastings and St. Leonard's, for which these places deserve commendation ; walls for shelter from wind, and for reflection of the sun when it shines. We must induce our patients to place themselves under the entire control of their local medical men during their whole stay at one of our health-resorts, and to learn that the guidance of the medical man is as important as the climate, and in many cases more so. By judicious management, the medical man is often able to counteract the disadvantages of an indifferent climate, and to bring into action all its good points ; while, without the guidance of an intelligent physician, the natural and social attractions, associated with a satisfactory climate, may become sources of failure. There is no doubt in my mind that it would be a very great advantage to many invalids, especially those who are not very rich, if there were well arranged health-establishments, under the supervision of good medical men, and that, through them, better results could be obtained from our home-climates.

And once more, gentlemen, let me plead for the multiplication of small hospitals for the consumptive poor in good situations, such as I have sketched in the second lecture. You have always treated me with so much kindness and consideration since you have, so to say, adopted me as one of yourselves, that I am hopeful that you will give your countenance to the plans I have suggested, and that, through you, they may lead to some good. Then, gentlemen, the recollection of the hours which I have had the pleasure of spending with you, in these lectures, will belong to the brightest of my life.

THE LUMLEIAN LECTURES

ON

SOME POINTS IN THE NATURAL HISTORY OF PRIMITIVE DRY PLEURISIES.

Delivered at the Royal College of Physicians of London.

By Sir ANDREW CLARK, Bart., M.D.,
Fellow of, and Lumleian Lecturer to, the Royal College of Physicians.

Lecture III.

In the last lecture I arranged, for the sake of convenience, the pathological changes in the lung resulting from primitive dry pleurisies under four heads, and I intimated that for each of these there was to be found a corresponding clinical state or autonomy. I proceed now to consider these clinical states, to describe their chief characteristic signs, and to show in what manner they may be distinguished from other states resembling them, but having a different meaning and importance. The former, for descriptive purposes, I shall name the neoplastic pleural membrane state, the fibroid lung state, the bronchiectatic state, and the phthisical fibroid lung state.

And, first of all, concerning the neogenetic pleural membrane state. The patient may have the aspect of health, and experience no subjective indications of the presence of disease. If any exist, they will be limited to uneasiness or pain in the affected side, an occasional dry cough, feverishness, and general *malaise*. On rare occasions, the patient may be conscious of the existence of pleural friction. The physical signs are a slight decrease, with some irregularity, of the thoracic movements of the affected side, some diminution of the tactile vocal fremitus,[1] just notable but unequal dulness to percussion, a shifting, rubbing, or grating friction, enfeebled breath-sounds, and an altered vocal resonance. In some cases, instead of pleural friction, there may be heard crepitation, crackling or clicking ; and we shall know from the superficial characters of these sounds, from their resistance to respiratory efforts, and from their association with gratings or rubbings, that they are of pleural origin.

Having thus before us a dry pleurisy, we have to determine if it be a primitive or a secondary affection.

If there be signs of disease in the corresponding or in the opposite lung, it is probable that the pleurisy is secondary ; and, if without such signs, there be grave constitutional disorder, it is equally probable that the pleural inflammation has arisen out of some pre-existing malady ; and this pre-existing malady may exercise its causal influence either through some local growth, such as tubercle, lying beyond the range of physical detection, or through some constitutional state, such as adenoma or syphilis. On the other hand, if there exist no signs of local disease, and no serious symptoms of constitutional disturbance, it is presumable that the case is one of primitive dry pleurisy. This affection may arise from mechanical injury or from cold, and it may be a local expression of such non-malignant constitutional disorders as rheumatism and gout.

The future course of a case of primitive dry pleurisy depends upon causes seldom visible or calculable, and is therefore absolutely uncertain. The signs of the malady may subside in a few weeks, or they may continue for months, or they may come and go for two or three years, and then either entirely disappear or invade the lung. Sometimes, after a variable duration, the dry stage issues in serous effusion, which pursues its ordinary course, and ends eventually in a thickened pleura and a contracted lung. In one case, seen with Dr. Sedgwick, and in another, seen with Dr. Warrington, it appeared as if the structural elements of an old adventitious pleural membrane developed through metaplastic processes into malignant fibrous growths. This result, however, must be infinitely rare ; and, when

[1] I do not forget that Dr. Walshe has spoken otherwise ; and it is only after careful investigations, often repeated, that I venture to differ from one of the most accomplished auscultators of our time.

the health of the patient is good, and he can be placed under the conditions most favourable to the organism, clinical experience will warrant the expectation of complete recovery.

Nevertheless, it occasionally happens, in spite of apparent good health and skilful care, that the inflammatory process invades the lung, and brings about therein a more or less extended fibroid induration. This fibroid lung-state is of frequent occurrence, and, from the mistakes liable to be made concerning it, and the course which it commonly follows, it is a subject of great importance, as well as of great interest. It certainly demands, and will certainly repay, an extended and a critical study.

We have, in the first place, to make sure that we are dealing with a fibroid lung-state. What seems to be a simple fibroid induration[2] may be something quite different; or it may be that and something more. It may be essentially a tubercular consolidation with an unusually large amount of secondary fibroid growth; it may be a chronic caseous pneumonia; it may be a pleuritic effusion; it may be a malignant growth; and it may be several other things, which, for praetical purposes, need not now be considered.

If the case have been followed from the beginning, no serious difficulties of diagnosis will be encountered; but if, as usually happens, the patient is not seen until the pulmonary consolidation is advanced, the greatest care will be required to avoid falling into serious error, and to succeed in framing a correct judgment.

If there be no serious symptoms of constitutional distress; if there be no elevation of temperature, and no hurry of circulation; if flesh, colour, and strength be little, if at all, affected; if in the consolidated lung there be no signs of disintegration, and in its fellow lung no indications of advancing and spreading disease, the question of tuberculosis may be settled in the negative. And it may be settled conclusively if, after repeated examination of any sputum which may be ejected, no tubercular bacilli be found therein.

With respect to caseous consolidations, they are of two sorts; one which is tubercular, and one which is not. From simple fibroid induration, the former may be distinguished by the presence of tubercular bacilli in the sputum. And, as to the latter, if there be no history of a feverish illness; if there be no elevation of temperature, or quickness of the pulse, or cough, or expectoration; if there be material retraction of chest, with diminution of tactile vocal fremitus; if no *râles* be heard within or around the consolidated lung; and if the vocal resonance be either diminished or not increased, then the hypothesis of any sort of caseous consolidation must be abandoned. Furthermore, if the patient have no cachectic appearance; if there be no irregular retraction of chest, no depression of shoulder and nipple, no pushing outwards of the lower part of the scapula; if, with extensive consolidation, there be no pains or signs of pressure, no extension of dulness beyond the normal limits of the lung, no displacement of heart, no distress of breathing with blood-stained expectoration, no rapidity of pulse without notable elevation of temperature, it may be said, with all but absolute certainty, that a malignant growth is not the cause of the consolidation. But in fibroid lung, the condition which by far the most frequently gives rise to mistakes in diagnosis and errors in practice is pleural effusion. To mistake an ordinary and considerable serous effusion for a fibroid lung, can happen only from want of competence or want of care; the fixed and rounded side, the tumid or even bulging intercostal spaces, the dulness varying with position, the feeble breath-sounds, except near the spine where they are bronchial, the diminished resonances, the displaced organs, if duly examined and considered, forbid peremptorily every interpretation but one. Happily, however, the danger of mistake does not lie in this, but in an opposite, direction; it lies in supposing that a solid fibroid lung is a fluid effusion. And, here it must be confessed that, when the effusion is moderate in quantity and of long standing, when the dulness does not vary with position, and there is no displacement of organs, when the signs of local disease have descended from an acute pleurisy, and there is no account of pulmonary disease, the difficulties of diagnosis are great and not always, without exploratory operations, overcome. For in both conditions, in the moderate fluid effusion, and in the indurated lung, there are to be found diminished respiratory movements of the affected side, toneless dulness to percussion, decreased tactile vocal fremitus, feeble, hollow, or suppressed respiratory murmurs, and lowered as well as altered vocal resonances. Nor, indeed, do exploratory operations always overcome these difficulties. Fluid may be present, and none be withdrawn by the needle. It may not penetrate the thick and hard pleura; it may carry the membrane before it; or it may become blocked by *débris*.

But, notwithstanding this close similarity of physical signs between affections so widely different, grounds of distinction between them, if narrowly sought for, may be in most cases discovered. In the first place, the continuous history of an illness beginning with an unmistakable pleurisy, and passing straight into a basic dulness of doubtful nature, points strongly, but not necessarily, to fluid effusion; not necessarily because a fibroid induration, although it sometimes originates and advances unattended by inflammatory or other local or general symptoms, occasionally arises in, or immediately follows, a pleural inflammation; or is begotten by substitution out of an unabsorbed pneumonic exudation.

In the second place, if we are dealing with a fluid, and especially if that fluid be purulent, there will probably be present some degree of fever, and almost certainly some acceleration of pulse; in a fibroid consolidation, there need be neither the one nor the other.

In the third place, if fluid be present and confined to a portion of the pleural sac, the side, although generally flattened or retracted, will be swollen over the part where the fluid is collected; the intercostal spaces will be effaced or more or less bulged; the diminution of the tactile vocal fremitus will be uniform; the dulness to percussion will be more diminished in volume, raised in pitch, shortened in duration, and lessened in resistance, than when dealing with a fibroid induration; the breath-sounds will be feeble or suppressed, there will be no *râles*, and the vocal resonance, lowered and altered, may be ægophonic.

In the fourth place, we may conclude that we are dealing with a solid lung if, with the signs already described, we find that the affected side is everywhere and especially irregularly contracted; that the intercostal spaces are deepened; that the dulness is accompanied by great hardening and resistance; that the tactile vocal fremitus, much diminished, is unequal throughout the dull region; that there is rubbing or creaking; that there are *râles* of any description, superficial or deep; that the vocal resonance, increased or diminished, and, varying at different parts, has a metallic quality; and that there is some, however slight, displacement of organs to the affected side.

Having thus cleared away the various sources of error in diagnosis, and having made sure that we are dealing with a fibroid lung, I proceed to set forth its clinical characters and course.

I shall, in the first place, consider the local physical signs, and, in the second, the constitutional state. Among many descriptions drawn from life of the physical signs of fibroid lung, I possess in particular two, one of which was written in conjunction with Dr. Pollock in 1868, and one with Dr. Douglas Powell in 1885. As concrete examples will strengthen the general description, and as the authority of those justly distinguished physicians will stamp with accuracy the relation of the physical signs in the cases examined, I herewith reproduce them.

Dr. Pollock's Case, examined with Dr. Andrew Clark, October 21st 1868.—A farm-labourer, well nourished, rosy, and of healthy aspect aged 57 years, and of regular and temperate habits, complains of occasional cough, slight morning expectoration, and breathlessness on exertion. His father died at 60 from renal disease; the mother, at 86, is alive and well; two sisters are living, and in good health; two brothers and sisters died from causes unknown. In 1860, the patient had trouble, presumed to be pleuritic, in his left side, and, after some weeks, got well. In February, 1868, eight months before this examination, the patient caught cold, shivered, felt sharp pain in the left side, became feverish, had a little cough, and was confined to bed; had night-sweats some time in March; in April or May was well. The digestive organs are in fair condition; the urine is abundant, sedimentary, of low density, and contains a considerable amount of albumen. The left side of the chest is flattened from the clavicle to near the nipple, in the lower part of the axillary region, and about the posterior base. The impulse of the heart is felt immediately under the left nipple, and its action, unaccompanied by murmurs, is normal; the pulse is about 80.

Examination of Left Side.—Above the clavicle the percussion-note is normal; from the second rib to anterior base, except near the sternum, there is absolute dulness, which nowhere passes the median line. In the lower half of the axillary region, and posteriorly from the spine of the scapula to the base of the lung, there is marked and increasing dulness; in front, from summit to nipple, in the upper half of the axillary region, and posteriorly in the supraspinous fossa, and for a little way below the spine of the scapula, the tactile vocal fremitus is increased; elsewhere, it is in different degrees at different parts demolished. Upon auscultation, the following signs are elicited. In the supraclavicular region there is normal vesicular breathing, but an occasional wheeze is heard at the close of inspiration, and the expiration is prolonged. From the clavicle to the second rib, the inspiration is rustling, the expiration prolonged and blowing. Between the

[2] Or, to use another terminology, an interstitial pneumonic consolidation, cirrhosis, sclerosis, or iron-grey induration.

second rib and the nipple, the respiration is bronchial, and the vocal resonance is altered and increased. From the nipple to the anterior base, the respiratory sounds and the vocal resonance are suppressed; only a faint creaking, crackling, or rumbling is heard. In the upper part of the axilla, there are heard pleural creaking, bronchial breathing, and a modified bronchophony; in the lower part, all sounds are suppressed. In the supraspinous fossa, the respiratory sounds are loud, harsh, and accompanied by crepitation, which, on coughing, becomes a crackle; there is no increase of vocal resonance. From the spine of the scapula, where they are weak and hollow, the respiratory sounds become fainter towards the base, and are there wholly suppressed. In no part of the right lung can any sign of disease be discovered. In 1878, the patient was reported to be in the same condition; but, since then, he has not been seen.

Dr. Douglas Powell's Case, examined with Sir Andrew Clark on the 7th January, 1885.—The patient is a dark, stout, florid, healthy looking man aged 54, and has no complaint, except that he is breathless on exertion, and that he gets a little cough and expectoration in cold and damp weather. He has been slowly gaining flesh and strength for the last six years.

In 1863 or 1864, the patient had some serious trouble in his left side, and was ill for seven weeks. In 1866, he had a fresh illness, with pains in his left side, and "a feeling as if there were two holes in his lung when he took deep breaths." He was first seen in November, 1867, by Dr. Andrew Clark, who reported the case to be one of chronic dry pleurisy, with secondary fibroid induration of the lung. About this time, he was for six months an inmate of the Brompton Hospital, where he was repeatedly examined by Dr. Douglas Powell. The left side of the thorax is flattened and irregularly retracted, rises imperfectly and unequally on inspiration, and measures on the level of the nipple sixteen and a half inches, being one inch and a half less than the measurement of the opposite side at the same place. The left shoulder is depressed and angular; the left nipple corresponds to the fifth rib. The lower part of the axillary region is protuberant, and the upper retracted. The inferior angle of the scapula juts outwards from the ribs. The impulse of the heart is felt under the left nipple, and its action is slow and normal; the pulse is full, soft and compressible. The percussion-note, slightly tubular in the supraclavicular space, and normal just below the clavicle, becomes increasingly dull to the base, where the dulness is absolute. In the axillary region, there is dulness throughout, slight above, moderate in the middle, absolute at the base. Posteriorly, dulness begins below the spine of the scapula, and increases to the base. The tactile vocal fremitus, normal at the summit, and increased at the middle of the axillary region, is everywhere else either greatly diminished or entirely suppressed. About the summit of the lung, the respiratory sounds are harsh, but of the vesicular type, and the expiration is prolonged; there are, however, no *râles*. About the middle of the axilla, there are heard superficial creaking or rubbing, with occasional coarse crepitation and dry rhonchi; elsewhere, the respiratory sounds are feeble, hollow, distant. The vocal resonance, loud in the supraclavicular region and just below the clavicle, is bronchophonic in the middle and upper part of the axilla; at the base it is suppressed, and in other parts diminished. The right side of the thorax, full and rounded, rises freely on inspiration, and yields to examination no evidence of disease. The digestive organs are in excellent order. The urine, with less than an average discharge, has a specific gravity of 1014, is acid, clear, and contains no trace of albumen or of sugar.[3]

From these two cases, average specimens of their class, a tolerably complete account may be obtained of the physical signs characteristic of the fibroid lung; and, from the records of Dr. Douglas Powell's case, one will now see how one may reasonably demur to the propriety of designating by the term chronic interstitial pneumonia a state of lung which has been quiescent for years, develops no general symptoms, and is compatible with more than average health. In these circumstances, the term sclerosis or fibroid ought, I think, to be preferred, inasmuch as they indicate with sufficient accuracy the physical characters of the pathological change, involve no hypothesis, and may, whilst hypotheses change, remain unchanged.

The local physical signs of pulmonary fibroid induration, of moderate extent, may be now formally enumerated, and they are as follows. The disease is commonly unilateral; the affected side is irregularly flattened or retracted; the shoulder is depressed, the lower angle of the scapula is tilted outwards, the spine is sometimes a little twisted, and the respiratory movements—especially the movement of expansion—are defective and irregular. The tactile vocal fremitus is diminished; there is more or less dulness to percussion; pleural rustlings, crepitations, cracklings, creakings, or frictions, are, in all cases, at some time audible; the respiratory sounds are usually feeble, hollow, distant; from time to time, there are crepitations, which are often of metallic quality, with moist or dry mucous rhonchi.

Such are the physical signs in favourable cases of fibroid lung, where the elasticity of the parenchyma is but moderately diminished, and its nutritive conditions are not seriously disturbed. When, however, the base of the lung, surrounded and invaded by indurated lymph, has lost a great part of its elasticity, and the bronchial mucous membrane, stimulated by undue supplies of altered blood, secretes a more or less viscid mucus which cannot be expelled, bubbling rhonchi of metallic quality are heard in the affected region, and there arise recurring paroxysms of cough, which succeed, only by the help of retching, in emptying the bronchial tubes. Although this condition invades the comfort of the patient, it does not, unless greatly aggravated, seriously injure the health, or obviously limit the duration of life. But when the lung becomes more and more rigid, and the bronchial tubes fill more easily with secretion, which is with increasing difficulty expectorated, the patient begins to suffer, and, through secondary congestions, consolidations, emphysemata, and, perhaps, bronchial dilatations, both health and life are placed in peril.

The constitutional symptoms accompanying fibroid lung vary according to the state of the induration. When this is not advanced enough to destroy the pulmonary elasticity, when the bronchial secretion is not in excess of what can be easily expectorated, and when the patient is kept under favourable physiological conditions, the general health is little, if at all, affected. It is true that he becomes breathless on exertion, that his general power of resistance to disturbing causes is lowered, and that, from small provocation, he falls into bronchial, gastric, or vesical catarrhs. Nevertheless, with just guidance and loyal obedience to it, the patient may continue beyond the average duration of life to live and work.

On the other hand, when the induration has destroyed the elasticity of the pulmonary parenchyma, and the bronchi are filled for hours with sputa which cannot be discharged, and, perhaps, undergo septic change, the constitution suffers; sometimes there is gastric, hepatic, and enteric catarrh; sometimes the urine falls in density, and becomes more decidedly albuminous; sometimes the face and neck become swollen, and the veins of the affected side enlarged; sometimes the feet become œdematous, and always, even with increased frequency of pulse, the temperature falls below the normal standard. But, even in these conditions, with his comfort invaded and his capacity for work narrowed, the patient may return to the favourable stage of his malady, or, without doing so, may reach the longest term of life.

The albuminous urine existing in the great majority of cases of fibroid lung, seems to be of small importance in its earlier stages; but in its later and more unfavourable stages, when the bronchi are almost always loaded, and the lung becomes increasingly hard and congested, and the circulation is hurried and feeble, and the skin cold and harsh and dry, the condition of the kidneys becomes greatly aggravated, and at last puts an end to life. Indeed, in the greater number of cases, it is the renal and not the pulmonary affection which puts an end to life.

Proceeding now to the bronchiectatic lung-state, I have to observe that its clinical characters have been elsewhere so admirably and exhaustively described, that I do not feel justified in occupying the time of the College by giving another description, which I could not execute so well, and to which I could add but little.

Nevertheless, I desire to notice some points in the clinical history of bronchiectasis, either because they have not been dwelt upon before, or because they have been inadequately or erroneously described.

In the first place, the general condition of the bronchiectatic patient differs materially from the subject of tubercular phthisis, on the one hand, and of fibroid lung, on the other. Pale or cyanosed, for the most part thin and stooping, distressed by paroxysms of cough, and drained by discharges of purulent and sometimes fœtid expectoration, the subject of bronchiectasis displays a combination of mental and bodily energy, not to be met with in any other disease.

In the second place, whilst in fibroid lung the disease is for the most part unilateral, and in tuberculosis bilateral, in bronchiectasis both forms occur in nearly equal numbers.

In the third place, whilst bronchiectasis resembles fibroid, for which it could not well be mistaken, in temperature, circulation, forms of cough, kinds of expectoration, conditions of breathing, absence of *malaise*, and slowness of general progress, it differs in almost all these points from tubercular phthisis, with which it is frequently confused, and has nevertheless little in common.

In the fourth place, whilst the excavations of fibroid occur at any

[3] Since the delivery of this lecture, Dr. Douglas Powell has reminded me that on more than one occasion the urine of this patient has been slightly albuminous.

part of the lung, and the excavations of tubercular disease at its summit, and whilst the excavations of both, when they are multiple, appear in groups without definite form or order, the dilatations of bronchial tubes, found more frequently at first in the middle and lower than in the upper lobes, are arranged in order along the bronchial ramifications.

In the fifth place, whilst the excavations of fibroid and tubercular disease arise in the midst of consolidations, the bronchial dilatations have no necessary relations to them, and, although commonly surrounded by fibroid induration, may be often found in the midst of apparently unaltered lung.

In the sixth place, although bronchial dilatations may be unsurrounded by peribronchial thickenings, or by pulmonary induration, chronic pleuritic neoplastic membranes are never absent.

In the seventh place, when several cylindrically dilated bronchi lie near to each other, the physical signs are sometimes such as to suggest the existence of a large cavity with rigid walls; but a careful and often repeated study of those signs will prove that they vary with the amount and time of the expectoration; and that sometimes the signs of a cavity are often wanting, and that at other times they are present only in isolated parts.

In the eighth place, in opposition to Traube and others, I contend that the sputum in bronchiectasis, similar in characters to that of advanced and regressive fibroid, frequently contains fragments of elastic tissue in two forms; first, in the form of bands, consisting of fibres running in straight lines parallel to each other; and, second, in the form of elastic areolæ and thickened intersecting trabeculæ. The former are exfoliated from the bronchial mucous membrane; the latter come from the pulmonary alveoli disintegrated by ulceration proceeding outwards from the bronchial dilatations.

In the ninth place, the sputum in uncomplicated cases of bronchiectasis, accompanied or unaccompanied by fibroid indurations and excavations, does not, as far as my present experience extends, contain tubercular bacilli.

In the tenth place, the only certain means of distinguishing a tubercular from a bronchiectatic cavity, or of knowing when a tubercular has supervened upon a fibroid or bronchiectatic process, is the presence in the sputum of tubercular bacilli.

Leaving now the bronchiectatic lung-state, I proceed to consider the chief points in the clinical history of the phthisical fibroid lung. As before, I will discuss first the local and physical signs, and thereafter the constitutional or general symptoms. The physical signs of the phthisical fibroid lung are the same as those of the simple fibroid lung, with certain alterations and additions. The disease is for the most part unilateral; and when we inspect the chest, we observe the same flattening or retraction of the affected side, the same depression of the shoulder and nipple, the same leaning of the body to the affected side, the same approximation of the ribs and hollowing of the intercostal spaces, the same displacement of the cardiac impulse, and throbbing at the root of the pulmonary artery,[4] the same projection of the lower angle of the scapula and twisting of the spine, the same restricted movements of inspiration, and the same rounded fulness and compensatory expansion of the unaffected side.

By palpation and percussion, we elicit results resembling those elicited by examination of the fibroid lung; diminution in varying degrees of tactile vocal fremitus, sometimes friction-fremitus, and dulness to percussion seldom over the upper, usually over the lower, lobes, and most frequently at the posterior base. Upon auscultation, we hear over the summit a harsh and jerking respiratory murmur, prolonged expiration, perhaps some medium crepitation or dry rhonchus, and increased vocal resonance. Over the dull regions there will be heard feeble breath-sounds, coarse crepitations, and bubbling rhonchi, usually metallic in character; at some parts, the vocal resonance will be diminished, and at others increased. At one or two spots, in the base or middle of the lung, very rarely at its summit, there will be found a tubular percussion-note, increased fremitus, cavernous breathing, bubbling, or smaller gurgling *râles* and piercing bronchophonic voice-resonance.

Throughout the lung opposite the affected one, the respiratory murmur, penetrating everywhere, will be found loud, harsh, and accompanied by a few rhonchi, or by scattered moist crepitations, which come and go.

The patient has paroxysms of cough, making the face swollen and livid, and ending sometimes in dry retching, sometimes in the expulsion of several ounces of expectoration. This expectoration, sometimes gelatinous or muco-purulent, sometimes in discrete opaque masses like softened cheese, sometimes watery, sanguinolent, or fœtid, contains, in a mucoid or granular matrix, pus-globules, granule-cells, blood-discs, epithelial cells, bands and areolæ of elastic tissue, and the *débris* of decaying structures swarming with micrococci. The breathing, quiet when at rest, becomes, on moving about or on coughing, shallow, laboured, and quick. The heart, drawn to the affected side, may be acting vigorously and with moderate frequency; there will be, probably, a systolic *bruit* in the pulmonary area; the pulse will be of moderate volume, and the superficial cervical veins will be distended. If the disease be much advanced, the face and neck will be swollen, and the integument over the side of the affected lung may become œdematous; the pulse will increase in frequency and diminish in volume, and the extremities will become cold and damp. The digestive organs are more or less deranged through hepatic and gastro-enteric catarrh; the liver is enlarged, there are often hæmorrhoids, and the bowels are confined. Almost invariably the urine falls in density and contains albumen; and this condition of the renal secretion is one of the features, which, with others to be mentioned, make so striking the difference between fibroid and tubercular phthisis.

The patient is often fairly nourished, sometimes corpulent, and, unless there be much bronchiectatic disease, seldom thin. In a few cases, he becomes cachectic looking and anasarcous.

The nervous system, except towards the close of the disease, is seldom seriously disturbed. Only one symptom occurs sufficiently often to be regarded as characteristic; this is pain about the base of the affected lung. Present in many cases, sometimes slight, sometimes severe, occasionally occurring in paroxysms, which play around the attachments of the diaphragm and pass downwards into the abdominal walls, this pain, regarded as a neuralgia, is considered by the patient to be the essential part of his malady, and causes him, in fact, his chief, if not sole, complaint.

With such serious signs of disease, and with such an assemblage of symptoms depending thereon, it might well be thought that the patient was in constant suffering and in imminent peril; and yet, strange to say, it is sometimes quite otherwise. The symptoms which seem the most distressing cause him either little suffering, or suffering which is immediately forgotten; and soon after a paroxysm of coughing, in which death from mechanical violence, or suffocation, or exhaustion seems inevitable, the patient may be found full of business, sparkling with humour, and confident of life.

Here is another of those features of fibroid which serve to distinguish it from tubercular phthisis; the frequent concurrence of extensive disease with an abounding vivacity and abiding life. For, although often it seems as if the patient must succumb, yet as often he rallies, and, renewing his conflicts and repeating his victories, he continues, in the fervour of self-reliant hope, to live and fight and to enjoy work.

Here, then, is the eventual outcome of a primitive dry pleurisy, which, after lasting for an uncertain time, has invaded the lung, altered or destroyed some of its structural constituents, consolidated portions of its parenchyma, and brought about ulcerous excavations therein. Here are well defined pathological, corresponding with well defined clinical, conditions, moving forward together with constantly re-adjusted relations towards a definite issue. Here are an assemblage and progression of symptoms associated with, or dependent upon, an ulcerative destruction of more or less circumscribed, non-malignant deposits in the lung. What is the name whereby we make known to each other the existence of this complex state? We call it pulmonary phthisis; and the term has so penetrated every department of thought and work in medicine that it can no more be rooted out. This final outcome of pulmonary fibroid invasion is therefore a pulmonary phthisis. And, if nothing more could be said, here at last would be an end of the whole matter. But, for my own part, I believe that on this subject there is more to be said; and in those who have sufficient experience and settled convictions, I regard it as a duty to say it. Such saying may clash with established opinion, assume the aspect of a retrograde movement, and be even inaccurate. Nevertheless, it ought to be welcomed; for genuine thought, born of genuine work, must always, in science, have its place and use. What then, if under the term pulmonary phthisis, there are included several states which, although corresponding to the generic definition, are different in their characters, course, duration, and issues? If they exist, ought not such states to be named, and so named that the ideas which they express, and the distinctions which they embody, shall be preserved for future study and use? It cannot be a worthless knowledge, which will enable one in a given case to predict with accuracy its future course, and say whether the subject of it is to live for five or for fifty years. And, furthermore, if such states have vindicated their right to be named, upon what principles shall the names be bestowed? Surely, if we

[4] This throbbing at the root of the pulmonary artery is sometimes mistaken for the systolic impulse of the left auricle.

wish to avoid confusion of thought and speech, surely, if we wish to repress that needless ever-changing nomenclature, that substitution of words for ideas, that reproduction of old thoughts disguised under freshly furbished raiment, which in knowledge so often begets movement without progress, we shall make sure that the name given shall be based on some physical characteristic of the thing named; so that, whilst theories of its nature may change, the name bestowed upon it, and by which it becomes everywhere and by everyone understood, remains unchanged.

Now, my contention is, that our answers to all these questions should be in the affirmative. I contend that there is a general assemblage of pathological conditions upon which we may bestow the generic term phthisis; that included in this term are subsidiary groups of states, which, differing each from the other in some essential points of their pathological and clinical history, demand separate recognition; and that, in naming them, we should have exclusive regard, not to the ephemeral theories of their nature, but to the abiding facts of their physical constitution.

Guided by these considerations, I regard the ultimate condition of the lung invaded, altered, consolidated, and excavated by fibroid material, as a phthisis; and, seeing that the most obvious and unvarying fact in its physical constitution is the presence and action of this very fibroid substance, I am bold enough to call it fibroid phthisis. This boldness will doubtless call down upon me a storm of reprobation and denial. Be it so. Confident that there is at least some just foundation for the position which I have taken, I must be content to endure and wait.

In reply to this contention, it will be said that the subject is no longer open to discussion; that experimental, pathological, and clinical inquiries concur to prove that there is but one phthisis, the sole originator of which is the tubercular bacillus; that there is neither room nor need for subsidiary classifications; and that their advocacy can be accounted for only by the ignorance or incompetence of the advocates.

But these arguments, couched in such courtesies of modern controversy, are not so conclusive as they sound and seem. Many answers may be made to them; but on the present occasion I shall confine myself to two, which, as I venture to think, are neither light nor irrelevant.

In the first place, assuming the absolute unity of phthisis under the exclusive causation of the tubercular bacillus, this unity does not do away with the fact that there are included in it subsidiary groups, which, for reasons already given, and not refuted by the bacillary presence, require separate and permanent recognition. At present, the bacillary hypothesis, although supreme in the domain of pathology, continues to be of but small account, or even barren, in the field of practical medicine. We cannot prevent the entrance of the bacillus into the organism; we cannot follow it into the secret places where it dwells and works; we cannot reach it by drugs, nor put an end to its multiplication by taking refuge among the mountain-tops. But, although we cannot eradicate the bacillus, nor arrest its action upon the organism, we may, perhaps, succeed in helping the tissues to resist, more or less successfully, the attacks which it makes upon them, and the destruction which follows in their wake.

And, although, in addressing ourselves to the furtherance of this object, we must have regard, in the first place, to the general well-being of the organism, we must not be unmindful of the different structural effects which arise from the unitary action of the bacillus. We must remember that sometimes these structural effects appear under the form of tubercles, sometimes under the form of caseous masses, sometimes under the form of fibroid consolidations, and sometimes as combinations of these forms; in which, however, one form is always predominant. Now, it can scarcely be denied that there is some difference of meaning in these differences of structural effects; that they pursue different courses; and that they react in different ways to the influences of climate, food, alcohol, and drugs. And, if this be so, I can discover no valid reason why those different groups should not be recognised by distinctive names; nor can I understand how we are to preserve a complete loyalty to the uses of knowledge, if we continue to refuse them recognition. It can be no invasion of the rights and privileges of the bacillary suzerainty to grant subordinate autonomies to the several groups of states which, arising under its influence, and continuing through its presence, pursue independent courses and create widely different histories. Why, under the generic name bacillary phthisis, should we not recognise the subordinate independence of tubercular bacillary phthisis, caseous bacillary phthisis, and fibroid bacillary phthisis? Surely every just differentiation is a substantial gain, and every confounding of things fructively distinct a material loss.

In the second place, I hold that the assertion that all ulcerations of non-malignant deposits in the lungs are bacillary, remains unproven, and is opposed to the results of inquiries made by several competent observers. I contend, on the contrary, that there exist cases of ulcerative bronchiectasis, and of fibroid lung with excavations, in which, after repeated search by processes successful in veritable tuberculosis, no tubercular bacilli could be found. It is to such cases that I give the name of non-bacillary fibroid phthisis.

It may be now justly asked, would anything be gained by establishing this distinction? I think much, in many ways. It is, however, of the clinical gain alone that I shall at present speak. By adopting and carefully studying the proposed distinction, we should learn that the history of non-bacillary fibroid phthisis is quite different from that of bacillary tubercular phthisis, and that the treatment which would prove useful in the one might prove both useless and injurious in the other; for example, alcohol, which is usually helpful in caseous, is usually hurtful in fibroid, phthisis. If any one will critically compare the broad facts making up the history of tubercular, with the broad facts making up the history of fibroid phthisis, I think he will become disposed to admit that the distinction now contended for is both real and considerable.

Let me bring to your remembrance a very few of the contrasting facts which are found in the two forms of phthisis now under consideration.[5] Tubercular phthisis is primarily of constitutional origin, and appears for the most part in the young; it is bilateral; its course is accompanied by elevation of temperature and rapidity of circulation, by progressive loss of flesh, strength, and colour, sometimes by laryngeal ulceration, and sometimes by sensations of painful exhaustion and *malaise*; it is usually rapid in its progress; the majority die within three years; and the few who, in consequence of fibroid complications, live for several years, enlarge the average duration of the disease to four or five.

On the other hand, fibroid phthisis is usually of local origin, and appears for the most part in the middle-aged; it is in the main unilateral; it is unaccompanied by elevation of temperature or hurry of circulation; flesh, colour, and strength may remain but slightly affected for years; it is not incompatible with great bodily and mental energy; the urine almost always contains a little albumen; the progress of the malady is slow; œdema is never absent throughout; and death, which seldom occurs within five years, is often delayed for thirty.

Here, I must bring these lectures to an end. Acutely sensible of their shortcomings, I regret that they have not been worthier of the occasion, of the place, and of you. Nevertheless, I take courage of heart in the thought that those who have worked the most, and have thought the deepest, and can judge the best, will not be ready to forget, or to despise when remembered, the small but sometimes perfect uses of imperfect work.

REGARDING THE EFFECT OF THE SALINE INGREDIENTS OF THE BLOOD ON THE CONTRACTION OF THE HEART.

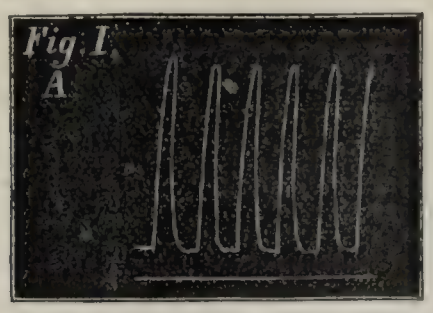
By SYDNEY RINGER, M.D.,
Professor of Medicine in University College, London.

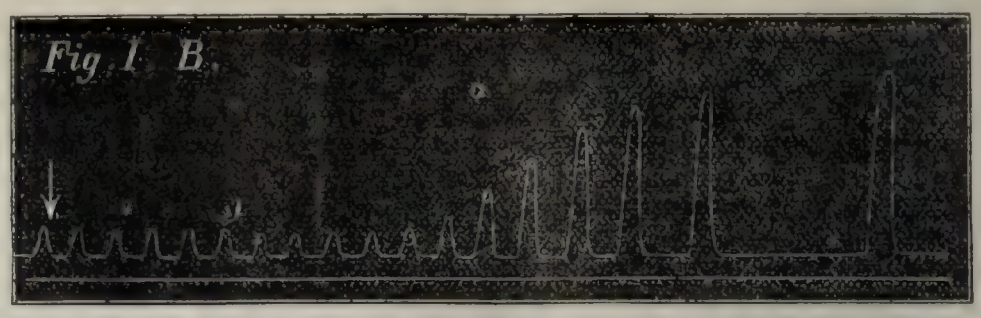
Before we can hope to attain to a scientific treatment of disease, it is obvious we must possess an exact knowledge of the action of drugs on each tissue; moreover, we must ascertain whether the effect of a drug is due to its direct action on the tissue, or through the agency of the nervous system, or by affecting the activity of the circulation. This exact knowledge we can best acquire by testing the effect of a drug on the tissue actually separate from the rest of the body, or, as far as possible, isolated from the other tissues.

Now, the heart offers exceptional opportunities for this mode of investigation. If blood, or an artificial circulating fluid, be made to circulate through the cavities of a frog's heart, detached entirely from the body, this organ will continue to beat spontaneously, or will respond to stimulation for many hours. This statement holds good, too, with portions of the heart, as the lower third of the ventricle, a part supposed to be free from nervous ganglia. Here, then, we have the means of testing, with facility, the immediate action of a drug on the whole heart, on the ventricle, or on a portion of the ventricle.

In this communication, I propose to describe the behaviour, in physiological doses, of the natural salts of the circulation—the salts proper to the blood itself—on the frog's ventricle.

[5] That is, there exist in the organism certain peculiarities of soil which enab the bacilli to grow and multiply





The experiments recorded in this paper were made on the heart of the common English frog. The ventricle excised from the rest of the heart is tied, in the auriculo-ventricular groove, on a "perfusion-cannula," that is, a double cannula; through one tube, the blood, or artificial circulating fluid, is made to flow into the ventricle, and out of the ventricle through the other tube. The ventricle is then immersed into a glass vessel, filled with oil, with a membranous diaphragm at the bottom (Roy's tenometer). This membrane, sucked up with each contraction of the ventricle, falls again with each dilatation, and works a lever which accurately records the movements of the ventricle on a revolving cylinder. The testing drug is added to the fluid circulating through the cavity of the ventricle.

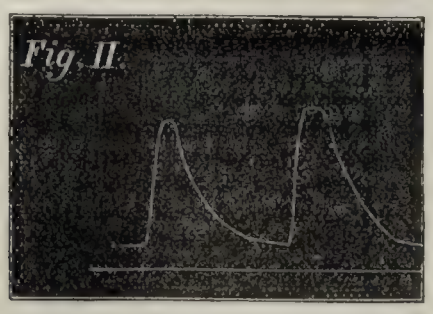
It is a curious fact that, when water only is made to flow through the ventricle, it speedily contracts, so remains, and, in a short time, dies; the water producing in the ventricular, as in the skeletal muscles, "water-rigor."

Now, if common salt be added to distilled water, in the same proportion as it exists in the blood, the ventricular contractions grow weaker and weaker; at last, contractility ceases, and the ventricle stops in diastole, and a contraction cannot be excited by any strong stimulation, even with a strong galvanic induction-shock. The addition of any other of the saline constituents of the blood, save one, will not restore the suspended contractility. The only constituent which will restore the suspended contractility is lime. On the addition of a physiological quantity of a lime-salt, as, for instance, one part of calcium-chloride to 10,000 parts of saline solution (0.75 per cent. of common salt), spontaneous contractions return, and the ventricle very soon begins to beat as strongly as ever.

The following trace shows the effect of simple saline, and the effect of a subsequent addition of lime-water on the ventricular contraction. Fig. IA shows the strength of the contractions when the ventricle was fed with diluted bullock's blood. On substituting for the blood 100 cubic centimètres of saline solution, the contractions quickly grew weaker and weaker; and when they became very feeble, I added to the saline solution 0.5 cubic centimètres of pure lime-water, at the point indicated by an arrow in Trace B. The contractions speedily improved, and soon became as good as those produced with dilute blood.

Other soluble lime-salts act in the same way; for instance, calcium bicarbonate or calcium chloride. Lime-salts, therefore, will sustain the contractility of the ventricular muscular tissue, and indeed are essential to the maintenance of the contractility. In fact, without a lime-salt, no single salt, nor all the saline constituents of the blood combined, can sustain contractility.

Soluble lime-salts in physiological quantities, added simply to the ordinary saline solution, soon modify the character of the contraction, by prolonging it (so that the top of the trace becomes broader) and delaying dilatation. This is seen in Fig. II.



Even with physiological doses of lime, the increased duration of each contraction becomes so great that, if the ventricle beat with normal frequency, a contraction begins before the completion of the dilatation of the preceding beat, and thus fusion occurs, sometimes partial, sometimes almost complete, as is well shown in these tracings.

A shows the contractions with dilute blood, and B the contractions with saline solution, containing calcium chloride, after circulating through the ventricle six or seven minutes.

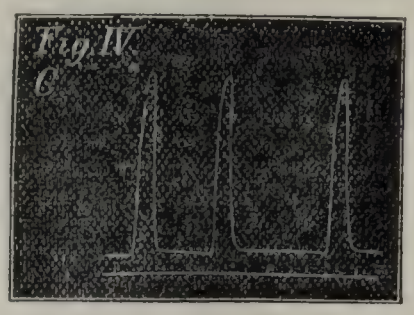




Lime-salts, therefore, though able to sustain the heart's contractility, are inadequate to maintain the circulation; for the diminution of the dilatation, owing to the fusion of the beats, by a half or two-thirds, lessens correspondingly the amount of blood the ventricle can receive, and, therefore, propel into the arterial system.

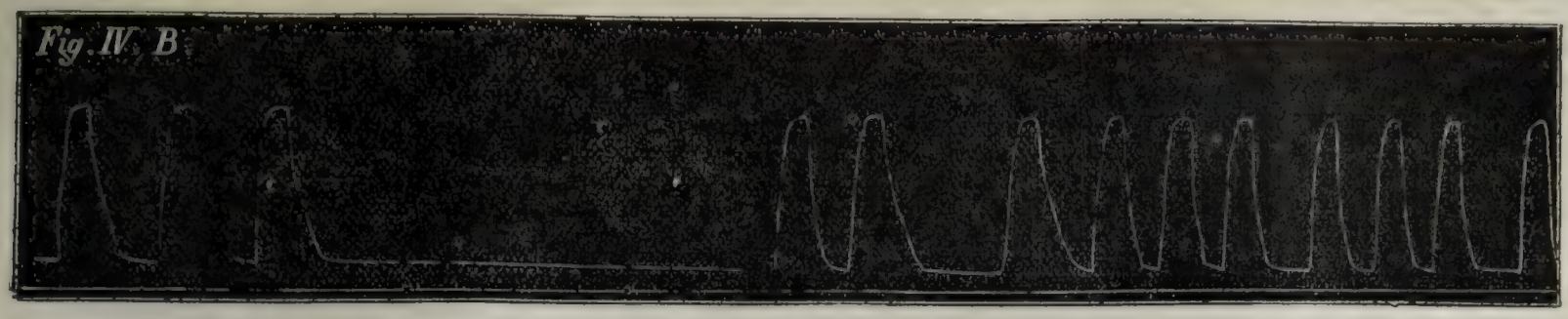
Any potassium-salt added to simple saline solution accelerates the weakening of the ventricular contractions, and soon suspends all contractility; but on adding any potassium-salt in physiological dose (as one part of potassium chloride to 15,000 parts) to saline, containing a physiological quantity of lime, the effect is most singular and interesting. The potassium-salt quite obviates the delay in dilatation caused by the calcium-salt, and insures a perfectly natural contraction. The effect of lime and potassium salts is well shown in the following trace. At A is shown the trace, while the ventricle was supplied with diluted blood. B shows the effect of replacing this by 100 centimètres of saline solution containing one centimètre of 1 per cent. solution of calcium chloride; the beat becomes broader, the top of the trace rounder, with much delayed dilatation. At the point indicated by an arrow, 0.5 centimètre of 1 per cent. solution of potassium chloride was added, which greatly accelerated dilatation, but failed to completely restore the beat to the character it possessed when the ventricle was supplied with diluted blood. I then added another 0.25 per cent. of solution of potassium chloride, and the ventricle recorded Trace C, in all respects like that occurring with diluted blood.





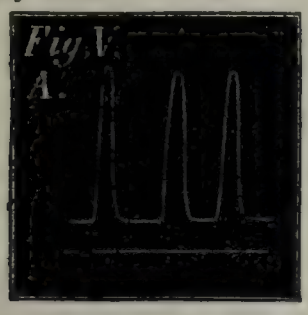
Here, then, potassium chloride partially antagonises the effects of the lime-salt, and by accelerating dilatation, produces a natural contraction; and thus we have produced, by the combination of calcium chloride, potassium chloride, and sodium chloride, a neutral solution capable of sustaining the ventricular contraction, and of producing perfectly normal contractions.

The foregoing solution is quite neutral in reaction, hence contractions can go on without the circulating fluid being alkaline; but, after an hour or an hour and a half, the contractions grow weaker, and the trace becomes reduced in height to the extent of a third or a half. Now, on the addition of a physiological dose of sodium bicarbonate (1 cubic centimètre of one per cent. solution to 100 cubic centimètres of fluid), the contractions become again quite normal. The strengthening effect of the sodium bicarbonate is due, I suggest, to its neutralisation of the acid developed in the contracting ventricle itself. Experiments show that the addition of a very small quantity of acid to a circulating fluid, enough to give even a faint acid reaction, at once arrests contractility.



All muscle during contracting forms an acid, and so the ventricle would destroy itself by its own efforts, but that the alkaline sodium bicarbonate of the blood, by neutralising the acid as it is developed, protects the muscular tissue from self-destruction.

Although sodium bicarbonate, under the circumstances detailed, will increase the strength of the contraction, it cannot sustain contractility without the presence of lime in the circulating fluid. For, if sodium bicarbonate be added to saline solution, in physiological quantities, it delays somewhat the suspension of contractility, but does not prevent it; and if sodium carbonate and potassium chloride be added to the circulating fluid, contractility ceases sooner than it does with saline solution and sodium bicarbonate alone. But if a physiological quantity of calcium salt, as calcium chloride, be added to saline solution containing sodium bicarbonate and potassium chloride, we get a solution capable of sustaining contractility unimpaired for many hours.





The addition of a physiological quantity of sodium bicarbonate to saline solution containing a physiological quantity of calcium chloride augments the duration of the beat, thus broadening the trace, rounding its top, and increasing the fusion of the beats, lessening, therefore, the amount of blood received, and, consequently, propelled by the ventricle; but a physiological quantity of potassium chloride not only antagonises calcium chloride, but likewise sodium bicarbonate; and, as I have said, we thus obtain a fluid well able to sustain the heart's contractility. This is well exemplified in Fig. v. A is the trace taken whilst the ventricle was supplied with blood. B shows the trace taken ninety minutes after the diluted blood was replaced by 100 cubic centimètres saline of solution, containing 1 cubic centimètre of 1 per cent. solution of calcium chloride, 1 cubic centimètre of 1 per cent. solution of sodium bicarbonate, and 1 cubic centimètre of 1 per cent. solution of potassium chloride.

It has, then, been clearly shown that neither saline solution, nor saline solution with sodium bicarbonate, nor saline solution containing sodium bicarbonate and potassium chloride, will sustain the contractility of the ventricle. If to any of these solutions lime be added, contractility is maintained; in other words, a lime-salt is essential for the continuance of contractility. Whilst this statement holds good, yet the addition of lime to saline solution, or to saline solution containing bicarbonate of soda, cannot long sustain contractility; indeed, to maintain contractility for several hours, the solution must likewise contain a potash salt.

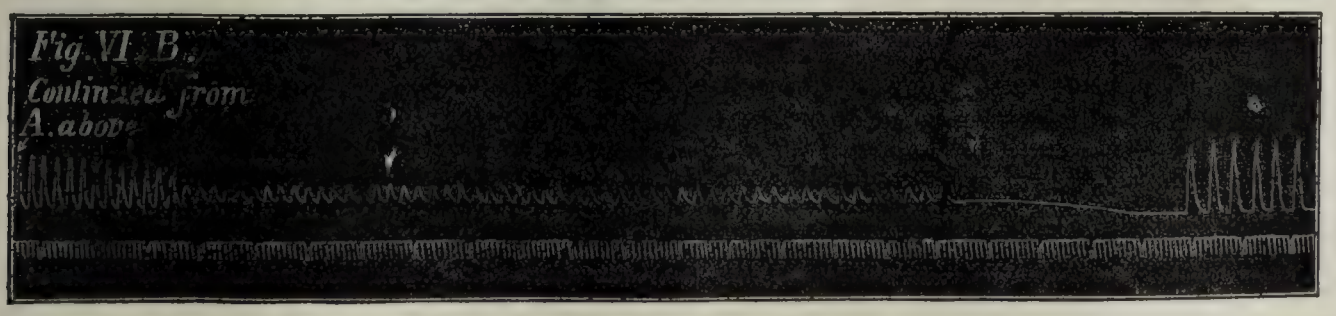
When the ventricle is supplied with 100 cubic centimètres of saline solution containing 1 cubic centimètre of 1 per cent. solution of sodium bicarbonate, and 1 cubic centimètre of 1 per cent. solution of calcium chloride, good temporary contractions ensue; but, as I have said, they soon become prolonged, so that the trace gets rounder at the top, and next the dilatation becomes prolonged. If the ventricle beat with normal frequency, the beats fuse more or less completely. Whether this occur or not, the ventricular contractions grow weaker, slight persistent spasm (contraction) sets in, and the contractions grow weaker and weaker till the heart stops. In the cold months, these changes occur slowly, and the ventricle goes on contracting for an hour to an hour and a half; but, in summer, especially when the weather is very hot, these changes described take place much more rapidly.

The presence of a potassium salt like potassium chloride in physiological doses prevents the occurrence of any of the changes just described, and maintains natural contractions. Even when the ventricle has grown very weak, or has stopped beating, the addition of potassium chloride to the circulating fluid will restore contractility, the beats being at first weak, but gradually growing stronger, till the trace becomes equal to the trace produced by blood or circulating fluid.

Here is a trace showing the effect of a solution containing lime without potash, and showing also the effect of the subsequent addition of potash. As the changes occur much more rapidly in hot weather, I record a trace taken in July, when the temperature of the room reached nearly 80° Fahr. A is the trace of the ventricle supplied with circulating fluid. I then replaced the circulating fluid by 100 cubic centimètres of saline solution containing 2 cubic centimètres of 1 per cent. solution of calcium chloride. In about twelve minutes the contractions became much weaker. At this point I added 1 cubic centimètre of 1 per cent. solution of sodium bicarbonate, which temporarily strengthened the contractions, though they soon again became weak. Then, I added 1 cubic centimètre of 1 per cent. solution of







potassium chloride, which soon strengthened the contraction; these changes are all well seen at B.

At the point indicated by the arrow *a*, I added the sodium bicarbonate to the saline solution containing calcium chloride; but, some seconds elapsing before the bicarbonate could reach the ventricle, the trace at first grew smaller and smaller; but when the sodium bicarbonate reached the ventricle, a temporary strengthening of the contraction ensued, but it soon grew weak again. At the point indicated by the arrow *b*, I added to the circulating solution the potassium chloride solution, with the effect of speedily and considerably increasing the strength of the beat. The ventricle continued beating spontaneously; and, at the end of rather more than three hours, when I was obliged to discontinue the experiment, the heart gave the following trace.



The contractions after this long interval were as good as at the beginning of the experiment.

In this experiment, on the addition of potassium chloride, the strength of the contractions rapidly improved; but, in other cases, the recovery is much slower, and twelve to twenty minutes may elapse before the complete restoration of the ventricular contractions. I introduce this chart because it shows summarily the same changes which occur much more slowly in cold weather. This chart likewise shows that, although without lime no contraction of the muscular tissue is possible, yet, even with lime and sodium bicarbonate, in proper proportions, added to saline solution, the contractions ultimately grow weak, soon in hot weather, far more slowly in cold. But on the addition of potassium chloride (although the addition of this salt merely to the saline solution, or to saline solutions containing sodium bicarbonate, is quite unable to sustain contractility), the contractions at once grow stronger, and soon become normal, and the ventricle continues to beat naturally for hours.

Potassium chloride, or some potash salt, is essential, therefore, to the prolonged continuance of contractility. It would appear that, unless the dilatation of the ventricle be speedily and effectively performed, "exhaustion" sets in, and the ventricle contracts feebly, but, on facilitating the dilatation, the ventricle quite recovers.

The normal contraction of the ventricle, then, is the result of a mutual antagonism between calcium and sodium bicarbonate salts on the one hand, and potassium chloride on the other. We can modify, in various ways, the character of the contraction, indicated in the form of the trace, by altering the normal relative quantities of these salts. If we increase the quantity of lime chloride, or of sodium bicarbonate, we broaden the trace of each contraction round its top, and produce some degree of fusion; but we can obviate these effects by increasing the quantity of potassium chloride. If, on the other hand, we increase the quantity of potassium chloride, the trace of a contraction at first becomes sharper at its summit, and then it does not mount so high, indicating that the ventricle contracts only imperfectly; and these effects of potassium we can entirely remove by increasing the quantity of calcium chloride. There is, indeed, as I have maintained, a physiological antagonism between these salts, and on this physiological antagonism the proper contraction of the heart depends.

Season, or rather temperature, and the condition of the frog, so affect the muscular tissue of the heart, that at certain months, and with weak exhausted frogs, a circulating fluid is required of somewhat different composition.

Cold favours the effects of lime, whilst heat favours those of potassium. Cold, like lime chloride, makes the contraction slower, and the summit of the trace broader. Heat, like potassium chloride, shortens the duration of each beat, and makes the summit of the trace sharper. To obtain a complete and normal contraction in cold weather, more potash must be used; and, instead of 0.75 cubic centimètre of 1 per cent. solution to 100 cubic centimètres of circulating fluid, 1 cubic centimètre should be added. In summer, the potash solution may be reduced below 0.75 cubic centimètre per 100 cubic centimètres; but it is better to increase the lime chloride solution to 1.5 or 2 cubic centimètres of 1 per cent. solution to 100 cubic centimètres of circulating fluid. There is no need to increase or diminish the amount of solution of sodium bicarbonate. With weak frogs, or those kept in confinement for some time, the solution must be modified. Exhaustion assists the effects of potash, for both lessen the amount of contraction, so that, in the case of exhausted frogs, the quantity of lime solution must be somewhat increased, in order to form, under these conditions, a fitting circulating fluid.

In conclusion, let me urge a practical suggestion, which seems to spring naturally from these experiments. In cases of profuse hæmorrhage, as in flooding, or in the excessive alvine discharges of cholera, it is of cogent importance that we should employ a fluid suitable to the life-or-death case. I think the foregoing inquiry points out that an effective injection should contain not only sodium bicarbonate, but likewise physiological quantities of salts of calcium and potassium.

DOMESTIC REMEDIES OF THE ARABIAN DESERT: WITH ETHNOLOGICAL NOTES, ETC.

By E. GORDON HULL, M.D., B.A., Dublin.

During the autumn and winter of 1883-4, while acting as honorary medical officer and assistant-geologist to an expedition sent out by the Palestine Exploration Fund, to Arabia Petræa and the Arabah Valley, I had an opportunity of making some notes on the common ailments and remedies of the Bedawin, and also some observations on their physical condition, which I will state as shortly as possible.

Physically, they are a small race, but their limbs and bodies are well formed and proportioned, and they are capable of enduring great fatigue on a diet consisting principally of boiled rice and butter, with unleavened bread, coffee, dates, and water. We came across two principal tribes, those of the Sinaitic Peninsular, and those who live east of the Arabah valley. The Towara, who live between the gulfs of Suez and Arabah, are more civilised than their eastern brethren, and indulge in a little agriculture, but they live chiefly by tending sheep and goats.

I measured twenty-six adult males, picked men of the tribe; taking three measurements, that is, height, chest round nipple, and length of right arm from acromion to top of middle finger. The average height was 5 feet 4½ inches; average chest-measurement, 31 inches; average length of right arm, 27.6 inches. The maximum chest-measurement in a man of 5 feet 11 inches was only 34¼ inches, and the minimum in one of 5 feet was 30 inches. Yet, with such insignificant chests, they were splendid pedestrians and mountaineers, and did their day's march without a murmur. Certainly, they were all in very good condition, for I do not suppose there was an ounce of fat among the whole tribe. The next tribe with whom we came into contact were even of smaller make, averaging only 5 feet 2 inches in height. Their muscles, especially of the upper extremities, were very poorly developed, while they nearly all, except the sheik, exhibited marks of inferior intelligence; about five or six out of our twenty men were decidedly half-witted, and all of them had the habit, common among such people, of repeating over and over again everything that is said to them, or that they say to one another. They appeared half-starved, and used to chew continuously the dried beans provided for the camels. Like most wild animals, they have splendid teeth, very firmly fixed in the jaw, and their sight is remarkably keen. They nearly all turn in their toes when walking.

Owing, no doubt, to their habits, the Arabs seem to be most subject to the diseases due to exposure; but, as far as I could judge, these diseases have a tendency to the chronic or subacute form, rather than the acute. Two I particularly noticed as almost universal, that is, chronic bronchitis, of a dry kind, and without emphysema; and chronic articular rheumatism.

The first cannot fail to force itself on every traveller's attention, as it gives rise to a peculiarly irritating paroxysmal cough, rather canine in character, which, as the Arabs sat round our tents at night, often disturbed our slumbers. The second, that is, rheumatism, I noticed when taking the measurements of a series of the men; nearly all their shoulder-joints creaked and groaned as they raised them; and this will account for the curious inability of the Arabs to move about or do any work in the morning before they are "thawed," and rendered supple either by fire or by sun. It seems, at such a time, as if all their joints were temporarily ankylosed, so stiff and unpliable are they. Ophthalmia is common; it appears to begin usually as a purulent conjunctivitis, but is very liable to attack the cornea; and, in a great many cases, it proved to be really associated with granular lids. A great number of the Bedawin of the Peninsula had corneal opacities, but, amongst the wilder tribes of the east of the Arabah, I noticed

little or none, neither did any that I came across suffer from conjunctivitis or ophthalmia of any kind; and, partly on this account, and partly from the well known contagious nature of the granular lid, and the habits of the Arabs of wiping anything and everything, their own eyes and their children's, etc., on their never washed calico-shirts, I am rather disposed to look upon their ophthalmia as a contagious disease, acquired from contact with the fellaheen of the cities of Egypt and Palestine, among whom it is almost universal. And in this opinion I am strengthened by the observations of Mr. Merrill, the American Consul at Jerusalem, who told me that there was no ophthalmia among the great tribes east of Jordan. Another argument against the opinion that their ophthalmia is due to the heat and sand of the desert, is that, while ophthalmia is prevalent among the Arabs inhabiting the comparatively elevated plateau and stony valleys of the Sinaitic Peninsula, those who live in the great deserts of Arabia Magna do not seem to suffer from it at all; and, at Akabah again, where a number of low class Arabs are crowded together in huts, ophthalmia was very prevalent. I believe that in this, as in most other cases, it is originally due to dirt and overcrowding, and is then spread by contagion.

Constipation is universal, and sometimes appears to simulate a false dysentery, with great pain in the bowels, which is relieved at once by a purge. They call a pain in the abdomen, or a colic, a "heart-ache," and I have removed many a "heartache" with a gamboge pill. Their habit of over-eating when they get the chance, alternating with more or less prolonged periods of semi-starvation, will account for the prevalence of this complaint.

Skin-disease is not so frequent as one would expect from their uncleanly habits, if we except phtheiriasis; however, I saw two cases of impetigo, and I was given an account of a kind of moist purulent eruption, which, in the spring-time of the year, is apt to attack both men and camels, especially the latter. The hair falls off the places attacked, and the seat of the disease becomes covered with scabs; it also has a very unpleasant smell. They call it "jarrub," and believe it to be catching. Sulphur, externally and internally, made into a paste with butter, are the native remedies for this disease.

In certain districts, notably Akabah, they suffer from ague, but this disease is not common among the Arabs proper. The late Professor Palmer states that "they are sometimes visited by an epidemic, not cholera, probably the plague, which they call 'the yellow pest.' It comes with the hot winds, and strikes them down suddenly in the midst of their occupation, but it is said never to attack the country of our Lord Moses, where grow the shiah and the myrrh, that is, the elevated granite-region about Mount Sinai."

It will be seen from the above that the diseases to which the Arabs are subject are few; and if we except those infectious diseases which come to them from without, such as cholera and small-pox, they appear to be a very healthy people.

The remedies they are in the habit of using are not many in number, and are usually derived from those plants which are most widely distributed. As a diuretic, that is, for pains in the back, and gravel, they use the retem, or broom (*Spartium monospermum*) making a decoction of the top shoots in hot water, and drinking it; they say it is also purgative. This shrub, which provides them with fuel and their camels with a scanty nourishment, is almost universal; we saw it in flower on the way to Petra, and the inflorescence, which is purple and white, gives out an exceedingly sweet perfume. It has a very bitter taste.

Several species of wild melon, of the family *Bryoniæ*, allied to the elaterium (which also grows in these parts), are in common use as purgatives; the native method of using them is ingenious. A fruit is split into halves, the seeds scooped out, and the two cavities filled with milk; after allowing it to stand for some time, the liquid, which has absorbed some of the active principle of the plant, is drunk off. A milder remedy is camel's milk, which appears, under some circumstances, to be purgative to the Arabs.

The order *Compositæ* furnishes several medicinal herbs of which the Arabs make use. The *Santolina fragrantissima*, a graceful plant of a sage-green colour, bitter taste, and strong fragrant smell, furnishes them, in the form of an infusion, with a carminative, good for colic and all painful affections of the abdomen. In the bazaars of Cairo, the fragrant dried heads are sold for the same purposes as camomile. I was told that there are no snakes in the districts where the plant grows; and the natives believe that the smell of the plant is sufficient to drive reptiles from a house, and it is used for this purpose in Cairo and other towns.

Another plant of the same order is an artemisia, or wormwood, with a very strong aromatic odour and bitter taste. The fellaheen use it to put in their bedding to drive away vermin. This use of the plant appears to be very universally known, witness the old English rhyme—

> "When wormwood hath seed, get a handful or twain,
> To save against March, to make flea to refrain:
> Where chamber is swept, and wormwood is strewn,
> No flea, for his life, dare bide, or be known!"

From the seed of some of the kinds of artemisia, which grow in these parts, santonine appears to be obtained. In the wilderness of Judæa, near to Beersheba, we found a pretty little calendula, or marigold, very common. It became extremely abundant along the Mediterranean sea-board, and is used by the natives as a sort of tea for flatulence and pain in the abdomen. Knowing how largely a liniment derived frem this plant was advertised by homœopaths, I tried to find out if they used it as an external application, but they did not know of its virtues as such. One of the commonest desert-plants is the zygophyllum, so called from the leaves being composed of short succulent jointed segments; these, bruised in water, form a mucilaginous liquid, of which the Arabs are very fond as an application for sore eyes. It has an exceedingly nauseous taste, but this fact only appears to commend it to the notice of the camel, who devours it greedily. A curious tropical plant, which we found in the Ghor, at the south end of the Dead Sea, is the osher (*Callotropis gigantea*), a large tree-like asclepiad, containing simply enormous quantities of milky acrid juice. Its properties are stated by Endlicher to be powerfully purgative and emetic; but the natives use it to give to women whose milk is scanty, probably in accordance with the doctrine of signatories. Here, also, grows the castor-oil plant, but its virtues are unknown to the natives. A very striking plant, which, perhaps, I should have mentioned before, and which often hangs in graceful dark green festoons from the granite walls of the gorges of Arabia Petræa, is the caper plant (*Capparis spinosa*). The natives are very fond of the fruit, which has a warm aromatic taste, and they stroke the region of the epigastrium appreciatively after eating one or two. The cortex of the root is said to be aperient and diuretic. Another fairly common plant is a hyoscyamus, called by the natives sekharan, with fleshy leaves and purple flowers. The dried leaves are used by the natives to smoke, and produce a kind of intoxication or delirium; and an infusion of the fresh leaves possesses strong narcotic properties. It is nearly allied to the mandragora, which becomes common on the limestone downs in the south of Judæa. The Arabs are extraordinarily susceptible to narcotics. Our tobacco they could not smoke at all; a few whiffs make them giddy, and give them a headache; even a "Richmond Gem" cigarette is too much for them. Only two mineral substances appear to be regarded by the Bedawin as medicinal. One of them, sulphur, I have already mentioned; the other is a kind of common red coral, found on the shores of the Red Sea and Mediterranean, and sold in the bazaar at Gaza. As far as I could gather, they only use this as a charm.

In conclusion, I may mention that the few drugs which are really useful on an expedition of this sort, can be carried in a small tin box a few inches square. And a little doctoring is greatly appreciated by the natives. Purgative pills, quinine, some preparation of opium, a bottle of nitrate of silver and atropine drops for sore eyes, and some strong ammonia and powdered ipecacuanha for bites and stings, will go a long way. I took a good deal more than this, as I had a large party to "keep in repair," but the above list contains the drugs most generally useful.

A NEW SPLINT FOR THE TREATMENT OF TALIPES.

By F. T. PAUL, F.R.C.S.,
Surgeon to the Royal Southern Hospital, Liverpool.

It has always appeared to me, as a general surgeon, that, in our ordinary hospital-practice, cases of confirmed talipes frequently do not obtain the full amount of benefit that is possible; more frequently, I mean, than other varieties of remediable defect. I suppose that this would be explained, if it be really a fact, in different ways by different surgeons. The explanation that has occurred to me is simply that the mechanical treatment following any operative procedure needs to be so prolonged and so assiduous during the whole time, that the careful patience of either the surgeon or the patient often breaks down before the cure has been effectually and permanently established. I have been in the habit of using sheet-iron side-splints, with a foot-piece, fixed on by first firmly strapping the foot to the foot-piece while the foot is in its deformed position, and then forcing the side-splint to the leg, and so reducing the deformity. The plan answers well enough if the splint be refixed every few days for six or twelve

months. In my own practice, I observe that I generally keep up a pretty close supervision of the case for a month or two; then it gradually drops entirely into the hands of my house-surgeon; subsequently, it falls to the care of the nurse; and, lastly, it is lost sight of for a time, and, when seen again, is often as bad as when it first came under treatment. For a long time, I have felt that, if a surgeon had the time to undertake a complete supervision of his cases of talipes, he could usually cure them by simple mechanical means; and it was owing to the unsatisfactory results that I constantly met with in the practice of my colleagues, as well as myself, that I attempted to devise a splint which would be so easy to manipulate, that the surgeon could himself take in hand the treatment of his talipes cases without that loss of time which at present frequently causes him to relegate the duty to someone else.

The splint consists of the ordinary side-rods and padded ring of a Thomas's knee-splint (A). Joining the side-rods at the bottom is a



ring to walk upon, and a cross-bar from one to the other. This latter has a slot in the middle part of it, in which a strong steel ball can be fixed. The ball works in a socket attached to a plain wooden foot-piece (C). The foot-piece is attached to the socket by three or four ordinary screws, which can at any time be removed, and the former replaced by a boot when the treatment is sufficiently advanced (B).

The method of applying the splint is as follows. The foot-piece, with the ball and socket joint, is taken out of the splint, the joint unscrewed, and the ball removed, so that strapping can pass under the foot-piece anywhere. The child's foot is then very carefully strapped to the foot-piece, in such a manner that it will not require to be renewed for some time. The ball is then replaced and loosely screwed up, and the foot-piece with the limb fixed to the splint. It is unnecessary, as a rule, to put on more than a couple of straps round the leg and splint; but, when inversion is marked, a better fixation of the limb will be required, in order to be able to evert the foot. All that is left to be done is to gently force the foot into a somewhat improved position, and screw up the ball and socket joint. At the next visit, this is loosened, and refixed in a still better position; and, as it is only the work of a minute, it can be undertaken by the surgeon as he makes his daily rounds.

Children walk about easily in these splints, and, so far, I have met with very good success in using them. If only one leg be affected, a high sole should be made to the opposite boot to avoid any obliquity of the pelvis.

The drawback for hospital use is the cost. There is a good deal of work in the splint, and it must be well done, or the joint will not remain fixed when in active use. Mr. Critchley, of Liverpool, has taken great pains to carry out my instructions in making the splints, and has succeeded very well. He supplies them to the hospital at £1 each.

THE REV. HENRY ARNOTT, Vicar of Bussage, has been appointed Rector of Beckenham. The reverend gentleman, who is a Fellow of the Royal College of Surgeons of England by examination, was formerly assistant-surgeon and lecturer on pathology at St. Thomas's Hospital.

TOXICOLOGICAL MEMORANDA.

THREE CASES OF POISONING BY "HELLEBORE" POWDER.

As an instance and exposure of the credulity of the present generation with regard to quackery, the following account may be of slight interest.

At about 9.30 P.M. on Saturday, February 28th, a messenger requested me to see three people—R. C., his wife, and a lodger—who, he asserted, were dangerously ill, from having taken some poison, a sample of which he brought with him. These people lived two and a half miles from my residence; and, on my arrival, a little after 10 P.M., I found R. C., the husband, aged 61, looking very pale, prostrated, his pulse very feeble; pupils normal. He stated, in feeble tones, that he felt perfectly helpless, and very cold, but somewhat better than he had been. The wife, aged 60, who had been desperately sick and purged, was apparently going on all right, and said she was feeling much better than she had been. The lodger, aged 65, was very ill; he looked pinched and blue with cold, and had been sick and purged. Mustard and water had been administered to all three, with good effect.

The wife informed me that they all partook of the powder at about 7 P.M., and that, a few minutes after, her tongue "felt funny"; she was then sick and purged, had pain in the bowels; her hands, and subsequently the whole body, became cold and trembling. As far as I could ascertain, I should say that each of them took about a scruple of the drug.

From what I saw, I concluded that the quantity of poison taken had physiologically exhausted its effects, and that there was no necessity to administer emetics or use the stomach-pump, which would only increase the prostration. I therefore ordered hot bottles to be applied to the extremities, and brandy and hot water to be administered to each. All made a rapid recovery.

I was told by R. C. that the old lodger had recommended this hellebore powder for the "wind," the said lodger having gained considerable confidence by informing them that his "faythur was a bit uv a doctur loike."

J. T. KNIGHT, M.R.C.S.,
Carlton, near Nottingham.

THERAPEUTIC MEMORANDA.

CUCAINE IN DENTAL SURGERY.

HAVING read with interest the reports which have appeared week after week of the various uses to which cucaine has been put, I thought a few particulars of my experiments with it in dental surgery might be interesting.

For extraction, I have tried both the solution and the hydrochlorate of cucaine itself, and, with the latter, have obtained very satisfactory results. It seems to answer best for front teeth and bicuspids, also for stumps when separate. The following case will show the method adopted, etc.

R. W., a porter, aged 20, came to the Dental Hospital to be relieved of a lower right second bicuspid, which was above the average size and quite firm. I first surrounded the tooth, and about half an inch of the gum around it, with the corner of a napkin, to keep the parts dry, and prevent the cucaine from being carried off in the saliva. I then freely applied the crystals to the gum close around the tooth, three times, at intervals of two minutes each. After the second application, the gum was entirely anæsthetised, the patient not feeling the pricks of a sharp probe. A few seconds after the third application, with a pair of warm forceps, which I carefully hid from view, I extracted the tooth, and said nothing for some time. At last I desired the patient to wash out his mouth, but he began to smile, saying the tooth was not out; nor would he believe that it was until he had felt the empty socket with his finger.

With large teeth I have found it a good plan to treat as above, and then, just before extracting, to introduce the nozzle of a fine hypodermic syringe between the gum and neck of the tooth, and inject three or four minims of the 4 per cent. solution. This may not, however, be possible in all cases.

With molar teeth, more especially upper, although the pain is greatly diminished, there is always the twinge of the actual separation of the tooth from its socket, and the rupture of the nerves, etc., at the apices of its roots.

In all the cases I have seen, the gum has returned to its normal state in a short time, and there has been no unfavourable symptom

of any kind, although I have carefully watched for them, both locally and otherwise. As an obtundent for sensitive dentine, the 20 per cent. solution has proved, so far, very effectual. By applying it on a pellet of cotton-wool for a short time, I have been enabled to proceed with the preparation of a cavity for filling, which before has caused the patient the most acute pain ; and a solution of this strength will, I think, be found of great advantage in cavities in close proximity to the nerve, or even in operations on the nerve itself.

J. McKNO ACKLAND, M.R.C.S., L.D.S.Eng., Exeter.

CLINICAL MEMORANDA.

NOTES ON THE URINE OF WEANING WOMEN.

MRS. G., aged 26, was nursing a baby 4 months old, when she caught scarlet fever. The disease was severe ; the mucous membrane of the fauces, of the uvula, and of the hard and soft palate, being intensely inflamed. The baby had to be weaned at once. The day after the process of weaning was begun, the urine was found to be of specific gravity 1035, containing sugar and albumen. As the breasts lost their milk, the sugar, albumen, and abnormal specific gravity disappeared. There was no nephritis subsequently.

Mrs. B., aged 37, was attempting to nurse her infant—a process under which she always breaks down. An attack of quinsy made her desist. The urine was loaded with lithates, and the specific gravity ran up to 1048. On examination, it was found to be highly albuminous, and to contain sugar. The albumen, it is believed, was chronic, but the sugar disappeared from the urine as the breasts subsided.

In a dozen other instances of mothers weaning their infants from various causes, the urine has been examined. On no occasion was albumen or sugar detected. THOMAS F. RAVEN, Broadstairs.

SURGICAL MEMORANDA.

NOTE ON THE VALUE OF "THE DIAGONAL LINE" IN THE DIAGNOSIS OF DISTENSION OF THE GALL-BLADDER.

IN an article on cholecystotomy in the BRITISH MEDICAL JOURNAL of January 31st, 1885, I wrote as follows. "An important aid to diagnosis will, I think, be found in recognition of the diagonal line in the direction of which the gall-bladder enlarges. This is to be traced from the normal position of the larger end of the gall-bladder (near the tip of the cartilage of the tenth rib on the right side) to the opposite side of the abdomen, crossing the middle line slightly below the umbilicus."

Since writing the above, I have had some additional opportunities for testing the value of this aid to diagnosis. On February 15th, 1885, I was asked to see a case of abdominal tumour by my friend Dr. Drury. There was no jaundice, and but little clinical history to be obtained in the limited time at my disposal. Finding, however, a well defined, hard, but rather resilient tumour, the longer axis of which exactly corresponded to the diagonal line described, I had no hesitation in diagnosing the case to be one of distension of the gall-bladder.

This opinion (in which Dr. Drury concurred) was considered erroneous by another surgeon of large experience, who saw the case subsequently ; and, as the chief reason for my opinion was the sign which is the subject of my communication, the case became of some special importance to me as a test.

On March 26th, Mr. Tait operated. The tumour proved to be a distended gall-bladder ; and a large number of calculi were removed from it, two of these being of enormous size.

I should like to again draw the attention of the profession to this diagnostic line, as I believe it to be trustworthy and useful.

JOHN W. TAYLOR, F.R.C.S.,
Out-patient Surgeon to the Birmingham and Midland Hospital for Women.

INFLUENCE OF THE INHALATION OF NITRITE OF AMYL ON THE REACTION OF THE URINE.—Messrs. Giuseppe and Sansoni, of Turin, have recently discovered that the acidity of the urine is rapidly and considerably increased by the inhalation of a few drops of nitrite of amyl. Uric acid is passed in large quantities, and forms a deposit in the vessel. A patient suffering from transverse myelitis, and whose urine was alkaline and rich in phosphates, was made to inhale nitrite of amyl every two hours for some time. The urine became acid, and the quantity of phosphates diminished.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

SALFORD ROYAL HOSPITAL.

VALVULAR DISEASE OF THE HEART, ACCOMPANIED BY RHEUMATIC SUBCUTANEOUS NODULES.

(Under the care of Dr. EDGE.)

A BOY, aged 14, was admitted on October 23rd, 1883. He had had an attack of rheumatic fever about a year previously, from which he was considered to have made a good recovery. For six weeks before admission, he had been complaining of weakness and breathlessness ; and, when first seen, he presented the usual symptoms of insufficiency of the aortic valves, there being a double basic murmur, enlargement of the heart, and a perfectly typical pulse. He improved slowly, and about the beginning of November was allowed to sit up. He had no symptoms of rheumatism until November 17th, when he complained of pain in the metacarpo-phalangeal joints, which were found somewhat swollen.

On November 19th, the swelling had disappeared ; but the knuckles presented small nodules, which seemed to be attached to the extensor tendons ; they were (like all the others which will be mentioned hereafter) free from pain and tenderness, and movable, not being attached to either skin or bone. All the metacarpo-phalangeal joints of the left hand presented these nodules, except that of the thumb ; but, on the right hand, the corresponding joint of the second finger only was affected. The palms of both hands were noticed to be constantly sweating.

On November 23rd, the only nodules observable on the left hand were on the second and third fingers, while an additional one was found on the forefinger of the right hand.

On November 30th, the only nodules remaining were those situated on the second fingers of both hands ; but a fresh one began to appear on the extensor tendon of the left great toe.

On December 10th, the nodules on the hands still persisted, and there were two new ones on the extensor tendon of the right great toe, and one on the second toe of each foot.

On December 20th, all these nodules had disappeared, with the exception of one on the right great toe, and this soon disappeared also.

There were no fresh manifestations until January 9th, 1884, when the hands began to sweat again ; and, on examination, nodules were found on the extensor tendons on the dorsal surface of both hands.

On January 11th, a nodule was observed above each wrist, situated on a flexor tendon, and one also just above the styloid process of the left ulna. All the nodules which have been hitherto mentioned were about the size of small peas, and they had almost disappeared on January 22nd, when a fresh crop was noticed on the lower limbs, affecting principally the knees, but one was situated on the dorsum of the right foot. On the right knee, there were two nodules situated immediately above the upper edge of the patella, and two over the external condyle, one of which was of the size of a large hazel-nut. On the left knee, there were three nodules at the upper edge of the patella, one on the external condyle, and one on the internal condyle. The soles of the feet, as well as the palms of the hands, were now noticed to sweat profusely.

On January 25th, two nodules were observed on the dorsum of the left foot, and the upper limbs again became conspicuously affected. The right elbow presented three, situated over the external condyle, and one over the olecranon ; while, on the left side, one was situated over the external condyle, and two over the olecranon.

On January 26th, nodules appeared on the right forearm, just above the wrist ; and, on January 28th, a row of three nodules, each about the size of a large pin's head, was noticed above the left wrist. There was also a reappearance of the one above the lower extremity of the left ulna. Those on the left foot were larger, and an additional one was noticed above the external malleolus.

On February 8th, those above the left wrist and those on the feet had disappeared, and those about the elbows and knees were all smaller. On February 19th, a fresh nodule appeared on the knuckle of the left forefinger. On February 22nd, the nodules above the patellæ were not discoverable ; and, on February 26th, the boy was made an out-patient.

On February 29th, the nodule above the right wrist persisted. The

elbows were in the same condition, except that the nodules were all smaller, and that the one on the left external condyle had disappeared. The right knee presented one over the internal condyle, and two over the external condyle; while on the left knee, there was one above the patella, two over the external, and one over the internal, condyle.

On April 18th, the large nodule over the right external condyle was reduced to the size of a pea, and there was still a nodule over the left internal condyle. The only other remaining nodule was very small, and was situated over the left olecranon.

On May 9th, there was no change, except that the last-mentioned nodule had disappeared. There is little to be said about the temperature in this case; there was slight pyrexia, and the temperature was usually observed to be rather higher than usual before a fresh crop of nodules made its appearance.

REMARKS BY DR. EDGE.—This case seems worthy of being placed on record, as it is a typical example of the affection to which Drs. Barlow and Warner called attention in 1881. The symmetry of the nodules was very marked in this case, but this has not always been noticed. The case illustrates how much the nodules vary as regards duration, some lasting a few hours only, while others persist for several months. They are usually found in young subjects, from four to eighteen years old, and are then nearly always associated with rheumatism and heart-disease, the latter being frequently of a progressive character. They vary in number from one to fifty, about forty-four having been noticed in this patient. These nodules often appear in successive crops, and, as illustrated in the case in point, sometimes return after a temporary disappearance. They are always more or less movable, being attached to tendons or deep fascia; they never become bony, nor do they suppurate, or become infiltrated with urate of soda. They are found to be composed of fibrous tissue, and are very vascular. Dr. Barlow considers that these nodules are analagous to the inflammatory exudation which forms the basis of a vegetation on a cardiac valve; and it is interesting to note that Dr. Angel Money has found, after death, similar nodules in the substance of the heart, in a case in which subcutaneous nodules existed during life. Observers vary as regards the frequency of this affection; for, while the late Dr. Mahomed saw only two cases in two years, Dr. Angel Money finds them in at least 50 per cent. of his cases of rheumatism in children.

Similar nodes have been observed and described by Dr. Dyce Duckworth, Dr. Stephen Mackenzie, and Dr. Kingston Fowler, as occurring in adults; but they are probably not identical with those referred to by Drs. Barlow and Warner. Dr. Duckworth is of opinion that there are several varieties of this affection; at any rate, the cases described in adults differ very considerably from such an one as has just been reported. The nodes which occur in adults seem to be not necessarily associated with rheumatism or heart-disease (in Dr. Mackenzie's case, the affection occurred in a patient who was the subject of syphilis); they last for a longer period; they are frequently painful on pressure; they may be much larger than those found in children, reaching, as in Dr. Fowler's case, the size of an olive, a Tangerine orange, and a walnut repectively; and, lastly, according to Dr. Duckworth, they may be adherent to the skin and periosteum. In all these respects, these adult cases differ in a marked manner from those described by Drs. Barlow and Warner, and from the one which is now reported, so that at least two varieties of this affection may be distinguished.

ST. VINCENT'S HOSPITAL, SYDNEY, NEW SOUTH WALES.

HYDROCELE CONTAINING MILKY FLUID.

(Under the care of Dr. MILFORD.)

[Reported by THEO. M. KENDALL, B.A. Sydney, L.R.C.P., L.R.C.S. Ed., Assistant-Surgeon.]

R. C., AGED 26, stated that, about eight years before admission, he received a blow on the left testicle, which soon afterwards began to swell. About two years before admission, the swelling was tapped, and about a pint of milky fluid drawn off. Although the testicle again increased in size, he did not apply for treatment till June 4th, 1884, when he was admitted into this hospital.

The swelling was large, pyriform, opaque, and doughy to the touch. The tunica vaginalis was much thickened, and, at the lower part, there appeared to be a separate cyst-wall. This feeling was, however probably due to the projection inwards of the thickened tunica vaginalis.

There was no history of syphilis or of phthisis, and the man denied ever having had sexual intercourse. He, however, probably masturbated.

The hydrocele was tapped three times; a fortnight intervened between the first two operations; on each occasion, a considerable quantity of milky fluid was drawn off. This fluid, on being shaken up with ether, became ordinary hydrocele-fluid. On being allowed to stand for the night, the fluid separated into a thick and a thin portion, the thick substance floating at the top, and looking like cream. The specific gravity of the fluid was 1019. Under the microscope, it was found to consist of a series of oil-globules, floating in a colourless fluid. There was no evidence of spermatozoa being present.

About three weeks after the second operation, the hydrocele, being very full, was again tapped, and, on this occasion, ordinary hydrocele-fluid, mixed with blood, was drawn off.

REMARKS BY MR. KENDALL.—At present, I know of no other truly similar case. A few cases of milky hydrocele have been recorded, but none in which the change in the character of the fluid has been noticed. In Mr. Bryant's case, spermatozoa were present, and he attributed the colour of the fluid to a ruptured seminal duct. In M. Vidal's cases, which are the most like the one I have recorded, the fluid was similar in character, and yielded the same results with the same reagents. Vidal's theory was that the milky fluid was simply ordinary hydrocele-fluid, *plus* some of the fatty matters of the blood exuded by the capillaries of the tunica vaginalis. He also states, and I have verified the statement, that, when ordinary hydrocele-fluid is shaken up with oil, it becomes like milk.

As is well known, serum contains a small amount of fat; and I think it is most probable that this quantity had been increased, in the foregoing case, by some pathological change taking place in the capillaries of the tunica vaginalis. This pathological change must have again become modified in Dr. Milford's case, as is shown by the presence of the ordinary hydrocele-fluid at the last operation.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 7TH, 1885.

J. SYER BRISTOWE, M.D., F.R.S., President, in the Chair.

Violet Pigment Discharged from the Mouth.—Dr. W. H. DICKINSON related the case of a lady, 60 years of age, whose saliva was stained of a violet colour. The pigment came only from the right side, and the tongue on that side was stained. The lady wore false teeth on that side. The stain produced on linen had exactly the colour of aniline violet, and the chemical reactions were the same; the colouration was apparently due to a piece of aniline pencil which had caught in the false teeth. There was an obvious absence of intentional dissimulation.—Mr. STEPHEN PAGET mentioned the case of a young woman whose tongue had been similarly stained in an accidental way.—Dr. RADCLIFFE CROCKER related the case of a lady who, when she washed her hands, found that the water was stained blue. This staining was traced to the accidental introduction of the leaf of an orchid.—Mr. A. J. PEPPER thought that such stainings were frequently produced by aniline pencils.—The PRESIDENT detailed the case of a lady whose linen was stained brown. This was produced by a hair-wash she was in the habit of using. Twenty years ago, he received a small specimen passed from the bowel of a female patient; this was taken for a parasitic worm, but was in reality a piece of orange-pulp.

Subacute Red Atrophy of Liver.—Dr. CARRINGTON brought forward a case of subacute red atrophy, or acute cirrhosis, of the liver. The patient was a man, 23 years of age, who was admitted into Guy's Hospital on November 13th, 1884. The family history was unimportant. He had had no previous illness of any moment. For six weeks before admission he had been drinking eight pints of beer and two ounces of whisky a day. A fortnight before admission, he noticed tremor of his hands, and general feebleness. On admission, he was drowsy and stupid, answered questions thickly and in monosyllables. His conjunctivæ and skin were moderately jaundiced. He frequently vomited, became delirious, and, subsequently, more and more drowsy; epileptiform convulsions supervened, and he died in the seventh of these attacks on November 19th. At the necropsy, the liver was found to weigh 33 ounces; its surface was generally smooth, but there were parts where the tissue was yellow and swollen, and others where it was depressed and longitudinally wrinkled. There was no thickening of the capsule. A section showed the same contrast of swollen yellow parts, and other parts of a dark bluish-brown, firm and dense. The yellow parts showed the lobulation of normal hepatic structure; the dark parts were only dotted with white spots, due to the severance of bands of fibrous tissue. Microscopically, the yellow portions showed hepatic cells, more or less fatty, but regularly

arranged. The darker parts showed little else than nuclei of uniform size. Many "duct-formations" were present, but whether these were new, or simply the primitive ducts rendered more apparent by atrophy of the liver-structure, there were no means of determining. There was a considerable amount of fibrosis around the portal canals. In the islets of yellow tissue, which abutted upon the dark bluish-brown portions, the hepatic cells were fatty, but otherwise normal. The small-celled growth, however, invaded these portions extending in between the individual cells. There was no evidence of conversion of hepatic cells into the connective tissue, the line of demarcation between the two sorts of cells being abrupt. It appeared that the process was of an acute inflammatory kind, with consequent destruction of liver-cells, rather than one of atrophy. The body was very carefully examined throughout, but nothing noteworthy bearing upon the hepatic disease was discovered.—Mr. SHATTOCK remarked that the drawing of the fresh liver presented a striking resemblance to a case of actinomycosis which had recently occurred at St. Thomas's Hospital, and on which Dr. Sharkey had made a necropsy.—Dr. PARRY PRICE had met with a case presenting somewhat similar microscopical appearances, in which no parasite was found.—In reply to the PRESIDENT, Dr. CARRINGTON said that the prominent parts of the section, which in the drawing looked diseased, were the healthy parts. He had not detected any parasite.

Rupture of Aorta.—Dr. F. C. TURNER showed a specimen of rupture of the aorta. The patient was a man aged 64, who was brought to the London Hospital in a state of collapse, which had followed a sudden syncopal attack. He passed some blood from the bowel, and, shortly after admission, died in a second syncopal attack. At the necropsy, death was found to have been caused by extensive rupture of the posterior surface of the aorta. The rupture consisted of two parts—one older and longitudinal, the other recent and transverse. The coats of the aorta in the neighbourhood of the rupture were separated by a dissecting aneurysm, the walls of which had been perforated. The pericardial cavity was distended with soft blood-clot; the aorta was atheromatous. The left ventricle was hypertrophied; the kidneys were granular; the arteries of the brain were atheromatous; the lungs were emphysematous. The only symptoms from which the patient had suffered before the two syncopal attacks, which immediately preceded death, were palpitation and shortness of breath. Dr. Peacock had described several T-shaped ruptures; but in this case the rent was L-shaped. Dr. Turner also showed a second specimen, from the body of a woman 30 years of age, who died suddenly, without any previous symptoms. The cause of death was perforation of the aorta, with hæmorrhage into the pericardium. The inner surface of the arch of the aorta was extensively and deeply eroded, with areas of elevation, due chiefly to thickening of the inner coat.—Dr. NORMAN MOORE referred to the hypertrophy of the heart in the first case. In nearly every case of aneurysm of the aorta with granular kidney which he had examined, the patients were the subjects of gout. He quoted an extreme instance which had recently come under his notice.—Dr. TURNER had not examined the joints in this case.

Bone in Testis and Epididymis.—Dr. PARRY PRICE showed a specimen of osseous growth in the testis and epididymis from a man aged between 50 and 60. The patient was admitted into Guy's Hospital in a semiconscious state, and shortly died. The necropsy showed cirrhosis of the liver, granular kidney, cystitis, and two strictures of the urethra. In the testis and epididymis on one side was a bony mass. The testis did not appear to contain any healthy glandular tissue; no cartilage was anywhere found. He thought the formation of bone was probably the result of old orchitis and epididymitis. The man was believed to have begotten children.—Mr. ALBAN DORAN inquired whether Dr. Price saw any reason for believing that the tumour was of a dermoid nature. From the account given, this did not appear probable, but it was not impossible. Dermoid tumours of the testicle were very different from dermoid tumours of the ovary.—Dr. PARRY PRICE said there was no increase in bulk, and he had seen no evidence of a dermoid origin.

Sarcoma of Suprarenal Bodies, and Thrombosis of Inferior Vena Cava.—Dr. T. COLCOTT FOX showed a most interesting specimen of primary sarcoma of the left suprarenal capsule in a child aged 2 years. The child was large and flabby; the genital organs were unduly developed, and the body covered with hair; the abdomen had been gradually enlarging since the age of twenty months, and the surface was of a generally dusky hue. There was no œdema of the lower extremities. Urgent vomiting occurred twice; and the child was admitted into the Victoria Hospital for Children. On the second occasion the temperature was raised, cyanosis became intense, and the child died. It had never walked, and had lost the power of standing; it spoke but little, its voice was harsh, and its vocabulary very limited. At the necropsy, made by Mr. J. Shaw, the liver, which had been observed to be enlarged, was found to reach the umbilicus. The vena cava inferior was fusiform and distended, containing a pale clot, which extended into the right auricle, and even projected into the ventricle. The left lung contained some nodules of new growth. In the left flank was a large tumour connected with the left suprarenal capsule. It formed an uniformly soft and fluctuating mass; on section the surface was exceedingly soft, with areas of hæmorrhage. The growth, microscopically, was a sarcoma with large cells. Dr. Fox, in commenting on the case, pointed out that a primary tumour of the suprarenal capsules was very rare, and its combination with extensive thrombosis of the vena cava was, he believed, unique; Dr. Dickinson had described a case of sarcoma of the suprarenal capsule, in which the same dulness of intellect and extensive growth of hair had been present.—The PRESIDENT said that he had notes of one case of primary malignant disease of both suprarenal capsules; the case had occurred a good many years ago, and the exact nature of the growth was doubtful, but it was probably a sarcoma. He asked Dr. Colcott Fox whether there was any enlargement of the azygos or other veins, and Dr. Fox replied that there was no decided enlargement of either deep or superficial veins.—Mr. J. BLAND SUTTON said that, in dissecting the body of a marmot, he had found a large tumour replacing one suprarenal capsule. The nature of the structure of this tumour was remarkable; it was that of the zona vesiculata of the suprarenal capsule. The observation remained isolated until he subsequently met with a small tumour of a suprarenal capsule in a man, the structure of which was the same. The so-called fatty tumours of the cortical substance of the kidney also had the same structure as the zona vesiculata.—Dr. DICKINSON said that the case referred to by Dr. Fox was that of a child, four years old. She presented a precocious development of the genital organs, an immense growth of hair over the body, and a bass gruff voice; she spoke little, and her vocabulary was limited to such expletives as were popular with the lowest grade of society. More recently, he had met with another case, a child, three years old, who had a large abdominal tumour; this child was so like the earlier case, in manner and hairyness, that the diagnosis of tumour of the suprarenal capsule was made, and, at the necropsy, the kidney was found to be unaffected; the tumour was connected with the suprarenal capsule, and was clearly a mixed sarcoma. A clinical point of much importance was that, in the two cases he had seen, the tumours were placed higher up than kidney-tumours, and did not push the colon forwards, but downwards.

Congenital Sarcoma of Testis.—Mr. A. Q. SILCOCK showed a small congenital tumour of the testicle, removed from an infant eight months old, by Mr. Edmund Owen. The left testicle was enlarged at the time of birth, but had gradually grown larger since. The tumour was ovoid, smooth, and apparently not painful; the cord was thickened. The child recovered quickly from the operation of castration, and was lost sight of. The growth was sharply limited by the tunica albuginea. The tubules were faintly indicated, but the original gland-substance of the testicle was infiltrated by a sarcomatous new growth, which was interstitial in arrangement. The cells were generally oval or spindle-shaped.—Mr. R. W. PARKER showed another congenital tumour of the testicle, removed from a child three months old. The organ was noticed to be enlarged at the time of birth. As soon as the child was brought to the East London Hospital for Children, the testicle was removed. The growth consisted of a soft matrix, with a large number of dilated tubules scattered through a myxomatous tissue, with islands of cartilage. Mr. Parker said that he had only been able to collect eighteen cases of sarcoma of testicle in children under 10 years of age. Three of these were congenital, namely, the two now shown and a case of congenital sarcoma of the testicle containing bone, recorded by Mr. Athol Johnstone. In the case of a young child with sarcoma of the testicle, under Mr. Parker's care, secondary deposits occurred in one pleura, and this appeared to be a not very unfrequent site, but in the majority of cases the recurrence occurred in the abdominal glands.

Tuberculous Kidneys of an Ox, with Bacilli.—Dr. NORMAN MOORE showed specimens from a case of tubercular disease of the kidneys in the ox. Both kidneys were much enlarged. One was completely changed into a tuberculous mass. The other was similarly changed in one lobe, and elsewhere showed many white nodules. These, as well as the completely changed kidney, showed abundant groups of bacilli under Zeiss 12 (im.); the bacilli agreed in form, method of staining, and size, with the bacilli of tubercle in man. The tuberculous part of the kidneys was nowhere broken down, but showed many zones of more or less complete calcification. The morbid change corresponded to the descriptions of perlsucht, and the abundance of bacilli present

confirmed the opinion that that disease was a true variety of tuberculosis, and not a lympho-sarcomatosis.—Dr. DICKINSON said that a curious epizootic of kidney-disease once came under his notice. A gentleman in Hampshire, a breeder of pedigree cattle, introduced from a distance a herd of Durhams and shorthorns. The majority of the herd died of an acute renal disease well known to veterinary surgeons as "red water." He examined the urine of one animal which had died. The urine was loaded with blood and casts of large size. In a second chronic case, the kidney presented beautiful specimens of interstitial nephritis, though one kidney was more affected than the other. Various causes were suggested, such as a change from rich to poor pastures, and browsing on digitalis or bracken, but no sufficient explanation had ever been afforded.

Card Specimens.—Dr. F. C. TURNER: (1) Ulceration of Aorta and Valves; (2) Aneurysm of Splenic Artery.

Dr. NORMAN MOORE: Cavity in Lung of an Infant.

Dr. CHAFFEY: (1) Early Sarcoma of Testis; (2) Congenital Malformation of Pulmonary Veins; (3) Congenital Malformation of Heart (two cases).

Dr. ERNEST CLARKE: Congenital Malformation of Heart.

Dr. HEBB: (1) Two cases of Aortitis; (2) Misplaced Kidney; (3) Tricuspid and Mitral Stenosis; (4) Cancer of Uterus with Myomata; (5) Urethral Calculus.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, MARCH 11TH, 1885.

The Prevention of Heat-Apoplexy.—Surgeon A. C. C. DE RENZY, C.B., read a paper, the object of which was to apply Indian experience in the prevention of heat-apoplexy among the troops in the Soudan. The writer resided for many years at Multan, in the Punjab, one of the hottest places in the world, and saw a great deal of heat-apoplexy among the British troops and railway *employés*. In June, the temperature in the shade rose to 120° Fahr., and a black bulb thermometer registered 176° Fahr. An ordinary thermometer exposed in the sun registered 157° Fahr. The dryness of the air was extraordinary. The mean humidity of May was only 26, and the minimum humidity was as low as 17, saturation being 100. Dust-storms occurred at very short intervals all through the hot weather. The nights were comparatively cool. In June, the hottest month, the minimum thermometer went down to 71° Fahr. About 10 o'clock P.M. the sky became perfectly cloudless, and the earth very rapidly radiated the heat stored up during the daytime. But there were usually three or four intensely hot nights in the year, when the clouds did not disperse, and radiation was obstructed. On such occasions, the writer had found his bed so intensely hot, that he had had to have water sprinkled over it. The mean daily range of May was 34° to 43° Fahr. The climate of the Soudan was several degrees cooler than that of Multan, and not at all so trying; and as experience showed that a very fair standard of health could, with suitable arrangements, be secured for British troops at Multan, it was reasonable to hope that, so far as high temperature was concerned, a similar result might be obtained in the Soudan. Multan had long been one of the healthiest stations in Northern India. Taking the returns of the last eighteen years, it stood fifth in the order of healthiness. Barcilly stood first, with a death-rate of 12.01 per 1,000; Fort William second, with a death-rate of 12.33; while the death-rate of Multan was 15.15 per 1,000, or less than the death-rate of the troops stationed in England thirty years ago. All through the summer of 1848 the fort of Multan was invested by a British force. The troops had little sickness, and few casualties from heat-apoplexy. Lord Gough was altogether opposed to the operations being carried on in the summer, as he thought it impossible that the troops could withstand the heat. With good tents, a good commissariat, and arrangements well adapted in other respects for the protection of the troops, the campaign was brought to a brilliant close. Heat-apoplexy occurred under two very different circumstances: (1) under exposure to the direct rays of the sun; and (2) under exposure to great heat in the shade. The deaths under the second head were far more numerous than those in the first. For the prevention of heat-apoplexy, especially under exposure to the direct rays of the sun, two things were necessary: (1) that the clothing be loose and light, so as not to interfere with the free movements of the chest and evaporation from the skin, and so as not to obstruct the cervical circulation; and (2) that a supply of drinking-water should be always at hand to relieve the first signs of thirst. The importance of these precautions was illustrated by several striking cases that fell under the writer's notice. The want of water caused great loss of life from heat-apoplexy on field-service in India. Natives used immense quantities of water under exposure to the sun, and to this practice was attributed their immunity from heat-apoplexy. While the deaths from this disease among British troops were 20 per 10,000 of strength, they were only 2 per 10,000 among the native troops. Heat-apoplexy was very rare among the officers, who are careful about their dress, and also to have something at hand to relieve thirst. Sportsmen who went out shooting in the hottest weather suffered very rarely; and the disease was unknown among Assam tea-planters, a large class, whose business required them to expose themselves in the sun in the hottest season and in the hottest time of the day. The great majority of cases of heat-apoplexy among soldiers, due to exposure to great heat in the shade, occurred between sunset and midnight. This was attributed to the peculiar meteorological condition of that period of the day, in conjunction with the crowding of the men in the canteen. The breeze died away; clouds formed, obstructing radiation; and, while this lasted, the men crowded in dense masses into the canteen, the ventilation of which was altogether inadequate. Crowding, even only for a short period, was most dangerous when the air was very hot. The danger was much increased when excess in the use of alcohol was superadded. As a means of cooling the barracks, it was proposed that they should be douched every evening after sunset. This proposal, when made some years ago, had the approval of Mr. Edwin Chadwick; but it was found impossible to give it a trial. In conclusion, it was contended that experience in the hottest parts of India warranted the hope that, under good arrangements, the losses from heat-apoplexy among the troops in the Soudan might be kept within very moderate limits. With good tents of the Indian pattern; attention to clothing; good arrangements for the supply of water; avoidance of overcrowding, especially in tents or huts; and extreme moderation in the use of alcohol, for which tea should be substituted, the losses from heat-apoplexy would be very small.—In the discussion which followed, Sir William Smart, Mr. Scriven, Dr. Murray, Dr. Lloyd, Dr. Squire, Dr. Cullimore, Dr. Lawson, Dr. White, Dr. Comyn, and Mr. Shirley Murphy took part.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, MARCH 20TH, 1885.

T. ORME DUDFIELD, M.D., President, in the Chair.

The Action of Disinfectants on Microzoöids.—Mr. A. WYNTER BLYTH enumerated the diseases of animals and men which might be considered beyond a doubt to have an intimate connection with microzoöids: namely, mouse and rabbit septicæmia, a fatal disease of the guinea-pig produced by the micrococcus tetragenus, the anthrax of animal and men, fowl-cholera, glanders, malignant œdema, bovine and human tuberculosis, erysipelas, some forms of pneumonia, and acute osteo-myelitis. On the other hand, it had not been proved satisfactorily that diphtheria, scarlatina, relapsing fever, cholera, typhoid fever, and some others, were due to microzoöids, though the balance of evidence seemed to be in favour of such a view. The term "disinfectant" the author used as synonymous with "germicide." A colony of microzoöids submitted to a solution of a true disinfectant, and then having been freed from the disinfectant, and put into the best possible conditions for development and growth, showed no signs of life. Hence, disinfection was either a destruction of pathogenic microzoöids, or a poisoning of them. The author briefly detailed his own experiments on spore-anthrax, and summarised the experiments of Schiff and Fischer on phthisical sputum, and those of Fischer and Proskauer on the action of chlorine and bromine. In continuation of his first researches, he had made some observations on mouse-septicæmia. Threads were infected with mouse-septicæmia, and soaked for half an hour in Tuson's disinfectant, a saturated solution of sulphate of iron, a 10 per cent. alcoholic solution of cresylic acid, a 10 per cent. solution of sulphuric acid, a 10 per cent. solution of chlorozone, and a strong solution of chloride of zinc. The sulphuric acid and the alcoholic solution of cresylic acid disinfected perfectly the thread, but, of the other agents, some had no effect, others superficially disinfected. His most recent research was on the pyridine-bases. He had raised a pure cultivation (from the last stages of nasal catarrh) of a yellow bacillus which liquefied gelatine, the liquid gelatine then becoming yellow and fluorescent. This bacillus produced spores of moderate resistance, was not pathogenic, and grew with convenient rapidity at ordinary temperatures. Threads infected with this yellow bacillus were soaked in a 1 per cent. solution of pyridine, collidine, lutidine, and acridine; and then, having been freed from the disinfectant, they were brought upon nutrient gelatine. The threads were found to show no signs of growth around them, whereas the "control" threads grew rapidly. The antiseptic power of pyridine was tested on the organisms found in sour milk, and pyridine

was shown to inhibit growth. Since the pyridine-bases were present in tobacco-smoke, the smoke from an ordinary pipe of tobacco was passed through water, and the resulting solution was found to be, so far as the yellow bacillus was concerned, strongly disinfectant. The results of experiments with the yellow bacillus, when treated with solutions of morphine, strychnine, atropine, and other alkaloids, were also given, from which it would seem that strong solutions would kill the bacillus. The author summarised the general conclusions to be drawn from these researches. Disinfectants, when they were not destructive agents, acted as poisons; they poisoned the microzoöid in a manner not essentially different from the lethal poisoning of a higher life-form; and this was the reason why such poisonous substances as corrosive sublimate, carbolic acid, and chlorine, were most to be relied upon. He considered that the best and most efficient way to disinfect a room after disease was to make it as much as possible like a hermetically sealed box, and in this box to evolve chlorine; three pounds of chloride of lime, and three pounds of hydrochloric acid being used for every 1,000 cubic feet of space.—In the discussion which followed the reading of the paper, the President, Dr. Iliffe, Dr. C. E. Saunders, Mr. Kingzett, and Drs. Moore, Corner, and Willoughby took part.—Mr. Wynter Blyth replied.

ACADEMY OF MEDICINE IN IRELAND: OBSTETRICAL SECTION.

LOMBE ATTHILL, M.D., President, in the Chair.

FRIDAY, MARCH 6TH, 1885.

Uterine Tumours.—Dr. MORE MADDEN exhibited five uterine tumours, which he had recently removed from patients in the Mater Misericordiæ Hospital, in illustration of his paper upon the treatment of uterine fibro-myomata. The history of these cases was as follows. Case I. *Recurrent Fibroid; Ecrasement.*—T. K., aged 28, unmarried, was admitted on January 4th. Two years previously she had been under Dr. Madden's care in the hospital, suffering from menorrhagia. The uterine cavity was then dilated, and a small pedunculated myoma, growing from the anterior wall, removed. At the same time a second larger tumour was discovered deep within the posterior wall. It was not then considered advisable to interfere with this. The menorrhagia subsided in great measure, and she left the hospital. Some months later, it again commenced; and for the past eighteen months she lost a considerable amount of blood, and, when readmitted, was in an extremely exhausted condition. The os was dilated in the usual way, and next day the tumour, now as large as a fœtal head, had developed into the uterine cavity, and become pedunculated. The pedicle, which was extremely thick, was divided by écrasement, and the tumour extracted. She made a good recovery.—Case II. *Submucous Fibro-myoma removed by Ecraseur.* S. Q., a married woman, aged 44, who had repeated miscarriages but no family, was admitted on January 14th, suffering from profuse metrorrhagia, and frequent attacks of intense uterine colic. These symptoms had been first observed eighteen months before admission, and on examination a small tumour could be felt above the pubes. The uterus was enlarged and drawn up. The sound could not be passed in any direction more than an inch above the os internum, but on recto-abdominal examination the size and portion of the uterus, which was slightly retroflexed, could readily be made out. Being placed under ether, rapid dilatation of the cervix was effected by Lawson Tait's dilators, and then by the fingers. The cavity of the uterus thus laid open was found distended by a large pedunculated submucous fibro-myoma, around which, as being tightly incircled by the uterine walls, the steel wire loop of the écraseur was, with some difficulty, slipped up to its attachment to the posterior wall, close to the fundus. The thick pedicle was then slowly divided, but no amount of tractile force with two strong vulsella could extract the tumour through the uterine outlet, until a free bilateral division of the os and cervical zone was made, and in this way the tumour was removed. In doing so, some disruption of the perinæum was necessarily produced. This was immediately treated by a couple of silver wire sutures. The after-treatment consisted mainly in hot antiseptic injections twice a day. Within a fortnight's time she was perfectly convalescent. Subsequently, she was attacked by typhoid fever, of which she died.—Case III. *Intramural Fibro-myoma removed by Enucleation.* L. B., an anæmic looking women, aged 38, unmarried, suffering from metrorrhagia, pelvic pain, and hæmorrhage, was admitted to the hospital. Until two years previously, she had been in good health. She then commenced to suffer from menorrhagia, which gradually increased, and the intervals between the recurrence of the discharge became so diminished that for a year she was seldom a week free from hæmorrhage. On examination, the uterus was found retroverted by a tumour in the posterior wall, and the uterine cavity greatly elongated. The cervical canal was dilated by laminaria-bougies; on the removal of which she was etherised, and a submucous tumour discovered occupying the posterior wall from the fundus to near the cervix, and bulging into the uterine cavity. A free longitudinal incision was made through the thinned muscular structure into the capsule of the tumour, which was firmly seized with a strong vulsellum, and drawn down towards the outlet, whilst the loose adhesions around and behind the tumour were rapidly separated with the finger. This was now forced out of its bed, and extracted *per vaginam.* Immediately afterwards a hot carbolised water injection was thrown up to arrest the free oozing, a tampon of Lawson's cotton, saturated in carbolised glycerine, was introduced, and an anodyne suppository placed in the rectum. The hot water injection was continued twice daily for the next ten days, at the end of which the uterus, being still large, was brushed out at intervals with tincture of iodine until it had nearly regained its normal size, and in three weeks after the operation she was enabled to leave the hospital.—Case IV. *Interstitial Myoma removed by Emmet's Operation.* This patient, a multipara, aged 42, had enjoyed good health until the birth of her last child, four years previously. Shortly afterwards she became a widow. She then began to suffer from menorrhagia, tenesmus, and bladder-irritation, and bearing-down sensation, which increased. At last she was forced to give up her occupation as a farmer's servant. On admission, the uterus was found completely retroverted, and on endo-uterine exploration a considerable sized tumour was found bulging into the uterine cavity. An attempt was made to remove this by enucleation; but, on making an incision for this purpose, it became obvious that the tumour was not separated by any capsule from the uterine wall. Hence, it was resolved to try to effect its removal by Dr. Emmet's traction-operation. For this purpose, the most prominent portion of the tumour was firmly grasped by a vulsellum and forcibly dragged down through the os as far as possible into the vagina. Here as much of the growth as could be reached was cut away with strong curved scissors. The resulting hæmorrhage was checked by hot water injections, and the remaining portion of the tumour was again similarly treated. In this way, more than two-thirds of the growth were removed, when the patient became collapsed. A hypodermic injection of ether was administered, and she was put back to bed. For the two days following, her condition was apparently satisfactory, her pulse fairly good, and temperature not rising above 100°. On the second night after the operation, she again became collapsed, and sank, and died.—Case V. *Pedunculated Submucous Fibroid removed by Ecrasement.* A widow, aged 50, who had had several children, was admitted, suffering from continual uterine hæmorrhage and offensive leucorrhœal discharge. On examination, the uterus was found occupied by a tumour as large as the fœtal head at full term. The os was rapidly dilated, and this growth, which proved a semi-pedunculated submucous fibroid, was removed by écrasement in the usual way. After this she recovered rapidly.

Treatment of Uterine Fibro-Myomata.—Dr. MORE MADDEN subsequently read a paper on the treatment of uterine fibro-myomata, as exemplified in his own gynæcological hospital-practice during the past fifteen years.—Dr. KIDD agreed with Dr. More Madden that the prevailing epidemic of laparotomies needed to be stayed. Capital operations should only be performed when the risk to life was imminent. The treatment required would vary with the site of the tumour—submucous, interstitial, or subserous. If necessary, the first two classes of uterine myomata might be removed by enucleation. The submucous variety caused most trouble and danger to life through accompanying hæmorrhages; but interstitial tumours might grow towards the mucous surface, and so become practically submucous. In the same way, these tumours might become subserous. The latter class very seldom gave rise to really threatening symptoms such as alone would justify serious operations being undertaken for their removal. Mere inconvenience and some amount of pain would not justify laparotomy. Serious difficulty in defæcation rarely occurred in connection with these tumours; but micturition might be so difficult as to call for the use of a catheter. He had generally found it possible to relieve such symptoms by lifting the tumour out of the pelvis. He knew many cases in which very large uterine tumours had existed for many years without giving rise to any real danger to life, even though the abdominal and thoracic viscera were much pressed upon and displaced.—Dr. MACAN said that every one would agree that, in the absence of proper indications, serious operations should not be undertaken. Enucleation, as an operation, he regarded as infinitely more dangerous than a laparotomy. He did not accept Dr. More Madden's faith in the efficacy of subcutaneous injections of ergotin. Schroeder had laid down very clear rules and indications for the performance of myomotomy. It was called for in the case of a rapidly

growing tumour in a young woman, when it gave rise to excessive bleeding or pressure-effects, or when it interfered with the patient's power of earning her bread. Other indications sometimes requiring operative interference were, according to Schroeder, complication with ascites or with pregnancy. Another rarer indication consisted in evidences of sloughing of the tumour. Removal of the ovaries might, in many cases, be preferable to myomotomy; but Battey's operation was very difficult, and sometimes almost impossible, in the cases of large tumours.—The PRESIDENT pointed out that all of the tumours presented by Dr. Madden, except one, were intra-uterine and pedunculated. He entirely differed from Dr. More Madden in his estimate of the difficulties and dangers of enucleation. More difficult and less successful operations he had never performed. In his experience, enucleation was most often left unfinished. Myomotomy he looked on as a very dangerous operation, not to be undertaken without the clearest indications. Death from pressure or from bleeding was very exceptional in these cases. He had entirely lost faith in subcutaneous injections of ergotin. It could only be of possible use in the case of intramural tumours. He had lately practised incision over the tumour, with subsequent injections of iodised phenol into the cavity of the uterus at fortnightly intervals, with very distinct advantage.—Dr. BYRNE and Dr. PUREFOY having spoken, Dr. MORE MADDEN replied, and the Section adjourned.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, MARCH 12TH, 1885.

W. A. GARRARD, President, in the Chair.

Specimens.—Mr. C. ATKIN showed a darning-needle, which, at a *post mortem* examination, had been found sticking in the mesentery.

Mr. ARTHUR JACKSON exhibited (1) a fibrous tumour removed from upper part of neck: (2) fatty tumour from lower part of neck; (3) papilloma of tongue; (4) atheromatous arteries from a case of senile gangrene.

Leucocythæmia.—Dr. DYSON introduced a patient with splenic leukæmia. He was aged about 40, married, a blade-forger. He said he was healthy up to his present illness. There was no history of alcoholism, syphilis, or ague. The onset of illness was gradual and insidious. It commenced five months ago, with wasting, loss of strength and appetite. There was no pain; no history of hæmorrhages. He lost two stones in weight since his admission to the Public Hospital three weeks ago. There had been pyrexia, the temperature ranging from 99° Fahr. to 102° Fahr.; the pulse was quick. The abdomen was half filled with the enlarged spleen, which presented the usual characteristics. Bronchitis was present on admission; there was profound anæmia. He had œdema of the legs. A systolic hæmic murmur was heard at the base of the heart. White corpuscles were greatly in excess in the blood; the red corpuscles were paler and formed rouleaux imperfectly; there were also smaller corpuscles, very highly refractive and spheroidal. One observation of the urine gave, in twenty-four hours, 62 ounces; urea, 446.4 grains; no albumen or sugar. The treatment pursued had been quinine, iron, and arsenic internally, and the constant galvanic current externally.

Aortic Stenosis.—Dr. BANHAM introduced a boy aged 11, suffering from aortic stenosis. There was some hypertrophy of the left ventricle; and, indeed, the compensatory changes in the heart were complete, so that no cardiac symptoms were complained of. The chief peculiarity in the case was the exaggerated character of the systolic murmur and thrill, both of which had been noticed by the child's parents. The murmur could be heard not only all over the chest, but throughout the whole length of the spine and over the occipital bone, and also, when the ear was withdrawn, an inch or two from the front of the chest-wall. The thrill, which was excessive over the upper part of the chest and in the large vessels, was recognised the moment the hand was placed on the boy's shoulder. There was no evidence of aortic dilatation, and the second sound of the heart was not generally audible.

Epilepsy.—Dr. PORTER read a paper on epilepsy. After reviewing briefly the theories which had been put forward to explain the phenomena of an epileptic fit, especially those of Drs. Hughlings Jackson and Gowers, he quoted from notes of 20 cases which had come under his treatment, among a total of 841 out-patients, at the Sheffield Public Hospital and Dispensary last year. Of these, 11 were males, 9 females. In 3 cases, there was a family-history of epilepsy; in 2, of insanity; and in 4, of other nervous disorders, making a total of 9 out of 20 cases in which there might be inferred an hereditary tendency to brain-affections. The fits occurred for the first time, in a very large proportion of these cases, either between 10 and 20 years of age or after 30. As to the exciting cause, 2 cases were attributed to head-injuries, 4 to sudden shock or mental trouble, 1 to onanism; 2 originated with pregnancy, 1 at the commencement of menstruation, and 1 at the menopause. In reference to the connection between epilepsy and uterine neurosis, Dr. Porter referred to Professor Charcot's description of so-called hystero-epilepsy, and contended that in those cases, at all events, in which the hysterical and epileptiform paroxysms occurred together, the epileptic characters were more simulated than real; he deprecated the use of the term epilepsy in the nomenclature of this class of affections. In 6 cases out of 20, Dr. Porter met with a distinct aura, and in 4 more there were distinct premonitory symptoms. In enumerating the drugs he had found most serviceable, he laid special stress on hydrobromic acid in drachm-doses. Sodium-nitrite he considered a very dangerous drug, from what he had seen of it, in epilepsy. Dr. Porter considered that the proposal to introduce such an operation as ligature of the vertebral artery for epilepsy should be received with the greatest caution.

STAFFORDSHIRE BRANCH.

THURSDAY, FEBRUARY 26TH, 1885.

E. T. TYLECOTE, M.D., President, in the Chair.

Cascara Sagrada.—Dr. REID read a paper upon the value of this drug. After discussing the opinions of different writers on the subject, and commenting on the fact that very little had been written about the action of the drug, Dr. Reid gave the opinions he had formed of it from an analysis of thirty-three cases, in which he had taken careful notes. He found, 1, that the result was all that could be desired in twenty-seven cases of obstinate and habitual constipation, complicated in many cases by various forms of dyspepsia, and in people usually of sedentary habits, more especially females; 2, that the effect was most beneficial in three cases of hæmorrhoids; 3, that the drug was of no service, even in very large doses, in one case of obstinate constipation, although it did not cause pain; 4, that it had to be discontinued in two cases on account of its causing pain and sickness. The form of drug used was Morson's fluid extract. The conclusions arrived at were as follows. 1. Cascara sagrada was a most useful remedy, both regarding its immediate effects and after-results in obstinate and chronic cases of constipation. 2. It was better to prescribe it in continuous small doses rather than in occasional large ones. 3. Cases were met with in which, even in large doses—at any rate in the form of the fluid-extract—the drug had not been of service. 4. No rule could be laid down by which one could ascertain previously whether the drug would suit or not; but, when pain was produced, in all probability it was owing to too large a dose being given. 5. It was of great service in cases of hæmorrhoids, when other aperients had failed.

Discussion upon Chorea and Acute Rheumatism.—Dr. ISAMBARD OWEN, in introducing a discussion on chorea and acute rheumatism, remarked that the Collective Investigation Committee had already received upwards of 600 returns on the former, and 400 on the latter, disease. It was their intention to report upon these returns in the course of the next few months, and then to take into consideration the issue of some simpler and more special inquiries upon these subjects. The Committee were anxious to learn the opinions of the Branches as to the points of inquiry that should be taken up, and as to the form that the inquiries should take; so that the inquiries should reflect the mind, not of a central committee, but of the whole body of contributors. With respect to the diseases under discussion, Dr. Owen thought that the prognosis of cardiac murmurs would form a most important subject of special inquiry. It was well known that cardiac murmurs frequently disappeared after an attack of acute rheumatism, about one-third of the whole, according to his own experience. But what did this mean? Complete recovery, or cessation of acute inflammation, leaving behind a chronic inflammation provocative of future serious mischief? Hospital-experience could throw little light upon such a point. It could only be settled by men who saw patients continuously, year after year. Dr. Owen referred to a specimen of a perfectly healthy heart in the Museum of St. George's Hospital, which he had taken from the body of a patient who died on the twenty-sixth day of acute rheumatism, a systolic murmur having been heard over the whole heart, culminating in the second left space, from the fifth day. Another question which Dr. Owen thought advantageous to take up, was that of the diathesis open to these two diseases. With respect to chorea, he himself was led to believe, from his own experience, that it occurred mainly in children of that widespread diathesis that held out its hand, as it were, to struma and tubercle. He quoted from the analysis of sixty cases of this disease which he had published in the *St. George's Hospital Reports*, to show

how large a number of the patients had displayed either distinctly strumous characteristics, or the marks of an extremely "delicate" constitution, and how many, both of these and of the remaining number, had family-histories of consumption and of nervous diseases, and how many were ill, sickly, and weakly themselves, and subject to a variety of ailments. Passing on to acute rheumatism, he pointed out in how many of the cases of acute rheumatism observed and reported on by him in St. George's Hospital the patients had displayed similar characteristics, and in what a large number (about 28 per cent.) a family-history of phthisis appeared. He thought it not improbable that the connection between chorea and acute rheumatism was rather one of diathesis than of pathology, but was personally desirous that a much wider and more complete investigation of this interesting subject should be undertaken: an investigation which he considered might suitably be entered upon by the Collective Investigation Committee. Dr. Owen expressed his thanks to the Branch for permitting him to attend the meeting and express the views of the Committee.—Mr. WEST related a remarkable instance of family predisposition to chorea. A patient of his, in the Stoke workhouse hospital, aged 40, had been choreic for some years. His father died of chorea, and also one brother, both in advanced life. His father's brother died of chorea at the age of 57. Some other relatives were also choreic.—Mr. VINCENT JACKSON said that, for having each session lately a discussion upon one of the subjects upon which information was desired by the Collective Investigation Committee, he was responsible. The members had had, during the last three years, debates upon pneumonia, puerperal pyrexia, and the present one upon chorea and acute rheumatism. The organisation of the local committee was as complete as possible. The area of the Branch was divided into three districts, each being placed under the charge of a district secretary. Through these gentlemen, the cards issued by the Collective Investigation Committee were freely distributed among the members living in their neighbourhoods; yet, in spite of the annual discussions and free distribution of the cards, the result, as gauged by the number of cards filled in and returned, was most disappointing. Every kind of friendly pressure was put upon the members, to induce them to return the cards, yet there seemed an all round disinclination to do so. The speaker almost felt ashamed to acknowledge such a state of things, but the truth had better come out. The explanation he had to offer was, first, that the cards were too elaborately drawn up; and although it was stated that the time occupied in filling them in was short, yet the task, speaking generally, was greater than the busy practitioner could afford. He hoped the general committee would consider this matter; for, unless some change could be effected, the general professional lukewarmness would perhaps imperil the existence of the Collective Investigation Committee itself. Mr. Jackson concluded by proposing that a hearty vote of thanks be given to Dr. Owen for coming among them and delivering the address to which they had all listened with much pleasure. — The resolution was seconded by Mr. FOLKER, and after a few remarks by Dr. E. T. TYLECOTE, was carried by acclamation.—Dr. OWEN returned thanks.

REVIEWS AND NOTICES.

CLINICAL LECTURES. By RICHARD QUAIN, F.R.S. London: Smith, Elder, and Co. 1884.

A VETERAN surgeon has here put together a series of papers on various subjects in which he has been interested during his long and honourable career; and the volume, which has evidently occupied much of the leisure of his retirement from active professional life, is remarkably handsome and useful. It is partly a reprint of lectures delivered while he held the Chair of Clinical Surgery at University College, but it contains also a large series of valuable cases of which the author has had the opportunity of following the progress for an unusual length of time, in one case as long as thirty years. These are illustrated by plates of pathological appearances, which make the work of special value. These plates occupy about half the thickness of the volume; they are nearly forty in number, and admirably executed.

The mature opinions of a surgeon of such large experience as Mr. QUAIN must command attention, and we look with interest for opinions where they are expressed. But the careful record of facts is more consistent with the author's character, and is perhaps of more lasting value. We therefore find cases fully and forcibly detailed, and special attention given to the bearing of pathological appearances upon symptoms, rather than general statements about the author's particular views as to treatment, etc. We notice, however, that he urges with characteristic force the advantages of amputation in the lower third of the leg over that below the knee, still generally preferred for working men. It has been widely felt that too much attention is given to the supposed convenience of adaptation for the common peg as the artificial limb in these cases, and most surgeons will cordially agree with the author in his views. His paper on "Places of Election for Amputation in the Lower Limb" will well repay careful perusal.

Side by side with some instructive cases of early and advanced hip-joint disease, of an acute and chronic kind, well illustrated by coloured engravings, are some well executed autotype-plates of the healthy bones. We cannot help recognising that these autotype productions are a great advance in anatomical and pathological work upon woodcuts and lithographs, which are dependent upon the accuracy of the draughtsman.

It is not often that an opportunity is afforded of examining thoroughly after death a joint where dislocation has recently occurred; and such records are of great value. We are glad, therefore, to see the account of a case of dislocation of the femur backwards, which originally appeared in the *Medico-Chirurgical Transactions* in 1848. To this, two cases of similar injury are added by the author, where reduction was effected; and in one we find that the patient was only eight years of age. The method of reduction has become more simple and systematic of later years, but the author's views of the principles upon which reduction will be possible by leverage are foreshadows of what has since been accepted.

Dislocation at the knee-joint forms the subject of another paper; and fracture of the neck of the femur naturally comes under the notice of the veteran surgeon. This injury seems to have formerly had a special attraction for surgeons, and few have not written on it, from Sir Astley Cooper downwards.

Mr. Quain has selected from his note-book a large series of valuable and well recorded and fully illustrated cases of diseases of the urinary organs. Fifty pages are devoted to some very practical observations upon the subject, and among the plates we notice a very interesting case of pedunculated tumour, which might probably have been removed by the operation recently proposed and practised successfully by Sir Henry Thompson. A more typical case for the operation could hardly be found; and here the patient, a man only 34, "speedily declined in health, and sank about three years and three months from the time at which blood first appeared in the urine." Other cases of bladder-tumour are depicted, but it is doubtful whether operative interference would have been so successful as in the case just referred to. But the cases are so well illustrated and described, that they form a valuable contribution to the surgery and pathology of this organ.

Every surgeon of experience can give practical information about hernia, and we find the thirty pages which Mr. Quain has devoted to this subject only too little; but the cases are good, and the remarks are very much to the point, and apply as well to the present time as to thirty years ago. Every case of operation for strangulated hernia teaches something new, whether done with modern antiseptic precautions or not; and well recorded cases are always worthy of careful perusal. A good account of several cases of disease of the testis is followed by some short papers on miscellaneous subjects; and the work ends with the excellent series of plates which materially enhance the usefulness of the volume.

Mr. Quain is to be congratulated upon having produced, in the leisure of his retirement, a work which will give much pleasure to old friends and pupils, and which must have afforded equal satisfaction to himself in its preparation. It is so handsomely got up, and so clearly printed in large and readable type, and the character of the author shows itself so distinctly in the forcible clearness and thoroughness of the descriptions, that it will be read with special interest and pleasure by the present generation. We feel sure that, apart from the esteem in which the author is held, sufficient in itself to ensure a good reception for these *Clinical Lectures*, there is so much material of great professional interest in this volume, that it will form an extremely useful, as well as a handsome, addition to the library of the surgeon.

VACCINATION.—Mr. Ernest Snell, of Nottingham, has obtained a grant of £105 18s. from the Local Government Board for successful vaccination. This is the second grant which Mr. Snell has obtained.

BOGUS BUTTER.—A man named Stead has been brought before the Canterbury magistrates, and fined £3 16s., or, in default, sentenced to undergo a month's imprisonment, for selling as butter a material which, the report of the analyst declared, consisted of 100 per cent. of foreign fat.

MEDICAL MAGISTRATE.—Dr. Henry Graves Bull has been placed on the commission of the peace for Herefordshire.

NOTES ON BOOKS.

Ellis's Irish Educational Directory and Scholastic Guide for 1885 (Dublin: E. Ponsonby. London: Simpkin, Marshall, and Co.) is the result of an amalgamation of *Ellis's Irish Education Directory* and *The Irish Guide and Scholastic Directory*. The present is the fourth year of issue; and the editor has bestowed great care on the compilation of the work, and has introduced several improvements. It contains an account, as regards Ireland, of medical colleges and schools, colleges and schools for boys and for girls, and institutions of art and science; there are also notices, though less complete, of colleges and boarding schools for boys and girls in England, Wales, and Scotland, and on the Continent. There are also numerous announcements of educational books, college and school requisites and appliances, etc. The part of the book relating to the national system of education in Ireland has undergone careful revision; and the utility of the work has been increased by the addition of a copious alphabetical index. The book is one which must be useful, not only to those engaged in educational work in Ireland especially, but to persons seeking for information with regard to educational institutions in that part of the United Kingdom.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

HARTMANN'S HYGIENIC WOOD-WOOL DIAPERS.

Messrs. Hartmann have recently introduced some antiseptic diapers, in which the active material consists of a substance called wood-wool. The chief advantage of using wood-wool as a dressing, or, as in the present instance, as the absorbent medium in diapers, appears to consist in the great capacity for absorption and drying possessed by wood-shavings when in a fine state of division. Messrs. Hartmann have increased the antiseptic power of the so-called wood-wool by saturating it with a solution of corrosive sublimate, thus securing the complete disinfection of any septic matters which may come into contact with the dressing.

The softness and lightness of these wood-wool diapers are important features, and when added to their antiseptic properties, constitute as perfect a hygienic diaper as it is possible to conceive.

We consider that the wood-wool diapers will supply a want which must have been experienced by many gynæcologists.

The representatives and sole consignees for the United Kingdom and British Colonies for Messrs. Hartmann are Messrs. Essinger and Neuburger, 11, Hatton Garden, London, E.C.

TREATMENT OF PILES BY CRUSHING.

Sir,—I am sorry that Mr. Benham thinks it worth while to call my modification of his instrument an "infringement of his invention." Had I not acknowledged fully that he was the original inventor of the instrument, I would willingly give him the "immediate apology" for which he seems to look. As it is, I see no such necessity.

As surgeons, it is part of our duty to assist one another in perfecting instruments, and not jealously to "protect our inventions." This is all that I sought to do; and I think Mr. Benham, if he tries my modification of his instrument, will be thankful for the suggestion.

I made my modification of the instrument before 1882, so I did not pay much attention, I am sorry to say, to Mr. Benham's letter in the *Lancet*. I tried the lips, however, to the jaws of the clamp, as he describes, before he wrote the article, and found that they are not nearly so satisfactory as a curved clamp, which has a further advantage in preventing the clamp from including more mucous membrane or skin than the pedicle of the pile, which may often be done if a straight clamp be used.

Hoping that Mr. Benham will accept these suggestions in the spirit in which they are given,—I remain, yours faithfully, E. Downes.

The late Mr. Philip Stoneham.—A memorial tablet has been placed in SS. Philip and James' Church, Ilfracombe, bearing the following inscription: "Sacred to the memory of Philip Stoneham, surgeon; born, March 20th, 1808; died, April 16th, 1884. This tablet was erected as a mark of love and esteem by the poor, assisted by a few friends."

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

Subscriptions to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 11th, 1885.

WEBER ON CHRONIC PULMONARY PHTHISIS.

The Croonian Lectures, recently delivered by Dr. Hermann Weber at the Royal College of Physicians, on the Hygienic and Climatic Treatment of Chronic Pulmonary Phthisis, are particularly interesting in two respects: first, because the learned author distinctly discusses the treatment of the disease, from the newest standpoints, in regard to its etiology and pathology; and, secondly, because he nobly endeavours to enlist the sympathies and influence of his professional brethren towards procuring a more adequate hospital accommodation, on the most approved principles, for the poorer victims of this fell disease.

Thoroughly imbued with the microbic theory of phthisis, Dr. Weber is the more hopeful in prognosis, and in the efficacy of carefully planned hygienic and dietetic measures, for the prevention and cure of the disease. "There is nothing more baneful than the idea that phthisis is incurable. It shuts out all honest attempt to do everything possible, and to make every sacrifice, to promote arrest and cure." He urges upon patients a greater docility and perseverance in pursuing the details of medical advice, which must necessarily beget a greater sense of direct responsibility, and a more studied carefulness in the details of hygienic treatment on the part of the medical man.

Of the intimate causative association between the bacillus and phthisis, Dr. Weber has no doubt, although he acknowledges some obscurity still to exist as to whether the organism be the direct exciter of the disease, or whether some previous non-bacillary lesion must pre-exist upon which the bacilli may take root and grow. It is clear enough, however, that Dr. Weber considers the bacillus as an essential factor, not a mere concomitant, of phthisis. Heredity and acquired disposition are regarded by him as but the inherent or acquired conditions, which provide the virgin or cultivated soil adapted for the reception of the pathogenic germ. Holding these views, Dr. Weber is necessarily a decided contagionist; and his precautions with regard to the hygiene of the sick-room, the forbidding of marriage with affected persons, the disallowing of children sleeping in the same room with consumptive parents, and hand-feeding or the provision of carefully chosen wet-nurses for the infant offspring of phthisical subjects, are all based upon this view.

It is in this view, too, that Dr. Weber especially regards as justified and strengthened his long held opinions respecting the treatment of phthisis, and again strenuously urges the importance of the more open-air treatment of the disease, which was first systematically car-

ried out by Dr. Brehmer at Goerbersdorf. Only at special institutions of this kind, Dr. Weber believes, can patients be kept under such complete medical supervision and control, as to carry out the treatment with full efficiency. The absence such of establishments for phthisis, except at the mountain sanitaria, has, perhaps, led Dr. Weber not sufficiently to distinguish between the separate effects of mountain-air and organised sanitation in bringing about the good results upon which his advocacy of mountain-climates is chiefly based. Yet it is of much importance carefully to discriminate the separate value of mere climatic conditions, and of systematic treatment. It is to be observed that Dr. Weber associates with "elevated regions," "the desert" and "the sea" as good for phthisis; and it is clear that the only feature common to all these regions is the large proportion of air-space per head for those who dwell in them.

The list of forms of phthisis cited by Dr. Weber as unsuited for treatment at the mountain-resorts includes all the most unfavourable kinds of the disease. It is just the cases which are excluded from this list, in which the active symptoms have passed or have not yet developed, that tend to do well under good hygienic conditions and careful treatment in any healthy locality, whether at the sea-level or in the mountain-valley. They are the cases peculiarly adapted for climatic treatment with a view to temporary or permanent arrest. Some do best on the mountain-plains, others at southern resorts, others again at inland farms, and yet others on the open sea. Physicians can in the main correctly distinguish these cases, much as the ancient mariner, guided by the unwritten teachings of his experience, could forecast the weather. It will probably be long before they will be able to do so on any better defined rules.

It is in his able advocacy of the principles of open-air treatment of phthisis, that Dr. Weber is most instructive and interesting; and the wider acceptance of his views will help to improve the chances of those still in the active phases of the disease. There is no doubt of the truth of the doctrine, which he so courageously and emphatically sets forth, that confinement to bed, save for short periods and special reasons, is injurious in phthisis, and that much too little fresh air is generally allowed to such cases. It is in these respects that general hospitals are so ill adapted for the treatment of phthisis. The wards of these institutions are designed and furnished for cases of acute disease and injury, are draughty, and more or less uncomfortable for those who are not in bed. In our chief consumption hospitals, on the other hand, everything is arranged with the object of enticing the patients out of bed and out of their wards, into cheerful, spacious and well ventilated lobbies. Dr. Weber would go further—and we are convinced that he is right—and would have sheltered seats, sunny open balconies, protecting garden walls arranged so as to enable the patients to sit and walk for many hours, or to be wheeled out into the open air, protected from adverse winds, and receiving the vivifying influence of the purest attainable sunlight. Much more might still be done in this direction by some of our large special institutions, which, like the Brompton and Ventnor Hospitals, are referred to with hearty approbation by the lecturer. Dr. Weber eloquently pleads for more hospitals, designed somewhat on the above plan, for the more open-air treatment of the consumptive poor.

We venture to think that similar institutions might well be built for the reception of middle class invalids on payments calculated to cover cost and interest of capital expended, and to leave a margin to go towards the maintenance of an adjoining wing or separate blocks for the reception of a poorer class of patients. There are sites to be found at some of our seaside places and moorland districts, very suitable for such purposes; the requirements being a fair elevation, a dry porous soil, easy accessibility to some large town whence consulting medical advice could be obtained, and that each building or group of buildings (if the separate block system be decided upon as the best) should be on a scale large enough to provide for the maintenance and occupation of a skilled resident medical officer. Protection from adverse winds could be artificially secured.

Dr. Weber's dietary of breakfast, luncheon, and dinner, with four supplementary meals in the intervals, will be heartily approved by those who have much experience of consumption.

We trust we may be forgiven, however, for thinking Dr. Weber too much influenced by his respect for the microbe in being led, from the results of Raulin's culture-researches on the *aspergillus niger*, to the inference that we may some day learn to cheat the bacilli by a little artfulness in diet. We cannot as yet bring ourselves seriously to contemplate the idea of starving out the tubercle-microbes; and Dr. Weber's advice is in all other respects on so robust a scale, that those who can follow it may probably partake even recklessly of potatoes and other potash-containing fruits of the earth, without being haunted by the fear that they may be thus too strongly raising the spirits and vitality of their "caged sorrows."

SURGICAL TREATMENT OF ABDOMINAL ANEURYSM.

Amongst the numerous triumphs of surgical skill and enterprise in the treatment of affections of the abdominal organs, which recent years have put on record, few have been more striking than the operations for stricture of the pylorus and œsophagus by Professor Loreta, of Bologna, which were recorded in our Journal for February 21st. The same surgeon has now published a case of abdominal aneurysm, which has a double interest for English surgeons, both as an instance of apparent cure in a disease which has hitherto resisted all methods of treatment, and as the realisation of an idea originally promulgated by that excellent surgeon and excellent man—the late Mr. C. H. Moore, of the Middlesex Hospital. Our space will only allow a very brief summary of the original report, which will be found in the *Memoirs* of the Royal Academy of Sciences of the Institute of Bologna, for February 8th, 1885, ser. iv, vol. 6, and which will well repay a careful perusal. The patient was a sailor, 30 years old, who had always enjoyed good health, except for an attack of primary and secondary syphilis five years before. In the month of February, 1883, while making violent efforts in furling a sail, he felt something give way in the belly. This was followed by excruciating pains in the back, and in the iliac and hypochondriac regions, gradually increasing in intensity, till at last, in the course of a year, he was wholly laid aside. But it was not till October, 1884, that a pulsating tumour was found in the left hypochondrium. When admitted into hospital in December, 1884, there was a large pulsating tumour in the epigastrium and left hypochondrium, with a loud *bruit*, having its maximum of intensity in the epigastrium. The pulse was hardly perceptible in the femoral arteries, and ceased altogether when the tumour was compressed; the patient suffered grievously from neuralgic pains down the limbs, which were feeble and cold, and from gurgling noise in the viscera compressed by the aneurysm.

Regarding this as a traumatic sacciform aneurysm, probably springing by a narrowish neck from the aorta or one of its large branches, Signor Loreta determined to attempt to separate the sac from its connections, and, if possible, close its opening out of the artery by suture or ligature; or to empty the sac, invert it, and sew it up; and, if neither of these proceedings should prove possible, to stuff the cavity with wire. He chose wire in preference to horsehair, silk, or other substances, which have been suggested, for reasons which he states, and which seem satisfactory. The use of a coagulating injection was also contemplated, but, as the sequel showed, would have been impracticable.

The operation was performed on December 19th, through an incision reaching from the end of the sternum (that is, the root, not the tip, of the ensiform cartilage) to the umbilicus. It was made so high, n order that the hand might be freely introduced to compress the sac it should give way when the pressure of the abdominal wall was taken off. Numerous superficial adhesions were found, and carefully separated; and then more deeply situated adhesions came into view, which united the sac to the stomach, omentum, transverse colon, and liver. Most of these were divided, but it was found impossible to dissect the sac from the spleen, diaphragm, and cardiac end of the stomach. Hence it was impossible to trace the aneurysm down to its mouth, nor could it be compressed and emptied. It remained uncertain, therefore, whether the abdominal aorta itself, or one of its great branches, was the vessel involved, though the former supposition seemed the more probable. The tumour, which was now fully exposed on its right side, was punctured with a fine trocar, and silvered copper wire was passed in, in the direction of the current of blood, that is, from above, on the right, downwards, and to the left. As soon as the wire experienced resistance, the cannula was removed, the end of the wire pushed in with a needle, and the puncture, together with the surrounding tissues, lightly cauterised with pure carbolic acid. About two mètres (that is, a little over two yards) of wire had been introduced. The consecutive symptoms are fully and accurately detailed in the pamphlet above referred to. They were those of rapid, progressive, and, it is hoped, permanent recovery. The man passed a good night after the operation, a thing which he had not done for two months, and which he attributed to the diminished pulsation of the aneurysm; and the pulse in the femoral arteries, which had been almost suppressed, reappeared. The *bruit* also diminished in intensity, and had entirely disappeared on January 10th; and in a month from the operation, the tumour seemed quite consolidated, and had diminished to a quarter of its former size. It had no pulsation beyond the movement communicated to it by the artery on which it lay, and did not impinge on the parietes of either the thorax or the abdomen. The hypochondrium, which had been considerably prominent, had resumed its normal shape. The patient left his bed on February 2nd, and after remaining under observation for three weeks, was discharged as cured. The whole period which had elapsed from the date of the operation to the publication of the paper was seventy days.

Such is the outline of this remarkable case; a case which, as far as our reading extends, may be truly called unique. No aneurysm n this situation has ever before, we believe, been submitted to deliberate surgical operation, nor are we aware that any aneurysm so situated has been cured by rest and medicine. In fact, its position, so closely adjacent to the stomach, liver, and colon, would render it peculiarly ill-situated for Tufnell's treatment. It need hardly be said that proximal pressure would have been impossible, distal pressure in the highest degree uncertain, and direct pressure so extremely dangerous, that no prudent surgeon would attempt it. In our own country, we believe, an attempt was made by Mr. C. Heath (and we cannot name this enterprising and distinguished surgeon without expressing our sincere pleasure at his convalescence, and the hope of his speedy restoration to activity), to submit an abdominal aneurysm to direct surgical treatment by laparotomy; but it was found necessary to abandon the attempt.

Moore's case (*Medico-Chirurgical Transactions*, vol. xlvii) involved no exposure of the sac, as the aneurysm projected against the walls of the thorax. But the event of this case was not such as to recommend the method, which is dismissed in this brief fashion in one of the most recent works on aneurysm: "Doubtless the substance used was too irritating; and the use of wire is now abandoned." (Holmes's *System of Surgery*, third edition, vol. iii, page 78.) And there can be no doubt, both from Mr. Moore's account of the case, and from the preparation which is preserved in the Museum of the Middlesex Hospital, that the wire did set up fatal irritation. It is probable, however, that the quantity introduced (twenty-six yards) was too large; and it appears certain that the disease had advanced to an extent which rendered it practically incurable. Moore anticipated this criticism, and he suggested "that it may be possible to effect an equal consolidation with a less quantity of wire.....Should this method be adopted, it would be important so to manipulate the wire as to insure its coiling in the cavity, and not merely lying in circles against the wall." (*Op. cit.*, page 168.) This suggestion Signor Loreta's operation kept in view. It is also interesting to see that the idea of applying his method to abdominal aneurysm had occurred to our countryman, though it is not surprising, considering that the case happened twenty-one years ago, that he dismissed the idea as impracticable. Now that the position of the aneurysm is no longer regarded as inaccessible to operation, we may be sure that surgeons, stimulated by Signor Loreta's success, will give an ample trial to the introduction of foreign bodies into the sac, in the treatment of these otherwise hopeless cases; and we may hope to hear of fresh advances in surgery. Our only fear is that operators may be too enterprising, and may run risks which the stage of the disease, and the condition of the patient, do not justify. It will be noticed that the case before us presented many features which are wanting in too many cases of internal aneurysm: a young, and otherwise healthy, patient; an arterial system apparently free from any general degeneration; a firm complete sac; and a manageable size of tumour. Even with all this, the risks and difficulties of the operation were evidently enormous; and to have met them successfully, reflects honour on Italian surgery in general, and especially on the distinguished Professor of Bologna.

THE Prince of Wales has consented to preside at a dinner in aid of the funds of University College Hospital, on Wednesday, May 13th.

WE have been asked by the Treasurer and Governor of Guy's Hospital to notify that, in consequence of the appointment of Dr. Frederick Taylor to the office of Physician, a vacancy is created among the Assistant Physicians. Candidates to fill the same are requested to send their applications, addressed to the Clerk to the Governors, on or before Thursday, April 30th.

THE Senate of the University of London has agreed to receive a deputation of the Metropolitan Counties Branch on the subject of degrees for medical students, on Wednesday, April 29th, at 4.45 P.M.

THE death, on April 6th, of Dr. Joseph Pope is announced. He was formerly a staff-surgeon in the Royal Artillery, and served twice in India. Since his retirement, he has lectured in many parts of the country for the National Health Society.

WE understand that the Senate of the University of London have "declined with thanks" the offer made by the Committee of the Rabbeth Memorial Fund to present a sum of £100 towards the foundation of a medal in memory of the late Mr. Samuel Rabbeth, M.B.Lond. This refusal will be a matter of general regret.

LONDONERS may well sigh for a reform of their municipal arrangements when they find one set of authorities inveighing against the extravagance of another. It is announced that arrangements are in progress for holding a conference at the Mansion House on Monday, the 27th instant, to which representatives of every district board and vestry in the metropolis will be invited, for the purpose of considering the whole question of the expenditure and administration of the London School Board.

THE ROYAL SOCIETY.

AMONG those who are candidates for admission into the Royal Society at the next election, we notice the names of Dr. Thomas Buzzard, Dr. Theodore Cash, Sir Andrew Clark, Professor Cossar Ewart, Professor P. W. Latham, Surgeon-Major Timothy Lewis, Dr. Patrick Manson of Amoy, Professor A. Milnes Marshall, Professor H. Newell Martin of Johns Hopkins University, Dr. Walter Moxon, Dr. Urban Pritchard, Dr. P. H. Pye-Smith, Professor Sydney Ringer, Dr. Thomas Stevenson, Dr. C. Meymott Tidy, and Dr. Morris Tonge of Harrow.

THE ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AT VENTNOR.

WE have ground for believing that the first block of the recently projected extension of this hospital will be ready for occupation early in October. It is also reported that the Board of Management have made arrangements for increasing the present medical staff, by the appointment of an assistant visiting physician.

WOMEN-STUDENTS AT BOMBAY.

Out of ten ladies who completed their first year of study at the Grant Medical College, four took prizes, and one (Miss Walke) took the second prize, having passed the second best examination, in competition with all the students of her year. There are now sixteen female students in the college.

THE INDEX MEDICUS.

WE are glad to learn that this useful work, the discontinuance of which was announced a few weeks ago, is again to be published under the management of Mr. G. S. Davis of Detroit. The general plan of the book will remain the same. It is to be hoped that the new publisher will meet with better success in his enterprise than fell to the share of his predecessors.

PRESENTATION TO DR. HENRY BENNET.

DR. HENRY BENNET has recently received a most gratifying testimonial from his fellow medical practitioners at Mentone. Dr. Bennet took up his residence there a quarter of a century ago, and to his unwearied advocacy the success of Mentone as a winter resort is in greatest part due. The presentation consisted of a bronze statuette after Michael Angelo, and was accompanied by a most friendly and appreciative letter signed by Dr. Bennet's colleagues.

EDUCATION UNDER HEALTHY CONDITIONS.

ARRANGEMENTS have been completed for a "Conference on Education under Healthy Conditions," which is to be held in Manchester from April 14th to the 17th inclusive. The conference will be under the presidency of Lord Aberdare, and among the subjects to be discussed are these: Overpressure in elementary schools and in higher schools for girls, cheap meals for poor school-children, art in schools, the kindergarten system, health-requirements in the construction of schools, gymnastics and manual training, evening schools under healthy conditions, and lessons in school on health. Various educational exhibitions will be held in connection with the conference.

BEER IN THE HARVEST-FIELD.

THE *Church of England Temperance Chronicle*, a vigorous and ably conducted organ of temperance, gives some interesting particulars with reference to the spread of sobriety among the agricultural classes A pamphlet by Mr. John Abbey, which excited considerable interest when published a few years since, advocating the discontinuance o intoxicants on the harvest-field, was widely circulated by a committee and, as a result of this effort, many farmers have substituted a money-payment for the former beer-allowance, to the general satisfaction of masters and men. Over £1,000 was subscribed, which furnished the committee with funds sufficient to send the pamphlet to 112,500 landowners, estate-stewards, farmers, and farm-bailiffs, over an area of 27,000,000 acres. Every friend of temperance (and all members of the medical profession ought to be in sympathy with sobriety) can look upon this resolute attempt to promote abstemious habits among the rural population only with approval and encouragement.

THE GLAMORGAN AND MONMOUTHSHIRE INFIRMARY.

ON Monday in last week, the children's ward, to contain twenty-two beds, was opened by the High Sheriff of Glamorgan, Colonel Hill, C.B., accompanied by the Lord Bishop of Llandaff and a numerous body of the friends of the institution. At the same time, the Infirmary buildings, which have not been very long completed, were thrown open for the inspection of the public. The late Miss Shand, a lady who always took a deep interest in the maimed, the halt, and the blind, especially the latter, has left a sum of about £7,000 towards maintaining this children's ward, which is now, at her request, named the "Shand Memorial Ward," in memory of her late brother. In leaving this bequest, she "hopes that other and richer persons may be induced to follow her example"—a hope we warmly re-echo.

INEBRIETY AND ITS CURE.

DR. NORMAN KERR presided over the annual general meeting of the members of the Society for the Study and Cure of Inebriety, held on Tuesday, March 7th. He congratulated the association on the successful character of the first year's operations, and on the fact that there were now 279 members and associates combined together for the purpose of instituting a searching inquiry conducted on scientific lines into the cause of inebriety in its varied forms. He called attention to the encouraging fact of the steadily increasing recognition of inebriety as a disease, and concluded by stating that the drunkard was more to be pitied than blamed as the subject of a disease, it, or a diathesis predisposing to it, having been, by heredity, stamped on his being. The disease of inebriety resembled in many particulars the disease of insanity, and it was as much the duty of the Christian, the philanthropist, and the State, to establish homes for the treatment of the inebriate, as they had acknowledged it to be their duty to sustain asylums for the care of the insane. A paper was then read by the secretary, Dr. W. M. Sturrock, contributed by Dr. Crother, of Hartford, Connecticut, honorary secretary of the American Society for the Study and Cure of Inebriety, entitled, "The Incipient Stages of Inebriety." A discussion followed, in the course of which Dr. Farquharson, M.P., pointed out the difficulty of any legislative measures, and also asked for the results of the treatment in the Dalrymple Home for Inebriates.

The chairman, in reply, stated that it was difficult to arrive at any satisfactory results from the statistics, as they had only been in existence for about a year; but that, of the 49 cases treated in the home, 50 per cent. had remained steadfast, and had been restored to their ordinary careers, and 29 per cent. had been greatly benefited. The discussion was continued by Dr. James Stewart, Dr. Morton, and others.

REMEDIES FOR OVERPRESSURE.

THE question of overpressure in schools was discussed at the resumed Conference of Teachers at Norwich on Wednesday, and a resolution was passed, asking for a Royal Commission of inquiry into the question of overpressure in schools. Mrs. Burgwin (Southwark) previously read a paper on the subject, in which she attributed the alleged overpressure entirely to the principle of payment by result. The London School Board, by commuting teachers' salaries to a fixed stipend, had removed part of the evil. She advocated class examinations only to the age of ten years, and above that age standard examinations; and advised all school-boards to add a properly qualified surgeon to the staff of officials. His duty should consist in making weekly, or fortnightly, visits to the children in school, having his attention called by the teachers to those ailing in the least. She was of opinion that much of the bad speaking, reading, and dictation was due to want of attention to the teeth, eyesight, and hearing of the children.

THE UNIVERSITY OF LONDON AND LONDON MEDICAL STUDENTS.

WE understand that, at the meeting of the Senate of the University of London, on April 1st, it was formally resolved to withdraw the subjects of logic and psychology from the M.D. and M.S. Examinations. It was further resolved that there should be in future three papers in medicine, which should include questions on mental physiology, especially in its relation to mental disorder. It was also resolved that a special examiner should be appointed to act in conjunction with the examiners in medicine and surgery; the principle on which this examiner should be elected was referred to the Committee on Examinations in Medicine. The Senate also had before it an application from the Committee of Convocation appointed to consider the proposals of the Convocation for promoting the establishment of a teaching university for London, and passed a resolution, we understand, expressing its readiness to receive and consider any definite plan for the promotion of the objects sought by the Committee. This not too encouraging reply leaves to the Committee an obvious duty. The Senate has appointed April 29th to receive a deputation of the members of the Metropolitan Counties Branch; and when the result of this interview is known, the Committee of Convocation will be bound to adopt the scheme of the Branch, or to propose some alternative plan which may be the basis of an arrangement between the Senate and the other bodies which are now moving in the matter.

ENFORCEMENT OF SANITARY STATUTES.

MR. JOHN HAMER, the Honorary Secretary of the Central Committee of the Mansion House Council on the Dwellings of the Poor, in a letter to the *Times*, calls attention to their urgent need of funds to carry on the work which has been done during the past twelve months, and which is just beginning to bear good fruit. He reports that their own cases were rapidly multiplying (they had 800 last month), and the vestries everywhere were being stirred to greater activity through their operations. It would be a heavy blow and great discouragement to the cause of sanitary reform, were they compelled to relax their efforts at this moment. Their work consisted in taking advantage of the large amount of sanitary legislation now on the Statute-books; it remedied present evils so far as the *vis inertiæ* and obstructiveness of the vestries would permit; it involved a comparatively trifling expense, and by means of its local committees (now 36 in number, spread all over London) it brought local knowledge and local energy to cooperate in that most important work. By exercising the strictest economy, the whole of the thirty-six committees could be worked on about £600 per year; and Mr. Samuel Morley, M.P., has offered to give £50, provided nine others will do the same.

FAREWELL ENTERTAINMENT TO PROFESSOR MACLEAN OF NETLEY.

A FAREWELL dinner was given at the medical staff mess, Netley, on the 31st ultimo, to Professor Maclean, C.B., whose official connection with the Army Medical School terminated on that day. About fifty medical officers and guests were present at the entertainment. The Director-General of the Army Medical Department, who came from London to attend the dinner, proposed the toast of the evening in a speech characterised by much feeling and ability, and, in the course of it, gave a review of the long and valuable services of Dr. Maclean, not only at the Army Medical School, but also while serving under the Indian Government in the Presidency of Madras, where the accidents of service had caused them to be frequently associated. Professor Maclean, who replied with much emotion, said it was a source of the greatest satisfaction to him that, now he was quitting active employment in the Army Medical Service, he could feel he was leaving the department in a more efficient state of organisation for carrying out the important duties with which it is charged, in time of peace as well as in time of war, than it had ever had in former years; and, in taking leave of his colleagues and brother-officers, he particularly congratulated them that the professorship he had held was now passing into the hands of an officer who had had such varied and extensive experience in tropical disease, and who had won for himself so distinguished a name in India, as Dr. David Boyes Smith.

CHARGE OF DETAINING A SINGLE PATIENT WITHOUT CERTIFICATES.

A MRS. SPARLING has been summoned at the Hove Petty Sessions for boarding and lodging an alleged lunatic, without having procured the legal order and certificates, as required by the ninetieth section of the 8 and 9 Vict., cap. 100. In consequence of information having reached the Commissioners in Lunacy that such was the case, an order was obtained from the Lord Chancellor which directed Dr. Gasquet, of Brighton, to visit the house at Hove, West Brighton, where the patient, Miss Guise, was confined. Dr. Gasquet gave evidence that he found the lady in a room in the basement, looking into a small area. She did not take any notice of him on his entering the room, but went on tearing up small pieces of rag. Her replies to questions were made quite at random. When asked whether her father and mother were alive or dead, she replied, "I think they are half alive." She showed herself quite ignorant of the value of money. In short, Dr. Gasquet arrived at the conclusion that she was a chronic lunatic, and totally unfit to take charge of herself. Other evidence was given, corroborating the medical testimony. The patient's mother stated that her daughter had been with Mrs. Sparling fifteen years, the latter being paid £20 a month, which included everything but clothes, and that she had been always treated kindly. The defence set up was not that Miss Guise was not a lunatic, or that there was no payment made on her account to Mrs. Sparling, but that such payment did not ensure a profit. This is certainly a fine point, and constitutes the interest of the case. The justices decided to send the case for trial to the next assizes. We shall look with interest to the final verdict.

VOLUNTEER MEDICAL STAFF CORPS.

THIS corps, although enrolled only on April 1st, put in an appearance at the Brighton Review. Two companies, about fifty strong each, paraded at Wellington Barracks on Good Friday morning, in full marching order, and, taking train at Victoria, accompanied the marching columns. No. 1 Bearer Company, under the command of Surgeon-Major Cantlie and Acting-Surgeons Leech, Fletcher, and Willett, accompanied No. 7 column, under the command of Colonel Sir R. Loyd Lindsay, V.C., and billeted at Burgess Hill. No. 2 Bearer Company, under the command of Surgeon-Major Norton and Acting-Surgeons

Huzzey and Raw, accompanied No. 2 marching column, and billeted at Newick. On Saturday, the companies followed the troops over the Downs, and had some rough work with their wagons. The ambulance-wagons of No. 1 Bearer Company were blocked for three hours, by transport-wagons having broken down in front of them on the Downs. The bearers carried their stretchers over hill and dale for four miles, and only by a forced march were they able to return to pick up their wagons and join the troops in the march into Brighton. No. 2 Bearer Company had to take the horses out and pull the wagons up the hills. At the head-quarters of the corps in Brighton, a temporary hospital of eight beds was opened, and as many as fifty-three patients were treated between Saturday night and Monday morning. The appearance of the new corps at the march past on Monday was the subject of much congratulation and cheering. The Duke of Cambridge, after the march past, rode up to the head of the column and complimented the corps on its appearance and efficiency. Surgeon Cross, of the Grenadier Guards, acted as commanding officer, and Surgeon Pearse as staff-officer. Lieutenant M'Clure acted as adjutant.

A DEGREE FOR LONDON STUDENTS.

It is satisfactory to learn that the President of the Royal College of Physicians laid stress, in his annual address, delivered last week, on the necessity for obtaining for London students reasonable facilities for acquiring the degree of Doctor of Medicine. Sir W. Jenner was of opinion that the obstacles to this project, so often discussed in our pages, could be overcome without much difficulty, and influential members of Parliament and of the Upper House were in favour of the scheme, and also considered that it might be made law, in some form or other, according to the desire of the profession. The President, before making these observations, had congratulated the College on the recent successful establishment of the Conjoint Board. That this new combination of medical and surgical examiners may ensure a more complete knowledge of the different branches of surgery in those to whom it may award its diplomas, than has hitherto been the case with regard to the separate licences of the two Colleges, there can be little doubt. We have shown, however, that the Conjoint Board is oppressive to the student through the high fees which it requires of candidates, and it leaves the degree-question untouched, or rather aggravates the matter. For the student who has been thoroughly examined in medicine, surgery, and midwifery, must clearly feel that he deserves the style and title, with their attendant advantages, of M.D., far more than those of his predecessors who may only be members of the surgical college, and quite as much as others who hold a degree from an university where the medical examinations are less severe than those which are conducted by the Conjoint Board. Our views, and those of the Association, on the question of a London University, with degrees accessible to the average student who works in a metropolitan school, are well known. At the moment of going to press we have received important intelligence, full details of which will be found in our report of the meeting of the Council of the Royal College of Surgeons, at page 753. Mr. Durham has given notice of a motion that the two Colleges should, through delegates, consider the feasibility of conferring the title of Doctor on those who hold their combined diplomas.

SCOTLAND.

GLASGOW UNIVERSITY MEDICO-CHIRURGICAL SOCIETY.

At the annual general meeting of the Glasgow University Medico-Chirurgical Society, held last week, the undernoted members were elected office-bearers for the ensuing year:—*Honorary President:* Professor Leishman, M.D. *President:* John Macphail. *Vice-Presidents:* Senior, John H. Carslaw; Junior, Basil J. Adam. *Secretaries:* Corresponding, Wm. H. Fergus; Minute, Henry J. Younger, M.A. *Treasurer:* A. D. Hughes. *Librarian:* William B. Leishman.

MEDICAL BURSARIES IN ABERDEEN UNIVERSITY.

Miss Duthie, of Aberdeen, who a few years ago gave over £40,000 for a park for the city, has by her will left £2,000 to Aberdeen University to found two medical bursaries, while the Royal Infirmary receives an equal sum; the Sick Children's Hospital and other institutions receiving £500 each.

EDINBURGH DENTAL HOSPITAL.

During the past three months, the total number of cases treated at the Edinburgh Dental Hospital was 1,606. Of these, 1,224 were minor operations upon 648 males and 576 females. Under anæsthetics, there were 16 major operations, while 366 other cases were treated.

EDINBURGH UNIVERSITY COURT.

At a meeting of Edinburgh University Court held last week, the appointment of Mr. David Hepburn as Demonstrator of Anatomy in Edinburgh University from May 1st till the end of the current session (in succession to Mr. Arthur Thomson), was approved.

ROYAL HOSPITAL FOR SICK CHILDREN, EDINBURGH.

During March, there were 120 patients treated in the wards of the Sick Children's Hospital, Edinburgh, of whom 51 were in the wards on March 1st, while 69 were admitted during the month; 39 were discharged well, and 8 were discharged relieved. The average number of patients during the month was 58. In the dispensary department, 664 out-patients were treated, and 8 were vaccinated. The proportions of the residencies of patients treated were, Edinburgh, 277; Leith, 61; and from the country, 4. The total number of patients treated during the month was 792.

BEQUEST BY A DECEASED PHYSICIAN.

The late Dr. James Arrott, for a long time one of the leading physicians in Dundee, left directions for his trustees, after certain life-rents had expired, to pay over what might remain of his estate to the minister and kirk session of the parish of Arbroath, to be applied by them at their discretion for the benefit of aged poor deserving persons resident within the parish of Arbroath, and not in receipt of parochial relief. The first division of the interest will probably be next year; the amount of the estate will likely when realised be about £7,000. Dr. Arrott was a native of Arbroath, and evidently retained a warm feeling for his native town.

OUTBREAK OF SMALL-POX.

A serious outbreak of small-pox has occurred in Kinghorn, Fifeshire; and by its contiguity, the town of Kirkcaldy has been invaded. It was mentioned in the public prints, some days ago, that nearly forty cases had occurred, of which two are said to have proved fatal. It is believed that the disease has been introduced by means of flax imported into the town from Russia. The cases that have occurred in Kirkcaldy are believed to be accounted for by both of the patients having attended the funerals of friends who had died from the disease in Kinghorn.

THE NEW LECTURER ON HUMAN ANATOMY, UNIVERSITY OF OXFORD.

On Friday, March 27th, the Assistants' Club of Edinburgh University did what could be done to honour a departing colleague, in the complimentary dinner given to Mr. Arthur Thomson, lately Demonstrator in Anatomy, Edinburgh University, and now advanced to the Lectureship of Human Anatomy in Oxford University. The dinner was held in the Waterloo Hotel. As guests of the club, in addition to Mr. Arthur Thomson, were his father, Professors Turner and Fraser (Edinburgh), and Professor Matthew Hay (Aberdeen). The duties of the chair were performed by Dr. J. Murdoch Brown; while those of the croupier fell to Mr. Orr, advocate. Nearly all the mem

bers of the club were present, and a very pleasant evening was spent. After the usual loyal and patriotic toasts, "The Health and Prosperity of the new Lecturer on Human Anatomy in Oxford University"—the toast of the evening—was proposed by the chairman in suitable terms, and was responded to in a happy vein by Mr. Thomson.

THE CLINICAL MEDICINE CLASS AND PROFESSOR DOUGLAS MACLAGAN.

THE last lecture of the course of clinical medicine, session 1884-85, was delivered by Professor Douglas Maclagan in the Lecture Room, Royal Infirmary, Edinburgh, on Friday, March 27th. The room was crowded, as it was known that this was the last time Dr. Maclagan would address the class. The other professors of clinical medicine were present, as well as the professors of surgery, clinical surgery, and a large number of the medical and surgical staff of the infirmary, former graduates and residents. Dr. Maclagan reviewed the work that had been done during the session in the lectures, the wards, and the tutorial class; and, coming to that which was more immediately personal to himself, intimated that he would now cease to act as a professor of clinical medicine. He expressed the satisfaction and pleasure it had given him to have been so long engaged in the congenial work he now relinquished. Of the many pleasant intimacies the bedside-teaching had given him with residents, clerks, pupils, and patients, he also spoke feelingly; and, in bidding the class adieu, he addressed to its members words of encouragement and advice worthy of the occasion and of the venerable speaker. The audience was much moved by Professor Maclagan's address, and cheered him heartily during its delivery; and at the close, the oft repeated ringing cheers showed how thoroughly the lecturer possessed the respect and affection of his pupils. It will be satisfactory to Dr. Maclagan's old pupils and friends all the world over to know that he resigns clinical teaching not from failing powers or bodily ailment, but that he may more thoroughly organise in the new university-buildings his laboratory for the prosecution of researches in medical jurisprudence, and especially in public health, an object which lies very near his heart, and to which he is devoting himself with the usual *perfervidum ingenium Scotorum*.

IRELAND.

AT a meeting of the Governors of the Wicklow County Infirmary, held recently, Dr. Thomas Lyndon was unanimously elected surgeon to the institution.

IT is contemplated to present a testimonial to Dr. Brodie, on his retirement from the office of Inspector under the Local Government Board.

KING AND QUEEN'S COLLEGE OF PHYSICIANS.

THE following gentlemen, having been duly nominated in January, were elected Fellows of this College at the usual monthly business meeting on Saturday last: Andrew J. Horne, late assistant-physician to the Rotunda Lying-in Hospital; Francis X. F. MacCabe, the recently appointed medical adviser to the Irish Prisons Board; and James F. Pollock, M.B., medical officer of the Blackrock Dispensary District.

THE TITLE OF DOCTOR.

SOME years ago, the King and Queen's College of Physicians in Ireland informed its Licentiates, that, "in the opinion of the College, a Licentiate is not entitled, legally, to call himself 'Doctor,' or to use the letters 'M.D.,' in virtue of being a Licentiate of the College." The prefix of Doctor is now so commonly used by men who have no right to adopt it, that the College, while it feels it has no authority to prevent any of its Licentiates from calling themselves or each other what they please, has, with the object of giving effect to the opinion stated above, just adopted the following resolution: "That it be an instruction to the Registrar and to the Clerk of this College not to use the title 'Doctor' in officially addressing any of its Licentiates except in the case of those Licentiates who, having in addition an university degree of M.D., are by it entitled legally to be styled Doctor."

THE LUNACY ACTS AMENDMENT BILL.

THE following extracts from the Lunacy Acts Amendment Bill are those which are most important to (A) superintendents of public asylums; (B) proprietors of licensed houses; (C) medical men receiving a single patient; (D) medical men who sign certificates of lunacy; (E) persons signing the order; (F) medical officers of workhouses; (G) to persons keeping lunatics not in asylums; (H) proprietors of imbecile-asylums.

Some of the clauses refer to more than one of the above subdivisions. To avoid repetition, such will be placed under the head to which they most prominently refer, preference being given to the directions for medical practitioners, who will probably be called upon to assist the relations of the patient.

All statements in the new Act, if not differing from those existing in the present Lunacy Acts in any important particular, are omitted.

The abstract does not profess to be exhaustive as to details. Minute particulars can be obtained from the Act itself. Explanations and abbreviations, not contained in the Act itself, will be placed in brackets.

The Bill adopts in the main the recommendations made by the report of the Select Committee on Lunacy Law in the year 1878. The principle of the Scotch procedure has been adopted with somewhat fuller elaboration of details.

This Act may be cited as the Lunacy Acts Amendment Act, and shall come into operation, save as in this Act otherwise expressly provided, on the 1st day of January, 1886.

This Act may be repealed or amended by any Act passed in the present session of Parliament.

Save as in this Act otherwise expressly provided, this Act shall not extend to Scotland or Ireland.

A. *Clauses referring to Superintendents of Public Asylums.—Clause* 2. Line 1. Section 1. See under B.—*Clause* 7. Section 17. (B).

Clause 8. Section 1.—No pauper shall be received as a lunatic into any asylum under an order under the hands of an officiating clergyman and overseer or relieving officer.

Clause 27. Section 1.—Where application is made to the Committee of Visitors of an asylum by any relative or friend of a pauper lunatic confined therein that he may be delivered over to the custody of such relative or friend, any two of the visitors may, upon being satisfied that the lunatic will be properly taken care of, order the lunatic to be delivered over accordingly. Section 2.—Any two visitors may make an order on the guardians of the union for payment to the person to whom the lunatic is delivered not exceeding his expenses, if he were in the asylum. Section 3.—The lunatic shall be visited once in every three months by a medical officer from the asylum from which the lunatic was delivered over; or, if the person to whom the lunatic is delivered resides more than three miles from the asylum, then by a qualified practitioner approved by the Committee of Visitors.

Clause 51. Section 1.—The Secretary of State may force justices to provide asylums for paupers and nonpaupers.

Clause 52.—The Public Works Loan Commissioners may advance to the Secretary of State the amount of any loan required for this purpose on the security of the local rate.

Clauses 56, 57, 58.—Any lunatic escaping from England, Scotland, or Ireland into any one of these three countries, may be retaken and sent back to the country he escaped from.

Clause 64.—"Patient" means a person under medical care as a lunatic. "Relative" means a lineal ancestor or a lineal descendant, or a lineal descendant of an ancestor not more remote than great-grandfather or great-grandmother.

B. *Clauses referring to Proprietors of Licensed Houses.—Clause* 2. Section 1.—Except in the cases of urgency hereinafter mentioned, no person, not being a pauper, and not being a lunatic, so found by inquisition, shall be received or detained as a lunatic in any asylum, hospital, or licensed house, or as a single patient, without an order under the hand of a judge of county courts, stipendiary magistrate, or justice of the peace, having jurisdiction in the place where the lunatic is. (See Clause 7, Section 16.) Section 17. A copy of the petition shall

be included among the documents which are required to be sent to the Commissioners by the clerk of every asylum, and the superintendent or proprietor of every hospital and licensed house, and by the person having charge of a single patient, upon the admission of a private patient. A copy of an urgency order is to be sent forthwith after the reception of an alleged lunatic, to the Commissioners, and a copy of every order made by a justice of the peace enlarging the time during which the urgency order is to remain in force.

Clause 16. Section 1.—The medical officer of every asylum, and the medical attendant of every hospital and licensed house, and of every single patient, shall, at the expiration of one calendar month after the reception of a private patient, prepare and send to the Commissioners, and to the clerk of the visitors, a report as to the mental and bodily condition of the patient. Section 3.—The Commissioners, after receiving the report, shall, in every case of a private patient in a hospital or licensed house within their immediate jurisdiction, make arrangements for a visit being paid, as soon as conveniently may be, to the patient therein named, by one or more of the Commissioners. Section 4.—The clerk of the visitors, after receiving the report, shall, in every case of a private patient in a hospital or licensed house, make arrangements for a visit being paid by the medical visitor to the patient therein named.

Clause 16. Section 7.—In the case of a private patient in an asylum, the Commissioners, after receiving the report (of his mental and bodily health, one calendar month after reception) shall make arrangements for a visit being paid, as soon as conveniently may be, to the patient therein named, by one or more of the Commissioners.

Clause 17. Section 1.—Any order for the reception of a patient, whether a pauper or not, dated after or within two years before the commencement of this Act, shall expire at the end of three years from its date; and any order dated more than two years before the commencement of this Act shall expire at the end of one year after the commencement of this Act, unless such orders are continued. Section 4.—An order for the reception of a person as a lunatic, whether a pauper or not, shall remain in force for a year after the date, and so on from year to year if not less than seven days before that date, and not less than seven days before the end of every subsequent year from that date, the medical officer of the asylum, or the medical attendant of the hospital or licensed house of the single patient, sends to the Commissioners a special report of the mental and bodily condition of the patient, with a certificate under his hand, certifying that the patient is still of unsound mind, and a proper person to be detained under care and treatment.

Clause 18. Section 1.—The discharge of a patient may be ordered after one visit by two Commissioners, instead of two visits.

Clause 30. Section 5.—The entry, as to the form of the patient's disorder (8 and 9 Vict., c. 100, s. 51, and s. 89 of Act 1853) shall be made within fourteen days after the reception of the lunatic.

Clause 33. Section 1.—There shall be posted up in every asylum, hospital, or licensed house, printed notices setting forth (*a*) the right of every private patient to have any letter written by him forwarded to the Commissioners; (*b*) the right of every patient to request a private and personal interview with a visiting Commissioner or visitor. Section 2.—The notices shall be posted in conspicuous places in the asylum, hospital, or house.

Clause 34. If, in any case of an inquisition, it shall appear that the alleged lunatic is of unsound mind so as to be incapable of managing his affairs, but that he is capable of managing himself, and is not dangerous to himself or others, it may be specially so found and certified, and the Judge in Lunacy shall make all such orders as may be necessary to the management of the estate of the person, but it shall not be necessary to make any order as to the custody of the person.

Clause 36. Section 9.—After the expiration of five years from the commencement of this Act, no pauper lunatic shall be received in any licensed house.

Clause 48. Section 1.—The committee of visitors of any asylum, with the consent of the justices at the quarter sessions of each county and borough for which the asylum is provided, and with the approval in writing of the Secretary of State, may make such additions to the asylum, either by way of detached buildings or blocks of buildings or otherwise, as they shall think fit, for the purpose of providing accommodation for lunatics not paupers.

Clause 49. Section 1.—The justices of any county or borough, either alone or in union with the justices of any other county or borough, or counties or boroughs, may make provision for the reception of pauper and private patients, together or in separate asylums, and they may provide separate asylums for idiots or patients suffering from any particular class of mental disorder.

C. *Clauses referring to Medical Men receiving a single Patient.*—*Clause* 2. Section 1. See under B.—*Clause* 7. Section 16 (B), 17 (B).—*Clause* 16. Section 1 (B).

Clause 16. Section 5.—In the case of a single patient, the Commissioners, after receiving the report (one calendar month after, of the mental and bodily condition) shall either make arrangements for a visit being paid as soon as conveniently may be to the patient therein named by one or more of the Commissioners, or shall direct the medical visitor of the county or some other competent person to visit him. Section 6.—The person directed to visit a single patient shall have all the powers of a Commissioner, and the Commissioners may pay him such reasonable remuneration for his services as they think fit.

D. *Clauses referring to Medical Men who Sign Certificates of Lunacy.* See Clause 2, Section 2, line 27, under E.

Clause 2. Section 7.—One of the medical certificates accompanying the petition shall, whenever practicable, be under the hand of the usual medical attendant, if any (being a duly qualified medical practitioner) of the alleged lunatic. Where the person to whom the petition relates has been received under care and treatment under an urgency order, neither of the medical certificates accompanying the petition shall be signed by the medical practitioner who signed the medical certificate accompanying the urgency order. Section 10.—The petition shall be considered in private, and no one except the petitioner and the persons signing the medical certificate accompanying the petition, shall, without the leave of the judge, magistrate, or justice, be present at the consideration thereof. Section 13.—And all persons admitted to be present at the consideration of any petition shall be bound to keep secret all matters which may come to his or their knowledge by reason thereof. Section 16.—The order, together with the petition, statement of particulars, and medical certificates upon which the order was made, shall be delivered to the person on whose petition the order was made, and shall by him be delivered to the superintendent or proprietor of the asylum, hospital, or licensed house in which, or to the person by whom, the lunatic is to be received.

Clause 3. Section 1.—In cases of urgency, an alleged lunatic may be received and detained upon an urgency order, accompanied by one medical certificate. The medical practitioner must not have examined the person more than three clear days previously to the reception. An urgency order may be signed before or after the medical certificate. It shall, if possible, be signed by a relative, or by the husband or wife of the alleged lunatic, who must have seen him within seven days before the date of the order. It shall remain in force seven days from its date, unless the time is enlarged by a justice of the peace. No medical certificate accompanying a petition for an order for the reception of a private patient, or accompanying an urgency order, shall be signed by the petitioner or person signing the urgency order, or by the relation, partner, or assistant of such petitioner or person. (Relation here and hereafter means husband or wife, father or father-in-law, mother or mother-in-law, son or son-in-law, daughter or daughter-in-law, brother or brother-in-law, sister or sister-in-law.) (1) The petitioner (a relation), (2) the order-signer (not a relation, except an urgency order-signer, who is to be a relation), (3) the medical man who signs the first certificate, (4) the medical man who signs the second certificate (and 4*a* the medical man who, in urgency cases, signs the single certificate), (5) the superintendent or proprietor of the hospital or house, or the person who is to have charge of the patient, or any person interested in the payments of the patient, or any regular medical attendant in the hospital or house must be independent of one another, not related nor in partnership. (6) The patient is protected by the Commissioners, (7) and by the justices. No persons interested in the payments of the patient, nor any relation of theirs, can sign a certificate. (It will be seen from this that the lunatic is now protected by seven independent sets of people, instead of five, as formerly, the two new ones being the petitioner and the justice of the peace.)

E. *Clauses referring to Persons Signing the Order for the Reception of a Lunatic, and also to the Person Signing the Petition. Clause* 2. Section 1.—No relative of the petitioner, or of the lunatic, or of the husband or wife of the lunatic, within any of the degrees of kindred included in the term "relative," as defined by this Act, shall be capable of making such order. Section 2.—The order shall be obtained upon a private application by petition, accompanied by a statement of particulars and by two medical certificates, on separate sheets of paper, under the hands of two duly qualified medical practitioners. Section 3.—The petition shall be presented, if possible, by a relative, or by the husband or the wife, of the alleged lunatic. No person shall present a petition unless he has, within

fourteen days before the presentation of the petition, personally seen the alleged lunatic. The petitioner shall undertake that he will, or some one specially appointed by him, visit the patient once, at least, in every six months.

See *Clause* 2, Section 10; *Clause* 7, Section 16.

F. *Clauses referring to Medical Officers of Workhouses. Clause* 9. Section 1.—A justice of the peace may make an order for a wandering lunatic to be admitted to a workhouse; such order shall authorise the detention of the lunatic for a time not exceeding seven days from its date.

Clause 10. No person shall be detained in a workhouse as a lunatic unless the medical officer of the workhouse certifies that he is a lunatic. A certificate under this section shall authorise the detention of a person as a lunatic in a workhouse for fourteen days from its date. Section 4.—No person shall be detained in a workhouse as a lunatic for more than fourteen days without an order under the hand of a justice of the peace.

See Clause 16, Section 1 (B).

G. *Clauses referring to Lunatics not in Asylums.—Clause* 28. Section 1.—If it comes to the knowledge of the Commissioners that any person is detained or treated as a lunatic, or alleged lunatic, by any person not deriving a profit from the charge, or in any charitable, religious, or other establishment (not being an asylum, hospital, or licensed house), they may require the person by whom the lunatic is detained to send to them a report of the mental and bodily condition of the patient. Section 2.—The Commissioners may at any time visit such patient. Section 3.—And may transmit any reports made by them about any such patient to the Lord Chancellor, who may order the discharge of the patient from such custody.

H. *Clauses referring to Imbeciles.—Clause* 29. Section 1.—An infant under the age of 21 years, being an idiot, or being imbecile from birth or from early age, may be placed by his parents or guardians, and lawfully detained until of full age, in any institution for the education of imbeciles, upon the certificate of a qualified medical practitioner. See Clause 49. Section 1 (B).

The most striking novelties in the Bill are these.

1. The order must not be signed by a relation.
2. Before an order can be obtained, a petition for it must be signed by a relation.
3. A justice of the peace must examine an alleged lunatic, accompanied by a statement of particulars.
4. The usual medical attendant of the lunatic must sign one of the medical certificates.
5. The medical certificates are to be written on separate pieces of paper.
6. The examination of the patient is to be secret (1*a*), but the urgency order is to be signed by a relation.
7. The officiating clergyman may no longer sign an order for a pauper lunatic.
8. A justice alone may sign an order for the admission of a wandering lunatic to a workhouse.
9. A medical officer of a workhouse may alone sign a certificate by which a pauper lunatic can be detained fourteen days. For any longer period, both the justice and the medical man must sign.
10. A report of mental and bodily condition of private patients must be sent to the Commissioners at the end of one calendar month after reception. (Not after two and within seven days as before).
11. Orders expire yearly unless the medical officer make a special report to the Commissioners that renewal of order is unnecessary.
12. Infant imbeciles may be received into an asylum upon one medical certificate.
13. A statement as to mental and bodily condition is to be made fourteen days after the reception of the patient.
14. A lunatic's property may be managed for him without his being necessarily detained in custody.
15. Licensed houses are not to receive pauper lunatics five years after the commencement of this Act.
16. Power is given to justices to enlarge asylums, in order to provide accommodation for private patients.
17. Power is given to justices to provide asylums for private patients.

THE Hastings Guardians have increased the salary of Mr. Walter G. Jones, Medical Officer for the Ore (or No. 3) District, from £115 to £150 per annum.

MEDICAL MAGISTRATE.—Mr. George Booth, Surgeon, has been placed on the Commission of the Peace for the Borough of Chesterfield.

LORD SHAFTESBURY ON THE LUNACY BILL.

THE Earl of Shaftesbury, K.G., has addressed an important letter to the Lord Chancellor, embodying his reasons for objecting to certain of the provisions of the Lunacy Act Amendment Bill. Lord Shaftesbury states that, on March 12th, he wrote to the Lord Chancellor conveying his desire to resign his seat on the Board of Commissioners in Lunacy, a seat which he had held for fifty-seven years, ever since the Board was formed under a Bill brought in and carried by Mr. Robert Gordon and himself. At the urgent request of the Lord Chancellor, Lord Shaftesbury consented to remain Chairman of the Board until the Bill was formally introduced; but, on April 6th, he wrote the letter to which we refer, formally tendering his resignation.

Lord Shaftesbury states that he feels an invincible repugnance to the introduction, in the proposed form, of "the magistrate" into the process for placing a patient under "care and treatment" in a hospital or a licensed house. He believes that it will add very greatly to the expense and publicity. He points out that the magistrate, who may, and in rural districts probably will, be a man of no legal experience and no knowledge of lunacy, will have the power to issue summonses, examine witnesses on oath, pry into the inmost secrets of the family, to adjourn the inquiry, and at last dismiss the petition as altogether inadmissible. The delay and the increased expenses consequent on these modes of investigation would be most serious; but the power given to a magistrate thus to probe the interior of every family, and also to force himself into the house to see the patient with his own eyes—possibly a young lady under the influence of some disorder incident to females—would cause a large amount of vexation and suffering. This enormous power, to be exercised at the will and pleasure of a justice of the peace, is one that cannot be exercised by the Commissioners themselves, whatever the evidence in their possession, unless they have in their hands an order bearing the signature and seal of the Lord High Chancellor. The first result, he thinks, would be that parties, under this fear of publicity and exposure, and to avoid such a fearful ordeal, would never present a patient for certificate until the disease had become so manifest and unmistakable that even a child could pronounce on the case; when the disorder had become inveterate, and early treatment (almost the only hope of cure) would be absolutely impossible.

The second result would be the vast increase of clandestine confinement. The Commissioners know, by the experience of many years, the difficulty of obtaining any knowledge of persons stowed away in secret and remote places. A few years ago, they had on their list not more than 40 single patients; there are now above 400.

Thirdly, many patients, though really insane, would be detained in the private dwellings of medical men and clergymen, under the pretence of nervous disorders of various kinds, yet, professedly, not such as to require restraint or any specific treatment.

And, lastly, many (particularly from among the wealthier classes) would be, he believes, conveyed to continental asylums, where, removed from among relatives and friends, they would soon be forgotten and deprived of all supervision and care, though their benefit may have been sincerely desired by those who sent them there.

The magistrate's order will overrule and set aside certificates signed by, perhaps, the most eminent men in England, and will deprive the patients of a right they now possess. The signature of the magistrate would, he thinks, in law, and certainly in the estimation of a jury, cover the parties concerned in the certificate, and take from the patient his right of action after liberation for any misconduct on the part of the doctors.

Under the deep conviction that the Bill, when passed into law and become really operative, will produce all these effects; and feeling that it would be a complete overthrow of all that he has wished and laboured for, he resigns his seat, and thus leaves himself free to act in the House of Lords.

The Lord Chancellor, in reply, repeats that he is ready to consider the question whether any more limited authority than that of justices of the peace generally would be sufficiently available and at all times accessible to prevent any undue difficulty in obtaining, without delay, the necessary order in proper cases.

BEQUESTS AND DONATIONS.—The Royal London Ophthalmic Hospital has received £1,000 under the will of Mr. Francis Robinson, and £500 under that of Mr. George Vaughan.—The Essex and Colchester Hospital has received £1,000 under the will of Mr. W. B. Garrad.—Mr. J. Stewart Henderson has given £100 to the North West London Hospital.—The Mercer's Company have given fifty guineas to the Chelsea Hospital for Women.—"W. L. T. R." has given £50 to the Hospital for Consumption and Diseases of the Chest.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY meeting of the Council of the College was held on Thursday, April 9th.

The late Dr. Fairlie Clarke.—A vote of thanks was accorded unanimously to Mrs. Fairlie Clarke for a donation of valuable drawings, made or collected by her late husband, and illustrating injuries and diseases of the tongue.

New Examiner.—Mr. E. Hurry Fenwick was elected Examiner in Elementary Physiology.

The College and the Associations of Fellows and Members.—The Committee on Charters and By-laws sent up their fifth report to the Council. In this report, the Committee did not recommend that, as suggested in the proposals of the Association of Members, the whole Council be elected every three years; nor that the number of the Council be increased to 25; nor that the Members, as well as the Fellows, of the College should take part in the election.

The Committee further reported that, at the recent meeting between the President of the College and ten delegates of the Association of Fellows, it appeared that the recommendations of the Association, to which the delegates attached the most importance, were those relating (1) to the constitution, mode of election, and duration of office of the Court of Examiners and Board of Examiners; (2) to the proposal that six instead of three Members of the Council should retire from office annually; (3) to the election of the President by the Fellows instead of by the Council; (4) to the right of meeting by the Fellows and Members without the sanction of the Council; and (5) to the time and mode of making public the Minutes of the Council; all of which recommendations the delegates urged upon the Committee, with a view to their adoption by the Council, renewing the request "that no steps should be taken by the Council to obtain a new Charter until the various alterations proposed or accepted by the Council, together with the recommendations of the Association of Fellows, shall have been submitted to a general meeting of Fellows and Members."

The Committee reported to the Council that they adhered to the conclusions arrived at in their Fourth Report, so far as they related to the subjects marked 1, 2, and 3, in the last paragraph; and to 4, the right of meeting of the Fellows and Members, excepting that, in page 8 of such Report, in the paragraph respecting the meeting of Fellows and Members, they proposed to substitute for the words "provided that the objects of such meeting be approved by," the words "with the consent of," the Council.

With respect to 5, the Committee recommended that, in lieu of the confirmed Minutes being suspended in the Hall, as proposed in their fourth report, the Council should revert to the practice formerly in force, in accordance with the following resolution of the Council of the 10th of February, 1870, namely, "That the Minutes of each Meeting of the Council be posted in the Hall of the College within five days of each meeting; those Minutes having previously been submitted to the President or Senior or Junior Vice-President for approval."

The Committee, in conclusion, reported to the Council that they did not recommend that there should be any delay in submitting to the proper authorities the proposed alterations in the Charter, inasmuch as the several alterations in the Charter proposed by the Council were submitted to a meeting of the Fellows and Members on the 24th of March, 1884, and acceded to at that meeting, and as the only two further alterations in the Charter, subsequently proposed, relating respectively to the qualification of a Fellow for election to the Council and to the mode of nomination of candidates for the Council, had been adopted by the Council in accordance with the proposals of the Association.

There was a resolution then passed that the two Associations of Fellows and Members of the College should be informed that the Council would proceed to prepare the necessary new sections in the Charters.

Vaccination-Certificates from Ireland.—The question raised at the previous meeting of Council by Professor Redfern, in reference to certificates of vaccination from Irish teachers, was again discussed, and referred to a small Committee to report thereon to the Council.

The Colleges and the Title of Doctor.—Mr. DURHAM gave notice of the following motion: "That seven delegates from this College be appointed, with authority to invite an equal number of delegates from the Royal College of Physicians, to meet and confer upon what steps, if any, can be taken to enable the two Colleges to obtain the legal right of giving the title of Doctor to persons who shall have obtained the licence of the Royal College of Physicians and the diploma of Member of the Royal College of Surgeons."

ARMY MEDICAL SCHOOL.

THE summer session of the Army Medical School at Netley was formally opened on April 2nd, in the lecture-room of the Royal Victoria Hospital, Netley, when Professor Aitken, F.R.S., delivered the introductory address. The Director-General of the Army Medical Department, Dr. Crawford, LL.D., and Sir Joseph Fayrer, K.C.S.I., Physician to the Council of India, were present; and there was the customary attendance of the military and medical staff of the hospital, the professors of the school, and a number of visitors. Fifty surgeons on probation had joined to attend the course of instruction, of whom 45 were candidates for commissions in the British, and 5 for commissions in the Indian, Medical Service.

It was announced that, owing to the pressing demands for military surgeons at the present moment, the instruction at the school would be compressed into a two months' course, at the end of which period the young surgeons who were now about to commence the course at Netley, would move to Aldershot to go through a further course of training at that station, and a fresh set of surgeons on probation would be brought to Netley. It can be readily understood that the large numbers of the medical staff who are now employed actively in Egypt, and the casualties that sickness and injuries have already produced among them, must have created an urgent need of fresh recruits for the ranks of the Army Medical Service.

The principal topic of Professor Aitken's discourse, which was listened to throughout with marked attention, was the application of the Darwinian theory of evolution to the origin and development of diseases. Reverting to the numerous anomalous cases now on record in which a disease, it is said, "does not breed true," he was of opinion that Darwin's doctrines of evolution might furnish such a working hypothesis as might account for many of these anomalous cases, which do not conform to the well known standard types of disease that are described in text-books. During the past ten years, a great number of facts in clinical medicine had been brought together, which warranted a reconsideration, at any rate, of those concurrent factors which resulted not only in the evolution of some constitutional or inborn diseases, but also in the origin, development, and propagation of some of the zymotic diseases, viewed from a new standpoint, which should be suggestive of a modification of the doctrines hitherto held regarding specificity in disease; and that the variations in diseases from the typical standards should be studied as Darwin studied the varieties of species. Dr. Aitken showed that the idea involved in the application of the theory of evolution to diseases was not a new one; that it had been floating about men's minds long before the time of Darwin; that it was traceable in medical literature for at least one hundred years back; but that since Darwin's great works were published, (1) *On the Origin of Species*, in 1860, and (2) *On the Descent of Man*, ten years later, ideas regarding "evolution in diseases" had been much more definitely formulated, especially by Dr. W. J. Collins, Sir James Paget, Mr. Millican, and Mr. Jonathan Hutchinson. Dr. Aitken continued to develop his theme by illustrations (1) from constitutional and (2) from zymotic diseases.

On the conclusion of the lecture, Dr. Crawford delivered an address to the surgeons on probation. He pointed out to them, that what seemed to him to be one of the chief lessons inculcated by the able lecture to which they had all been listening, was the necessity of studying the characters of particular diseases, neither from text-books nor from the special views embodied in set classifications, but from careful and diligent observation of the diseases themselves, as they appeared in the patients which were placed under their care. The Director-General showed them what opportunities they had of pursuing this study, and of watching the modifications of the usual characters commonly attributed to particular diseases by the accidents of varieties of climate and other surrounding conditions, as well as by the influence of race and hereditary qualities, among people in all parts of the world. He strongly urged upon them the necessity of turning to best account the opportunities of improvement at Netley, in the special branches of knowledge which the circumstances of military medical officers rendered it imperative for them to possess; and expressed the hope that many among the probationers would make up their minds to distinguish themselves in the future, by making important additions to the general stock of professional knowledge already acquired, and so to do their best to bring credit to the important branch of the public service which they were just entering.

Before concluding his remarks, Dr. Crawford paid an eloquent tribute to the services of Professor Maclean, who was present in the theatre, during the long period he had filled the Chair of Military Medicine at the School; and then introduced his successor, Professor Boyes Smith, who had recently arrived from India, and who was now

about to take up the duties of the professorship during the session that had just opened.

The proceedings having terminated, many of those who had attended the opening of the session adjourned to the officers' mess-room, where luncheon was served, under the presidency of the Principal Medical Officer, Surgeon-General Dr. Murray. The Director-General returned to London by an early train.

INDIAN STATION-HOSPITAL CHARGE-PAY.

THE Parliamentary Bills Committee of the British Medical Association, as our readers are aware, made a strong representation to the Secretary of State for India on this subject, which concerns the interests, not only of the medical service of India, but of the senior officers of the Army Medical Staff holding charge of station-hospitals in that country. A reply to this representation has been received, addressed to the Chairman of the Parliamentary Bills Committee. We regret to say it is unfavourable. The Military Secretary "is instructed to say that the Earl of Kimberley is not prepared to reopen the question of the grant of 'charge-allowances' to officers of the British Medical Staff in charge of station-hospitals in India, which has received, together with other questions relating to the pay and emoluments of medical officers in India, the careful consideration of the Secretary of State for India."

It is evident that the present, with the possibility of a great war impending, is not the time to press such a claim as this, however just, when the pecuniary resources of India must be strained to the utmost. It must stand over to a more convenient season, a distant one, we fear. The medical officers of both services will, however, see that the Parliamentary Bills Committee has done its best for them.

MAHOMED MEMORIAL FUND.

THE following additional subscriptions have been received.

	£	s.	d.
Dr. Edward Chisholme (Sydney)	5	0	0
Dr. Arthur Evershed	1	1	0
H. Lund, Esq.	1	1	0
Albert Martin, Esq., M.B.	5	0	0
T. D. Ransford, Esq.	1	1	0
A. H. Tabby, Esq.	2	2	0

A meeting of the General Committee will be held in the Governor's Court-Room, Guy's Hospital, on Thursday, April 16th, at 4.30 P.M., to receive the report of the Executive Subcommittee, and to consider how best to make use of the fund.

ARTHUR E. DURHAM, Treasurer.
JAMES F. GOODHART, W. H. A. JACOBSON, } Secretaries.

ASSOCIATION INTELLIGENCE.

ELECTION OF MEMBERS.

ANY qualified medical practitioner not disqualified by any by-law of the Association who shall be recommended as eligible by any three members may be elected a member by the Council, or by any recognised Branch Council.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH.—Members of this Branch are requested to take notice, "That candidates for the office of representative of the Branch at the Council of the Association, should be nominated by any two members of the Branch, before April 15th, and their names sent to the Honorary Secretary." The present representatives are, for Kent, Dr. Parsons (Dover); for Surrey, Dr. Holman (Reigate); for Sussex, Dr. Withers Moore (Brighton).—CHARLES PARSONS, M.D., Honorary Secretary.

GLOUCESTERSHIRE BRANCH.—A special and ordinary meeting of the Branch will be held on Tuesday, April 21st, 1885, at 7.30 P.M., in the lecture-room of the School of Science, Gloucester, under the presidency of Dr. Needham. *Agenda*, Special.—The adoption of the revised and amended rules drawn up by the Council. Ordinary.—A paper on "The Estimation of the Impurities in the Atmosphere," together with a practical demonstration of the same, by G. Embrey, Esq., county analyst.—G. ARTHUR CARDEW, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—The spring meeting of this Branch will be held at Durham on Thursday, April 30th. Members intending to read papers, show specimens, etc., are requested to communicate at once with the Honorary Secretary.—DAVID DRUMMOND, Honorary Secretary.—April, 1885.

SPECIAL CORRESPONDENCE.

LETTERS FROM THE EAST.

III.

Defective Sanitary Organisation of Cairo.—The Chief Army Hospital.—The National Aid Society and the Army Medical Department.

MR. ERNEST HART writes from Cairo, March 21st:

My former letters were written in a holiday-spirit, and under purely holiday-influences. Since I have been in Cairo, the professional tendencies of life have been too strong for me, and I have not been able to refrain from visiting the hospitals, public asylums, and medical school, and examining into what is somewhat ironically called the sanitary organisation. The presence everywhere of troops and medical officers; the official attributes of most of the Englishmen whom one meets here; the sight of English ambulances rumbling through the streets; the contact with agents of the National Aid Society; the inquiries addressed by natives in the highest official position of what one thinks of recent "reforms," all direct attention to topics to which it is impossible, being on the spot, to remain indifferent. Hence, I have spent a busier week of professional visitation and inspection since I have been here than often falls to the lot of an individual, even in the fullest activity of work.

I wish I could say that the result was all satisfactory, or instructive, or hopeful. On the contrary, there is much to grieve the heart, much to disappoint, to depress, and to dismay the most patient and the most hopeful. In every direction, confusion, obstruction, want of power, want of money, intrigue, jealousy, vacillation, national susceptibilities, international complications, religious prejudices, ignorance, greed, and corruption, interfere with any serious or vigorous action. What is yielded to pressure is undone by passive opposition and active intrigue; the money lavished in one direction is wasted by reason of childish economies which make its application useless; there is a general rush for office, and a common desire to evade its duties. Nothing can be more comprehensive, for example, than the list of duties imposed on district physicians and sanitary inspectors; nothing more meagre than the actual work done, or the salary afforded to those who are expected to fulfil these magnificent outlines of duty. Nothing can be more promising than to be told that Cairo is supplied with water drawn from the pure sources of the Nile, and distributed by a company of which the Prime Minister is the head; nothing more disappointing than to find that this water is actually drawn from the Ismailia Canal, which is fouled by innumerable drains and the unutterable filth of the population around, and that only one-half of the supply so drawn undergoes even the pretence of filtering. It is satisfactory to learn that a Khedival laboratory has been fitted up for chemical analysis, for the investigation of food-supplies, the examination of water, and the investigation of the entozoic and epiphytic diseases of the country. It is satisfactory to learn that Dr. Sonsino and Mr. Innes, two highly qualified persons, have been engaged to assist in the work. But it is distressing to find that Dr. Sonsino is leaving the country because he cannot get his salary paid, and that Mr. Innes has gone elsewhere; that the head of the laboratory, on which so much is spent, is an incompetent native "enjoying high protection;" that there is no satisfactory account of how the money is spent; and that no analysis is to be had of the water-supply of Cairo. It is pleasant to hear of a medical school supported by Government funds, and at which about a hundred and fifty natives are being educated, of whom one hundred and five are supported, fed, and clothed at the public expense; the professors being men who have studied abroad and who are paid by the Government. It is painful to find that these students are taught from Arabic handbooks, translations, for the most part, of out-of-date text-books; that hardly any of the students know any European language; that there is no physiological, pathological, or anatomical collection; that the dissecting-room is a loathsome farce; that the students, who cost the Government from £800 to £850 each, are taught by rote (I saw them walking up and down and getting certain texts by rote, with much humming and gesticulation, like board-school children), and are wretchedly ill informed; indeed, under such a mockery of teaching, how could they be otherwise? The professors may be the best in the world; but to spend all the money on feeding, housing, and clothing the students, and not to provide the means of anatomical dissection, or the labora-

tories and museums which are the necessary means of teaching, is obviously to nullify the whole of the previous expenditure. Nothing is, however, allowed for museums, laboratories, or material.

Of all this, I shall give later a somewhat more detailed account under each heading, as the result of personal inquiries which I am prosecuting, and the report of which in the proper official quarters may, I am told, lead to some good. The great curse of the place is that machinery is multiplied, and salaries given, and no census taken of results. Thus, Cairo is being poisoned by its water-company; its soil is being hopelessly polluted by honey-combing it with cesspools, and by filling the houses with *water-closets without drains;* its medical school serves only to manufacture doctors who are dangerous to the public health; its sanitary department has *no executive power;* its streets are filthy; its soil reeks with excrementitious refuse, and steams with contagion; its population is steeped in enteric disease; modern sanitary introductions are made the engines of destruction and disease. No sane person can look at the present condition of Cairo and not see that it would be infinitely less dangerous to health without a water-company, and without water-closets, than with a system which distributes polluted water, and which pours water through the closet only to assist the sewage more effectually to soak into and to poison the soil. A sanitary organisation which puts the knowledge and the regulation into one set of hands, and the ignorance and the power into another, obviously stultifies its own intentions, and does its best to make of Cairo what, from a sanitary point of view, is a city which combines all the worst parts of the European and the Mahommedan systems, and leaves out only those which are useful. The present sanitation of Cairo is a scandal and a danger; it is infinitely worse than it was five years ago; and good intentions have made the worst kind of pavement for the city. It is not difficult to see where the remedy lies; but the difficulty of applying it lies partly in the political and partly in the financial situation. The insecurity and temporary nature of the appointments; the grafting of administrative European subordinates supposed to exercise a power which they do not possess; the separation of executive from the administrative powers; such arrangements are enough to wreck any reforms, and to nullify any efforts. Some good has been done by the European employees, and some zeal shown by a few of the native officials; but if we were to sum up the work of the last few years, it would be far from a satisfactory record.

What has been done here and there, however, and what is being done where an opportunity is given of good work, is sufficient to afford hope, and to indicate the direction in which serious efforts might prosper. I shall turn to these brighter prospects.

Much excellent work has been carried out at the lunatic asylum, under the influence of Dr. Sandwith. Considerable improvements are being made in the native hospital at Kasr-el-Ein, by Dr. Milton; and of Dr. Crookshank's work in the prisons everyone speaks well, and I hope to be able to find time personally to visit them.

I will begin my notes on the hospitals by speaking of the chief army hospital, which is installed at the Citadel in a palace given by the Khedive for the purpose. It is finely situated at the outer edge of the city, on an eminence looking towards the open country. The rooms used as wards are lofty, and in their proportions palatial; and of course the walls are decorated and frescoed with some gilding. Their vast proportions render it easy to give plenty of fresh air, although the height of the rooms is beyond a certain point useless, and may easily give a false impression of extreme airiness. The ground-space is, however, not at all crowded, and the beds are amply spaced. The hospital is in charge of those excellent and experienced officers Drs. Beatty and Macnamara, who have seen much service. The chief medical officer, Dr. Beatty, is a calm, cool, and clear headed Scotchman, who will be equal to any emergency. There is a small staff of lady-nurses; the latrines have been organised on the pail-system, and are well kept. Some of the floors are of marble, others of wood, and in some of the wards require renewing. There are about three hundred sick there; most of them suffering from enteric disease and dysentery, or remittent and continued fever, sunstroke, and other affections. Polluted water and excessive heat are the main factors of disease. Where the troops can get condensed water, there is no enteric fever; and it is a great pity that rules as to boiling or condensing water cannot be rigidly enforced. Enteric fever and dysentery are the scourges of Egypt, and few escape lighter or more severe attacks according to circumstances. Both are, of course, preventable; and the most rigid orders might well be issued as to the drinking-water of our troops. Condensed water is unpalatable, but, by the addition of about six grains of common salt to the quart, it may be greatly improved in this respect. The mortality of this hospital is light, and the arrangements are excellent. The medical officers and the Medical Staff Corps are, however, subjected now to a very great strain, and the present insufficiency of numbers is telling severely. Hospital-orderlies cannot be expected to work night and day; and, although they have shown the utmost good will and devotion, they will surely break down unless the reserves be augmented, and the number of men under training rapidly increased. Both medical officers and Staff Corps men are being worked up to the utmost limit; and the medical officers of late years have had a very hard time.

Mr. Kennett-Barrington has passed through Cairo this week, and having completed preliminary local organisation, has gone on to Suakin. The National Aid Society is working in active co-operation with the Army Medical Department, and proposes with it to undertake very useful work on a large scale at Suakin. It has fitted out a large ambulance to accompany the Suakin expedition. Mr. Barrington is the Chief Commissioner, and with him are Professor Ogston of Aberdeen, Dr. Squire, Mr. Newby, Mr. Piggott, and Mr. Lake, as medical officers. Their sphere of duties will be necessarily purely accessory to that of the army, and it is uncertain when and where they may be called on. They will establish a depôt of special medical comforts at the front, an intermediate depôt, and one at the base. They will have stores of cocoa and milk, and will probably organise a service of ice (for which ice-making machines are to be supplied), newspapers, and cool temperance-drinks. They will comfort the "sorry" as well as the sick, and will be at hand for the little extra duties which regulations do not always contemplate, and for extra comforts, and even luxuries.

Sir Allen Young is expected shortly at Suakin, with his yacht *Stella*, in connection with the National Aid Society, having placed it and himself at their service. The *Stella* will carry a surgeon and a good cook, an ice-machine, mincing machines, and soda-water machines. It will probably act as a sort of tender to the *Ganges;* and, if necessary, will take men down to Suez, with all hospital-comforts. It will be able to bring back fresh vegetables and stores, and may probably be utilised for taking parties of invalids or convalescents out for short cruises.

The presence of these representatives of the National Aid Society will be both physically and morally welcome and useful to the soldiers and to the medical officers. At the same time, it is desirable not to entertain exaggerated ideas of their functions, and not wise to underestimate the success with which the Army Medical Department copes with these same questions on a large scale. In the hurry of war, and with sudden emergencies—indeed, under ordinary conditions—there will always be deficiencies; but it is on the regular staff of the Army Medical Department that the great labour falls; and, while the amateurs are apt only to be praised for their successes, the regular staff are too often only blamed for any real or supposed shortcomings. Some feeling of regret has been expressed to me here, by hard-working men on the Nile expedition, at the wording, in this connection, of a letter from Colonel Sir R. Loyd Lindsay, published in the *Times* of Thursday, March 12th, from which incorrect inferences may very well be drawn, such as the Chairman of the National Aid Society would certainly regret. Speaking of the work done by the Society's representative, Major Young, along the Nile, he writes: "He has succeeded in causing the Society's organisation to be thoroughly recognised and accepted along the Nile route, and he has successfully established a system of evacuating the sick between Wady Halfa and Cairo by means of a steam-launch and a dahabeah fitted up with special conveniences and advantages. He has thus developed a form of aid which the Medical Department of the Army could hardly have carried out to the same extent." Now, I believe that the figures are as follows. Since the 13th August last, 615 invalids (officers and men) have arrived in Cairo from "Up Nile." Of these, the National Aid Society brought 6 on February 24th, and 6 on March 21st. These twelve cases were not serious, but rather the reverse. The National Aid Society have, up to the present time, not got beyond Wady Halfa, where the chief difficulty of transport commences. It is naturally not altogether agreeable, therefore, to the men who have done the great work, and done it well and silently, to read that the system of evacuation of the sick between Wady Halfa and Cairo has been developed on a scale which the Army Medical Department could not have carried out to the same extent. It is not very clear on what basis such a statement could suggest itself. At any rate, it will be well to remember that the main duties of attending to the sick, and of carrying out hospital-arrangements, will continue, as heretofore, to fall upon the Medical Department; and the cordial feeling with which its members regard the efforts of the agents of the National Aid Society, and the active sympathy and aid, which Mr. Kennett-Barrington is prompt to acknowledge, will be best ensured and repaid by a like spirit of modesty and generosity in reporting the good work which the agents of the Society are sacrificing so much to accomplish.

CORRESPONDENCE.

THE CHOLERA-BACILLUS OF KOCH.

SIR,—In the JOURNAL for last week, Dr. Klein makes "some remarks on the present state of our knowledge of the comma-bacilli of Koch," which he divides into two parts, (1) reference to the part of my speech at the Royal Medical and Chirurgical Society, in which I referred to Koch's method of investigating the cholera-bacillus; and (2) his own views on the subject of the cholera-bacillus. The second part of these remarks deserves careful consideration, and I shall take the opportunity of referring to them in a paper which I hope to publish in the JOURNAL very shortly. The first part raises, however, a purely side-issue, of little consequence at the present time, and hardly worthy of consideration in a scientific paper. I, therefore, think it best to take the present opportunity of dealing with it.

I maintained that Koch's definition of cholera-bacilli was not merely that they were comma-shaped, but that they possessed other characteristics, more especially of growth, by which they could be distinguished from other bacteria; that, in fact, his definition was the sum of all their characters. I further stated in this connection that Dr. Koch had searched for these organisms in saliva, fæces, etc., without finding them; and that, when Dr. Koch said that he had searched for these organisms, he meant that he had not only used the microscope, but had tested the materials by cultivation; and when Dr. Koch said that he had failed in this search, he meant that he had not found an organism which presented the same microscopic appearance, together with the same characteristics of growth, as that discovered by him in Asiatic cholera. Dr. Klein says: "This is what Mr. Watson Cheyne says, but it is not what Koch said." But Dr. Klein is, as I shall now show, quite mistaken when he makes this statement. Dr. Klein falls into the error, to which I was referring when I spoke, of supposing that Dr. Koch in his research diagnosed cholera-bacilli by their microscopic appearance alone, a mistake which vitiates the whole investigation of the English Commission.

Dr. Klein says: "Where has Koch stated that the comma-bacillus is peculiar to cholera, and must, therefore, bear a definite relation to the disease? In Egypt. All the beautiful investigations as to the peculiar behaviour of the choleraic comma-bacilli in gelatine were made by him subsequently in Calcutta. But their discovery, their description, and their specific relation to cholera, were asserted by microscopic examination only." The statement in the last sentence is incorrect, as will be evident from the quotations which I shall now make. If we turn to Koch's first report (*Fortschritte der Medicin*, November 1st, 1883, Beilage, p. 183), dated Alexandria, September 17th, 1883, we find the following statements with reference to the presence of comma-shaped bacilli in the intestinal mucous membrane. "As, however, the bacilli were found in all fresh cholera-corpses, and, on the other hand, were absent in the cases examined after the attack had passed off, as well as in several other cases which had died of different diseases, and were likewise investigated for the sake of comparison, there can be no doubt that they stand in some relation to the choleraic process. Nevertheless, one cannot conclude, from the fact of the presence of the bacilli in the intestinal mucous membrane in cases of cholera, that the bacilli are the cause of that disease. It might, on the contrary, be that the cholera-process sets up such changes in the intestinal mucous membrane, that, of the numerous putrefactive bacteria constantly present in the intestine, the penetration into the tissue of a particular form was rendered possible." In the fifth report, dated January 7th, 1884, from Calcutta (*Fortschritte der Medicin*, March 1st, 1884, Beilage, p. 33), we have the next important reference to these bacilli: "In my report of September 17th, I had to leave it undecided whether these bacilli did not, like so many other bacteria, belong to the ordinary parasites of the human intestine, and only penetrated into the intestinal mucous membrane under the influence of the morbid changes of cholera. *Sufficient characteristics were at that time wanting to enable us to distinguish these bacilli from other very similar forms of intestinal bacilli.*[1] This want has now been fortunately remedied. For, with the help of the methods perfected in the Sanitary Institute, which have also, in this instance, answered admirably, we succeeded in isolating the bacilli from the intestinal contents in the most typical cases of cholera, and in carrying on pure cultivations. The careful observation of the bacilli in their pure cultivations led then to the discovery of several very characteristic peculiarities with regard to their form and mode of growth in nutrient gelatine, whereby they could be distinguished with certainty from other bacilli. Thereby the means were obtained of definitely deciding the question whether these bacilli belonged to the ordinary inhabitants of the intestine, or whether they were exclusively present in cases of cholera." In presence of this fact, what becomes of the statement made by Dr. Klein that "their description and their specific relation to cholera were asserted by microscopic examination only?"

In the second place, Dr. Klein objects to my statement that, in searching for these organisms in fæces, saliva, etc., Dr. Koch did not rely on their microscopic appearance alone, but also on their characters on cultivation; and he tries to support his opinion that Koch only used the microscope for diagnosis, by various extracts from Dr. Koch's report. I shall, in the first place, continue to quote from the preliminary reports. In the fifth report, referred to above, Dr. Koch says: "At first, the bacilli were demonstrated in the dejecta of cholera-patients, and in the intestinal contents of fatal cases, *by the aid of the gelatine-cultivations*, and this was successful in all the cases investigated here. Then, also, the intestinal contents of other dead bodies were examined *in like manner*, and it was found that the bacilli of the cholera-intestine were always absent." In the sixth report (*Fortschritte der Medicin*, April 1st, 1884, Beilage, p. 49), he enters into details with regard to these diagnostic characters of the cholera-bacilli, and then goes on to say, "Up to the present time (February 2nd, 1884), in Calcutta, 22 dead bodies and 17 cholera-patients have been examined. *All these cases have been tested by gelatine-cultivations, as well as by microscopic examination*, etc." "For control, the following were examined *in exactly the same manner*;" and then follows a list of the materials examined. I ask the unprejudiced reader if I was not, therefore, correct when I stated that, when Koch said that he had searched for these organisms, he meant that he had not only used the microscope, but had tested the materials by cultivation. But, as Dr. Klein has been quoting from Dr. Koch's full report, I may show that there also the same fact is distinctly stated. Dr. Klein quotes the following sentence: "As a test, a considerable number of other corpses, dejecta from patients and persons in good health, and other substances containing bacteria, were examined *in the same manner*, to see if these bacilli, which were never missing in cases of cholera, might perhaps occur elsewhere also." Dr. Klein omits a very important expression in this sentence, namely, "in the same manner," and merely mentions in a footnote that it occurs, and that it refers "to a previous paragraph, in which he (Dr. Koch) states that he had examined microscopically nearly 100 cases in all for the presence of comma-bacilli, and had found them always." The whole question is in what manner Koch investigated this material, and when Dr. Klein states that the phrase refers to cases examined microscopically, he makes a mistake, as will be immediately evident. Let us consider this paragraph to which the phrase "in the same manner" applies. It begins on page 21 of Koch's report, but perhaps I may quote the previous paragraph as confirming the quotations which I have been making from the preliminary reports.

"If one takes into consideration all the characteristics of the comma-bacilli which have now been described, one must be convinced that they belong to a distinct and well characterised species of bacteria, and that they may be readily recognised and distinguished from other bacteria *by the help of their peculiar characteristics.*"

Now comes the paragraph to which Dr. Klein refers. "After this conviction was obtained, it was necessary, before all things, to establish the relation which the comma-bacilli bear to the choleraic process, and in the first place it was necessary to ascertain whether they were present in all cases of cholera, and whether they were absent in non-choleraic cases; in other words, whether they belong exclusively to cholera. In this direction as large a number of cases as possible was very thoroughly examined. In Egypt, use could be made of ten *post mortem* examinations; these were, however, only microscopically investigated, etc." (observe how careful Koch is to indicate when the microscope alone was employed). "In India, 42 fatal cases were examined, *both microscopically, and also by cultivation in nutrient gelatine*, and the bacilli were never absent."....."Further, in India the dejecta of 32 cholera-patients were examined *in like manner*," etc. The manner then, in which he investigated these cases, was to make microscopic examination of sections of solid tissues, and to test other materials by cultivation as well as by the microscope. And, therefore, when he states that he has examined a large number of other substances for comma-bacilli "in the same manner," it can only mean that he examined sections with the microscope, but that other materials were tested by cultivation as well. And yet Dr. Klein says that "there is nowhere a word of a culture-test."

Dr. Klein further says: "I challenge anyone to show me in Koch's pamphlet.....one single word that would indicate that he had the slightest idea that there occur comma-bacilli other than those in cholera." If Dr. Klein will turn to page 25 of Koch's report, he will

[1] The italics throughout are mine.

find the following answer to this challenge. In speaking of his researches with various fluids containing bacteria, Koch says, "Only once did I find in the water, which at the time of the floods overflowed the region of the salt-water lake lying eastward from Calcutta, a form of bacteria which, at the first glance, had a certain likeness to the cholera-bacilli, but by accurate examination they appeared somewhat larger and thicker, and their cultivation did not liquefy the gelatine." Does he not here plainly say that he found a comma-shaped bacillus, which, however, was somewhat larger and thicker than the cholera one, and which did not liquefy gelatine? I have already quoted Dr. Koch's statement, in his earlier reports, that he had to search for other characteristics in order to distinguish these bacilli from "other very similar forms of intestinal bacilli;" and in my speech I referred to the bacillus of glanders which is often curved in the tissues, and to which, on account of resemblance in size and form in the tissues, Koch compared the cholera-bacillus. That Dr. Koch did not at that time know of the existence of Finkler's and Flügge's comma-bacilli is certain, but it is equally certain that from the very first he felt the necessity for additional characteristics to those furnished by the microscope in order to enable him "to distinguish these (the cholera) bacilli from other very similar forms of intestinal bacilli." I need not pursue this subject further, although I could produce other passages from Dr. Koch's reports in justification of my assertions, which it will now be evident were strictly accurate.

So long as Koch has demonstrated a distinct species of organism in cholera, it would not much matter how long he had taken to find out the characters necessary to diagnose it, were it not that the supposition that Koch diagnosed it by its form alone was one of the chief sources of the errors in the preliminary reports of the English Commission. For, acting on this belief, they naturally proceeded to examine the evacuations of dysentery, diarrhœa, etc., by the microscope for comma-shaped bacilli; and, finding them, made a great point of their presence as proof against Koch's views, quite omitting to state whether or not they were the same organisms as the cholera-bacilli. Now, however, it turns out that they were not the same organisms, and thus the belief engendered in the minds of many who read these reports, that Koch was wrong, because the same bacilli were present in dysentery, etc., as in cholera, falls to the ground. But with this, and the other points in Dr. Klein's researches, I shall deal in another communication.—I am, sir, yours faithfully, W. Watson Cheyne.

THE PATHOLOGICAL SOCIETY.

Sir,—In an annotation in the Journal of March 21st, upon the Neanderthal Skull, you commence by saying, "The present President of the Pathological Society having declared himself opposed on principle to much discussion of the specimens shown, there has been a cessation of the interesting and suggestive, if sometimes desultory, conversations which, with the tacit encouragement of several previous presidents, had become one of the characteristics of the meetings of the Society. At the last meeting, however, the force of the presidential warning being perhaps weakened by lapse of time, a short but instructive conversation followed the exhibition," etc. Permit me to state that I have never, to my knowledge, uttered the declaration here attributed to me; that I regard discussions conducted by persons who understand the subject they are discussing as of great value; and that I have never intentionally discouraged discussion. The charge here made against me must, I should think, be based upon a misapprehension of the purport of some remarks in my presidential address, in which (agreeing with my predecessor) I questioned the scientific value of the formal discussions which had of late years been held periodically.—I am, sir, yours faithfully, J. S. Bristowe.

11, Old Burlington Street, W.

EXCISION OF STRICTURE OF URETHRA.

Sir,—There is a most instructive article in the Journal of March 7th by Mr. Maye Robson, of Leeds, on a case of traumatic stricture of the urethra, which he had successfully treated by excision of the strictured portion. At the first glance, it gives one the impression of being an original procedure; and perhaps one is all the more ready to receive and retain it as such, seeing that resection of stricture is not usually taught in our schools, nor mentioned in our ordinary text-books. It would not be out of place to point out that the operation was first performed by Krimer, of Aix-la-Chapelle, in 1828; and that his initiative has been followed by Dugas, Lannelongue, Boucquet, Roser, and Dittel, the latter proposing a slight modification.

Two cases were done to my own knowledge by my friend Professor Thiersch, of Leipsic, in 1884; and two more were published by Heusner, of the Barmen Hospital, in the same year.—I remain, sir, yours truly, Hurry Fenwick,

Assistant-Surgeon to the London Hospital.

10, George Street, Hanover Square.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SERVICE.

Deputy Surgeon-General R. A. Chapple has been appointed to officiate as Surgeon-General of Her Majesty's Forces in Madras, with temporary rank, with effect from the date of departure for Bengal of Surgeon-General C. D. Madden. Mr. Chapple served in the Eastern campaign of 1854-55, and was present with the Scots Greys at the affair of M'Kenzie's Farm, capture and battle of Balaklava (horse wounded), and with the Royal Artillery at the battle of Inkerman; served with the right siege-train for more than ten months, and performed constant trench-duty, and was in the trenches during the bombardments of April and 6th and 17th June and final assault (medal with three clasps, 5th Class of the Medjidie, and Turkish medal).

Surgeon-Major H. W. A. Mackinnon, on arrival from England, is ordered to do duty at Secunderabad expeditiously.

Surgeon G. Coutts, M.B., doing duty at the station-hospital at Bangalore (now at Cannanore), has been ordered to do duty at the station-hospital at Cannanore.

Surgeon-Major R. M. Craig has been appointed to the medical charge of the station-hospital at Hyderabad.

Surgeons A. T. Sloggett and R. H. Firth have passed the lower standard in Hindustani.

The duties of Principal Medical Officer to the Home District have for some time past been performed by the Principal Medical Officer at Woolwich (Sir J. A. Hanbury), but we understand that it has now been determined to appoint a Principal Medical Officer for the Home District.

Surgeon-Major O. Codrington, M.D., has been appointed Assistant Professor of Military Surgery at the Army Medical School, Netley, in the place of Surgeon-Major R. Tobin, who has gone on service in the Soudan.

Surgeons W. M. James and G. Wilson, M.D., on arrival from England, have been placed on general duty in the Presidency Circle, Bombay.

A telegram has been received at the War Office from the General Officer Commanding at Cairo, dated April 3rd, which includes the name of Surgeon-Major W. H. Garde as among those who had been left there by the *Malabar*, invalided.

Dr. Magill, 2nd Battalion Coldstream Guards, who, it will be remembered, was severely wounded in the action at Abu Klea on January 17th, has left Cairo for England.

A number of nurses left London on Wednesday, by the P. and O. steamer *Sutlej*, for service in the military hospitals in the Suakin expedition.

INDIAN MEDICAL SERVICE.

Surgeon H. P. Yeld, Bengal Establishment, having been appointed to officiate as Deputy Assay Master of the Bombay Mint, has taken over charge of the appointment from Surgeon C. M. Thompson.

Surgeon-Major H. Whitwell, Bengal Establishment, Officiating Civil Surgeon at Julpigoree, has been directed to act as Civil Surgeon of Monghyr, during the absence, on deputation, of Surgeon-Major E. Bovill.

Surgeon-Major C. H. Joubert, Bengal Establishment, Civil Surgeon at Rungpore, has been appointed to act as Professor of Midwifery at the Medical College, and Obstetric Physician at Eden Hospital, Calcutta, during the absence of Surgeon-Major R. Harvey.

Surgeon J. Kernan, Madras Establishment, Officiating Civil Surgeon at Salem, has been appointed Acting Superintendent of the Central Gaol at Salem, without prejudice to his appointment as Civil Surgeon, during the absence of Mr. W. W. Goodrich, on leave.

The services of Surgeon M. Gaisford, Bengal Establishment, have been placed at the disposal of the Chief Commissioner of British Burmah, for employment as Superintendent of the Rangoon Central Gaol.

Among the officers of the Indian Army who were ordered to embark at Brindisi on April 6th, to rejoin their appointments, are the following:—Surgeon-Major A. M. Paterson; Surgeon-Major D. P. Macdonald, M.D.; Surgeon-Major G. C. Chesnaye; Surgeon J. Lewtas, M.B., and Surgeon W. Conry, all of the Bengal Establishment.

The following are under orders to embark at Brindisi, for Bombay, on April 13th :—Surgeon-Major J. F. SARGEANT, Madras Establishment ; Surgeon E. FERRAND, Madras Establishment ; and Surgeon J. C. LUCAS, of the Bombay Establishment.

Surgeons D. WILKIE, M.B.; W. E. B. MOYNAN, M.D.; D. P. MACDONALD, M.D.; O. BAKER, and F. W. WRIGHT, M.B., of the Bengal Establishment; Surgeons W. R. BROWNE, M.D.; M. ROBINSON, and A. H. LEAPINGWELL, of the Madras Establishment ; and Surgeon S. J. GOLDSMITH, Bombay Establishment, attained the rank of Surgeon-Major on the 1st instant.

The undermentioned gentlemen have been granted leave of absence for the periods specified : Surgeon-Major W. JACKSON, M.D., Bengal Establishment, in medical charge of the 2nd Punjab Infantry at Kohat, for one year and seventy-one days; Surgeon-Major L. E. EADES, Bengal Establishment, in medical charge of the 5th Bengal N.I., in extension for six months ; Surgeon R. PEMBERTON, Madras Establishment, in medical charge of the 10th N.I. at Vellore, for one year ; Surgeon J. MCCLOGHRY, Bombay Establishment, in medical charge of the 2nd Sind Horse, and officiating Staff-Surgeon at Poona, for two years on private affairs.

NAVAL MEDICAL SERVICE.

Staff-Surgeon A. H. KELLY, B.A., M.D., has been permitted to withdraw from the service with a gratuity. Dr. Kelly was Surgeon to the *Valiant*, employed on coastguard-service at Bantry, to which he was appointed August 22nd, 1884, his commission as surgeon dating from October 1st, 1872.

The following appointments have been made at the Admiralty during the past week : H. G. JACOB, Surgeon, to the *Racer ;* J. M. ROGERS, Surgeon, to the *Agincourt ;* J. W. GREENE, Surgeon and Agent at Crookhaven ; E. M. MAHON, Staff-Surgeon, to the *Bacchante ;* H. M. ELLIS, Staff-Surgeon, to the *Sapphire ;* R. W. WILLIAMS, Staff-Surgeon, to the *Pegasus ;* J. FLANAGAN, Fleet-Surgeon, to the *Cambridge ;* G. W. L. HARRISON, Fleet-Surgeon, to the *Northumberland ;* H. W. G. DOYNE, Surgeon, to the *Bacchante ;* J. C. F. WHICHER, Surgeon, to the *Agincourt ;* H. G. T. STRICKLAND, Surgeon, to the *Victor Emanuel ;* and J. D. HENWOOD, Surgeon, to Plymouth Hospital.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ALLEGED IMPROPER CIRCULATION OF A PAPER.

SIR,—Would you kindly tell me if the following act would be considered strictly professional ?

A medical man writes a contribution on a local epidemic, mostly founded on his own practice, which has been printed in a certain medical journal. This he has had reprinted and distributed, not only amongst his own patients, but also amongst the general public. Would this be considered an advertisement?—Yours truly, E. L. ROBINSON, L.R.C.P.Lond.

8, New Street, St. Peter Port, Guernsey.

*** Such conduct as that described by Mr. Robinson would be incompatible with the honour and dignity of the medical profession, and would deserve severe censure. The author of the paper to which reference is made is, we have reason to believe, Dr. John Aikman, of Guernsey, from whom we have received a communication which gives a very different aspect to the matter. Dr. Aikman forwards us a reprint of a paper, entitled, "Notes of a Recent Epidemic of Measles in Guernsey," published by him in the *Glasgow Medical Journal* for March. He states that, availing himself of the permission ordinarily given by that periodical, he obtained twenty-five copies of his paper. Of these he has, he says, distributed six to medical men in Guernsey, three to personal friends who furnished him with statistical information, two of them being patients of his own, and one each to the Lieutenant-Governor, the Bailiff, and the Chief Constable of Guernsey, in their official capacities. It therefore seems impossible that there can have been any improper distribution of the paper among the "general public," and we think that our correspondent, Mr. Robinson, must have been misinformed when he sent the preceding note.

PROFESSIONAL ETHICS.

SIR,—The following story, for the truth of which I can vouch, shows a little of the ethics of the profession. A lady, at the period of menopause, gets some catarrhal affection of the throat which affects her voice, and for which her own medical man, on one occasion, applied nitrate of silver, but the case developed into one of hysterical aphonia. In the course of a couple of months, she goes with her husband and brother (who is a medical man) to see a consultant, who at once recognising the nature of the case, prescribed for her general health, and advised her, if she did not in a few weeks recover her voice, to come to him again, when he would apply galvanism locally, which he felt sure would restore it. For some whim, she refuses to see this gentleman again ; but after some months, she goes with a friend to see a well known specialist, who having heard her story, condemns the idea of galvanism as recommended to her ; but, within less than a week, he contradicts himself so far as to apply galvanism vigorously, and he continues to do so on each subsequent visit. This restores her voice. After the lapse of a few weeks, she again loses it ; and then after an interval, she goes with her husband to consult a well known M.D. The following is his *vox ex cathedrâ*, as written to me by the husband. "My dear lady, you have been quite a victim to doctors, your throat never ought to have been burnt or galvanised. Had these measures not been adopted, you would have had your voice long ago."

Now, sir, what opinion can one have ; first of all, of the specialist who openly expressed to the patient his disapproval of the advice given her by the medical man who had last seen her, and then stultified himself by carrying out this advice? Next, what opinion can one have of the M.D., who tells the patient to be dissatisfied with all the treatment she has had, even that which temporarily cured her, and that if she had not had it she would long ago have been well? Even if there be reason for it, is it good taste in a medical man to condemn to the patient the treatment adopted by his predecessors, and is not this still less good taste when the treatment was justifiable? The only thing now wanting is this, as a climax, for the patient to go to a quack, who would of course condemn all those who had gone before him. The patient will then probably get well, and imbibe an intense respect for the profession.—I am, sir,

ANTIHUMBUG.

*** The preceding story, the truth of which is vouched for by our correspondent (a near medical relative of the patient), reveals a much to be regretted "state of ethics" in the higher ranks of the profession, and which we fain would hope and believe to be exceptional, as it unhappily not only sets a baneful example to our younger and less eminent brethren, but, under the noteworthy circumstances, is especially calculated to impress the public unfavourably in regard to the professional morality of the faculty at large. We, moreover, deem it well to add, that if the respective consultants had, in the fulfilment of their plain professional duty, been governed by the hallowed law, "whatsoever you would that men should do unto you, even so do ye unto them," the faculty would have been spared the obloquy of a regrettable breach of professional morality among some of its more distinguished members, who should ever be without reproach.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

DONBAVAN v. MORRISON : CORONERS' WITNESSES ACT.

THIS case was tried in the County Court, Croydon, on March 31st. Mr. W. J. Fraser, who appeared for the plaintiff, having stated the facts, contended that it formed no part of the duty of the medical officer of the Croydon Workhouse and Infirmary to make a *post mortem* examination of the deceased's body. The case was properly reported to the coroner's officer, who deemed an inquiry necessary after consulting the coroner ; the medical officer, therefore, not being absolutely certain as to the actual cause of death, was ordered by the coroner to make a *post mortem* examination. It was no part of such officer's duty to make such examination at the coroner's request. He was not remunerated for it. Indeed, prior to the appointment of the present (recently elected) coroner, his predecessor, Mr. Carter, had for years paid the fee. The workhouse and infirmary were not public institutions within the meaning of the Act ; they were exclusively maintained at the expense of the ratepayers of the union, and were for destitute persons, and none others. A person casually taken ill near a workhouse, unless manifestly destitute, must be sent to the nearest inn, and an ordinary medical practitioner sent for. No person could be treated in a workhouse infirmary without becoming a pauper. The plaintiff was, therefore, the medical officer of a pauper, and not of a public, institution. In addition, this statute was intended to exclude from its benefit the medical staff of an ordinary hospital or infirmary. In institutions such as St. Thomas's Hospital, the medical staff were glad to be required to perform, or to have the opportunity of performing, *post mortem* examinations, for the training, instruction, and education of the students. This was the class of institutions where no fee was to be paid. A coroner had no more right to call upon the medical officer of a workhouse to make a *post mortem* examination without paying the stipulated fee, than he had to require the ordinary medical practitioner to do so, who might casually have been called in to attend upon a person upon whose body an inquest had to be held, and also a *post mortem* examination. The county lunatic asylum was included in the section, because it was expressly mentioned. If a workhouse, which was a well known and recognised institution, had been intended to be included, it ought to have been, and would have been, expressly mentioned. A public hospital or infirmary was an institution open for the reception of any person, no matter what might be his or her rank in society, who sought its aid, and who could be cured therein. The word "public" was general in its application, and applied to all classes of persons, whereas the workhouse and infirmary was only for the pauper, and no other. The whole framework of the section indicated clearly the public institution to which it was intended to apply. The circular

letter of the Poor-law Board in 1841, though not an authority binding upon the learned judge, was nevertheless entitled to consideration, as being the judgment of a body of men of experience and weight, who were familiar with the object for which the statute was framed, and had special knowledge touching the constitution and maintenance of a workhouse and its infirmary. A great injustice, Mr. Fraser contended, would be done to a large body of public men who were discharging a most important and very often ill requited duty, if the defendant's contention were supported. In conclusion, Mr. Fraser said that, whether the object for which the statute was passed, the mischief at which it was aimed, the plain and natural interpretation of the language used, or the fact that workhouses were not mentioned or even referred to, was regarded, no other conclusion could be come to other than that the plaintiff was entitled to his fee, and it would be a manifest injustice to compel him to go without it; and to give that to him would be in accordance with the practice which had for the most part prevailed since the passing of the Act in 1841, and in passing of the Act 1841, and in harmony with the opinion of the Poor-law Board (now the Local Government Board), which was by no means an unworthy authority.

After listening with manifest impatience to the argument of the solicitor, the judge, Mr. Lushington, gave a verdict for the defendant, with costs on the higher scale, alleging as the grounds for his decision that a workhouse-infirmary was a public institution within the meaning of the section.

Mr. Fraser thereupon applied for a case for appeal, to which the judge reluctantly assented.

The proceedings were taken on the initiative of the Council of the Poor-law Medical Officers' Association.

SIR,—The above case came on for hearing before the judge of the County Court, Croydon, on March 31st. After an able argument by Mr. Fraser, solicitor, who appeared for us, the judge, without calling on the defendant's counsel, gave judgment against us; alleging as his reason that workhouses and workhouse-infirmaries were public institutions within the meaning of the fifth section of the Coroners' Witnesses Act, and that the coroner was justified in his declining to pay. Thereupon, our solicitor gave notice of appeal, to which the judge reluctantly assented.

This decision reverses the practice which has been the general rule, namely, that of paying workhouse medical officers for making *post mortem* examinations and giving evidence; and, unless upset on appeal, will seriously affect the interests of such officers. It therefore behoves them to assist us, and that without delay. Already the costs in this case will be heavy, and will seriously encroach on our very limited income; but without further assistance it will be impossible for us to follow out future proceedings. I therefore ask my professional brethren, who are able and willing, to at once forward any subscription they intend to give to me.—I am, sir, yours obediently,

JOSEPH ROGERS,
Chairman of Council Poor-law Medical Officers' Association.
31, Montague Place, W.C.

CERTIFICATION OF LUNATICS IN WORKHOUSES.

SIR,—It is possible that, when Mr. Garman (I see his diplomas are barely five years old) has seen a little more experience, he may hesitate to write as he has done in the letter which appeared in your last week's issue, under his signature.

The surprise that I expressed at the view of the law laid down by Mr. Justice Wills in his charge to the jury has found an echo at many meetings of boards of guardians, from many clerks to the same, in Parliament, and in the press, both lay and medical.

As regards the plaintiff Hicks, it was shown that she had been pronounced to be of unsound mind when seen by Dr. Sims (no mean authority), before she was taken to the workhouse; and, as regards the mode adopted after she had reached there, I contend that that course is a constant one in cases brought in from outside, and properly so; for I hold that it should be left to the judgment of the workhouse medical officer to decide whether the patient can be kept there temporarily, or whether he or she must be forthwith removed for asylum-treatment.

In the course of my experience at the Strand and Westminster Workhouses, I have always adopted the course followed at Marylebone, in Hicks's case, and I have every reason to believe, from what I have heard, that it is the one generally followed. In corroboration of the very great latitude accorded to workhouse medical officers, I may state that on April 3rd, in accordance with the requirements of the Lunacy Commissioners, I certified to the unsoundness of mind of thirty-three of our workhouse inmates, and as to the accommodation in the Westminster workhouse being sufficient for their control and for their safe custody. Of this number, only a very limited portion have become of unsound mind since their admission. The great majority have been sent in from outside; but, in the exercise of my judgment, I have held that it was not necessary to send them away for asylum-treatment.

Whilst on this subject, I may further state that I frequently see cases of puerperal insanity, that come to me from outside, on the certificate of a district medical officer, or it may be from some adjacent general practitioner; and I hesitate to take any action whatever, until I see whether the patient be recoverable from the sort of asylum-treatment to which they are necessarily subjected in my lunatic wards. One such case has only just been discharged, after being under treatment a month. It is competent for some scheming lawyer to put this woman up to apply for damages for the very considerate treatment she has received from us.

Before concluding this letter, I should like to refer your readers to a very able and exhaustive report on Mr. Justice Wills's ruling, from Mr. Vallance, Clerk to the Whitechapel Board of Guardians, forwarded to his Board, and which appears in the *Local Government Board Chronicle* of March 21st.

Mr. Garman will then find that I am not singular in my suspicion at the novel view taken of the law by Mr. Justice Wills.—I am, sir, yours obediently,

JOSEPH ROGERS.
31, Montague Place.

LUNATICS IN WORKHOUSES.

SIR,—Who is right, and who is wrong? I have just received a letter from the Lunacy Commissioners in answer to mine, who state that magistrates have no power to send a lunatic to a workhouse, but Sir W. Harcourt says they ought to do so.

The 25 and 26 Vict., c. 3, sec. 20, states that the medical officer of a workhouse is to give a certificate that a lunatic is a proper person to be detained in a workhouse. This is to be given in addition to the one under Lord Devon's Act, but the Commissioners state that no lunatic can be kept in the workhouse against his will.

Surely the workhouse-authorities require some rule for their present guidance, although Mr. Russell thinks cure in the shape of penalties is better than prevention. As it now stands, we send old imbeciles, idiots, and even cases of delirium tremens, to an asylum, these latter cases generally recovering in a few days; now, the asylums will be flooded with these cases, which were properly treated in workhouses, and discharged as soon as cured, thus relieving the rates of a great expense. About four out of five cases of insanity which used to be sent to our lunatic-wards were discharged after a short period; even now, delirium tremens cases must be taken before a justice of the peace; this seems unnecessary, and throws hard burthens on the ratepayers for no practical purpose.

After an experience of treatment of pauper-lunatics of over twenty years, I come to the following conclusion. No person should derive any benefit from the captivity of others. All who have to do with these cases should be paid by salary proportioned according to the population of his district, and not by fees. All cases which come to the relieving officer's notice should be certified to by the medical officer of the district, and then removed to the workhouse for a period not exceeding fourteen days, at the expiration of which time they should be taken before a magistrate, who could order chronic harmless cases and such others as only encumber the county asylums to the workhouse, and others to the asylum.

It is very hard when chronic harmless cases are sent to an asylum at a distance, many of their friends not having the means to visit them. I have repeatedly heard this complaint, and now I am afraid I shall have to hear many more.—I am, your obedient servant,

WALTER BUCHANAN.

THE KILLARNEY GUARDIANS AND THE LABOURERS' COTTAGE (IRELAND) ACT.

WE are informed that, at a recent meeting of the Killarney board of guardians, which was attended by not more than four or five members of that board, a resolution was come to, to the effect "that in carrying out the provisions of the Act, the subsanitary officers, instead of the sanitary officers, should be employed;" in other words, that the medical officers of health should be altogether set aside, in favour of subordinate officers, who would be more likely to be unduly influenced. It is further said that the usual fourteen days' notice, intimating that such an important subject would be discussed, was not given. If such be the case, the resolution of the board, which is otherwise illegal, is completely nullified. We advise that the dispensary medical officers, who are also health-officers of the union, should unitedly memorialise the Local Government Board for Ireland. In their memorial they should temperately draw the attention of the Department to the violation of the intentions of the Act, by the conduct of the Killarney board of guardians, and pray them to communicate with the Killarney guardians thereon.

REMOVAL ORDERS.

SIR,—The clerk to this union required my attendance at a magistrates' meeting with a view to obtaining a "removal order" in respect of a pauper, my evidence being necessary anent the state of the patient. Am I entitled to a fee for such service (being, as I am, a medical officer of the union), and, if so, to what amount? As a matter of fact, I was detained an hour.—Yours faithfully,

M.B., M.R.C.S.E.

*** If our correspondent's contract with the board of guardians do not specify that he is to give all certificates and attendances at Board meetings free of extra cost (which is not very probable), he is entitled to a fee of one guinea

for the attendance before the magistrate. Ordinarily, the clerk asks the workhouse, or district medical officer, to give his opinion, in writing, as to the fitness of a particular pauper to undergo the fatigue of a removal journey. For such certificate no claim can be made—it is part of the officer's duty—but no board can call upon a medical officer to attend a meeting of justices, or to go before a stipendary magistrate, without a fee. It is unfortunate that application for payment was not made at the time. There may be some difficulty in getting it now; but the course to adopt is to write to the guardians for a fee of one guinea, and, if refused, to threaten ulterior proceedings in the County Court.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,146 persons, 5,872 births and 3,967 deaths were registered during the week ending March 28th. The annual rate of mortality, which had risen in the three preceding weeks from 20.6 to 23.5 per 1,000, declined to 23.2. The rates in the several towns, ranged in order from the lowest, were as follow:—Portsmouth, 17.8; Derby, 18.0; Bradford, 18.5; Brighton, 18.7; Bolton, 19.0; Birmingham, 19.4; Huddersfield, 19.7; Nottingham, 20.2; Plymouth, 20.6; Norwich, 21.2; Sheffield, 21.3; Birkenhead, 21.3; Salford, 21.7; Hull, 21.8; London, 22.2; Halifax, 22.9; Leeds, 23.0; Blackburn, 23.2; Leicester, 24.1; Liverpool, 25.0; Wolverhampton, 25.7; Preston, 26.5; Bristol, 28.2; Manchester, 31.2; Newcastle-upon-Tyne, 31.7; Oldham, 33.9; Sunderland, 40.4; and Cardiff, 41.9. In the twenty-seven provincial towns the death-rate averaged 24.2 per 1,000, and was 2.0 above the rate recorded in London. The 3,967 deaths registered in the twenty-eight towns during the week included 451 which were referred to the principal zymotic diseases, showing a further increase upon the numbers recorded in the four preceding weeks; of these, 176 resulted from measles, 124 from whooping-cough, 37 from "fever" (principally enteric), 37 from diarrhœa, 31 from scarlet fever, 25 from small-pox, and 21 from diphtheria. These 451 deaths were equal to an annual rate of 2.7 per 1,000. In London, the zymotic rate was 2.5 per 1,000, while it averaged 2.8 in the twenty-seven provincial towns, among which these zymotic rates ranged from 0.0 in Brighton, 0.5 in Bolton, and 0.6 in Hull, to 4.7 in Preston, 11.3 in Cardiff, and 15.0 in Sunderland. The deaths referred to measles, which had been 129 and 164 in the two preceding weeks, further rose during the week to 176, and showed the highest proportional fatality in Newcastle-upon-Tyne, Cardiff, and Sunderland. The fatal cases of whooping-cough, which had been 119 in each of the two previous weeks, were 124 during the week, and caused the highest death-rates in Preston, Cardiff, and Oldham. The 37 deaths from "fever" corresponded with the number in the preceding week, and showed the greatest prevalence in Preston and Norwich. The 31 fatal cases of scarlet fever showed a decline of 10 from the previous week, and showed the highest proportional fatality in Leeds. Of the 21 deaths from diphtheria in the twenty-eight towns, 11 occurred in London, 3 in Cardiff, and 2 in Portsmouth. Of the 25 fatal cases of small-pox in the twenty-eight towns, 21 occurred in London (exclusive, however, of 3 deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside Registration London), 2 in Sunderland, 1 in Manchester, and 1 in Newcastle-upon-Tyne. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined in the five preceding weeks from 1,223 to 830, rose again to 865 on Saturday, March 28th; the admissions further rose to 179, against 94, 104, and 137 in the three previous weeks. The death-rate from diseases of the respiratory organs in London was equal to 5.7 per 1,000, and was below the average. The causes of 121, or 3.1 per cent., of the 3,967 deaths registered during the week in these twenty-eight towns were not certified, either by registered medical practitioners or by coroners.—In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,450 births and 3,937 deaths were registered during the week ending April 4th. The annual rate of mortality, which had been 23.5 and 23.2 per 1,000 in the two preceding weeks, further declined last week to 23.1. The rates in the several towns, ranged in order from the lowest, were as follow: Leicester, 15.7; Bradford, 17.8; Brighton, 19.1; Wolverhampton, 19.8; Plymouth, 19.9; Birmingham, 20.2; Salford, 20.2; Halifax, 20.2; Hull, 21.3; Portsmouth, 21.3; London, 21.7; Nottingham, 21.7; Leeds, 21.9; Birkenhead, 21.9; Derby, 22.1; Sheffield, 22.5; Bolton, 22.7; Liverpool, 24.4; Bristol, 25.4; Huddersfield, 27.5; Blackburn, 28.7; Manchester, 28.9; Cardiff, 29.6; Norwich, 32.6; Newcastle-upon-Tyne, 33.7; Preston, 34.3; Oldham, 34.7; and Sunderland, 40.4. In the twenty-seven provincial towns, the death-rate for the week averaged 24.2 per 1,000, and was 2.5 above the rate recorded in London. The 3,937 deaths registered during the week in the twenty-eight towns included 173 which resulted from measles, 130 from whooping-cough, 45 from "fever" (principally enteric), 33 from scarlet fever, 32 from small-pox, 27 from diphtheria, and 26 from diarrhœa; in all, 466 deaths were referred to these principal zymotic diseases, against numbers increasing from 377 to 457 in the five preceding weeks. These 466 deaths were equal to an annual rate of 2.7 per 1,000. In London, the zymotic rate was 2.6, while it averaged 2.8 in the twenty-seven provincial towns; among which these zymotic rates ranged from 0.0 and 0.5 in Derby and Blackburn, to 7.2 in Newcastle-upon-Tyne, 8.6 in Cardiff, and 14.6 in Sunderland. The deaths referred to measles, which had increased from 129 to 176 in the three preceding weeks, were 173 last week, and showed the highest proportional fatality in Newcastle-upon-Tyne, Cardiff, and Sunderland. In the last-mentioned town no fewer than 307 deaths have been referred to measles since the beginning of this year. The 130 fatal cases of whooping-cough showed a slight further increase upon the numbers returned in the two previous weeks, and caused the highest rates in Newcastle-upon-Tyne, Oldham, and Preston. The deaths from "fever," which had been 37 in each of the two previous weeks, rose last week to 45, and this disease was proportionally most fatal in Newcastle-upon-Tyne. The 33 fatal cases of scarlet fever also showed a slight increase, and showed the highest rates in Preston and Newcastle-upon-Tyne. Of the 27 deaths from diphtheria in the twenty-eight towns, 16 occurred in London, 3 in Liverpool, and 2 in Norwich. Of the 32 fatal cases of small-pox, 26 were recorded in London (exclusive, however, of 13 deaths of London residents from this disease in the Metropolitan Asylum Hospitals situated outside Registration London), 2 in Manchester, 2 in Liverpool, 1 in Birmingham, and 1 in Leeds. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 830 and 865 at the end of the two preceding weeks, rose again to 879 on Saturday last; 141 new cases were admitted to these hospitals during the week, against numbers increasing from 94 to 179 in the four previous weeks. The death-rate from diseases of the respiratory organs in London was equal to 6.1 per 1,000, and was below the average. The causes of 100, or 2.5 per cent., of the 3,937 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.—During the week ending March 28th, 839 births and 568 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had been 24.4 and 24.2 per 1,000 in the two preceding weeks, further declined to 23.3, and almost corresponded with the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 10.6 in Leith, 14.6 in Greenock, 17.2 in Dundee, 18.9 in Edinburgh, 19.9 in Perth, 20.2 in Aberdeen, 22.0 in Paisley, and 29.9 in Glasgow. The 568 deaths registered during the week in these towns included 73 which were referred to the principal zymotic diseases, against 88 and 85 in the two preceding weeks; of these, 32 resulted from whooping-cough, 18 from measles, 12 from diarrhœa, 6 from "fever," 4 from scarlet fever, 1 from diphtheria, and not one from small-pox. These 73 deaths were equal to an annual rate of 3.0 per 1,000, which exceeded by 0.4 the average zymotic death-rate in the twenty-eight large English towns. The zymotic death-rates in the Scotch towns ranged from 0.8 and 1.4 per 1,000 in Leith and Aberdeen, to 3.5 in Paisley, and 4.7 in Glasgow. The 32 deaths from whooping-cough were within 3 of the number in the preceding week, and included 17 in Glasgow, 5 in Dundee, and 3 in Greenock. The fatal cases of measles, which had increased from 15 to 28 in the four previous weeks, declined to 18, all of which were returned in Glasgow. The 6 deaths from "fever" showed a slight increase; 3 occurred in Edinburgh, and 2 in Glasgow. The 4 fatal cases of scarlet fever showed a further decline from recent weekly numbers, and were all recorded in Glasgow. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 5.0 per 1,000, against 5.7 in London. As many as 71, or 12.5 per cent., of the 568 deaths in these Scotch towns were uncertified.—During the week ending the 4th inst., 850 births and 600 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had been 24.2 and 23.3 per 1,000 in the two preceding weeks, rose again to 25.0, and exceeded by 1.9 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 15.2 in Leith,

17.0 in Edinburgh, 17.0 in Aberdeen, 18.3 in Perth, 20.5 in Greenock, 24.2 in Dundee, 30.8 in Paisley, and 31.5 in Glasgow. The 600 deaths registered during the week included 84 which were referred to the principal zymotic diseases, against 85 and 73 in the two preceding weeks; of these, 34 resulted from whooping-cough, 23 from measles, 11 from scarlet fever, 6 from "fever," 5 from diphtheria, 5 from diarrhœa, and not one from small-pox. These 84 deaths were equal to an annual rate of 3.4 per 1,000, which exceeded by 0.7 the average zymotic death-rate in the large English towns. The zymotic rates in the Scotch towns ranged from 0.0 and 0.5 per 1,000 in Perth and Aberdeen, to 5.3 in Paisley and in Glasgow. The 34 deaths from whooping-cough exceeded by 2 the number in the preceding week, and included 22 in Glasgow, 4 in Edinburgh, and 4 in Dundee. The 23 fatal cases of measles were all recorded in Glasgow. The deaths referred to scarlet fever, which had declined from 13 to 4 in the three previous weeks, rose again to 11, of which 5 occurred in Paisley. The 6 fatal cases of fever corresponded with the number in the preceding week, and included 3 in Edinburghs and 2 in Greenock. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 5.3 per 1,000, against 6.1 in London. As many as 103, or 17.2 per cent., of the 600 deaths registered in these Scotch towns during the week were uncertified.

HEALTH OF IRISH TOWNS.—During the week ending March 28th, the number of deaths registered in the sixteen principal town-districts of Ireland was 567. The average annual death-rate, represented by the deaths registered, was 34.2 per 1,000 of the population. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Armagh, 15.5; Belfast, 32.3; Cork, 34.4; Drogheda, 25.4; Dublin, 39.1; Dundalk, 17.5; Galway, 13.4; Kilkenny, 33.8; Limerick, 41.8; Lisburn, 43.5; Londonderry, 26.7; Lurgan, 30.8; Newry, 7.0; Sligo, 24.1; Waterford, 39.4; Wexford, 12.8. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 4.0 per 1,000, the rates varying from 0.0 in Galway, Newry, Kilkenny, Wexford, Dundalk, Sligo, Lurgan, and Armagh, to 6.9 in Waterford; the 17 deaths from all causes registered in the last named district comprising 3 from measles. Among the 136 deaths registered in Belfast were 7 from measles, 2 from scarlatina, 4 from diphtheria, 2 from enteric fever, and 5 from diarrhœa; and the 53 deaths in Cork comprised 5 from whooping-cough. In the Dublin Registration District, the deaths registered during the week amounted to 273. Thirty-five deaths from zymotic diseases were registered in Dublin, being 2 over the average for the corresponding week of the last ten years, and 1 over the number for the week ended March 21st; they comprised 12 from measles, 7 from scarlet fever, 2 from whooping-cough, 3 from diphtheria, 4 from enteric fever, 2 from diarrhœa, etc. Seventy-two deaths from diseases of the respiratory system were registered, being 9 in excess of the number for the preceding week, and 18 over the average for the twelfth week of the last ten years; they comprised 53 from bronchitis, 6 from pneumonia, and 3 from croup. The deaths of 20 children under five years of age (including 12 infants under one year old) were ascribed to convulsions. Seven deaths were caused by apoplexy, 11 by other diseases of the brain and nervous system (exclusive of convulsions), and 16 by diseases of the circulatory system. Phthisis or pulmonary consumption caused 28 deaths, mesenteric disease 4, and cancer 3. Eight accidental deaths were registered. In 8 instances, the cause of death was "uncertified;" and in 30 other cases there was "no medical attendant."

INDIA AND THE COLONIES.

INDIA.

VACCINATION IN THE PUNJAB.—It is evident, from a report which has just been issued, that the advantages of vaccination are beginning to be felt in the Punjab, and that the prejudices against it are gradually giving way. The aggregate number of operations performed by all establishments during the past year was 633,062, being an increase of 133,365 over the number vaccinated in the previous year. Classified according to sex, 338,315 males and 294,747 females were vaccinated. The percentage of successful operations in primary vaccinations was 94.25, as compared with 95.11 in 1882. About two-thirds of the total number of such vaccinations were performed upon infants under one year of age, and one-fourth upon children between the ages of one and six years. The number of revaccinations was only 8,189, but this is nearly three times as many as in the previous year. The Lieutenant-Governor remarks that the general increase in the number of vaccinations is satisfactory, and indicates that the Department is better organised; and that the work is well supervised by civil surgeons, and by the Sanitary Commissioner and his two deputies. It is satisfactory to learn that (1) the Umritsur Municipal Committee renewed the application to have vaccination made compulsory, which has since been sanctioned by Government; and (2) the Raja of Bashahr has lately asked for the services of a large staff of vaccinators to carry on operations in his State. The list of persons brought to notice by the Sanitary Commissioner for rendering assistance in this Department sufficiently shows that public interest is being aroused, and that many leading native gentlemen are beginning to believe that vaccination affords the only check to the scourge of small-pox.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a special supplemental examination held on Monday, March 16th, and following days, the following gentlemen were successful.

First Professional Examination.—T. P. Connolly, C. D. Jones, R. Jones, J. H. Lovely, H. M'Carthy, R. Martin, T. O'Brien, E. O'Neill.

Seven candidates were rejected.

Second Professional Examination.—G. P. Carte, T. G. Goodman, C. M'Donnell, P. J. F. O'Brien, J. C. O'Donnell, J. O'Sullivan, A. V. Shine.

Eleven candidates were rejected.

Third Professional Examination.—W. A. Johnston.

First Half Examination for the Letters Testimonial of the College, held on Monday, March 23rd, and following days, the undernamed gentlemen were successful.

J. A. C. Coen, A. R. T. Craig, I. Duncan, J. D. O'D. Egan, R. Elliott, E. W. Hamilton, J. C. Hines, A. M. Hunt, E. B. Kennedy, A. D. Macleod, A. E. Murphy, V. Nash, H. F. C. Pilcher, J. A. Scully, A. F. Smith, P. Stevenson, W. Stritch, W. Swan, W. E. Waters, J. A. Whitty, T. D. Wylie.

Twenty-five candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 2nd, 1885.

Burd, George Frederick, St. Bartholomew's Hospital.
Rowlands, Thomas Frederic Watkin, Guy's Hospital.
Whitwell, Alfred Frank, St. Bartholomew's Hospital.

MEDICAL VACANCIES.

The following vacancies are announced.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £170 per annum. Applications by April 21st.

BRIGHTON AND HOVE LYING-IN INSTITUTION.—House-Surgeon. Salary, £120 per annum. Applications by April 17th.

CAMBRIDGE FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Medical Officer. Salary, £210 per annum. Applications to W. P. Littlechild, Vine Cottage, Queen's Lane, Cambridge, by April 25th.

CELBRIDGE UNION.—Medical Officer, Workhouse. Salary, £100 per annum, and £15 yearly as Consulting Sanitary Officer. Applications to S. Manning, Clerk of Union. Election on April 29th.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—House-Surgeon. Salary, £100 per annum. Applications by April 18th.

GENERAL INFIRMARY, Leeds.—One House-Physician and Two House-Surgeons. Applications to A. W. Mayo Robson, Hillary Place, Leeds, by April 28th.

HARTLEPOOLS FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary, £130 per annum. Applications to T. Tweddell, Commercial Terrace, West Hartlepool.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistants. Applications by April 18th.

HUDDERSFIELD INFIRMARY.—Junior House-Surgeon. Salary, £40 per annum. Applications to Mr. F. Eastwood, Honorary Secretary, by April 15th.

MANCHESTER ROYAL EYE-HOSPITAL.—House-Surgeon. Salary, £70 per annum. Applications to the Chairman of the Board of Management by April 14th.

MULLINGAR DISTRICT LUNATIC ASYLUM.—Assistant to Resident Medical Superintendent. Salary, £112 10s., with allowances valued at £70 8s. 11d. Election on April 16th.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—House-Surgeon. Salary, £80 per annum. Applications by April 22nd.

PAROCHIAL BOARD OF PENNYGOWN AND TOROSAY.—Medical Officer. Salary, £100 per annum. Applications to Alex. Macdougall, Inspector of Poor, Auchnacraig by Oban.

ST. PANCRAS, Middlesex.—Medical Officer of Health and Examiner of Gas. Salary, £300 per annum. Applications by April 16th.

UNIVERSITY COLLEGE HOSPITAL, London.—Third Assistant-Surgeon. Applications by April 14th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Applications by April 23rd.

MEDICAL APPOINTMENTS.

BARRETT, W. A. H., L.S.A., appointed Assistant-House-Surgeon to the Royal Albert Hospital, Devonport.

BOURNS, N. Whitelaw, M.D.Brussels, L.R.C.P.Edin., M.R.C.S., appointed Assistant-Surgeon to St. John's Hospital for Skin-Diseases, *vice* Mr. Palmer, resigned.

CAMPBELL, Charles M., M.D., C.M., L.R.C.S.Edin., appointed an Assistant-Physician to St. John's Hospital for Skin-Diseases, *vice* Dr. Boothby Dow, elected a Physician.

DOW, H. Boothby, M.D.St.And., M.R.C.S., appointed a Physician to St. John's Hospital for Skin-Diseases, *vice* Dr. Oates, elected a Vice-President.

DOWNES, Howard, L.R.C.P.Lond., M.R.C.S.Eng., appointed House-Surgeon to Victoria Hospital for Children, Chelsea, *vice* F. H. Hawkins, M.B., C.M., resigned.

DUNN, Hugh Percy, F.R.C.S.Eng. (Assistant Ophthalmic Surgeon), appointed Pathologist to the West London Hospital.

DUNCAN, P. T., M.D., B.S.Lond., appointed Surgeon to the Croydon General Hospital.

GLASSINGTON, Charles W., M.R.C.S. and L.D.S.Ed., appointed Lecturer on Dental Materia Medica to the National Dental College.

JACKSON, Henry, M.R.C.S.Eng., L.S.A.Lond., appointed Honorary Surgeon to the North Devon Infirmary, Barnstaple, *vice* Dr. Fernie, deceased.

MORTIMER, J. D., M.R.C.S., L.S.A., appointed Assistant Medical Officer to the Portsmouth Borough Asylum, *vice* James Neil, M.D., C.M., resigned.

PILKINGTON, Frederick W., L.R.C.P.Lond., M.R.C.S., appointed Assistant Medical Officer to the Oxford County Asylum at Littlemore.

SCHOFIELD, Alfred Taylor, M.D., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer to the Westbourne Provident Dispensary, *vice* J. A. M. Moullin, M.A., M.B., M.R.C.P., M.R.C.S., L.S.A., L.M., resigned.

WAINEWRIGHT, Benjamin, M.B., C.M.Edin., F.R.C.S.Eng., appointed Assistant-Surgeon to the West London Hospital, *vice* Albert Boyce Barrow, M.B.Lond., F.R.C.S.Eng., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTH.

ILLINGWORTH.—On Tuesday, March 31st, at 1, Crowther Terrace, Clayton-le-Moors, the wife of C. R. Illingworth, M.D., of a daughter.

MARRIAGE.

HOPKINSON—BLUMER.—At the Parish Church, Monkwearmouth, on April 8th, by the Rev. E. F. Hopkinson, M.A., Rector of Ilchester, the Rev. Charles Girdlestone Hopkinson, M.A., Vicar of Monkwearmouth, to Elizabeth Laura, daughter of Luke Blumer, M.D., Sunderland.

DEATHS.

WHITEHEAD.—On Good Friday, April 3rd, at his residence, Fairlands, Sutton, Surrey, James Whitehead, M.D., late of Mosley Street, Manchester, in the 74th year of his age.

WILCOX.—On April 4th, at Gunterstone Road, West Kensington, William Wilcox, L.R.C.P.Edin., M.R.C.S.Eng., late of Holly House, North Walsham, Norfolk, in the 45th year of his age.

STURGE.—On April 2nd, at 9, Rue Longchamp, Nice, Emily Bovell Sturge, M.D. Paris, Officier de l'Académie, daughter of the late John Roach Bovell, of Demerara, and wife of William Allen Sturge, M.D.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—On Tuesday, April 14th, at 8 P.M., Dr. J. G. Garson will read a paper on the Inhabitants of Tierra del Fuego. The chair will be taken by Professor Flower, LL.D., F.R.S., Vice-President.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Whipham: A Case of Myxœdema, with the Microscopical Appearances of some of the Organs. Dr. Hughes Bennett: A Case of Brachial Monoplegia, due to a Lesion of the Internal Capsule.—Odontological Society of Great Britain, 8 P.M. Mr. J. Bland-Sutton: On Injuries and Diseases of Jaws in Wild Animals. Casual communications by Messrs. Newland Pedley, W. A. Hunt, A. S. Underwood, F. Henri Weiss.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Lunn and Dr. Benham: Case of Aneurysm of Abdominal Aorta: Distal Compression for Four Hours and Three-quarters under Chloroform: Cure of Aneurysm: Death from Gangrene of Jejunum on Eleventh Day. Mr. Henry Morris: A Case of Aneurysm of the Abdominal Aorta leading to Gangrene of the Lower Extremity. Dr. Beevor: Two Cases (Progressive Muscular Atrophy and Infantile Paralysis) illustrating the Localisation of Motor Centres in the Brachial Enlargement of the Spinal Cord.

WEDNESDAY.—Royal Meteorological Society, 7 P.M. Report of Committee on Decrease of Water-Supply. Report of Committee on the Helm Wind of Cross Fell, Cumberland. Mr. Richard Strachan: Results of Meteorological Observations made at Asuncion, Paraguay.

THURSDAY.—Harveian Society of London, 8.30 P.M. Dr. R. W. Burnet: Cases of Ulcerative Endocarditis, with Remarks. Mr. J. Ernest Lane: Hæmophilia.

FRIDAY.—Society of Medical Officers of Health, 7.30 P.M. Reports of Council on "The Rivers Pollution Bill," and "The Water Companies Regulation of Powers Bill." Dr. Thomas Stevenson: On Sewage-Disposal.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th. ; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W.; 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

Renal Surgery.

In relation to the recent papers on this subject in the Journal, a correspondent sends us the following interesting notes on the early literature of the surgery of the kidney.

Describing the operation of "lithotomy by the apparatus minor," Dr. Laurence Heister says of nephrotomy (*A General System of Surgery*, Helmstadt, 1739, vol. ii, pp. 162-163): "Lastly, as there are many cases in which a stone in the kidney can by no means be dissolved or removed by medicines, and the patient, being continually in the most extreme torture, is desirous by any means to be freed, it may not be inconsistent with our design in this place to resolve the question, whether a stone in the kidney may not be cut out in such a case. This is a subject seldom treated of in books of surgery....The generality of those who have said anything upon the subject in their writings think it a proposal too dangerous to be practicable, and therefore treat it with neglect; when, at the same time, there are extant many arguments, both from reason and experience, which recommend such a practice to be absolutely necessary, especially under particular circumstances. For we have many instances of patients who have been freed from the stone in the kidney by a wound in that part, received accidentally in the back (many of which are collected by Wedelius in *Dissertat de Lithotomiâ*, Jenae, 1714; see also Schenck, *Observationes*, and Bohn, *De Vuln. Lethal.*, p. 157); and that in some cases without any dangerous symptoms."

"Among other instances which have come under my own observation, I shall only mention a late one of a man who was wounded by another with a knife, upon the region of the right kidney, in his back, in the year 1735, in such a manner that blood and bloody urine was voided in great plenty for several days through the wound and through the urethra; but, after he was transmitted to my care at Helmstadt, he was happily cured within the space of four weeks. It is, therefore, most certain that wounds of the kidneys are not always mortal, as some have imagined, but frequently curable....And Hippocrates (*Lib. de Intern. Affect.*, cap. xv, tit. 19), though he interdicts his pupils from performing the operation of lithotomy, does yet direct them, in treating of disorders in the kidneys, 'to make an opening where they are elevated and tumefied; that, after extracting the gravel, and discharging the matter, they may be healed with diuretics; for, by such an opening or incision, there may be hopes of a recovery; otherwise the patient is a dead subject.' And, in the same book (cap. xvi, tit. 8), he says, 'When there is a suppuration of the kidneys, and it forms a tumour near the spine, in that case a deep incision is to be made upon the tumour near the kidney,' or (as he says in another place, cap. xviii, tit. 17) into the kidney itself. Hence it appears that he did not think an incision in this part so greatly to be feared as a wound in the bladder.

"Rossetus also, and the accurate anatomist Riolan and others, are induced by many reasons to think that nephrotomy may be often practised with success; if the incision be made in that part where the calculus is perceptible, taking care to avoid the emulgent artery, vein, or the ureter; but nothing can be more reasonable than to perform nephrotomy, when we are directed to it by nature pointing out the place by a tumour and abscess formed in the loins from a calculus in the pelvis or kidney. In such a case, we are also supported by the advice and authority of Schenckius, Wedelius, and Meekren; together with Lavaterus, who....had not only performed this operation with success, but had also publicly declared, in the year 1708: 'I perform the operation of nephrotomy on either of the kidneys, when nature directs to that practice by forming an abscess.'

"There is, therefore," Heister adds, "no apparent reason why this operation should be condemned, under the forementioned circumstances, as it is by a great many. I should rather advise, according to my own practice, never to omit nephrotomy when nature thus points out the road to it, since the patient may be frequently not only in this way preserved, but also freed from the torture and excruciating pains excited by the calculus, which may be thus freely extracted by the fingers, a hook, or a pair of pliers. For more on this subject, consult Fontanus, Exemp. 42, Fol. 117; Hildanus, Cent. iv, Obs. 44; Tulpius, Lib. iv, Obs. 28;" and this writer would humbly suggest a reference to these writers to those gentlemen who are likely to take further part in the 'discussions' referred to within. He would also respectfully venture to ask them to substitute plain English for dog-Latin or worse Greek, for he has not been taught either of these in his youth, while he is now too old to go to school, and there is a well known saying that "nothing assists barbarism like a dialect adapted to its wants."

There is a good account of the case of a Mr. Hobson, English Consul at Venice, in the *Memoirs of the Royal Society*, vol. iii, pp. 184, 185, who was operated upon for the stone in the kidney, by one Dominicus de Marchetti, "a famed and experienced physician of Padua;" but it is too long for reproduction here, and I will only glance at it. It runs to the effect that Marchetti began by "cutting gradually upon the region of the kidney affected," and then "cutting into the body of the kidney itself." Bleeding arrested his further progress for that day, but he resumed his procedure on the following day, and "took thence (that is, the kidney) two or three small stones." "From this instant," the account adds, "he, Mr. H., was freed from the pain from which he had so long and so cruelly suffered, and his wife having some time subsequently removed from the wound in his loin 'a stone of the figure and magnitude of a date-stone,' he never afterwards complained of the least uneasiness in that part."

Discoloration by Nitrate of Silver.

Mr. Rayley Owen asks for information as to how long one-fourth of a grain of nitrate of silver, twice a day, may be given to a young girl with gastric ulcer, without bringing on the typical discoloration.

Do Emetics Depress?

Sir,—In a paper reported in your issue of March 21st, as having been read before the Harveian Society, Dr. Hare, the author, combats the idea that emetics exhaust the patient. When the act of vomiting is not due to a depressing agent like the tartrate of antimony, the act of vomiting decidedly stimulates the heart. This is strikingly seen in severe cases of *post partum* hæmorrhage. I have frequently known a woman, whose heart has scarcely been able to furnish a pulse at the wrist, revive after vomiting, without any relapse. I can well remember my feelings of dread in the early days of practice, when this symptom followed severe hæmorrhage. It seemed as though so grave a complication must extinguish the little life left to the patient. Now, however, I confidently look for improvement after the sickness has ceased; for my experience has always been that spontaneous vomiting brings about a reaction which carries the patient on to recovery.—I am, yours, etc.,

E. G. Wake, M.D.

Lewisham House, Dartmouth Park Hill, N.

Vaccination: Anthrax: Wood-Paving.

Dr. J. Ashburton Thompson (Sydney, New South Wales).—1. With every desire to be helpful to members at a distance, we cannot undertake to answer profound and complicated questions. Every reader must, from a study of the literature relating to Mr. Ceeley's alleged variolation of kine, form his own opinion on that subject; we have not space to discuss it here, and a brief authoritative verdict would be valueless.

2. The figures for the two appendices to the *Truth about Vaccination* were obtained from different sources, and the variations in the death-rates from small-pox at all ages are apparently due to variation between the estimates of the population of England and Wales in the middle of inter-censal years.

3. The reference is given in the Memorandum.

4. This statement would now have to be modified (see Journal of May 31st, 1884, p. 1053).

5. Koch's great merit has been the thoroughness and minute accuracy of his earlier work (for his theories about the comma-bacilli are probably quite unsound). These qualities were first shown in his work on *Anthrax*. He first popularised the method of growth on solid media, and nobody who has worked with both the solid aud fluid media can doubt that, for all general purposes, the introduction of the solid media first rendered really accurate work possible. (See Mr. Watson Cheyne's speech at the Royal Medical and Chirurgical Society, British Medical Journal, January 24th, 1885; and the reports on the Biological Laboratory of the International Health Exhibition, British Medical Journal, vol. ii, 1884).

6. There has been no report published on the sanitary relations of wood-paving.

The Prevention of Hydrophobia.

Sir,—In the British Medical Journal of March 7th, at page 498, under the above heading, reference is made to the report of the Brown Institution, and the series of cases of rabies occurring there during 1884, and it is added: "Dr. Burdon Sanderson, when professor-superintendent, suggested that the leading symptoms of rabies should be printed on the back of dog-licences," etc. Will you kindly allow me to state that the suggestion was first made in my work on *Rabies and Hydrophobia*, published in 1872, and that Dr. Burdon Sanderson, in a letter which appeared in the *Times* two or three years subsequently, alluded to it as having been made by me, in recommending it for adoption. At page 378 of that work, in the section on Public Instruction, it is given in these terms: "Provide dog-owners, when they receive their tax-paper, with printed, easily understood instructions as to the proper method of keeping their dogs healthy, and how to detect the symptoms of rabies; as well as the preservative and sanitary police-measures which they should comply with, in order to prevent the disease. All this might be printed on the back of the tax-paper, which could, in addition, be made a valuable means of arriving at certain important information, such as the sex, age, breed, etc., of the licensed dogs. The most serious accidents occur through the ignorance of the public on simple matters like this of rabies."

The suggestion, which, as is evident, was not that of Dr. Burdon Sanderson, has not been adopted in this country; but it was, I believe, carried into effect by the municipal authorities of Paris.

Trusting you will have the goodness to make this rectification, I am, yours obediently,

George Fleming, LL.D.,
Principal Veterinary Surgeon to the Army.

*** We quoted the statement from the official report of the Professor-Superintendent, who was probably unaware of Mr. Fleming's earlier action.

Turning for Head-Presentation.

Sir,—A poor woman was confined of a twin child about three o'clock one Sunday morning. I reached her domicile about 10 A.M. She seemed to have some pains at distant intervals; but not sufficient to extrude the other twin, whose head could just be felt above the brim. It was not impacted. The patient was very low and faint, after loss of blood during the several hours subsequent to birth of the first child. I gave a moderate dose of ergot. Although pains somewhat increased, no advance was noticed. The woman said that the pain at the pit of the stomach was "cruel agony." She now became so very faint that I thought she would succumb. Brandy was given, but she would only sip a drop or two. Vomiting occurred; there was some improvement. I now suggested instrumental delivery, the patient calling out for it. I generally wait for this consent, although reluctantly given. Remembering a previous case, where the instruments all slipped off, and where I had successfully turned for head-presentation, I resolved on this course again. Upon introducing my hand, I found the head at the brim, the legs extended upwards, with the feet at the pit of the stomach. The uterus seemed rather narrow and elongated. During the pains, there was nothing for the fundus uteri to contract on. The joints would bend at each pain. This I consider the reason why the head of the child was not propelled. At first, I got hold of a hand. Letting go this, I felt successfully for a leg, and brought down a foot, between the index and middle fingers, above the heel and ankle. Then, with a sailor's knot, I fixed a piece of tape. This knot will not constrict or give way. The two hanging ends of tape are within, and nearest each other.—I am, sir, your obedient servant,

Pershore. Samuel W. Smith, M.D.

Carbolic Acid in Indigestion.

Sir,—I am pleased to endorse Dr. Dixon's observations upon the value of carbolic acid in some forms of dyspepsia. I have for several years prescribed it in the dose he recommends—one or two grains alone, or better, in a solution of carbonate of soda after meals. The digestive process in some subjects would appear to be so prolonged, that acetous fermentation or even decomposition may be supposed to ensue. This can hardly occur under the presence of the powerful antiseptic in question. Anyhow, in many instances where the mineral acids and tonics apparently fail to hasten or assist digestion, carbolic acid will at least preserve the food pure and fresh until the slow process can be completed.

I may mention, by the way, that no remedy has been of so much service to me in the sickness of pregnancy as one or two drops of carbolic acid given three times a day; one lady lately writing to me from a distance for the prescription of the "tar-medicine," which always did her so much good. Its physiological action is not clear; like that of the dilatation of the os uteri, which promises to be of more value, and of which, so far as my limited experience goes, I can speak favourably.—Yours truly,

Edward Garroway.

Faversham.

"A Member" should apply to the Director of the Animal Vaccine Establishment, 59, Lamb's Conduit Street.

LANCING THE GUMS.

SIR,—I have always thought that the philosophical treatment of disease was, if possible, to remove the cause of the untoward symptoms. No one would think of radically curing toothache by giving the patient an opiate; for though, doubtless, it would remove the pain for a time, the carious tooth, the source of irritation, would still remain. In the infant, we have a tooth trying to force its way through dense and often very unyielding tissue, causing through the pressure sometimes very serious symptoms of nerve-irritation. Is not one of the axioms of surgery the relief of tension? And surely there is always more or less tension during the eruption of a tooth. I willingly admit that, in many cases, this tension is not great enough to cause much nerve-irritation, and, in these fortunate children, dentition gives no trouble; but cases continually occur where the hard unyielding gum is swollen and inflamed, and where, I believe, tension exists; these are the cases where one deep incision with the gum-lancet gives almost instantaneous relief. That the lancet may be used as a cloak for ignorance is not a sound argument against its right use; everything may be abused, not excepting the all-powerful bromide of potassium; but, most assuredly, the abuse of the gum-lancet will never cause, I believe, a tithe of the harm arising from its non-use. The right place for the lancet, I conceive, is in those cases where we find a hard, swollen, inflamed gum, and the infant ill from this cause.

It is, of course, necessary, in all cases, to make a correct diagnosis, and one cannot expect the lancet to relieve the convulsions of indigestion.

Many a chick would remain in the shell, to become its tomb, were it not for the friendly chip of the mother's beak on hearing its gentle tapping from within; and, I believe, many a little one will be consigned untimely to the silent grave if we discard the lancet, neglecting to give the friendly chip to release the imprisoned tooth, and only attempt to alleviate the symptoms by drugs, but do not remove the cause of irritation.

How often have I seen the quick relief gained by the timely use of the lancet; the crying, restless, feverish infant changed, as if by magic, to one with a happy smiling face, or lulled to sweetest sleep.—I am, etc.,

WM. WRIGHT MILLARD, M.B.Edin.

PERMANGANATE OF POTASH.

SIR,—"Facts are stubborn things," such as seldom admit of discussion and dispute; I therefore reassert every word of my letter in the JOURNAL of February 7th, except that portion which speaks of the remedy as having been "introduced" two or three years ago; the word should have been "reintroduced."

The antiseptic properties of permanganate of potash have been known to us for twenty or twenty-five years at least; and, in the second edition of Garrod's *Essentials of Materia Medica*, etc., 1866, it is said to be useful in cases of diabetes, in doses of one to three grains in pills. In Quain's *Dictionary*, no mention is made of this drug in connection with diabetes, nor am I able to find any cases in which it has been used, until it was introduced again about three years ago; also Squire's *Companion*, 13th edition, 1882, says but little more about its use internally than does Dr. Garrod's more ancient work. As to kaolin, I doubt whether its employment in pharmacy is five years of age. Squire writes only five words about it under the head of aluminium; but, a few days since, it came to my knowledge that a mine of this substance has been offered for sale by some one in Silver City, New Mexico, who says that it is imported from Persia and India for the manufacture of fine china-ware, and that it is very valuable, as being difficult to obtain of sufficient purity in any quantity. Now, if this article be identical with the kaolin used for making up pills (see Martindale's *Extra Pharmacopœia*, edition 1884), it is easy to understand that, when worked up, it may become very hard and insoluble, and very likely indeed to pass through the intestines in the way we know that hard substances do, which, luckily for most of us, escape that well known trap, the cæcum, as they go on their way.

In the JOURNAL of February 21st, Mr. Oglesby, of York, writes, "with Dr. Simms, I have known pills pass through the body unchanged." And, again, "Kaolin-made pills readily dissolve." Well, sir, recently I have taken the trouble to inquire about the unaltered pills mentioned in my former letter, and have traced them to their source—a most undeniably respectable one, as my twenty years' experience of it testifies. I have seen some of these pills, which are made of kaolin, etc., and which are quite hard.

Tablets of permanganate of potash, taken in water very freely diluted, and directly after meals, may be safe, perhaps. I have never tried them, but they cannot be used by themselves, as Mr. Powell's letter in the JOURNAL of February 21st amply testifies; whilst, for the mouth itself, Condy's fluid, freely diluted, is the preferable mode of application. I am unable to discover whether Mr. Gubb denies that the tablets have any caustic action when applied locally, that is, without precaution; but he can very easily test them, for *fiat experimentum in corpore vile* is a very old means to an end; one thing is certain, that, if the drug have the good qualities attributed to it, and this I neither affirm nor deny, it must be administered as carefully as arsenic, and much in the same way.

Into Mr. Gubb's jocose comparison, I will not enter, for my letter is already too long.—Your obedient servant,

FRED. SIMMS.

6, Mandeville Place, W.

CERTIFICATES UNDER FACTORY ACTS.

SIR,—I should be much obliged if you, or some certifying factory surgeon, through your columns, would kindly let me know how examinations of children and "young persons" under the Factory Act ought to be performed. These examinations have to be made at the factory; and I, at least, find auscultation to be quite impossible there, on account of the noise made by the machinery. One can hardly be expected to make a very searching examination (such, for instance, as in insurance-cases) for the miserable fees allowed; but still I should not consider myself justified in certifying that a child was fit for work, without satisfying myself that the heart and lungs, at least, were not seriously affected.—Yours truly,

JUNIOR.

MIDWIVES.

IF "M.R.C.S." will apply to the Matron of the British Lying-in Hospital, Endell Street, W.C., or to Queen Charlotte's Lying-in Hospital, Marylebone Road, N.W., he will obtain all the information he requires.

SHIP-SURGEONS.

SIR,—I wish to go a sea-voyage; can you kindly inform me as to the best way to try for the post of surgeon in a good company's service? Is it possible to get such a berth for one voyage only, for example, to India and back?—Yours, etc.,

P. AND O.

SURGEON-MAJOR T. MURTAGH.—We have no means of answering your question.

ARTIFICIAL EYES.

LIMPET asks where he can procure artificial eyes at the first hand.

COMMUNICATIONS, LETTERS, etc., have been received from:

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CLINICAL LECTURE
ON
RECENT ADVANCES IN ABDOMINAL SURGERY.

Delivered before the pupils of the Medical Department of the Yorkshire College on March 4th, 1885.

By C. G. WHEELHOUSE, F.R.C.S.,
Consulting Surgeon to the General Infirmary, Leeds.

Gentlemen,—I have recently come across an ancient proverb which runs thus: "We only count our days; we ought to weigh them;" and if there was ever a time when such an aphorism could be truthfully quoted, and when the value of work done was of far greater importance than the time occupied in the doing of it, that time, at any rate so far as the profession of surgery is concerned, is the present.

There have been times in the past when great discoveries have been made, and when great minds have held sway over the surgical, as they have done over the medical, world. We have had our Cheseldens, our Bells, our Hunters, our Coopers; and the lights they have left burning are burning still as brightly as ever; but there never was a time in which the general progress was so great as it is in the present day, or when so many minds were ceaselessly given to the cultivation and extension of the science and the art of surgery, with the determination to extend its range, to increase its utility, and to perfect its advances; none in which the value of the work done would weigh so heavily.

When, responding to the request of the authorities of the Yorkshire College that, in conjunction with my colleagues, I should from time to time undertake to deliver a few surgical clinical lectures, I promised to do so, the subject of the advances that have been made in abdominal surgery in recent times very naturally suggested itself to my mind as one in which I might find something to say that would prove both interesting and instructive to you, and so I selected it as one of my proposed subjects; but, when I bring myself to book, and to consider the careful arrangement of what I should like to say, I find it so impossible to compress the matter into the compass of a single lecture, that I am compelled to ask you to accept this one of to-day as an instalment only, and to promise—should we be spared to meet again another year—to renew the subject, and complete it on a future occasion.

There was a time—and it is well within my recollection—when the entire domain of the peritoneum, and of every organ contained within its folds, was held to be ground sacred to the physician, and on which, except in cases of unavoidable necessity, the surgeon was forbidden to intrude.

A few operations, and only few, were supposed to be admissible; and even in these, so great was the fear of peritonitis and its results, that even they were undertaken with all the dread which the presence of the greatest surgical danger could inspire.

Moreover, the very few that were considered to be permissible, and permissible only because compulsory, were done in a manner which, in the present day, we should regard as rough and uncouth, and as savouring but little of scientific surgery. Thus, from all time, it has been occasionally necessary to relieve an abdomen distended with fluid by paracentesis; but the paracentesis of that day was as unlike the operation as now performed, as it was well possible to be; and it is no wonder that a proceeding even as simple as that was considered to be should have been regarded as attended by considerable risk.

Deferred to the last possible moment, until not only the abdominal walls were stretched to almost unendurable tension, and the diaphragm, from similar pressure, was almost disabled, we cannot wonder that fatal syncope was dreaded, or that it should sometimes occur. Many is the patient that I have seen "prepared" for the operation thus.

Seated in an armchair, and so surrounded by pillows that support should be afforded in all directions, a large towel was passed around the body to support the diaphragm, and, the patient fortified by a stimulant, an enormous trocar was plunged into the abdomen, its size being regarded as of little or no moment, and the whole of the fluid was rapidly withdrawn. Occasionally the stream would be arrested to allow the abdominal walls and diaphragm to contract, and to prevent faintness, and firm pressure was kept up all the time by means of the towel.

At that time, the distinction drawn between general and encysted dropsy was somewhat hazy; ascites and ovarian dropsy were not differentiated as they are in the present day; and, consequently, seeing that the fluid to be withdrawn might, as it then seemed by chance, prove either very thin or so thick as only to be capable of running through a cannula of large calibre, such an instrument as this was generally chosen for its evacuation.

What wonder, that we should be taught to watch our patient carefully, and, by noting the state of the pulse, and the action of the heart, to be on the alert to prevent the occurrence of syncope; or that, by keeping steady pressure on the towel, we should seek to support the diaphragm from under which so large a weight of fluid was being rapidly withdrawn?

The varying character of the fluid, and the varying amount of it which resulted from these operations, could not fail to strike even the least observant operators; and whilst, in some such operations, it was noted as being clear, transparent, and largely abundant, in others it was seen to be so thick and glutinous, that it failed to run freely even through cannulæ so large as those I have shown you; and even Sir Astley Cooper has placed one case of "dry tapping," which occurred to himself, on record. It can hardly, then, be wondered at that facts such as these should lead men of observation to seek for the true pathological explanation of such differences as these.

In the cases of men, it was noted that the fluid was almost invariably abundant and thin, and it was only in female cases that the difficulties of withdrawal from unusual thickness or tenacity were observed.

Post mortem examinations gradually revealed the cause of these differences, and demonstrated that, while in males the ascites was almost, if not actually, always general, in women it was most frequently encysted, and, in a majority of cases, confined to diseased conditions, not of the peritoneum, but of the ovaries, or certain of their appendages.

Then, there slowly dawned upon the minds of men the possibility of more perfect differentiation in their cases, and, before many years were passed, it was known that such diagnoses could be made with tolerable clearness and accuracy. Then the greater and more vital question began to be asked, Could encysted dropsy be more effectually dealt with than by simple tapping and evacuation? At this point, and ranging itself around this question, there arose a great crisis in surgical science; and though to you, who almost every day of your lives see operations performed such as even in my early days were not as much as thought of, to those of us who are able to remember it, this crisis was intensely interesting and exciting. Reared and educated in the ancient belief of the sacredness of the peritoneum, we heard of, and we listened, almost with bated breath, to the recital of, cases in which the abdomen had been opened, and such tumours had been emptied and removed! And we wondered at the recklessness of those by whom such things had been done! It might well happen, it was argued, that here and there a solitary case might struggle through, and might in the end recover; but could such recoveries ever be looked upon as likely to become general? As a fact, only few such cases did ever struggle through, and what reasonable prospect was there that such recoveries could ever become numerous?

In any very arduous undertaking or exploration, it is well that a halt should occasionally be called, and that, with an eye to careful scrutiny, a searching glance should be thrown, not only over all that lies yet ahead of the explorer, but also over the way that has been traversed, and over the difficulties that have been overcome. In the science of abdominal surgery, such a crisis as this had now clearly arisen. The way that had been covered had been long, but it had been very fruitless, and the prospect opened up was very tempting; but it was filled to overflowing with difficulties and danger.

We had seen heroism under human suffering carried, as it was thought, to the highest pitch of endurance; and the question was asked, shall I say querulously, Is it possible that the abdomen can be laid open, its contents handled and examined, the peritoneum be freely explored, and that the subjects of such barbarities should yet live? By the majority, such possibility was denied, and by men of the very highest rank in the surgical world such operations were condemned and were pronounced unjustifiable; by some such, it was even declared that the man who dared to undertake them was a murderer! Nevertheless, such things were done, and were now and then successfully done, and surgery was not found wanting in its heroes who were ready to do all and to dare all in its cause.

England cannot lay claim to the origination of the operation of

ovariotomy; for this, the greatest boon that our profession has ever given to the world, and the gift by which the greatest number of useful lives has been saved, was the gift of an American country practitioner, who undertook it in the simple performance of his daily routine, and who thought so little of his achievement, that, for a long time, the world knew nothing of it.

The idea of its performance was suggested to his mind while in England; and if you desire to read an account of him and of his discovery, you will find it given by Sir Spencer Wells in his treatise on *Ovarian Diseases*, and may learn how it was suggested by the eloquence of his teacher John Bell. "It is said of him by his biographer (Dr. Gross) "that he was enraptured by the eloquence of his teacher, and the lessons which he imbibed were not lost upon him after his return to his native country. Bell is said to have dwelt with peculiar force and pathos upon the hopeless character of ovarian tumours when left alone, and on the practicability of removing them by operation." (*Diseases of the Ovaries*, by T. Spencer Wells, p. 294.) So the seed sown in those eloquent lectures of so long ago as 1794 has grown into the strong and vigorous tree of the ovariotomy of to-day. Naturally, in its earlier years, it was but a tiny and slow growing plant; and, if it had not been for other most happy discoveries, the chiefest of which was the discovery of anæsthetics, it might not even yet have attained its present noble proportions. By anæsthesia it has been robbed, not only of its first and greatest horror, the ordeal of the operation itself, and also of much of the nervous shock inseparable from the performance of such an operation, but from many of the dangers inherent in it also, and only to be safely overcome by an expenditure of time which, without the aid of insensibility, could not be endured.

Pleasant as it would be, and instructive too, if time were not an object, to linger over the contemplation of these early days of progress in abdominal surgery, I must not let the temptation overcome me; but simply pointing out to you that it is to the patient, persevering, and indomitable courage of such men as Dr. Clay of Manchester, Sir Spencer Wells of London, and Dr. Keith of Edinburgh, that we owe the great lesson first taught and demonstrated by the practice of ovariotomy, and which it is my object, in this lecture, to impress upon you: that, with reasonable care, prudence, gentleness and patience, operations, involving even the dreaded peritoneum, may be safely undertaken and carried to a successful issue.

Look for a moment or two at the proof of this assertion; and let me imagine that you put to me these broad questions.

To what do you attribute the exceeding difference in the results of the ovariotomies of early, as compared with those of later, days? Is all due simply to increased gentleness, cleanliness, and care? No, certainly not.

Much, very much, has come of accumulated experience, and much has, also, to be set down to the effects of another of the great discoveries of the age, the discovery of antisepticism in surgery.

In the earlier days of this great advance, as I have said, a few, and only a few, cases struggled through to a successful issue; but, year by year, the successes became more numerous, and the deaths fewer, until to-day I am able to point to such a table as this which I hold in my hand, which exhibits the results of the operations performed by Dr. Keith in the Royal Infirmary at Edinburgh during three years, in which, of seventy-nine operations, only five have resulted in failure.

It is very reasonable that you should seek to ascertain how such wonderful results have been brought about, and how an operation, pronounced in its earlier days to be "unjustifiable," should have been brought to such pre-eminent perfection.

Unquestionably, some part of the success may be attributed to the care exercised in the selection of the cases to be submitted to operation; but, I venture to assert, not nearly so much as is generally supposed. Cases which in the early days would, without hesitation, have been put aside as unfit for surgical interference, are now successfully operated on almost every day.

"Adhesions," for instance, or the fear of adhesions, between the tumour and its surroundings, were formerly ranked amongst the evils most of all to be dreaded. Now they are thought comparatively little of, and, when they are found to exist, are for the most part overcome without very great difficulty.

I remember being present, somewhere about 1846 or 1847, at a consultation in which the supposed existence of adhesions was held, by the then most celebrated operator of the day, Dr. Clay, of Manchester, to be a fatal objection to an operation, and in which, when death occurred some months afterwards, no trace of an adhesion was to be found; and I have myself operated, in this hospital, not very long time ago, upon a case in which the tumour was so closely adherent to everything around it, that it took an inordinate length of time to dissect carefully through all the adhesions and to liberate it from the pelvis, and which nevertheless recovered.

In former years, this case would certainly have died, even if it had been completed, because the effect of care in the separation of adhesions, and in the minute tying of all bleeding points, was not sufficiently appreciated or relied upon, and the after-decomposition of the blood effused and allowed to remain in the pelvis was not sufficiently considered.

Now this is one of the points which I put down as a combination of care with the antiseptic principle; for by the antiseptic principle I do not mean just the use of the Listerian spray and cleanliness of instruments, but that, combined with the knowledge that, if decomposable matter be left in the body, whether in the form of blood or of serum, or of any extraneous animal fluid, it may, by putrescence, become the most powerful factor of danger, and may be sufficient to outweigh all other care that may have been expended upon the case. This, without doubt, in my mind at least, was the common cause of a great many of the early deaths; and what should have been regarded as septicæmia was put down to the liability of the peritoneum to inflammation.

Another way also in which this liability to septic poisoning was incurred arose from the method adopted in the treatment of the pedicle. This, indeed, for many years seemed to be the crucial point around which all our difficulties clustered, and how best to deal with the pedicle was the great question of the day.

At first we were in the habit of fixing it, with a stout hare-lip pin in the wound, between the walls of the abdominal incision, and our cases generally did well for the first few days; but no one who has not passed through the experience can appreciate the dread with which we used to anticipate the withdrawal of that pin, and the fall of the stump of the pedicle into the pelvis. That was almost invariably the signal for commencing danger, and it was dreaded accordingly.

That it was to be attributed to the mere presence of the stump itself in the peritoneum cannot be maintained, though, at the time, we used to think so; for we now always drop the stump in from the beginning, and rarely have reason to attribute any evil to our doing so. No, we kept the stump out until it became septic, and then, when it fell into the pelvis, it lighted up further mischief, which only too often ended in fatal consequences.

Next followed the clamp in a great variety of forms, and this, by keeping the pedicle so fixed in the wound that it became adherent to it, and did not slip into the interior, gave better, but by no means perfect, results; and thus, little by little, the study of the treatment of the pedicle, and of the doctrine of septic poisoning together, led us to a truer appreciation of the real danger that lay in our path, and to the exercise of the infinitesimal care, which you now see taken in every case, to leave the peritoneum free from all possibility of avoidable, and especially of septic, mischief when we close the wound.

Another method of dealing with the pedicle, which was extensively followed at one time, and which is even yet, apparently, in favour with Dr. Keith of Edinburgh, was its treatment by the cautery. In following this method, the pedicle is seized by a clamp, and, when firmly secured, the tumour is separated by dividing it very slowly with the actual cautery. The whole of the divided surface is then carefully seared, and if, when it is released from the clamp, it show no bleeding point, it is dropped into the pelvis, and no more is seen of it; if oozing points be seen, they are to be secured before the seared end is lost sight of.

The object of this method of treatment was, and is, clearly twofold; the first aim being to get safely rid of it from the first, before it has had time to become septic; and the second, to do so without the use of extraneous material in the form of ligatures around it, which must be dropped with it into the body. This again, had, for many months, been a fertile source of danger with us; and, when I remember the amount of whipcord, China silk, and other absorbent material with which it was considered necessary to tie it, I really wonder that any case was able to recover. Then, though the cautery stood us in good stead for a long time, it, in its turn, failed us in a few cases; and, by *post mortem* examination, we learned that death had been caused by secondary hæmorrhage from the stump. Hence we were driven back upon the ligature in some form, and so far, for many years, we have depended upon a single thickness of silk strong enough to bear a sufficient strain, and thoroughly carbolised beforehand.

With this, I feel that I have reached the acme of safety at present known with regard to the treatment of the pedicle; and when, in removing such a tumour, I have thus secured it, I drop it, with faith, into its resting-place, and I cannot recall to mind a single case in which I think I can fairly attribute a subsequent death to its presence

there. Perfectly aseptic to begin with, it does no poisonous harm; embedded, as it very soon becomes, in effused lymph, it does no mechanical mischief; and the ligature, being itself an animal substance, is presently entirely removed by absorption, and, ultimately, no trace of it can be found.

Another very fertile source of danger has been found to lurk in the use of sponges, concerning the purity of which it has been possible to entertain a doubt; and I mention this only to justify me in reiterating my belief that a fatal issue, when it arose, more frequently did so from septic than from inflammatory influences; or was, at any rate, more likely to have been initiated by septic than by inflammatory causes. For many years I have made it, when it has been possible to do so, an inflexible rule never to use a sponge twice over for any surgical operation; and the rule which I apply to my sponges I also apply, as far as I can possibly do so, to all my instruments, feeling with regard to them that the least failure in the most scrupulous cleanliness may suffice to outweigh all the care I may otherwise exercise in the performance of any operation.

Such instruments as I cannot have new for every operation, I have freshly cleansed by my cutler, and as perfectly carbolised as possible; and such as I can renew for each operation I do, and especially those most unsafe ones, my needles.

Picture to yourselves the mortification of seeing an ovarian operation, perfectly performed, uncomplicated by any untoward occurrence, and in every particular promising success, but brought suddenly to grief by suppuration commencing in your stitch-holes, and spreading from them to the interior of the wound. This has happened to myself, and I feel confident that I have seen it happen in the practice of others; and I now, therefore, make it an invariable rule, in any case in which I desire union "by first intention," never to use a needle which has been used before. Its cleansing, with the very best intention in the world, may nevertheless have been imperfect.

Now all this is what I mean when I speak of "antiseptic surgery." Some surgeons there are who profess not to believe in the value of antiseptics, and who hold that, by strict cleanliness, all the advantages claimed for antisepties may be secured. This very cleanliness itself is one form of antisepsis, and, when aided by a thorough use of germicides, such as you see practised in this hospital, will go far towards insuring success, which I venture to assert is unattainable without them.

In making this review of ovarian surgery, I have been guided by my desire to make clear, in the first place, my argument that, provided due care be exercised, there is no more special danger in attacking diseases which necessitate the exposure and opening of the peritoneum than of any other of the more delicate structures of the body; and secondly, that it follows, as a consequence of this knowledge, that many diseases formerly deemed wholly beyond the power of surgery, are now almost daily successfully dealt with by the surgeon.

Thus the ovaries are not unfrequently removed for diseases other than ovarian dropsy. These organs are, unfortunately, liable to many other conditions, which, if not equally burdensome and unsightly, are even more painful and exhausting, and which, by general consent of surgical opinion, call equally for their removal. They may be so afflicted with neuralgia as to render life wholly unendurable. Atrophy, indurations, tubercular and malignant degenerations, and adhesions may, in another way, induce such conditions as may render their removal the only price at which ordinary comfort and freedom from pain can be purchased, or by which otherwise uncontrollable hæmorrhage from the uterus can be commanded; and thus it may become a simple duty to remove them—a duty from which no conscientious surgeon of the present day will shrink.

In dealing with these organs, and with the uterus, we have the comfort of knowing that they are organs not essential nor even necessary to life. They perform no functions the loss of which can endanger the stability of the future health of the patient; and their loss, supposing their removal to be recovered from, is a loss not necessarily grievously felt by the patient, either at the cost of future suffering or even discomfort. And of the uterus itself the same may be said; and, as a natural consequence of our increasing boldness in dealing with the peritoneum, many uterine operations, and even the entire removal of that organ also, are now considered well within the range of available and justifiable surgery.

Uterine fibromata are now—I ought not as yet to say often, but, at any rate, occasionally—exposed by abdominal section, shelled out from their bed in the uterine walls, and the cavities from which they have been displaced so closed as to render recovery not only possible, but highly probable; and, unless I am mistaken, you have within very recent times had an opportunity to see such an operation performed and brought to a successful issue.

Even cancer of the uterus, that terrible scourge of feminine nature, hitherto so intractable and so universally fatal, is to some extent, in these days, amenable to the knife of the surgeon, and will probably, as passing years enlarge the surgeon's knowledge, come more and more under his control.

As yet, the operations for the removal of the uterus and its appendages *en masse* have not been what can be called numerous; but such as have been performed have been attended by a reasonable amount of success; and, as it has been with ovariotomy, so, I doubt not, it will be with hysterectomy; that increasing knowledge, increasing appliances, and increasing surgical experience and skill, will bring the operation, in coming years, into greater acceptability, and to greater and more successful perfection.

Thus it may safely be asserted that the victory which has been won by the patient, the enduring, the unquenchable courage of the ovariotomists, has spread over territory to which even they, in the early days of the struggle, never looked; has brought the whole domain of the interior of the pelvis under their sway, and has enabled the surgeon to extend his operations also into unexpected regions.

Let me illustrate this by a few words on the subject of the operation of gastrostomy. Even to such of you as have only commenced the study of surgery in very recent years, this operation has come as a novelty, and yet it is one which has become quickly and firmly established.

I know no form of lingering agony which can be greater in intensity than that slow process of starvation which follows, not unfrequently, upon malignant diseases of the tongue, pharynx, œsophagus, or cardiac orifice of the stomach; and yet, until within times so recent that almost the youngest of you can remember them, we have been powerless to help such unfortunate sufferers, or to assuage the consuming hunger and thirst by which life is made ceaseless torture to them.

Since, however, we have gained more confidence in attacking the peritoneum, we have learned that an artificial opening may be made into the stomach without any very serious risk; and that, through such an opening, food already peptonised, and otherwise so far chemically disintegrated as to be ready for admixture with the duodenal secretions, and for subsequent absorption, may be introduced, so that actual death by starvation may, in such cases, be averted.

It is not within my province in these lectures to attempt to describe to you how the various operations to which I point your attention are performed—that is the province of your systematic teachers; my object is to indicate the principles upon which new operations have been founded and introduced, and, in a very humble but judicial spirit, to endeavour to place before your minds the views concerning them which have become settled convictions in my own.

Upon this subject of gastrostomy, I entertain no doubt, and I have as little that, when its full benefits come to be appreciated as they deserve, it will be much more frequently resorted to than it has been, and that, instead of there being only one Alexis St. Martin in the world, fistulous openings into the stomach will have become so numerous that they will cease to present features even of novelty; and that patients, otherwise condemned to a most painful and lingering death, by the mechanical obstruction to the ingestion of food *per vias naturales*, may yet be enabled to lay down their lives amidst something like serenity and peace.

With a view to effect the same purpose, other novel proceedings have, of late, been proposed, and occasionally carried into practice. Thus, on the same principle that other sphincters, the sphincter ani, the neck of the bladder, the orbicularis palpebrarum, when affected by spasm, by hypertrophy, or both, provided the disease be non-malignant, have been treated by forcible stretching or by division, to set them at rest, so the pyloric sphincter has been also treated.

Professor Loreta, of Bologna, does not hesitate, in such cases, to incise the stomach, and, introducing his fingers into the pyloric or cardiac orifice, as the case may be, forcibly to dilate it, and he reports some half-dozen cases successfully treated in this way.

I have never performed this operation myself, nor have I seen it performed, but I can accept it as correct in principle; and, in any very grave case of dilatation of the stomach which failed to yield to the siphon-tube, I would either perform it or sanction its performance with full hope of success.

Emboldened by these advances, and led in the attempt by the great Austrian surgeon Billroth, attempts have, of late years, been made to deal with malignant disease in portions of the stomach itself, and the complete excision of its pyloric extremity has been several times attempted. That such an operation is mechanically possible has been abundantly proved; and, if the art of surgery were the only or even the chief aim to be held in view in our study of its principles, we

should not be long before we saw it exalted far above its present position.

From time immemorial, the dexterity of surgical manipulation has been the admiration of the world; and, if surgery depended on such skill as the most perfect education of the hand and of the eye could confer, it would long ago have reached its acme; but, invaluable as the art of surgery may be, it is to its science that we must ever look as its crowning glory; and, unless an operation have something to recommend it beyond the mere possibility of its mechanical performance, I do not think it is likely to stand the tests of time and of extended repetitions.

Judged by this standard, let us look at this operation of excision of the pylorus. That it is mechanically possible has been proved beyond question. Only a few weeks ago, while I was travelling with Mr. Jessop, he told me that he was about to perform this operation; and, in a few days afterwards, that he had done so. I was not fortunate enough to see the operation; you, doubtless, many of you were; and so recent an advance in surgery is it, that I do not for a moment hesitate to tell you that I have never seen it done. But, talking afterwards with Mr. Jessop of this case, he told me the lessons he had learned by its performance. It proved a very long and tedious proceeding, and it required infinite patience. The process of stitching together the divided segments of the alimentary canal, had been almost less difficult than he had anticipated, and more one of time than of anything else. The number of stitches required had been very great, but, in the end, the junction effected had been so perfect, that, had the patient lived, he should have had no fear whatever of leakage.

Unfortunately, the patient died; and, at the *post mortem* examination which followed, Mr. Jessop was able to prove and to demonstrate the perfection of the union, for, by attaching the stomach to the pipe of the water-cistern, he had been able to subject the junction to the full pressure of the water-power of the town without the escape of a drop. The art of the operation had, therefore, been perfect beyond dispute; but the examination revealed other points bearing upon its science, which place it in a different aspect. It showed, first, that, at any rate in this particular case, the operation, had it even succeeded primarily, would have come too late. The surrounding mesenteric glands were implicated, and were infiltrated with cancerous material; the disease, so far from being localised and confined to the pylorus, was diffused among the surrounding structures, and was not capable of entire removal; and, had the patient recovered from the operation, must very speedily have so increased as to prove fatal. All this, Mr. Jessop attributed to the delay which had taken place, and the time that had been wasted before resort was had to operation; and he expressed to me a pretty confident hope that, had he another opportunity in an earlier stage of the disease, he should be more successful, and that he should certainly not be dissuaded by anything he had seen in this case, from attempting it again under other and more favourable conditions.

And yet I doubt whether this operation will ever come to occupy a recognised place in curative surgery. Will it ever be resorted to for anything except for malignant disease? And, if only for cancerous conditions, with the certainty we have of the return of the disease, will the risk of the operation ever be worth the running, except as a last resource, when temporary and very evanescent relief is all that we can hope for from it? So powerful is the instinct of self-preservation, so strong the love of life, that here and there, perhaps, a gamester may be found to stake all upon the throw; but that the mere palliation, which is all that the surgeon can honestly promise as the result of his most effective and successful intervention, will ever be accepted as a sufficient inducement, save only to the very few, is, in my opinion, almost certain. I ought not, while speaking on this subject, to pass by—without allusion, at any rate—a recent attempt that has been made to secure for the patient the advantage to be derived from excision of the pylorus without running quite so serious a risk as must necessarily be involved in so grave a proceeding as its entire ablation. It has been sought, in such cases, to attach the lower end of the duodenum, or the upper portion of the jejunum, to the stomach, and, by opening a communication between these parts, to leave the pylorus out of the track of the food altogether, and so place it at absolute and final rest; but as this, and similar operations in other portions of the intestinal channel, are as yet only, as it were, "in the air," I shall content myself just now with simply naming them. Should we live to meet again another year, I may perhaps have something more to say of them.

What I have said of excision of the pylorus will also, in my judgment, apply to another attempt that has, of late years, been made in the same direction; namely, the excision of the diseased structure in cases of chronic obstruction of the bowel by a ring of cancerous growth. I have seen such a portion of bowel removed, and removed with an amount of skill, precision, and delicacy, that the mere art of surgery could not surpass, but with the same scientific aspect; the mesentery, which must be left, infiltrated, the system already impregnated, and the return of the disease certain; and yet, in many, very many, of these cases of chronic obstruction, I would not withhold the knife altogether.

Seeing how often it may arise from causes wholly independent of malignancy, and how difficult, how frequently impossible, an accurate diagnosis is, I think a patient so suffering should have the advantage that may possibly arise from an exploration placed fully before him; and I would urge the examination, by abdominal section, of the obstructing cause; but, if I found that cause to be a ring of cancer, I should hesitate most seriously before I proceeded to its removal; not that I should think it unjustifiable, but simply useless, and as likely to put out the little flame of still flickering life, or to revive it only for an extension of future suffering.

On the general subject of obstruction of the bowels and its relief by operation, I should like to say a few words, and to gather up, for your benefit, the experience of my surgical life. As a student, I never saw such a thing as an abdominal section for the exploration of such a case. I never heard it discussed in consultation. So long as any outward hernial cause could be detected, it was, of course, promptly examined, but when the obstruction was purely internal, palliative measures were all I ever saw attempted. I have seen the inflated and distended bowel punctured to give exit to its gaseous contents, and even that was looked upon as a great and dangerous thing to do; and of a truth it was so, for, while quite as likely to produce fatal mischief by the admission of fœtid gas into the peritoneum as a more decided operation, the temporary relief afforded from pain and spasm was scarcely worth the risk that was run, and the remedy was never curative.

In the present day, as you know, many lives are saved, and are as valuable after an exploration as they were before, or more so; and the only question we have to determine is, the propriety or otherwise, in any given case, of an operation.

Where the obstruction is the result of prolonged peritoneal inflammation, and consequent enteric paralysis, it is manifestly absurd to suppose that any good can come of surgical interference. But there is a result of such peritoneal inflammation in which, by timely help, the surgeon may save life as easily as he does when he liberates a strangulated hernia.

By peritonitis, two or more coils of intestine may have become glued together, or bands of lymph may have been so stretched from point to point as to form snares, in which loops of healthy intestine may be caught and trapped, and life may thus be brought into sudden peril.

Such cases are usually as acute in the symptoms they produce as external herniæ are, and the symptoms by which they are accompanied are of the same order. Thus, a person in otherwise perfect health, at least as far as is known, is seized quite suddenly with severe abdominal pain, which soon culminates in prostration, nausea, hernial vomiting, with local distension and great tenderness of the belly, and complete constipation. No hernial tumour can be found, and yet all the symptoms are those of hernia, with strangulation; and, in the name of surgery, we are bound to explore the belly to see if there be not some such temporary obstruction, capable of relief.

If it can be ascertained that the patient has, on any former occasion, suffered from peritonitis, enteritis, perityphlitis, or from any inflammation likely to have been productive of lymph, which may have become stretched out into bands, so much the greater is the call for interference.

Even as I write these lines, many successful cases rise before my memory; and notably one in which a little boy, believed by his parents to have been in perfect health all day, was seized during the night with symptoms such as I have detailed. Every indication of acute strangulated hernia was present when I saw the child, early in the morning; and yet no hernial swelling could be found. After watching the case for a few hours, and seeing that collapse and death were becoming imminent, I placed the necessity for an abdominal exploration before the parents, and was rewarded by receiving their free permission to do whatever I thought might save the child. What I found was a small portion of one side of an intestine, not by any means an entire knuckle, tightly trapped in the left internal inguinal ring, quite insufficient to make any external appearance, but which I was able, without difficulty, to liberate from within; and the release of which was followed by immediate and perfect recovery. After the boy got well, he admitted that, during the day, he had fallen head over heels

down a long flight of stone-stairs, but had determined not to say anything about it to any one.

In acute cases such as this, then, I think the course of the surgeon is quite clear. He may find a band, or some temporary obstruction, which he may be able to relieve; he may find an intussusception, which he may be able to unfold; or an internal hernia, of some kind such as I have described.

Much more difficult cases to deal with are those of slower development, and less urgency of distress; such as may arise from occlusion by fæcal accumulation, by some localised inflammation, by chronic invagination, or by implication in some diseased process, not inherent in the intestine itself, but in surrounding parts, and involving it. In such, we have more time for deliberation; and by careful observation, we may generally, I think, come to a safe conclusion as to whether nature may be trusted with the case, or whether an exploration has become necessary. But we are more liable to be misled in these than in the former cases. Let me relate a case in point.

I was once summoned to such a case at a distance, and was urged by the practitioner in attendance to explore. I at once declined, on the ground that the symptoms were neither sufficiently urgent to demand so serious a proceeding, nor was the time during which they had existed sufficiently long.

Moreover, I received from the patient, in justification of delay, the assurance that, on three previous occasions, she had passed through similar and worse symptoms and recovered, and felt quite sure she should do so again. I left her, and, I must say, felt no very great anxiety about her; but, on the fifth day afterwards, I was hastily summoned to her again, and found her in a condition of collapse, from which I saw in a moment that she could not recover unless something could be done by operation, and I proceeded to operate at once. I shall not readily forget the distress I experienced when I saw the solution of the difficulty, for I had lost an opportunity to save a life that might, perhaps, have been saved. Stretching from the left ilium to the front of the sacrum was an old inflammatory band, which formed a bridle across the rectum, and lightly obstructed it. Fæces passing from the sigmoid flexure into the rectum were, to some extent, obstructed by it in their course, and such obstruction had, no doubt, been the cause of the previous illnesses of which I had heard. But this time there was this much more: a large intestinal concretion, probably of biliary origin, had got so far on its way as the obstructing band; that it could not pass, and the band was too strong to yield; so in the struggle between them the intestine had become gangrenous around the obstruction, and had given way.

Of course, the patient died, and, though I could not charge myself with the blame of her death, I have never ceased to feel that, had I operated when I was first urged to do so, she might have been saved.

Then, finally, there are those long continued cases, manifestly chronic, commencing originally with almost unnoticeable symptoms, which go on growing worse and worse from week to week, and from month to month, until at last it becomes a case of either death or operation, and probably of death any way. These are the cases which generally depend upon abnormal growths of some kind or other, either in the intestine itself, or in neighbouring structures, in which, as I have said, I should feel inclined to explore as a *dernier ressort* and be guided by what I found as to what I did.

Into one or other of these three classes most cases of intestinal obstruction will fall; and just as the bent of your judgment is of the very active surgical order or the reverse, so, probably, will your practice be; and if you live to enjoy length of days, and much surgical experience, I feel pretty sure that, in the end, you will come to very much the same conclusion as I have done.

District Nursing.—A very good work is being done by the various organisations for providing skilled nursing to the sick poor in their own homes. When this can be combined with a system of supplying the needs of small tradespeople, skilled artisans, and others able to pay a moderate fee, the work is not only more useful, but rests on a sounder basis. The East London Nursing Society recently held its annual meeting at the Mansion House, and the report gives a good idea of the magnitude of the work which may be done for a comparatively small expenditure. The number of serious cases attended was 1,577; of slight cases, 2,189; the total number of visits, 58,610; cases of night-nursing, 142; 1,426 of those nursed were women, many of them mothers of families; 621 were men, in almost all cases bread-winners; 492 were children under 14. This is one way, and a very good way, of relieving the congestion of which the hospitals complain.

LECTURES
ON
THE COMPRESSED AIR BATH AND ITS USES IN THE TREATMENT OF DISEASE.

By C. THEODORE WILLIAMS, M.A., M.D., F.R.C.P.,
Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

Lecture I.

The use of atmospheric air, under different degrees of barometric pressure, in the treatment of disease, is one of the most important advances of modern medicine; and when we consider the simplicity of the agent, the exact methods by which it may be applied, and the precision with which it can be regulated to the requirements of each individual, we are astonished that, in England, this method of treatment has been so little used.

In therapeutics, air is employed in three ways.

1. At diminished barometric pressure, or rarefied. 2. Air at increased pressure, or compressed air. 3. Air mixed with other gases and compressed.

Rarefied air was first applied to the human body by Junod, who, in 1835, contrived a hollow copper ball, $1\frac{1}{3}$ mètres in diameter, to hold a man, and, by an exhausting apparatus, reduced the barometric pressure one-third, producing distension of the membrana tympani, dyspnœa, chiefly in the form of quick short respirations, turgescence of the superficial vessels of the body, as seen in the eyelids and lips, and diminution of the salivary, renal, and other glandular secretions. Junod, not being favourably impressed by these experiments, betook himself to the localised application of rarefied air to various parts of the body, in which he had more success, for his inventions of cupping-glasses, and of Junod's boot, by which atmospheric pressure can be reduced over large surfaces of skin, have been, and are still, largely used with great benefit.

Another method of reducing atmospheric pressure locally, is Waldenburg's apparatus, in which a mask closely fitting the mouth and nose is connected with an exhausting aspirator, and air is thus drawn from the lungs, giving rise to the respiration of an attenuated atmosphere.

Another way of using air at reduced pressure is by balloon-ascents, in which any and every degree of diminution can be attained, from the slight reduction experienced in captive balloons, often sent up at fairs and places of public amusement, to the extraordinary results of Glaisher's and Coxwell's adventurous voyages, where the reduction of the barometric pressure to $9\frac{3}{4}$ inches showed an elevation of 29,000 feet; and it is possible that even a greater altitude, and corresponding diminution of pressure, was reached by these aeronauts, after Mr. Glaisher had lost consciousness, and could no longer register observations.

The rapid ascent of balloons, the difficulties of steering, and the impossibility of remaining long in them, render this form of reducing pressure of little use for therapeutics. The most usual method, and the one best adapted for our purposes, is residence at high altitudes; and fortunately, among the various mountain-ranges, we have, in all latitudes, an abundant choice of sites at various elevations and exposures, where we can try the influence of rarefied atmospheres on invalids. While at Davos (5,200 feet) we get a diminution of 5 inches in the barometric pressure, at La Paz, the capital of Bolivia (13,500 feet), it amounts to 12 inches, and we have examples of every intervening grade of elevation. The heights principally used for treatment range from 5,000 to 10,000 feet, giving barometric pressure of from 25 inches to 20.5 inches, and a diminution of from 5 inches to 9.5 inches. It is not the object of these lectures to consider the effects of rarefied air in the human organism, which has been dealt with elsewhere (Treatment of Phthisis by Residence at High Altitudes, *Transactions of the International Congress*, 1881), but rather to treat of the second subject, namely, air at increased pressures, such as is to be obtained in compressed air baths. We know that the air of mines is considerably condensed, and that, if a shaft could be sunk 45 miles deep into the earth, the air at the bottom of it would be as dense as quicksilver; but no mines have been made deep enough to modify

barometric pressure to the inverse extent of that observed on mountains, and our principal results from compressed air come from the employment of diving bells and diving apparatus and pneumatic tubes, used in the construction of piers and bridges, of arches, and the like. In many of these enterprises men have worked, for hours at a time, at a pressure of from 2½ to 4½ atmospheres, and, when proper precautions were observed, apparently without harm. I am largely indebted to the great and masterly work of *Pression Barométrique*, by Paul Bert, for many of the facts cited in this lecture. The amount of evidence which these experiments afford as to the influence of compressed air on the human body is so extensive, and bears so directly on our present subject, that I make no apology for citing some of the leading facts, which we shall find useful in three ways; first, showing the limits of endurance of the human body; second, in demonstrating what steps of the process are dangerous, and what are not so; third, as indicating the means by which peril can be averted.

The pressure of air in diving bells depends entirely on the depth of water reached, which is sometimes considerable; but as the difficulty of renewing the supply of air was great, these instruments were soon replaced by diving dresses and pneumatic tubes.

The symptoms noticed on descending in bells to a depth of about 30 feet, were pains in the ears, noises and even deafness, a sensation of tightness, as if the head were bound with a band of iron. These phenomena only accompanied rapid descent, and ceased entirely when the bottom was reached. The ascent was generally described as more agreeable, but according to Colladon there was a feeling, as if the bones of the skull were separating; no changes in the pulse or respiration were noticed.

Triger's invention of the pneumatic tube was soon applied largely for the construction of bridges, piers, etc.; and inasmuch as by this means air could be pumped in to the extent of three or four atmospheres, a large number of workers were enabled to remain at their labours below the level of the water for several consecutive hours.

It appears that, in many instances, no special symptoms were experienced, but, in some works at Douchy, out of 64 workmen, 32 suffered more or less, of whom two died. On the other hand one, an asthmatic, improved in breathing, and another, a chloro-anæmic individual, gained colour. Of 22 workmen who commenced labour at 4·15 atmospheres, one had slight hæmoptysis, eight experienced muscular pains in different parts of the body, some lasting for several days; and one, a man aged 40, of very robust appearance, who descended the tube only once, died immediately after leaving the tube, the pressure having been reduced in 20 minutes. *Post mortem* examination showed general cutaneous emphysema (not of decomposition), congestion of the lungs of a specially dark tint, the liver, spleen, and kidneys engorged, the blood fluid, and quite black in the heart. Nothing abnormal was observed in the brain, cerebellum, and meninges.

In another case, where reduction of pressure was too rapid, the workman, after exit from the tube, had a corpse-like aspect, with livid face and pupils enormously dilated. The pulse was not perceptible, and the heart-sounds could barely be heard. He became unconscious. Complete muscular paralysis followed unconsciousness, and urine was voided involuntarily. Under warm baths and friction he gradually recovered, but the sight remained affected.

In another case, these symptoms were still more marked, and the patient recovered with weak vision, and was stone deaf.

During the laying of the foundations of a bridge at Londonderry, in 1861, Messrs. Babington and Cuthbert reported accidents among the workmen; one where a man, aged 18, during the reduction of atmospheric pressure, fell down unconscious. He remained in a half comatose condition for eighteen hours, and then, recovering consciousness, found himself totally paralysed below the level of the fourth rib. He lived for over five months, but never recovered sensation or motion.

Another had the same symptoms as the last, except that his paralysis commenced below the eighth dorsal vertebra, and he only survived eight days.

In another case, again, the paralysis was less extensive, being chiefly limited to the right side of the face, the patient was bled, and the blood found to be black and pitchy. The man died after twenty-four hours.

A great bridge was made at St. Louis, United States, the workings being at the depth of 33.70 mètres, at low tide, under a pressure of 4.45 atmospheres. Of 333 workmen, only 30 were seriously affected, of whom 12 died. The doctor of the works remained 2¾ hours at a depth of 90 feet. The reduction of pressure was performed in from 3 to 4 minutes. Dr. Bauer noted in the slighter cases muscular pains with choreiform contractions, and hæmorrhage from the nose and lungs. In the grave cases, there was paralysis of different degrees, varying from slight paresis to complete loss of movement and sensation, paralysis of bladder, and urine sanguinolent. Death occurred by coma. The *post mortem* appearances showed hyperæmia of the cerebral and spinal meninges, some œdema of the arachnoid, with softening of the brain and spinal cord.

In one case, the softening occupied the anterior cornea and the lateral striæ throughout the whole cord.

Compressed air is employed also in the apparatus by which divers carry on operations at depths of 54 mètres and less, but it must be remembered that the conditions are not quite the same, owing to the additional pressure of the water on the bodies of these men, which, at that depth, equals 6.4 atmospheres. Accidents seem more common, and deaths are far from rare. It was calculated that, among the sponge-divers of the Greek Archipelago, the mortality was ten per cent., and this does not include the minor accidents. They appear to suffer in much the same way as those working in pneumatic tubes, only more severely; prickings, muscular pains, and pains in the joints are complained of, the prickings (*les puçes*) never taking place where there is perspiration, and the muscular pains being most marked in the muscles principally used by divers. One diver had epistaxis at the bottom of the sea, which was repeated in a second descent, and accompanied by severe pain in the head. The serious accidents consist of paralysis of different kinds, and invariably occur after the diver has left the water. The general form is paraplegia, including paralysis of the bladder and of the sphincter ani. In some cases, the loss of power extends to the upper extremities, and is accompanied by loss of sensation over the whole body. Some of the deaths occur immediately after leaving the water, and appear to resemble those which took place at the works at Douchy. A *post mortem* examination after one of the deaths from paralysis showed extravasation of blood between the spinal dura mater and the arachnoid, and the greater part of the spinal cord itself in a condition of softening.

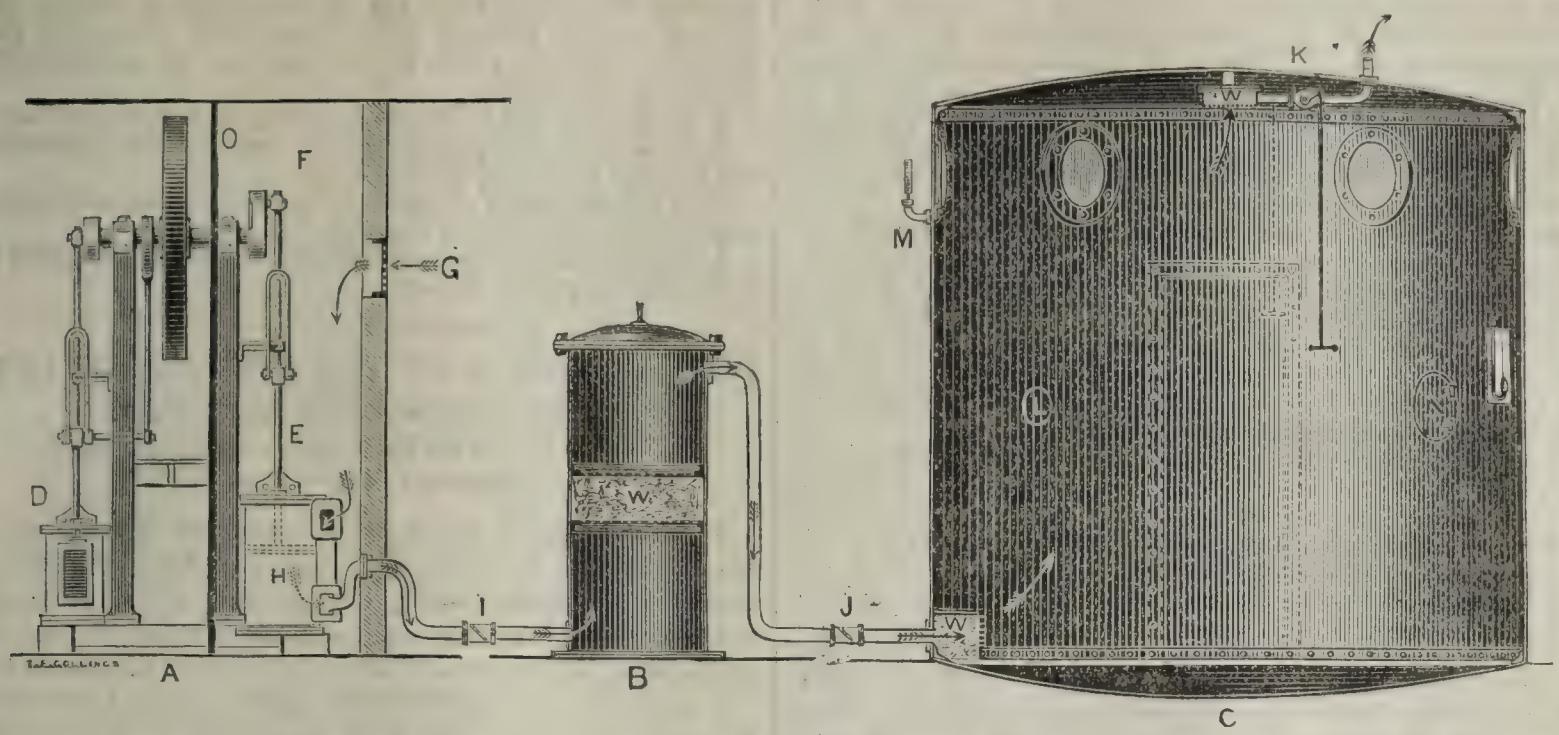
M. Bucquoy made observations on the circulation in compressed air-tubes, and, from a large number of instances, concluded that, in the first increase of pressure in the tube, the pulse rises about twenty beats; and that some increase is maintained during the whole stay, falling, at the end of an hour, to seven above the normal; and M. Gal's observations on the pulse of the Greek divers exactly corresponds, for he found, as a rule, an increase of from seventy to ninety beats. M. Bucquoy also found that the respiratory rate increased temporarily, but that such increase lasted only about fifteen hours after returning to ordinary conditions. We must bear in mind that, in both pneumatic tubes and in diving, the workmen are engaged in arduous labour, naturally involving an increase in the pulse and respiration rate.

On reviewing the accidents narrated, it would appear that they were much more due to the reduction of the high pressures than to the high pressures themselves. Very few symptoms appear to have been noted during high pressure in the tubes; and it is marvellous how well high pressures were borne; but most of the accidents occurred either during rapid reduction of pressure or subsequent to quitting the tubes after this. In many instances, pressure of 4.45 atmospheres was reduced in three to four minutes—a proceeding which has been proved by experience to be fraught with danger. The symptoms seem principally to be due to lesions of the nervous system, commencing with dyspnœa, quickening of the pulse, muscular pains of more or less intensity, and gradually increasing in severity; then come the different forms of paralysis, including loss of sight and hearing, paraplegia, stupor, loss of consciousness, coma, and death. The divers appear to suffer more intensely than the workmen in compressed air-tubes; but among them, also, the accidents were almost invariably due to rapid diminution of pressure.

It was found that young men bear compressed atmospheres better than the middle-aged.

The accidents appear to have been more common after long exposures to high pressures than after short ones, even when the rate of reduction of pressure was the same in both cases. There is another element of danger which we must not underrate; that is, the diminution of temperature which the rapid reduction of high pressure necessitates, and which must, by cooling the extremities, drive more blood up to the central organs, and specially into those well protected from variations of atmospheric pressure, such as the brain and spinal cord. The experience of all authorities points to rapid increase of pressure as the best method of correcting any bad symptoms shown during the period of reduction.

The number of apparatus devised for condensing and rarefying the air is very large; for, in addition to air-baths, to be described pre-



sently, there are many methods in which the air is inspired through a mask closely fitting to the nose and mouth.[1] Of these, Hauke's was, perhaps, the earliest, of which Waldenburg's, alluded to before, is a modification. This consists of a hollow metal cylinder or bell, containing a certain volume of air, which is plunged into a second and reversed cylinder, containing water. By means of pulleys and weights, an equilibrium is established, and a pipe is passed from the air-cylinder, through a drying box, to a mask fitting the patient's month, enabling him to respire the air, which can be either rarefied or condensed by raising or lowering the cylinder in the water. This is done in the first instance, by drawing off water, in the second, by placing weights on the cylinder. Schnitzler's is a further and simpler modification of the same system. Some, as Cube's, and Schnitzler's second form, are double apparatus, and consist of two cylinders, one for condensing and the other for rarefying the air; both are connected by pipes with the inhaling mask, and taps regulate the supply of one or the other to the patient's lungs. A third form is Biedert's, who arranged a species of leather bellows to compress or rarefy the air as required; but the most ingenious example of this form is Fränkel's, which consists of a kind of portable concertina, simple and cheap, and capable of being worked by the patient himself, the objections being the contracted attitude necessary for this purpose, and the impossibility of regulating the pressure. This little instrument is recommended by Oertel for the treatment of asphyxia by artificial respiration.

A fourth form is the apparatus of Geigel and Maydr, constructed on the principle of the centrifugal pump, by which air is stored up in a central reservoir, being compressed by the action of water.

Ingenious as the above methods are, all have this objection, that their efficacy depends on the completeness with which the patient applies the breathing mask, and also on the amount of pure air available. As a rule, the use of the mask is exceedingly irksome, and many complain of its inducing faintness and headache. It is also impossible to keep up a proper supply of fresh air at the requisite pressure, and consequently there is the danger of rebreathed air. For these reasons, the surrounding a patient with an atmosphere of condensed or rarefied air, which he can respire without let or hindrance from artificial mouth-pieces, is preferable, and air-baths are consequently more easy of application. Nevertheless, the above forms are of great use when compressed air-baths are not available, and when it is advisable, after a course of such baths, to carry on the treatment by condensed air for long periods in the patient's home.

The use of compressed air-baths in the treatment of disease is greatly in vogue on the Continent, where no fewer than fifty establishments exist. For France, there are two excellent ones in Paris, and others at Montpellier, Lyons, and Nice. For Germany, they are to be found at Berlin, Hanover, Stuttgart, Johannisberg, Ems, Wiesbaden, Reichenhall, and Altona; for Switzerland, at Zurich; for Belgium, at Brussels; for Sweden, at Stockholm; for Russia, at St. Petersburg; and for Italy, at Milan. Besides these, others exist scattered throughout Europe.

[1] For a full list, see Oertel, *Respiratorische Therapie*.

In England, there are establishments at Ben Rhydding and Ilkley and, till recently, one at Malvern; but there were no others, so far as I know, in England—not even in this great city, which ought to be ever in the van of progress—until the Committee of this hospital constructed one, at great expense, in the new building; an example which, we trust, will be soon followed elsewhere.

The construction of these air-baths varies considerably; the size depending on the number of patients to be accommodated, but the following are the necessary elements.

1. *A circular or ovoid iron chamber*, much resembling an engine-boiler in appearance, constructed in wrought-iron, at least $\frac{3}{16}$ths of an inch thick, strengthened by girders and ribs of iron, provided with windows of thick plate-glass, and a stout door not larger than sufficient to admit one person at a time. Both windows and doors must fit closely enough to be air-tight, though, as a rule, the centrifugal pressure of the air contained in the chamber renders this easy. The chamber is furnished with the following: (1) an inlet pipe for the supply of fresh air; (2) an outlet pipe for the escape of vitiated air, and for the reduction of pressure; (3) an air-tight cupboard, through which food and drink can be passed to the inmates; (4) other outlets, one in the form of a whistle as an alarm signal in case of bad symptoms, and another with a safety-valve attached to prevent the pressure being excessive. The thickness of the wall depends on the amount of pressure to be used. A thickness of $\frac{3}{16}$ths of an inch sheet-iron easily sustains a pressure of 10 lbs. on the square inch, the amount most generally employed. The circular form of chamber, with an arched roof, is the one best calculated to resist pressure from within, and has, therefore, been adopted in this hospital. At St. Petersburg, one bath, consisting of two chambers, is constructed of stone, and fitted with double doors, after the fashion of the previously mentioned air-tight cupboard, allowing entrance and exit without alteration of the air-pressure within. There is also a water closet, and patients may, if required, spend several days in these two chambers. At Reichenhall, there is a large iron chamber holding nine persons; and in one of the Paris chambers six or seven may be treated at once; while at Dr. Fontaine's establishment each chamber or *cloche* can only hold two patients. Our bath measures 10 feet in diameter and 8 feet in height, and is constructed to accommodate four persons.

2. *Apparatus for compressing the air.* This is generally done by a steam-engine; the one used at this hospital being of 8 horse-power. At M. Fontaine's bath, hydraulic power is used, the ordinary water-supply pressure of the City of Paris being turned to account to work a very ingenious hydraulic pump, which compresses the air without materially raising its temperature. This method has some advantages, for the air escapes the chance of being heated and rendered unpleasant by contact with the boilers; but by using steam, the pressure can be more quickly increased and steadly maintained.

3. *A central reservoir*, to receive the compressed air, from which it can be drawn off, at will, into the separate chambers. This is the case at Reichenhall, where three baths are connected with a large anti-chamber, into which the air is pumped; and certainly the supply is likely to be more steady and the current more even, the puffs arising

from each descent of the piston not being felt in the chamber itself. In most establishments the air is pumped directly into the bath, the supply pipe entering near the floor. In many, as at Johannisberg, Zurich, and Berlin, the pump is arranged to rarefy, as well as to condense the air, and this is done by a modification of the valves, or rather by reversing their positions. It is much to be regretted that some arrangement of this sort was not made here, but the initial cost, already very great, was an obstacle.

A receiver for filtering the air from the dust and mechanical impurity is often inserted between the compressor and the air-chamber. It generally consists of a small cylinder or box containing layers of cotton-wool, through which the inlet-pipe passes immediately before its entrance into the bath. In hot weather this cylinder may be partially filled with ice, to reduce the temperature of the air. If this receiver be large enough, it also answers the purpose of a reservoir, and converts the puffs of air into an even current.

On page 771 is a drawing of the Brompton Hospital compressed air-bath, kindly made for me by Mr. Blake, the manager of Messrs. Haden and Sons' works, who were the contractors. It consists of three parts; the engine (A), the receiver (B), and the air-chamber (C). A includes a steam-engine D, which, by means of a fly-wheel and crank, works a second engine, E, in another and separate compartment, F. E is the air-compressing engine, with a cylinder containing an inlet-hole and an outlet-hole, and in this cylinder works the piston H, the plate of which is perforated by diaphragm-valves, which are not here shown, and which close during the descent of the piston and open during its ascent. The air from outside enters the compartment F through the inlet G, and follows the course indicated by the arrows. Entering the air-cylinder, it is driven forward by the piston, through the pipe, I, into the receiver B, containing layers of cotton-wool, W, into the air-chamber. Both I and J contain valves to prevent a return current. The air leaves the bath by an outlet-pipe in the roof, which is always open, the strength of the current through it depending on the rate at which the engine works. M is a safety-valve which opens wide and blows a whistle, when the full pressure of 10 lbs. is reached. L is a glass spyhole, through which the inmates can be watched. N is an airtight cupboard, fitted with double bolts to adjust the pressure, and to enable food and messages, and, if necessary, medicines, to be passed in. Apparatus to regulate the escape of air, which can be worked both from within or outside the bath, complete the chamber, which is lit from without by stout plate-glass windows, and fitted with a strong iron door. The air can be changed about five times in the two hours.

The chamber itself in all cases is furnished with chairs and tables, a water-bottle and glasses to meet the thirst and uncomfortable throat-symptoms, which often accompany increase of pressure; also with a pressure-gauge to record the variations, and a thermometer and a wet and dry bulb apparatus.

Care should be taken that the air be supplied from a pure source, like an open space, as a garden or court-yard, away from all machinery or drainage. It should be filtered through cotton-wool, and the temperature regulated as far as is possible. In some baths there is an apparatus for heating the air, but in our own the temperature has generally been too high rather than too low, and in the hot weather it was found necessary to pass the air through an ice-box, to reduce it sufficiently for the bath purposes. The dryness is seldom a trouble, and a saucer of water on the table will correct it by evaporation.

In some of the German baths, in winter, the temperature falls so low that it has been found necessary to pump in air specially heated. The amount of compression used for medical purposes is small, and varies from ½ to 1½ atmospheres. Here we do not exceed 10 lbs., that is, about two-thirds of an atmosphere, which is ample for the treatment of lung-diseases, and even before the pressure is reached complaints are made of headaches; as a rule, a pressure of 7½ to 9 lbs. is sufficient to produce the ends we have in view.

A bath, or sitting, generally occupies two hours; half an hour being spent in gradually increasing the pressure, which is maintained for a whole hour at the maximum, and half an hour in gradually decreasing it to the minimum. The rate of increase or decrease should be 1 lb. in two or three minutes. The number of baths to be given must depend on the case, but at least a dozen are required to produce permanent improvement, and sometimes 30, 40, or even 100, are needful.

During compression the air increases in temperature, and this is, of course, more the case when the bath is occupied. During reduction of pressure there is sometimes a slight fall; but what is most marked is the deposition of moisture, which is seen on the glass windows during this process, and which, when the door is opened, often amounts to a mist in the chamber. This is, of course, due to the quantity of moisture which the air was capable of holding in suspension at a high pressure being diminished when that pressure is reduced. The chief points to be aimed at in the management of compressed air-baths are:—

1. To increase and reduce pressure as gradually as possible.
2. To keep the temperature of the bath within reasonable limits, say between 60° Fahr., and 65° Fahr.
3. While increasing or maintaining the pressure, to provide for the escape of the used up and contaminated air.
4. If bad symptoms have arisen from increase or decrease of pressure, to reverse the process at once.

ON SOME POINTS IN THE ETIOLOGY OF PHTHISIS.

Read before the Medical Society of London.

By I. BURNEY YEO, M.D., F.R.C.P.,
Physician to King's College Hospital.

I do not propose in this short paper to travel over the whole of the ground involved in an inquiry into the etiology of phthisis; but I wish to take this opportunity of examining, a little in detail, certain statements that have been made, and certain criticisms that have been put forward, in recent contributions to this most important discussion.

I shall offer no apology for bringing this subject before this Society; for, until the truth, whatever it may prove to be, has been firmly established and generally admitted, as to the causation of a disease so widely spread and so fatal as phthisis, frequent and repeated inquiry becomes our duty. More especially is this the case, since the discovery by Koch of the bacillus of tubercle has lent additional interest and impetus to the inquiry whether phthisis does, or does not, originate in the direct or indirect communication of the exciting cause of the disease from one person to another.

The important practical question of prophylaxis is intimately associated with this discussion; and it is, therefore, urgently incumbent upon us to endeavour to ascertain clearly what is the truth in this respect.

Some of the criticisms to which I shall have to refer have had reference to the Report of the Collective Investigation Committee of the British Medical Association, on the Communicability of Phthisis; and, although the whole of the subcommittee entrusted with that inquiry accepted the responsibility of that report, I, as its author, am more directly concerned in defending it from misinterpretation.

One of the most considerable and interesting contributions to the inquiry into the etiology of phthisis that we have had of late years, is to be found in Dr. Andrew's Lumleian Lectures, delivered last year before the College of Physicians. I need not say that the argument which runs through these lectures is stated with great ability and ingenuity; that they are replete with interesting observations and important illustrations; and yet, I am forced to contend that the conclusion arrived at therein is altogether erroneous. As the authority of their author is so deservedly great, and as the occasion which called forth the expression of his opinion was also authoritative and influential, it becomes all the more important that we should examine in detail the doctrines thus set before the profession.

First of all, it is necessary to keep in our minds Dr. Andrew's admissions. "I am well content," he says, "to accept the bacillus of Koch as the essential cause of phthisis, and that, too, in the extreme form in which the doctrine has been stated to me by my colleague, Dr. Klein—namely, 'no tubercle without bacillus, no bacillus without tubercle;'" and, subsequently, he shows with much force how "the hypothesis of a specific organism, present in all cases of phthisis, as its proximate exciting cause, clears up and reconciles the obscurities and contradictions which exist in every branch of the subject."

Having made this admission, the whole of his subsequent argument rests on the following assumption: that the bacillus of tubercle has an "independent" as well as a "parasitical" phase of existence; and the truth of this assumption has to bear the whole weight of the conclusion, that phthisis is neither directly nor indirectly communicable!

This argument may be thus briefly stated. Phthisis is always caused by a specific micro-organism, without which there can be no phthisis; but this organism can and does only give rise to phthisis in man and animals, when it exists independently of any "host," that is, when it is non-parasitic.

The author of this argument does not seem the least embarrassed by the consideration, that the hypothesis of the "independent" existence

of the "bacillus of tubercle" has not a single demonstrated fact to rest upon; but he considers it justified by an ingenious, but, to my mind, a wholly inconclusive and greatly strained analogy between phthisis and ague.

Let us consider this point somewhat carefully, for it is the essential basis of the whole argument contained in those lectures.

The bacillus tuberculosis, it is maintained, must be in an "independent" and "non-parasitic" phase of existence, in order to be capable of causing phthisis in men; that is to say, in a phase of existence in which it has never yet been known to exist. For we have no knowledge whatever of the bacillus of tubercle, except as a parasite.

Dr. Andrew has not stated his argument quite in this direct and bare manner; had he done so, I cannot help thinking he would have been a little startled at it himself. For, if he were to admit that the parasitic bacillus is capable of engendering phthisis in the human subject (apart from inoculation-experiments), then his argument admits another remarkable development, which I will venture to give it. It would run thus.

There is a bacillus of tubercle found existing as a parasite in certain men and animals; it is capable, in its parasitic form, of exciting phthisis in other men and animals, yet it never does so; for, when it does so, it is always in an "independent phase" of existence. In other words, an infective organism, as we know it, see it, and examine it, never, in the ordinary conditions of life, displays those qualities which experiment has demonstrated it to possess; but it can only do so when it exists in another and "independent" phase, in which phase we do not know it, and of the existence of which we have not one particle of proof.

Surely this argument, asking us to give up the known for the unknown, the "bird in the hand" for "none in the bush," makes a very severe and unusual demand upon us; for we know that the organism of tubercle passes into the air from the breath of persons affected with phthisis; we know that it is expectorated in the sputa of phthisical patients, who contribute one-seventh of the total mortality, so widely and universally is this disease diffused (how unlike ague); and we know that, in both these forms, it is virulent and active; yet we are invited to disregard entirely these obvious known agencies for the diffusion of the tubercle-bacillus, or to regard it, in this form, as absolutely harmless, while, at the same time, we are asked to admit that this infective micro-organism can only harm the human race when it occurs in an "independent," "non-parasitic" phase of existence, which phase is wholly imaginary, and without one demonstrated fact to support it.

And here I must remind you that, if it be admitted that one single case of phthisis has been or can be caused by an infective organism which has pre-existed in another person, the whole case of the non-contagionists is surrendered; for then the question is no longer one of communicability or non-communicability, but simply one of degree of communicability, a wholly different question. I cannot insist too strongly on this, because it applies to a great deal of loose unprecise thinking, which is far too common amongst us. For my own part, I am disposed to argue simply for the fact of communicability; the question of the degree of communicability is another matter. But I utterly decline to accept an imaginary bacillus of supposed "independent" origin, as the cause of phthisis, in the place of this now well known, widely diffused parasitic bacillus; I, however, accept the bacillus as the true exciting cause of all tuberculous phthisis as fully as anyone can, and I carry this acceptance to its logical consequence—a little startling as it may at first sound—namely, that all tubercular phthisis is the result of direct or indirect communication. The only escape from this conclusion is in Dr. Andrew's hypothesis of a non-parasitic tubercle-bacillus. If this exist, seeing how generally diffused a disease phthisis is (utterly unlike ague in this respect), there ought to be no difficulty in finding it. Every human being is, every moment of his life, making an experiment on the surrounding atmosphere, aspirating the air around him into his air-passages, with the suspended particles it contains; yet this organism is never found in the secretions of the air-passages, although sought for under very likely circumstances, unless in the subjects of phthisis. Surely, if it existed in the air as an "independent" organism, as widely diffused as phthisis itself is diffused, we should find it in the secretions from the air-passages in some of the subjects of simple catarrhal affections; but it never is found under such circumstances, and its presence in the sputa is certainly diagnostic of phthisis; its presence in the expectoration would lose its diagnostic value, if its presence in the air were as common and diffused as is the presence of phthisis amongst us.

This brings me to the consideration of an argument which was used by Dr. Douglas Powell in the discussion on the causes of phthisis at the meeting of the British Medical Association at Belfast, and which, he appears to think, negatives the idea that the infection of phthisis is communicable. He refers to his eight years' work in the out-patient rooms of the Brompton Hospital, and he seems to think it remarkable or significant that phthisis was not communicated either to the non-phthisical patients or to the physicians there. He says: "I have watched cases of emphysema, of chronic bronchitis, of asthma, of chest-rickets, of cardiac disease, etc., for months, some of them, at intervals, for years, and they have not become phthisical. Now these people have been, for two or three hours at a stretch, exposed to the 'virulent' atmosphere of a crowded waiting-room, nine-tenths of the occupants of which have been phthisical. With a courage, perhaps begotten of ignorance, I have myself sat for three or four hours twice a week for eight years practically in the midst of these people; taking my luncheon in the same room, and washing down the bacilli with my coffee."

Now I have as good, or even a better, right to speak of these conditions as Dr. Powell; for, instead of his eight years, I spent ten years in the same room, and often for four hours at a time, seeing in these ten years over 27,000 separate patients; and I maintain that his statement has a tone of exaggeration and want of precision about it which ought not to be imported into a discussion of this kind. He says that nine-tenths of these out-patients were phthisical. I cannot imagine that the patients of Dr. Powell could have differed in character from my own; and my out-patients at Brompton were not one-half nor one-third of them phthisical; often, I should say, not one-fifth. There were always an immense majority of dyspeptics, of cases of emphysema and chronic bronchial catarrh, of anæmia with some emaciation, and a considerable number of cardiac cases.

Then he infers that, if any of these out-patients had acquired phthisis in these waiting-rooms, he must have known it. I cannot see why. I have no knowledge whatever whether any of my 27,000 patients either acquired phthisis in the Brompton out-patient room, or conveyed it to others there or elsewhere. When one has to see 200 patients in an afternoon, there is but little time to spare for inquiring into difficult questions of causation. I do not see how one particle of value can attach to such a statement in an avowedly nice and difficult investigation such as this is.

The rooms to which he refers were by no means ill-ventilated; they were well supplied with windows opening upon a large garden or lawn, and free circulation was permitted through a large passage, opening also into the garden. The room occupied by the physician had three swinging doors in it, and a window also opening into the garden, through which I used constantly to let in abundance of air and sunlight. Many medical visitors who attended my practice used to speak highly of the comfortable arrangements there for seeing patients.

There is a French maxim to the effect that everything that is exaggerated is insignificant; and I think that maxim applies to this kind of argument. But what shall we say of his "washing down the bacilli" with his coffee? I must express my regret that anyone speaking with authority should have treated the question of the diffusion of the bacillus of tubercle so lightly. If it were intended to actually express a belief that the bacillus of tubercle was a harmless thing, and that numbers of them actually were passing into Dr. Powell's stomach with his lunch, then I must insist that there is no evidence whatever to support such a statement.

For what are the facts that have been ascertained and demonstrated in the Brompton Hospital itself? In the case of non-phthisical, catarrhal patients, aspirating the air of the hospital into their air-passages every moment, and frequently expectorating the secretion from their air-passages, in no instance has a single specimen of the bacillus tuberculosis been found in such expectoration; and yet Dr. Powell has suggested that they commonly found their way down his œsophagus. This suggestion seems to be made with the object of discrediting or throwing ridicule on the evidence and the arguments that have been advanced in favour of the communicability of phthisis.

Now, it appears to be a demonstrated fact, as I have shown, that the bacillus of tubercle is not commonly or widely diffused through the air, even in a consumption-hospital. How ought we to regard this fact? Simply as a part of the life-history of phthisis. What is its relation to the question of the communicability of phthisis? It does not affect the fact of communicability in any way, but it is very important when we come to consider the degree of communicability, or the laws of the communicability of phthisis. Dr. H. Weber, on this head, remarks justly: "The air we inhale, perhaps, does not so often contain the fully developed bacillus as is supposed by many people, for this microbe does not thrive in the air at the usual temperature, but requires, according

to Koch, a temperature approaching that of the human body. Its growth entirely ceases below about 82° Fahr., and above 107°, and it thrives best at about 98° to 100° Fahr., while other pathogenic organisms have a much wider field; the anthrax-bacillus grows luxuriantly between 67° and 74°, and up to 110° Fahr. A further point against the spread of the tubercle-bacillus out of the animal body is, that it does not form spores in the air, while the anthrax-bacillus does. Another peculiarity in the life of the former is that it grows slowly, that it requires as many days for its development as the anthrax-bacillus requires hours."

These considerations obviously greatly diminish the risk of communication, though they by no means render it impossible.

And here I should like to mention a case that was, some years ago, under my own care in the Brompton Hospital. It was a very remarkable one, and was probably one of those cases that we are told never occur in that hospital.

I may say, once for all, that I regard it as merely trifling with this subject to tell us how many cooks, and dispensers, and kitchen-maids, and porters, and secretaries, have officiated in the Brompton Hospital, and have not died of phthisis. We all know that, in this country at any rate, phthisis is not contagious in that degree; but, possessing, as we do, *a priori* grounds for believing phthisis to be spread by communication, we want to ascertain the nature and degree of that communication, and the laws that govern it. We want that question dealt with seriously, honestly, and without prejudice.

In October 1877, a labouring man, 49 years of age, with a good family-history, but a tendency to rheumatism and gout, came under my care as an out-patient at the Brompton Hospital. He was found to be suffering with aneurysm of the thoracic aorta, and, on laryngoscopic examination, he was found also to have a large pedunculated papillomatous growth in the larynx. I took him into King's College Hospital, and there Sir Joseph Lister removed this and other smaller growths, and with them the true and false vocal cords, and a considerable portion of the mucous membrane lining the larynx. The man made an excellent recovery, and expressed himself as more comfortable than he had been for nine years.

In February 1878, we (Sir Joseph Lister and myself) brought this case before the Clinical Society, and showed the patient there, as there were points of interest in the case with which we are not now concerned. One, however, was that he was able to speak audibly and articulately without vocal cords.

By the kindness of my colleague Dr. Tatham, I subsequently received this patient into the Brompton Hospital, for convenience of laryngoscopic examination. The case being almost an unique one, he was repeatedly examined by those who took an interest in laryngology, Dr. Semon, Dr. Poore, Mr. Lennox Browne, and many others. He was, therefore, frequently making deep forced inspirations, with his mouth widely opened, and his larynx devoid of its usual protecting folds of mucous membrane, a state of things very favourable to the aspiration of floating atmospheric germs into the air-passages. Now, what happened? After some time, he began to have a troublesome cough, which we naturally thought due to aneurysmal pressure; then he had a small hæmorrhage, which we concluded might be from a slight crack in the aneurysmal sac; then he had another hæmorrhage, and died.

At the necropsy, to our great surprise, we found the aneurysmal walls intact, and that the fatal hæmorrhage had been from a small cavity in the apex of the right lung, which was the seat of phthisical disease.

This happened before the discovery of the bacillus; and, as the eye only sees what it brings with it the power of seeing, so the mind only thinks as it is inclined to think. At that time, I was a strong anti-contagionist, and I did not dream of referring this patient's phthisis to communication; indeed, it was only a few months ago that the case came forcibly back to my mind as a possible—I do not say a certain—instance of communication. I did not report it to the Collective Investigation Committee, for it was not till some time after the publication of that report that the case recurred to my mind; and what happened to me with regard to this case may have happened to others with regard to cases that they have seen, but not realised.

Since my mind has been alive to the possibility of communication, I find I obtain evidence in support of this view which I never obtained before—probably because I never sought for it; and sometimes the evidence comes, as it were, by accident.

Not long ago, I saw a gentleman with phthisis, who lived a healthy out-of-door country life, with no family-predisposition. I had attended him before for some loss of muscular power, after an attack of diphtheria. I had no thought of referring his phthisis to any possible communication; but, when it became a question of change of climate, I received a letter from one of his relatives, begging that I would not send him away "from his poor consumptive wife."

Not long afterwards, I saw, in consultation, a fine young Scotch girl, with phthisis, of a very healthy long-lived family; and, when the question was asked, Why had she become phthisical? on making full inquiry, it was found that, some few months before, she had been given a bedroom which had just been quitted by a maid-servant with phthisis.

Within the last week or two, a patient of mine, a native of Silesia, died of phthisis of a very curious type. She had been under my observation for two or three years; and it was only a few days before her death, when the husband was asking me how she could possibly have acquired phthisis, that he told me of the fact that, three years before, she had assiduously nursed a friend who died of that disease.

I mention these as instances of the casual way in which evidence of possible communication crops up, if we keep our minds open to the reception of such testimony.

I must now refer to some criticisms of the Report of the Collective Investigation Committee on the Communicability of Phthisis.

Dr. Powell, in the paper I have already quoted, contents himself by merely saying that "the results of their inquiries are as yet highly inconclusive." He does not say why. They may not possess the force and finality of the coffee-argument, but they at least merit some examination.

Let me quote, as a set-off to this estimate of that report, one by Dr. Wm. Roberts of Manchester. "I think," he says, "no candid person can read this report, and the detailed evidence on which it is based, without coming to this practically important conclusion, that no healthy person should be permitted to occupy the same bed with a sufferer from pulmonary consumption, and that no person with a hereditary predisposition to tuberculous disease should be allowed to have continued and intimate personal contact with a phthisical patient; and I cannot help adding that a great responsibility would, in my opinion, be incurred by a medical man knowing this evidence, no matter what his theoretical opinions may be, who would permit such cohabitation and close personal contact."

Next, with regard to Dr. Andrew's criticism of that report. "There is," he says, "one fault in the mode in which the investigation was conducted, which must have had considerable influence on the result. In the questions circulated, the Committee ask for affirmative cases only; notwithstanding this, they received several answers containing cases which appear to disprove the contagiousness of phthisis. The number of these would have doubtless been much larger, had they been specially asked for; and, in any future inquiry, it is to be hoped that this will be done."

This criticism shows that Dr. Andrew, as well as others who have criticised this report, did not follow the course of the inquiry with that interest which those who took part in it may be supposed to have done; for in the BRITISH MEDICAL JOURNAL, the medium through which all our communications were made, of March 3rd, 1883, together with the second issue of the form of inquiry, the following instruction was published.

"The affirmative answers naturally attract the greatest interest; but negative replies, with regard to cases which have been surrounded by circumstances which might have favoured communication, are, it need scarcely be said, of almost equal value; while simple negatives have also their importance, as affording evidence, at any rate, of the relative frequency with which cases, supposed to owe their origin to infection, have been observed."

It was this request that brought us the very reports to which Dr. Andrew refers; and if "fault" exists on this point, it is not on our side; and Dr. Andrew's suggestion that "if negative facts and opinions had been asked for, the majority might have passed to the other side" is wholly without foundation.

I must be excused for saying that I think these hasty and inconsiderate criticisms of a report which cost so much thought and labour, these mistakes as to matters of fact, which a very little inquiry would have prevented, are the reverse of praiseworthy.

Dr. Andrew next objects that we gave too literal a meaning to the simple word "No." "A friend tells me," he says, "that his 'no' was a very active little word indeed, by which he meant to convey not merely that he had seen no cases of contagion, but that he had noted its absence in cases where, if present, it must have manifested itself."

Could we possibly separate the "noes" which simply meant "no," from "noes" which, like Lord Burghleigh's celebrated shake of the head, meant so much as this? It is true that some of the simple

"noes" reached us very much underlined; they looked to us more than active, violent even. We handled them with a certain caution, but we could not conceive of any form of expression by which to give utterance to these dashes of indignation. We were not asking for indignation or activity, we were asking for facts and reasons, and where we found them we reproduced them, whatever their tendency.

Next, with regard to the criticisms that have been offered on the cases of supposed communication observed between husbands and wives. It has been assumed by some that these were accidental cases, unattended by any special circumstances; but, in the great majority, this certainly was not the case, for the reporters were especially careful to distinguish between cases which might be regarded as accidental coincidences, which they had not thought of reporting, and the reported cases which had occurred under circumstances affording special grounds for inferring communication. To suppose that cases of merely accidental incidence of phthisis, in both husband and wife, had been reported as cases of communication, was to refuse credit for ordinary sagacity and reflection to a body of really very careful and intelligent observers.

It was of the commonest occurrence to meet in the reports with a statement of this kind. "Of course, I have seen many instances of both husband and wife succumbing to phthisis, but the following case (or cases) struck me, at the time, as affording an instance of probable communication;" then would follow the case or cases published. It was impossible to give all these remarks in the limited space alloted to us; but, as I have already said, the observers might have been credited with such elementary discrimination.

Dr. Andrew says, "It is a little remarkable that this exceedingly doubtful class of cases (husbands and wives) should furnish no fewer than 192 out of 261 affirmative observations." But it is more remarkable that Dr. Andrew should think this remarkable. If phthisis be communicable only under certain special conditions, one of those being close personal intimacy, as, for instance, inhaling the breath of the infected person at close quarters, is it in the very slightest degree remarkable that the vast majority of instances should be found to occur in the case of husband and wife? I do not see how it could possibly be otherwise.

Again, it is important to notice how Dr. Andrew, from his standpoint, criticises one of the most remarkable of the instances of apparent communication reported.

Miss R., aged 48, a dressmaker, living in rather a lonely cottage at C., Bedfordshire, had three apprentices, young girls of from 17 to 19 years of age, not related, from three adjoining villages, who took it in turn to remain in the house and sleep with her, each one for a week at a time. During their apprenticeship, Miss R. was taken with phthisis, of which she died. In less than two years afterwards, all three apprentices died of phthisis, although, in the family-history of each, no trace of phthisis existed, and the parents, brothers, and sisters of two of them are alive and well at the present time.

"Here, again," he says, "there are various little difficulties in the way of explanation by contagion. This must have been most virulent in the case of Miss R., and yet no harm came to any of the friends of the unfortunate apprentices." But why, I would ask, should the contagion be said to be "most virulent" in this person more than in any other where the conditions were similar? Why more virulent than in all the cases reported of husband and wife? Were we a polygamous people, we should have the conditions related in this case common amongst husbands and wives. If three persons be ill with scarlet fever, and one communicate it to three others, another to two others, and the third to no one, should we infer, on that account alone, that the first case was more virulent than the second or the third? Surely we should content ourselves with the conclusion that the conditions were more favourable to communication in the first case than in the third. Why, again, should these apprentices necessarily communicate phthisis to their relatives?

Dr. Andrew had previously argued fully, ably, and conclusively for the necessity of the existence of predisposing factors in the causation of phthisis, and these factors may have been absent in the relatives of these apprentices, and they probably did not live with them on the same intimate conditions as with Miss R. But if we were to accept Dr. Andrew's hypothesis, we should have to admit the following as an explanation of these three cases; that, notwithstanding in each of these cases there had been close and continuous exposure to a known focus and source of the infective organism of tubercle, yet each of them acquired this organism, not from this known source with which they were in such intimate contact, but from an "independent" source of which we have no knowledge whatever. Perhaps you will allow me to give you two more specimens of the "highly inconclusive" evidence found in this report.

In 1862, a servant came home to her mother (a widow, with three sons and two daughters, all grown up, father dead of epithelioma), suffering from phthisis. The house, consisting of two rooms and an attic, and lying under the brow of a hill on its northern aspect, was ill ventilated and worse lighted. By the end of 1868, the only survivor of this family, she being still alive and healthy, was a thin delicate girl, who took little or no part in the nursing. They all died of phthisis, the mother dying last, between 50 and 60 years old.

A young man, of the Indian Navy, came home, suffering from phthisis. In a few months, two of his sisters were taken with the same complaint, and died. A third sister married, and soon afterwards died of the same complaint. The young man also died. Later on, the father was similarly afflicted, and died. After his death, the widow became phthisical, and died also. I should think four years covered the whole outbreak—that is, from the arrival of the son from India. The father was originally a very healthy strong man, and all the children healthy up to about 20 or 21, or even later. I had known them all from infancy. One sister still lives, and is now between 40 and 50.

I will ask one more question with regard to these cases. If evidence of this kind is "highly inconclusive," what would be "conclusive" evidence? There has been an outcry for clinical evidence; here it is. How can clinical evidence be more forcible? Experimental evidence we possess in abundance.

Dr. Andrew uses, as an argument against communication, the length of time that is reported to have elapsed, in some cases, between the period of exposure to infection and the recognised manifestation of the disease; but, in the cases recorded in the Report of the Collective Investigation Committee, the period of fatal termination of the disease is mentioned in many, but it would have been exceedingly difficult—nay, almost impossible—to fix the time of the first manifestations of disease.

Every experienced physician must have had numerous occasions of observing the great resistance which some constitutions seem to offer to the infective action of the organism of tubercle, and how, in others, it seems quietly to diffuse itself widely through the lung before it gives rise to well marked and recognisable physical signs. I am sure I have seen many illustrations of both these statements. A young patient will come before you, with some dyspnœa, cough, emaciation, and a highish temperature, but with few definite physical signs; perhaps nothing beyond some slightly diminished expansion of one side, and diffused enfeeblement of vesicular murmur, and here and there patches of whiffing and harsh respiration. Inquire into his history; you will find he has been out of health for six or eight months, has been treated for dyspepsia, for anæmia, for overwork, has been examined, again and again, by most competent medical men, who have detected no physical signs of phthisis. Now, a case of this kind teaches us two things: 1, that the bacillus may gain access to a lung and do extensive and widely diffused mischief there long before the development of readily recognisable physical signs; and 2, that, supposing such a case to be due, as I believe it may be, to communication, the long lapse of time between the inception of the infective organism and the manifestation of the symptoms renders the detection of the source of infection extremely difficult, if not impossible. Moreover, familiar as we all are with the great diversity in the course and duration of phthisis in different persons, from acute cases of a few weeks to chronic cases of many years, it seems most improbable that it has any definite incubation-period; and this argument of Dr. Andrew therefore appears to me to have no force.

We must not build up hypothetical estimates of a disease like phthisis on the grounds of forced and fancied analogies; but we must regard and study phthisis as phthisis, with the help of demonstrated facts, and we must not be surprised that phthisis should have a life-history of its own.

Dr. Ransome states that one-half of the mortality in this country between the ages of 25 and 35 is due to consumption.[1] Dr. Ransome, as well as Dr. Andrew, do not admit hereditary influence to be anything more than a predisposing cause; they both show that phthisis is independent of climate and occupation, though these may have a predisposing influence; they both reject the proposition that mal-nutrition can act as an exciting cause; there is any amount of evidence accumulated that previous chest-disease cannot, of itself, excite phthisis; and of all forms of chest-disease, pleuritis, followed by adhesions, is the most potent of predisposing chest-affections, and the influence of adhesive pleuritis, in leading to the retention of germs once admitted into the lungs, by diminishing the power of expiration, is obvious.

[1] In a valuable and suggestive lecture on "The Limits of the Infectiveness of Tubercle."

Surely, then, we must look for some subtle mode of communication from person to person to account for the wide and general diffusion of this malady; for its especial prevalence when masses of human beings are crowded together in towns, in workshops, in prisons, barracks, and convents, and in overpopulated dwellings; conditions and modes of life which directly favour the spread of disease by communication; while it is absent or rare wherever the population is sparse and scattered, and where extension by communication would be difficult.

The appeal to clinical evidence, in the present state of our knowledge of the nature of pulmonary consumption, can only furnish proof of the degree of communicability, and the laws which govern it; and, were it only one tithe of what it is, it would be sufficient to support the fact of communication. For it is now almost universally admitted that the exciting cause of phthisis is in most cases inoperative unless it encounters certain predisposing causes.

Let us take Dr. Andrew's own facts from the City of London Hospital for Diseases of the Chest.

Of 12 resident medical officers, 1 died of very rapid phthisis, before he had been in the hospital a year. From what local "independent" non-parasitic source did he, I would ask Dr. Andrew, acquire the bacillus? If there existed such a source in the hospital itself, surely it was a most unfit place for pulmonary invalids.

Of 3 secretaries, one was "delicate" at the time he took office, and "eventually died of some chest-disease."

Of 255 nurses, sisters, and female servants, one nurse died in the hospital of phthisis, and 33—about 13 per cent.—left on account of illness. "Some, but certainly not all, were phthisical."

A porter and a dispenser died of phthisis.

Of 51 clinical assistants, "I know," writes the secretary, "that 2 or 3 have become phthisical, but I have not been able to learn the history of a sufficient number to draw any conclusion."

Surely these facts are perfectly consistent with the view that phthisis is spread by communication. I must again insist that it is not necessary to discuss the question whether phthisis is highly contagious under ordinary conditions of life, in this country; we know that it is not.

But the question which presses for decision in the etiology of phthisis is this: is not phthisis always spread by communication, direct or indirect, from person to person; if it be not so spread, how is it spread? Dr. Andrew has been driven to imagine an independently existing bacillus of non-parasitic origin, of the presence of which amongst us there is not a shadow of proof.

It has been said that, even if phthisis be spread by communication, we ought to conceal the fact from the public, and that it would be calamitous if it were to become generally known. I cannot admit the justness or propriety of this view. What has been the action of the medical profession towards the public, of late years, in regard to preventable and communicable diseases? Have we not been doing everything that was in our power to rouse and alarm them out of their indifference? and shall we hesitate now to declare what we may discover to be the truth with respect to a disease which kills one-half of those who die in this country between 25 and 35 years of age? With regard to the cause of this wholesale destruction of life at its very prime; I cannot believe that this would be either sound morality, sound charity, or sound sense.

In conclusion, let me call your attention to one aspect, and that a practical one, of this argument. If tubercular consumption is always spread by communication from person to person, directly or indirectly, this fact brings this fearfully fatal malady more completely within the class of preventable diseases, and therefore more thoroughly within the scope of preventive medicine. So far, then, from being a depressing view, it is the most hopeful that can be taken of pulmonary consumption; and with this remark I must bring this fragmentary paper to a close. I have only been able, as I said at the commencement, to touch on a few points in the etiology of phthisis; and my chief object has been to induce you to think over the subject of the communicability of phthisis, without prejudice, from the new points of view, which our new knowledge as to the nature of the disease affords.

I have not been able, I regret to say, altogether to avoid a tone which, I am afraid, may have appeared somewhat controversial and a little personal. But it was impossible to quote recent arguments without mentioning their authors; and as I believed some of them to be erroneous, and as standing in the way of sound views as to the etiology of phthisis, I have thought it best to say so frankly and openly.

I am sure those gentlemen whose opinions and arguments I have endeavoured to controvert will accept my criticisms in good part, and will be as glad as I shall be if, by any chance, they lead us any nearer the truth.

REMARKS ON THE TREATMENT OF STRANGULATED HERNIA, FOUNDED ON TWO CASES OF FALSE ANUS AFTER HERNIOTOMY, IN WHICH THE "SPUR" WAS REMOVED BY DUPUYTREN'S ENTEROTOME, AND THE OPENING CLOSED BY SUTURE.

By HOWARD MARSH, F.R.C.S.,
Senior Assistant-Surgeon to St. Bartholomew's Hospital.

Case I.—Last summer, John R., aged 33, was admitted into St. Bartholomew's Hospital with a large strangulated inguinal hernia. As taxis failed, and I was unable otherwise to return the intestine, I opened the sac. The gut was nearly black, and the different coils were adherent, and formed a large globular mass, which I was afraid to unravel. I therefore stitched the bowel to the margins of the wound, and opened it. The patient quickly recovered; but, two months later, the opening showed no tendency to close, and no fæces were passed *per anum*. The upper and lower ends of the gut could be easily made out. Dupuytren's enterotome was readily applied, and the blades were partially closed, so that the spur was compressed, but not crushed. Subsequently, the screw was turned a little each day, till on the fourth day the blades were in contact. The instrument spontaneouely slipped out of the fistula on the sixth day. Four days later, the spur was found to be much reduced, but still to form a considerable projection into the interior of the gut. Later, the enterotome was again applied, and screwed up more tightly than on the previous occasion. During the night, the patient felt sick, and complained of considerable abdominal pain, and next day the abdomen was slightly tympanitic. These symptoms, however, subsided, and the enterotome fell off in four days. The spur could now no longer be felt. In the next month, although the external wound contracted, no fæces were passed *per anum*. I therefore determined to close the fistula. The patient was placed on low diet, and fed almost entirely by enemata for four days. On proceeding to operate, I found the intestine adherent merely to the edges of the external wound, so that, when this connection was separated, the gut was quite free within the sac. The intestinal fistula was closed by Lembert's method, the bowel returned into the abdominal cavity, and the edges of the external wound were brought together. The patient recovered without any drawback.

Case II.—Mr. Savory operated on Emma C., aged 54, in February 1884, for femoral hernia. Finding the intestine gangrenous, he opened it *in situ*. As, four months later, all the fæces escaped through the fistula, and as a prominent "spur" could be felt between the upper and lower ends of the gut, Mr. Savory arranged to apply a modified form of Dupuytren's enterotome, but on going out of town, in vacation time, he left the case in my hands. I applied the enterotome just firmly enough to have a secure hold of the spur, and gradually tightened it. The instrument came away on the fifth day, bringing with it the sphacelated remains of the spur between its blades. Ten days later, as some of the spur could be still felt, the enterotome was again put on. It came away on the seventh day. No spur could now be detected. Two months later, though the external opening had contracted, no fæces passed *per anum*. I therefore proceeded to close the fistula. Finding the intestine extensively adherent within the sac, I detached only so much as enabled me to bring its edges together. When this had been done, the external wound was closed. Three days later, fæcal discharge occurred through the wound; but this, which was never large in amount, gradually diminished, and ceased in about a month. The patient left the hospital wearing a truss, to prevent bulging to the scar. Her bowels acted without trouble after the operation.

Remarks.—The progress of surgery has been great in the last twenty years, but it has been irregular. In some directions there has been a rapid advance; in others, matters have been at a comparative standstill. The difference has been due, among other causes, to the fact that, where the ground has been new, as in some of the special branches, the course has been open, while along the old lines of practice the tyranny of tradition and routine can only be slowly shaken off. This is well seen in abdominal surgery. In ovariotomy, during which the abdomen is opened, adhesions are broken down, the viscera handled, perhaps a hole accidentally made in the intestine is sewn up, and the peritoneum is thoroughly sponged out, several

operators have reduced the mortality to about six or seven per cent.; while among patients with hernia, which consists in the mere slipping of a piece of intestine through some opening in the abdominal wall, the events that follow strangulation are attended with a death-rate that often reaches twenty or thirty per cent. Whence, in the present state of surgery, and out of an accident so trivial at the outset, does such a fatality arise?

A review of the subject may be brief, for the main facts are familiar to all.

1. In some cases, much time is lost before the surgeon is called in, during which not only is the mischief done by strangulation hourly increasing, but the patient, thinking he is only "bilious," is taking dose after dose of aperient medicine; or, if he know he is ruptured, is making violent and ill-directed attempts to force the gut back. In many such cases, the die is cast before the surgeon is sent for.

2. The fatal issue sometimes arises from the practice of allowing treatment to precede diagnosis, and of giving aperients and waiting for a day or two, instead of at once fully examining the different hernial apertures as soon as those three symptoms, sickness, abdominal pain, and constipation, like the little cloud no bigger than a man's hand, appear upon the scene.

3. The fault in other cases lies in our failure to urge that, as soon as symptoms of obstruction are developed, any irreducible hernial protrusion should be at once explored, even though it be no larger than usual, and be neither painful nor tender on pressure.

4. Another error is that of the too long use of the taxis, which is sometimes continued for half or even three-quarters of an hour. It is hard to lay down any precise rule; but, in the majority of cases, unless the taxis succeed, when carefully and steadily tried, while the patient is under an anæsthetic, in five minutes, it should be given up, and the operation should be at once performed; for the operation is much less dangerous than the prolonged use of the taxis.

5. Next, as to the opening of the sac. When we were in bondage to the peritoneum, it was thought that the main danger of the operation for strangulated hernia lay in opening the sac; and, when a patient died after the sac had been opened, the result was ascribed to peritonitis arising out of this proceeding. There is, however, a growing impression, with which I most fully agree, that the sac ought to be much more generally opened than has hitherto been the case; first, because, when this is done, important, though unsuspected, conditions of the gut may be disclosed; secondly, because, when the sac is not opened, the highly septic fluid which it often contains is returned with the gut into the abdomen, where it may very likely produce fatal peritonitis. What ovariotomist would venture to leave two or three ounces, or even two or three drachms, of septic fluid in the abdominal cavity? Is not the present success of abdominal surgery largely due to the practice of thoroughly cleansing the peritoneum by any requisite amount of sponging? I believe that, whenever a hernia has been sharply strangulated for even six or eight hours, the sac should be opened, and well washed out before the stricture is divided.

6. When a patient dies after an operation for strangulated hernia, with sickness and abdominal distension, death is usually ascribed to peritonitis. This view, however, though often correct, is also often erroneous. In many of these cases, death ensues in the following way. As the result of constriction, the piece of intestine that has been strangulated is reduced to a condition of paralysis, from which it either will not recover at all, or will recover only very slowly; and the result is that fæcal material passed into it from above, lacking propulsion, lodges, and plugs the gut, and so produces obstruction. I have seen many examples of this occurrence in which all goes well for some hours, or even for a day or two, after the operation; but then symptoms, really due to this form of obstruction, but ascribed to peritonitis, set in. Two illustrations will suffice. Two years ago, I operated on a young man for strangulated congenital hernia. The gut, which was deeply congested, was returned. All went on well, and the temperature had fallen to 99.6°, when, on the third day, he was sick, and the abdomen became tympanitic. These symptoms persisted, and four days later he died. On examination, there was no trace of peritonitis, but the intestines were much distended down to the part nipped, and entirely empty below. In another, as sickness and distension persisted after a hernia had been reduced by taxis, and as it was suspected that some strangulation still remained, the abdomen was opened. Neither strangulation nor peritonitis, however, was present, but the portion of the gut that had been nipped was collapsed and flaccid, and the intestine above was distended with liquid fæces; that below was empty and contracted. In some, at least, of the cases in which what is regarded as peritonitis subsides under opium and feeding by the rectum, the true explanation is that the intestine has been able to recover itself just in time, so that fatal obstruction has been averted. If, after operation, the symptoms continue, especially if vomiting be persistent, a small opening should be made in the middle line, and the first piece of distended intestine that presents itself should be drawn out, stitched to the wound, and opened. The value of this proceeding of drawing out and opening a loop of distended intestine as a means of saving life in otherwise desperate cases of obstruction, has only recently forced itself on our attention.

7. Hitherto it has been the custom to replace the intestine, as a matter of course, unless it have shown signs of the approach of gangrene. This is often a fatal mistake. A number of cases of severe strangulation are now lost, which would, I believe, recover if the gut, instead of being returned, were opened *in situ*. In the cases to which I allude, death is sometimes due to the rupture of the gut at the moment of reduction, or after its return: in some instances the intestine, though seemingly not much damaged, becomes gangrenous after its return; in some, the septic discharge poured out by the inflamed intestine produces peritonitis; and in some, again, the strangulated loop never recovers its peristalsis, and leads to obstruction. The more general recognition of the efficacy of opening the gut as a means of saving life in far-gone cases of obstruction, a fact long since recognised and applied in the operation of colotomy, is one of the most important advances lately made in abdominal surgery. Some time ago, I met with the following striking example. In a woman aged 54, much exhausted by sickness and distension of a week's duration, apparently of mechanical origin, I opened the abdomen, and found malignant disease of the large intestine. The gut above the stricture was stitched to the external wound, and opened. All the urgent symptoms were immediately relieved, and in a month she left the hospital. Unfortunately, I heard no more of her. The extension of this practice to cases of long continued strangulation due to hernia, would have the effect of saving many patients whose lives are now lost.

But, supposing that a false anus has been established, what probability is there that it can be closed? In the first place, it is to be remembered that many fæcal fistulæ, after hernia, spontaneously close, some rapidly, some only after the lapse of several weeks, or even months.

The prospect of closure largely depends on the amount of the intestinal wall that has been lost. When merely a linear incision has been made, closure is much more probable than when a loop has sloughed, so that the continuity of the gut has been destroyed. Hence the instances in which the bowel has been merely incised are those most favourable for spontaneous closure.

The immediate cause of non-closure is, no doubt, the "éperon," or "spur," so well described by Dupuytren. What, then, are the chances that this may be safely dealt with? Dupuytren tells us that the well known enterotome which he invented for destroying the spur was used in his day in forty-one cases, in twenty-one by himself, and in twenty by other surgeons. Of these, only three, it is said, were fatal; of the remainder, twenty-nine are reported to have been completely cured in from two to six months, while, in nine, fæcal fistulæ remained. The instrument, however, subsequently fell into disuse, mainly, it seems, because Jobert and others met not only with dangerous symptoms, but with fatal peritonitis from its use. Many instances might be given in which a good thing has been hastily condemned, only to regain its just credit after many years have passed. From recent reports, it seems that the true estimate of the enterotome is that which Dupuytren himself formed of it, rather than that according to which Jobert and others considered its use as unsafe. Doubtless, it demands exemplary care; but this is true of every surgical proceeding.

In the two cases, the notes of which I have related, no difficulty was experienced in the use of the instrument, while its safety and efficacy seem to be indicated by the fact that, of eighty-four cases collected by Heimann (*London Medical Record*, May 1883), the mortality directly due to the enterotome was less than 2 per cent.; while, in 60.2 per cent. the false anus entirely closed, and, in 31 per cent. only a small fæcal fistula remained. The chief points in using the enterotome appear to be that its blades should be closed upon the spur very gradually, and that, if the spur be very prominent, it should not be destroyed all at once, but by two, or even three, operations. Should it be necessary to enlarge the external wound, when it has partially closed, in order to secure room for the safe introduction of the blades of the enterotome, to which the finger, passed into the gut, must serve as a guide, this may be done efficiently, and without causing pain, by the use of sponge-tents. If these be employed, the danger attending any cutting operations, by which the peritoneal cavity might be opened, may be entirely avoided.

The cases I have related illustrate the three points to which I am anxious to direct attention.

1. The majority of even the worst cases of strangulated hernia may be saved by opening the gut *in situ*.

2. The spur, the main obstacle to the closure of the resulting fistula, may be safely destroyed by Dupuytren's enterotome.

3. The fistula, if it do not spontaneously close when the spur has been removed, may be readily obliterated by operation; the gut, after closure, being either returned into the abdomen, or (if adherent) left in the sac, and the edges of the external wound being brought together over it.

When these facts are generally accepted as the basis of our rules of practice, and when the points mentioned in the early part of the paper secure the attention they deserve, the mortality after operations for strangulated hernia, I believe, will fall from the present excessive figure to something considerably under 10 per cent.

NOTES ON THREE CASES OF TUBAL PREGNANCY SUCCESSFULLY OPERATED UPON AT THE PERIOD OF RUPTURE.

By LAWSON TAIT, F.R.C.S.,
Surgeon to the Birmingham and Midland Hospital for Women.

These cases are the seventh, eighth, and ninth of their kind which have occurred in my practice; and all of the nine save the first have recovered and continue, up to the time of writing, in good health. Such a series, though not a large one, is sufficient to prove that these cases may be treated with perfect success under the improved and bolder proceedings adopted in abdominal surgery within the last six years. In fact, they are almost of themselves sufficient, when taken with the established fact that the great bulk of such cases have a fatal termination when left alone, to determine the propriety of immediate operation in all such cases. They also confirm the views which I have already expressed, that cases of extra-uterine pregnancy are all tubal in origin, arising from a ruptured tube about the tenth or twelfth week of pregnancy, at a point which is determined by the site of the placenta. This explains the extreme fatality of the rupture. As not a single instance of extra-uterine pregnancy at the time of rupture has been discovered other than of tubal origin, we are absolutely wanting in evidence that there is any other origin for this displacement.

Case vii.—E. D. H., aged 36, under the care of Mr. Wiren, was admitted to hospital on November 24th. She had not menstruated for nearly four months, and had never had a child, although she had been married twelve years. She was seized, some time early in November, with a violent attack of abdominal pain, for which she kept her bed and was under treatment. When I saw her the uterus was fixed and a tender mass existed on the right side. I recognised this as possibly a ruptured tubal pregnancy. I operated on November 28th, and found the abdomen full of bloody serum and loose clots. The left Fallopian tube had ruptured to the extent of nearly three inches; it was adherent, and required considerable care in its removal, hæmorrhage being very free. The pedicle was tied by the Staffordshire knot, and the pelvis drained. The patient made a very rapid recovery, and went home on January 5th. The fœtus in this case was not found; but the placenta occupied the dilated tube, and the rupture had taken place quite at its edge.

Case viii.—S. B., aged 41, married at 17, had eight children, the last being ten years old. She had what was supposed to be a miscarriage in May last. The catamenia again ceased in November, 1884. She was sent to me by Mr. Scott of Wolverhampton early in February, and I found everything in the pelvis fixed, with symptoms of acute pelvic peritonitis. I opened the abdomen on the 9th, and found a large quantity of serum and clot in the pelvis. I found the fœtus lying loose, close to the ruptured right Fallopian tube, from which the placenta was extruding. The diseased organ was removed with difficulty, and the pelvis drained. The patient made an easy recovery, and returned home on March 5th.

Case ix.—A. S., aged 26, under the care of Dr. Malins, had been married nine years, and had had four children, youngest child being 17 months old. After this confinement, she had a long and serious illness. The period again became arrested just before Christmas. About the middle of February, she was attacked by violent pelvic pain. On the 23rd, I found all the pelvic contents fixed. I opened the abdomen, and found, as usual, loose clots, bloody serum, and a largely distended and ruptured left Fallopian tube, in which there was a placenta. The fœtus was not found. The Fallopian tube was removed with very great difficulty, the hæmorrhage, during the operation and after it, being very alarming. The pelvis was drained. The patient made a very admirable recovery, and left the hospital on March 11th.

NOTE ON THE USE OF PERMANGANATE OF POTASH IN CASES OF INSANITY ASSOCIATED WITH AMENORRHŒA.

Read before the South-Western Branch.

By P. MAURY DEAS, M.B., Wonford House, Exeter.

It was, I think, Dr. Sydney Ringer who, two or three years ago, first drew attention to the fact that permanganate of potash, hitherto chiefly known as a powerful oxidiser and disinfectant, had a decided effect on the uterine function, and could be used with advantage as an emmenagogue.

As I am inclined to think that this use of the drug in question has not been followed up so much as it deserves, I am anxious to lay before you a few notes as to the results of my experience of its utility

I have chiefly employed it in obstinate cases of amenorrhœa, associated with mental derangement, either as the cause of the latter, or as a coexisting condition, both depending on a common cause, such as sudden shock, fright, etc.

The first case in which I tried the permanganate was that of a young woman, who had broken down in health from the effects of prolonged nursing of a sick relative, and the anxiety connected therewith. The catamenia were suppressed, and the patient fell into a state of general bad health. After a time, mental symptoms supervened, of the nature of melancholia, with stupor. When, after some months, she came under my care, the catamenia had been suppressed for about a year, and the general health was much below par, with constipation, anæmia, and general want of tone; the mental symptoms being obstinate taciturnity (never speaking a word), volitional power almost entirely in abeyance, and a tendency to the cataleptic condition.

Various remedies had already been tried for the amenorrhœa. She was treated on general principles for two or three months, with no change beyond some little improvement in her general health. Permanganate of potash was then prescribed in pills of one grain, one three times a day, and increased after a time to two grains three times a day. After taking them for about two months, the catamenia appeared, and almost simultaneously a rapid improvement set in in her mental condition and general health. She was watched carefully at the next period; the pills were renewed for a week before, and hot hip-baths administered. The catamenia appeared, and from that time the patient made a rapid and uninterrupted recovery.

I subsequently employed it, with equal success, in several other cases of a somewhat similar type. One important point is, not to be discouraged too soon. You may have to persevere with the remedy for months and months, though, in some ordinary cases of chlorotic amenorrhœa, uncomplicated with insanity, I have found the desired effect produced very rapidly. In cases where I have prolonged the use of the drug for a long time without the catamenia being restored, there has still been a marked improvement in the general mental and bodily condition. The permanganate, indeed, seems to act as a general and nervine tonic, assimilation being greatly promoted, and the anæmic condition improved.

Recently I have had a remarkable example both of this and of the restoration of the menstrual function after prolonged suppression. This is a young lady who has been under my care for the last seven months. When I first saw her, her general condition, both bodily and mental, was very miserable; and she had the look of confirmed amenorrhœa, from which she had suffered for a considerable period; the exact time was not known. She was given the permanganate, the use of which was continued, without apparent effect beyond a gradual but very decided improvement in her general bodily condition, until I was considering if it were worth while to continue it any longer, when, a fortnight ago, after fully six months' perseverance in the remedy, the catamenia appeared. Mentally, there is considerable improvement in the case; but it is fluctuating and uncertain. The mental derangement had, however, existed for more than eighteen months before the special treatment was begun.

I should be glad to have my experience of the permanganate as an emmenagogue checked by that of others; but at present I feel inclined to draw the following conclusions.

1. Permanganate of potash is an useful and safe emmenagogue, and free from the disadvantages which attend some other remedies of this class.

2. Its use may be continued for months without any bad effects, and success need not be despaired of even after many months.

3. Even when it fails as an emmenagogue, it acts beneficially as a general and nervine tonic.

NOTE.—Since writing the above, I have noticed, in the JOURNAL of February 7th, a letter from Dr. F. Simms on the internal use of permanganate of potash. In regard to the statement that this drug, "administered in tablets of the strength of one grain, gives rise at once to ulceration of the parts it comes in contact with," I have had no experience of any such effects; nor have I ever found any symptoms of gastric or intestinal irritation produced even after three to six grains have been taken daily for weeks. But I have never used the drug in tablets, but in pills. That the latter, if properly made, should pass unchanged through the length of the intestinal canal, must be, it seems to me, a very rare occurrence.

Kaolin ointment, it may be mentioned, is the best excipient for making the pills; and saccharine ingredients should be carefully avoided, as being liable to cause decomposition, and even spontaneous combustion. Possibly this may be the secret of the caustic action produced by the tablets.

AN OPERATION FOR DISPLACED SEMILUNAR CARTILAGE.

BY THOMAS ANNANDALE, F.R.S.E.,
Regius Professor of Clinical Surgery, University of Edinburgh.

THE pathology of the condition called by that wise old surgeon Hey, of Leeds, "internal derangement of the knee-joint;" by Sir Astley Cooper, "partial luxation of the thigh-bone from the semilunar cartilages," and which is now by some authors termed dislocation or displacement of the semilunar cartilages, has not yet been thoroughly worked out, as few opportunities occur for the dissection of a joint so affected. It is, however, a clinical fact that one of the semilunar cartilages, usually the internal one, does occasionally become loosened from its attachments; and, in consequence, this body is liable to be displaced either forwards or backwards, and so to interfere with the proper movements of the knee-joint.

Two classes of this displacement are met with; one in which the condition takes place suddenly, as a result of a twist or wrench of the knee; and the other in which the displacement is not so sudden, but appears to depend upon a gradual stretching of the attachments of the cartilage, owing to some effusion into the joints, or owing to some continued strain upon the joint, as is illustrated in connection with certain occupations.

When the displacement has once occurred in either case, it is liable to occur again; but from my experience, I judge that in cases, the result of a sudden rupture of the ligamentous attachments, which are promptly and carefully treated, the displacement is less likely to recur than in the more chronic ones.

If the condition be not permanently relieved, the displacement of the cartilage takes place more or less frequently in different cases; and sometimes in connection with the slightest movements of the joint.

The symptoms of this accident, as is well known, also vary in degree in different cases. The movements of the joints may be merely stiffened in one direction, or the joint itself may be firmly locked, and remain so until manipulation returns the displaced cartilage. Two patients have come to me from considerable distances suffering from this condition, and in both the knee-joint had been firmly locked in a flexed position for many hours. Manipulation easily replaced the cartilage, and the movements of the joint were at once re-established.

In all cases of this affection, some effusion into the joint follows the displacement.

The ordinary treatment of a displaced semilunar cartilage is to reduce it by flexion, extension, and manipulation; to apply a splint or elastic bandage, in order to keep the joint at rest, and prevent the displacement from recurring; and, if effusion be present, to employ the usual remedies to promote its absorption. When the accident is recent, I would strongly urge the importance of keeping the affected joint absolutely at rest for two or three weeks, so as to promote the union of the ruptured attachments.

This affection may become so troublesome, owing to the constant recurrence of the displacement, that a patient's occupation and comfort are seriously interfered with; and I relate the following example of such a condition in order to illustrate a new method of procedure which I successfully adopted in connection with it. The excellent result obtained in this case encourages me to express the opinion that this, or some similar proceeding, may now become an established means of treatment, when the more simple methods fail to give relief, and to obtain for the patient an useful limb.

CASE.—Thomas M., aged 30, miner, was sent to me from the north of England, on November 1st, 1883, with the following history. About ten months before his admission, he was working in a kneeling position, when he felt something give way in his right knee. He suffered sharp pain, but continued at his work for a few hours. Great swelling of the joint followed, and the pain became much aggravated, so that he could not return to his work, and he had not since worked at his occupation. The condition was treated by rest, blistering, the application of iodine, and various liniments, with the result of reducing the swelling; but the pain still continued, and the movements of the joint were interfered with by something "slipping" in the knee.

On admission, the joint was slightly swollen, and there was a small amount of effusion into its cavity. The patient complained of acute pain in certain movements of the joint, which frequently became locked in the flexed position. He was able, by a little manipulation, to unlock the joint, but the frequency of this symptom made him quite unfit to follow his employment as a miner. On careful examination of the joint, there was a well marked hollow over the anterior border and position of the internal semilunar cartilage. This hollow was most marked when the knee was flexed. Having decided that the case was one of displaced semilunar cartilage, and one not likely to be cured by any ordinary treatment, I, on November 16th, performed this operation. An incision was made along the upper and inner border of the tibia, parallel with the anterior margin of the internal semilunar cartilage; and, the few superficial vessels having been secured, the joint was opened. It was then seen that this semilunar cartilage was completely separated from its anterior attachments, and was displaced backwards about half an inch. The anterior edge of this cartilage was now seized by a pair of artery catch forceps, and it was drawn forwards into its natural position, and held there until three stitches of chromic catgut were passed through it and through the fascia and periosteum covering the margin of the tibia. The forceps were then withdrawn, the cartilage remaining securely stitched in position. The wound in the synovial membrane and soft textures having been closed with catgut stitches, a splint and plaster-of-Paris bandage were applied, so as to keep the joint at rest. The progress of the patient, after the operation, was perfect, the temperature never rising above 99° Fahr. Seven weeks after the operation, the splint and bandages were removed, and gentle movements of the joint practised.

On January 25th, 1884, the patient was dismissed cured, the movements of the joint being good, and the limb steadily gaining strength. In April of the same year, the patient returned to show the result. He was then seen and examined by many of our distinguished guests at the tercentenary, who all expressed the opinion that the result was everything that could be desired. He had perfect movement in the joint, and had never had the slightest stiffness or locking of the joint since he commenced to go about after the operation.

HOW TO PREVENT SEPTICÆMIA IN CASES OF MORBIDLY ADHERENT PLACENTA.

BY KEITH NORMAN MACDONALD, F.R.C.P.Edin.,
L.R.C.P.Lond., Cupar, Fife.

WITH the exception of *post partum* hæmorrhage, adherent placenta is one of the most troublesome after-consequences of the lying-in state. It is, moreover, much dreaded by many practitioners, owing to the probability of septic matter finding its way into the circulation; but that an ordinary case need not give rise to any extraordinary alarm, the following history well illustrates.

Mrs. S., aged 38, six years married, and mother of one child, five years having elapsed since her last confinement, which was a forceps case, with partial placental adhesion, was taken in labour at midnight of December 29th, 1884. The pains were moderate and regular; and I was sent for at 7 A.M. in the morning. The case was apparently natural; the second stage was rather prolonged, owing to the head resting for more than an hour on the perinæum, but was completed at nine o'clock, two hours after my arrival at the house, there being nothing unusual about it, except that the child, a female, appeared feeble, and the cord was unusually small.

During twenty minutes she retched several times, though firm compression was applied externally: she said that she had done so during the entire period of her pregnancy, and also had a "pain in her side." After this interval, I tried to remove the placenta,

but found that it was adherent to the fundus of the uterus, and, as far as I could make out, all round. After a further delay of half an hour, I reintroduced my right hand, carbolised, made firm traction on the cord, and tried to peel it off, but it was of no use. The contractions of the uterus prevented my getting hold of the edge of the placenta, and, as I could remove nothing but clots of blood, I dug my fingers into its substance, and removed two small pieces, as much as I could do with safety, certainly not more than one-third of it; and after repeated attempts at extraction, I determined, very unwillingly, to let the case alone for a time, and to renew my attempts under chloroform if necessary, leaving the cord attached for future guidance. Before leaving, I applied a firm binder with pad, gave her some whiskey and ergot, and left her, for a time, none the worse for her rough handling.

Feeling that it would be very unsatisfactory to leave her in this condition, I resolved, after a few hours' further rest, to remove the coagula of blood that had collected in the uterus, if I could do nothing more; and, accordingly, at 7 P.M. the same evening, with the assistance of my friend Dr. Whitelaw, she was put under the influence of chloroform, when I again introduced my hand, carbolised, into the uterus, and removed a quantity of clots, but could make no impression upon the still firmly adherent placenta. I did, therefore, consider further interference unjustifiable; therefore, after removing other two small pieces of the placenta, with the cord, I bound her well up, gave an opiate, ergot, and brandy; and left her for the night, after syringing the uterus and vagina well with a weak solution of Condy's fluid.

December 30th. She passed a fairly good night, retched once, and expelled a small coagulum of blood. The lochia were normal; the secretion of milk was established; pulse 94, and weak; temperature 99° Fahr. There was no tenderness over the abdomen, which felt fuller than usual. A solution of carbolic acid (1 in 40) was now substituted for the Condy's fluid, and five grains of quinine were ordered every four hours. This was a very important step in the treatment, as will afterwards be seen; and I have no doubt whatever that the early use of an antiseptic lotion, and the free administration of such a powerful febrifuge as quinine, prevented the propagation of septic germs in the system.

On the morning of the 31st, after passing another good night, and nursing her baby in the meantime, she had a severe rigor at 10 A.M., when the pulse rose to 130, and the temperature to 105° Fahr. This was, in all probability, the beginning of blood-poisoning; but the assiduous application of the lotion and the continued administration of quinine evidently rendered the septic agent abortive, as all the symptoms subsided towards evening, and no tenderness on pressure over the abdomen was felt; and, as far as her feelings were concerned, she felt fairly well, though the secretion of milk was considerably diminished in quantity.

On the morning of January 1st, 1885, she had another rigor at 9 A.M.; and the pulse again rose to 130, and the temperature to 104° Fahr. The milk was almost suppressed. After this, the child was not again put to the breast. The lochia were slightly offensive, but normal in quantity. The rigor began to subside towards midday; but the pulse and temperature continued high, but without any increase in the evening. Still there was no abdominal tenderness.

On the morning of January 2nd, the lochia seemed more offensive. A small portion, about three fingers' breadth, of the placenta had come away. There were more rigors. Pulse still 120; temperature 103°. She said that she felt much better, and wondered at my close attention to her.

On the 3rd, the pulse came down to 96, and the temperature to 100°; the lochia were slightly increased, but there were no more portions of placenta. However, on the morning of the 4th, another piece, much the same as the last, came away, and from that date she continued steadily to improve without a bad symptom. The lochia continued a little longer than usual, but, in other respects, presented no features calling for remark. To err on the side of safety, she was kept in bed for eighteen days, after which she immediately resumed her household duties.

REMARKS.—The most noteworthy point in the above case was the early stage at which the quinine was administered. Had I waited until there was a considerable rise of temperature with abdominal symptoms, I should probably have been too late. As it is well known that this important remedy possesses the power of destroying minute organisms outside the body, it is but a reasonable influence that it should also destroy, at all events, certain micro-organisms forming, or about to form, within the body. It was with this latter intention that I resorted to it at such an early stage, and the result shows that I was justified in doing so. The removal of the clots ten hours after the confinement I also consider an important item, perhaps the most important of all; for, if they had not been cast off, septic matter could scarcely have failed to enter the system.

I cannot account for the remainder of the placenta. Probably it did soften and come away with the lochia; but, if so, it was in a very unostentatious manner, as I am at a loss to understand how it gave so little trouble.

CHRONIC SUPPURATION IN THE ANTRUM.

BY MORTON SMALE, M.R.C.S., L.D.S.,
Dental Surgeon to Westminster Hospital, and Dean of the Dental Hospital of London.

DURING 1884, three cases of antral suppuration came under my care. They were treated somewhat differently from the method described in most text-books, and with so good a result, that I think an account of the cases might be of interest. They are, in most surgeons' hands, admittedly difficult to cure, and treatment generally extends over a considerable period.

The usual treatment is to open the antral cavity freely, if possible, through the alveolus of the bicuspid or molar teeth, and teach the patient to wash out the cavity by the forcible contraction of the buccinators and orbicularis oris on a dilute disinfectant held in the mouth. I have treated many cases in this way, but always with very unsatisfactory results. I resolved, therefore, to be a little more heroic in my treatment, and instead of the dilute disinfectant, to use a powerful one. Having removed all offending teeth, with none of which the disease appeared to be connected, the cavity was freely opened through the socket of one of the teeth, and freely syringed with a ten per cent. solution of carbolic acid. The cavity was plugged with lint soaked in a twenty-five per cent. solution of carbolic acid. This was allowed to remain twenty-four hours, the opening into the mouth being closed by a plate in two cases, and by a plug of cotton-wool soaked in gum mastic in spirit in the third. This was renewed for several days after syringing the cavity with a ten per cent. solution of carbolic acid, until all fœtor (which was of the characteristic kind found in these cases) had disappeared.

From that time for about a month, the cavity was syringed every other day with a ten per cent. solution of carbolic acid, but there was no return of the fœtor. The pus, in the first instance, was full of bacteria, and had for months, in each case, been a source of great discomfort and anxiety to the patients. They looked anæmic, and were losing flesh. All appetite had gone, and they were afraid to go into society. Each case had to be treated with slight differences, but the above treatment is sufficiently accurate to apply to all. I append some notes of one of the cases.

The patient was Miss M., aged 40. Her history was good. There was no specific taint. She was very anæmic, and much thinner than previously; had no appetite, and was always feeling sick; she had a disgusting taste in her mouth at all times, and occasionally a discharge from the nostril. There was a collection of fœtid discharge at the back of the throat every morning. She had noticed it for quite six months, and had been treated medically, but with no good result. The breath was very offensive. There was no ozæna. The face had been slightly swollen several times, just under the eye. There was very little pain, except when the swelling was coming. I removed several roots of teeth, and opened the cavity through the second bicuspid socket, making the opening as large as possible. A large quantity of very fœtid pus was discharged. I syringed the cavity freely with a ten per cent. solution of carbolic acid, and plugged it with lint soaked in twenty-five per cent. solution of the same. On April 7th, I removed the plug, syringed, and applied a fresh plug. There was very little pus, but still fœtor. On April 8th, there was slight improvement. The treatment was continued. On April 12th she was much better; no fœtor. The plug was removed permanently. The cavity was syringed with ten per cent. solution of carbolic acid. The syringing was continued every other day for a month. By May 20th, it had healed; there was no discharge, and the patient looked and felt better. On February 6th, 1885, I saw Miss M.; she was then quite well.

SPLENIC MURMUR IN INTERMITTENT FEVER.—In a patient suffering from intermittent fever with considerable enlargement of the spleen, Dr. Maissurianz discovered, on auscultation, a loud murmur, synchronous with the beats of the heart, and most distinct just below the costal cartilages on the left side. This phenomenon is only observed when the spleen is hypertrophied, and the author compares it with the murmur heard over the thyroid gland in cases of exophthalmic goître.

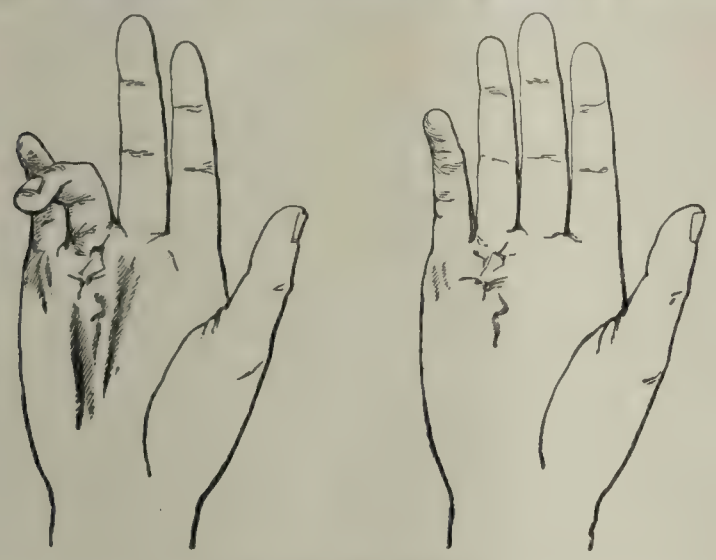
SURGICAL MEMORANDA.

THE TREATMENT OF DUPUYTREN'S CONTRACTION OF THE PALMAR FASCIA.

If Mr. Fisher will again refer to the Journal of February 7th, he will note that the hand represented (Fig. 12) is the right hand. Nothing had happened, artificially or accidentally, to relieve the deformity; but, with regard to the other hand (the left), "the patient stated that, twenty years ago, the left little finger was nearly as bad, but that.....the band of fascia broke, and the finger was released, and has never recontracted." I did not consider it worth while to represent this left hand, which had become cured by the accident, as it would simply represent a hand without any contraction of fingers whatever. A finger that has remained free from contraction for twenty years seems to me to afford good proof that the cure in this case, by a single division (rupture) of the contracting band, is permanent.

In a case on which I operated a few weeks ago, I was enabled to free the ring-finger completely by three incisions.

The following figures show the hand before and after operation. The patient was very pleased to find that he possessed the power both to



Before and after operation.

reflex and extend the fingers freely directly after operation. The hardness of the nodulated fascia has already, to a considerable extent, disappeared.

Noble Smith, Queen Anne Street.

CLINICAL MEMORANDA.

OPERATIVE DELIRIUM.

E. F., aged 23, put himself under my care a few months ago. With the exception of disorganisation of the knee-joint, there was no actual organic disease; but the circulation was feeble, and his nervous system exhausted by protracted physical suffering and mental anxiety. He was pale, anæmic, dyspeptic, and restless; at an early age given over to pain, sorrow, and defective assimilation. Palliative treatment gave comparatively little relief. He was invalided for years. At his own request I consented to amputate the limb; but, before I did so, I explained the risks plainly to him. His nervous system was so distraught, that I considered him not unlikely to succumb to the shock of a capital operation.

On March 1st I amputated at the lower third of the thigh, by the ordinary flap-operation. Esmarch's bandage was used, so that there was no hæmorrhage. The operation was satisfactory in every way; the patient recovered from the effects of chloroform, and was able, after two hours, to take beef-tea and milk at intervals. Four hours afterwards, he was progressing favourably. Soon, however, he began to talk widely and incoherently, and to suspect his nearest and dearest relative. On arrival, I found him singing snatches of songs, whistling, trying to get out of bed, regardless of the pain in the stump. He was, however, very amenable to persuasion. Then, for a time he remained apathetic, till he was again haunted by some hallucination, when he broke out into wild delirium. The pulse was small, and quick; the pupils dilated; the extremities cold; the surface of the abdomen, chest, and his face were covered by a clammy perspiration. I administered morphia by hypodermic injection, to counteract shock and pain; and at the same time I ordered a liberal allowance of beef-tea, and free stimulation. All was to no avail; he died rapidly —as patients do sometimes of delirium tremens—eighteen hours after the operation.

Major operations are sometimes, though rarely, followed by mania. This may be merely a coincidence; but I strongly suspect, when it does supervene, that the patients were already the subject of a deep derangement of the affective life, or of some obscure insane temperament. In such cases, it is well known that insanity may follow reaction from the shock of even the slightest injury. In my patient's case, a state bordering on delirium tremens soon set in, and proved rapidly fatal. He was never intemperate, never subject to any innate vice of the nervous system. M. Collins, M.D., Nottingham.

RHEUMATIC NODULES IN HEART-DISEASE.

In the Hospital Reports in the British Medical Journal of April 11th, Dr. Edge has made some remarks on the question of the relationship of "rheumatic" nodules to rheumatism, in which he is kind enough to make reference to some observations of mine on the subject. Trusting, no doubt, to the report in the medical journals of some remarks which I made more than a year ago at the Clinical Society, he has made me state that I found "rheumatic" nodules in at least half the number of cases of rheumatism in children which had come under my observation. I did not make so strong a statement as this; but what I would say is, that, in half the number of cases of rheumatism associated with well marked heart-disease in children, rheumatic nodules may be found.

During the sixteen months that I have had out-patients at the Victoria Park Chest Hospital (where the admission of children for treatment is rather deprecated), I have had at least six examples of severe heart-disease in children, accompanied by rheumatic nodules; the ages varied between five and fourteen. It is common in this series of cases to find a history of chorea and erythema, or these morbid manifestations may be detected by the observer himself. My experience, at the Hospital for Sick Children and elsewhere, during the past four years, teaches me that a group of symptoms, which may for convenience be termed "rheumatic," is very well defined, and constitutes a series of morbid phenomena which are almost, I venture to think, *sui generis*. The terms of this rheumatic series are (1) organic heart-disease, not unfrequently associated with pericarditis (which may have a nodular character in its distribution); (2) subcutaneous nodules; (3) chorea; (4) erythemata; (5) slight arthritis; (6) sourish sweating, especially of palms and soles; (7) variable, but not high, pyrexia.

A. Money.

OBSTETRIC MEMORANDA.

NEGLECTED SHOULDER-PRESENTATION.

Having read, with great interest, the instructive instance of neglected shoulder-presentation, reported by Mr. Joseph Thornley, in the Journal of March 21st, I referred to my note-book, and found reported therein a case which presents so many points of similarity to Mr. Thornley's, that I venture to send it, in the belief that it likewise may prove interesting. I wish also to bear testimony to the efficiency of the instrument I used, and, by making its existence more widely known, to let my professional brethren have the advantage of availing themselves of it. I am convinced that more extensive use of it by medical practitioners will prove its utility, and especially the facility with which the tape can be tightened round the ankle. The application of this simple mechanical contrivance would, in many cases, obviate the grave risks attendant upon such alternative measures as copious venesection, the administration of large doses of tartar emetic or opium, warm baths, etc., or the resort to dismemberment, evisceration, or decapitation of the child.

On Friday, June 12th, 1863, at 10 A.M., I was sent for by one of the students of the practical midwifery class, to assist him in delivering a woman in labour. On my arrival, I ascertained the following particulars. The patient, Mrs. C. F., aged 28, had previously given birth to three children, by single births, all the children having been born alive, without instrumental aid. She had also miscarried with a fœtus three months old. On this occasion the waters escaped at 12 noon, on June 11th (twenty-two hours before I saw the patient). She had not procured assistance till she sent for the gentleman who was now attending her, and who had summoned me immediately on ascertaining her condition. On making an examination, I

found the os uteri nearly, but not quite, fully dilated, soft and dilatable; the child's shoulder was presenting, and was pressed strongly against the brim by each pain. Seeing that there was no time to be lost, I determined to deliver by turning. When I had hooked my finger in the ham to bring down the knee, the foot slipped down. The left shoulder presented, and the right knee was the one I searched for, and secured. I then got hold of the foot, brought it as far as the brim of the pelvis, and endeavoured to turn the child by grasping the ankle between my fore and middle fingers, and drawing down in the intervals of the pains, which succeeded each other very rapidly. I was, however, unable to effect my object, and found that the shoulder was pressed, both by my tractile efforts, and by each pain, more firmly against the brim. Accordingly, in the intervals between the pains, I pushed against the shoulder with my thumb, at the same time that I drew upon the foot with my fingers. Finding that my efforts were unavailing, owing to the slipperiness of the foot, and to my thumb being in an unfavourable position for acting against the shoulder while the fingers were engaged in drawing upon the foot, I got the gentleman who had charge of the case to assist me by pressing upon the uterine tumour externally, in directions which I indicated as likely to promote the version of the child. Still the child would not move. I now withdrew my hand, procured a piece of tape, upon which I formed a noose, and placing it over my extended fingers, I re-introduced my hand, and seizing the foot with this hand, tried, with the fingers of the other hand, to push the noose over the foot, and fix it round the ankle; my intention being to draw down the foot, by means of the tape, with one hand, while I pushed up the shoulder with the other. I found it, however, impossible, the foot being no further down than the brim of the pelvis, to apply the tape in this way. I now sent for an instrument which my father, the Professor of Midwifery in Queen's College, contrived many years ago, and which he used since that time, and exhibited annually in his class. This instrument consists of a cylindrical rod of whalebone, about twelve inches long and something less than three-eighths of an inch in diameter, with a loop of tape tied firmly to one end of it. I placed the loop over the extended fingers of my left hand, laying the rod in its palm and along a groove formed by the fingers. I then introduced my hand thus armed, took hold of the foot, and, pushing up the whalebone rod gently and cautiously, guiding it at the same time with my fingers, and keeping it close to the foot and ankle of the child, had no difficulty in passing the loop over the foot and round the ankle. On turning the rod on its axis, the tape was twisted close up to the ankle, and embraced it tightly. I now, during the intervals between the pains, drew steadily upon the foot with the instrument, and pushed against the shoulder with the fingers of the disengaged hand, keeping them pressed against the shoulder during the pains, when, to my great delight, I succeeded in turning the child, and safely delivering the woman. The child showed evident signs of having been dead for many hours. The woman made a good and rapid recovery.

HENRY BURDEN, M.A., M.D.,
Formerly Assistant-Physician to the Belfast Lying-in Hospital.

THERAPEUTIC MEMORANDA.

CARBOLIC ACID IN GASTRIC DISORDERS.

I HAVE been in the habit for the last three years of giving carbolic acid, in grain-doses, three times daily, for indigestion, accompanied by constant acid eructations, with pain and vomiting. I also have prescribed it in sea-sickness, and in the vomiting of pregnancy, with good results. It can be given with opiates, where there is much gastrodynia, after meals; also with bismuth, nux vomica, etc.; also in cases manifesting gastric ulcer. Patients suffering from flatulency have derived considerable benefit from its employment, it being more readily taken than charcoal. I consider it a valuable remedy in such cases.

SPENCER SMYTH, M.D., Forest Hill.

STRENGTH OF OLEATES.—The percentage of metal in the metallic oleates is given by Mr. H. B. Parsons, in the *American Druggist*, as follows. In a hundred parts the oleate of aluminium contains 5.86 per cent., calculated as Al_2O_3; of arsenic contains 21.55 per cent., calculated as As_2O_3; of bismuth contains 22.22 per cent., calculated as Bi_2O_3; of copper contains 12.67 per cent., calculated as CuO; of iron (ferric) contains 8.89 per cent., calculated on Fe_2O_3; of lead contains 28.95 per cent., calculated as PbO; of mercury (precip.) contains 28.32 per cent., calculated as Hg; of silver contains 29.77 per cent., calculated as Ag_2O; of zinc contains 12.90 per cent., calculated as ZnO.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

UNIVERSITY COLLEGE HOSPITAL.

(Cases under the care of Mr. BERKELEY HILL.)

[Reported by Mr. BILTON POLLARD, B.S.Lond., F.R.C.S., Surgical Registrar.]

TWO OBSCURE CASES OF TERTIARY SYPHILIS.

CASE I. *Syphilitic Necrosis with Osteomyelitis: Trephining: Removal of Sequestrum: Rapid Recovery under Antisyphilitic Treatment.*—W. V., a man, aged 41, was admitted on December 8th, 1884. He stated that he had been in the hospital five years earlier, under the care of Mr. Berkeley Hill; and, from the notes of the case taken at that time, it appeared that he had suffered from disease of the right tibia from his tenth to his fifteenth year, and that pieces of bone had been discharged. He then recovered for a time, but, on several subsequent occasions, his leg broke out, though whether this was owing to bone-disease or not is not clear. When in the hospital in 1879, there were signs of an abscess at the upper end of the right tibia; the anterior surface of the tibia was trephined a little below the tubercle, and pus evacuated from a cavity one inch in diameter. Perfect recovery took place in six weeks, and the patient remained well till three weeks before his last admission, in December, 1884. The whole tibia was then enlarged, and the middle third of the bone was especially large; the skin over the upper third was cicatrised and adherent to the bone, and that over the middle third was riddled with large sinuses, one of which had a marked serpiginous border; the tibia was felt bare at the bottom of the sinuses, and the patient suffered most severe pain in it, particularly at night; the right femoral glands were much enlarged and tender. Mr. Hill concluded that there was a collection of pus in the medullary cavity, as well as suppuration between the shaft of the bone and the soft parts. On December 10th, he trephined the anterior surface of the lower part of the middle third of the tibia, and evacuated a quantity of oily fluid. The medullary cavity of the shaft was charged with this oily pus, and a probe could be passed upwards and downwards for some distance. To insure drainage, a small opening was drilled into the bone a little lower down, and from this the abscess-cavity was syringed out; some granulation-tissue was also scooped out. The wound was dusted with iodoform, and packed with boracic lint. This operation gave much relief; the temperature fell to normal from nearly 102° Fahr.; and the patient no longer complained of the severe pain from which he had previously suffered. The condition of the tibia was not so satisfactory, however; and, on December 18th, it was noted that about four inches of it were necrosed, and ulceration was spreading with a well marked sinuous border in the soft tissues over it; the temperature frequently rose above 100° Fahr. On January 10th, the necrosed bone was found loose, but the general condition of the patient had become so much worse that, on the earnest solicitation of the patient, the question of amputation was discussed. On January 14th, Mr. Hill made an examination under an anæsthetic, and finding that the sequestrum was only held by a small bridge of bone at the lower end, divided this and removed the sequestrum. The cavity was then freely scraped, and it was found that there was still a thin layer of healthy bone at the posterior part of the tibia, though it had broken away from the upper third of the shaft, and the lower part of the limb was connected with the upper only by the fibula and soft parts. The cavity was mopped out with a solution of chloride of zinc, and a carbolic gauze dressing was applied, but the nocturnal pain remained considerable. From the evidently subperiosteal origin of the osteitis and necrosis, Mr. Hill formed the opinion that, notwithstanding the absence of syphilitic history, the cause of the disease was syphilis, and ordered iodide of ammonium, in ten-grain doses, every four hours. The relief from pain was rapid and marked; the local necroses stopped; and the general condition became good; sleep, appetite, and strength returned. On January 22nd, the limb was put up immovably in a splint formed of telegraph-wire and plaster-of-Paris; the intervals between the limb and the splint, at the interruptions, were packed with absorbent wool steeped in bees' wax, so as to prevent the discharges from soaking beneath the apparatus. Beyond some slight temporary mental aberration, caused by the severity of the bodily suffer-

ing, the patient now made continuous progress; healthy granulations sprang up all over the wound, and rapidly filled up the large cavity. The frequent doses of iodide of ammonium were lessened, and soon changed for mercury and iodide of potassium. The splint, with carbolic gauze dressings, was continued till March 13th, when, the ends of the tibia having become solidly united by new bone, an ordinary plaster-of-Paris case, with a window, was substituted for it. The patient was discharged on March 20th in a fair way towards complete recovery. He was then taking fifteen grains of iodide of potassium, and one-eighth of a grain of bichloride of mercury, three times a day, with instructions to continue the antisyphilitic medicine for several months at least.

Case II. *Ulceration of Large Gumma of Scrotum after an Injury: Margins Revived and Stitched together: Cure.*—J. H., an old soldier, aged 45, was admitted on December 30th, 1884, suffering from an enlargement of the right side of the scrotum, forming a tumour about the size of an orange. On the front of the swelling, there was an ulcer a little larger than a five-shilling piece, which had rapidly increased to that size from a mere puncture; the ulcer was covered by a thin yellowish slough. The testicle was enlarged, irregularly nodular, and appeared to be surrounded in parts by fluid; there were some ulcers on the right leg, which suggested possibly a syphilitic cause, but there was no distinct history of the disease. The history of the case pointed to injury as the primary cause of the ulceration of the scrotum, for the patient, a one-legged man, stated that, about a month ago, his crutch had broken under him, and struck a severe blow on his scrotum. Great pain and swelling of the scrotum followed two or three days later. Three weeks afterwards, a small painful pimple formed on his scrotum, and, on its giving way, the patient averred that half a gallon of blood and thin matter escaped. Mr. Hill concluded that the ulceration was syphilitic, and ordered iodide of potassium; under that treatment, the ulcers improved. Ten days after admission, the surface of the ulcer was scraped, and its edges were pared, freed from the deeper parts, and sutured together, so as to cover over the sore. Union took place rapidly without suppuration, and a linear scar replaced the large circular ulcer. The patient had also a series of strictures of his urethra, the narrowest of which was No. 5 French (No. 1 English), which were divided by internal urethrotomy. The patient was discharged about three weeks after these operations, with still some enlargement of the testicle; the ulcers on the leg were healed; micturition was free, and the urethra was of the calibre of No. 24 French (14 English).

Remarks.—These two cases illustrate the obscurity that sometimes conceals the syphilitic origin of severe diseases of various kinds. The first case is of much interest, on account of the very extensive bone-disease which was present, and the great rapidity with which the patient emerged from a really critical condition on the administration of antisyphilitic remedies. In the second case, the syphilitic nature of the disease was liable to be overlooked on account of the history, which pointed strongly to injury as the cause; the presence of ulcers on the leg, and the description of the progress of the ulceration of the scrotum, with its limited area of destruction, though so severe in its action, and the nodular condition of the testis indistinctly felt through its swollen coverings, led to the diagnosis of syphilis, though no corroborative history could be obtained.

MALIGNANT DISEASE, PROBABLY EPITHELIOMA, OF THE RECTUM: COLOTOMY: MUCH RELIEVED.

A. R. W., a man aged 32, was admitted on January 5th, 1885. He contracted syphilis when 17 years of age, but had had no late manifestations of the disease. Nine months before admission, he began to suffer pain in sitting; he then noticed that his stools were streaked with blood at times; he stated that, one month later, he passed from the bowel a tube of membrane two feet long; he first noticed difficulty in defæcation seven months since. At the time of admission, the patient had a discharge of pus and blood from the rectum, which sometimes was noticed independently of defæcation; the passage of a motion was attended with much pain, of a sharp lancinating character, which lasted for some time afterwards; he had to strain a good deal to pass his urine, but the size of the stream was not diminished. About two inches up the rectum, a number of nodular growths could be felt by the finger on the left and posterior surfaces of the gut; the mucous membrane was eroded, very rough, and very sensitive; below the nodular growths, the rectum and anus were normal. The growth itself was firmly fixed to the parts around, and there was no definition between it and the prostate. The patient was again examined three weeks later, and then a great alteration was found; the calibre of the gut was much narrowed by fleshy nodules, some of which felt soft, and others more indurated; the entire growth had extended much lower down, and was extremely painful to the touch; the patient had lost much flesh during the three weeks he had been in the hospital. On January 29th, Mr. Hill performed colotomy through a transverse incision in the left loin. The operation gave relief to the abdominal distension and pain at once; the wound healed well; there was a little elevation of temperature for four days after the operation; the temperature then fell to normal, and remained so. A week after the colotomy, the patient was seized with violent shooting pain from the rectum to the penis, and inability to void urine. The pain soon ceased, but the urine had to be drawn by catheter regularly for about a week, when natural micturition returned. Five weeks after the operation, the growth in the rectum was larger and lower down, and, in front, was continued into the prostate. The patient was discharged six weeks after the operation; the colotomy-wound had completely healed, all fæces came away at the loin, there was very little discharge from the rectum, and micturition was no longer difficult or painful. When last seen, the patient was feeling well and strong, able to perform his work as a clerk, and to walk two miles daily.

Remarks.—Though there was a history of syphilis in this case, the disease in the rectum had no resemblance to syphilitic disease of that organ, having a high origin, leaving the termination of the gut and the anus quite healthy; but the case has interest in showing the advantages of opening the intestine above the obstruction before the patient has become exhausted by the interference with defæcation, and the gut above the disease dilated, its walls thinned, and its muscular power destroyed by long distension—a condition frequently inducing rupture and fatal peritonitis. The patient was restored to perfect ease, to comfortable health for a time, and was relieved from much suffering during the further progress of his disease.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 14th, 1885.

George Johnson, M.D., F.R.S., President, in the Chair.

Case of Aneurysm of Abdominal Aorta: Distal Compression for four hours and three-quarters under Chloroform: Cure of Aneurysm: Death from Gangrene of Jejunum on eleventh day. By John R. Lunn, F.R.C.S.Ed., and F. L. Benham, M.D. (Communicated by Mr. R. W. Parker.)—The patient, a man, aged 32, shoemaker by trade, was admitted into the Marylebone Infirmary, October, 1883, with a large abdominal aneurysm. He had been in the army nine years, and had had syphilis five years ago. There was no history of strain or injury. The urine contained a slight trace of albumen. The patient was not relieved by the usual remedies, including rest, low diet, narcotics, etc. He was evidently becoming worse, and was extremely anxious to have some operation done, the danger attending which was explained to him. On October 31st, the patient was placed under the influence of chloroform, and compression of the abdominal aorta just above, and to the left of, the umbilicus was kept up $4\frac{3}{4}$ hours with Carte's tourniquet. There was slight vomiting on the first and third days after the operation (apparently due to the morphia and chloroform combined), but otherwise the patient expressed himself as feeling better. The tumour was smaller, harder, and pulsation less marked. The man continued to do well for seven days, but, on November 8th, persistent vomiting set in, chiefly of a dark grumous material. The pulse was feeble, 192; thirst intense; no abdominal distension or pain; there was some dulness over the right lung; face congested; feet warm. The patient became worse, and died on November 11th, on the twelfth day after the operation. At the necropsy, the aneurysm was found to be cured, but there was gangrene of about two feet of the jejunum. The superior mesenteric artery was completely blocked.

Aneurysm of the Abdominal Aorta causing Gangrene of the Lower Limbs. By Henry Morris, F.R.C.S..—The patient was in active employment as a carpenter; and on the morning of December 26th, 1884, felt no discomfort. On starting for work, however, he felt great pain in his legs, especially in the calves, along with some numbness. He could not stand, and was obliged to drag himself back into his house, as best he could, by his arms. He was carried up to his bed, and hot-water bottles applied. Both legs seemed equally affected. The numbness passed off in about twenty-four hours. In two days, the right leg began to turn black. On January 1st, 1885, five days after the attack, he was brought to Middlesex Hospital, and came under Mr. Morris's care. Inquiry showed that he had had syphilis eighteen years before, with few constitutional symptoms; that,

three months before his accident, he had begun to feel drowsy, with some pain in the right eyeball. The right leg was very much swollen and œdematous, and the femoral artery could not be felt. The foot was blackish-grey and gangrenous; the left foot not gangrenous. Immediate amputation was discussed; but it was resolved to wait till the patient's general state should be more favourable, and some collateral circulation might be set up. The temperature was high—from 102° to 104°; and the gangrene spread upwards. On January 14th, the right leg was amputated at the thigh by the circular operation. Only a very small stream of blood trickled from the right femoral artery. The wound became neither worse nor better, but he died in eight days. At the necropsy, the tissues of the stump were found to be very foul, and nearly gangrenous. There were two ounces of clear serous fluid in the peritoneum; infarcts in both liver and kidneys. There were two spots of atheroma in the mitral valves, and much atheroma in the thoracic aorta. An aneurysm was found on the right side of the aorta, where it passed through the diaphragm; it was about the size of a Tangerine orange, and was full of laminated clot. It lay over the first and second lumbar vertebræ, which were deeply eroded. The aorta was blocked at the bifurcation, and the clot extended into both divisions; on the right side, as far as the amputation; and on the left, to about the same distance.—Mr. BARWELL expressed much interest in Mr. Lunn and Dr. Benham's case, as illustrative of the results of pressure on an abdominal aortic aneurysm. He doubted himself if any pressure on the aorta would cure such an aneurysm. In the four recorded cases that he knew of, where it had been tried, two had been no better or worse for the treatment, and two had died soon after the operation. He ventured to question whether there was sufficient evidence, from the character of the clot in the case just brought before them, to establish an *ante mortem* case.—Mr. BRYANT was pleased to find Mr. Lunn following a line he had himself taken, and treating an abdominal aortic aneurysm by pressure. In his own case, he had thought that the clot formed slowly under pressure; and what Mr. Lunn had said had led him to conclude that the same had happened in his case, for the superior mesenteric artery was found occluded, and that must have been a result during life. He should feel rather encouraged to repeat the operation by hearing this case of Mr. Lunn's. He had not quite gathered what precautions had been adopted, and would be glad to hear more about them.—Mr. HOLMES had been glad to hear of the case, which raised some very interesting points. The pressure applied had been described as distal, but he could not thoroughly convince himself that it would not be more strictly accurate to call it direct. Considering the position of the aneurysm and the necessarily considerable size of the compressing pad, there would be very small space of normal artery, if any, between the pad and the aortic bifurcation. What was accurately described as distal compression in aneurysm of the abdominal aorta was more likely to kill the patient than to cure the aneurysm. A slightly better prospect might be held out for direct pressure. If the finger merely could be put down as compressing the aorta at the bifurcation, probably no material good or harm would follow. As far as he had been able to judge from the drawing and specimen, he thought the aneurysm had probably become consolidated during life, and that Mr. Lunn might, therefore, claim it as a cure to that extent, but he should have wished, before giving any final opinion, to have seen a section of the aneurysm showing its internal condition. A very interesting case had lately been published (BRITISH MEDICAL JOURNAL, April 11th, 1885, p. 745), in which Professor Loreta, of Bologna, had cut down on a large abdominal aneurysm, probably aortic, and, following the plan originated by Mr. Moore, had passed about five or six feet of wire into the aneurysmal sac. The case had resulted in a cure, which deserved much attention. If he had to treat an aneurysm such as Mr. Lunn had described, he confessed he should himself incline to this method rather than to a pressure which was rather doubtfully distal.—Mr. HULKE said a few words in confirmation of Mr. Holmes's remarks on the kind of pressure which could be applied to large abdominal aneurysms. He had been engaged in three cases, when the pressure had sometimes been described as proximal, but he had himself felt at the time no doubt whatever that it was, in part at least, direct. He had felt some fear of their immediate rupture, but fortunately they had all consolidated.—Mr. H. MORRIS wished to direct some attention to another point in Mr. Lunn's case, namely, how far the gangrene of the intestine was due to pressure, and how far to plugging of the artery. His own case had been brought forward to show that, even when an aneurysm was cured, the patient might die from the results of the cure. For in that case the aneurysm was completely filled with firm laminated clot, but the patient had died from extension of that clot into the lower vessels. In the same way he had seen a cured aneurysm lead to death in a man brought dead into the Middlesex Hospital, who had died suddenly by leakage from a cured thoracic aneurysm into the pericardium.—Mr. JONATHAN HUTCHINSON congratulated Mr. Lunn on his treatment of the case, which he took as being on the whole satisfactory. At the same time, he wished, without depreciating surgical skill, to enter a plea for a drug-treatment of these very dangerous cases. He had himself had the treatment of a case very nearly exactly corresponding to Mr. Lunn's description, and had resolved on a vigorous drug-treatment. He gave acetate of lead in very large doses, such as to produce lead-poisoning, a marked blue line on the gums, and severe colic. At the same time he covered the abdomen with layers of ice, and insisted on a dry diet. The result was a complete cure in about three months, though the case looked very dangerous at first. The man went to work again, and, as far as he knew, was still in good health. He was very far from believing that a drug-treatment, with absolute rest and a dry diet, would cure all cases, but he thought that such measures should be tried before the instrumental methods were applied. He regarded acetate of lead, ergot, and iodide of potassium as the three best remedies among drugs, and repeated that their use, not separately, but together, must be pushed almost to the point of poisoning if any good result were to be expected. He had not understood whether Mr. Lunn had used any such measures before having recourse to a very dangerous operation.—Mr. LUNN thanked the Society for the kind consideration that had been given to his paper, and proceeded to answer a few questions. He considered the clot as *ante mortem*, for it was laminated in some parts, even though spongy in others. His impression at the time did not agree with what Mr. Holmes suggested, namely, that there was some direct pressure. The gangrene of the bowel he took as coming from occlusion of the arteries leading thereto, for it only came on after eight days.—Dr. BENHAM supported Mr. Lunn in his opinion as to the cause of the gangrene and the distal position of the pressure.

On Two Cases Illustrating the Localisation of Motor Centres in the Brachial Enlargement of the Spinal Cord. By C. E. BEEVOR, M.D.—Case I. Progressive muscular atrophy occurred in a goldbeater and lamplighter, aged 38. The onset was three years ago, with gradual wasting and loss of power, beginning in the muscles of the back of the right forearm, the muscles of the hand and the interossei, and involving other muscles of the right arm. The left arm was affected a year later, with difficulty of supinating forearm, flexing elbow, and abducting shoulder-joint. The legs have been weak for the last six months. Case II was that of a young man, aged 18, suffering from infantile paralysis. The onset was sudden when one year old, with paralysis of all four limbs, of which the legs and right arm recovered fairly well, while the left arm remained more paralysed. There was nothing of great importance in the course of the two cases; but they were brought forward to illustrate clinically the groups of muscles found by Professors Ferrier and Yeo to be thrown into action by faradising the peripheral ends of the divided anterior motor roots forming the brachial plexus. These groupings were shown in the tables, and side by side with them were given the muscles found to be affected in these two cases. Any muscle which was supplied by two or more of these nerves, as, for instance, the serratus magnus, which was supplied by the fifth and sixth cervical nerves, had its name repeated, as was seen in the case of the patient affected with progressive muscular atrophy. On comparing these two cases, it would be seen that, whereas, in the case of progressive muscular atrophy, the groups of muscles severely or completely affected belonged chiefly to the fourth, fifth, and eighth cervical and first dorsal nerves on the right side, and mainly to the fourth and fifth cervical nerves on the left side, in the case of infantile paralysis, the opposite held good; for, on the right side, the only muscles affected (the triceps latissimus dorsi and pectoralis major) were innervated, according to Ferrier and Yeo, only by the sixth and seventh cervical nerves, whilst the rest of the groups were unaffected; and, on the left side, the sixth or seventh cervical nerves were most affected, and also some muscles innervated by the fourth and fifth cervical were partially paralysed. The reaction of the muscles to electricity—faradisation and constant current—had been ascertained, and they corresponded to the degree of power lost and to the amount of wasting, and were quite in accordance with the above groupings. It should be remarked that Ferrier and Yeo's experiments were made on the motor roots; but it was considered that the groups of muscles thereby found could be equally applied to the cells of the anterior cornua supplying these nerves, and these cells were known to be affected in progressive muscular atrophy and infantile paralysis.—Dr. HUGHLINGS JACKSON, after remarking on the great value of the paper, and on the ability and industry the author had shown in it, mentioned a case which seemed to him to harmonise with a particular experiment Dr. Ferrier had made on the second dorsal motor root of

the monkey. After referring to well known views as to the connections between the spinal cord and the iris, Dr. Hughlings Jackson remarked that Dr. Ferrier found a stimulation only of the root mentioned to cause dilatation of the pupil; stimulation of the same root caused contraction of the intrinsic muscles of the hand. In a case of progressive muscular atrophy, at a stage when the intrinsic muscles of the hand were almost the sole ones atrophic, Dr. Hughlings Jackson found that the pupil on the same side was smaller than its fellow, and that it did not dilate when shaded. Thus there was a state of things confirmatory of Dr. Ferrier's observations.—Dr. FERRIER congratulated Dr. Beevor on his paper, which was so minute as to be difficult to grasp readily, or remember exactly. It showed, in the main, that the results he had obtained from experiments on monkeys were true in the case of man, and it was most encouraging to find anyone who was persevering enough to carry out such long and careful research as was necessary in dealing with these matters. The whole question of why there should be plexuses at all was interesting, and his original opinion was gaining ground, that each root in a plexus, such as the brachial, represented a definite movement—often requiring the coordination of many muscles, as, for example, the motion of raising the hand to the mouth, which required the use of the deltoid, supinator longus, and brachialis anticus at least. Dr. Beevor had referred to a communication he had made to the Royal Society, in 1881, in which was a mistake, corrected in a subsequent paper, namely, the confusion of the first and second dorsal nerves. He had since found that, although the text-books generally said that only in abnormal cases did the second dorsal contribute to the brachial plexus in man, yet that, in a large number of subjects examined by Dr. Cunningham, it occurred in 73 per cent. They had not yet learnt, by any means, all the lessons that were to be taught them by the arrangement of the spinal nerves and nerve-centres; he expected to find, ultimately, as many types of progressive muscular atrophy as there were roots to the brachial plexus. He had shown two types, one that affected the muscles of the upper arm and shoulder chiefly, and came from spinal change about the fifth and sixth cervical vertebræ; and another which came from change in the lowest region, supplying the brachial plexus, and affected the intrinsic muscles of the hand first. Dr. Beevor, he considered, had shown a type with an anatomical origin, midway between these.—Dr. BEEVOR, after a few words of thanks for the valuable criticisms and kind attention he had received, expressed himself as unwilling to further prolong the meeting.

CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 10TH, 1885.

THOMAS BRYANT, F.R.C.S., President, in the Chair.

Amputation at the Hip-joint by Furneaux Jordan's Method.—Dr. LEWIS W. MARSHALL, in giving a record of ten amputations at the hip-joint by Furneaux Jordan's method, mentioned the fact that a paper had been previously published by him in the BRITISH MEDICAL JOURNAL, October 27th, 1882, on the same subject. Four cases were included in this paper, which was read at the local meeting of the Midland Branch on June 24th, 1880. The present paper dealt with these four and subsequent cases which had occurred in his practice at the Children's Hospital, Nottingham. Dr. Maclaren, of Carlisle, also read a paper in Edinburgh, which was published in the BRITISH MEDICAL JOURNAL, June 7th, 1884. He gave a brief account of the two methods of operating suggested by Mr. Jordan, stating that he himself preferred the second method, which was done by making the circular sweep through the soft parts first, the enucleation of the femur being the second step. Of Dr. Marshall's ten cases, three were done after excision, and the remainder when this operation could not be practised on account of extensive implication of the femur or pelvis, or from the general condition of the patient prohibiting more conservative measures. The ages of the patients were as follows: two at 11, one at 10, two at 8, two at 7, one at 6, one at 5, and one at 3 years. In all but one, the fingers were used to compress the femoral in the groin. Esmarch's bandage and Davy's lever were spoken of, and had been used; the latter in the only case which had to be recorded as a death in the list. This death occurred within a few hours after operation, from shock, the result of loss of blood. The amputation was on the right side. All the patients were living and well, with the exception of two, whose deaths were due to visceral lesions. The dressing used in each case was a loose antiseptic covering of carbolic oil and lint. Stress was laid upon the after-treatment of the patient. Food by the mouth was withheld for some hours, if iced champagne were excepted, nutrient enemata being given instead. An extract was read from Mr. Jordan's paper, detailing the advantages of his method over the older flap-operation. The reason given for the choice of the second method of operating was as follows. "The increased length of leverage gained by freeing the limb from the main attachment of the muscles enabled the fingers and the knife to pare the muscles off from the bone with much less risk of wounding vessels unnecessarily." It was also stated that the separation of the tough bands, which in old standing cases of hip-disease welded the trochanter and what existed of the neck of the femur closely to the pelvis, was rendered easier and more rapid. The fact of the gluteal vessels remaining untouched was insisted on. Dr. Marshall also spoke of the possible risk to the patient when disease was present in the pelvis from the use of Davy's lever. The use of this instrument appeared to be undesirable, because the efficacy of the nutrient enemata might be interfered with. Mr. Wright, Senior Surgeon to the General Hospital, Nottingham, controlled the common femoral. The hand in the groin for this purpose was in no way a hindrance to the operator. The femoral artery was always tied after the circular incision was made. The stump left by Jordan's method was said to be all one could wish for. A case in which albumen in the urine had been present for some time, and where the liver was enlarged to the umbilicus, was now living and well. The albumen could be found up to ten months after amputation. In two other cases, large deposits of albumen were present when amputation was done.

A Plea for Amputation at the Hip-Joint in certain Cases of Advanced Suppurative Disease.—Mr. JONATHAN HUTCHINSON commenced by stating that he had no new method of treatment to recommend, but simply the more liberal adoption of an old one. He believed that not a few cases of advanced suppurative destruction of the hip-joint would be more safely treated by amputation than by excision or by rest. Especially did this remark apply to cases in which the limb was diseased at other parts, and damaged as regarded its usefulness. He included also some which, after excision, were not doing well. In all cases in which such conditions existed, he felt sure that the surgeon would do well to remember that amputation at the joint was usually very successful, even in cases of extreme exhaustion. It was also usually followed by rapid restoration to very good health. The difference between operations for disease and for tumours was very great. The former were attended by obvious relief from the very first, the latter not unfrequently by severe shock. Bearing this in mind, he felt sure that it was often a mistake in practice, when open suppuration was established, and the patient's strength failing, to delay or decline amputation at the hip-joint. In looking back in his own practice, he recollected several cases in which he much regretted not having done so. In such, the patient was always in danger of the development of lardaceous disease, as well as in risk of his life from hectic or some intercurrent malady. Particularly in adults was the hopefulness of recovery from suppuration of the hip-joint very poor. Several cases were related in the paper. In one, in an adult, there was disease of the hip and knee together, and in another, disease of the hip and femur together. Both were in a state of extreme exhaustion, and both recovered well. In another case, in a boy, the operation was done in spite of advanced lardaceous disease and an enormous liver, with the result of greatly improved health and diminution of the viscus. In a fourth case, in which extreme exhaustion from suppuration was the reason for amputation, erysipelas had attacked the limb on the day before the operation, yet a successful result ensued. The author stated that he had not in any single case lost a patient as the immediate result of the operation, nor was he aware that any one had subsequently died. Respecting two, however, he was obliged to report that they had not regained good health, nor were their sinuses healed when last seen. The mode of operating had varied with the nature of the case. Of late, he had used Furneaux Jordan's method, of which he thought highly. In one done by that plan, with stripping up of periosteum, a long stump, which appeared to contain bone, was obtained. In all cases, of late years, some antiseptic method of dressing had been adopted. Usually, a strong lotion of lead and spirit of wine had been applied; but, in some, Lister's gauze-dressings had been used. The paper concluded by the mention of cases in which, after consultation, the operation had been declined or deferred, on the plea that the patient would probably recover without it, and in which an opposite result had occurred.—Mr. HOWARD MARSH thought the two papers very valuable. They presented many points of importance. Amputation of the hip-joint in cases of very advanced disease was an extremely valuable step. At the Children's Hospital, many cases of late years had tended to show the necessity of its more frequent performance. He had performed the operation himself five or six times, and it had also been done by his colleagues. Some deaths had occurred, but comparatively few. As to the use of Davy's lever, he

did not quite agree with Dr. Marshall; he thought it one of the best applications in surgery. It might have dangers, if not carefully manipulated; but those who had had practice in the operation could use the lever so that there would almost literally be no hæmorrhage whatever. Mr. Morgan and Mr. Cripps had employed it successfully. Furneaux Jordan's method frequently took a long time, and the wound it necessitated was of considerable size. He thought, by the old method, less hæmorrhage was occasioned; and that, therefore, it afforded greater advantage to the patient. It was advisable to operate low down, in order to obtain a longer stump; so that the patient might possess a good power of walking. He was much interested in the accounts of the clearing up of the amyloid disease after the operation, and the consequent cessation of the suppuration. He could confirm these happy results. He had seen children make good recoveries from the albuminuria and other evidences of lardaceous disease; and therefore, far from these being any bar to the operation, they rather pointed to its performance. He was of opinion that, if the operation were not done, an important step was omitted.—Mr. GOLDING-BIRD thought that some modification of Larrey's operation for excision of the shoulder-joint might be applied to Furneaux Jordan's operation for controlling hæmorrhage; in that case, the front flap containing the vessels would be made last.—Mr. BARWELL some time ago had published a precisely similar opinion in cases where the operation should be performed. A girl, who had undergone excision of the hip-joint at the hands of the late Mr. Hancock, was taken away from the operating-theatre in an apparently hopeless condition, was sent to the country, and, about four months after, returned with a large suppuration. The liver was as low down as the umbilicus. There was albuminuria, with large hyaline casts. This patient recovered, and, three years afterwards, had grown into a fine strong woman. A microscopical examination of the urine should be made carefully, and on several occasions, in order to ascertain what kind of hyaline casts were present. So long as these casts were large, showing that they proceeded from the large tubuli uriniferi, there was perhaps no necessity for interference; but when they were small, showing that the more intimate structure of the kidney was affected, there could then be little doubt concerning the advisability of the operation. The size of the liver was of small importance. He had amputated when the organ had reached the crest of the ilium. It was astonishing how the liver diminished in size after suppuration was arrested. When amputation was done for traumatic injuries, it was much more fatal than when done in cases after long suppuration. He agreed with Mr. Marsh as to the value of Davy's lever in checking the hæmorrhage from the posterior division. Davy's lever unquestionably required the greatest care, but he would certainly use it in most cases. He did not feel inclined again to adopt Furneaux Jordan's method.—Mr. BLACK remarked that Mr. Davy had lately operated twice by Furneaux Jordan's method without employing his own lever; this instrument had caused only one fatal result in forty cases in which Mr. Davy had employed it.—Mr. HAWARD could bear out the diminution of the enlarged liver, and the disappearance of the albuminuria after the operation; but he had also seen cases in which the suppuration had ceased without any operation being performed, the liver decreasing and the spleen becoming small. He wished to add his testimony to the fact of Davy's lever controlling the hæmorrhage, and, in adults as for children, a cone of wood, guarded by some soft material, might be placed over the abdominal aorta to control the hæmorrhage. It was surprising how a moderate degree of pressure would control the circulation.—The PRESIDENT would also add his support to the operation, which, when done under the circumstances mentioned by Mr. Hutchinson, was unusually favourable. They were often too apt to postpone it for too long a period. After excision, if the patient did not soon rally, it was very doubtful if he ever would. He agreed with Dr. Marshall that a long stump was very desirable, and that any operation affording a long flap was highly advantageous. He himself would advocate strongly Furneaux Jordan's operation. He thought that, in performing the operation, the surgeon should keep as near to the bone as possible, so as not to disturb the soft parts more than was absolutely necessary. He thought surgeons were beginning to find out that Davy's lever was not quite so valuable as was at first supposed. He thought the method of Mr. Lloyd, of Birmingham, was most effectual in suppressing hæmorrhage round the hip-joint.—Dr. MARSHALL, in reply, thanked the Society for the discussion. All his operations had been upon children under 11 years of age, and, in such little patients, the assistant's finger could control almost all hæmorrhage. In adults, Davy's lever was no doubt serviceable; but he much preferred Lloyd's India-rubber bandage. One reason for not using Davy's lever was because of the pelvic disease, and long protracted diarrhœa before the operation. It must be disadvantageous to the patient to interfere with the rectum more than could be avoided. Dr. Maclaren had performed operations on the dead body, and found that the flap-operation took eleven seconds longer than Furneaux Jordan's method. He thought, however, that there was very little in the question of time. The further the removal of the limb was from the trunk the less was the bleeding, and the less were the chances of septic infection, and in Furneaux Jordan's method the nerve-trunks were divided almost as low as in cases of amputation through the middle third of the thigh. He was glad that Mr. Bryant took the same view of the matter as himself. He saw no reason to change his method.—Mr. HUTCHINSON, in reply, said he need not say much. He shared in the opinion that Davy's lever had its dangers. The ordinary elastic strap over the abdomen had proved completely successful in arresting hæmorrhage. Furneaux Jordan's method ensured a better stump, and, admitting that it took a little longer to do, he thought the fact was of no consequence. He was very pleased that the Society had taken so much interest in the subject, as he had been extremely desirous of obtaining the opinion of the profession upon the desirability of operating in these cases, and it had often struck him that he had on several occasions neglected to perform the operation.

A Peculiar Form of Skin-disease.—Dr. COLCOTT FOX read a paper with the object of drawing attention to an affection of the skin, accurately described, for the first time, by Horand, of Lyons, in the seventh volume of the first series of the *Annales de Derm. et de Syph.* Dr. Fox had met with seven cases in the last two or three years, and thought it a distinct morbid entity, resembling Willan's roseola annulata in appearance, but running a chronic course. The erupted lesions were slightly raised, rounded, the smaller uniform in aspect, the others depressed in the centre, with only the borders raised, which gave them a distinctly circinate form. Their colour varied from a pale rose to a yellowish white, approaching to the tint of the surrounding skin, so that one could sometimes with difficulty distinguish them from the rest of the integument if the patient were not set obliquely. Often the border alone was coloured. The eruption was constituted by discrete or confluent patches, of which the dimensions varied ordinarily from the size of a lentil to that of a two-franc piece. They exceeded these dimensions only in rare cases. These macules were constantly dry, their surface was more or less furfuraceous. They were accompanied by a little itching, especially when they were excited and reddened by heat or bathing. It seemed to commence nearly always on the trunk, and extend thence to the limbs, and disappeared in the order of invasion. Its etiology was very obscure. Horand's cases were met with between the ages of 8 and 13, and Dr. Fox had seen it at 4 years of age. Dr. Fox then detailed two cases of a somewhat similar condition in children, which he believed to be the "pityriasis circiné et marginé" of Vidal, only there was considerable symmetry. The eruption was almost universal, and the macules rather larger than in the affection portrayed by Horand. In these cases, Dr. Fox found the patches invariably crowded with masses of micro-organisms. The hairs were unaffected, and there was no mycelium. Repeated attempts to inoculate the cultivated organisms had failed. Dr. Fox added that he had already met with a similar organism in two cases of psoriasis in children, and it was possible that it was commonly to be found among the desquamating epithelial scales of children's skins. A stained preparation was exhibited to the meeting.—Dr. GLOVER had seen during the last few days a case resembling the one described by Dr. Fox. He had looked upon it as psoriasis guttata. The eruption had come on abruptly on the bare part of the neck. He had shown it to Dr. Radcliffe Crocker, who had termed it pityriasis circinnata. The patient was now recovering.—Dr. STEPHEN MACKENZIE had no special knowledge of this case. He thought, however, that the microscopic specimen he had just seen showed a rather large micrococcus. The fact that no mycelium was found was still further evidence that it was not fungus but micrococcus. The necrotic tissue probably afforded a nidus of development found in this part.—Mr. HUTCHINSON said he was a little disappointed that Dr. Fox had said nothing regarding the cause and cure of this case. He could not offer any positive opinion on these points, but he was rather disposed to study this class of cases in relation to their course and cause than to give names. The peculiar character of their eruptions was that they always began on the trunk, never on the palms or limbs. He thought they were often originated by wearing peculiar vests. A great number occurred in connection with articles of clothing, perhaps from being worn too long, the secretions accumulating and becoming sources of irritation. The eruption was at first quite limited, but in after-stages it would invade parts which had not been touched in the least by the particular kind of clothing. He had recommended patients to wear silk instead of flannel vests, and had seen the affections disappear under this mode of treatment alone.

—Dr. Fox, in reply, said he quite agreed with Dr. Mackenzie's remarks as to the formation of micrococci. He had carefully refrained from giving names. He had no idea as to the cause, and had failed to obtain any clue to it.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 1ST, 1885.

J. B. POTTER, M.D., President, in the Chair.

Specimens.—The following specimens were shown: Fibrosarcoma of the Chorion, by Dr. Galabin. Papilloma of the Peritoneum; Preparations of the Injected Uterus, showing the Circulation; Microscopic Sections; by Dr. John Williams.

Sequel to a Case of Ovariotomy.—Dr. MURPHY (Sunderland) removed a large cystoma of the left ovary from a multipara, on January 16th, 1882, and, finding the right ovary enlarged and the seat of cystic disease, he passed a double ligature underneath it, and, having firmly secured the ligatures, punctured the cysts, and removed portions of the ovary. The patient made an excellent recovery, menstruated on the third day after the operation, and was regular for nine months, when she became pregnant, and gave birth to a healthy male child on June 9th, 1883. The possibilities of a third ovary, or the slipping of ligatures, were considered and rejected. Attention was directed to the erroneous drawings of the relative position of tubes and ovaries usually given in the text-books. The writer believed that the ovary was usually found superior and posterior to the Fallopian tube, and hence the tube escaped being ligatured, and the ovary survived, and was able to perform its functions. At the date of the report, there was no appearance of a cystoma of the right ovary. —Dr. HERMAN said that there were two points of interest in Dr. Murphy's paper. One was the position of the ovary in relation to the Fallopian tube. The arrangement described by Dr. Murphy had been also described by Mr. Doran in his recent book, and Dr. Herman had himself seen this arrangement. The other point was the effect on the blood-supply of the ovary produced by ligature, without removal of the ovary. Professor Simpson had done this in a case recorded in vol. 9 of the *Edinburgh Obstetrical Transactions;* but, as this was followed by an attack of peritonitis three months later, it was less instructive than Dr. Murphy's case, which seemed to prove that simple ligature could not be depended on to arrest the function of the ovary.

On the Circulation in the Uterus, with some of its Anatomical and Pathological Bearings.—Dr. JOHN WILLIAMS remarked that, although the blood-supply to the uterus was well known, the circulation in the uterus had been less minutely studied. After briefly sketching the course of the ovarian and uterine arteries as they approached the uterus, the author remarked that all the primary branches entered the uterus on the side; they did not enter deeply into its tissue, but ran a somewhat superficial course, being separated from the peritoneum by only a thin layer of muscular fibres. They ran in a distinct layer of connective tissue, which was more distinct in the fœtus and infant than in the adult. The muscular stratum between this layer and the peritoneum was thin, while that between it and the canal formed the greater part of the thickness of the uterine wall. The branches ran towards the mucous surface, in a perpendicular direction to that surface, anastomosing freely, and ending under the mucous surface in capillary loops, which were often visible even in organs which had not been injected. The veins in the organ were arranged in a similar manner. and conveyed the blood into the venous plexuses which lay with the arteries in the layer of connective tissue already mentioned, and which communicated freely with the venous trunks outside. The return of blood was said to be effected principally through the ovarian veins; but both these veins could be tied without appearing to materially effect the return of blood; indeed, the whole pelvic venous system could be injected through any one of its larger trunks. The following conclusions were drawn. 1. The layer of connective tissue in which the arteral circles ran, and in which the venous plexus lay, was the submucous tissue of the uterus. 2. The whole thickness of the wall between this layer of connective tissue and the uterine cavity was the mucous membrane of the uterus; and the thin layer of tissue shed at the menstrual period and reproduced (the menstrual decidua) was only a very small portion of the uterine mucous membrane. 3. The vascular arrangements were such that the circulation in the uterus could hardly be disturbed by mechanical causes. The entrance and exit took place at numerous points at the sides of the uterus, and in the uterus the direction of the current was transverse to its length and perpendicular to its surfaces; so that a ligature might be placed around the uterus at any point without affecting the circulation above and below. The only ligature which could materially interfere with the flow of blood into or out of the uterus, was one surrounding each broad ligament, including their upper borders, together with a portion of the uterus. Conditions like these were found when the uterus formed a hernia, in the inguinal canal, or in Douglas' pouch, in the condition usually spoken of as retroflection or retroversion. Both conditions were those of true hernia, and the symptoms were largely due to constriction at the neck of the sac, formed (in posterior hernia) by the sacro-uterine ligaments. In procidentia, again, stretching of the vessels might produce considerable narrowing of their calibre. These two conditions —hernia of the uterus and great procidentia—appeared to be the only displacements of the uterus which could give rise to congestion of that organ. The author also described the following experiment to test the influence of flexions in causing congestion. He stitched the fundus of the uterus closely to the cervix, thus securing the acutest flexion possible, and then injected a coloured fluid into one of the veins of the broad ligament. Immediately the veins of the other side of the uterus became distended with the injection. On making a section, the whole of the veins in the uterus were found injected. This proved, what the arrangement of the vessels had already shown, that the acutest flexion did not interfere with the flow of blood from the uterus. The paper was largely illustrated by diagrams and specimens.—Dr. GRAILY HEWITT said that flexions of the uterus were doubtless common, and the vascular arrangements were secure against temporary or slight flexions. But, in severe or hidden flexions, there would be much danger of congestion at the two ends of the uterus. His experience was that congestion in cases of flexion was relieved by straightening the uterus, and hence the explanation suggested itself that compression at the central part produced the congestion. He believed incarceration of the fundus by the sacro-uterine ligaments to be extremely rare. Even if it were commoner, it had no bearing on anteflexion, in which there were no ligaments to cause incarceration. Swelling of one lip of the cervix often indicated flexion on the side of the swelling, and argued for the production of congestion by flexion.—Dr. HERMAN pointed out the great frequency of flexion without any symptoms. That flexion was often combined with congestion depended on the frequency of flexions, and must be the case unless flexions prevented congestion. There were cases of sudden backward displacement with acute symptoms, quickly relieved by replacement, which had no analogy in anteflexion. There were also cases of retroversion without flexion, attended by congestion, and relieved by elevation of the fundus. Such cases were not explained by any theory of flexion, while they were explained by the action of the sacro-uterine ligaments. They were not common, and incarceration in Douglas's pouch was rare, because the ligaments were seldom tense enough and close enough together to be capable of incarcerating the uterus; when they were, they were generally high up, and hard to reach.—Dr. GALABIN thought the influence of the sacro-uterine ligaments was overrated by Dr. Williams. It was rare to find them constrict the fundus in retroflexion, and rare to find the uterus go up suddenly on reposition, as ought to occur in such cases. There was often evidence of congestion in excessive menstruation in cases of retroflection, and the symptoms were often relieved by a pessary. In most cases, the utero-sacral ligaments had only a minor effect, the stretching and twisting of the broad ligaments, and possibly the flexion itself, ought to be considered. The transverse arrangement of the vessels might be expected to prevent congestion everywhere except opposite the bend. In procidentia, as the cervix was extruded, it became congested, even without any apparent constriction at the vulva. He did not agree with Dr. Herman that the frequent occurrence of anteflexion without congestion proved that flexion could have nothing to do with congestion.—Dr. CHAMPNEYS pointed out that the arrangement of the vessels in the uterus was very similar to that in the intestines, which the uteri of many animals greatly resembled. The intestines were marked by acute flexions every few inches, but no harm resulted from them. Careful examinations made him think that the influence of the sacro-uterine ligaments was rare. In cases of retroflection with profuse menstruation, the influence of descent had to be remembered; it had repeatedly happened to him to lift up the fundus with a pessary, and find the symptoms relieved, and the uterus high up, indeed, but as much flexed as ever.—Dr. AUST LAWRENCE (Clifton), said that very few cases of displacement were uncomplicated. He could remember three such cases of retroflection of this nature; all these went to prove that the displacement was competent to produce profuse menstruation, and therefore congestion. The first case was that of a single woman, aged 22, who was thrown from a cart; the next period was excessive, and he found acute retroflexion, and incarceration by the sacro-uterine ligaments. It was replaced, and the bleeding ceased, the next period

being normal. The other two cases were similar, with the exception of incarceration.—Dr. MURRAY agreed with Dr. Williams; although there were cases of congestion with flexion, there were many flexions without congestion; menorrhagia might occur without flexion. Prolapse of the uterus would tend to produce congestion by impeding the circulation.—Dr. W. DUNCAN thought that congestion of a retroflexed uterus was not uncommonly due to incarceration by the sacro-uterine ligaments, especially when thickened and shortened by inflammation. Thickening of the posterior cervical lip did not prove any impediment to circulation by flexion, as it was common without any flexion. Many cases of congestion in flexed uteri could be cured without treating the flexion.—Dr. WILLIAMS regretted that there had been no discussion on the doctrine enunciated in the paper that the whole thickness of the uterus within the connective tissue in which the vessels ramified should be considered to be mucous membrane, this connective tissue being the submucous coat. The muscular layers inside this, therefore, were really "muscularis mucosæ," into which the uterine glands penetrated. The submucous coat was plainly seen in the fœtus, and also, in some conditions, in the adult. Dr. Hewitt believed that congestion would not result from a temporary, but from a permanent flexion. Dr. Galabin believed exactly the opposite. Dr. Hewitt's argument from clinical observation required careful examination of crucial cases, disturbing influences being excluded, such as pregnancy. Only cases where no pregnancy nor disease had ever occurred would serve as arguments. In such cases, Dr. Williams had never found congestion follow flexion. Dr. Aust Lawrence's first case confirmed the views stated in the paper; the other cases were not related in sufficient detail to use as arguments. In some cases replacement of the uterus arrested, in others it produced, hæmorrhage; indeed, as Dr. Robert Lee pointed out, a simple vaginal examination in a healthy woman might produce hæmorrhage.

Case of Absence of the Uterus and Occlusion of the Vagina.—Dr. BOUSQUET (Marseilles) described this case. The patient, aged 20, had never menstruated, but had suffered from hæmorrhages at the usual periods, sometimes from the rectum, sometimes from the gums, lasting four or five days. When seen, the hæmorrhage had lasted two days; the gums were swollen, painful, and bled on touch. The hymen was very hard; from a small hole in its centre flowed whitish mucus. The hole was enlarged upwards, and the finger inserted, but only penetrated two centimètres, where it met a second membrane, tympanitic on percussion. This was incised, and the finger penetrated three centimètres further, but no cervix could be felt. Combined examination by vagina and rectum discovered no uterus. The author then cited a very similar case of Dr. John Clarke's in St. George's Hospital, followed by a necropsy, in which ecchymoses were found in the skin, pleuræ, and pericardium, together with old endocarditis. The author regarded these cases as proof that the ovarian nixus was sufficient to cause vicarious menstruation when the natural channel was absent.—Dr. JOHN WILLIAMS did not think either of the cases were examples of vicarious menstruation, but of purpura in women without uteri. Histories of periodical bleeding or periodical fits were to be received with much caution. He had watched several such cases in hospital for four or six weeks, and found either no bleeding nor fits, or bleeding and fits at irregular intervals.—Dr. ROUTH related a case in which the vagina was too short, and the introduction of the whole hand into the rectum proved the absence of an uterus. This was the only certain way of making the diagnosis. He agreed with Dr. Williams that the case was one of purpura in a malformed woman, rather than one of vicarious menstruation.—Dr. CHAMPNEYS said that women were apt to attribute any unusual hæmorrhages, whether with amenorrhœa or not, to some menstrual influence. It was his habit to make such patients keep a diary of their hæmorrhages and monthly periods. Such an exercise was often sufficient to effect a cure, and, in his experience, it had invariably sufficed to explode the theory of vicarious menstruation.—Dr. AMAND ROUTH related the case of three sisters, aged 25, 22, and 20, who had never menstruated. In the two younger, the vagina was only two inches long; in one, recto-abdominal examination proved the absence of uterus and ovaries; in the other, the uterus was a nodule of the size of a filbert. There was no vicarious menstruation; the breasts and pudenda were child-like. A younger sister, aged 17, was quite healthy, and menstruated regularly. All the other sisters were very anæmic, and were said to be consumptive.

TEACHING OF HYGIENE IN ELEMENTARY SCHOOLS.—The Cleveland, Ohio, Board of Education has issued an English version of the Brussels Manual for Teachers, and adopted it for use in the public schools. This manual contains brief instructions as to the first symptoms of transmissible diseases.

BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, APRIL 8TH, 1885.

ALFRED MEADOWS, M.D., F.R.C.P., President, in the Chair.

Kyphoskoliosis and Spondylolisthesis.—Dr. FANCOURT BARNES showed photographs, for Dr. Neugebauer of Warsaw, of patients with kyphoskoliosis and spondylolisthesis.

Extra-uterine Fœtation.—Dr. EDIS exhibited a fœtus of six months' development, which he had removed that afternoon from a patient in the Middlesex Hospital. The case was one of extra-uterine gestation in a multipara aged 41. On examining by the vagina, the fœtal head was felt behind the cervix. The thermo-cautery knife was used to cut through the vaginal surface of the cyst, and the placenta was left *in situ*.

Double Pyosalpinx.—Dr. AVELING read notes of a case of double pyosalpinx. The patient, a nullipara, aged 23, was admitted into the Chelsea Hospital for Women for pain in the lower abdomen. There was a swelling in the left ovarian region. The tumour was regarded as ovarian. On opening the abdomen, a cyst presented itself, about the size of a small elongated cocoa-nut, attached to the left side of the uterus. A similar cyst was found fixed in the pelvis, springing from the right side of the uterus. The first cyst was tapped, and found to contain pure pus. A ligature was then passed round the pedicle, and the cyst removed. The second tumour was treated in the same way. The tumours consisted of the Fallopian tubes on each side, and together contained fifteen ounces of pus. The patient died on the seventh day, from peritonitis.

Pyosalpinx.—Mr. LAWSON TAIT read the notes of three cases of pyosalpinx. The patients recovered in all three cases. Mr. Tait said it was, of course, impossible to make a differential diagnosis between pyosalpinx, hydrosalpinx, and hæmatosalpinx. There might also occur an occasional error in cases of tubal pregnancy at the time of rupture. Such distinctions could only be made at the time of operation; but chronic salpingitis, with occlusion and distension of the tubes, was a condition which could only be cured by the removal of the diseased organs. The outcome of these operations was extremely satisfactory; the mortality was very small; and the relief which followed the operation was, in the great majority of instances, immediate and complete. In others, menstruation would go on for some months, but with greatly diminished suffering, and much less in quantity; and although, in some of these instances, pain remained to a great extent, yet relief always came in time, and the patient's condition ultimately became one of perfect cure.

Hydrosalpinx.—DR. GRANVILLE BANTOCK exhibited a specimen of hydrosalpinx. It was connected with a small solid ovarian tumour, in an early stage of degeneration, and breaking down. The patient was aged 32, married, but sterile. When first seen by Dr. Bantock, there was a small rounded swelling on the left side, which he regarded as ovarian; and on the right side of Douglas's pouch, pushing the uterus forwards, was a larger and softer swelling, whose outline was not so easily defined, but which he took to be Fallopian. The patient had undergone a great deal of local treatment during several years. On March 10th, 1885, the abdomen was opened, and the tumour on the left was separated from its adhesions and removed. The tumour on the right was also removed, and found to be a dilated Fallopian tube, containing about half a pint of a dark-coloured fluid, resembling weak tea. A drainage-tube was inserted, and the wound closed. The patient made a good recovery.—Dr. BENINGTON said he had a case under his care, in which a pyosalpinx had apparently opened into the rectum.—Dr. Barnes, Dr. Hall, of Ohio, and Dr. Walter, of Manchester, made remarks.

Double Monstrosity.—Dr. LAMPREY described a case. The patient had miscarried at the third month. She was 22 years old, and had had one child previously, who was born healthy. When Dr. Lamprey came to examine the ovum, he found it to consist of a double monster. The lower halves of the two sterna, and the whole of the abdomens, were united so intimately that, had the children arrived at maturity, and lived, it would have been extremely difficult for one of them to walk forwards without the other walking backwards. Or, supposing they walked sideways, the pelvis of each would have had to rotate in great measure upon the lumbar, or lumbo-sacral vertebræ, much more than could be accomplished. Had these fœtuses come to their full time, no doubt they would have caused a long, painful, and exhausting labour.—The President and Dr. Heywood Smith made remarks.

VACCINATION.—Mr. John Clare, Public Vaccinator of the Hanley and Shelton District, Stoke-on-Trent Union, has received a grant from the Local Government Board for successful vaccination.

MEDICAL SOCIETY OF LONDON.

MONDAY, APRIL 13TH, 1885.

W. M. ORD, M.D., President, in the Chair.

Myxœdema.—Dr. WHIPHAM read a paper on a case of myxœdema in a young woman aged 20, who died in St. George's Hospital. The paper was illustrated by microscopical preparations.—The PRESIDENT said that, since his earlier papers on the subject, he had met with some cases which showed more changes in the connective tissue of the central nervous system than he had observed in the earlier cases. He inquired whether any excess of mucin was found in the tissues.—Mr. VICTOR HORSLEY drew attention to the advanced degeneration of the blood-vessels in this case. He thought it common to find symptoms of senile degeneration in myxœdema, and this fact was consistent with the degeneration of the thyroid gland which usually occurred.—Dr. W. B. HADDEN had found that, in the thyroid gland, in six or seven cases which had been examined for the Clinical Society, there was a round-celled infiltration outside the acini; in a more advanced stage, the cells of the acini were also proliferated, and both sets tended to become organised. Changes in the portal canals, like those seen in Dr. Whipham's case, had also been noted.—Dr. A. ROUTH asked whether the change in the ovary noted in this case was constant. In the early stage of myxœdema, menstruation was profuse; in the latter, it was scanty or suppressed.—Dr. WHIPHAM, in reply, said no chemical examination had been made. In the case he recorded and in another now under his care, there had been menorrhagia.

Brachial Monoplegia due to Lesion of the Internal Capsule.—Dr. A. HUGHES BENNETT read, for himself and Dr. C. M. CAMPBELL, the notes of the case of a man, aged 80, who, when in fair health, suddenly lost consciousness. On regaining his senses, he was found to have lost his speech; and the left side of his face and the left upper extremity were paralysed. He recovered from all these symptoms except the paralysis of the arm, which remained permanent. There was no rigidity of the affected muscles, and the sensibility was everywhere normal. He continued in this condition for about six weeks, until he died from old age and general break-up of the constitution. The essential lesion found after death was a limited defined softening, about the size and shape of a small horse-bean, but flatter, occupying the upper part of the internal capsule, without seriously involving any of the neighbouring structures. The exact measurements and situation of this morbid condition were given in detail. In commenting on these facts, it was stated that a brachial monoplegia, and a brachial monoplegia only, caused by a lesion of the internal capsule, was of extremely rare occurrence. That such should have existed in the present instance suggested some interesting physiological and anatomical considerations. As all the conducting fibres from the different motor centres of the cortex were collected together at the internal capsule, and passed through it in a very limited space, it was evident that, if a small flat lesion caused paralysis of one limb only, without affecting the others, the fibres from each motor centre must pass through the capsule in separate bundles. An attempt to define the course and position of these conducting fibres as they run from the cortex cerebri, through the corona radiata, to the internal capsule was made. Dr. Bennett contended that both anatomical and pathological facts seemed to indicate that these conducting paths which at first ran from the cortex arranged in a lateral direction, as they entered the capsule, bent upon themselves, passed through it in bundles arranged in an antero-posterior attitude, those of the face being the most anterior, and next in order coming those of the arm, leg, and trunk. In this case, a limited disease destroyed only the fibres conducting motor impulses to the arm, leaving those of the face and leg on each side of them intact.—Mr. VICTOR HORSLEY thought the case thoroughly confirmed the view he had put forward that recovery of power in the leg before the arm, and the trunk before the leg, was due to the ordinary process of reabsorption of blood-clot, and removal of pressure. The only serious opposition to Dr. Ferrier's views had come from Dr. Munk, and other members of the Berlin school, who maintained that the functions of the cortex were connected with sensation; Dr. Bennett's case afforded support to Dr. Ferrier's position. If it were true that, as Dr. Hughlings Jackson held, both sides of the body were represented in each hemisphere, some recovery of the arm would have been expected in this case, whereas none occurred.—Dr. FOWLER showed a patient who, when first seen, presented hemiplegic and hemianæsthetic symptoms on the left side, most marked in the arm. The special senses were also affected on the left side. He had been under treatment in St. George's Hospital for specific disease of the brain in 1878. Under antisyphilitic treatment, the symptoms in 1883 subsided. Early in the present year he returned with hemianæsthesia and hemiplegia, having precisely the same distribution as on the left side. The transmission of cutaneous sensations was delayed. The reflexes were also delayed; knee-jerk was absent on both sides.—In reply to Dr. ANGEL MONEY, Dr. HUGHES BENNETT said that the temperature of the limb on the paralysed side was lower than on the other side, and added that it was improbable that the affection in Dr. Fowler's case was due to any gross limited lesion of the internal capsule, grounding his opinion chiefly on the fact that both sides had been involved, and that both sensation and motion were affected.

ACADEMY OF MEDICINE IN IRELAND: SURGICAL SECTION.

FRIDAY, JANUARY 23RD, 1885.

E. H. BENNETT, M.D., President, in the Chair.

Astragaloid Osteotomy in the Treatment of Flat-Foot.—Professor STOKES commenced by drawing attention to the usually accepted theories as regards the etiology of flat-foot: namely, ligamentous relaxation, and a paralytic condition of certain muscles connected with the ankle and foot. He adduced various arguments to disprove these views. Attention was drawn to Professor Ogston's researches in this direction, and an account was given of the operation he had devised for the cure of the deformity in question; and objections to it were taken, based on the operation being complicated and difficult, and followed necessarily by an obliteration of the medio-tarsal joint. Mr. Stokes believed that the defect causing flat-foot was due, primarily, to alteration in the tarsal bones, notably the astragalus, which change might be either congenital or the result of disease, probably rickets; and that this stretched, rather than relaxed, condition of the ligaments was a secondary rather than a primary change. In illustration of this view, he demonstrated a specimen of the deformity taken from the Museum of Trinity College, for which he was indebted to Professor Bennett. Having regard to the fact that, in the irreducible cases of flat-foot, osseous deformation was the chief factor, Mr. Stokes believed that the rational treatment for such cases should be to deal exclusively with the deformed astragalus, and to do so without necessarily obliterating Chopart's joint. This he did in the case of a youth, aged 14, with complete success. The parts to be operated on were rendered perfectly aseptic, and an incision, an inch and a half in length along the inner edge of the foot, was made, the centre of which incision was the prominence caused by the head of the astragalus. At the centre of the incision, another was made at right angles to it, and a little behind the situation of Chopart's joint; and the two triangular flaps of skin were dissected back for about half an inch. A wedge-shaped piece of bone from the enlarged head and neck of the astragalus was then removed with an osteotome; and it was then found that, by adducting and supinating the foot, the arch was perfectly restored. The wound during its union was aseptic throughout, and the patient non-febrile. The method which Mr. Stokes adopted for keeping the foot in a position of adduction was the application of Dupuytren's splint, applied as in a case of Pott's fracture of the fibula. The result of the operation was most satisfactory; and casts of the foot, taken before and after the operation, were exhibited.

Ogston's Operation for Flat-Foot.—Mr. KENDAL FRANKS gave the details of a case on which he operated by this method on October 16th last. The paper was illustrated by two impressions, taken in charcoal, of the foot before and after operation. The first impression showed the foot resting on the length and breadth of the sole; a remarkable prominence on the inside, corresponding to the astragalo-scaphoid articulation, showed where this joint rested on the ground. The second impression showed that the arch of the foot had been restored, so that, when the sole of the patient's foot was blackened with charcoal, and she was placed standing on a moistened sheet of paper, the paper received an impression only of the heel, the outer side, and the anterior portion of the foot. The operation-wound was perfectly healed on the sixth day, and the highest temperature recorded was 99.2°. Mr. Franks contrasted this method with Mr. Stokes's method of astragaloid osteotomy, and argued that, as the latter method only rectified the deformity without dealing with its cause, it offered no security that, in process of time, the arch would not redescend. He considered that the primary cause was a relaxation of the ligaments, but that the immediate cause of the deformity was a yielding of the astragalo-scaphoid joint, so that it gaped below, as maintained by Ogston; hence, the only method hitherto devised which promised to be permanently successful was that which dealt with the joint, and which, by procuring bony ankylosis between the astragalus and scaphoid, would render any future yielding of the joint impossible.—The discussion was postponed until the next meeting.

FRIDAY, FEBRUARY 20TH, 1885.

E. H. BENNETT, M.D., President, in the Chair.

Flat-Foot.—The adjourned discussion on flat-foot took place, and important statements were made by Mr. Corley and Mr. Swan, adverse to Mr. Stokes's theory. The President also took part in the debate, and Mr. Stokes replied.

Ivory Exostosis of Auditory Meatus.—Mr. ARTHUR BENSON read a paper, describing the case of a gentleman, aged 33, in which he had removed an ivory exostosis from the auditory meatus. He had first used electrolysis, to destroy the vitality of the periosteum ; the apex of the bony growth separated after six weeks. Five months later, he employed the dental engine, and, with the assistance of Mr. Arthur Baker, removed the remainder of the exostosis. The patient was seated in a dental chair ; and, whilst under ether, a deep vertical slot was cut in the base of the tumour with the dental saw. Into this a small chisel was inserted, and a slight blow from a hammer served to separate the remainder of the base, and the growth was removed. Recovery was perfect; and in January, 1885, a year after the operation, there was no sign of a return, and the hearing was perfect. The operation was, contrary to the recommendation of almost all authorities, undertaken before the canal was completely closed by the growth ; Mr. Benson advocated early operation in such cases.—The PRESIDENT asked if it was a case of ivory exostosis, in the true sense of the word. —Mr. A. BAKER said the chief difficulty arose from plugging up the entrance of the speculum, consequent on the dental drills being short. —Mr. STORY considered that Mr. Benson was to be congratulated on the results of his treatment. He would not advise operation until the growth of an exostosis had become sufficient to produce permanent deafness, at least in one ear. Exostoses near the external orifice were easy to deal with, either by the hammer and chisel or by the dental saw; but growths deep down in the meatus taxed the utmost resources of the most skilful and experienced otologists.—Mr. SWANZY could hardly imagine a better mode of operating than the one which had been adopted; but he would not have operated in the case in question, deafness being extremely rare as the result of exostosis in the external meatus.—Mr. BENSON, replying, said the exostosis was a distinct enlargement of the true bone. The whole question was, how much danger there was in the operation. Most patients would prefer one operation to going once a month to a medical man to have deafness removed.

Operations for Trichiasis and Entropium of the Upper Eyelid.—Mr. STORY read a paper, in which, after criticising the operation proposed by Dianoux, he proceeded to describe the manner in which he now operated both for entropium and for trichiasis. The method was, with some trifling modifications, the same as that described by Dr. Van Millingen of Constantinople—a transplantation of the ciliary border, without removal of any palpebral skin ; the requisite elevation of the cilia being effected, after the completion of Flarer's intermarginal incision, by inserting a strip of mucous membrane, taken from the patient's mouth, into the space left exposed by Flarer's cut. Mr. Story had observed that little fistulous openings remained in the palpebral skin under the two extremities of the ciliary border after Dianoux's operation, but had found no harm resulting. The only serious objection to Dianoux's operation consisted in the presence of cutaneous hairs, which occasionally acted as mechanical irritants. Van Millingen's operation was not open to this objection, and fulfilled the conditions, laid down by Mr. Story in the *Ophthalmic Review*, February 1883, to which a good entropium-operation should conform, that no tissue be removed from the substance of the eyelid, and that firm support be given to the ciliary border to prevent reinversion ; and this support was best given by a piece of buccal mucous membrane transplanted beneath the cilia. Mr. Story did not see any occasion for cutting the tarsus itself when it was incurved ; he consequently rejected grooving operations, and had seen perfectly satisfactory results from the simple transplantation of buccal mucous membrane in at least five well marked cases of incurvature of the tarsus.—Mr. SWANZY differed from Mr. Story concerning the insignificance of the incurvature of the tarsus. The curvature of the cartilage caused by the shrinking of the conjunctiva went on increasing, and the hairs which had been moved out of the position in which they were recommenced to rub on the cornea ; or, if that did not occur, there was the margin of the eyelid itself to rub against the cornea. He considered Mr. Story's operation good for trichiasis, but not for entropium.—Mr. STOKES did not understand what was the great advantage derivable from transplanting a piece of rabbit's conjunctiva or mucous membrane into the space made between the tarsal cartilage and the ciliary border of the eyelid. He concurred with what Mr. Swanzy had said about entropium caused by incurvature of the cartilage ; but in cases of trichiasis, if Arlt's operation were done according to the rules which he had laid down, it was unnecessary to complicate it by transplantation.—Mr. BENSON corroborated Mr. Story's account of the satisfactory results of his operation. He had never used rabbit's conjunctiva himself.—Mr. STORY replied. In reference to Mr. Swanzy's statement that the cure of entropium proper by the operation described could be only apparent and temporary, although trichiasis might be permanently cured thereby, he could only assert that his experience had made him form a contrary opinion. Arlt's transplantation frequently failed to produce permanent cure of the deformity in question, and was an unsound proceeding, because it occasionally produced lagophthalmus. The mucous strip was necessary to give support to the cilia from below, in order to prevent reinversion.

FRIDAY, MARCH 20TH, 1885.

Excision of the Clavicle.—Mr. WHEELER read a paper on complete excision of the clavicle for osteo-sarcoma, and on partial excision of clavicle for necrosis. Both patients recovered, and he had seen the first nine years after the operation ; he was in good health, and had admirable use of his arm.

Excision of the Shoulder.—Mr. WHEELER read a paper on excision of the shoulder.—Mr. THORNLEY STOKER challenged Mr. Wheeler's statement that it was necessary to fall back upon military statistics for a knowledge of the success attained in dealing with gunshot-injuries. There was no parallel in the conditions of operating for gunshot-injuries in the field and operating in civil practice for disease, the circumstances and surroundings being entirely different, and also the fact of the well known mortality attending operations in the field. —Mr. BARTON concurred with the author that the operation of excision of the shoulder was rare ; but, in the reasons for it, the most important one was omitted—namely, that the shoulder-joint was subsidiary to the movements of the scapula on the ribs. The condition of an ankylosed shoulder was very different from that of an ankylosed elbow, which rendered the upper extremity useless, while an ankylosed shoulder-joint was by no means useless. The supplemental movement of the scapula on the ribs gave such a wide range of motion, that it became unnecessary to operate. Instead of a straight incision through the deltoid muscle, he preferred a U-shaped incision posteriorly, about the middle of the scapula, and taking in the posterior edge of the deltoid, as giving ready access to the joint, and natural drainage. He was not obliged to do more than scrape off the diseased cartilage from the glenoid cavity.—Mr. WHEELER, in reply, took exception to Mr. Stoker's statement. As to the well known mortality in the field, in Larrey's cases all the first succeeded, whereas, in the Schleswig-Holstein campaign, there appeared to have been great mortality following amputations of the shoulders and legs ; and, again, in the next serious battle, cases of excision of the shoulder did very well. He had alluded to the ankylosed joint to which Mr. Barton referred. The drainage by passing the tube to the inner side, and making an internal opening, was originally recommended by Surgeon-General M'Kinnon in the Maori war; and he had published in the *Army Statistical Reports* of 1866-67 many cases of excision of the shoulder-joint treated in that way. The method was followed by an excellent surgeon who died in the last Afghan campaign—Joshua Porter. By padding the shoulder, the posterior drainage was not required. Mr. Barton was in accord with other surgeons respecting the glenoid cavity. Where it was interfered with, the mortality was much greater than where it was unnecessary to operate. In one of his own cases success was due, to a considerable extent, to the excellent treatment of the patient by the house-surgeon, Mr. Middleton.

Condylotomy with the Osteotome for Genu Valgum.—Mr. SWAN read a paper on condylotomy by the osteotome for the treatment of knock-knee. He had practised Mr. Reeves's operation exclusively, but he had found it futile to avoid entering the joint. During the past four years, he had operated on sixty-eight individuals, and 129 knees in all were operated upon. The ages ranged from nineteen to three years and a half. Nineteen had both knees operated on simultaneously. Suppuration occurred only twice, and all the cases recovered with useful limbs.—Mr. HAMILTON had witnessed a good many of the operations. Like the peritoneum, the surgery of the knee-joint had, during his time, undergone a revolution. The simplicity of the operation, as done by Mr. Swan, was remarkable, and the results had been most satisfactory.—Mr. THOMSON, having seen several of the cases, could testify to the skill with which the operation had been done, and to its apparent simplicity. At first sight, it seemed a harsh procedure to drive an instrument like a chisel into the knee-joint ; because, though Reeves had the idea that he could introduce the instrument into the bone without penetrating the joint,

leaving the covering of the cartilage to protect the joint from the instrument, there was no doubt, in the majority of cases, the joint was penetrated. But, whether in the majority or in the minority, it was extraordinary, judging from experience, that it could be done with almost absolute immunity. At the same time, he had himself performed Macewen's operation as simpler and safer. The shaft of the femur was practically divided, and there was no attempt to encroach on the cavity of the joint. — Dr. R. M'Donnell had watched the development of knee-surgery in Mr. Swan's hands, and it was gratifying to see that the hideous deformity of genu valgum would no longer remain without being remedied.—Mr. Barton considered that it would be a mistake to conclude that, because Mr. Swan was able to bring forward so many cases with such a happy result, therefore Reeves's method was far beyond others the best. He regarded Macewen's as superior to it, although he had not tried Reeves's. The results of Macewen's operation in fourteen or fifteen cases in which he had operated were exceedingly successful, as showing that it was free from danger, that recovery was rapid, and the condition of the limbs thoroughly satisfactory. Therefore, supposing Mr. Swan's sixty-eight cases to have resulted in perfeetly straight limbs, if Macewen's could turn out limbs quite as good it ought to be preferred, since the joint was not opened.—Mr. Franks agreed with Messrs. Barton and Thomson that Reeves's operation was not as good as Macewen's. Reeves's operation went on the same lines as Ogston's, and it spoke volumes for Macewen's that, at the Copenhagen International Congress, Ogston himself confessed he had given up the operation, and thought Macewen's was far better. In the last case in which he had operated by Macewen's method for an exaggerated form of genu valgum, double on both sides, he operated on both at the same time, dressed with antiseptic precautions, and put the limbs into splints. For ten days, there was no rise of temperature beyond two evenings at 99° ; but, about the tenth day, it rose to 100° and 101°, the cause of which was that on one limb there happened to be a little pressure out of the region of the antiseptic dressings. The division of the femur two-thirds across, and then breaking it, did not raise the temperature. One dressing sufficed for perfect union. — Mr. Chance, Mr. Wheeler, and the President took part in the discussion, and Mr. Swan replied. Without expressing an opinion in favour of either operation, he was disposed to think that the freedom of the incision, the patulous condition of the osseous opening, and the easy escape of fluid, conduced to the immunity from risk. He had not used the spray in the last twenty or thirty cases. At the same time, he followed antiseptic surgery, and always dressed a case under the spray, thereby feeling confidence, and the method being useful in moistening the dressings.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.

Thursday, March 19th, 1885.

C. Macnamara, F.R.C.S., President of the Branch, in the Chair.

Cerebral Hæmorrhage.—Dr. R. W. Burnet related the following case. E. B., aged 25, domestic servant, was admitted into the Great Northern Central Hospital December 12th, 1884. Two days before admission, she had been found lying on the floor insensible, but she speedily regained consciousness, and was able to walk upstairs to bed. She talked rationally, and complained only of loss of power in the right arm and leg. By evening of the same day, she had sunk into a state of complete coma. When admitted, the patient was in a state of profound coma ; breathing was stertorous ; the left pupil was contracted to the size of a pin-point ; and was insensible to light. The right conjunctiva was insensitive ; in the right arm, there was complete loss of sensation and motion ; in the right leg, sensation was not absent, but the power of motion was very feeble. The left arm and leg were unaffected. The heart-sounds were clear. The fundi of the eyes were normal. The patient died on December 15th. At the *post mortem* examination, the body was well nourished ; there were no signs of external injury. The thoracic and abdominal organs showed no coarse changes. On opening the skull, the membranes were normal. The brain-tissue was firm. A large clot was found in the straight sinus. The left lateral ventricle was distended with serum ; the left corpus striatum was almost purple in colour, from numerous punctiform extravasations, but was not ploughed up ; the veins leading from it were greatly distended and entirely blocked, like hard black cords. The lining membrane of the ventricle was thickened, granular, and inflamed.

Exophthalmic Goître.—Mr. R. Marcus Gunn showed a case of exophthalmic goître in a woman, aged 20. The affection commenced just after a recent reducing illness. There was a personal and family history of migraine. A hæmic murmur was heard in the great vessels at the root of the neck. She had palpitation. There was considerable thyroid enlargement. The ocular symptoms were bilateral and equal. Retraction of the lids was present in a marked degree. There was venous pulsation in each optic disc, and arterial pulsation was visible in the left eye after the use of homatropine.

Disseminated Choroiditis with Connective Tissue Formation in the Vitreous Body.—Mr. R. Marcus Gunn showed two cases ; both were young children with inherited syphilis (not of the same family). Case I. On first examination, some weeks ago, a few spots of old disseminated choroiditis were found in one eye only. A large connective tissue growth projected from this optic disc into the vitreous body, with two small retinal detachments extending for a short distance below the disc. A few nights ago, after reading in a stooping position by firelight, she remarked that she was unable to raise the lid of this eye. Her mother then found the eye wide open, but blind. On examination on March 19th, total detachment of the retina was found.—Case II. Numerous patches of disseminated choroidal atrophy were present in both eyes. Extending forwards into the vitreous body from each optic disc was a glistening white connective-tissue growth. In one eye, this reached to the extreme periphery of the visible fundus. There was no retinal detachment in either eye ; the tendency to its occurrence being possibly counteracted by the numerous points of post-inflammatory adhesion between the rods and cones and the pigment-epithelium.

MANCHESTER MEDICAL SOCIETY.

Wednesday, March 4th, 1885.

Walter Whitehead, F.R.S.E., President, in the Chair.

Sporadic Cretinism.—Dr. Hodgkinson exhibited three cases of sporadic cretinism showing marked arrest of mental and physical development, together with, in two of the cases, immense goîtres. There were no circumstances in the family-history or general surroundings to account for the condition of the individuals, except that their mother had a slight fulness of the throat over the position of the thyroid gland.

Thyroidectomy.—Mr. Hardie related the particulars of three cases. The first was that of a female, about 48 years of age, who had suffered from a cystic bronchocele for many years. It had been tapped about eighteen months before Mr. Hardie saw her. The puncture never closed satisfactorily. Putrefaction of the interior of the sac took place, and frequent alarming hæmorrhages. The operation was performed at the patient's home in the country, and involved a very difficult and tedious dissection. The tumour was of the size of a large orange. The posterior wall was so intimately adherent to the front of the trachea, that the endeavour to dissect it off was abandoned ; and this portion of the tumour, about an inch and a half in diameter, was therefore left *in situ*, the granulation-tissue being carefully scraped from its surface. The patient made a good recovery. The second case was also a cystic bronchocele in a female. The tumour had been slowly increasing in size for some years, but had given rise to but little inconvenience until a few weeks before operation. The patient then began to suffer from dysphagia, which rapidly increased ; and, when Mr. Hardie was called to see the case, there had been complete inability to swallow even fluids for three days. There had never been dyspnœa. The patient entered the Royal Infirmary for operation. The tumour extended from the chin to the sternum, and lay rather more on the left than on the right side. It was exposed by a single longitudinal incision, and dissected out entire without much difficulty. The front wall of the trachea was greatly flattened, but the relationship of the tumour to the œsophagus was not observed. The patient was able to swallow with ease soon after being placed in bed. She did well for about eighteen hours, when she somewhat suddenly began to suffer from breathlessness. Twenty hours after the operation, she had a dusky anxious countenance. She was constantly tossing about in bed, and complained of want of breath. Her pulse was feeble and rapid. Fifteen minims of liquor ammoniæ were injected into one of the subcutaneous veins of the arm, but the gravity of her condition became more and more pronounced, and she died twenty-five hours after operation. A *post mortem* examination could not be obtained ; but it was probable that venous thrombosis and pulmonary embolism had taken place. The tumour consisted of a dense fibrous sac, containing old stratified blood-coagulum. It measured six inches by four-and-a-half, and had an uniform smooth exterior. The third case was that of a girl, aged 13, who was brought to the infirmary one evening, suffering from urgent dyspnœa. It was stated that her neck had begun to swell only about a

fortnight previously. This swelling had increased somewhat rapidly, but no special symptoms were produced until a few hours before her admission. Her condition becoming rapidly worse, Mr. Hardie was sent for, and on his arrival found that Dr. Webb, the resident medical officer, under whose care she had been placed, had deemed it necessary to endeavour at once to open the windpipe, the patient being *in extremis*. The isthmus was so thick and broad, and the hæmorrhage so free, that it was not possible to reach the trachea, but the incision through the cervical fascia sufficed to relieve very materially the pressure. Mr. Hardie then attempted to complete the operation, but, finding that it would be an extremely hazardous one, and, at the same time, a temporary measure only, he judged it better to proceed at once to the removal of half of the gland. The asphyxiated condition of the patient rendered her insensible, so that no anæsthetic was required. There was a great deal of hæmorrhage, but the vessels were tied as the dissection went on. Dragging on the tumour during the deep part of the dissection produced complete arrest of respiration, and several times it had to be pushed back into its bed to allow the patient to take a few inspirations. On the tumour being removed, it was interesting to observe how quickly the lips and face regained their normal hue, and the patient her consciousness. Pneumonia developed a few days afterwards, and after this passed away, she convalesced rapidly. This patient was introduced to the meeting, and it was pointed out that, in the five weeks which had elapsed since the operation, the enlargement on the left side had decreased to such an extent as to be barely perceptible.

Erb's Paralysis and Progressive Muscular Atrophy.—Dr. Ross showed a case of Erb's paralysis, and also a case of progressive muscular atrophy.

Disseminated Sclerosis with Unusual Symptoms.—Dr. Judson S. Bury showed a boy, aged 14, whose symptoms dated from a fall on the back of his head six years ago. He never had severe illness; his family history was good. When first seen, last July, he had lightning-pains across the abdomen and down the lower limbs; a fine jerky tremor of the head, body, and limbs, and wavy oscillation of the muscular fibres of the tongue; and slight nystagmus when the ocular muscles were tense. His intelligence was good; the pupils were normal; speech was slow and slightly syllabic; he had occasional vertigo. There were some doubtful patches of anæsthesia in the lower limbs, but sensation was otherwise normal. There was complete absence of knee-jerk and cremasteric reflex. The head was poked forward; the shoulders were rounded; there was much lordosis. There was no paralysis nor atrophy. With the heels together, standing was difficult, and he fell when the eyes were closed. The feet were much arched, and there was overextension of the first phalanges of the toes; and, in walking, the balls of the feet scraped along the ground.

Hospital with Circular Wards.—Surgeon-Major Black, of Edinburgh, read a short paper entitled "Notes of a Visit to the New City Hospital at Antwerp, which has the Circular Wards," illustrated by photographs and a diagram-plan.

SOUTH-EAST HANTS MEDICAL SOCIETY.

Wednesday, March 4th.

W. H. Axford, M.B., President, in the Chair.

Cucaine in Ophthalmic Surgery.—Dr. Guillemard mentioned a case of cataract-extraction with iridectomy, in which he had used cucaine with good effect, the patient feeling no pain throughout the operation.

Discussion on Chronic Otorrhœa.—Dr. Guillemard, in introducing the discussion, gave a brief sketch of a typical case of this obstinate affection, and of the various methods of treatment, of which he mentioned the wet method, by astringent and antiseptic solutions; the dry method, by the insufflation of powders; the treatment by means of ointments; and the alcohol-treatment of Politzer. He touched upon the causation of the disease, and the grave complications that might arise during its course; also on the necessity of scrupulous cleanliness, and of personal attention of the surgeon to syringing and other details. Politzerisation and injection of the Eustachian tube with solutions were mentioned. Dr. Guillemard concluded by deploring the indifference with which so important an organ as the ear, and so dangerous a disease as a chronic otorrhœa, were held by people generally; and urged the necessity of a course of study in ear-disease taking a regular place in the medical curriculum.

Sound-Deadener.—Dr. Ward Cousins made some remarks upon the injurious effects of noise, and exhibited a new sound-deadener. Reference was made to the injury sustained by the nervous system from persistent noise, especially in cases of mental excitability and brain-disturbance. He considered also the injurious effects of noise upon the organ itself, and the evils caused by continual exposure through occupation. Having made the subject a matter of investigation among the boiler-makers and plate-workers employed in the Royal Naval Yard at Portsmouth, he found almost every man engaged in these occupations suffering more or less from deafness, and many had received permanent injury of the nervous structures of the ear. The sound-deadener he exhibited consisted of a small elastic air-cushion. When adjusted in the aural orifice, it powerfully modified and reduced the intensity of sound. It prevented the shock of noise, and protected the organ from concussion.—Dr. Ward Cousins then imitated the harsh sounds of boiler-making by striking a large metallic vessel with a hammer, and thus put the new sound-deadener to a practical test. The President and other members present tried the sound-deadener, and expressed themselves as much pleased with the results obtained. The sound produced by the hammer was audible when the instrument was worn, but all its unpleasant sharpness was removed. The contrast between the effect of the sound on the ear when the sound-deadener was worn, and when it was suddenly withdrawn, was very striking.

MIDLAND MEDICAL SOCIETY.

Wednesday, March 18th, 1885.

T. H. Bartleet, F.R.C.S., President, in the Chair.

Fibroma of Abdominal Parietes.—Mr. Taylor showed a fibroma of the abdominal parietes, removed by Mr. Tait. This was considered to be a specimen of a special class of tumour occurring in close relation to Poupart's ligament, and into which the muscles of the abdominal wall were extensively inserted.

Tarsal Disease.—Mr. Taylor also showed a cast of a foot, illustrating recovery after disease of the tarsus, in which the mid-tarsal joint had been largely involved. The internal cuneiform bone had been removed during the process of treatment, and the resulting cavity was thoroughly drained by a tube passed through the foot. After this was done, the improvement was marked and rapid. The foot had been free from any discharge for nine months, and the patient was beginning to use it again.

Rheumatic Nodules.—Dr. Suckling showed a case in which subcutaneous nodules around the knee, elbow, and finger-joints were present. The patient, a girl aged 9, had had rheumatic fever, and six months previously there was a well marked double mitral *bruit*; the nodules seemed to be attached to the periosteum and tendons about the joints, and were painful at times.

Spinal Meningitis.—Dr. Suckling also showed a case of spinal meningitis which had left loss of the patellar reflexes. The patient, a man aged 40, after being much exposed to cold and wet weather three months previously, had been seized with pains in the back, aggravated by movement, and hyperæsthesia of the feet, which prevented him from walking. There were also loss of control over the bladder, and tenderness on percussion over the lumbar spinous processes. After free counter-irritation in the lumbar region of the spine, all the symptoms disappeared except the loss of the knee-jerks. The case was distinguished from one of locomotor ataxia, by the absence of (1) characteristic lightning-pains, (2) and of the eye-symptoms; also by the rapid onset after exposure.

Salpêtrière Hospital.—Dr. Bodington read a paper based on a visit to M. Voisin's wards at the Salpêtrière, Paris.

BORDER COUNTIES BRANCH.

March 20th, 1885.

John S. Muir, M.B., President, in the Chair.

Pneumonia.—Dr. Lockie (Carlisle) read a paper initiating a discussion on pneumonia. He stated his belief that exposure to cold was a predisposing cause only, and that ordinary acute croupous pneumonia belonged to the great class of infective diseases. He cited the records of various epidemics which had occurred on the Continent and in this country. Some of these supported the idea that, in certain circumstances, pneumonia was not only infective, but contagious. He traced the history of the discovery of the pneumonia-micrococcus, and instanced Emmerich's researches as strongly confirmatory of the belief that this was the essential cause of the disease. He thought that croupous pneumonia was closely allied to erysipelas. Both usually occurred sporadically, but occasionally in an epidemic form; both had a somewhat similar, more or less definite, duration; both were apt to attack the same individual repeatedly, occasionally many

times in succession ; both were now and then attended by the same grave complication of meningitis. Erysipelas, he had no doubt, was contagious, but was probably very feebly so, except in the presence of a wound. Pneumonia, if contagious at all, was also very feebly so in ordinary circumstances. Sir Andrew Clark had recently recorded a case of relapsing pneumonia, and it was acknowledged that erysipelas also might assume the relapsing form. Leyden had asserted that the pneumonia-coccus resembled that of erysipelas. With regard to prophylaxis, he dwelt on the importance of adopting such measures as we should do with a view of preventing other zymotic diseases, of seeing especially that the surrounding atmosphere was as free as possible from contaminating influences ; and, with respect to the treatment of the disease when present, he had occasionally seen such good effects from quinine administered for the pyrexia, that he was inclined to agree with Dr. Burney Yeo in thinking that it was not given often enough, and would be disposed to give a trial to its systematic administration from the first.

Caries of Cervical Vertebræ.—Dr. SOMERVILLE (Galashiels) showed a patient, aged 38, with caries of the cervical vertebræ, resulting from a fall on the head three years previously. A retropharyngeal abscess, as well as external abscesses, had been opened ; the neck was now stiffening, and the patient able to do a little work.

Subperiosteal Excision of Tibia.—Dr. MURRAY (Galashiels) showed a lad who had had the tibia excised subperiosteally in 1876, on account of extensive death of the bone following abscess. The periosteum had thrown out a large amount of new bone, but there was a false joint in the middle of the leg ; notwithstanding, the patient could walk fairly well, assisted with a hypertrophied fibula.

Extensive Destruction of Skin over Knee by Molten Lead.—Dr. MURRAY also showed a boy who had recovered, with an useful knee-joint, after extensive destruction of the skin about it from molten lead. The use of a weight and pulley had contributed largely to the successful result obtained.

The Brain in General Paralysis of the Insane.—Dr. BASIL showed, for Dr. GRIERSON of Melrose, the brain of a patient who died after suffering for over two years from general paralysis of the insane. The specimen showed most of the typical lesions in the disease. The pia mater was greatly, but not uniformly, thickened ; under it there was in patches a thick layer of gelatinous "membrane" ; the two hemispheres of the brain were glued together at points ; the grey substance of the convolutions was atrophied, especially in the temporal lobes ; the white substance was congested in patches ; the vessels in the brain-substance were very distinctly visible, and their circumvascular sheaths were dilated ; the vessels at the base were atheromatous in patches ; the ventricles were dilated, their epithelioid lining thickened. The ventricles and skull-cavity contained, when opened, about twelve ounces of serous fluid.

Cancer of the Stomach and Pancreas.—Dr. BASIL also showed, for Dr. GRIERSON, a cancerous ulcer of the pyloric end of the stomach, involving the pancreas. Secondary cancerous growths were scattered irregularly throughout the liver, some of large size, with navel-shaped depressions. There were also secondary melanotic tumours in connection with a number of lymphatic glands, especially one of about two inches by an inch in diameter, situated just behind the commencement of the descending aorta.

Diseased Shoulder-joint.—Dr. BASIL also showed, for Dr. GRIERSON, a shoulder-joint with ossification and fracture at two points of the acromio-coracoid ligament. The patient, a helpless idiot, fell on his shoulder, and the great effusion soon following, with the unusual condition of the ossified ligament, made a diagnosis of the entire extent of the injury very difficult. The outer end of the clavicle was greatly hypertrophied, and easily cut with the knife, and it had a large spine or process instead of the impression for the attachment of the conoid and trapezoid ligaments. The clavicle was fractured between the attachment of these ligaments and the scapulo-clavicular joint.

EARLSWOOD ASYLUM.—At the thirty-eighth anniversary festival of the Asylum for Idiots at Earlswood, recently held, it was stated that there had passed through this institution 2,006 children, and at this moment there were 589 children enjoying the benefits of the institution. Their physical health and their mental condition were much improved. The reports of the society were printed by them, and they were taught tailoring, brush-making, and mattress-making, and other useful occupations. There were 170 candidates for admission at the next election ; but, from the low state of the funds, only thirty could be admitted. Subscriptions to the amount of £1,518 were announced at the meeting.

REVIEWS AND NOTICES.

ON RENAL AND URINARY AFFECTIONS. By W. HOWSHIP DICKINSON, M.D., F.R.C.P., Physician to, and Lecturer on Medicine at, St. George's Hospital, etc. In Three Parts. Part III : Miscellaneous Affections of the Kidneys and Urine. London : Longmans, Green, and Co. 1885.

THE volume before us completes the work which Dr. DICKINSON set himself to perform more than eleven years ago. Diabetes and albuminuria have been treated in the two preceding publications, and the present or third volume is devoted to the other numerous affections of the kidneys and urine, so that the three volumes together constitute a complete medical treatise upon all forms of renal and urinary disease.

A copious common index is attached to the third volume, and, as its first page is numbered 629, and its last 1318, it will be seen that it is equal in size to the other two put together. Each volume has a separate table of contents. The paper and type are excellent, and we are particularly struck by the beauty of the illustrations. Every medical man who makes a habit of examining urinary deposits with the microscope, will be instructed by an inspection of Fig. 5, where the varieties of epithelium from every portion of the urinary tract are shown. Many a cell is seen there, simple enough in reality, but which might easily be mistaken by the experienced for a dreaded cancer-cell. The drawing of "villus of kidney" is also very instructive ; because, although the disease shown is very rare, it is well to remember, in these days of surgical interference, by means of operation, with cases of villous disease of the bladder, that portions of villous growth may be voided by the natural passages, in the urine, without the bladder being necessarily the seat of the disease. In passing, we would remark that perhaps it is more elegant, and certainly it is pathologically more correct, to speak of villous disease, rather than of villus of either kidney or bladder. *Villus*, of course, is a singular Latin noun, signifying wool or hair. Nearly all varieties of tumour growing from mucous membrane may become villous, whereby is meant that the surface is covered with *villi*. To call a tumour villous is only to express in words the nature of its surface ; no clue is given by the term to the nature of the growth itself.

In speaking of the solvent treatment of urinary calculi, Dr. Marcet (1819) is quoted to the effect that alkalies can only exert a solvent action upon lithic acid, that phosphatic calculi are aggravated or originated by their use, and that large concretions cannot be materially lessened by their ingestion, owing to the small surface exposed in relation to their bulk. Dr. Dickinson adds : "For practical purposes, the problem still stands much as he left it." This is very true, and we are grateful to Dr. Dickinson for his plain statement. We hope authors in the immediate future will take it to heart ; if they do, the time of many an anxious inquirer—practitioner and student—will be saved, and the stomach of many a trustful patient spared. In a court of justice, it has often been remarked how much laughter can be produced by a very little joke ; this is doubtless because the gloom of the surroundings makes the humour the more conspicuous and very welcome. For this same reason, we would by no means decry humour in a clinical treatise, but when we read, "there is still to be seen in the College of Surgeons a large saponaceous mass, which had accumulated in the bladder, as the result of this misdirection of a valuable external application" (the misdirection consisting of the injection of the soap), we can imagine many a reader a little confused and delayed while he asks himself, is this a pleasantry, or is soap outwardly applied really useful in the treatment of urinary calculi ?

With reference to the formation of urinary calculi, Dr. Dickinson has much to say that is well worth reading. He dissents from the colloidal theory of the origin of calculi, and quotes Mr. Cadge to prove that stone is confined very much to particular districts. He also shows that stone is found particularly amongst rich adults, because, from good living and want of exercise, they have a tendency to the formation of uric acid ; and that stone is found frequently amongst the children of the poor because, as Mr. Cadge has pointed out, they do not get enough milk ; their food is, therefore, too concentrated, their urine is overloaded with salts, and naturally stone not unfrequently results. Dr. Dickinson urges the importance of spare living and plenty of pure water for those who make uric acid excessively ; he allows them all kinds of vegetables, but denies them any saccharine or oleaginous matter, and entirely interdicts the use of malt liquor, and strongly deprecates the use by them of calcareous waters, such as that of Contrexéville. In speaking of the phosphatic

diathesis and of phosphatic calculi of constitutional and not of local origin, Dr. Dickinson is not quite so explicit. He considers phosphaturia to be generally the result of nervous irritability, and recommends the use of strychnia and the mineral acids; he says little or nothing about the importance of diet, or of the need of paying attention to the state of the liver and bowels.

Dr. Dickinson has made himself master of the recent advances surgery has made in the operative treatment of many renal diseases. His analyses of results, and his opinion as to when operative interference is justifiable, will be read by all practitioners with profit. His remarks on the so-called catheter-fever, about which interest has been lately revived by Sir Andrew Clark, will be read by all surgeons, though many will doubtless dissent from the views expressed. The whole book is well and most carefully written; it abounds in practical hints and in information of all kinds, and the author has, indeed, brought a great undertaking to a successful issue. His work is eminently a reputation-making one, and for many years to come Dickinson on *Urinary Affections* will be a standard book of reference.

NOTES ON BOOKS.

Help at Hand, or What shall We Do in Accidents or Illness? By KATRINE COWPER. London: Wells, Gardner, Darton, and Co.—The Countess Cowper has prepared a handy manual, forming a pamphlet of thirty-six pages, and containing the most elementary directions for first aid in cases of emergency. The preface informs the reader that it is entirely compiled from the notes made during two courses of ambulance-lectures, supplemented by constant reference to Surgeon-Major Shepherd's handbook, and that it has undergone revision at the hands of Mr. John Croft, Dr. Holland of Ampthill, and Mr. W. Odell of Hertford. The paragraphs on poisons, taken from W. Stowe's *Toxicological Chart*, are worthy of especial note for their clearness and simplicity. As the manual costs but threepence in a paper cover, and sixpence bound in cloth, it is well within the reach of the poorer sections of society. It is equally satisfactory to note that the style in which it is written renders the directions which it contains intelligible to the meanest intellectual capacity.

Shepherd's First Aid to the Injured, revised and rearranged by ROBERT BRUCE, M.R.C.S., Lecturer and Examiner to the St. John Ambulance Association.—This little work by the late Surgeon-Major P. Shepherd, which was written by him less than three months before he met his death at Isandula, has continued to maintain the favour with which it was at first received. The present edition, which is the eightieth thousand, has been prepared by Mr. Robert Bruce; and illustrations, forty-two in number, have been drawn for it by Mr. J. H. Easterbrook, the Assistant-Secretary of the St. John Ambulance Association. It contains much useful information and advice, given in simple language, and is well adapted for its purpose, that of enabling non-professional persons to act in cases of emergency before medical aid can be procured.

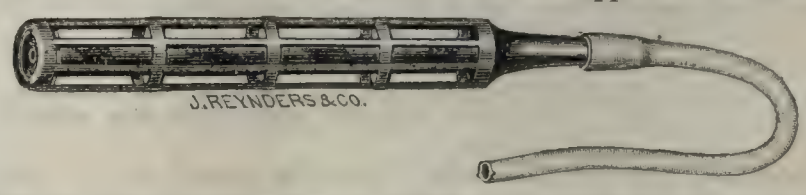
Birmingham Health-Lectures.—These lectures were started in the winter of 1883-84, in connection with the Birmingham and Midland Institute, and we had then occasion to notice them. During the past winter, another series has been delivered, and the published volume, graced by a preface written by the Honourable J. R. Lowell, lies before us. Mr. Lowell justly says: "These lectures are wisely meant to increase our knowledge of the universally admitted laws and conditions of health, and not to suggest remedies for the breach of them; and they will do a great public service if they are effectual in reminding those into whose hands they fall, how cheap, how little troublesome, how agreeable even, are the means by which so infinitely precious a property may be economised, increased, and entailed." The lecturers for the session have been Dr. James Russell, Dr. Wade, Mr. Priestley Smith, Mr. Bartleet, Dr. Malins, and Mr. T. F. Chavasse. The lecture by the last-named gentleman is not included in this volume. It was addressed "to men only," and, dealing with prurient matters, attracted immense audiences. Its character is sufficiently attested by the fact that it cannot be published. As it is well known that many young men are only too liable to take a very morbid view of sexual matters, we regret that the Committee of the Birmingham and Midland Institute should have thought it desirable to give this lecture, the effects of which are at best doubtfully good, and are, in our opinion, fraught with certain evil, far outweighing any incidental good. We feel that that we are expressing the opinion of the great majority of medical practitioners, who see the frequency of sexual hypochondriasis in young men, and know the harm that accrues from stimulating their attention to what Dr. Clifford Allbutt rightly calls a more or less nasty mystery.

The Pharmacopœias of Twenty-five of the London Hospitals. By PETER SQUIRE. Fifth Edition. Revised by PETER WYATT SQUIRE and ALFRED HERBERT SQUIRE. London: J. and A. Churchill. 1885.—Since the fourth edition of this compilation was published in 1879, thirteen hospitals have issued new editions of their pharmacopœias, many formulæ have been altered, and new remedies and new preparations have been introduced. Messrs. P. W. and A. H. Squire have, therefore, prepared a new edition of the volume which their late father saw four times through the press. The nature of the compilation is probably very generally known. All the formulæ of the principal hospitals in London are arranged in groups for comparison. Such a collection undoubtedly has its uses. For instance, if the young physician want to prescribe a sulphuric acid mixture for diarrhœa, he will find ten formulæ from which to choose; if he desire to give a podophyllin-pill, he will find fifteen formulæ; and so on with other well known drugs. The pharmacopœias of the Children's Hospital, in Great Ormond Street, of the German Hospital, at Dalston, and of the Meath and Adelaide Hospitals, Dublin, are printed in an appendix—for what reason, it would be difficult to say; neither is it very apparent why the pharmacopœias of other children's hospitals have not been collated with that of the hospital in Great Ormond Street, which is not of very peculiar excellence, though materially improved, as here printed, by the addition of formulæ for children in use at the general hospitals. The diet-tables of all the hospitals are also reprinted, and the volume is a convenient reference-book for the consulting-room table or surgery.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

COMBINED RECTAL AND INTRA-UTERINE IRRIGATOR.

IN the *Medical Record* of New York, for May 10th, 1879, I presented to the medical profession the "Metro-clyst." I now desire to call attention to a modification of this instrument, which makes it available for the diseases of the rectum and surrounding pelvic structures. The instrument was skilfully constructed for me, in April of last year, by Messrs. Reynders and Co., of New York City. It is of hard rubber, and consists of a cylindrical frame or cage traversed by a central tube. This arrangement insures the easy exit of the injected fluid. Any ordinary syringe can, by means of rubber tubing, be attached to it. My preference in the use of hot water is for the siphon. Thanks to the genius of Dr. T. A. Emmett, we all now appreciate the indis-



pensable value of hot water in inflammation and as a hæmostatic. Though I have not yet had an opportunity of testing the merits of this instrument in ovaritis, pelvic cellulitis, or peritonitis, I feel confident that we will find it one of our most efficient measures in combating these serious and obstinate forms of disease. So far as I am informed, Dr. J. R. Chadwick was the first to advocate the rectal use of hot water in the treatment of pelvic inflammations (*vide* his able and interesting paper in the *Transactions* of the American Gynæcological Society for 1880). To me it promises much in acute prostatitis, inflammation of the rectum, and internal hæmorrhoidal troubles. I have had most gratifying success from its use in a case of puerperal endometritis, and in one of rectal ulcers.

JNO. S. COLEMAN, M.D., Augusta, Georgia, U.S.A.

ARTIFICIAL COD-LIVER OIL.—It is said that manufacturers in Paris are imitating cod-liver oil by soaking herrings in olive-oil. The olive-oil quickly takes up the fishy odour, and closely resembles light cod-liver oil. Brown cod-liver oil is imitated by allowing the fish to soak in the oil for eight or ten days.

WE regret to announce the death of Emily Bovell Sturge, M.D., wife of Dr. William Allen Sturge. She died at Nice on the 2nd instant.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 18th, 1885.

LORD SHAFTESBURY'S RESIGNATION.

AT the age of 84, and after fifty-six years of most honourable service, which he has freely given to the public, the Chairman of the Commissioners in Lunacy has resigned his office. It will be the subject of profound regret that, after such a voyage, the stately ship did not sail into the haven of rest wafted by gentle and favouring breezes, instead of beating into port against head-winds and stormy weather. Lord Shaftesbury has resigned because the new Lunacy Bill, "with the vast proportion of which he heartily concurs," contains one provision which meets with his "invincible repugnance." This provision is "the introduction of the magistrate into the process for placing a patient under care and treatment in a hospital or licensed house;" and Lord Shaftesbury gives his reasons for his repugnance to this change in the law in a long and earnest letter to the Lord Chancellor, which will be found in the *Times* of the 9th instant. The proposed change in the law will affect more or less every medical man practising in this country, whereas the proposed changes in institutions for the detention of insane patients will affect the interests of a very small number of medical men. As a subject of grave import, therefore, to the medical profession at large, it deserves our earliest and most serious attention.

Among other objections to the introduction of the magistrate, Lord Shaftesbury says: "The medical men of England are withdrawing in great numbers from this department of their profession. The best of them will do so altogether when they learn the way in which their knowledge, judgment, experience, and, indeed, characters may be treated. And thus the whole business will be left altogether in the hands of the most inferior practitioners." "The patients, moreover, will be deprived of a right they now possess. The signature of the magistrate would, I believe, in law, and certainly in the estimation of a jury, cover the parties concerned in the certificate, and take from the patient his right of action after liberation for any misconduct on the part of the doctors."

But are not these two arguments somewhat inconsistent with each other? Unquestionably the medical men of England are withdrawing in great numbers from the signing of certificates in lunacy under the present law, and there is excellent reason for their doing so. They have learnt from the law-reports how severely punished a medical man may be, not merely for misconduct in this respect, but for good conduct in the faithful and diligent discharge of a difficult and disagreeable duty. And not only have they been instructed to this effect by law-reports, but they may also have ascertained, as we have done, that members of their profession have been mulcted heavily in law-costs in preparing for the defence of actions, which never came to trial, for examining lunatics and signing certificates, which they had done with due diligence and skill. Dr. Savage has recently lectured his medical brethren on the discharge of their duty in signing certificates notwithstanding the danger involved; but if he had paid the costs of the actions which Mr. Hasker has brought against him out of his own pocket instead of leaving them to be paid out of a charitable fund, he might perhaps have modified his demand for self-sacrifice on the part of his professional brethren who practise under conditions of less security.

Lord Shaftesbury is of opinion that the introduction of the magistrate will prevent these actions, and, on this account, he thinks that the magistrate ought not to be introduced. But medical men will be apt to take a different view, and to consider that a change which will prevent vexatious proceedings against them for the discharge of their duty, is on that account desirable, and more likely to stop than to develop the continuance of their desertion from this branch of the profession.

It is not for us to criticise Lord Shaftesbury's opinion of the incompetence of justices of the peace. His lordship knows more on that subject than we do. But, if magistrates be so incompetent as he appears to think, it certainly is a scandal and a reproach to the Government of the country that such men should be entrusted with the great power which they already exercise over the liberties and properties of Her Majesty's subjects, including insane persons of the opulent classes if they be not properly treated, or not under proper care and control.

Lord Shaftesbury's argument, that the proposed law "will tend to the extinction of early treatment," leaves out of consideration, and indeed does not recite, the new provision of urgency orders, which is likely to operate in the direction of early treatment to a far greater extent than the introduction of the magistrate will postpone it. These urgency orders enable a patient, whom it is desirable for his own welfare, or for the public safety, to be forthwith placed in an asylum, upon the order of a relative, or, failing that, of any other adult person who has seen the patient within fourteen days, and the certificate of one medical man who has seen the patient within seven days. This order will be in force for fourteen days only, unless meanwhile the civil magistrate be introduced, as in a case not urgent Similar orders are largely used in Scotland, with the greatest satisfaction and success; and it is clear, upon the face of it, that they meet urgent requirements, with easy access to care and treatment; and that, under their operation, some delay in treatment, in cases which are not urgent, need not be feared. One cannot but regret that Lord Shaftesbury's feelings should be so deeply wounded by the introduction of the most simple form of judicial inquiry before a patient be relegated to prolonged detention in an institution. It is possible, however, that if his lordship had persistently used his great influence in carrying into effect his opinions with regard to licensed houses, as they were expressed to the Select Committee in 1859, this change in the law might not have been demanded; since it seems to be the necessary complement of a law which still permits insane patients to be detained on the principle of profit to private individuals. If all institutions for the detention of the insane were owned and efficiently governed by the public, there might eventually be no more need for the introduction of the magistrate to decide upon the admission of a patient, on the patient's behalf, than there is on the admission of a sane patient into a

general hospital. The really trustworthy authority would be inside the walls, ready to dismiss forthwith any person improperly admitted. But, as no one so forcibly as Lord Shaftesbury has declared and argued, the licensed house system affects all legislation for the insane, and, in this matter, the introduction of the magistrates, as proposed by the new Bill, is necessitated by the continuance of this system. The interposition of the magistrate in pauper-lunacies is as much on behalf of the ratepayers as of the patient, and is no argument against this view. His order is, in part, a permission to use the public institution which is under the control of his colleagues; and, in like manner, that the ministerial action of a magistrate might always be thought needful in relation to asylums provided by magistrates for lunatics who are not paupers. But the judicial inquiry, reduced to its simplest form by the Lord Chancellor's Bill, is necessitated by the continuance of the private asylum system, which will probably not be much interfered with by the rivalry of county magistrates. It would be somewhat rash to prophesy that the proposed powers of justices to provide asylums for private patients will never be put into force; and in order to arrive at a reasonable estimate of the likelihood that the law will ever be enforced, it would be needful to be acquainted with the feelings of the Commissioners in Lunacy, who are to initiate proceedings by a report to the Home Secretary, and to know the character of the Home Secretary for the time being. That justices of the peace in quarter sessions assembled, or the county boards who are soon to supersede them, will ever of their own free will undertake the cost, trouble, and responsibility of providing public asylums for paying patients may be within the bounds of possibility, but is scarcely to be calculated upon as probable.

If the Secretary of State could act *suâ sponte*, public feeling might, at some time or other, enforce the provision of some public asylums for patients not paupers; but the Bill ties his action to a report of the Commissioners, which, according to all that is known of them, they are very unlikely to make. The result is, that this most important provision of the Bill may be considered as limited to a legislative permission to a most conservative class of persons to engage in a large expenditure, to which they will themselves have largely to contribute, and which will entail upon them abundant anxiety and responsibility, and the not uncertain criticism of the county ratepayers. In fact, the Bill, if it become law, will, in respect of the new asylums, be very liable to locomotor ataxy—like poor Le Fefevre, it will not march. In the words of the report of the Select Committee of 1859, "the apprehension of a burden to be imposed upon the ratepayers would, in the opinion of your Committee, render such an enactment inoperative."

CONSTIPATION AND ITS EFFECTS.

We are frequently reminded, in the history of a very common ailment, how the beginnings of mischief in the body, which as yet mean no more than disease or disorder in its literal sense, may, if neglected, go on to very serious terminations. The causes of constipation are various, and often trifling. Indigestion, whether from torpid function of the mucous membrane, or from too great solidity or bulk of food, must overload the bowel if neglected. Acting with it, to the same purpose, is the want of due muscular exercise. At a later stage of the process, we find the long abused bowel lose its tone and flag in aiding the transit of its contents. In the aged, the same result follows from paralytic inertia. Another retarding element is frequently met with in women during pregnancy, in the enlargement of the uterus. Pressure on the gut by abdominal tumours should not be forgotten in assigning an origin to fæcal retention. Here, however, we encroach upon the graver state of mechanical obstruction, a state practically distinct from that of simple constipation, and, therefore, outside of the scope of these remarks.

Depending on many causes, constipation is apt to show a like uncertain and insidious character in its onset, development, and end. One is often self-deceived in it, and not uncommonly the bowel is believed to act regularly, when its presumed regularity has reference only to time, if indeed to that, while the amount of excretion is always too meagre to give adequate relief to organs which may be amply supplied with daily food. Every practitioner has been astonished to note to what an extent the accumulation is sometimes allowed to proceed. The sacculated structure of the greater bowel favours the lodgment of excreta, its power of distension allows the stowage and gradual absorption of the gases contained in it; and thus there may, for a long time, be no great discomfort and no absolute blockage to call for immediate measures of relief. The cæcum and left colon are particularly apt to be the seats of fæcal impaction, when this event occurs. We must thus explain many cases of typhlitis with iliac abscess; and these are but extreme examples of the irritative inflammation in the gut and its surroundings, which is frequently the first grave symptom in a history of costiveness. Some forms of general chronic peritonitis, such as one occasionally finds to be associated with no very clear details of past abdominal disease, may also have arisen in this way.

Another and somewhat different kind of diseased action may follow fæcal irritation. It is seen in the convulsive seizures of children from retention of scybala, and in the anæmic neuroses of girls and women, whose languid and sedentary habits induce a similar condition. How much to assign to cause or effect in the case of the latter may be open to question, but the benefit which is gained by the action of purgatives in arresting the general nervous irritability is not without its meaning. It illustrates the arrest of weak and fruitless reflex action by the removal of a peripheral source of annoyance. Nature herself, by setting up an irritative and slight diarrhœa, exemplifies a method by which the harassed nervous centres often find relief. This reflex secretion, gentle, gradual, and usually insufficient, has puzzled many in making a first diagnosis between the two opposite states of excretion, which are for the time being acting together in a disguised relationship. It affords also a valuable suggestion as to treatment in difficult cases. In any ordinary case of constipation without urgent symptoms, the physician naturally has recourse to aperients. He may choose a drastic purge or the gentle enema. He follows an old and trite rule in so doing, one of common experience rather than of the medical art. When, however, he has to deal with a resultant inflammation as well as a probable mass of excreta, his views are apt to change. He betakes himself to opiates, considering, not without reason, that the effect has outgrown its origin, and alone requires attention. There are extreme cases where such treatment is sound; but we have known others in which it has been prematurely adopted, to the total exclusion of that other principle of gradual relaxation and detachment, which we have shown to be one of the expedients of nature. On the other hand, the progress of recovery, even from states of acute local and general disturbance, has often been observed to tally with the use of the blander aperient remedies, such as salines or

enemata in combination with sedatives, preferably those, like belladonna or hyoscyamus, which are at the same time aids to intestinal excretion. Iliac abscess would probably be less common if such means of cure were now and then allowed to encroach upon the purely narcotic treatment. To avert the worse consequences of constipation, therefore, it is commonly necessary to pursue, though with adequate modification, a line of treatment not dissimilar to that which acts, along with consideration for the cause, in correcting the costive tendency itself.

LORD BRAMWELL ON DRINK.

THERE never can have been any doubt that Lord Bramwell enjoys hard fighting, and we have fresh evidence of it in a penny pamphlet, entitled *Drink*, which he has just published. It is put forward as a publication of the "Liberty and Property Defence League," but is full of the individuality of its writer. The League is "for resisting over-legislation, and for maintaining freedom of contract, and for advocating individualism as opposed to socialism, entirely irrespective of party politics." Applied to drink, this means, in Lord Bramwell's hands, a vigorous protest against the assumed superiority of the teetotallers over those who advocate moderation in drink, and a strenuous resistance to any legislation which compels, or enables a local authority to compel, restrictions on the sale of alcoholic drinks, or, worst of all, the complete closure of the public-houses. There is every variety of temperance-legislation in the market, and to all Lord Bramwell is opposed; though, of course, he finds it easiest to argue against, or, rather, to denounce, the most extreme. "These liquor-laws," he says, "are either to make men better who do not want to be made better, or to make men better who have not self-control, and, in both cases, at the expense of others. 'You shall not enjoy a glass of beer, because, if you can get it, so can I, and I shall make a beast of myself.' Or, 'You shall not enjoy one glass of beer, because you take too many.' Is that just? Is it a warrantable interference?" That is plain language indeed, and it is just as well it should be used sometimes. But the matter is too difficult to be settled by an indignant question. The moderate counsellor has to use phrases which are less impressive because they are less unqualified; but for all that, they may be the wiser, for a complex society needs complex regulations. Lord Bramwell would probably himself admit it was right that the rules of state interference and individual liberty should be less unqualified in England than in New Guinea. The principles fundamentally involved lie far in the background. John Stuart Mill long ago very clearly pointed out that the limitation of licensing to render the public houses more difficult of access, and the levy of a duty to increase the cost and thereby diminish consumption, differed in degree only, and not in principle, from total prohibition; and with the philosophic courage of an unpractical statesman he condemned them all equally. Lord Bramwell is less philosophic. "What is to be done?" he asks. "It seems obvious to answer—let those who drink in moderation continue to do so, *and let others leave it alone or learn to take it moderately.*" But surely from the words we have italicised arises the whole difficulty. Such lessons to control a passion are not learnt from the advocates of *laissez faire* and the limitation of state interference, but from enthusiasts who from their enthusiasm have made demands upon the state control which, we quite admit, are in certain cases extravagant, but have also obtained some real advantages in the matter of restriction of licences and enforcement of early hours, and have furnished a stimulus which is on the whole valuable; suited, it is true, chiefly to private use, but which is greatly helped by some slight public recognition. The legislator has to make terms with the enthusiast; he can hardly afford to disregard him altogether. After all, the right of limitation by state interference in the way of licensing, and the large powers of limitation of licensed houses given to magistrates by common consent as a necessity for the welfare of the state, indicate clearly enough that the highly philosophic doctrine of "go as you please" has long ceased to be a possible principle of legislation in civilized communities. Lord Bramwell and Mr. Auberon Herbert, representing quite opposite poles of opinion, are good examples of the extreme results, at each end of the pole, which extreme men aim at producing by the abolition of all restrictive legislation. Logically, both would be compelled to abolish nearly the whole code of internal legislation for sanitary and social purposes, limiting the functions of the state to the sole duty of affording security, and precluding it from all regard to the welfare of the subject. It is an old song, frequently recited to new tunes; but the prepossessions, the weaknesses, even the virtues and what some will call the common sense of mankind, make them turn a deaf ear to it. If limitation of licences be permissible, local option is logically justifiable, and the question becomes one of expediency.

ON Thursday, April 23rd, at 8 P.M., Sir T. Spencer Wells will deliver a lecture on Cremation at the Parkes Museum. Lord Shaftesbury will be in the chair.

WE regret to learn, through a telegram in the *Daily Telegraph* that Professor Ogston, who is with the army at Suakim, is invalided.

BARON FERDINAND DE ROTHSCHILD has kindly consented to preside at the anniversary festival of the Metropolitan Free Hospita at Willis's Rooms, on Thursday, May 21st.

WE are informed that a French translation of Dr. Althaus's work *On Sclerosis of the Spinal Cord*, by Dr. Jules Morel, has appeared in Paris, with a preface by Professor Charcot. A German translation of the same book appeared some time ago at Leipzig.

THE Library of the Royal College of Surgeons will be closed on Tuesday next, the 21st instant, owing to the great number of candidates who have entered their names for examination for the diploma of membership, amounting, it is said, to two hundred and seventy.

HIS Royal Highness the Prince of Wales has graciously accepted the invitation of the Board of Management of the National Hospital for the Paralysed and Epileptic, Queen Square, Bloomsbury, to open their new building during the month of June next. The new hospital, of which the west block forms a memorial to the late Duke of Albany, has been erected at a cost of nearly £80,000, of which all but a balance of £6,500 is provided.

THE LATE DR. WASHBOURN.

AT a meeting of the Gloucestershire Medical and Surgical Association, held at Cheltenham on April 7th, it was proposed by the President, Mr. Waddy, seconded by Dr. Batten, and carried unanimously: "That the Secretary be directed to write to Mrs. Buchanan Washbourn, to express to her the sympathy felt for her in her bereavement by the members of the Association, and also to record their sense of the great loss which has been experienced by the medical profession

in this country by the death of Dr. Washbourn, who had endeared himself to the members of the Association, of which he was one of the senior members, as much by his constant presence and genial courtesy at the meetings, as by his eminently honourable conduct as a professional brother."

THE LATE MR. RABBETH.

A HANDSOME brass tablet, bearing the following inscription, has been placed by the Committee of Management in the inquest-room of the Royal Free Hospital, Gray's Inn Road. "This tablet has been erected by the authorities of the Royal Free Hospital, Gray's Inn Road, and the medical staff, to the memory of Samuel Rabbeth, M.B., M.R.C.S., Senior Resident Medical Officer of this hospital, who sacrificed his own life in the endeavour to save that of a little child, a patient under his care. Died 20th October, 1884 ; aged 26 years." A committee, of which the Archbishop of Canterbury is president, intend to establish at King's College, of which the deceased gentleman was a member, a scholarship to be named after the deceased.

NURSES AND MEDICAL TEACHING.

WE are glad to see that the practice of instructing infirmary-nurses in the elements of physiology is spreading, and that Dr. Neale, at whose suggestion the Board of Guardians for the Wandsworth and Clapham Union recently voted a sum of money for the purchase of a skeleton and diagrams for physiological instruction, has reported favourably of the result. In his report, he stated that he had given twenty demonstrations to the nurses, who had attended well, and taken an intelligent interest in the lessons. He had held a written examination, and both himself and Dr. Wilson were astonished at the proficiency shown by the pupils. The examination was a severe one, and both in that and in practical work, such as bandaging, etc., the nurses had made remarkable progress. The guardians and friends had subscribed and purchased prizes to be awarded to the successful competitors. The Rev. Canon Clarke, in awarding prizes to nurses Pratt, Matthews, Gingell, and Pearson, said that just now much attention was being paid to the subject of skilled nursing, and it was only right that the very poor should have all the advantages of medical skill. He highly complimented the recipients of the prizes on their skill, which reflected the highest credit on Dr. Neale and Dr. Wilson.

THE LIABILITY OF LANDLORDS.

THE result of the trial, Chichester *v.* Lance, heard this week before Mr. Justice Wills and a special jury, affords encouragement to the belief that the supremacy of landlords will, one day, be a thing of the past, and that owners of house-property who allow their drains to be dangerous to the health of their tenants will incur the risk of being made to pay substantial damages for their default. In the present case the plaintiff's account was that she entered into a renewed tenancy of her house with an understanding that the drains should be attended to, as they were defective. Some attempt was made to remedy them, but not effectively, and all the family became unwell, one of plaintiff's sons having typhoid fever, which left him so far weakened, that a voyage to Australia had been required to restore him to health. The defence was that the work had been put off to suit the convenience of the plaintiff, and that it had not been shown that the illness had arisen in consequence of the defects in drainage. The jury appears to have disbelieved the first part of the defence, and to have disregarded the second. It is true that it is impossible in the existing state of science to prove conclusively that a given case of typhoid fever has arisen in consequence of defective drains, but we know that this is very likely to happen ; and, until the law compels landlords to provide proper sanitary arrangements in dwelling-houses, it is to be hoped that juries will continue to take this common-sense view of the matter. A few more such verdicts would make landlords anxious, in their own interests, to obtain some measure of compulsory sanitary inspection, compliance with the requisitions of which would shield them from further liability.

PRIZES FOR HYGIENIC HANDBOOKS.

MR. HENRY LOMB, of Rochester, New York, has offered, through the American Public Health Association, the sum of 2,800 dollars, to be awarded as first and second prizes for papers on the following subjects. 1. "Healthy Homes and Foods for the Working Classes"—first prize, 500 dollars ; second prize, 200 dollars. 2. "The Sanitary Conditions and Necessities of School-houses and School-Life"—first prize, 500 dollars ; second prize, 200 dollars. 3. "Disinfection and Individual Prophylaxis against Infectious Diseases"—first prize, 500 dollars ; second prize, 200 dollars. 4. "The Preventable Causes of Disease, Injury, and Death, in American Manufactories and Workshops, and the Best Means and appliances for Preventing and Avoiding them" —first prize, 500 dollars ; second prize, 200 dollars. All essays must be in the hands of the Secretary, Dr. Irving A. Watson, Concord, New Haven, on or before October 15th, 1885. The judges will announce the awards in the second week of December 1885, at the annual meeting of the American Public Health Association. Competition is open to authors of any nationality, but all the papers must be in the English language.

THE "TIMES" ON THE LONDON MEDICAL SCHOOLS.

ON Saturday last, April 11th, over two columns of the *Times* were devoted to a communication "from a correspondent," on the London medical schools. The present state of medical education in England was contrasted with its condition in the days of Hunter and Sir Astley Cooper. The public was informed that "the daring adventures in search of subjects for dissection which many hospital surgeons as well as students shared with debased and criminal characters, may probably have given to budding practitioners a tinge of recklessness, and a tendency to law-defiance of which occasional outbreaks still remind us." We cannot congratulate the correspondent on this allusion to a thread-bare topic, the alleged boisterousness of students and its supposed causes. After some reference to the increased importance of physiology and pathology as sciences which the student must study, there follow some excellent observations on scientific education. There is a complaint that, school-days being protracted beyond old custom, the future medical student learns little that can be of any use to him. "It ought not to be left for the youth of eighteen or nineteen to begin his acquaintance with the forces of nature and the chemical elements when he presents himself for medical education. If he knows no science at entrance, he has to laboriously seek to grasp the scientific idea, itself requiring almost a year to penetrate thoroughly into a youth's conceptions." It is particularly satisfactory to find that the correspondent dwells at great length on the subject of chemistry, showing that the science in question should be taught in every large school, being of value to others beside medical men. In terms remarkably similar to those employed in a recent leader in the JOURNAL, the evils of the chemistry lecture during the first winter session are fully exposed, though the manner in which students pursue their researches in the practical chemistry class is, perhaps, not quite fairly represented. We heartily agree with the correspondent in his opinion that "the intrusion of chemistry should not be allowed so unnecessarily to burden the school of medicine," and regret that the question of preliminary education in a science which the profession knows to be of much importance, should happen to be submitted to the consideration of the general public in the columns of a leading newspaper at so inopportune a time, when the pages of the daily press are sought for little beyond the rumours of wars. The importance of dissection and the care with which it is now taught are referred to by the correspondent, who speaks of the dissecting-room as "that grim abode of human flesh in a state of temporary embalmment." The increased importance awarded to practical physiology and histology in the curriculum is rightly commended. The correspondent speaks with disfavour of the often proposed central college scheme, by which the subjects which the student has to consider during his first two winter sessions would be taught in an institution not con-

nected with a hospital. We agree with him in his assertion that the present system gives considerable play to free competition between the schools, and thus helps to secure general excellence; but the root of the scientific education question does not lie therein. Turning to work in the wards, the correspondent makes the following somewhat ambiguous observation. "Thus, in watching the physicians' and surgeons' treatment of the patient, and the results, a store of experience is accumulated which is the stock-in-trade of the practitioner, and more efficacious, perhaps, than gentlemanly and persuasive manners in securing his success, although many have doubts on this subject." Does not every hospital physician and surgeon know that both are needed, or that at least, experience and persuasive (even if otherwise bad) manners have ensured good fortune to the more successful of their old pupils? In speaking of the maternity department, the correspondent ought to have added, to his complaint that inexperienced youths are intrusted with midwifery-work, the important qualification that these youths more often send for assistance when it is not required than take upon themselves responsibilities which they are not competent to perform. The writer of the article on the London medical schools deserves credit for the clearness with which he represents the state of medical education to the public. It is to be regretted that a short paragraph was not devoted to the subject of medical students considered socially, the classes whence they spring, the accommodation which the metropolis affords for them during their four years of study, and the advisability of resident colleges, such as are already attached to St. Bartholomew's and the London Hospitals.

ROYAL VICTORIA HOSPITAL, NETLEY.

THE supposed Fenian attempt to blow up Netley Hospital, and the discovery of a package containing explosive matter within the precincts of the building, of which an account has been published in certain newspapers, appear to have originated in the fertile imagination of some inventive correspondent. We are informed that the authorities at the hospital itself know nothing of any package of the kind having been found in or near the building. About two months ago, when threats were made to destroy various public buildings, the Royal Victoria Hospital, among others, was mentioned by name. Special precautions have been taken to guard the approaches to the hospital and officers' quarters since that date, while all strangers are subjected to a certain amount of observation on entering the grounds around the buildings; and it seems not improbable that these measures for security have given rise to the sensational announcement of a Fenian alarm at Netley Hospital.

HYDROPHOBIA AND ITS PREVENTION.

THE epidemic of hydrophobia now prevalent among dogs in Sheffield, and, to a less extent, among those of the metropolis, exhibits a form of disease at all times of great public importance within the affected areas, but which has lately acquired a yet greater interest from the advances which have been made in its treatment. Rabies is a form of illness as yet fairly limited within an original area. It is an affection of the dog, and the dog's near relations, such as wolves, foxes, and the like. We do not find it arising spontaneously in other animal races. The virus, it is true, will take root and grow in genera widely severed from the canine, but these are commonly dog-bitten beforehand. The preliminary stage of morbid development has been gone through in the latter animal, and its characters, once impressed, are retained and increased in almost any mammalian tissue where they may be implanted. Pasteur, in his later researches, has shown that this poison is an organic germ, capable of separate cultivation, of acting as a direct stimulus of hydrophobia, and of yielding or increasing its force in accordance with the nutrition supplied by its habitat. The practical result of his observations which has now become familiar, is the so-called rabies inoculation, whose protective influence against the results of rabid bites was clearly proved by him a few months ago. In connection with his discoveries, it is worth noting that the introduction of rabies into a district is most commonly traceable to the arrival of some "stray" dog. The well known and well fed animal-inhabitants are not usually the first offenders. Now, a stray dog is one which is hungry, thirsty, dirty, travel-tired, and masterless. Its food is also stray food, scraps, offal, and excreta even. The animal, in fact, is in that state of physical depression and of nervous irritability which experience has proved to form the prepared and needed soil for the spread of contagious disease in general. The pabulum is present, the germ only is required to begin an epidemic. Perhaps we should say that a germ, or any germ, is all that is necessary; that it may undergo development in altered salivary fluids, and become a virus capable of the furthest effects of rabies. What, then, is the outcome of all these facts and suggestions, and how can they help us to ward off this dreaded disease? Some would have us rely for prevention on muzzling and leading dogs, some on a system o taxed registration; a few would exterminate the breed. The last is, without doubt, the most perfect remedy, but it is impossible. More compassionate, as well as more effectual so far, are the various plans by which food and drink is provided for starving curs; for the stray dog, we have seen, is, after all, the root of the evil. Every such animal should be under police-supervision, as far as possible, to be taken in charge and dealt with as the interest of public safety may direct. We may add the well used and often neglected caution, that dogs in general should not be freely handled. Their skins, at times, are apt to be acutely sensitive, and at such times they may snap at the merest touch. Curiously, this hyperæsthesia has not been observed in them in the rabid state, though it may well be present, since it is a marked feature of hydrophobia in man. It would be unwise to close these remarks without reaping, by suggestion, some fruit from the brilliant conclusions of Pasteur. Few of the human species, perhaps, would care to undergo inoculation with the modified virus of rabies, nor, with the risk of infection at its present ebb, need they be called upon to guard their persons in this way. It is quite otherwise with household dogs. There seems to us to be no reason against, but everything in favour of, the adoption of a system of national canine inoculation of the kind in question. We protect ourselves against our greatest human scourge, small-pox, by vaccination. By similar treatment of the young of our brute-dependents, we should certify ourselves and them against their one prevailing malady.

THE DEATH OF THE LORD MAYOR.

THE death of the Lord Mayor, while demanding our deepest sympathy with his family, and due expression of our sense of the public loss sustained in the person of so eminent and excellent a man, illustrates in a very striking and impressive manner the wisdom of the caution that the life of a diabetic hangs by a thread. So far as may be gathered from the public papers, the Lord Mayor complained of having caught cold at evening service on Sunday week, while staying at Brighton; but, in spite of this, he was present in an open carriage at the march-past after the Volunteer Review on the following day. That night, he was in great pain; and Mr. F. Arthur Farr was telegraphed for, to meet him on his return to the Mansion House on Tuesday morning. His lordship was then so ill that he had to be assisted from his carriage; but, in spite of this, and though ordered by his medical adviser to go to bed, he persisted in going through his day's work, from the amiable wish "not to disappoint the Bluecoat-boys." At the close of the ceremony, he went to bed; and on the next day, being Wednesday, he was seen in consultation by Dr. Garrod, who found him suffering from pleurisy. On Thursday, the condition of the patient appears to have been maintained; but on Friday, after a restless night, he sank into coma, which was terminated by death at twenty-five minutes to eight o'clock on Saturday morning. This history affords an accurate outline of a case of "Kussmaul's coma," of which the minute clinical details alone are

wanting. The subject of chronic diabetes, the Lord Mayor seems have been exposed to every adverse influence likely to precipitate such an attack. A recent writer on this subject says: "Clinical experience has suggested the dangers of long journeys, muscular exertion, nervous shock, and exposure to cold;" yet, with the exception of the third, all these risks were braved with what it is not too much to characterise as fatal rashness. Not many weeks ago, a young gentleman at Cambridge died from what appeared from the newspaper reports to have been diabetic coma, brought on by a severe run on his tricycle. He was known to be the subject of diabetes, and presumably had been cautioned of the danger of such violent exercise. We cannot avoid the conclusion that, had due attention been paid to the warnings which medical science enables us to give, both these unhappy accidents would have been avoided. Does the fault lie with the profession, or with the public? When any one is known to be suffering from diabetes, it is due to him to tell him how far he carries his life in his hand, and what are the sources of danger he must shun. We are not justified, by the amiable desire to avoid alarming our patients, in assuming the responsibility of withholding information which may eventuate in loss of life. No one will dispute this; nor will any who see many cases of diabetes, or who have read the statistics frequently quoted of late years on this subject, doubt the frequency of these sudden deaths. But the relative rarity of diabetes may have left some individual practitioners still unimpressed with a due sense of its importance; and, therefore, a case like the present, to which wide-spread publicity is given, and which, from the position of the patient, is likely to retain a hold on the mind, affords the best opportunity for urging the important practical lesson to be drawn from it. The public, much more than the profession, needs to lay it to heart. Every diabetic may usefully take home to himself the moral of this sad event. It is to be regretted that the public, partly from want of scientific training, too often underrate the value of medical advice. They think medical opinions are at best shrewd guesses, of which the most important factor is "knowing their constitution;" and, as many of them think they know that at least as well as any doctor, they feel quite at liberty to judge for themselves whether to accept or reject particular advice, especially as to their habits and mode of life. The remedy for this lies in the advancement of scientific education among the public, but chiefly in the conduct of the profession. We should be careful to distinguish the things we know from those of which we are ignorant; perhaps we should be less dogmatic in some things; yet we should stand fast and not be gainsaid where we have our feet firmly fixed on scientific ground, and the welfare of our patient demands that we shall speak boldly. No doubt, the immediate effect is not always quite fortunate; but we must have confidence in the victory of truth in the long run. If the public knew what a scientific conclusion is, and had confidence that the opinions on which we venture to be positive are arrived at in the same way, and justly deserve the same name, they would value our opinions more highly, and act upon them with less reluctance.

DANGEROUS TRAMWAYS.

LAST week a serious accident occurred at Bury, Lancashire, by the overturning of a steam tramcar. The vehicle, which was very heavily laden with passengers, some of whom were standing on the top, was proceeding at a rapid rate. In turning a sharp curve, the car suddenly overturned, throwing the outside passengers violently into the road. Twenty persons were seriously maimed, some sustaining compound or simple fractures of the limbs, others receiving severe head-injuries, or more or less serious bruises and concussions. Now that steam-tramways have turned many of our thoroughfares into railways, it is high time that they were efficiently controlled by regulations similar to those which have made ordinary railway-travelling comparatively safe. In this "accident" at Bury, at least three preventable dangers concurred, namely, excessive speed, a dangerous curve, and overloading on the roof of the car. That a top-heavy car should overturn when it is being rapidly driven round a sharp curve is a physical necessity, which a few common-sense restrictions might effectually prevent.

THE ROYAL INSTITUTION.

PROFESSOR BURDON SANDERSON will give a lecture on Cholera: its Causes and Prevention, at the Royal Institution, on May 15th, Professor Odling will lecture on Organic Septics and Antiseptics, on May 16th and 23rd; Professor Meymott Tidy, on Poisons in relation to their Chemical Constitution and Vital Functions, on May 21st and 28th, and June 4th; and on May 29th, Mr. J. J. Coleman and Professor J. G. McKendrick will lecture on the Mechanical Production of Cold, and the Effects of Cold on Microphytes.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

THIS Association having nearly completed the first year of its existence, the Central Committee has issued a report to its members, and also to all of the Members of the Royal College of Surgeons, to inform them of the work which has been done by the Association, for the purpose of obtaining certain reforms in the projected new charter of the College. This report points out that the general meeting of the Fellows and Members, held at the College in March 1884, was not so largely attended by Members as could have been wished, because the meeting was only announced to them by an advertisement in the medical papers, which many of them did not happen to see. However, the Fellows and Members present unanimously agreed to reject certain of the alterations proposed by the Council. Counter proposals were brought before the meeting, passed, and presented to the President of the College. As usual, they were ignored by the Council. Several gentlemen, who were present at the general meeting, seeing that nothing could be done to further the interests of the profession without co-operation and unity among its members, then came together and formed the nucleus of the Association of Members. The number and the character of the replies to a circular issued by a provisional committee warrant the belief that there is a strong feeling throughout the profession that reform is urgently needed in the administrative department of the Royal College of Surgeons. The report further indicates that, in the last financial year, out of a revenue of £22,111 10s. 9d., £5,000 was received by the College from rents of house property, and about £15,000 from fees for the Membership, and about £1,500 from the Fellowship examinations. The Members number about 17,900, the Fellows about 1,200, yet the former—constituting, as they undoubtedly do, a large and educated community—have not so much as a vote in the election of their governors. Furthermore, the report declares that the Council has neither protected the interests of the Members, nor considered their grievances; but, after granting them diplomas and the right of using the College library, it has ignored their very existence. The report then refers to the deputation of the Association of Members which met the president and vice-presidents of the College on January 6th, 1885, for the purpose of explaining their views. Mr. Cooper Forster, president of the College, undertook to lay before the Council the requests of the Association. The two main points in the requisition were: (1) That Fellows and Members shall elect an equal number of representatives to constitute the Council; (2) That in addition to a poll-election at the College, voting by voting papers, to be sent to all Fellows and Members resident in the United Kingdom, shall be allowed. The report admits that the Association of Fellows appear somewhat liberal in their views; they have proposed, amongst other things, that there shall be an annual general meeting of Fellows and Members, at which the annual report of the Council shall be presented, discussed, and, if approved, adopted; also that no alteration in the constitution and relations of the College shall be effected without the consent of the Fellows and Members, specially convened to discuss such alterations;

and that, on receipt of a requisition signed by thirty Fellows or Members, the President shall convene a general meeting. These proposals, with the addition of representation of Members and election by voting-papers, embrace nearly the whole of the preliminary question as far as the Members are concerned, for, when the Members are fairly represented, they will be able to protect and advance their interests; and it will be well that this Association shall be so constituted as to truly reflect the opinion of the Members in all matters affecting their interests and welfare, for which purpose local secretaries are to be appointed, who shall continually correspond and report the feelings and opinions of their medical brethren. The report, dated March 25th, 1885, expresses a doubt that the Council would accede to the requisition of the Association of Members. Their suspicion has been verified. Members of the College are earnestly requested to join the Association so as to insure pressure on the Council. The annual subscription of five shillings is made as low as is compatible with current expenses. If Members of the College freely respond to this appeal, then, according to the words of the report, they will establish a powerful and influential association for the protection of the interests of the medical practitioner. It is also hoped that members and sympathisers will use their influence in forwarding the views of the Association. The Committee will be glad to receive the opinion of those who are interested in the movement, and a general meeting will be held on May 5th, in the Westminster Town Hall, at 4 p.m. At a meeting held on Saturday, April 11th, subsequent to the decision of the Council, the Committee of the Association resolved to oppose the Charter by every means possible, both before the Secretary of State and in Parliament, if necessary. Since nearly every Member of the College is interested in its thorough reform, and scarcely one of them is not in a position to influence one or more Members of Parliament, the Association holds that it is ill-judged for the Council to disregard the Members so completely. The Treasurer and Secretary, Mr. W. C. Steele, has informed us that he has already received one thousand signatures protesting against the action of the College, and others are coming in at the rate of three dozen daily. Mr. Steele, whose address is, 1, Florence Terrace, Ealing, will give full information to all Members who wish to be enlightened on the objects of the Association of Members.

THE NEW DEATH-RATE TABLES FOR LONDON.

We may direct attention to the important analysis of the actual death-rates of the various districts of London which we publish in another column, based upon an improvement in the mode of investigating and stating the death-rates, due to a suggestion of Mr. Ernest Hart, and to the steps which he subsequently took to bring this suggestion into a practical and realised form. The main element consists in the systematic redistribution into their respective districts of the deaths of persons habitually resident in those districts, but dying in public institutions to which they have been removed in other parts of the metropolis. This innovation proves to be of sufficient importance to have induced the Registrar-General to adopt it in the quarterly returns; and henceforth a table, so corrected, will be officially furnished. We have added to the official figures statements of population in the respective districts, and the calculated percentages, which will facilitate the obvious uses of the figures.

THE EPIDEMIC OF DIARRHŒA AT HULL.

The epidemic of diarrhœa at Hull, to which we referred a fortnight ago, has now almost subsided; it has been so wide-spread and extensive that it has caused a good deal of excitement, which has been reflected in the discussions at the meetings of the town council and the sanitary committee. At first, the persons in charge of the water-works entirely denied that the water could, by any possibility, have become contaminated. Not entirely satisfied with the explanations offered, Mr. Rollit obtained a special committee of inquiry, and, on the morning of the day on which this committee was to meet for the first time, a letter from the engineer who has charge of the water-works was made public. He admitted that on one occasion, about eight or nine weeks ago, water from an open stream was pumped into the mains; it is rumoured that this stream receives a good deal of sewage, amongst other places from the Borough Lunatic Asylum; however this may be, the water is admittedly impure. Yet foul water in the mains for a short time nine weeks ago does not quite satisfactorily account for an epidemic of diarrhœa commencing six weeks later. The committee of inquiry ceased its labours so soon as this statement was made; otherwise it might be hoped that the engineer's memory might, perhaps, after another interval, have supplied some additional fact, which would serve to explain the date of the outbreak. It will not do, however, to make a scapegoat of the engineer; the real fact seems to be that the water-supply of the town is insufficient to meet the demand; it had fallen very low, and was further depleted by the large quantity used at some large fires. If the corporation had done its duty by providing an ample supply, the engineer would not have been tempted to take in water from a contaminated source to supply a deficiency which it was the bounden duty of the corporation not to allow to occur.

THE INTERNATIONAL SANITARY CONFERENCE.

We hear that Sir Joseph Fayrer, K.C.S.I., Physician to the Secretary of State for India in Council, and Professor Timothy Lewis, of the Army Medical School at Netley, have been requested to represent the India Government at the approaching Sanitary Conference at Rome, which will probably meet next month. It is understood that the British Government will be represented by Sir Guyer Hunter, K.C.M.C., and Dr. Thorne Thorne.

THE LONDON HOSPITAL.

The London Hospital was visited on Wednesday last by the Princess Christian of Schleswig Holstein, who was received by a large number of the supporters of the hospital. Her Royal Highness spent some considerable time among the children in the Queen Victoria and Princess Beatrice wards. Passing to the two Queen wards for children, where all the little patients wore comfortable-looking, warm, red flannel jackets, recently given them by Mrs. Alfred Haggard and some friends, Her Royal Highness caused many pale children to brighten as, with a few kindly words, she handed to the inmates of the cots toys and other suitable gifts contributed by subscribers for the occasion. In the large number of patients treated at the hospital last year, over 72,600 in all, the 8,000 patients who occupied beds included 1,500 children. There were 2,480 victims of accident admitted last year, and over 6,000 sufferers from less severe accidents, and nearly 30,000 cases of minor casualties were treated in the out-patient department. For Hebrew patients, of whom 580 were received last year, there are special wards, and also a separate kitchen for the preparation of their food. The poor of the district themselves contribute £2,000 a year to the expenses of the charity. The Nursing Home, which Princess Christian inspected after leaving the children's wards, has long been inadequate for the housing of the staff of nurses, who are about 150 in number. The new building, the cost of which is to be defrayed out of a sum of £10,000 received as compensation for disturbance from the East London Railway Extension, will contain separate sleeping-rooms for about one hundred nurses, the basement serving as a special kitchen for the house. Returning to the hospital, and passing through the Sophia and Gloucester wards, Her Royal Highness left, after a stay of nearly an hour in the institution.

AMPUTATION AT THE HIP-JOINT.

The discussion on this subject that occurred at the last meeting of the Clinical Society, and which is reported elsewhere in our pages to-day, will serve to emphasise further the good opinion which surgeons have

held in the past of the advantages to be obtained from the operation in question. The debate was introduced by the reading of two excellent papers; one was by Dr. Lewis Marshall, of Nottingham, who described several cases in which he had adopted Mr. Furneaux Jordan's method of performing the operation; the other was by Mr. Hutchinson, who read a communication on amputation at the hip in certain desperate cases, and who gave details of several such cases in which the operation had apparently saved life. The chief point elicited in the paper, and in the subsequent discussion, was probably the following: that lardaceous disease of the viscera, as exemplified by enlarged liver and spleen, and by albuminuria with hyaline casts, the sequel to long continued suppuration of hip, femur, knee, etc., need be no bar to amputation, but, on the contrary, should rather be a recommendation in its favour, inasmuch as the signs of visceral amyloid disease are wont to diminish as soon as the suppurating cavity is removed. The liver lessens in size, and finally becomes of natural size; and the albuminuria vanishes. Other points touched upon were the method of arresting the hæmorrhage during the operation. Davy's lever is still held in considerable favour by many surgeons, but requires care in its use; whilst compression of the abdominal aorta, or common iliac, by an elastic band encircling the body, or (in the case of children) by the assistant's fingers alone, was advocated by some of the speakers. In making the flaps, Mr. Furneaux Jordan's method was evidently that chiefly employed by surgeons; the advantages claimed for it being that, by its employment, the nerve-trunks and large vessels of the limb are divided at a long distance from the trunk; that the soft parts are disturbed as little as possible; and that a long stump remains, which may subsequently give aid in walking. Indeed, the unanimity, as to the main points connected with the operation, existing amongst the surgeons present at the Society from the various medical schools, was remarked upon by Mr. Bryant, the President, as a pleasant feature of the evening; it is sure to impress upon the profession generally the desirability of following the practice so ably and temperately advocated by the two surgeons who introduced the discussion, as well as by the subsequent speakers thereor.

GENERAL MEDICAL COUNCIL.

A MEETING of the General Medical Council has been summoned for May 12th, at 2 P.M. A meeting of the Executive Committee will be held on the day before, at 1.30 P.M.

THE GORDON HOSPITAL.

THE officers of the Royal Engineers and the Army Medical Department, are, we learn, now engaged in making a searching inquiry at Port Said as to the suitability and adequacy of the proposed site of the Port Said Hospital, to be erected as a national memorial to General Gordon. Between £14,000 and £15,000 has been received for the purpose. Any balance that may remain after this object has been carried out, will, it is said, be applied to some "other benevolent and useful institution or purpose, having special regard to General Gordon's philanthropic character."

SCOTLAND.

THE OUTBREAK OF SMALL-POX AT KINGHORN.

THE latest information authoritatively given to the public, regarding the outbreak of small-pox at Kinghorn, was in a report submitted by the Sanitary Inspector to the Kirkcaldy Local Authority on Monday, in which were also detailed the precautions taken for preventing the spread of the disease. As to Kirkcaldy, there had been one fresh case on Monday morning, that of a boy. Four hundred persons had called at his office for disinfectants, and these were being freely used in the town. One member of the Board stated that in Kinghorn, where the outbreak has been so virulent, as many as seven hundred persons have been vaccinated. This statement we would recommend to the careful attention of the antivaccinators, who are so virulent in some parts of the United Kingdom, but who are practically unrepresented in Scotland.

UNIVERSITY OF EDINBURGH.

THE preliminary and first professiona examinations for graduation in Edinburgh University in Medicine are now ended, and the second professional is well through now. A list of those who have passed the first and second professional examinations, and some details regarding the preliminary examination, will appear in an early number of the JOURNAL.

GLASGOW EAR HOSPITAL.

AT the annual meeting of the supporters of the Glasgow Ear Hospital, held last week, the report, submitted by Dr. Barr, showed that, during the year, 1,022 patients had applied for treatment, an increase of 255 over the number who applied in the previous year. In the course of the treatment of these cases, 3,900 visits had been made to the hospital, or an increase of 1,400 over those of the previous year. In the in-door department, however, the increase was more marked, as there were 66 admissions in 1884, as against 28 in 1883. The financial report submitted showed that matters in that department were in a satisfactory condition.

UNIVERSITY OF GLASGOW.

AT the preliminary examination in general education for students of medicine recently held in Glasgow University, 299 candidates appeared for one or more subjects, of whom 81 passed in English, 73 in Latin, 87 in arithmetic, 95 in mathematics, 101 in mechanics, 39 in Greek, 87 in logic, 46 in French, 1 in German, 6 in higher mathematics, 38 in natural philosophy, and 6 in moral philosophy.

ROYAL MATERNITY HOSPITAL.

THE arrangements for the summer session in the Royal Maternity and Simpson Memorial Hospital are, that Dr. Keiller will succeed Dr. Angus Macdonald (whose term of office has expired) as physician; Dr. Underhill, who has been assistant-physician with Dr. Angus Macdonald, will continue in the same capacity with Dr. Keiller; and the present house-surgeons, Mr. D. Dundas Helm, M.B., and Mr. Herbert C. Mall, M.B., will be succeeded on May 1st by Mr. William G. Anglin, M.C.P. and S. Ontario, and Mr. William Cotton, M.A. and M.B.

A DESIRABLE METHOD OF BESTOWING "DAMAGES."

RECENTLY, Messrs. Bass, Ratcliffe, and Gretton, brewers, Burton-on-Trent, were successful in an action against a local firm in Ayrshire for the use of a colourable imitation of the well-known label which goes with Bass's beer, and were awarded £75 as "damages." Messrs. Bass and Co. have intimated, through Messrs. Cathcart, Ayr, their intention of handing over the money, after certain deductions, to Ayr Hospital.

IRELAND.

A RUMOUR OF HONOURS.

IT is rumoured in Dublin, in connection with the visit of their Royal Highnesses the Prince and Princess of Wales to Ireland, that baronetcies are to be conferred on Dr. John Thomas Banks, Physician in Ordinary to the Queen in Ireland, Regius Professor of Physic in Trinity College, and President of the Academy of Medicine in Ireland; and on Dr. William Colles, Surgeon in Ordinary to the Queen in Ireland, and Regius Professor of Surgery in the Royal College of Surgeons; and that Dr. C. A. Cameron, Medical Officer of Health for Dublin, and Vice-President of the Royal College of Surgeons, is to receive the honour of

knighthood. As yet, there is no official confirmation of the rumour; but its fulfilment would give great satisfaction to the profession, not only in Ireland, but throughout the United Kingdom.

SMALL-POX IN CORK.

A FEW cases of small-pox recently occurred in Cork, but they have all recovered, and it is satisfactory to learn that the disease has now quite disappeared. At a recent meeting of the Public Health Committee, Dr. Donovan, medical officer of health, and his staff, were thanked for the steps taken to prevent the disease from spreading.

OMAGH WORKHOUSE.

AT a recent meeting of the guardians, a letter was received from Dr. H. Fleming, medical officer of the workhouse, tendering his resignation after a service of twenty-nine years. The guardians accepted his resignation, and, at the same time, regretted the loss of his services. The salary of the post has been £100 a year, but an attempt was made, on the appointment becoming vacant, to reduce it to £80; this, however, was frustrated, the motion being lost by 17 to 2 votes.

ADDRESSES TO HIS ROYAL HIGHNESS THE PRINCE OF WALES.

ON Friday, the 10th instant, His Royal Highness the Prince of Wales, who was accompanied by the Princess of Wales and Prince Albert Victor, received a large number of addresses at Dublin Castle. The medical bodies represented were the King and Queen's College of Physicians in Ireland, the Royal College of Surgeons in Ireland, and the Academy of Medicine in Ireland. Each address was presented by a deputation of five gentlemen. The deputation from the College of Physicians consisted of Dr. Cruise, President; Dr. Duffey, Vice-President; Drs. Quinlan and Kirkpatrick, Censors; and Dr. J. W. Moore, Registrar. The following was their address:

"May it please your Royal Highness,—We, the President and Fellows of the King and Queen's College of Physicians in Ireland, on the occasion of your seventh visit to this country, beg to offer to your Royal Highness the renewed expression of our devoted loyalty and attachment to Her Most Gracious Majesty the Queen, and to assure you of the great gratification we feel that you have been graciously pleased again to honour Dublin with your presence. We desire also most respectfully to express our satisfaction at the presence of Her Royal Highness the Princess of Wales and other members of your family, sharing, as we do most warmly, in the feeling of attachment with which all loyal citizens welcome the visit of members of the Royal Family so universally and justly beloved. We recognise with dutiful appreciation the gracious favour which your Royal Highness, following the example of your illustrious parents, has always extended to our profession, as shown by the interest you have displayed in its efforts for the advancement of medical science, and the preservation and improvement of the health of the nation."

The College of Surgeons' deputation was composed of Dr. E. H. Bennett, President, Mr. Colles, Professor Macnamara, Sir George H. Porter, and Dr. A. H. Jacob, Secretary to the Council. Their address consisted chiefly of an exposition of the steps which had been taken by the College for the purpose of improving the profession of surgery, and providing for the public a supply of well educated surgeons. It concluded by expressing the belief that a visit to the College would satisfy His Royal Highness that the governing body had but one object in view, that of wisely expending for the public weal the funds entrusted to their charge. The President of the Academy of Medicine, Dr. Banks, accompanied by Dr. Robert McDonnell, F.R.S., Dr. Lombe Atthill, Dr. Arthur Wynne Foot, and Dr. William Thomson, presented the following address.

"May it please your Royal Highness,—We, the President and General Council of the Academy of Medicine in Ireland, desire to express the gratification with which we welcome your Royal Highness, the Princess of Wales, and your son, Prince Albert, to the capital of this country. The body which we represent is composed of different branches of our profession, joined for the purpose of scientific investigation, and for the development of the higher departments of medical study in Ireland. It comprises four distinct societies in an academy; and, although young in years, we believe it has already done some good work, and has amply proved the great advantages of harmonious union. The medical profession has always been distinguished for its loyalty to the Crown, and we beg to assure your Royal Highness of our continued devotion to Her Gracious Majesty the Queen, and to her Royal House. We hope that the visit which you now make to Ireland may be followed by much advantage to our country; that it may serve to direct more attention to her capabilities for progress; that it may help to re-establish her fallen fortunes, and to secure peace and contentment. Engaged as we are in the relief of human suffering, we take special interest in the movement with which your Royal Highness is associated for the improvement of the dwellings of the poor. In thus personally inquiring into the needs of the working-classes, your Royal Highness worthily follows in the footsteps of your illustrious father, and we sincerely hope that the result may be the initiation of a great sanitary reform. We trust that your Royal Highness may be able soon again to visit this country, believing, as we do, that, by your presence, loyalty will be extended and deepened, and the union of the three countries be more firmly established. Finally, we beg to express the hope that your Royal Highness will be long spared to continue the noble work upon which you have entered, and to share with the Princess and your family the heartfelt devotion of the people of this great empire."

MEDICAL SICKNESS, ANNUITY, AND LIFE-ASSURANCE SOCIETY.

THE quarterly committee-meeting of this prospering and useful institution was held on the 8th instant, at 38, Wimpole Street, when the following were present: Mr. E. Noble Smith (in the chair), Mr. J. Brindley James, Mr. Major Greenwood, jun., Dr. F. De Havilland Hall, Mr. E. Bartlett, Mr. S. W. Sibley, Mr. F. Wallace, Mr. R. H. Coombs, Dr. G. Fletcher, Dr. J. Pickett, and Dr. F. S. Palmer. Mr. Ernest Hart and Dr. W. M. Ord were not present, owing to temporary absence from England; and apologies for non-attendance were received from Dr. J. W. Hunt and Mr. De Vere Hunt.

The principal business was the consideration of a very satisfactory report for the quarter ending March 31st, from which it appeared that, during the period, 39 new proposals had been received, five of which had been declined, and the remainder accepted. The total number of proposals to date was 654. The total income for the quarter had been £1,654 19s. 2d., made up as follows: premiums, £1,591 5s. 4d.; interest, £42 9s. 4d.; entry-fees, £21 4s. 6d. Against this, there had been a total expenditure of £348 15s. 6d., leaving a net gain on the quarter of £1,306 3s. 8d. The total assets of the Society at the close of the quarter amounted to £5,314 18s. 0d.

The gross income to the Sickness-Fund alone during the quarter had amounted to £900 14s. 3d., from which there had been an expenditure of £261 11s. 0d. for sickness-pay, representing payments to twenty-four claimants on account of sixty-nine weeks three days' sickness for ailments of a varied nature, and in periods ranging from a minimum of one week to a maximum of eight weeks. The report stated that "the extent and nature of the claims afford full evidence of the usefulness of the Society; and, though showing a large increase over the previous quarter, the sickness-rate is markedly below that provided for in the tables." The quarter's income for management-expenses had been £180 7s. 0d., against an expenditure of £85 6s. 10d.; and the cost of the work was stated to be now about 5 per cent. on the premium-income, instead of the 7½ per cent. allowed for in the tables. The result of this was, that there was a balance of £504 4s. 2d. in this fund, which might be looked upon as a profit-accumulation standing to the credit of the members.

After discussion of the report, which was considered highly encouraging, and adopted, it was determined that the next quarterly meeting should be held on July 15th, for the purpose of considering the annual report, to be issued to the members previously to the general meeting, to be held at Cardiff during the last week in July. Documents and full particulars of the Society will be furnished on application to the Secretary, Mr. C. J. Radley, 26, Wynne Road, Brixton, S.W.

THE Leominster Guardians and Rural Sanitary Authority, at their meeting on the 3rd instant, passed the following resolution: "That a vote of thanks be given to Dr. Sandford, as medical officer of health for the past twelve years, in recognition of the valuable services rendered by him in the reduction of the death-rate in this and other authorities in the country."

THE TRUE DEATH-RATES OF LONDON NEWLY ANALYSED.

In the course of an address at the Mansion House last year, in moving a resolution for the formation of the Mansion House Council on Dwellings of the Poor, Mr. Ernest Hart called attention to the importance of securing more accurately detailed and more perfectly corrected analyses of the mortality, with the view of determining the actual against the apparent mortality of the various sections of the metropolis. The figures given were sufficiently striking, and showed that, if pains were taken to investigate the subdivisions, and if due care were taken to correct the errors arising from the number of deaths occurring in public institutions, which sadly vitiate existing returns, some startling figures would result. An effort was made by Mr. Ernest Hart to secure such information as would suffice for the distribution of institution deaths among the various districts in which the patients had previously resided. These efforts and the proposal have, it is understood, attracted the attention of the vigilant Deputy Registrar-General, and with very useful results. The value of the information thus acquired by these preliminary efforts has appeared sufficiently great to induce the Registrar-General to decide that henceforth such investigation shall be specially made, and shall be published in the quarterly reports, the official tables, however, still furnishing the figures and affording the bare facts. With the view of adding all the information which the reader may desire for promptly assimilating the conclusions derivable from the information, Mr. Hart has thought it desirable that this should be supplemented by the insertion of the population of each of the sanitary districts, and by working out the rates of mortality for each district. This is the first time that this work has ever been attempted, from the great difficulty in apportioning to each sanitary district the whole of the deaths, occurring in institutions in other parts of London, of persons previously residing in that district. The value of the table can hardly be over-estimated ; to medical officers of health it will be of special advantage, as it will enable them at once to know the number of deaths really belonging to their districts, as all deaths occurring in institutions of persons who had previously resided in another district, have been excluded, and all deaths of persons *elsewhere*, who really belonged to their districts, have been credited to them. By this means alone can reliable data be secured upon which to found trustworthy rates of mortality.

In the accompanying table, therefore, will be found summarised on this new system the vital and mortal statistics of the thirty-nine sanitary districts of the Metropolis, based upon the Registrar-General's weekly returns for the first quarter of this year. The figures in the table then represent the deaths of persons actually belonging to the respective sanitary districts, and are the result of the foregoing correction for deaths in institutions. As an instance of the importance of this distribution of deaths, prior to any calculation of death-rates for comparative purposes, it may be noted that 342 deaths were actually registered in St. George's-in-the-East, during the first quarter of this year. Of these, one was of a person in the workhouse, previously residing outside the district; but, on the other hand, no fewer than 73

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after complete distribution of Deaths occurring in Public Institutions, during the First Quarter of 1885.

Sanitary Areas.	Estimated Population middle of 1884.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhœa.	Deaths of Children under one year of age to 1,000 Births.
				Births.	Deaths.	Principal Zymotic Diseases.											
London	4,083,928	35,152	21,884	34.5	21.5	2.3	2,313	547	489	186	200	607	7	131	14	132	133
West:																	
Paddington	110,291	767	535	27.9	19.5	1.6	44	3	9	—	7	17	—	4	1	3	145
Kensington	182,924	1,091	755	23.9	16.6	1.3	60	4	10	2	4	33	—	2	—	5	149
Fulham	140,136	1,422	693	40.7	19.8	1.7	61	11	4	3	1	27	—	5	—	10	133
Chelsea	95,592	910	594	38.2	24.9	1.6	38	3	1	2	8	17	1	4	—	2	144
St. George's, Hanover Square ..	88,248	477	417	21.7	19.0	1.5	34	4	—	5	8	9	—	2	1	5	130
Westminster	57,031	497	313	35.0	22.0	1.3	19	3	1	2	1	10	—	2	—	—	147
St. James', Westminster ..	28,052	156	161	22.0	22.7	2.3	16	2	4	2	—	4	—	2	—	2	173
North:																	
Marylebone	151,302	1,305	885	34.5	23.5	1.5	58	11	14	3	8	14	—	5	1	2	120
Hampstead	51,950	317	211	24.5	16.3	1.5	20	4	—	2	3	8	—	1	1	1	155
St. Pancras	239,999	1,990	1,291	33.3	21.6	1.9	113	18	13	5	8	56	—	10	—	3	151
Islington	314,881	2,456	1,551	31.3	19.8	3.1	239	75	33	10	45	52	1	13	1	9	131
Hackney	218,535	1,762	1,027	32.4	18.9	2.3	124	44	24	6	14	23	—	6	1	6	130
Central:																	
St. Giles'	42,038	341	320	32.6	30.5	2.6	27	12	2	—	3	4	—	3	—	3	135
St. Martin's-in-the-Fields ..	16,028	91	98	22.8	24.5	2.0	8	—	1	—	3	2	—	1	—	1	154
Strand	30,527	212	178	27.9	22.4	1.6	12	1	2	1	2	3	—	1	1	1	175
Holborn	32,465	249	248	30.8	30.7	0.9	7	1	2	1	—	2	—	1	—	—	165
Clerkenwell	69,091	648	421	37.6	24.5	2.8	49	8	12	5	—	18	—	1	—	5	125
St. Luke's	44,043	492	318	44.8	29.0	3.6	39	5	9	1	2	18	—	1	—	3	128
London City	43,312	234	304	21.7	28.2	1.9	20	2	3	—	1	9	—	3	—	2	137
East:																	
Shoreditch	125,565	1,306	708	41.7	22.6	2.8	87	16	26	8	4	19	—	7	—	7	138
Bethnal Green	129,175	1,299	685	40.4	21.3	2.0	65	10	25	13	4	8	—	3	1	1	115
Whitechapel	68,828	620	432	36.2	25.2	2.9	50	9	19	4	2	10	1	1	—	4	153
St. George's-in-the-East ..	46,490	485	414	41.9	35.7	4.8	56	8	23	12	1	6	1	—	—	5	157
Stepney	58,544	600	427	41.1	29.3	4.3	62	17	14	19	2	6	1	1	—	2	152
Mile End Old Town	110,709	1,034	606	37.5	22.0	2.6	72	17	8	19	2	12	—	8	—	6	120
Poplar	174,596	1,688	960	38.8	22.1	3.1	133	36	44	25	5	12	1	4	1	5	134
South:																	
St. Saviour, Southwark ..	27,674	255	198	37.0	28.7	1.7	12	4	3	—	2	3	—	—	—	—	133
St. George, Southwark	59,063	570	402	38.7	27.3	3.0	44	12	9	1	1	17	—	3	—	1	158
Newington	115,772	1,132	647	39.2	22.4	2.5	73	39	11	3	4	10	—	4	—	2	125
St. Olave, Southwark	10,735	115	65	43.0	24.3	1.9	5	—	2	—	—	1	—	—	1	1	148
Bermondsey	88,111	889	500	40.5	20.8	3.5	76	21	20	5	4	22	—	3	—	1	117
Rotherhithe	40,055	379	224	38.0	22.4	4.6	46	9	17	6	2	8	1	—	—	3	127
Lambeth	273,295	2,346	1,346	34.5	19.8	1.3	86	18	4	5	15	33	—	7	—	4	121
Wandsworth	257,092	2,249	1,230	35.1	19.2	2.1	133	20	30	5	8	48	—	10	3	9	119
Camberwell	227,917	1,872	1,177	33.0	20.7	2.9	167	55	39	3	15	41	—	5	—	9	146
Greenwich	145,569	1,450	834	40.0	23.0	2.8	100	32	29	8	8	15	—	5	—	3	139
Lewisham	36,758	485	241	36.2	18.0	1.7	23	6	8	—	1	4	—	1	1	2	124
Woolwich	77,242	329	186	35.9	20.3	1.3	12	5	1	—	1	2	—	1	—	2	94
Plumstead	53,843	632	282	32.8	14.6	1.2	23	2	13	—	1	4	—	1	—	2	104

deaths of persons belonging to St. George's-in-the-East were recorded in other parts of London. The balance between these two numbers (72) has been added to the 342 deaths registered in, and belonging to, St. George's-in-the-East, with the result that, whereas the uncorrected death-rate for this Sanitary District, for the quarter under notice, was 29.5 per 1,000, the corrected rate is 35.7 per 1,000.

The births registered in London during the thirteen weeks ending the 4th instant, were 35,152, equal to an annual rate of 34.5 per 1,000 of the population, estimated at 4,083,928 persons. In the corresponding periods of 1883 and 1884, the metropolitan birth-rate was 36.2 and 34.8 per 1,000 respectively. The birth-rates in the various sanitary districts differ greatly, as the sex and age distribution of the population shows wide variations. For instance, in Kensington, St. George's, Hanover Square, St. James', Westminster, and Hampstead, where a large proportion of the population consists of domestic servants, the birth-rates are very low. On the other hand, in Fulham, Chelsea, St. Luke's, and most of the east districts, where the population consists of a large number of young married persons, the birth-rates considerably exceeded the average.

The 21,884 deaths recorded during the quarter under notice, were equal to an annual rate of 21.5 per 1,000, which was considerably below the average rate in the corresponding period of the ten preceding years. Among the thirty-nine sanitary districts, the lowest death-rates last quarter were 14.6 in Plumstead, 16.3 in Hampstead, 16.6 in Kensington, 18.0 in Lewisham, 18.9 in Hackney, and 19.0 in St. George's, Hanover Square. In the other districts the rates ranged upwards to 28.2 in London city, 28.7 in St. Saviour's, Southwark, 29.0 in St. Luke's, 30.5 in St. Giles, 30.7 in Holborn, and 35.7 in St. George's-in-the-East. During the quarter 2,313 deaths were referred to the principal zymotic diseases in London, equal to an annual rate of 2.3 per 1,000. The lowest zymotic death-rates in the thirty-nine sanitary districts were recorded in Holborn, Plumstead, Kensington, Westminster, Lambeth, and Woolwich; the highest in Bermondsey, St. Luke's, Stepney, Rotherhithe, and St. George's-in-the-East. These 2,313 zymotic deaths included 607 from whooping-cough, 547 from small-pox, 489 from measles, 200 from diphtheria, 186 from scarlet fever, 132 from diarrhœa, 131 from enteric fever, 14 from simple and undefined fever, and 7 from typhus. Compared with the last quarter of 1884, the fatality of measles and whooping-cough showed a marked increase, but that of each of the other diseases showed a decline. The 547 deaths of London residents from small-pox included 192 which were recorded in the Metropolitan Asylum Hospitals situated outside registration London, which have been distributed among the districts in which they had resided previously to their removal to the hospitals. It appears that 75 fatal cases belonged to Islington, 55 to Camberwell, 44 to Hackney, 39 to Newington, 36 to Poplar, 32 to Greenwich, 21 to Bermondsey, and 20 to Wandsworth. Whooping-cough was proportionately most fatal in Bermondsey, Clerkenwell, St. George's, Southwark, and St. Luke's; measles in Stepney, Poplar, Whitechapel, and St. George's-in-the-East; diphtheria in Islington; scarlet fever in Poplar, St. George's-in-the-East, and Stepney; and enteric fever in Islington, Shoreditch, and Mile End Old Town. It may be noted that the rate of mortality last quarter from small-pox, measles, scarlet fever, and typhus, in the east district exceeded that recorded in any other part of the metropolis.

In fact, mortality, measured by the proportion of deaths under one year of age to births registered, averaged 133 per 1,000 in London during the quarter under notice.

In the accomplishment of this interesting and, it may be hoped, valuable addition to the statistical information hitherto available for the information of all Londoners, and especially of medical officers of health and sanitary committees, concerning the health and mortality of the metropolitan districts, Mr. Hart has been indebted to the able investigations of Mr. J. Hampden Shoveller, of the General Register Office, given by courteous permission of his official superiors.

EDUCATION UNDER HEALTHY CONDITIONS.

A FOUR days' conference on health and education has been held this week at Manchester, under the presidency of Lord Aberdare, which has attracted some large audiences. The president, having referred to the great progress of education during the last nineteen years, called attention to the conflicting opinions which prevailed with respect to the question of overpressure. The public, he said, were told that many children were suffering from nervous diseases, and that overpressure was increasing so rapidly that in a short time the whole population would be seriously injured by that which was intended to be a national blessing. They had been told, on the other hand, that the health of the children of school age throughout the country had very considerably improved instead of showing the falling off on which many persons of great ability and some experience had insisted. It was to discuss these matters that the conference had been called. They knew that there was considerable difference in children both as to body and mind, and they had to inquire whether the requirements made by the State to ensure attention to them were complete. He thought those who had taken the pains to study the last revised code of instructions given to the inspectors would see that, so far as a central department could do, they had taken all the necessary precautions to prevent over-exertion.

On Tuesday, the Conference was occupied with the discussion of papers on the question of overpressure in elementary schools, and considerable difference of opinion was expressed. Mr. H. S. Oakeley, Her Majesty's Inspector of Schools, combated the idea that overpressure was inherent in the system of payment by results, and submitted that the allegations of overpressure under the present code were greatly exaggerated, if not unfounded. Professor Meiklejohn, of St. Andrew's University, said that, though it was very difficult to define overpressure, they could not turn a deaf ear to the evidence of schoolmasters all over the country. Mr. Evason, President of the Manchester Church Teachers' Association, gave it as his deliberate opinion that there was overpressure, and that there could not but be, as long as the system of payment by results went on. Dr. Ashby stated that he and his colleagues at the Children's Hospital, Manchester, had had, on an average, between 7,000 and 8,000 children to examine annually for the last six or seven years, and, in a very considerable number of those cases, they had put the question to the parents and to the children with respect to the question of overpressure, or of being hardly pressed at school, and they agreed, in the most emphatic manner, that, up to the present, at any rate, they had not seen any fatal case of water on the brain, or inflammation of the brain, that could in any way be attributed to overpressure. An impression seemed to prevail at the close that this challenge had not been fully met, but that, while overpressure was a reality, the responsibility for it was cast to and fro between spokesmen of different parties, the vindicators of the Code leaving the blame to be shared between ambitious teachers or managers and careless parents.—Mr. Charles E. Paget, medical officer of health for Westmorland, read a paper on "Some Health-Requirements in the Construction of Elementary Schools."

COLLECTIVE INVESTIGATION.

A MEETING of the Committee of Direction took place upon March 20th. The form in which the future reports of the Committee should be produced was taken into consideration. It was decided that, for the future, the reports should, with the sanction of the editor, be published in the columns of the JOURNAL, so as to be accessible to all the members of the Association without further charge, and that the tables of cases should be set up in a cheap form as a large folio, and a limited number only printed for sale. A reprint of the reports from the JOURNAL should, it was decided, be bound with the tables.

At the same meeting, a report was presented by Professor Humphry and Dr. Owen on the steps that had been taken to carry out the wishes of the Committee as to the establishment of an international organisation for collective investigation in connection with the International Medical Congress. It will be remembered that, after an address delivered by Sir William Gull at the meeting of the Congress at Copenhagen on August 14th, an International Representative Committee was appointed upon Sir James Paget's proposition, supported by Professors Ewald and Bouchard, and Dr. Billings. Branches of the international organisation have now been definitely established in Denmark, Sweden, Norway, Finland, Bohemia, Germany, France, India, and the United States, and, it is hoped, will be shortly established in the remaining divisions of Austria, in Russia, Switzerland, Portugal, and South America. It has been resolved by the International Committee that the geographical distribution and etiology of rickets, acute rheumatism, chorea, cancer, and urinary calculus should be the first subjects of international inquiry; and the necessary forms and memoranda, drawn up by a subcommittee, are at present before the representatives. The inquiries follow, to a great extent, the lines of the work already done and doing by the British Medical Association.

The report having been read and accepted, it was resolved, "That the cordial thanks of this Committee are due, and are hereby accorded, to Sir William Gull, for appearing as the representative of the Committee before the general meeting of the International Medical Congress held at Copenhagen on August 14th last, and for his most valuable and effective address On the Formation of a Committee

for the International Collective Investigation of Disease there delivered."

The quarterly meeting of the General Committee was held at the Holborn Restaurant on Wednesday, April 8th, at 7.30 P.M. The members dined together, as usual, before commencing business, Mr. Jonathan Hutchinson presiding. The Committee of Direction met for formal business at 5 P.M., before the dinner.

At the meeting of the General Committee, a quarterly report from the Standing Subcommittee was presented by the Secretary. From this, it appeared that a fair number of returns had been received; and that, though a falling off was perceptible in the earlier months of the year, much activity had been displayed during March.

Special discussions of the subjects of inquiry, in the interests of collective investigation, had been held by the Thames Valley, the Staffordshire, and the North Wales Branches; and further meetings for the same purpose have been arranged for by the South Wales, South-Eastern (West Surrey District), Birmingham and Midland Counties, and North Wales Branches.

The Subcommittee had considered the proposals referred to it from the last meeting for an inquiry into "Chronic Hysteria or Neurasthenia," and for the investigation of cases of "Rare Diseases." The former subject the Subcommittee considered to be not yet ripe for collective inquiry. The latter investigation the Subcommittee did not see the means to carry out. The Subcommittee had carefully considered the proposal, made by Dr. Casey, of Windsor, for a collective inquiry into the connection of disease with habits of intemperance, referred to it by the Committee in October 1884, and now recommended that the inquiry should be adopted, and that a schedule, drawn up on the lines proposed by Dr. Casey, should be issued as an inset in an early number of the JOURNAL.

Copies of the proposed schedule were placed before the Committee, and it was resolved that the recommendation of the Subcommittee should be adopted, and the schedule issued.

Dr. Tyson, of Folkestone, proposed that the "Prognosis of Heart-Lesions" should be taken up as a subject of inquiry. After some discussion, it was referred to a subcommittee consisting of Dr. Tyson, Dr. Bowles, and Dr. Stephen Mackenzie, to bring up a detailed proposal at the next meeting, before the subject was decided on.

Dr. Ward Cousins was unfortunately prevented from attending the meeting, and his proposal for an investigation of cases of "Arrested Phthisis" was therefore postponed till the next meeting. For a similar reason, the important proposal by Dr. Pearse, of Haslemere, for "Localised Inquiries," was postponed. The memorandum and forms prepared by the Phthisis Subcommittee, for the continuation of the inquiries into the Etiology of Phthisis, were presented to the meeting. These forms are drawn up on a new plan; their object being, not to collect reports of isolated cases, but to engage medical practitioners, whose opportunities permit, in a joint investigation of the circumstances surrounding the appearance of the disease. The inquiry is divided into three parts, each of which it is intended should be taken up separately.

Votes of thanks were passed to Dr. Casey, of Windsor; to Professor Humphry, the Chairman of the Committee; and to Mr. Jonathan Hutchinson.

THE MAHOMED MEMORIAL FUND.

A MEETING of the subscribers to this fund was held in the Governors' Room at Guy's Hospital, on Thursday, April 16th, at which were present Dr. S. Wilks, Mr. Durham, Mr. E. H. Lushington, Dr. F. Taylor, Mr. Aikin, Mr. G. P. Field, Mr. Burdett, Dr. Cayley, Dr. Goodhart, Mr. Eastes, and others.

Dr. S. Wilks took the chair, and explained the steps which the subcommittee had followed to carry out the resolutions of the meeting held at Guy's Hospital in December last. Mr. Durham, the treasurer to the fund, stated that the amount subscribed slightly exceeded £2,500, of which sum all had been received except about £276. It was then proposed by Mr. Durham, and seconded by Dr. F. Taylor, and carried unanimously:—"That the fund subscribed be entrusted to three gentlemen, to be hereafter elected, who shall have full and absolute power to invest, hold, and dispose of the money placed in their hands, both as regards capital and the interest that shall accrue upon it, at their discretion, in such way as may seem in their judgment best calculated to promote the interests of those left by Dr. Mahomed, and to fulfil the objects for which the fund has been subscribed, subject to the following conditions:—(1) That, during the life-time of Mrs. Mahomed, and while she remains unmarried, the interest upon the fund shall be regularly paid to her for her use; (2) that, if at any time it may seem good to them, the trustees may dispose of portions of the capital for the immediate use or benefit of Mrs. Mahomed, or any one of the children, provided always that no larger sum than one-quarter of the capital be given to Mrs. Mahomed for her own use, nor any larger sum than one-fifth of three-quarters of the capital sum be expended upon any one of the five children; except in case of the death of any one or more of the children, under which circumstances a proportionately larger share may be appropriated to to any one or more of the survivors."

Mr. Eastes proposed, Mr. Aikin seconded, and it was unanimously resolved: "That, in accordance with the foregoing resolution, Dr. Cayley, Dr. Goodhart, and Mr. Field be requested to take charge and dispose of the money subscribed; and, in the event of the death or resignation of any one of these gentlemen, the remaining two shall appoint a new trustee."

It was proposed by Mr. Lushington, and carried: "That the report of this meeting, and the resolutions adopted, be forwarded to the medical journals, and also to each of the subscribers to the fund, with a complete list of the subscriptions."

Votes of thanks to the subcommittee, to the treasurer of the hospital, and to the chairman of the meeting, brought the proceedings to a close.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885.
ELECTION OF MEMBERS.

ANY qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member *by the Council* or by any recognised *Branch Council*.

Meetings of the Council will be held on July 8th, and October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, June 17th, and September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HÆMOGLOBINURIA.
ALBUMINURIA IN THE APPARENTLY HEALTHY.
SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person, if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and will be issued with an early number of the JOURNAL.

Returns are still received on ACUTE PNEUMONIA.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161a, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary. —J. MAITLAND, M.B., Honorary Secretary, Madras.

GLOUCESTERSHIRE BRANCH.—A special and ordinary meeting of the Branch will be held on Tuesday, April 21st, 1885, at 7.30 P.M., in the lecture-room of the School of Science, Gloucester, under the presidency of Dr. Needham. *Agenda:* Special.—The adoption of the revised and amended rules drawn up by the Council. Ordinary.—A paper on "The Estimation of the Impurities in the Atmosphere," together with a practical demonstration of the same, by G. Embrey, Esq., county analyst.—G. ARTHUR CARDEW, Honorary Secretary.

YORKSHIRE BRANCH.—The spring meeting of the Branch will be held on Wednesday, April 29th, at 3 P.M., in Doncaster. Members intending to read papers are requested to communicate at once with ARTHUR JACKSON, Secretary, Wilkinson Street, Sheffield.

LANCASHIRE AND CHESHIRE BRANCH.—Notice is hereby given that a special general meeting of this Branch will be held in the Town Hall, Chester, on Friday, May 1st, at 6 P.M., to consider an alteration in the rules of the Branch referring to the mode of election of officers, members of the Council of the Branch, and representatives in the Council of the Association.—CHARLES W. GLASCOTT, M.D., Honorary Secretary, 23, Saint John Street, Manchester.

NORTH OF ENGLAND BRANCH.—The spring meeting will be held in Bishop Cosin's Library, Durham, on Thursday, April 30th, at 2.30. The following papers have been promised: Dr. Hume: On the Operation of Perforating the Mastoid Cells. Dr. Murphy: On Recent Improvements in Ovariotomy. Mr. G. E. Williamson: Notes of some Eye Cases. The following specimens will be shown. Dr. Foss: A Diseased Tibia, for which amputation was performed. Mr. S. W. Broadbent: Set of False Teeth removed from the pharynx. Dr. T. W. Barron: Two Vesical Calculi from two cases of lithotomy. Dinner at the County Hotel at 6.—DAVID DRUMMOND, Honorary Secretary.

BATH AND BRISTOL BRANCH.—The fifth ordinary meeting of the session will be held at the Museum and Library, Bristol, on Wednesday evening, April 22nd, at half-past seven o'clock, R. S. Fowler, Esq., President. The following communications are expected. 1. R. W. Thomas, Esq.: "A Case of Hydatidiform Mole, with specimen." 2. W. P. Keall, Esq.: "Four Cases of Bone-Wiring;" the patients will be exhibited." 3. J. A. Norton, Esq., M.D.: "Report on a Case of Intestinal Obstruction, with Unusual Symptoms;" with specimen. 4. M. F. Bush, Esq.: "Two Cases of Monstrosity."—E. MARKHAM SKERRITT and R. J. H. SCOTT, Honorary Secretaries, Clifton, April, 1885.

PROCEEDINGS OF COUNCIL.

AT a meeting of the Council, held in the Council Room, Exeter Hall, Strand, London, on Wednesday, April 8th, 1885; present, Dr. BALTHAZAR FOSTER, Birmingham, President of the Council, in the Chair,

Mr. Macnamara, London, Treasurer
Mr. J. Wright Baker, Derby
Dr. G. B. Barron, Southport
Dr. M. Martin De Bartolomé, Sheffield
Dr. T. Bridgwater, Harrow-on-the-Hill
Dr. A. Carpenter, Croydon
Dr. C. Chadwick, Tunbridge Wells
Dr. J. Ward Cousins, Southsea
Mr. T. W. Crosse, Norwich
Dr. G. W. Crowe, Worcester
Dr. P. M. Deas, Exeter
Mr. J. Dix, Hull
Dr. W. A. Elliston, Ipswich
Dr. T. Eyton-Jones, Wrexham
Dr. Bruce Goff, Bothwell
Dr. W. C. Grigg, London
Dr. C. Holman, Reigate
Mr. A. Jackson, Sheffield
Mr. T. V. Jackson, Wolverhampton
Dr. D. J. Leech, Manchester
Dr. W. G. V. Lush, Weymouth
Mr. F. Mason, Bath
Dr. W. W. Moore, Brighton
Dr. C. Parsons, Dover
Dr. A. Sheen, Cardiff
Mr. S. W. Sibley, London
Dr. E. M. Skerritt, Bristol
Dr. A. Strange, Shrewsbury
Mr. T. Sympson, Lincoln
Mr. J. Taylor, Chester
Dr. T. W. Trend, Southampton
Mr. C. G. Wheelhouse, Leeds

The minutes of the last meeting having been put from the chair, the same were signed as correct.

Read letters of apology for non-attendance from several members.

In reference to Minute 1043, Mr. Dix brought up report of Subcommittee of Council appointed by 875 and 876, on the election and retention of homœopaths as members.

Resolved: That the report be received and entered on the minutes, and that it be considered at the next meeting.

Read letter from Mr. Hodgson, repeating the invitation to hold the Annual Meeting at Brighton in 1886, stating that there had been a meeting of the medical profession resident at Brighton and district, at which Dr. Withers Moore had been nominated President-elect, and Mr. Hodgson had been appointed Treasurer of the Local Guarantee Fund.

Resolved: That this Council cordially recommends to the favourable consideration of the Council for 1885-6, the invitation to hold the Annual Meeting of the Association at Brighton in 1886.

Read Memorial of the British Gynæcological Society, submitting to the Council the consideration of the expediency of appointing a Gynæcological Section at the Annual Meeting at Cardiff.

Resolved: That the President of Council be requested to write, stating that it is too late to alter the arrangements, but that it is a matter which may be considered next year.

Read letter from Mr. Davies, medical officer of health for Monmouth, suggesting the establishment of a permanent bacteriological laboratory in London by the Association.

Resolved: That the letter of Mr. Davies, the Medical Officer of Health for Monmouth, be acknowledged, but that he be informed that the subjects are too large at present to be undertaken by the Association.

The application of 158 candidates for election as members was then considered.

Resolved: That the application of two candidates be referred to the Councils of the Branches of the respective districts in which they reside.

Resolved: That the remaining 156 candidates, whose names appear on the circular convening the meeting, be and they are hereby elected members of the Association.

Resolved: That the minutes of the Journal and Finance Committee of to-day's date be received, approved, and the recommendations carried into effect.

> The minutes of the Journal and Finance Committee contain the particulars of accounts for the quarter ending March 31st, amounting to £4,039 18s. 9d.; the financial statement for year ending December 31st, 1884; and report of auditor for quarter ending March 31st.

Resolved: That the financial statement for the year ending December 31st, 1884, be received and approved, and published in the JOURNAL in accordance with By-law 33.

Resolved: That the standing notice in the JOURNAL concerning the election of members be altered to read as follows.

ELECTION OF MEMBERS.

> Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council, or by any recognised Branch Council.
>
> Meetings of the Council will be held on July 8th, and October 14th, 1885. Candidates for election by the Council of the Association, must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, June 17th, and September 24th, 1885.
>
> Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

The President of Council then reported that a further investment of £2,000 had been made in Lancashire and Yorkshire Railway Four per Cent. Debenture Stock, and that the transfers had been sealed this day by the President of Council, the Treasurer, and the General Secretary, with the seal of the Association. The total amount invested was now £19,541 at cost.

Resolved: That the Minutes of the Subcommittee on Branch Organisation be received, and considered at the next meeting.

It was moved and seconded: That the Minutes of the Premises Subcommittee of the 7th instant be received and adopted, and the recommendations carried into effect.

Whereupon an amendment was moved and seconded

That the Premises Subcommittee report to the Council at their next meeting as to a suitable site for the Association premises.

The amendment having been put from the Chair, the same was declared to be lost.

The President of the Council then placed before the Meeting the original resolution, altered according to the views that had been expressed, and the same was declared to be carried.

Read minutes of Committee on the Legality of Committees appointed at the annual meeting.

Resolved: That the minutes of the Committee appointed to consider the Legality of Committees appointed at the annual meeting be received.

Resolved: That the President of Council, the Treasurer, and Mr. Wheelhouse, be appointed the Subcommittee to draw up the Annual Report of the Council.

FINANCIAL STATEMENT FOR THE YEAR ENDING DECEMBER 31st, 1884.

Revenue Account, or Profit and Loss for the Year ending December 31st, 1884.

Dr.	£ s. d.	£ s. d.
Editor		500 0 0
Sub-Editor		300 0 0
Assistant Editor		200 0 0
Contributors		1,664 7 11
JOURNAL :—		
Printing	3,672 6 6	
Paper	3,604 13 10	
Postage	1,481 17 1	
Address Bands	218 0 0	
		8,976 17 5
Wood Engraving		155 16 7
Reporting		148 5 9
JOURNAL EXPENSES :—		
Editor's Postage	£34 10 4	
Postage of JOURNAL Slips	9 12 11	
	44 3 3	
Boy's Wages	33 14 0	
Newspapers	23 13 9	
Telegrams, etc.	92 15 7	
Sub-Editor's Expenses	10 0 0	
Editor's Expenses	7 11 4	
,, Clerk's Expenses	8 12 0	
Rent of Telephone	20 0 0	
		240 9 11
Editor's Clerk		125 0 0
COMMITTEES :—		
Hire of Rooms for Council Meetings	11 9 9	
Collective Investigation :		
Salary of Secretary	£200 0 0	
Travelling Expenses	47 9 0	
Printing, etc.	93 6 3	
Cost of *Collective Investigation Record* :		
Printing, Paper, and Postage	265 13 0	
Reports	77 0 0	
	683 8 3	
(*Less received for Sales and Advertisements of "Record"—see contra.*)		
Scientific Grants, 1884-85	300 0 0	
Do. do. Special	100 0 0	
	400 0 0	
Scholarships	259 12 4	
Parliamentary Bills	47 1 3	
		1,401 11 7
Auditors' Fee		63 0 0
Accountants' Charges—Special Report		52 10 0
General Secretary		600 0 0
Assistant Secretary		200 0 0
Office Salaries and Wages		760 13 0
Rent		312 14 2
Taxes, Parochial, Gas and Water-Rates	160 16 10	
Fire Insurance	13 0 0	
		173 16 10
MISCELLANEOUS PRINTING :—		
Printing in connection with Advertisements, Association Printing, and JOURNAL and Editor's Printing	331 0 0	
Printing, Annual Meeting, Belfast, Daily Journal, and Members' Cards, 1884	99 9 2	
		430 9 2
Reprints		73 4 8
Postage		324 17 5
SUNDRY OFFICE EXPENSES :—		
Copying and Assistance	254 13 5	
Travelling Expenses	25 15 0	
Travelling Expenses of Clerks	16 8 3	
JOURNALS bought	0 12 0	
Sectional Expenses	10 13 8	
Cleaning Offices	49 14 6	
Sundries and Petty Cash	123 3 2	
		481 0 0
STATIONERY :—		
Account Books, Ledgers, Pens, Ink, Paper, etc.		233 5 8
Coals		6 13 0
Sundries (including Rent of Telephone, and set of JOURNALS)		63 15 1
Repairs and Alterations		65 5 2
Bank Charges		15 2 11
Branch Charges		14 8
Legal Expenses		113 13 5
Plant Depreciation Fund		150 0 0
Premises Redemption Fund		150 0 0
Furniture and Fittings, depreciation, etc.		35 3 11
Expenses caused by Fire		82 18 4
		18,101 6 7
Subscription losses from death, etc.		482 18 11
Advertisement Discounts, Allowances, etc.		1,352 14 2
Profit for the year carried to Balance Sheet		2,319 4 0
		£22,256 3 8

Cr.]		£ s. d.	£ s. d.
Subscriptions			11,377 0 9
Ditto former years			21 4 6
Advertisements			8,609 13 11
Sundry Sales of JOURNAL			1,021 1 7
Ditto Reprints			92 11 9
Ditto Reading Covers			40 8 11
Collective Investigation Record Sales and Advertisements			97 15 4
One year's Dividends on £5,132 0s. 6d. Consols		150 2 4	
Ditto	£1,780 Midland Railway 4 per cent. Debenture Stock	69 9 11	
Ditto	£2,000 L. & N. W. Railway 4 per cent. Debenture Stock	78 0 4	
Ditto	£1,845 L. & S. W. Railway 4 per cent. Debenture Stock	72 0 7	
Ditto	£1,767 G. W. Railway 4 per cent. Debenture Stock	68 19 7	
Ditto	£1,743 N. E. Railway 4 per cent. Debenture Stock	68 1 1	
Ditto	£1,623 G. N. Railway 4 per cent. Debenture Stock	63 7 3	
			570 1 1
Scientific Grants (amount unused and returned)			30 0 7
Scholarship ,, ,, ,,			23 1 6
Discount on Paper, etc.			243 13 9
Sundry Receipts and Amounts unclaimed			129 10 0
			£22,256 3 8

Balance Sheet, 31st December 1884.

LIABILITIES.

Dr.]	£ s. d.	£ s. d.
Subscriptions paid in advance		556 12 8
Advertisements ditto		211 12 5
Wood Fund		25 0 0
Contributions		535 12 3
Reporting		32 11 0
Engraving		20 14 0
Printing JOURNAL		191 8 10
Paper for JOURNAL		444 12 3
Sundries		1 12 6
Miscellaneous Printing		23 10 10
Committees		1 11 6
Due to Secretaries of Branches		5 3 0
Scientific Grants		53 0 0
Scholarships		75 0 0
Postage of JOURNAL, Bradbury & Co.		5 17 1
Accountants' Report		52 10 0
Stationery		43 13 5
Law Charges		22 2 9
Repairs		23 19 0
Rent, Taxes, and Insurance		30 5 0
Plant and Type		58 17 1
Office Furniture		14 2 3
Collective Investigation Committee		1 4 10
Plant Depreciation and Renewal Fund, as at 31st December, 1883	1,250 0 0	
Less Type replaced (estimated value)	750 0 0	
	500 0 0	
Added for 1884	150 0 0	
		650 0 0
Premises Redemption Fund, as at 31st December, 1883	625 0 0	
Added for 1884	150 0 0	
		775 0 0
		3,855 12 8
Balance on 1st January, 1884	19,080 4 9	
Profit carried from Revenue Account	2,319 4 0	
Balance, being total of excess of Assets over Liabilities		21,399 8 9
		£25,255 1 5

ASSETS.

Cr.]	£ s. d.	£ s. d.
Subscriptions—Amount due		1,008 19 7
Advertisements—Amount due		2,185 5 0
Sundry Sales—Amount due		117 19 6
Due from Hastings Memorial Fund		8 15 0
Alterations of Premises at Cost		1,157 11 11
Furniture and Fittings		314 2 3
Plant and Type at Cost		1,120 8 2
Interest due on £5,132 0s. 6d., Consols	74 14 9	
Ditto £2,000 L. & N. W. Railway 4 per cent. Debenture Stock	38 18 3	
Ditto £477 due from Hastings Memorial Fund	9 5 8	
Ditto £1,780 Midland Railway 4 per cent. Debenture Stock	34 12 9	
Ditto £1,767 G. W. Railway 4 per cent. Debenture Stock	34 7 7	
Ditto £1,845 L. & S. W. Railway 4 per cent. Debenture Stock	35 18 0	
Ditto £1,743 N. E. Railway 4 per cent. Debenture Stock	33 18 4	
Ditto £1,623 G. N. Railway 4 per cent. Debenture Stock	31 11 7	
		293 6 11
Carried forward		£6,206 8 4

	£ s. d.	£ s. d.
Brought forward		£6,206 8 4
RESERVE FUND:—		
£5,132 0s. 6d. Consols at cost	4,967 10 0	
£2,000 L. & N. W. Railway 4 per cent. Debenture Stock at cost	2,231 7 0	
£1,780 Midland Railway 4 per cent. Debenture Stock at cost	2,013 1 6	
£1,767 G. W. Railway 4 per cent. Debenture Stock at cost..	1,991 6 3	
£1,845 L. & S. W. Railway 4 per cent. Debenture Stock at cost	2,143 13 6	
£1,743 N. E. Railway 4 per cent Debenture Stock at cost	2,016 18 7	
£1,623 G. N. Railway 4 per cent. Debenture Stock at cost	1,868 9 0	
		17,232 5 10
		£23,438 14 2
Cash at Office	23 13 8	
At London and Westminster Bank ..	1,792 13 7	
		1,816 7 3
		£25,255 1 5

STEWART FUND.

£579 invested in 4 per cent. Caledonian Railway Debenture Stock, in the name of the British Medical Association.

DR.]—1884.		£ s. d.
Jan. 1.	To Balance brought down	33 4 8
	,, Interest one year £579	22 13 6
		£55 18 2

CR.]—1884.		£ s. d.
Dec. 31.	By Balance carried down	55 18 2
		£55 18 2

MIDDLEMORE FUND.

£500 invested in 4 per cent. North British Railway Debenture Stock, in the name of the British Medical Association.

DR.]—1884.		£ s. d.
Jan. 1.	To Balance brought down	29 9 1
	,, Interest one year £500	19 11 8
		£49 0 9

CR.]—1884.		£ s. d.
Dec. 31.	By Balance carried down	49 0 9
		£49 0 9

HASTINGS FUND.

£477 invested in 4 per cent. London and North Western Railway Debenture Stock, in the name of the British Medical Association.

DR.]—1884.		£ s. d.
Dec. 31.	To Cash. One year's Interest on £477	18 13 8
	,, Balance carried down	94 18 10
		£113 12 6

CR.]—1884.		£ s. d.
Dec. 31.	By Balance	113 12 6
		£113 12 6

We have examined the foregoing Accounts with the Books and Vouchers of the Association, and find the same to be correct.

March 20th, 1885. PRICE, WATERHOUSE & Co.
44, Gresham Street, London, E.C.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.

A CONJOINT meeting of the above districts was held at Brighton on March 24th, 1885; Mr. OLDHAM in the chair.

Papers.—The following papers were read.

1. Mr. Noble Smith, on a case of Total Incontinence of Urine, caused by Congenital Malformation, Cured by Operation.

2. The Chairman related a case of Hydrophobia, seen by himself in February last. The patient, a young school-girl, was first seen on the evening of February 5th. She was screaming, and apparently hysterical. Bromides were prescribed. She passed a good night, and seemed better next day. On the morning of the 7th, Mr. Oldham found the girl in bed, and happened to offer her the medicine which had been ordered. She tried to swallow it, but threw the fluid against her lips and fell back in bed. The action was so characteristic, that he at once diagnosed hydrophobia. On inquiry, he found that a pet dog belonging to the child had gone mad, and been killed fourteen days previously. The child grew worse, became convulsed, and died at night. Three points of interest were noted. *a.* The symptoms of hydrophobia appeared only twelve hours before death (the average time being three or four days.) *b.* The incubation was fourteen days (generally one to two months). *c.* There was no history of a bite, and, as far as could be ascertained, no abrasion of the skin.

3. Dr. Moore read a case of Meningitis, following Inflammation of the Middle Ear. The object was to elicit the opinion of the meeting as to the perforation of the mastoid bone in these cases. The operation in the present case was not performed till four days before death. No pus was found at the time, but the *post mortem* examination showed two abscesses, one at the base of the skull, between it and the dura mater, the other in the middle cornu of the left lateral ventricle. The drill had only missed this abscess by one-eighth of an inch. Dr. Moore argued for early operation and a larger opening. Another point of interest was, that the temperature, subnormal throughout the illness, rose just before death to 106°. This, Dr. Moore thought, supported the theory that there was a thermal centre whose inhibitory powers were arrested as death approached.

4. Dr. Henry Sutherland (of London) read a paper on the Premonitory Symptoms of Insanity. In this it was shown that various eccentric acts sometimes occurred many years before the actual outbreak of insanity took place. Hence the necessity for early prophylaxis. Dr. Sutherland explained the early symptoms, and the appropriate treatment, mental, moral, and hygienic.—Many members subsequently expressed strong views as to the unsatisfactory state of the lunacy laws as regarded medical men signing certificates.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.

A MEETING of this District was held at the Great Northern Central Hospital, Caledonian Road, N., on Thursday evening, March 19th, 1885; C. MACNAMARA, Esq., in the chair.

Communications.—The following communications were made.

1. Dr. R. Burnet related a case of Cerebral Hæmorrhage.

2. Mr. R. Marcus Gunn showed three cases from those attending the Ophthalmic Department of the hospital.

3. Mr. C. B. Lockwood showed three plaster casts of Contracted Fingers which had been operated on.

WEST SOMERSET BRANCH: SPRING MEETING.

THE spring meeting of this Branch was held at the Railway Hotel, Taunton, on Thursday, March 26th, at 5 o'clock; G. R. NORRIS, Esq., President, in the chair. There were present eighteen members.

The Late Mr. Samuel Rabbeth.—A letter, of which the following is a copy, was read.

"Middleton Lodge, Putney, London, November 12th, 1884.

"To W. M. Kelly, Esq., M.D., etc.

"MY DEAR SIR,—Your esteemed letter has been forwarded to me by the Secretary of the Royal Free Hospital, transmitting the copy of a resolution passed by the West Somerset Branch of the British Medical Association. I am most sincerely grateful for the honour thus done to the memory of my dear son, for this recognition of his worth and great promise, and for the kind sympathy expressed and condolence with me in my sorrow for the loss of my only child. May I beg you to be so good as to convey to the West Somerset Branch my earnest thanks for their resolution? and pray accept the same yourself for your kindness in sending me the copy of it.—I am, my dear sir, yours faithfully, "(Signed) J. E. RABBETH."

Representative of the Branch on the Council.—It was proposed by Mr. RANDOLPH, seconded by Mr. ALFORD, and resolved: "That John Prankerd, Esq., of Langport, be re-elected as representative of the Branch on the Council of the Association for the ensuing year."

Discussion.—After dinner, the question, as settled by the Council for discussion, was put from the chair as follows: "What is your opinion on Vaccination with reference to the three following points: 1. Is there any diminution in its prophylactic value? 2. Is calf or humanised lymph preferable? 3. Have you noticed any diseases occasioned by it?" The discussion was well taken up, and spoken to

seriatim by all present, several of the answers being specially interesting, and much applauded. Dr. Alford, medical officer of health for the district, in speaking to the question, alluded to the epidemic of small-pox which had recently visited Taunton, and mentioned that the total number of cases admitted into the Sanitary Hospital was 170; of these, 4 had never been vaccinated, and all four died; of the remaining 166, many had been only imperfectly vaccinated in infancy, and of these 20 had died; and, as showing the importance of revaccination, he remarked that not one of the cases admitted had been protected by a recent vaccination. The majority of answers affirmed (1) that the prophylactic value of vaccination had not diminished; (2) that calf-lymph was not preferable to humanised lymph; and (3) that, in the experience of the speakers, no specific disease occasioned by vaccination had been noticed. Written answers to the question, sent by Dr. Cordwent, Mr. Cornwall, and Mr. Morgan, were read by the Secretary.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

A MEETING was held at the West Kent General Hospital, Maidstone on March 27th; CHARLES HOAR, M.D., in the chair. Twenty-six members were present.

Communications.—The following papers were read.

1. Dr. Firth read notes of two cases of Thoracic Aneurysm, with specimens. He especially mentioned the importance of an early diagnosis and its difficulties.

2. Dr. J. E. Meredith described a case of Atresia of the Vagina, where the patient had previously menstruated several times.

3. Mr. Adams read clinical notes on Amaurosis, distinguishing between tobacco-amblyopia, amaurosis following head-injuries, and that which was secondary to cerebral tumour.

4. Dr. Boyce read a case of Acute Intestinal Obstruction recovering after stercoraceous vomiting of five days' duration. The treatment was by rest and opium.

5. Mr. Hallowes showed some interesting Living Specimens.

6. Dr. Ground showed specimens of Pathogenic Organisms.

The Chairman, Dr. Monckton, Dr. Firth, Mr. Hallowes, and others, took part in the discussions.

Next Meeting.—It was decided to hold the next meeting at Woolwich in May.

Dinner.—Eleven members afterwards dined together.

NORTH WALES BRANCH: INTERMEDIATE MEETING.

THE intermediate meeting of this Branch was held on Tuesday, March 10th, at the Bull's Head Hotel, Llangefni, Mr. R. A. PRICHARD, the President, in the chair. There were present eighteen members and three visitors. Letters of apology were read from various members.

New Members.—Messrs. Richard Rees, M.B., C.M., of Pwllheli; Hugh Parry Jones, M.R.C.S.Eng., L.K.Q.C.P.I., of Gwalchmai, Anglesea; William Thomas Dinnen, L.K.Q.C.P.I., M.R.C.P., of Holyhead; Richard Prothero, M.R.C.S.Eng., L.S.A., of Amlwch, Anglesea; and Owen Henry Evans, M.R.C.S.Eng., L.K.Q.C.P.I., of Brynsiencyn, Anglesea, were elected members of the Association and Branch; and Messrs. H. Prytherch, of Menai Bridge, and J. H. S. Davies, of the Denbighshire Infirmary, members of the Branch.

The Treasurer's Statement was read and passed. It appears that there was a balance of £6 3s. 9d. in hand, and outstanding subscriptions of £3 19s. due.

Presentation.—The President, on behalf of the members, presented the late Honorary Secretary, Mr. Lloyd Roberts (President-elect) with an elegant silver inkstand, as a mark of their esteem, and in recognition of his services to the Branch for many years, on the auspicious occasion of his marriage.

Rib of Rabbit in Strangulated Hernia.—Mr. Rees R. Jones exhibited this specimen, which had been found on operating on a case of strangulated inguinal hernia in the Bangor Infirmary.

Chorea.—Mr. O. T. Williams (Holyhead) read a most interesting and instructive paper on Chorea, in which he discussed the various theories of its production, pathology, and treatment. A discussion followed, in which Dr. Lloyd Roberts said that in his practice chorea was rare. Mr. John Richards remarked that the best remedy he had found was the recently made carbonate of iron, the failures of the drug being due to its not being freshly prepared. Mr. Evans (Llanychymedd) said that, in a practice in Anglesea for over thirty years, he could count the cases of chorea he had seen on the fingers of the two hands. Remarks were also made by Messrs. G. R. Griffith, L. F. Cox, E. T. Hughes, and Jones-Morris. Dr. Isambard Owen (London) congratulated the Branch on its efficiency, and the very instructive paper and discussion, and very minutely treated of the etiology of the disease, and appealed to them to do their share in elucidating it through the means of the Collective Investigation cards.

Dinner.—The members, with the rector of the parish, the Rev. James Doune, Professor Dobbie, of the University College of North Wales, and Mr. W. Cadwaladr Davies, dined together at the close of the meeting, which is the second that has ever been held in the island of Anglesea; and its success was so signal, that another visit cannot be very long deferred.

SPECIAL CORRESPONDENCE.

LETTERS FROM THE EAST.

IV.

The Kasr-el-Ein Hospital: its Improvements and Needed Reform Trained Nurses Wanted.—The Lunatic Asylum: Reforms Effected: A Resident Medical Superintendent Needed.—The Medical School: its Defective Mode of Teaching: Want of Museums.—Practical Teaching: its Present Inefficiency.—Scheme of Reform.—Neglect of the English Language.

THE following is Mr. Ernest Hart's fourth letter from Cairo:

[Mr. Hart has reached London in advance of this and his two subsequent letters.]

A fortnight spent among the hospitals, public asylums, and medical school of Cairo, and in examining the sanitary organisation of the country, is not ill spent, though it leads to conclusions which are not satisfactory; but such an inspection is both instructive and suggestive. The most hopeful of the hospitals is that at Kasr-el-Ein, which is devoted to the treatment of native men and women. It has obviously undergone some considerable amelioration, since it has been placed under the superintendence of European administrators. For some months it has been under the personal superintendence of Mr. Milton, a former resident medical officer of St. Thomas's Hospital; and, in all parts, it bears evidence of knowledge and well directed zeal, and of the advantage of such management. The hospital is a huge building around a large quadrangular space, and looks over the Nile, on the banks of which it is situated. It has all the bareness, and something of the ruinous condition, of most of the larger buildings of Egypt, where, as in most eastern countries, maintenance of a structure once built is unusual, and considered almost superfluous. To be built negligently, and to commence the uninterrupted cycle of decay from the day after building, is the common fate of houses, roads, bridges, and mosques. The most pungent illustration was given by an European agent long resident in a distant province from which he had just returned. A fine road, nearly sixty miles in length, had been built by an unusually active and beneficent pasha. A bridge carried it over a deep and unfordable river. He left the province, and the bridge was shortly afterwards found to be insecure and falling to pieces. Application was made for funds for the repair; it was fruitlessly repeated until the road had become impassable, when a final and urgent appeal was met with blank refusal. "No; that road was the other pasha's road; I have nothing to do with it. One day I will make another road, and that will be my road;" and so the sixty miles of road were allowed to fall into uselessness. The story is a typical one; and it exemplifies a characteristic phase of Eastern character in a rather extreme way. One-third of Cairo is falling to pieces, while building is going on actively in others. Good roads are made, but it is only by extreme pressure, and where European administrators are in power, that the duty of maintenance is fulfilled, and then in spite of singular obstructions. Hence the funds for structural repairs and internal cleansing of the Kasr-el-Ein Hospital are only obtainable in very insufficient proportions, and Mr. Milton has to resort to a variety of expedients, such as training and employing his patients, to get even the bare walls cleaned, or the window-openings made suitable for lighting and ventilation. Among the improvements in course at the present moment is the creation of an operating-room. Up till a recent date, operations were performed by the native staff, I am told, in the wards, and without chloroform; a significant detail, which speaks volumes, and serves as an index to much that is passed, and may, it is hoped, never recur, although the realisation of this hope will largely depend upon the continuance of European supervision in the management. Moreover, the noisome and dangerous latrine-cesspool system, by which this and many other of the Egyptian hospitals were rendered disgusting and destructive to health, is being replaced by a cleanly and wholesome pail-system. The wards are being remodelled and redistributed, and

some extended. A steady improvement is being effected in the nursing system; if that can be called a system which had been none, and is yet only an imperfect beginning. The so-called nurses are discharged soldiers of the Egyptian army, without training and without knowledge. The representations of Mr. Milton, backed by the Sanitary Council, have succeeded in obtaining the insertion into the hospital-budget of a provision for a very small staff of European trained nurses, for whom quarters are provided; but, hitherto, this most salutary and essential provision has not been carried into practical effect. The Khedive is believed to have interposed an obstacle, and is currently reported to object to the introduction of European nurses, on the score of fears that they may be disposed to proselytise. Such fears are, of course, groundless, and the least pretence for entertaining them could easily be removed by due care in the selection of the nurses, and by the enforcing of suitable conditions and regulations. Pledges of the most absolute force are offered to that end; but, meantime, the nurses are not engaged, and no steps have been taken for the purpose. I have made strong representations on the subject in influential quarters; and it may be hoped that the introduction of an element so essential to the welfare of the patients and the good ordering of the hospital will not be long delayed.

Mr. Milton has made the beginning of a very useful enterprise, in obtaining the aid of some intelligent natives to secure the presence of some young native women in the hospital, who have undertaken to fit themselves for the office of native nurses, and to whom he gives instruction and training. This is a novelty of good augury, and, if it be fostered and developed, may be a very valuable addition to the scanty resources for administering native hospitals. The Kasr-el-Ein is a sort of central depôt, to which the surgical instruments of the provincial hospitals are sent in now for repair; and, since the last few months, the services have been obtained of a skilled workman, capable of repairing and cleaning them. Some of the cases of instruments sent in for such repair I saw; their dilapidated and neglected condition was eloquent of the character of the institutions from which they were returned: stained, broken, eaten into with rust, they bore all the marks of neglect, filth, ignorance, and barbarous recklessness; they were more like instruments of torture, found in some damp mediæval cellar, than modern surgical instruments returned from existing institutions called hospitals. After this, it was not surprising to learn that the provincial hospitals are, as a rule (to which there are some exceptions), places to which few natives resort, except by force, and under police-compulsion as prisoners. The out-patient departments of such hospitals are, as a rule, only nominal in their existence: that of Kasr-el-Ein is securing some sort of popularity under the scientific and mild rule of Mr. Milton, and there is reason to hope that its increasing popularity may afford an evidence of what may be done to help the people by an intelligent administration, even of institutions which ignorance, venality, indolence, and inhumanity have rendered so odious to the people whom they were designed to help, as the Egyptian hospitals. This much, of course, English administration promises in time to effect, in a few places at least. Of the obstacles to a more general reform in this respect, I shall speak later.

Another example of what is being done by the English administrators in this direction, and of what remains to be done, is seen in the lunatic asylum at Abbasiyeh. Until the last few months, the lunatics in this place, about three hundred in number, were crowded into a small number of rooms on the ground-floor, while the rest of the building was left unoccupied and vacant. They were badly fed and clothed, and those who showed any tendency to violence were heavily chained to staples in the wall or floor by solid weighty iron fetters fixed round the ankles and wrists. This institution, which is under the superintendence of the Sanitary Department, has lately undergone considerable reform. The patients are distributed through the building. They are clean, look well nourished, and adequately though poorly clothed. They have neither occupation nor out-door exercise, nor classification, and the latrines were of the usual poisonous character: their condition can hardly yet be called satisfactory. Some attempt had been made to provide occupation by making a beginning of teaching mat-making; but, through some characteristic official interference, the instructor in mat-making has not arrived, although engaged some weeks ago, and we were told that, immediately after his engagement, some influential person in the office had found it desirable to utilise his mat-making abilities elsewhere, so that the patients must wait. Any outdoor occupation in gardening or farming was not apparent; and although it would be easy to train these patient, docile, and submissive creatures to any occupation, they were wandering listlessly through the corridors, and lying about the wards. In both of these visits I was accompanied by the new subdirector of the sanitary department, Surgeon-Major Greene, who did full justice to the excellent spirit in which his predecessor, Dr. Sandwith, had worked, and to the extent to which he had commenced much of the good work which is now in progress. I think Mr. Greene agreed with me in the conviction with which the inspection of this asylum inspired me, that the reorganisation which it requires, and the supervision of which it stands in need, can only be properly carried out by an European resident medical officer. An energetic and well informed young Englishman, accustomed to the organisation and management of lunatic asylums, would, in the course of a year or two, transform this establishment into something more nearly approaching the standard of existing knowledge of what the humane, economical, and successful treatment of the insane requires. Laundries, mat-making and tailoring workshops, gardening and field-occupation, would be both economic, humane, and remedial in their operation. Suitable occupations for the sick, out-door exercise, regular discipline, and adequate medical treatment, are necessities of which there is at present little evidence at Abbasiyeh, and they can hardly be provided until these three hundred or four hundred lunatics have the advantage of the residence among them of a trained educated medical superintendent, accustomed to the duties of such a post, as is the rule in all well managed asylums. The sooner this change is made, the better for the benefit of Egyptian lunatics, and for the credit of the administrators.

From the native hospital and lunatic asylum, I pass to the native medical school, and I must be brief, although the subject would bear dealing with on a more extended scale. This native school is attached to the Kasr-el-Ein Hospital. There are the regulation number of professorships filled by native professors, most, if not all, of whom have completed their medical education in Europe. There are about 165 pupils in course of education, about 60 of whom are out-door pupils. The rest have been selected by the officers of the Government, educated at the public expense, first for four years in the primary schools, and then for a further period of four years again in a secondary school. Taken into the medical school, they undergo a course of study there, and in the wards of the hospital, for a further term of six years. In all, each man has probably cost the country about £800. They are then dispatched into the country, or employed in the public service as doctors; except a limited number, who are selected, presumably, for superior aptitude, and sent to Paris, Germany, or London (very few to London), or other parts of Europe, to complete their medical study and obtain European degrees. Those who arrive in the European capitals are invariably found to be in an almost elementary stage of ignorance, and to have acquired only the most imperfect, inaccurate, and useless kind of knowledge. These unsatisfactory results are attained at a great expenditure; and there is no part of the Egyptian medical system which stands in more urgent need of reform, or to which it would be less difficult to apply early and valuable remedial measures, than the Egyptian medical school.

I will mention first some of the deficiencies and redundancies most quickly perceptible to the first inspection of the trained observer. The school is without most things which in Europe we should consider as most essential to organisation. The students are taught by rote from Arabic translations of old text-books. There are no laboratories, physiological, anatomical, pathological, or histological. With trifling exception, the school may be said to be wholly destitute of materials for teaching. For dissecting and demonstrating, there is no provision worthy of the name. The dissecting room is a large stone-paved apartment, with three small wooden tables, each standing over a hole in the floor, leading down directly into a stinking cesspool. There are no instruments or provision in the wards for clinical teaching, no regular note-taking, no clinical clerks, no case-books, no head-cards or prescription-cards. In a word, there is a great deal of useless expenditure in the primary scholastic teaching of the students, and in feeding, teaching, and clothing them; but of actual practical teaching there is only the empty simulacrum. The money spent is thus mainly wasted, and the school is a dangerous, because deceitful, sham. Even if the students were well taught, they would speedily relapse into ignorance; inasmuch as, being ignorant of any European language, they have no means of maintaining and strengthening the elementary knowledge which can alone be acquired even in good schools. With such arrangements for training and teaching, the Egyptian medical school is in a position which is no wise creditable to the administration, and which constitutes a source of danger rather than of utility to the population. The set of medical men whom it manufactures can only be most imperfectly impressed in the practical knowledge of the recognition or treatment of diseases, and are quite unfitted to be intrusted with the lives of their fellow creatures or to be charged with official duties.

In a few words, I may sketch an outline of what is needed to bring

the school into a condition in any way fitted to enable it to justify its pretensions, to fulfil its functions, or to excuse the expenditure on it of public money. It needs complete reorganisation in several respects. First of all, it must be provided with a small and typical collection of preparations of the bones, muscles, ligaments, arteries, and nerves, necessary for the teaching of anatomy. The dissecting-room requires to be made wholesome by disconnecting its drains from the cesspool; and the cesspool must be emptied. One or more demonstrators of anatomy must be appointed, and they should be persons who have already filled that office satisfactorily in an European school. Laboratories and collections must be provided; a chemical laboratory for the teaching of practical chemistry, and a physical and physiological laboratory. An attempt has been made at providing a small chemical laboratory, which, however, is totally inadequate. A pathological collection is needed, made up of suitable series of pathological preparations; and a pathological curator, who should also be the pathologist to the hospital. All this would seem to be elementary; but, so little is it understood by the Egyptian administration, that I was told that, while providing salaries for the professors, and paying for buildings (a vote of £10,000 had recently been obtained for this purpose), all provision for teaching-instruments, and materials for laboratories, for collections and preparations, has been hitherto absolutely refused. What can be the state of information of a Ministry of Public Instruction which acts in such a way, it is bootless to inquire; absolute ignorance ardently prevails at head-quarters of the first essentials for medical instruction; at present everything is provided for the shell, and nothing for the kernel. The first essential, then, for this school is materials, laboratories, and collections, which, at present, do not exist there. The vakeel of the school is Osman Ghalieb Bey, a very well informed and highly educated native gentleman, who possesses the degree of Doctor of Sciences as well as of Doctor of Medicine of Paris, and who is sensible of the necessity of improvement, and would be highly capable of important work, but who is confined to the teaching of natural history. The head of the school, Issa Hamdi Pasha, is a practising physician of much energy and regular education, and he, also, is quite sensible of the absolute necessity of obtaining laboratories, etc.; but, on the other hand, he is evidently quite devoid of the knowledge necessary for the organisation of so complex a machine as a medical school, and, being actively engaged in practice, and attached to the royal household, and about to travel with the Khedive's sons, he is obviously precluded by circumstances, even if he were fitted by knowledge and experience, which he certainly is not, to undertake the reorganisation of a medical school. Organisation requires an organiser; and the first and most effectual step towards the reorganisation of this school would be to put at its head some one well acquainted with the management of one of our London schools, and capable of establishing a fitting series of museums; of arranging the due order of practical studies, of presiding over the dissecting-room, and of generally converting the medical school from the dangerous sham which it now is, into an efficient instrument of teaching.

The system of passing intending students at the public expense through the primary and secondary schools, and maintaining them in the school, has no foundation or justification in any existing need, whatever may have been the case formerly. It is alike costly and inefficient. An inferior class of men are obtained—inferior in social status and in intellectual training; and they come to the school ignorant of any European language, and, therefore, in the worst possible state for receiving instruction in medical science or practice. In the Arabic language, even the words, not to say the books, do not exist capable of describing with precision the doctrines, or the facts, or the structures, or the terminology with which modern medical teaching is familiar. They are thus at a fatal disadvantage from the outset, which is intensified by the effete and childish method of teaching by rote, and committing mere phrases to memory. There exists in Cairo a normal school, attended by native extern pupils, most of whom acquire there some knowledge of an European language, and who possess the means of supporting themselves. The medical school might with advantage be largely recruited from these students. Selection goes by favour in Egypt, much more even than in other countries; but even here some sort of educational standard might be established. If the medical school is to flourish, the knowledge of an European language should be made a *sine quâ non* of admission to it. It might be at once announced that, after two years' date, no student whatever should be admitted who was not master of one language. Meantime, preference should, in all cases, be given to students possessing this knowledge; and it would be very advisable that the learning of English should meantime be added to the so called studies of the existing students in the medical school. The intern class of students should be altogether abolished as soon as possible, and the saving effected by abolishing the unnecessary expenditure of maintaining boys intended for medical studies in the primary and secondary schools, and in the medical school, would go very far indeed towards meeting the expenditure at the present moment urgently necessary on laboratories, collections, and demonstrators. It has been calculated that the cost of each medical student now turned out, in his finished state of incompetence, is about £800, extending over the fourteen years during which he has been fed, clothed, and educated, at the public expense.

Further, inasmuch as the State selects and sends out to Europe a small number of students to be educated and to receive diplomas in medicine at the European universities, at great public expense, it might fairly be made a part of their contract that, on returning to Egypt, they should, for a nominal payment, serve in the school as demonstrators or assistants for one or two years. These would furnish a contingent of educated assistants, who would thus repay, by their services in the school, some of the costly advantages which have been afforded to them. From the best of these, the future professors and assistant-professors could be recruited.

Finally, I do not doubt that, with a little energy, good management, and knowledge, the Egyptian school of medicine might be rescued from its present unsatisfactory state. The first step would be, I repeat, to found the series of teaching-collections and laboratories, and to furnish material for teaching, without which medical instruction is as impossible as would be instruction in engineering; next, to appoint an European, well versed in the management of a medical school, to reorganise the place; to prepare a proper system of graduated practical teaching, and to see that it is properly and regularly carried out, both by students and by teachers; to do away with the system of teaching by rote; to introduce systematic clinical instruction in the wards; to organise note-taking and dressing, all of which is now neglected; to abolish the expenditure on maintaining students; and to require the knowledge of an European language.

Here I shall add, by way of final word, a remark on the injudicious neglect by the English Government, and by English administrators, to afford facilities to the natives for learning English. There exist French schools and French classes, and there is a society for propagating a knowledge of the French language and literature; there are free classes for the purpose, of which many natives avail themselves. No such facilities appear to exist for learning English. One of the most intelligent of the pashas strongly remarked to me on this neglect. Formerly, the English language was used in the business of the railways. This has lately fallen into disuse, and the rule requiring the employees in the telegraph and railway service to learn English and to correspond in English and Arabic has fallen into abeyance. It was established by an intelligent native pasha, Ismail Pasha Usri; it has been neglected and discarded by Englishmen. It is obvious, however, that it is not through French literature nor from French sources that Egyptians will acquire English ideas or gather English opinions. If English influence is to prevail in Egypt, we should lose no opportunity of extending the knowledge of our language, and diffusing the use of our literature. To this consideration we seem, up to the present time, to have been singularly and unwisely indifferent.

MEDICAL NOTES FROM THE SOUDAN EXPEDITIONARY FORCE.

[FROM OUR OWN CORRESPONDENT.]

Communication of Enteric Fever.—The Cool Bath in Hyperpyrexia.—Hepatic Abscess.—Remarkable Gunshot-wounds.—Scalded Seamen.

THE NILE VALLEY,
March 20th, 1885.

TIME and space did not permit my mentioning in my last letter two rather interesting cases that came under my notice lately, proving, as they both seem to do, that enteric fever can be communicated from one individual to another. The patients' cases and history being similar in all important respects, one description will answer for both. In these two instances, the disease occurred in hospital-orderlies, men of the Medical Staff Corps, who had been in close attendance for many days on men suffering from enteric fever of a severe type. The patients being very weak and helpless, required constant care and assistance in the use of the bed-pan, as well as in the changing of shirts and sheets more or less foul. Whether the enteric specific virus entered the system of those orderlies through the lungs or through the gastro-intestinal tract, or through both combined, is impossible to say; the discharge from the bowels may have soiled the orderlies' hands, or the effluvia from the bed-pans, just used, may have entered the pulmonary tract. Anyhow, I think these two cases are fair instances

of the communicability or capacity of transmission of enteric fever from one individual to another previously in sound health. It is on this account alone I mention them; the cases, though severe and protracted, made good recoveries.

Three cases of very high temperature—not actually amounting to hyperpyrexia—came to my notice lately. The evening temperatures on several days ran up to 104° to 105°. In these cases, the gradually cooled bath had to be repeatedly employed, with most satisfactory results, in lowering the temperatures about 3° on every occasion, besides giving the patient a comfortable and strengthening sleep after the use of the bath.

One case, the first I have seen in the Soudan, of hepatic abscess, has just come before me. The man was brought in suffering from extreme prostration and general feverishness. He had never suffered from dysentery, and had never served in India; his previous health had been good; he had recently had two distinct rigors, during an attack of hepatitis. On admission, a small tumour near the ensiform cartilage was noticed, and it slowly increased. As there was no appearance of adhesions, and his strength was so reduced, it was thought better to wait a little before using the aspirator. However, very soon after this decision was come to, the patient said that he felt something give way near the tumour. A sanguineo-purulent discharge from the bowels soon occurred, not to an excessive degree; and, collapse setting in, the patient sank from exhaustion.

Here is a somewhat remarkable case of gunshot-wound. The bullet struck the left side of the chest, about the middle of the third rib; in its passage it passed through a bandolier, cutting a cartridge in two; it then passed through the upper lobe of the left lung (all the recognised symptoms of wound of the lung being well-marked), and is now lodged or encysted in the posterior wall of the chest. There are no lung-symptoms whatever, and the patient seems in the best of health. Another case, instancing how one bullet may make a multiplicity of holes, is now before me; the bullet entered the outside of one thigh and escaped at nearly the same spot on the opposite thigh, making altogether four wounds. As no important parts were injured by the bullet, the individual is doing well. I knew of one case in the 1882 expedition, where the bullet passed through one thigh and the scrotum, and lodged in the opposite thigh, making in its course five distinct holes.

Here are two cases showing the erratic courses bullets sometimes take. The soldier was lying down, evidently in wide-mouthed wonder at the Arabs; the bullet entered the mouth, and passed out through the floor of the mouth in the submaxillary space, not even touching the teeth, jawbone, or any vessels. This same bullet again entered the sterno-mastoid muscle, about three inches above the sternum; but, having passed through the soldier's coat-collar, had little force left, and, consequently, was removed from just under the skin. The other case was almost similar, the bullet entering the mouth as the man was lying down; but it, unfortunately, fractured the lower jaw, and knocked out several teeth. This bullet also passed out through the floor of the mouth, but did not again enter any part of the body.

I have also before me the two seamen who were so badly scalded when the cannon-shot passed through the steamer's boilers in Lord C. Beresford's heroic rescuing expedition. I am glad to report that those brave fellows are doing well.

*** We regret to say that our Correspondent's previous letter to which he alludes is not forthcoming.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Extirpation of the Larynx.—The Toxic Properties of Metals.—The Composition and Physiological Action of Hexahydride of Collidine.—Tuberculosis Transmitted.—Methyl Chloride as a Local Anæsthetic.—General News.

EXTIRPATION of the larynx has lately been performed, for the first time, in France, by M. Labbé. The patient was a man, aged 59. For some years he suffered from breathlessness and loss of voice. In 1882, Dr. Krishaber applied the galvano-cautery; in 1883, dysphonia and dyspnœa became more pronounced; and in 1884, the presence of a tumour, on the left upper vocal cord, was ascertained. Respiration was impeded, and tracheotomy was necessary. The tumour increased rapidly, invaded the larynx, and prevented deglutition. On March 12th, M. Labbé removed the larynx. Trendelenburg's cannula was introduced; chloroform was administered through it; anæsthesia was obtained with difficulty. The larynx was laid bare by a T-shaped incision. Separation of the larynx from the surrounding organs, and its removal, were effected by means of the galvano-cautery. A suture was placed in the upper part of the wound; an œsophageal sound was introduced; and, on the fourth day after the operation, iodoform dressings were substituted for carbolic acid dressings and injections. On the fourteenth day, the temperature and pulse were normal. The patient had suffered violent pains, but these have disappeared, the wound is smaller, and perfectly healthy; the patient can also swallow. The tumour was examined by M. Remy, and he declares it to be an alveolar sarcoma, or a spindle-celled sarcoma of Ranvier.

M. Rabuteau opened a debate at the last meeting of the Biological Society on the toxic properties of metals. Some time since, M. Rabuteau asserted that these properties are in proportion to their atomic weight, and their specific heat. Lithium is an exception; its atomic weight is very low, yet it kills in small doses. He now maintains that the law of the toxicity of metals holds good, notwithstanding the exception furnished by lithium; that metallic lithium does not kill by its toxic effect, but by its convulsing action on the nervous system. Toxic metals destroy the functional activity of the nervous system, whereas lithium acts on it as a stimulus, and kills slowly instead of rapidly. The specific heat of lithium explains its action. The action of most bodies is ruled by the relation existing between their component atoms and the molecules of the organism. When the atoms preponderate, the nervous system is negatived; when the molecules preponderate, the nervous system is stimulated. The specific heat of strychnia, when accurately calculated, is found to be equal to that of lithium; both provoke death by the same processes. M. D'Arsonval observed that M. Rabuteau's communication argued that the toxicity of metals is equal to the energy they can expend. In electricity this law is incorrect; a given quantity of energy may produce quite different results. It remains to ascertain whether this comparison can be made. M. Grimaux observed that, according to M. Rabuteau's method of calculating, the specific heat of quinine and strychnia is equal; but there is a wide difference in their toxic properties.

M. Vulpian presented to the Académie des Sciences, in the name of MM. Oeschner de Könenck and Bochefontaine, an observation on the chemical composition and physiological action of the hexahydride of collidine, called isocicutine, from its close analogy with cicutine. It is obtained by adding six atoms of hydrogen to ordinary collidine. Isocicutine has the same physiological action as natural cicutine. It paralyses the brain and the nervous centres; it also destroys sensibility, voluntary motor action, and reflex action. Its action on the motor nerves slightly resembles that of curare; the difference consists in the action of isocicutine extending to the entire motor nervous system, whereas curare acts only on the terminal motor nerve-plates.

M. Richard, at a recent meeting of the Société Médicale des Hôpitaux, described a case which supports the hypothesis that tuberculosis may be transmitted by the genital organs. The patient was a strong man; there had never been phthisis in his family. He contracted what appeared to be an ordinary gonorrhœa, and was cured in a month. Two months subsequently, there was a painless discharge. The urine contained a small quantity of blood; the purulent discharge continued. Two months afterwards, the patient suffered from pulmonary phthisis, and was obliged to enter the hospital. The prostate and vesiculæ seminales were discovered to be tuberculous. These were the primary lesions, and from them the organism became infected.

M. Tenneson has, in thirty-one cases, tested methyl chloride as a local anæsthetic. In ten cases of sciatica, the spray of chloride of methyl produced immediate and uninterrupted relief. In seven cases, the cure continued during a period which varied from seven days to three months. Twice it was necessary to make a fresh application, and the cure was then perfect. A patient who was unable to work, and had suffered for twenty-nine months, was completely relieved, except from the pain in the heel. Several fresh applications were made, and the pain eventually disappeared. Nine out of eleven cases of muscular rheumatism were successfully treated. The pain disappeared, but muscular contraction remained. Articular rheumatism, acute and subacute, was relieved by methyl chloride; also nodular rheumatism, and chronic rheumatism of the knee, contusion of the shoulder, stitches in the side, cases of pleurisy, tuberculosis, and pneumonia. The pneumonia was cured without any ill effects from the application of methyl chloride. Five or six seconds are sufficient; if the application be prolonged, erythema, hyperæsthesia, blisters, and superficial eschars may result. The spray should be directed obliquely, not allowed to fall perpendicularly on the cutaneous surface. After the first application, there may be ecchymosis of the skin.

With female patients the application should last less than five or six seconds.

The Conseil d'Hygiène et de Salubrité, at a recent meeting, discussed the question whether the use of gelatine by pastry-cooks and confectioners was dangerous to the public health. It was decided that gelatine is harmless; nevertheless, when creams and jams are made with gelatine, their buyers are to be informed of the nature of the compound they purchase.

The prefect of the police has requested the Conseil d'Hygiène et de Salubrité to consider the question of the boat-washhouses constructed along the Seine, and the soiled linen washed in the river. A commission has been appointed for the purpose.

A circular has recently been issued from the Prefecture concerning the removal of dead bodies. If the destination be beyond the radius of the Prefecture, the body is to be placed in an oaken coffin 27 millimètres thick; the bands are to be of iron, 3 centimètres in width, and 4 millimètres thick. If the distance reach 132 miles, the coffin is to be lined with India-rubber or cardboard steeped in tar. It appears that municipal authorities have complained that dead bodies removed in ordinary oaken coffins allow the fluids and gases resulting from decomposition to escape.

News arrives from Bastia that a trial, in which there are two medical men among the offenders, has created a great sensation. Last year, when there was a cholera-epidemic at Toulon, the ships which arrived from the contaminated ports were sent into quarantine, and the passengers were housed in huts run up near the entrance of Bastia. This arrangement greatly troubled the public mind. When it was known that 600 Corsicans would arrive from Toulon, and would be lodged in these huts, there was a general demand that they should be pulled down. The Municipal Council refused. Some of the excited populace proceeded to the spot, and destroyed the huts; the police interfered, and the aggressors were arrested. Twenty-six were brought up for trial, among whom, with other professional men and civic authorities, were Dr. Pitti Ferrandi and Dr. Guasco. Their punishment is limited to a fine of 25 francs.

M. Robinet, at a recent meeting of the Municipal Council, complained that the pharmaceutical service of hospitals is very faulty; often the sisters make up the prescriptions, and there is not the slightest guarantee of their competency. M. Desprès asserted that the sisters are sufficiently competent, and save expense. The Director of Public Assistance agreed with M. Robinet in principle, though he had never heard any complaints concerning the present system; nevertheless, it could be considerably improved. He proposed that a grant should be made, which would meet the expenses involved by the improvements suggested by M. Robinet.

Dr. Watelet, who was fined £4 for violating professional secrets by the letter he wrote to the *Matin*, stating the cause of Bastien Lepage's death, has declared that, in future, he shall refuse to fill in the bulletin, by means of which the death-rate is arrived at. He returns the bulletin to the prefect, and requests him not to give any further annoyance concerning the cause of the deaths of his patients.

Dr. Brouardel is named Commander of the Legion of Honour; Dr. Proust, Officer; and Dr. Resseguier de l'Aude, Chevalier. Dr. Resseguier was on his death-bed when this honour befell him. The Council of the Legion of Honour therefore decided that the nomination should be telegraphed, in order that it might be immediately communicated to Dr. Resseguier.

CORRESPONDENCE.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SIR,—May we be permitted, through the medium of your columns, to protest, in behalf of the Association of Members, against the unconstitutional course of action which has been adopted by the Council of the Royal College of Surgeons of England with regard to the new charter?

In March of last year, at the general meeting of Fellows and Members, a resolution was passed, requesting "that no alteration in the constitution or relations of the College should be effected without the consent of the Fellows and Members convened to discuss such alteration." This request has recently been repeated at the College by the delegates of the Association of Fellows, but has been ignored by the Council, who have determined to forward without delay, to the proper authorities, the proposed alterations in the charter, on the ground that they were in part submitted to the general meeting in March 1884. If the proposed form of the new charter had been acceptable to the profession, the Associations of Fellows and Members would not now be in existence. The Fellows and Members collectively may be said to constitute the College, and they are agreed that no charter should be presented to the Home Secretary without their united approval. It would appear, therefore, that the Council are attempting to legislate in direct opposition to the wishes of their whole constituency.

Furthermore, according to the present charter, no meeting of the Fellows and Members is permitted unless the Council *approve the object of such meeting*. This infringement of the liberty of the subject has been embodied in the draught of the new charter, with only a slight alteration in the wording. It seems hardly credible, in these days of freedom of the press and liberty of action, that a large, intelligent, and educated body of Englishmen should be debarred from holding public meetings for the discussion of questions relating to their government, their dignity, and their interests—in a country which has been immortalised by the Poet Laureate as

> "The land where, girt with friends and foes,
> A man may speak the thing he will."

Since the Council of the College have persistently refused to consider the interests of its Members, and have turned a deaf ear to their appeals, the Association of Members have come to the conclusion that the only remedy for the unsatisfactory state of affairs, which now exists, is for Members of the College to obtain the right of electing their own representatives—either Fellows or Members—to sit upon the Council. In order to effect this reform, they have determined, much as they regret the necessity for such a step, to petition the Home Secretary to refuse to grant any charter which does not provide for the representation of Members on the Council. A petition has been drawn up, and has already been signed by nearly a thousand Members.

The Association of Members have, furthermore, determined to invite all Members of the College to attend the annual general meeting of the Association for the purpose of discussing what further steps must be taken in order to obtain such reforms as are felt by the profession to be most urgently needed in the administrative department of the Royal College of Surgeons. The meeting will be duly advertised in the medical journals, and will be held on May 5th, at 4 P.M., in the Westminster Town Hall.

Trusting to the ready manner in which you have always advocated any measure for promoting the interests of the medical profession, we take the liberty of transmitting to you this protest against what we consider to be a most unconstitutional measure on the part of the College authorities. Hoping that we have not encroached too far upon your valuable space,

We beg to subscribe ourselves, sir, your obedient servants,

WARWICK C. STEELE,
J. NIELD COOK,
W. ASHTON ELLIS,
} Honorary Secretaries to the Association of Members of the Royal College of Surgeons.

The Western Dispensary, Westminster, S.W.

SIR,—The report, in the BRITISH MEDICAL JOURNAL, of the quarterly meeting of the Council of the Royal College of Surgeons, held on April 9th, will be read with dismay by all Members of the College.

The Members, according to the report, are still to be thoroughly ignored (notwithstanding our appeal for representation addressed to the Council) with regard to matters concerning the Council, the election of examiners, etc. This is, indeed, carrying matters with too high a hand, and will, no doubt, be opposed when the application for a new charter is made.

It seems to be forgotten by the Council that the Members are to the Fellows as ten to one; and that the chief part of their income is derived from the former. It, therefore, behoves all members of the College interested in its affairs to sign the petition, which will be presented to the Home Office, challenging such conduct, which is little short of an insult. Any who have influence with Members of Parliament should do their utmost to make them cognisant of this high-handed conduct.—Faithfully yours,

H. T. SHAPLEY, M.B.Aber., M.R.C.S.Eng.

Leamington, April 13th, 1885.

CURE OF AN ABDOMINAL ANEURYSM.

SIR,—In your interesting leader of last week on Professor Loreta's case of operation for abdominal aneurysm, you write, "nor are we aware that any aneurysm so situated has been cured by rest and medicine."

Will you allow me to state that there is, in the pages of the third volume of the *London Hospital Reports*, a case which was almost precisely parallel with the one under comment, and which did get well under "rest and medicine"? The patient was under the care of Dr. Daly of Dalston, who published the narrative; but he was also seen by myself.

Briefly, the facts were these. The patient, a man, aged 33, had, whilst lifting furniture, felt something give way in his abdomen. He subsequently called his doctor's attention to something beating at the pit of his stomach, and there was found "a tumour of the size of two fists, visibly pulsating." The pulsation was expansive, and there was a loud *bruit*. The tumour could be partially emptied by pressure, but filled again directly: the femoral arteries beat normally. I saw the man in consultation the day after Dr. Daly had discovered the aneurysm; and, after very careful examination, I felt no doubt whatever as to the correctness of the diagnosis. The tumour filled the epigastrium, and bulged prominently. We gave, of course, a most unfavourable prognosis, but decided to give the plan of treatment by rest, etc., a very careful trial. The man was kept on his back in bed, and not allowed to move for any purpose. Ice was constantly applied over the tumour, fluids were restricted, and the acetate of lead administered. The latter was given in doses of three grains three times a day, and it was pushed until it produced the blue line on the gums and troublesome constipation. At the end of a fortnight's treatment, the tumour was much smaller and firmer. Dr. Daly could hear no *bruit*, but there was still pulsation. At the end of three weeks more, there was neither *bruit* nor pulsation. At the end of three months from the beginning, I saw the patient again, and was able to confirm Dr. Daly's report that all evidence of tumour had disappeared. There was considerable thickening in front of the vessel, but no defined lump could be distinguished. The man was now allowed to leave his bed, and he subsequently returned to his occupation and remained well.

The diagnosis of abdominal aneurysm is beset with difficulties, that we are obliged to regard with some scepticism all cases which deviate remarkably from the ordinary course. In this case, the cure was effected with exceptional ease and rapidity. Yet, in reading Dr. Daly's record, I cannot see that there is any real reason for doubting that we were correct. I had not the slightest doubt of the diagnosis at the time. Nor are the other conditions which might have simulated aneurysm at all more likely to have afforded us an example of spontaneous recovery. The tumour must either have been an arterial one or a soft pulsating solid. Between a vascular sarcoma and an aneurysm, it is sometimes almost impossible to pronounce until the case has been watched for a time. But then vascular sarcomata are not apt to disappear. I may confess that I am myself a strong believer in the practicability of cure of aneurysms by rest, etc., and even in their occasional spontaneous solidification. In many thoracic cases great benefit accrues from these measures, and sometimes probably a real cure. I published, some years ago, a case of carotid aneurysm diagnosed ten years before the patient's death, in which the necropsy proved complete spontaneous solidification; and there is, in the London Hospital, a splendid preparation showing this occurrence in an aneurysm of the innominate. Such cases should, I think, make us as surgeons very careful in advising operative treatment under circumstances involving unusual risks. The cases clearly are not otherwise beyond hope. The Bologna professor is to be heartily congratulated on the success which has followed his daring practice. In spite of that success, however, I should prefer to advise a patient with an aneurysm in the abdomen to trust to rest, ice, and dry diet, etc., rather than have the tumour punctured, and two yards of copper wire put into its cavity.—I am, etc.

JONATHAN HUTCHINSON.

THE MEDICAL WITNESS ACT, AND POOR-LAW MEDICAL OFFICERS.

SIR,—In last week's JOURNAL, you published *in extenso* the argument of the solicitors employed by the Poor-Law Medical Officers' Association in the case of Don Bavand *v.* Morrison, recently heard before Judge Lushington at the Croydon County Court; but I think, in a matter which affects the pecuniary interests of a large number of our medical brethren, it will be of greater importance to the members to know the grounds upon which the judgment was given, rather than the arguments used by one side only. I was in court during the proceedings, and the learned judge, after listening, as I thought attentively, to the arguments adduced on both sides of the question, gave judgment in, as nearly as possible, the following words.

"In this case, Mr. Don Bavand was deputy to the resident medical officer of the Croydon Poor-Law Union Infirmary, and on the 5th of November last, a man named Rozer was sent to the infirmary; he died on the 6th, and on the 11th an inquest was held. The coroner requested Mr. Don Bavand to make a *post mortem* examination of the body, and to attend and give evidence at the inquest. The plaintiff did so, and afterwards requested the coroner to pay him his fees, according to the Statute 6 and 7 William IV, c. 89. This the coroner declined to do, on the ground that, as Mr. Don Bavand was the medical officer of a public infirmary, and it being his duty to attend the deceased person, his case came under the proviso of the fifth section of the Act, which excepts from the operation of the third section, 'all cases of inquest holden on the bodies of persons dying in any public hospital or infirmary, or in any building or place belonging thereto, or used for the reception of the patients thereof, or dying in any county or other lunatic asylum, or in any public infirmary or other public medical institution, whether supported by endowments or by voluntary subscriptions; and declares that, in such cases, the medical officer whose duty it may have been to attend the deceased person as a medical officer of such an institution as aforesaid, shall not be entitled to the fees or remuneration therein provided.' Something has been said as to the motive of this proviso, and it may be possible, as suggested, that the legislature had in view those hospitals having a large medical staff attached, who, for educational and other purposes, were glad to have the opportunity of making *post mortem* examinations; but I confess it is not plain to me. I have to construe the section according to the legal rules of interpretation, and I must not go far to seek a motive. All one can see is that the legislature did not intend that the county should be put to the expense of paying fees to the medical officers of such buildings as described in the Act, for making *post mortem* examinations under order from the coroner, and for giving evidence at inquests. The infirmary in question is an infirmary attached to the workhouse, and as such it is maintained out of the rates of the union; and the medical officer, whose duty it is to attend all persons sent there, is paid out of the rates, and the guardians receive partial reimbursement from imperial taxation. The real question I have first of all to decide is this: whether this workhouse-infirmary may be described as 'any public hospital or infirmary,' and secondly, supposing I decide that question in the affirmative, whether I am bound to hold that the words 'whether the same be supported by endowments or by voluntary subscriptions,' refer back to the former words, 'any public hospital or infirmary,' and operates as a limitation on them. Mr. Frazer contends that a workhouse-infirmary cannot be considered 'a public hospital or infirmary' within the meaning of the Act, because it is not open to the public generally, but is provided for the reception of paupers and destitute persons only. He says that prevents its being a public infirmary, but on this point I differ from him. There is not a public infirmary in England that is open to everyone, without some sort of conditions or regulations; and if a workhouse-infirmary is not a public infirmary, I do not know what is. I think it must be considered a public infirmary within the meaning of the Act.

"As to the point whether the words 'whether supported by endowments or by voluntary subscriptions,' relate to the words 'any public hospital or infirmary,' Mr. Frazer has admitted that they do not relate to the words 'any county or other lunatic asylum.' Now, an asylum is supported out of the rates, and although that be so, he also admits, notwithstanding the words which follow, 'whether the same be endowed,' etc., it comes within the proviso that, if an inquest is held there, the medical officer is not entitled to a fee. This admission seems to me to be fatal. If the words relate back to a 'county asylum,' they must also relate back to a 'public infirmary,' and *vice versâ*. I say it is fatal. I have heard what was said about a circular issued by the Local Government Board, which contains a different view of the statute from what I am going to take, but I am in no way bound by the opinion therein expressed. I have listened to each of the learned gentlemen engaged in this case, and especially to the arguments used by Mr. Frazer; and I must come to the conclusion that a workhouse infirmary is a 'public infirmary' within the meaning of the Act, and that the words 'whether supported,' etc., do not relate back to the words 'any public hospital or infirmary.'"

By this judgment, unless it be upset on appeal, all workhouse and poor-law infirmaries, sick asylums, and the asylum board hospitals, must be included under the heading of "any public hospital or infirmary;" and, consequently, the medical officers of such institutions will not be entitled to claim fees for giving evidence, etc., before the coroner. My own views on this matter were fully expressed in my letter to the JOURNAL nearly two years since; and, although they differed from those of the Chairman of Council of the Poor-law Medical Officers' Association, I felt sure that my interpretation of the Act would be upheld by a judge, if the advice at that time given by the chairman were acted upon, namely, to summon the coroner in the county court. This has been done, and the result is known, and funds are now being asked for to prosecute an appeal. Would it not be wiser to obtain, if possible, an alteration in the law, rather than attempt to drive the proverbial coach and four through the Act of Parliament?

If the course I suggest were adopted, I would gladly join with others and use whatever influence I may possess in order to get the obnoxious clause expunged from the statute. I should be pleased also to subscribe twenty guineas as a first instalment towards the necessary expenses, for the law, as it now stands, often presses hardly upon a body of hard-working public officers, who, as a rule, receive very inadequate remuneration for the valuable services they render to the State.—I am, sir, your obedient servant,

GEORGE DANFORD THOMAS,
Coroner for Middlesex.

MILITARY AND NAVAL MEDICAL SERVICES.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month :—

	From	To
Surgeon-General Sir A. D. Home, K.C.B.	India	—
,, C. D. Madden	Madras	—
,, J. Irvine	Egypt	Madras.
Deputy Surgeon-General Sir J. A. Hanbury, M.B., K.C.B.	Woolwich	London.
,, ,, ,, W. H. Corbett M.D.	Meerut	Peshawur.
Brigade-Surgeon S. B. Roe, M.B., C.B. ..	S. E. District ..	Dover.
,, S. Fuller	—	Aldershot.
,, P. B. Smith, M.D. ..	Bombay	—
,, J. Davis	Bengal	—
,, S. S. Skipton, M.D. ..	Canterbury ..	Dover.
,, G. S. Davie, M.D. ..	Shorncliffe ..	Bengal.
Surgeon-Major J. Parr	Kilkenny	Limerick.
,, O. Codrington, M.D. ..	Aldershot	Netley.
,, C. M. Cuffe, C.B. ..	Dundalk	Dublin.
,, C. F. Churchill, M.B. ..	—	Dublin.
,, J. N. Davis, M.D. ..	Bengal	—
,, C. White	Bombay	—
,, J. R. Croker	Warrington ..	Sheffield.
,, T. Kingston, M.D. ..	Egypt	Suakin.
,, E. V. MacSwiney, M.D. ..	Malta	Egypt.
,, L. A. Irving	Gibraltar	Bombay.
,, P. R. Gabbett	Gibraltar	Egypt.
,, C. W. M. Keys, M.D. ..	Gibraltar	Egypt.
Surgeon H. Charlesworth	York	Gibraltar.
,, P. A. Hayes	Egypt	Suakin.
,, F. H. S. Murphy, M.D. ..	Cork	Tipperary.
,, C. K. Powell, M.D.	Cork	Kinsale.
,, W. A. Parker	Hong Kong ..	Singapore.
,, J. W. H. Flanagan	Bombay	—
,, E. L. Maunsell	Gibraltar	Egypt.
,, C. H. Clabburn, M.B.	Malta	Egypt.
,, S. A. Crick, M.B.	Liverpool	Birmingham.
,, G. E. Twiss	Gibraltar	Egypt.
,, A. B. Cottell	—	Chatham.
,, R. Porter, M.B.	African Service ..	—
,, F. A. Harris	Singapore	Hong Kong.
,, D. L. Porter	Malta	Egypt.
,, A. Baird, M.B.	St. Helena	C. of Good Hope
,, R. J. A. Durant	Colchester ..	Bombay.
,, J. R. Forrest	—	Suakin.
,, M. W. Russell	—	Egypt.
,, W. R. De Morinni	—	Suakin.
,, B. F. Zimmermann	—	York.
,, A. F. Stace	—	Egypt.
,, A. Stables, M.B.	—	Egypt.
,, J. F. E. M'Craith	—	Egypt.
,, E. A. C. Smith	—	Egypt.
,, W. M. Hewson, M.B.	—	Egypt.
,, G. E. Moffet, M.B.	—	Devonport.
,, H. A. Haines, M.D.	—	Gibraltar.
,, J. D. Moir, M.B.	—	Egypt.
,, R. Crofts	—	York.
,, G. M. Dobson, M.B.	—	Egypt.
,, G. E. Hale	—	Egypt.
,, C. W. Johnson, M.B.	—	Egypt.
,, W. E. Berryman	—	Egypt.
,, A. T. I. Lilly	—	Egypt.
,, R. Caldwell	—	Egypt.
,, C. C. Reilly	—	Egypt.
,, S. E. Duncan	—	Malta.
,, J. Maher	—	Suakin.
,, A. Perry	—	Gibraltar.
,, S. N. Cardozo	—	Egypt.
,, A. De C. Scanlan	—	Dover.
,, H. W. James	—	Gibraltar.
,, R. Trevor	—	Malta.
,, H. D. James	—	Malta.
,, W. Turner	—	Suakin.
,, B. O. W. Norfor, M.B.	—	Egypt.
Quarter-Master G. W. M. Johnston ..	Chatham	Suakin.
,, T. Thompson	Dublin	Suakin.
,, C. Johnson	Southern Dist. ..	Suakin.
,, W. M'Kay	Curragh	Suakin.
,, F. Tighe	Egypt	Suakin.
,, J. Horn	Cork District ..	Suakin.
,, J. Brewster	Devonport ..	Western District
,, T. Connor	Aldershot	Suakin.

MEDICO-LEGAL AND MEDICO-ETHICAL.

FEES FOR DEATH-CERTIFICATES.

SIR,—Pardon my troubling you again on this subject, but your answer is, to me, peculiarly unsatisfactory. What I gather from the latter part of your answer is, that a fee may be charged for every death-certificate, for in order to fill up the blanks with age, full name, etc., the practitioner must ask the friend or relation who comes for the certificate. As to a medical man making a visit to a deceased patient's house in order to fill up a certificate, I myself never heard of such a thing. The least a medical man can do for a deceased patient is to sign his death-certificate without fee. You say "no" and "yes" in your answer to my query, in the same paragraph, thus leaving me in the same state as before. I should be much obliged if you will publish this in our JOURNAL, as I should like to have the opinion of my brother members on the subject.—Yours faithfully,

A. T. BRAND, M.D.

Invery, Driffield, East Yorkshire.

*** We publish our correspondent's letter with pleasure, but we do not see any reason to alter our opinion as expressed in the JOURNAL of March 28th. We there quoted from the Act of Parliament bearing on the subject, and pointed out that the practitioner who may have attended any person during his last illness, shall after the death give a certificate, stating to the best of his knowledge and belief the cause of such death, and that, if he refuse to do so, he is subject to a penalty of forty shillings. The certificate in question is not intended for the use of the relatives or friends of the deceased person, but to enable the Registrar-General to obtain more accurate information as to the cause of death than he was enabled to do before the passing of the Act. Before 1875, the giving of a certificate of the cause of death was a voluntary act on the part of the medical man in attendance; but after that date, by the Act of 1874, it became compulsory; and, a fine being recoverable from the medical man who refuses without reasonable cause to give such a certificate, we still maintain that such certificates can be legally demanded, and that no legal charge can be made for them. It sometimes, however, happens that the relatives or friends of a deceased person give the practitioner a great deal of unnecessary trouble, and require him to pay a visit or make a journey of several miles in connection with the certificate in question; and in such cases we see no reason why he should not charge his usual fee for so doing. Our correspondent is anxious to obtain the opinions of members of the Association on this question, and we have no doubt that he will receive replies showing the practice and experience of others on this subject.

FEES IN CASES WHERE NO INQUEST IS HELD.

SIR,—Will you kindly give me your opinion under the following circumstances? Last July, I was sent for early one morning to see an old lady who had just died suddenly. I wrote to the coroner at once, informing him of the fact. He immediately replied, asking me my opinion as to the cause of her death, and whether I had any reason to suppose that it was owing to violence or neglect, etc. On receiving my opinion as to the cause of her death (cardiac disease), he remitted me a cheque for half a guinea, which he called my fee.

The other night I was called out again to a similar case. By next post, I wrote to the coroner, expressing my opinion as to the cause of death, and stating that there were no suspicious circumstances whatever connected with it. In reply, he said he thought no inquest would be necessary, but made no mention of any fee.

I strongly object to render professional services gratis. This, to my mind, is one of the greatest evils of our profession. By so doing, we not only lower our status, but our services are not valued by those who employ them. In this case, can I claim a fee? If not, why did I receive one in a similar case eight months ago? Do you think it unwise on my part to have informed the coroner of all particulars before being asked for them?—Yours obediently,

FAIR PLAY.

*** "Fair Play" may think himself fortunate in obtaining half a guinea from the coroner as a fee for giving an opinion as to the cause of death when no inquest was held upon the deceased. In the county of Middlesex, there is certainly no fund from which such a payment could be made, neither will the magistrates sanction any payment made for preliminary investigations. We can hardly imagine that the coroner paid the fee out of his own pocket, and, therefore, presume he was reimbursed in some way or other out of the county funds; but why he should pay half a guinea in one case and not in another—apparently similar in every respect—we are at a loss to understand. Probably our correspondent would have done well not to have expressed an opinion before he was asked, and this may possibly be the reason why he did not receive half a guinea in the second case. In some few counties, by arrangements with the magistrates, it appears—in Kent, for example—that the coroner is enabled, without holding an inquest, to pay a medical practitioner for a report on a case, and even for making a *post mortem* examination. This practice leads to many unsatisfactory results, and is, in fact, holding an inquest in private instead of in public, as the law expressly states it should be, and that the evidence should be taken on oath. We quite agree with "Fair Play" that the services and opinions of professional men are frequently obtained gratis, and frequently without thanks. This should not be, and it is a duty we owe not only to ourselves, but to our professional brethren, to maintain the honour and dignity of our calling by demanding just remuneration for services rendered.

MEDICAL REFEREES OF ACCIDENT INSURANCE COMPANIES.

J V. writes:—I act as district referee to an accidental insurance-company, and have to see the patients of other medical men after their accidents. I always, if I know the name of the medical man, write beforehand to him, stating the

time when I propose to make my visit, and expressing my wish to meet the medical attendant, or to hear from him, "so that our reports may, as far as possible, tally," and I never pass any remarks to the patient on the treatment adopted, and refer all questions asked by him to the regular attendant.

I have had no difficulty or unpleasantness, except with one man, whose rights (if anything) I respect with the greatest punctiliousness. I have asked him to point to a single instance of interference on my part, and he is unable to do so, but says that his grievance is my seeing his patients at all, and he indignantly demands that the local agent should have the discretion as to what medical men in the neighbourhood should be regarded as worthy of credence in giving certificates for their own patients. Now, it seems to me, that this would be a much more invidious system than the present, especially where the district referee distinctly informs the patients that he only sees them on behalf of the accidental company. I should be glad of your opinion as to whether there is any real grievance in my seeing and reporting on the patients of other medical men, if I respect thoroughly all their rights. I have acted for eight or nine years, and have heard no complaint from any other medical man; and several others have distinctly told me that they can see no such grievance. It is an usual proceeding, in the case of railway-companies, to send their own medical officer, and it seems to me equally desirable in the case of an accident-company.

*** The principle laid down by "J. V." for his personal guidance when "seeing the patients of other medical men" as the district medical referee of the accident insurance-company, is, in our judgement, reasonable and just, and cannot fairly be objected to. With regard to the "system" suggested by his indignant objector, it would, in our opinion, be far more invidious and unsatisfactory than that adopted by our correspondent, under which we consider that there is not "any real grievance," or just cause for complaint on the part of the dissatisfied practitioner.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

WESTMINSTER UNION.

Dr. Joseph Rogers, the Medical Officer of the Westminster Workhouse, and Chairman of the Council of the Poor-Law Medical Officers' Association, has, we learn with much pleasure, received a highly gratifying, and at the same time well-deserved, expression of confidence from the Guardians. At the last meeting of the outgoing Board, on the 10th instant, the following resolution was unanimously adopted: "That the best thanks of the Board be, and are hereby, accorded to Dr. Joseph Rogers, the Medical Officer of the Workhouse, for the zeal and ability with which he has discharged the duties of his office during the past year, and for the confidence which the Guardians have, therefore, been able to repose in him, and which they trust he will continue to deserve from their successors."

At the election of new Guardians, those who were rejected from office at the annual election in 1884 were again nominated, but only to encounter a still more decisive expression of opinion from the ratepayers. The highest of the unsuccessful, the ex-chairman, was in a minority of 400 below the lowest successful candidate; whilst his fellow-candidates were 1,000, and even, in some instances, nearly 2,000, behind.

EXTRA FEES.

Medical Officer.—There can be no doubt that the wording of the advertisement is such as would enable our correspondent to claim all the fees allowed under the General Consolidated Orders of the Local Government Board, unless he have been induced to sign a contract with his board that the salary is to cover, or to include, all extra fees. There is, however, one feature of the advertisement to which we must direct his attention, and that is, that his appointment is only for one year. If he be desirous of continuing it, we advise most strongly that, however he objects to his treatment, he should "eat the leek quietly."

OBITUARY.

WILLIAM MARTIN COATES, F.R.C.S., late Surgeon to the Salisbury Infirmary.

The death of Mr. William Martin Coates, to which we shortly adverted in the British Medical Journal of April 4th, deprives the profession of a member who has contributed not a little to its honour and progress. Mr. Coates was the son of an army-surgeon who was attached to a hussar regiment, served with distinction throughout the Peninsular war, and, when peace came, settled down in practice at Salisbury. William Martin Coates received his medical education at St. Bartholomew's Hospital; he became a licentiate of the Society of Apothecaries in 1832, and a member of the Royal College of Surgeons in 1833; and was for some time teacher of anatomy and midwifery at the Ecole Pratique de Médecine in Paris.

Forty years ago, he was elected Surgeon to the Salisbury Infirmary, a position which he only resigned a month before his death. As surgeon to the Infirmary, Mr. Coates developed very high qualities; he acquired a remarkably keen power of diagnosis, and became a bold and rapid operator. His possession of these advantages having become generally recognised, he enjoyed, for many years before his death, an extensive consulting practice in the districts around Salisbury.

Mr. Coates's contributions to medical literature were all of a practical kind. In 1840, he wrote on the nature and treatment of talipes varus; subsequently, he published essays on *Chloroform and its Safe Administration*; on *The Treatment of Bronchocele and of Enlarged Glands by Injection of Iodine*; on *Puerperal Fever*; and on *Listerism*. He was President of the Section of Surgery at the meeting of the British Medical Association at Ryde in 1881, and delivered a very able practical address on the Operative Treatment of Hæmorrhoids; this address was published in the British Medical Journal of August 27th in that year.

Mr. Coates had found his health to be failing for the last two years, and had suffered from several severe attacks of jaundice, but continued to practise until the end of 1884; he then retired, and in February resigned his appointment as Surgeon to the Infirmary. He was then already suffering from the painful disease of the liver, probably of a malignant nature, which terminated his life on March 26th, at the age of seventy-three.

Mr. Coates leaves three sons in the profession, and a fourth is now studying at Edinburgh. He is succeeded in practice at Salisbury by two sons, Dr. F. W. Coates, Physician to the Infirmary, and Mr. Harcourt Coates, who was elected Surgeon to the Infirmary on March 28th last.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, April 13th.

Burgh Police and Health (Scotland) Bill.—This Bill was read a second time.

Tuesday, April 14th.

The Sale of Poisons Bill.—Petitions against this were presented from chemists of Oldham; from pharmaceutical and other chemists of Winchester; from the pharmaceutical chemists and registered chemists and druggists of Halifax; from Warrington; and from chemists of Boston, Leamington, Warwick, Chester, and Barnstaple.

Thursday, April 16th.

The Sale of Poisons Bill.—Petitions against this Bill were presented from pharmaceutical chemists and registered chemists and druggists of Great Yarmouth, and from Horncastle; from the Midland Counties Chemists' Association; from chemists of Bedford; from South Lincolnshire; from Leeds; and from chemists and druggists of Macclesfield.

HOUSE OF COMMONS.—Monday, April 13th.

Overpressure.—Mr. Talbot moved an Address to the Crown, praying that a larger proportion of the grant now given to public elementary schools should be allotted in the form of a fixed payment on average attendance. By this distribution of the grant, he contended that overpressure in elementary schools would be prevented.—Mr. R. Paget seconded the motion, and argued in favour of the larger portion of the grant being paid on average attendance, instead of on results.—Sir L. Playfair strongly opposed the motion, asserting that its effect would be to increase the remuneration of bad schools, and to decrease the payments for good schools. As for overpressure, there was no proof of it; and, since the passing of the Education Act, the mortality of school-children, as he showed, had considerably decreased.—Lord G. Hamilton, deprecating overpressure, gave a qualified support to the motion; while Mr. Forster thought that the education of the country had not yet arrived at that point at which the examination of individual children could be dispensed with.—Mr. Mundella maintained that there was no new departure in the Code, and no code had ever been so threshed out as this. It had received universal assent; and, whatever its defects, more thorough work was being done and better grants were being earned under it than under any previous code. In like manner, he contended, payment by results had secured good teaching, without interfering with freedom of action on the part of teachers and managers. As to overpressure, the weight of evidence was all the other way.—On a division, the motion was negatived by 117 to 53.

Tuesday, April 14th.

The Contagious Diseases Acts.—Sir A. HAYTER, in reply to a question put by Mr. Bulwer, stated that there had been an increase in the number of admissions to hospital of soldiers suffering from venereal disease in the districts formerly protected from 110 per 1,000 in 1883 to 135 per 1,000 in 1884. The return in continuation of that presented in 1884 could be given if the hon. member would move for it.—Mr. CAVENDISH BENTINCK asked whether, in the return about to be laid upon the table, the War Office would distinguish between the various forms of venereal disease, so as to show the proportions in which the soldiers had been affected during the past year.—Sir A. HAYTER replied that he would make inquiry.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology at meetings of the Board of Examiners on the 9th and 10th instant, and, when eligible, will be admitted to the pass-examination.

Messrs. J. Beadle, and J. S. Bootiman, of the Newcastle School of Medicine; G. H. Rowlands, O. T. Stephenson, C. W. Graham, A. E. Leitch, J. H. Shaw, G. W. Chaster, W. E. Livsey, and W. J. Shannon, of the Liverpool School; J. P. Williams, P. Ashworth, H. Wade, A. M. Cass, M. P. Ledward, and J. H. Wilson, of the Manchester School; G. A. Ferraby, L. Whitehead, J. W. B. Pogson, E. A. Sadler, G. T. C. Barber, and H. W. Thomas, of the Birmingham School; T. M. Stiles, G. H. Skinner, F. H. Hudson, and F. Calder, of the Bristol School; P. R. Gostling, T. H. F. Evans, A. K. Holt, E. C. Palmer, E. L. Haynes, L. W. Andrews, L. E. Jowers, T. Lissaman, T. W. Kelly, and R. A. Farrar, of St. Bartholomew's Hospital; H. J. Roper, J. A. Smith, H. Gott, C. P. Spink, W. B. Russell, and H. C. Baldwin, of the Leeds School of Medicine; O. J. McCully, and W. M. F. Nelson, of the Montreal School; P. Hehir, of the Calcutta School; P. J. Mader, of the Edinburgh School; M. M. Bird, and H. S. Collier, of St. Mary's Hospital; G. Cherry, of the Toronto School; W. Branson, and J. Stokes, of the Sheffield School; W. R. Bacot, of Charing Cross Hospital; R. W. Boyce, of University College; G. H. Pennell, of Guy's Hospital; and B. Walker, of the London Hospital.

The following passed in Anatomy only.

Messrs. L. L. Bailes, of the Newcastle-on-Tyne School; A. D. Owen, and B. Hamilton, of the Bristol School; W. M. Joyce, J. H. Clayton, J. E. Foster, of the Birmingham School; A. M. Barford, A. E. D. R. Peters, of St. Bartholomew's Hospital; J. A. Eyton-Jones, of the Liverpool School of Medicine.

The following passed in Physiology only.

Messrs. R. B. Smith, and J. W. Whitehead, of the Manchester School of Medicine.

The following gentlemen passed on the 11th instant.

Messrs. W. A. Hooton, R. Alcock, J. W. Lonsdale, F. H. Whitehead, and J. F. Woodyatt, of the Manchester School; J. H. White, E. Crompton, H. Huxley, and W. E. Hardy, of St. Bartholomew's Hospital; T. W. Robbins, of the London Hospital; F. B. Buswell, of Middlesex Hospital; G. E. Rennie, of University College; B. W. Housman, C. St. Johnston, S. Nicklin, and E. H. Snell, of the Birmingham School; F. Kerans, of the Liverpool School; J. V. W. Rutherford, of the Edinburgh School; J. J. Wheeler, W. J. Maillard, of Guy's Hospital; F. Lace, of the Bristol School; and A. Miers, of the Leeds School.

The following passed in Anatomy only.

Messrs. G. Thorpe, of the Sheffield School; A. W. Hogg, of St. Bartholomew's Hospital; A. J. Meuer, of the New York School; P. J. Spencer, of the London Hospital; H. Joslen, of Guy's Hospital.

The following gentlemen passed in Physiology only.

Messrs. H. Burland, of the Manchester School; F. S. J. Lulham, of St. Bartholomew's Hospital; E. Jones, of the London Hospital; H. E. Nicholls, of Charing Cross Hospital.

The following gentlemen passed in Anatomy and Physiology on the 13th instant.

Messrs. R. O. Bowman, J. D. Windle, D. Booth, W. L. Bentley, E. E. Smith, and A. E. Giles, of the Manchester School; R. Bird, C. S. Edwards, J. G. E. Colby, W. N. Evans, J. Rust, and T. W. Francis, of St. Bartholomew's Hospital; G. A. Robinson, of the London Hospital; H. J. Campbell, and M. J. Morgan, of Guy's Hospital; F. W. Stokes, of the Birmingham School; E. E. Kershaw, and M. P. Cooke, of Middlesex Hospital; F. Naumann, and A. W. Cooke, of Charing Cross Hospital; R. P. Brooks, of King's College; S. Weldon, and J. Wayte, of St. George's Hospital; W. S. J. Graham, of St. Mary's Hospital; T. A. Durant, of St. Thomas's Hospital.

The following gentlemen passed in Anatomy only.

Messrs. W. Rennie, of the Birmingham School; W. Mortimer, of the London Hospital.

The following gentlemen passed in Physiology only.

Messrs. F. C. Rogers, of the Manchester School; E. L. S. James, of the London Hospital; A. F. Belderbeck-Gomess, of St. George's Hospital; P. V. Dodd, of St. Bartholomew's Hospital; J. G. Modlin, of the Newcastle School of Medicine.

The following passed in Anatomy and Physiology under the combined scheme.

Messrs. O. Le M. Theobalds, W. L. Hubbard, H. H. B. MacLeod, E. A. W. Armstrong, H. A. Smith, and E. R. White, of King's College; A. W. James, W. P. Peake, and W. Woodward, of St. Bartholomew's Hospital.

The following gentlemen passed in Anatomy and Physiology on the 14th instant.

Messrs. H. C. L. Arnim, and E. May, of Charing Cross Hospital; P. G. Selby, E. T. M. Tunnicliffe, A. L. Travers, J. W. Applegate, and A. L. Bright, of St. Bartholomew's Hospital; R. J. Langley, R. V. Solly, E. C. Mahany, and H. C. Bristowe, of St. Thomas's Hospital; H. E. Drake-Brockman, B. H. Comerford, and R. S. Turton, of St. George's Hospital; J. Wigg, and J. H. E. Jarvis, of the London Hospital; H. E. Cuff, G. B. Smith, and J. D. Cruickshank, of Guy's Hospital; C. H. Fernan, of University College; H. P. Ward, of King's College; C. H. Buckley, J. P. Walker, and G. A. Berry, of the Manchester School; and W. B. Cockill, of Middlesex Hospital.

The following gentlemen passed in Anatomy only.

Messrs. M. B. Dumaresq, of the London Hospital; J. H. Gordon, of the Birmingham School; A. Boyles, of University College; A. C. Roberts, and T. O. Raw, of Guy's Hospital; T. A. Murray, of the Manchester School; and E. Dawson, of Westminster Hospital.

The following gentlemen passed in Physiology only.

Messrs. P. S. Harris, of Middlesex Hospital; W. D. Gimson, of St. Bartholomew's Hospital; L. N. Boysted, of Charing Cross Hospital; F. Elias, of University College; G. W. B. Daniell, of St. George's Hospital; G. A. Slack, of Guy's Hospital; and A. Crook, of the London Hospital.

The following gentlemen passed in Anatomy and Physiology on the 15th instant.

Messrs. J. A. Armitage, and T. H. Ward, of the Edinburgh School; J. G. Carter, of Charing Cross Hospital; W. J. Bearblock, W. Fisher, J. C. Baines, E. H. Starling, J. V. Blachford, and W. B. Darroll, of the London Hospital; E. C. Lomas, M. Bannister, H. Rhodes, and A. Baxendell, of the Manchester School; E. A. G. Dowling, F. E. Gibbens, and G. Heaton, of St. Bartholomew's Hospital; H. B. Densham, of the Bristol School; W. H. Vickery, R. F. Thomas, and C. L. Worrall, of the Middlesex Hospital; G. A. T. Bray, and R. J. Carter, of King's College; E. Deanesley, of University College; and J. T. Bays, of St. Mary's Hospital.

The following gentlemen passed in Anatomy only.

Messrs. J. D. Brown, C. W. Shaw, W. S. Holford, of St. George's Hospital; H. Birkenhead, of the Manchester School; T. E. Pallett, of Westminster Hospital; W. W. Williams, of University College; J. J. Garmany, of the Melbourne School; and J. E. Brown, of the Toronto School.

The following passed in Physiology only.

Messrs. W. J. Midelton, and H. F. Whitchurch, of St. Bartholomew's Hospital; J. Wilkins, of the London Hospital; M. E. H. Wale, of St. George's Hospital; J. W. Cree, of the Middlesex Hospital; H. F. Cartmel, of the Manchester School; N. Davis, of the Newcastle-upon-Tyne School; and W. Jones, of University College.

Two candidates were referred in both subjects, four in Anatomy, and five in Physiology.

MEDICAL VACANCIES.

The following vacancies are announced.

BELMULLET UNION.—Medical Officer. Knocknalower Dispensary. Salary, £110 per annum and fees. Applications to Dominick O'Donnell, Honorary Secretary, Kilcommon Lodge. Election on April 27th.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £170 per annum. Applications by April 21st.

BRADFORD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.—Assistant Medical Officer and Dispenser. Salary, £120 per annum. Applications by April 30th.

CAMBRIDGE FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Medical Officer. Salary, £210 per annum. Applications to W. P. Littlechild, Vine Cottage, Queen's Lane, Cambridge, by April 25th.

CELBRIDGE UNION.—Medical Officer, Workhouse. Salary, £100 per annum, and £15 yearly as Consulting Sanitary Officer. Applications to S. Manning, Clerk of Union. Election on April 29th.

CITY OF LONDON LUNATIC ASYLUM, Stone, near Dartford, Kent.—Assistant Medical Officer. Salary, £120 per annum. Applications by April 30th.

COOMBE LYING-IN HOSPITAL, Dublin.—Assistant-Physician. Applications to Dr. S. R. Mason, 92, Harcourt Street, Dublin.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—House-Surgeon. Salary, £100 per annum. Applications by April 18th.

DONEGAL UNION.—Medical Officer. Laghey Dispensary. Salary, £120 per annum and fees. Applications to William Hammond, Honorary Secretary. Election on April 20th.

GENERAL INFIRMARY, Leeds.—One House-Physician and Two House-Surgeons. Applications to A. W. Mayo Robson, Hillary Place, Leeds, by April 28th.

HACKNEY WORKHOUSE.—Assistant Medical Superintendent. Salary, £120 per annum, with residence and rations.

HARTLEPOOLS FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary, £130 per annum. Applications to T. Tweddell, Commercial Terrace, West Hartlepool.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistants. Applications by April 18th.

LEEDS GENERAL INFIRMARY.—One House-Physician and two House-Surgeons. Application to Mr. A. W. Mayo Robson, Hillary Place, Leeds, by April 28th.

LIVERPOOL DISPENSARIES.—Two Assistant House-Surgeons. Salary, £108 per annum. Applications by April 27th.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £70 per annum. Applications to the Chairman of the House-Committee by April 25th.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—House-Surgeon. Salary, £50 per annum. Applications by April 28th.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W. — House-Surgeon. Salary, £80 per annum. Applications by April 22nd.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—Physician. Applications by April 30th.

PAROCHIAL BOARD OF PENNYGOWN AND TOROSAY.—Medical Officer. Salary, £100 per annum. Applications to Alex. Macdougall, Inspector of Poor, Auchnacraig by Oban.

QUEEN'S HOSPITAL, Birmingham.—Resident Surgeon. Salary, £50 per annum. Applications by April 25th.

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, Wigan.—Junior House-Surgeon. Salary, £80 per annum. Applications by April 27th.

STRABANE UNION.—Medical Officer. Newtownstewart Dispensary. Applications to Rev. Leslie Lyle, Honorary Secretary. Election on April 22nd.

WEST LONDON HOSPITAL, Hammersmith Road, W.- House-Physician and House-Surgeon. Applications by April 23rd.

MEDICAL APPOINTMENTS.

ABBOTT, C. E., M.R.C.S.E., L.K.Q.C.P., reappointed Medical Officer of Health for the Braintree Rural Sanitary District.

BRUNTON, T. Lauder, M.D., appointed Senior Physician to the Paddington Green Children's Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTHS.

BLUMER.—On April 13th, at 12, North Bridge Street, Sunderland, the wife of W. Percy Blumer, F.R.C.S.E., of a daughter.

DUKE.—On April 10th, at Locksley, Freshwater, Isle of Wight, the wife of Edgar Duke, M.R.C.S.Eng., L.S.A.Lond., of a daughter.

DUNCAN.—On April 11th, at 6, Harley Street, Cavendish Square, W., the wife of William A. Duncan, M.D., F.R.C.S.Eng., of a daughter.

LYON.—At Manor House, Houghton-le-Spring, on April 11th, the wife of Walter Lyon, M.A., M.D., of a daughter.

MARRIAGE.

TIRARD—BELOE.—On April 8th, at Holton St. Peter, by the Rev. Henry Ryder Ware, uncle of the bride, Nestor Isidore Charles Tirard, M.D.Lond., Professor of Materia Medica, King's College, London, to Helen Mary, second daughter of the Rev. Robert Seppings Beloe, Rector of Holton St. Peter, Suffolk.

DEATHS.

DREW.—On April 4th, at his residence, Kensington, Charles Wallace Drew, elder son of the late Charles Drew, Esq., 3rd Extra Madras Regiment.

MARSHALL.—On April 7th, suddenly, at her residence, 18, St. Andrew's Place, Bradford, Yorkshire, Eliza Squance, the wife of T. Harrison Marshall, M.R.C.S.Eng., and L.A.C.Lond., aged 41 years, daughter of the late Rev. Andrew Lumsden Mitchell, of Brigg, Lincolnshire.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Mitchell Banks: On the Treatment of Gangrenous Intestine in Strangulated Hernia, with a Successful Case of Resection of the Small Bowel. Dr. Herbert Snow: On the Free Use of Caustic Potash in the Treatment of Cancer of the Cervix Uteri.

TUESDAY.—Pathological Society of London, 8.30 P.M. Mr. Lane: Three Cases of Displacement of the Lumbar Vertebræ. Dr. Turner: 1. Tumours in Adrenals (card); 2. Suppuration of Simple Fracture of the Hyoid Bone (card); Dr. Goodhart, for Dr. Handfield Jones: The Cerebral Arteries in States of Congestion. Dr. Willcocks: A Case of Hypospadias. Dr. Percy Kidd: Destructive Disease of the Lung. Dr. Allchin: Acute Ulceration of the Colon. Dr. Silcock: Entero-colitis (card). Dr. Goodhart: Specimens of Enteritis and Colitis (card). Mr. Battle: Cyst growing from the Wall of the Intestine. Mr. J. Hutchinson, jun.: Hydrocele of the Cord. Mr. Bruce Clarke: Two Cases of Gastrostomy. Dr. Hebb: Aortic Valvulitis, with Embolism of a Coronary Artery and Middle Cerebral (card). Mr. Shattock: Fracture of the Superior Cornua of the Thyroid Cartilage (card). Dr. Chaffey: Solitary Kidney (Congenital) (card). Dr. Hale White: 1. Enormous Hypertrophy of the Heart (card); 2. Large Triple Phosphatic Renal Calculus (card). Dr. Pitt: 1. Sarcoma of Petrous Bone, Cerebellum, and Naso-pharynx (card); 2. Syphilitic Ulceration of Larynx and Trachea (card). Dr. Hadden: 1. Broad Ligament Cyst containing Coagulated Albumen (card); 2. Ulceration of Intestine originating in Hæmorrhage (card).

WEDNESDAY.—Hunterian Society. Mr. Corner will open a Discussion On the Means of Preventing the Local Spread of Cholera. Mr. Rivington will communicate Reports of Surgical Cases.—British Gynæcological Society, 8.30 P.M. Specimens by Dr. More Madden (Dublin), Mr. Reeves, and Dr. Fancourt Barnes. Dr. More Madden: On Some Points in the Treatment of Fibromyomata. Dr. Chalmers: Gangrene of the Vulva.

THURSDAY.—Parkes Museum of Hygiene, 8 P.M. Sir Spencer Wells, Bart.: On Cremation.

FRIDAY.—Clinical Society of London. Dr. Sidney Phillips: A Case of Sporadic Cretinism. Mr. Walsham: Ligature of the External Iliac Artery with two Kangaroo-tail Ligatures, and Division of the Artery between them; Suppuration of the Sac; Ultimate Recovery. Dr. Dickinson and Mr. Rouse: A Case of Renal Lithotomy. Dr. Hadden: A Case of Obstruction of Arteries and Veins extending over many Years. Living Specimens.—Mr. J. R. Lunn: Four Cases of Osteitis Deformans. Mr. R. W. Parker: A Case of Thyrotomy with Preservation of Voice. Dr. Stephen Mackenzie: 1. A Case of Osteitis Deformans; 2. A Case of Hereditary Multiple Tumours.—Quekett Microscopical Club, 8 P.M. Papers by Dr. Burch and Mr. F. Cheshire.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M. —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W.; 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

Whooping-cough.

SIR,—Would you kindly insert the following questions to assist me in obtaining information more extensive than my own concerning the phenomena of whooping-cough, a subject which I am at present studying? Might I ask any of your readers, who are so disposed, to communicate with me directly, instead of through the medium of your paper?

1. Are the paroxysms more frequent always at night, whether the patient sleeps or not?
2. At what hours of the night are the paroxysms most apt to occur?
3. What relation do they bear to the sleep of the child?—that is, during profound sleep or otherwise.
4. What circumstances appear to induce them?—Yours truly,

Belford, Northumberland. C. CLARK BURMAN, L.R.C.P. and S.Ed.

A Warning.

SIR,—I learn that an impostor is going about the country bearing a card and recommendation from me. He has victimised members of the profession already by representing himself as a doctor's son. Let me warn your readers against anyone showing a card in the name of E. PAGET THURSTAN, M.D.Cantab.

17, Park Road, Southborough.

A Consulting-room Thief.

SIR,—About 5 o'clock on Thursday afternoon, April 2nd, a broad shouldered man, from 40 to 50 years of age, with fair sandy whiskers, called at my house under the pretence of seeking information about a Mrs. Ward, and representing himself as an agent of Messrs. Pollaky. He was permitted, in my absence, to go into the consulting-room to write a letter to me. He availed himself of the opportunity to steal a large brass syringe lying on my table, although my servant never left him alone a moment. My servant gathered he had paid visits to other medical men near, which, on further inquiry, I found to be the case; but, happily, in each instance, his predatory instincts were defeated.

I gave full information to the police, who discovered my syringe the next morning at a pawnbroker's about a mile distant. At the same time, he pawned a square marble clock, evidently the results of his day's labour.

I have reason to hope, from certain circumstances, that his career will not be a long one; but, in the meanwhile, I am desirous of warning my professional brethren, so that they may be on their guard against such a character. He wears a dark Chesterfield great coat, with billycock hat, and light trousers; and the tale he tells is generally a little involved and rather incoherent.—Yours faithfully, J. ROCHE LYNCH.

8, Boyne Terrace, Holland Park, W.

Hair Falling Off.

SIR,—A young lady friend of mine, who enjoys perfect health, is much distressed because her hair is falling off in alarming quantities. Would any member kindly suggest what remedies have been found useful in such cases? Some of the patent "hair-restorers" have been tried, but without any result.—I am, yours faithfully, A MEMBER.

Permanganate of Potash.

SIR,—In dispensing permanganate of potash for internal administration, what necessity is there to use China clay as an excipient? I presume the reason for so doing is to avoid the use of organic matter, which might rob the salt of some of its oxygen during the preparation; but, after the pills are swallowed, this robbery must take place as soon as they are softened by the fluids in the stomach or bowels. Consequently, the value of the drug cannot depend on the salt as a permanganate, for it must be absorbed as, and its activity must depend on, some other salt of the metal. I do not see, therefore, why the drug cannot be dispensed as other pills are; or, if there be any fear of spontaneous combustion, a less oxidised preparation of manganese, such as the precipitated oxide, might be used.—Yours, etc., F. W. JORDAN.

Discoloration by Nitrate of Silver.

SIR,—In answer to Mr. Rayley Owen's question as to how long one-fourth of a grain of nitrate of silver, twice a day, may be given without bringing on the typical discoloration, I beg to state that Riemer (*Archiv für Heilkunde*, p. 296, Leipzig, 1875) has seen a case of tabes where a patient took 5,672 pills, and the first traces of argyria appeared after twelve months' use, with 2,900 pills, containing 1,740 grains of the nitrate, or 1,104 grains of metallic silver. Argyria, once established, is incurable, the silver being deposited, not in the epidermis, but in the corium. Iodide of potassium, and subsulphite of sodium, which have been recommended for internal use to eliminate the deposit, have not the least effect. It is therefore desirable, when prescribing this drug, to stop short of a quantity which would cause discoloration.

Krahmer (Theodor Husemann's *Handbuch der Gesammten-Arzneimittellehre*, vol. i, p. 464, second edition. Berlin, 1883) has shown that the minimum quantity of the nitrate which will produce argyria is 450 grains. The highest amount given should, therefore, be under 300 grains. Louisville, Ollivier, and Friedreich assert that albuminuria is apt to be induced by prolonged administration of this drug. The urine should, therefore, be examined from time to time; although, according to Althaus, who has used it very frequently, its occurrence must be exceptional, as he has never found a trace of albumen in the urine under these circumstances. The latter author gives a full and detailed account as to its mode of administration in his last work on *Sclerosis of the Spinal Cord*, p. 306, from which instructive work some of my quotations are taken. He advises the nitrate to be made into pills with argilla, or bolus alba (silicate of alumina), which cannot decompose it, as all organic substances reduce nitrate of silver, whether in substance or in solution; pills made with liquorice, or crumb of bread, etc., are, therefore, practically inert. Martindale has recently recommended kaoline-ointment as an excipient. Kaoline is native silicate of alumina which has been purified from free silica and undecomposed fespar, and is made up into an ointment with equal parts of vaseline and paraffin.—Yours faithfully, CHARLES JAMES WORTS, M.R.C.S.

Fordham Lodge, Essex.

Dosage of Cucaine.

MR. HENRY W. J. ELLIS.—One grain of hydrochlorate of cucaine may be dissolved in five to fifty parts of water, and applied to the mucous membrane to allay pain or deaden sensibility, or pure cucaine may be dissolved in olive oil or lard, and smeared on any painful part. The dose of the hydrochlorate of cucaine may be one-thirtieth of a grain to two grains.

COMMUNICATIONS, LETTERS, etc., have been received from:

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BOOKS, ETC., RECEIVED.

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Bournemouth and Its Surroundings. By Horace Dobell, M.D. London: Smith Elder, and Co. 1885.

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REPORTS
TO THE
SCIENTIFIC GRANTS COMMITTEE
OF THE
BRITISH MEDICAL ASSOCIATION.

REPORT ON
THE CHOLERA-BACILLUS.

By W. WATSON CHEYNE, M.B., F.R.C.S.,
Assistant-Surgeon to King's College Hospital, etc.; Research Scholar of the British Medical Association.

In view of the great importance of the etiology of cholera, I have, for some months past, been engaged in observations on that subject; and, during the epidemic of Asiatic cholera in Paris, I went over there, and made some investigations on the bacteria present in the dejecta. The present paper gives the results of these investigations; and to the report of my work, and the conclusions at which I have arrived, I have added an appendix, in which reference will be made to the observations of others, more especially to those of the English Commission.

In the study of every disease supposed to be caused by bacteria, three distinct lines of investigation must be followed. In the first place, the seat of the disease (blood, tissues, etc.) must be thoroughly investigated, with the view of discovering what micro-organisms are constantly present; the characters of these micro-organisms must be studied, not only their microscopical characters, but also their behaviour on cultivation in various media; and the bacteria must also be separated by cultivation from other morbid products. In the second place, it must be determined whether the bacteria that are constantly present are ever found in other diseases of the same species of animal, or under circumstances in which they probably ought, if they are the true cause, to have produced the disease, and have not done so. And, in the third place, it must be ascertained, by experiment on suitable animals, whether the organism so studied can reproduce the original disease.

In two very important points, cholera presents differences from most of the diseases which have as yet been investigated, and found to be dependent for their origin on certain bacteria. In the first place, in most of the diseases referred to, the cause is situated in the blood or tissues, and we have only one particular form of bacterium present, which is easily isolated and studied. In the case of cholera, the cause is apparently situated in the intestinal canal; and, if there is any blood-affection at all, and there seems great reason to believe that there is, it is probably due to the presence of a chemical poison produced by this cause. Now, in the intestinal canal, there are normally large numbers of bacteria of different kinds; and one must, therefore, find great difficulty in the first instance in picking out the organism specially associated with the disease. In the second place, cholera apparently only attacks man; and, therefore, it is almost impossible to verify, by actual experiment, whether the particular organism fixed upon is, or is not, causally connected with the malady. However, we now know such a large number of bacteric diseases, that, even without this last proof, we are warranted by analogy in coming to a conclusion as to the causal or non-causal connection between cholera and any particular organism. In every case, where a definite form of organism has been discovered, in large numbers, in the diseased parts of an animal, and where this organism has never been found associated with other diseases, or normally present in the same animal, it has been found by experiment to be the cause of the disease. Fortunately, in the case of cholera, it seems as if, under certain circumstances, a somewhat similar affection can be induced in certain animals, and thus the foregoing difficulty is much diminished.

Now, the following seems to me to be the line of investigation to follow in the case of cholera, from the bacterial point of view; it is, in fact, practically the line which was followed by Dr. Koch. In the first place, the blood and tissues would be carefully searched for bacteria, but attention would be more especially paid to the contents of the intestine. In every case examined, all the different forms of micro-organisms present in the evacuations would be carefully separated and studied. This would be done in a large number of cases, and then those forms only occasionally present would be rejected, and attention directed to those constantly present. If there were more than one of these, an important point would be to note which were generally present in greatest numbers. Their relation to the tissue of the intestinal wall would also be noted; but this is of only secondary importance. The next point would be to determine which of these were only found in cholera, and which were found in other affections, as simple diarrhœa, dysentery, etc., or under circumstances in which Asiatic cholera was out of the question. Then the effects of these organisms on animals must be studied, and any facts observed which relate to their causal or non-causal connection with cholera. That there are numerous other points to be investigated is, of course, evident to all, but the foregoing was what I proposed to do in the first instance, if ever I had a suitable opportunity. I am aware that, owing to want of this opportunity, the following research falls far short of the ideal; nevertheless, the facts narrated are important, taken in connection with the researches of others, and they are sufficient to enable me to discuss this interesting topic from personal knowledge.

Before going on to the consideration of these various points, it is important, and I think it may interest the members of the Association, to point out here how one distinguishes different bacteria from one another, as the method of distinction is not sufficiently appreciated in this country. By the mere form, it is quite impossible to distinguish any one variety of bacterium from others of which the form is somewhat similar. Thus the micrococci are all round bodies, and, except for slight differences in size or grouping—often quite inappreciable—they closely resemble each other; and it would, therefore, be quite impossible to tell one species or variety from another, if the form alone were taken into account. And the same holds good with the bacilli and the spirilla. Indeed, taking into account the great variations in size and form shown by the same organism when grown in different media, it would be rash, and would certainly lead to error, if one attempted to determine the kind in any given case by microscopic appearance alone.

Further information may be obtained in some cases by the chemical reaction of the organism, but this is only applicable as the sole means of distinction in the case of the bacilli of tubercle and leprosy.[1] Thus the bacilli of tubercle and leprosy are distinguishable from all other known bacilli by the fact that, when they are stained in the first instance in a solution of fuchsin in anilin-water, and afterwards washed with dilute nitric acid, and then immersed in a contrast colour, for example, methylen-blue, they retain the fuchsin, while other forms of bacteria treated in a similar manner lose the fuchsin, and generally take up the contrast-stain. One can therefore say that, if red stained bacilli be present in a specimen treated in this manner, one has to do with the bacilli either of tubercle or of leprosy. These organisms can be distinguished from each other by a further chemical test; namely, if a mixture of tubercle-bacilli and ordinary bacteria be stained in a watery solution of methyl-violet, washed in water, alcohol, etc., the tubercle-bacilli lose the stain, while the leprosy-bacilli, treated in a similar manner, retain it. Hence, reverting to the case above supposed, we can ascertain whether the bacilli seen were those of tubercle or leprosy, by staining another specimen in a watery solution of methyl-violet. In this instance, the distinction is made not by the form, but by the chemical reactions, of the organism.

For the determination of other forms of bacteria, recourse must be had to various points in their life-history, more especially their mode of growth, the temperature at which they grow, the medium in which they flourish best, etc. Without entering at length into the materials employed in the cultivation of bacteria, I may state at once, what is now an acknowledged fact, that the greatest amount of information is to be derived from cultivation in meat-infusion rendered solid by the addition of gelatine. This material was first introduced with the view of enabling one to carry on pure cultivations of various bacteria, on the principle that, in a solid medium, bacteria can only grow where they fall or are planted, and that thus the presence of accidental contamination could be readily recognised, and the growth which is being studied be transferred to a fresh medium before it has become mixed with the extraneous organisms. It was soon found, however, that various organisms growing on this solid material could be readily distinguished from each other, even by the naked eye, by the form assumed by their colonies, by their effects on the gelatine (liquefaction, etc.), and by other characteristics; and thus, perhaps, the most important use to which this material is now put, is the distinction of different forms of organisms from one another. For this purpose, the gelatine is employed in three different ways.

[1] Apparently the bacillus of syphilis can also be distinguished by chemical reaction. See Lustgarten's paper in the *Lancet*, March, 1885.

The first we may call test-tube cultivations. In this method, a certain quantity of the gelatinised material is introduced, while still liquid, into a number of sterilised test-tubes plugged with cotton-wool; and, after the material has been sterilised by repeated boiling, it is allowed to solidify with the test-tube in a vertical position, and kept for a few days to see if it be pure. A long fine platinum wire, stuck into the end of a glass-rod, is sterilised by heat, and dipped into the material containing the pure cultivation of the organism. The cotton-wool plug being removed, with various precautions to prevent the access of dust into the tube, the infected wire is plunged into the jelly down to the bottom of the tube. It is then rapidly withdrawn, the wool-plug is re-inserted, and the tube placed at a suitable temperature. By the appearance of the growth, both on the surface of the jelly and along the tract of the wire, and by its effects on the jelly, much information may be derived as to the species under observation. Thus, one organism may grow both on the surface of the jelly and along the needle-tract; another, though microscopically similar, may grow along the tract of the wire, and not on the surface; a third may liquefy the gelatine, and so forth.

The second method we may term slide-cultivations. Here a number of ordinary 3 × 1 microscopic slides are sterilised by heat, placed on a series of glass trays, in a dish containing moist blotting-paper, and covered by a bell-jar. On these slides some liquefied jelly is poured, and allowed to solidify. The wire, charged as before, is then rapidly drawn over several parts of the surface of the jelly. Bacteria are thus sown at various points along the tracts, and, growing there, produce colonies, the appearance of which can be studied under the microscope with a low power.

The third method, which may be called glass plate cultivations, is that which is also used for the examination of water, and for the separation of different forms of bacteria from one another. In this method, a minute quantity of the material containing bacteria is introduced into a tube of jelly, rendered liquid by keeping it for a few minutes at the body-temperature. The liquid jelly is then well shaken, so as to diffuse the bacteria throughout it, and is poured out on sterilised glass plates kept in a dish, arranged as for the last method. The jelly solidifies, and the bacteria, having been caught at various parts, grow there and form colonies, which may be readily recognised under the microscope with a low power. This mode of growth in colonies on glass plates is one of the best means of distinguishing different species of bacteria from one another. The exact form and size of the colonies depends to a considerable extent on the amount of gelatine used, although the general type remains the same. Hence 10 per cent of gelatine is now always employed, in order to have uniform results.

Further information as to difference in kind may in many cases be obtained by growing the organisms on the cut surface of cooked potatoes, in milk, in meat-infusion, etc. And then, again, by inoculation of animals, different results will be obtained with different bacteria.

Hence, in coming to a conclusion as to the nature of any given bacterium, its various characteristics, its form, its mode of growth, and its effects on animals, must be taken into consideration. Reliance on mere form alone, or, indeed, on any single characteristic, is not in any case satisfactory, and will in all probability lead to error. In the case of Koch's cholera-bacillus this is especially important, as a number of bacilli are now known which resemble it very closely in microscopic appearances. Hence, when the cholera-bacillus is spoken of, an organism is meant which, along with certain morphological characters, presents also certain peculiarities on cultivation on various materials.

I may now mention the cases of Asiatic cholera which I had the opportunity of examining in Paris, in November of last year. That they are very few in number, is due chiefly to the fact that the epidemic subsided very suddenly, and, though I timed my departure so as to be there at the height of the epidemic, I arrived quite at the end; but partly to the difficulty which I experienced in getting access to the cases in the hospitals. My best thanks are due to Dr. Paul Haensell, director of the laboratory at the Quinze-vingt Ophthalmic Hospital, and to the authorities of that hospital, for kindly placing the laboratory at my complete disposal.

In five cases I obtained dejecta from living patients, all males. The dejecta were received into clean bottles, and immediately taken to the laboratory, where a number of glass-plate cultivations were at once prepared, as well as cover-glasses for microscopic examination.

1. Case ill 48 hours.
2. Case ill 24 hours.
3. Case ill 4 days, improving.
4. Case ill about 2 days, moribund.
5. Case ill 3 days, expected to recover.

In three instances I was able to obtain material from *post mortem* examinations. In each case portions of the intestine, more especially towards the lower end of the ileum, were ligatured in two places, and the enclosed pieces of gut taken to the laboratory in clean stoppered bottles, where they were opened, and cultivations made, and specimens prepared for microscopical examination. The portions of intestine were then put to harden in absolute alcohol.

6. Case ill about 2 days. *Post mortem* examination 12 hours after death.
7. Case ill about four days. *Post mortem* examination about 1½ hours after death.
8. Case ill about two days. *Post mortem* examination very shortly after death (within an hour). From this case I took specimens of the blood and internal organs as well.

In a ninth case, I obtained dejecta from a living patient, who had just been brought into the cholera-wards, supposed to be suffering from cholera; but when he was seen by the physician, it was pronounced not to be a case of cholera at all, and he was removed from the cholera-wards.

Results of the examination of these cases. On account of the small number of the cases at my disposal, I devoted my attention chiefly to Koch's cholera-bacilli; indeed, as far as I saw, they were the only organisms new to me which were constantly present. I kept and brought back cultivations of the other organisms which I found, and which were various straight bacilli, apparently of four kinds, and a few micrococci; but they seemed to be the same as those ordinarily found in the intestine.

Of the methods of examination before referred to, cultivation in nutrient jelly is the only one which yields satisfactory results in ascertaining what kinds of organisms are present, and in what proportionate numbers. Of the three methods before described, the glass-plate cultivations are the only ones which can be usefully employed in the first instance. The principle here is that the bacteria, being diffused through the fluid jelly, are separated from each other, and, being caught at various points when solidification occurs, each bacterium grows into a colony, which ultimately becomes visible to the naked eye, or with a low power of the microscope. If the experiment be successfully and properly performed, each colony will therefore represent a single bacterium; and, by counting the number of different colonies, one can arrive at an estimate of the relative numbers of different bacteria present in the original material.[2] In order to get a satisfactory result, the number of bacteria on each plate must not be great, otherwise there will be too many colonies, which will rapidly coalesce one with the other. The difficulty with dejecta is that, on account of the enormous numbers of bacteria present, it is difficult to introduce a small enough quantity into a tube. In order to effect this, I prepared a number of small sterilised flasks, plugged with cotton-wool, and containing distilled water, sterilised by repeated boiling. A minute quantity of the dejecta was then introduced into this by means of a heated platinum-wire, the cotton-wool plug replaced, and the whole thoroughly shaken so as to diffuse the bacteria through it. Then, by means of a sterilised pipette, a drop was taken and put into a tube of liquefied jelly, and this was repeated in a number of tubes. These tubes were then thoroughly shaken up, their contents poured out on glass plates, as before described, and allowed to solidify. These vessels were afterwards kept at a temperature of about 20° C. (68° F.) In this manner a limited number of bacteria were obtained on each plate, and a careful study could be made of them. Another method, which I also employed in all cases, but which is not so good, was to inoculate a tube of jelly directly with the dejecta, liquefy it, shake it up, and pour one or two drops from the first tube into a second; shake up the second, pour a few drops from it into a third; repeat the process with a third, and a fourth, etc. Here the plates from the first two tubes were generally useless, on account of the large numbers of bacteria present, but the result in the third and other tubes was good.

The material employed was a meat-infusion containing 1 to 3 per cent. peptone, 10 per cent. gelatine, and one-tenth per cent. chloride of sodium, and rendered as nearly neutral as possible by car-

[2] It is of course evident that there is room for fallacy in estimation by cultivation as well as in estimation by the microscope, because there may be bacteria present in the dejecta which will not grow in the ordinary nutrient jelly. Nevertheless, this fallacy is not nearly so serious as the fallacies of microscopical observation alone, because by far the greater majority of bacteria will grow readily in the nutrient jelly at a temperature of 20° C. And farther, as the cholera-bacilli grow very readily, one gets a much better idea of the myriads of these organisms which are present in cholera-dejecta, than one does by the use of the microscope alone.

bonate of sodium. It is a very difficult matter exactly to neutralise this material; but Koch thinks that it is better to be slightly alkaline than slightly acid. I have not found that the exact reaction matters much, so long as the greater part of the acid is removed. My aim always is to get the material as nearly neutral as possible.

The temperature is also of considerable importance. It must not be too high, otherwise the gelatine will melt; nor too low, otherwise the cholera-bacilli will not grow. An average temperature of from 18° to 20° Cent. (64.4° to 68° Fahr.) is the best.

Along with the results obtained by cultivation, I will give the results of the microscopic examination of the material. A thin layer of the dejecta, or contents of the intestine, was spread on cover-glasses, and dried at the same time that the cultivations were made. These cover-glasses, if kept dry, remain good apparently for an indefinite length of time, and can be stained and examined at leisure. In Paris, the preparation and examination of the cultivations, and the separation of the different bacteria from one another, took up so much time that I was unable to examine these cover-glasses till some weeks later. The first estimation, and, as it turns out, the most reliable estimation, of the number and kinds of bacteria present, was made by cultivation from, and not by microscopical examination of, the dejecta.

No. 1. The dejecta contained a large amount of blood. On cultivation, the bacteria present were not numerous, as compared with the other cases. About 60 per cent. of the colonies which developed were colonies of Koch's comma-bacilli. On microscopic examination, large numbers of blood-corpuscles were seen, and only a few bacteria, among which only very few were well marked comma-bacilli.

No. 2. On cultivation, about 95 per cent. of the colonies which developed were Koch's comma-bacilli, or, as we may hereafter call them shortly, cholera-bacilli. This was the case in every plate, there being very few colonies of other kinds of bacteria. The dejecta in this case, then, contained almost a pure cultivation of cholera-bacilli. The result, on microscopic examination, was, however, by no means so definite. Certainly not half the bacilli were readily recognisable as comma-bacilli; but there were numerous slender organisms present, many of which, on close examination, were seen to be slightly curved; but, without the culture-test, it would have been quite impossible to decide whether or not these were cholera-bacilli.

No. 3. On cultivation, the majority of the colonies consisted of other bacilli than cholera-bacilli. I estimate that not more than 20 per cent. were cholera-bacilli. On microscopic examination, only a few comma-shaped organisms and spirilla were seen.

No. 4. As in No. 1, the dejecta contained a large amount of blood, and the result was very much the same.

No. 5. On cultivation, about fifty per cent. of the colonies were cholera-bacilli. Microscopical examination showed a smaller proportion of definitely comma-shaped organisms.

No. 6. In this and the two following cases the contents of the lower part of the small intestine were examined, and in this case and in No. 8 the contents of about the middle part of the jejunum were also taken. On cultivation from both situations, large numbers of cholera-bacilli (between eighty and ninety per cent.) were found to be present. From the microscopic examination, the estimate of distinctly comma-shaped organisms would have been very much less, but there were numbers of small bacilli, many of them showing a slight curve, but many in the same groups in which the curve was hardly or not at all noticeable, though they resembled the small curved ones in size and general appearance. In fact, the picture was very much like Fig. 1,



Fig. 1.—Cholera-bacilli which have been growing for four hours in meat-infusion, kept at the temperature of the human body.

and I have now little doubt that these smaller organisms were only rapidly growing cholera-bacilli.

No. 7. Cultivation showed not more than thirty or forty per cent. of cholera-bacilli. The great majority of the other organisms present were micrococci and not bacilli, as was usual in the other cases.

No. 8. The results of cultivation and microscopical examination of the contents of the intestine were almost identical with that of No. 6.

In the ninth case I failed entirely in finding any cholera-bacilli.

It will be evident, from a comparison of the results obtained in the foregoing cases by cultivation and by the microscope, that what I have before been saying as to the difficulty of distinguishing bacteria by the microscope alone is confirmed in this instance. Indeed, in the case of the cholera-bacilli, the difficulty is especially great. For, on the one hand, all comma-shaped organisms are not cholera-bacilli; we now know several curved organisms, having a very similar microscopic appearance, which it would be impossible to pick out from cholera-bacilli in a mixture of bacteria: such are Finkler's comma-bacilli, Flügge's cheese-bacilli, and others, which will be presently referred to. On the other hand, the cholera-bacilli vary very much in size and curvature, and, when growing rapidly, are small and very slightly curved, or indeed quite straight. Hence, here as elsewhere, the cultivation-characters must be mainly depended on.

Sections of the walls of the intestine were also made and stained with various aniline dyes, but I have found very few comma-shaped bacilli in them. When I spoke at the debate on cholera at the Royal Medical and Chirurgical Society in March, I had failed to find any; but since that time I have made a number of attempts to stain them, and I have been able to see a few faintly stained in the tissue in Case No. 8, after immersion of the sections in a saturated watery solution of fuchsin for twenty-four hours. I would not lay stress on this point, for two reasons. In the first place, Dr. Koch found the bacilli in the tissues, especially in the neighbourhood of Peyer's patches, at the lower part of the ileum. Now, after hardening the tissues for some months in alcohol, I have found it very difficult to pick out Peyer's patches. In the second place, it is always much more difficult to stain bacteria in tissues than to stain them in cover-glass preparations. For the tissue has to be passed through various reagents, with the view of removing the excess of stain, and with the intention of leaving only the nuclei and the bacteria coloured. And during these processes the stain is very apt to be washed out of the bacteria as well. Various species of bacteria differ very much in the way in which they hold the stain under these circumstances, so that methods that will stain, for instance, the anthrax-bacilli admirably, will act very imperfectly, or not at all, when applied to tissue containing typhoid bacilli. Now, apparently the cholera-bacilli belong to the class which are apt to lose their colour in the various reagents in which the sections must be immersed; and, in any case, they are not deeply stained, as I can testify from observation of Dr. Koch's specimens. In presence, then, of the fact that Dr. Koch and others have found these bacilli in the intestinal wall in many cases, I am not prepared to say that where I did not find them they were not present. It is to Dr. Koch that we owe most of our knowledge as to staining bacteria, and it is, of course, quite probable that he may succeed where others fail. In any case, the presence or absence of these organisms in the intestinal wall does not, I think, affect the question as to the causal relation between these organisms and cholera.

[*To be continued.*]

TRANSVERSE ANTERIOR CLUB-FOOT.—M. Mollière, of Lyons, has described under this name a deformation of the foot in which the first phalanx of one or several toes is in a position of forced extension, while the second and third are flexed. The arch formed by the heads of the metatarsal bones is flattened in consequence of the relaxation of the ligaments, and the patients complain of much pain after exertion. The symptoms are relieved by the use of an India-rubber pad placed under the head of the second metatarsal bone, and the toes soon resume their normal position, but the treatment must be continued during several months.

RECENT FRACTURE OF THE PATELLA TREATED BY SUTURE OF THE FRAGMENTS.—A man, aged 58, having been admitted into the Liége Hospital, for a transverse fracture of the patella with considerable displacement of the fragments and abundant effusion into the joint, Professor von Winiwarter decided to perform the operation on the day following the accident. A longitudinal incision was made into the joint, and it was then seen that the space between the fragments was occupied by hard adherent clots, which had to be carefully removed. The joint was washed out with a 2½ per cent. solution of carbolic acid, and the fragments united by two wire sutures. A drainage-tube having been passed through small openings on both sides of the patella, the wound was dressed antiseptically, and the limb placed in a plaster-of-Paris splint. No accident followed the operation, and on the seventeenth day the patient was able to walk about with crutches. The wound had healed by first intention, and the wire sutures had become encysted. Professor von Winiwarter thinks that in young people fractures of the patella with moderate displacement of the fragments are to be treated by the ordinary means, but that, under less favourable circumstances, there is great advantage in uniting the fragments by wire sutures.

LECTURES
ON
THE COMPRESSED AIR BATH AND ITS USES IN THE TREATMENT OF DISEASE.

By C. THEODORE WILLIAMS, M.A., M.D., F.R.C.P.,
Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

Lecture II.

Let us now consider the effect on a man in ordinary health of a compressed air-bath; the pressure not exceeding ten pounds, and the bath occupying two hours, of which one half-hour is spent in raising the pressure, one hour in maintaining it at the same height, and the reduction of pressure occupying the last half-hour.

The first sensations experienced are noises in the ears, slight headache, and an unpleasant sensation in the throat, referred especially to the pharynx and immediately behind the tonsils, which is relieved by swallowing saliva, and still more effectually by drinking some fluid. Pain is sometimes experienced in the membrana tympani, which can be prevented by inserting cotton-wool into the ears. The reason of these unpleasant auditory sensations is to be found in the different calibres of the external auditory meatus and the Eustachian tube. As the channel of the latter is very much smaller than that of the former, the column of air penetrates with difficulty to the internal surface of the membrana tympani, and any change of pressure is but slowly communicated; whereas through the meatus the air passes freely, and on the larger surface gives rise to a convexity inwards of the auditory membrane. This is the case during increase of pressure, but during reduction the contrary effect is produced. The middle ear is then filled with air of greater density, the change being slow; whereas the external auditory meatus contains air of which the pressure is being reduced more rapidly. The membrane consequently becomes convex outward; hence the unpleasant sensations in the ear and throat during the commencement and end of the bath. Some people notice an impairment of the special senses, and state that touch, taste, smell, and hearing are all diminished in intensity; the voice sounds shrill; whistling becomes impossible. An instance is given by von Vivenot, where a professional singer gained half a note in her voice during a bath. It is noticed that the arched form of the abdominal walls is flattened, which Panum ascribed to compression of the intestinal gas.

The most important changes are in the organs of respiration and of circulation; the individual finds he breathes *slower*, *deeper*, and *with greater ease*. Physical examination demonstrates that the diaphragm descends lower, that the liver is displaced downwards, that the heart-sounds are less audible, the cardiac dulness is less perceptible, and the whole chest becomes more resonant. This diminution of the cardiac dulness does not appear to be mainly due to the displacement of the heart, but rather to the further expansion of the lungs; and the faintness of the sound, arises from the intervention of a larger amount of those badly conducting air-cushions. Measurements show a considerable increase to take place in the mobility of the thorax at various levels during inspiration. Von Vivenot found an expansion after one bath of 5.75 millimètres, and after seventeen baths of 9.47 millimètres. The respirations are diminished in number to a considerable extent; this seems to occur even in one bath, but after several it is still more marked, for they have been known to fall from 16 or 20 a minute to 4 or 5, or only to 3 or 4 a minute. The relation of inspiration to expiration is often, but not always, changed. Inspiration is easy, and expiration appears comparatively less so; and whereas the ratio at the usual pressure is normally 4 to 3, it becomes in compressed

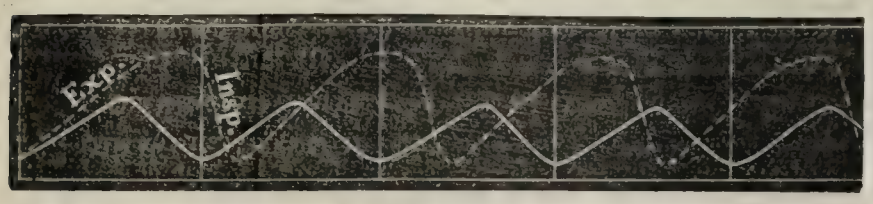


Fig. 1.

air 4 to 6, 4 to 7, 4 to 8, or even 4 to 11, according to von Vivenot, from whose work the annexed diagram is taken, which well illustrates the prolonged expiration, and the depth of the respiration in compressed air, which are indicated by the dotted line, as compared with the lower line, which is that of normal breathing.

The circumference of the chest increases considerably, though slowly, as will be seen by our experiment, to be narrated presently.

Spirometric observations show a marked augmentation of lung-capacity. Simonoff found in 11 persons a mean increase of 108 cubic centimètres after twenty minutes of the bath; after one hour and twenty minutes, 94 cubic centimètres; and at the end of the bath the increase was still 24 cubic centimètres. VonVivenot's numbers are still larger for this increase. Our own showed in one case an increase of from 250 to 286, and in the other from 255 to 302.

There seems to be every reason to conclude that the inspiration of compressed air increases the lung-capacity, and it is probable that the effect is at first a mechanical one, more alveoli being brought into play than in normal breathing. The diminution in the number of respirations is the result of this, as we may conclude that their frequency is in inverse ratio of their amplitude; consequently we get, with an enlarged respiratory surface, fewer and deeper respirations, and this effect is more or less permanent.

The influence on the circulation is, that the pulse is slower, smaller in volume, but of increased arterial tension, the capillaries are smaller, and the veins are less full of blood. The amount of diminution varies from 4 to 20 beats a minute; and, if the pulse have been somewhat excited before entering the bath, the diminution may be still greater. Sphygmographic tracings show a great lowering in the height of the pulse-wave, due apparently to contraction of the vessels, and also reduction of the dicrotic wave. But this change is only maintained during the bath, for tracings, taken immediately after leaving it, are precisely similar to those before entering. The subjoined tracings were taken from Mr. B., one of my clinical assistants, a very healthy young man, and indicate the influence of the different pressures on the pulse.

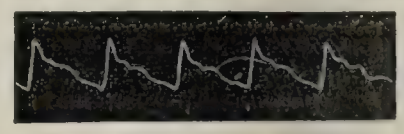


Fig. 2.—Before bath. Ordinary pressure.



Fig. 3.—Pressure, 3 lbs.



Fig. 4.—Pressure, 6 lbs.



Fig. 5.—Pressure, 9 lbs.



Fig. 6.—After bath. Ordinary pressure.

The recovery, as shown in Fig. 6, is very complete. To the touch the pulse appears small and hard. The influence of compressed air on the circulation was admirably shown by von Vivenot's observations on a white rabbit in the bath. Under normal pressure, with the rabbit quiet and at liberty, the ears were full of blood, and the vessels of the conjunctivæ injected; the iris and the pupil were tinted deep red. During the increase of pressure, the vessels of the conjunctivæ became finer and more pale, and in one experiment they alternately filled and emptied. The iris and pupil became decolorised when pressure was kept up at the maximum; the ears, when seen by transmitted light, showed empty vessels, the larger ones were scarcely visible; a little later, the ears became quite pale and flabby, and the vessels completely disappeared. During reduction of pressure, the ears and conjunctivæ remained pale, and at the normal pressure, for one hour after the bath, the ears still remained bloodless and flabby.

These experiments and observations indicate that compressed air exercises an intropulsive influence affecting naturally those surfaces most exposed to it, such as the skin and the lungs; the blood is thus driven into the organs protected from air-pressure, such as the brain, the heart, liver, spleen, and kidneys. The pressure is exerted more on the capillaries and superficial veins than on the deeper veins and arteries, and its tendency would be to reduce pressure on the right side of the heart, and to increase it on the left. The retardation of the pulse is assigned by some to diminished heart's action, owing to the great obstacles the circulation meets with in the superficial vessels. A proof of the fulness of the arterial system is found in the colour of

the blood, which is bright red, as has been seen during bleedings which have sometimes taken place in the bath.

Another proof is found in the sphygmographic tracings of the radial pulse, which indicate increased arterial tension. The diminution of the pulse-rate is explained by Dr. Burdon Sanderson (*Practitioner*, October, 1868) as follows. "The effect of the diminished fulness of the venous system is to retard the filling of the ventricles during their period of relaxation, and, consequently, to lengthen the diastolic period, and thus diminish the frequency of the pulse ; for, as the time occupied by the heart in contracting is subject to little variation in the same individual, the interval between successive contractions depends on the duration of the diastolic pause."

Though this emptying of the veins is no doubt the principal cause of the slowing of the pulse, something must be assigned to the great obstruction which the increased air-pressure causes to the circulation, for instance, through the capillaries of the skin. The temperature is slightly raised, sometimes half a degree, in the mouth ; that in the axilla is said to be diminished by Stembo ; but in the rectum, according to the same authority, it rises considerably, a clear confirmation of the intropulsive influence before alluded to. The kidney-secretion is largely increased, another piece of confirmatory evidence. The saliva is also more freely secreted. To the same influence may be assigned the excitation of the menstrual function, which is often brought on during compressed air-baths ; and defæcation is said by Oertel to be occasionally due to the pressure on the abdomen.

The compressed air-bath also produces physiological effects on the system. The introduction of a large amount of oxygen in each respiratory act causes increased absorption of that gas by the lungs and blood, and leads to further oxidation and tissue-change. This is proved, first, by the colour of the blood before alluded to, and, secondly, by the increased quantity of carbonic acid excreted by the lungs, in spite of the number of respirations being fewer than at normal pressure. The urine, too, contains more urea, and, in some cases, Hadra found the increase to amount to two grammes daily. The muscular power is increased, for Lange found two men could carry more in their hands with outstretched arms after the bath than before it. This is to be expected, when we consider that the blood is *determined* to the muscles, which are not under the influence of the direct action of the compressed air.

Appetite is generally improved ; increase of weight does not follow at once, but often a decrease is noted at the beginning of a course ; and later on, however, after a course of twenty baths, there is marked increase of weight. The increase of appetite is probably a physiological effect of the larger supply of oxygen, and the first decrease of weight may be attributed to the more rapid tissue-changes which afterwards, with greater powers of digestion and assimilation, becomes surpassed by fresh production.

To illustrate some of the above conclusions, I will relate an experiment carried out under my direction, in the air-bath, by two of the clinical assistants of this hospital, aged 28 and 22, both healthy young men, who took observations on each other before, during, and after the bath. Notes were taken when the pressure had reached 3, 6, and 9 lbs. respectively ; but, unfortunately, owing to the Turkish bath in the adjoining chamber being at work at the same time, the atmosphere was hotter than it should have been, and at one time a temperature of 78° was reached.

These gentlemen remained in the bath 3 hours 20 minutes. Both felt the heat, and perspired slightly ; both said that, beyond slight fulness in the ears and forehead, not amounting to headache, nothing uncomfortable was experienced ; Mr. B. also complained of slight oppression in the front of the chest ; Mr. S. of temporary deafness. After the bath, they dined with great appetite, and each took 1½ glasses of beer and 3 glasses of wine, which probably accounts for the increased pulse and respiration-rate three and a half hours after the bath.

Pulse-rate.—Mr. S.'s was 84, two hours before the bath, of good tension ; it fell to 78 in the bath, and rose to 96 after he dinner. Mr. B.'s was 64 before bath, rose to 70 under pressures of 3 and 6 lbs., but fell to 60 under 9 lbs. pressure. After dinner it rose again to 78. The tracings from Mr. B.'s pulse at the various pressures, and before and after the bath, have been given in Figs. 2 to 6. These show the gradual depression of the tidal and dicrotic waves, which is quite distinct at 6 lbs. pressure, but more marked still at 9 lbs. The influence of the stimulant, in addition to return to normal pressure, is shown, and the tracing taken on the following morning (6) is almost identical with the one before the bath (2), demonstrating the influence of the compression to have been purely temporary. In Mr. B.'s case the capillaries of the face were somewhat injected, but this may have been due to the heated air.

Respiration-—The number of respirations in Mr. S. was, before the bath, 16. Under 3 and 6 lbs. pressure, they rose to 18, but under 9 lbs. pressure, fell to 15. After dinner and wine they rose to 20. Mr. B.'s respirations, before the bath, were 15 ; under 3 and 6 lbs. of pressure they rose to 17, but at 9 lbs. fell to 16. After dinner they rose to 20. The relation of inspiration to expiration does not seem to have varied much.

Chest-Circumference.—Mr. S. decreased ½ an inch in girth, at the nipple-line, noted during full inspiration and full expiration ; while Mr. B., on the other hand, increased an inch under both the above conditions.

The spirometric observations gave for Mr. S., before the bath, 250. Under each pressure there was a steady increase, reaching at 9 lbs., 286 ; after dinner, it fell to 262. Mr. B. also increased from 255 before the bath to 302 under the highest pressure, falling, after dinner, to 288. Undoubtedly, the overheated atmosphere interfered with some of the results, notably the pulse and respiration-rate ; but the sphygmographic tracings and spirometric readings entirely agree with those made by von Vivenot on healthy subjects, and on the whole, confirm the conclusions previously arrived at.

Our principles of action in the treatment of disease by compressed air must be derived from its effects on the healthy organism ; and we must bear in mind that its influence is by no means neutral, but productive of very decided results, beneficial or harmful as it is suitable or the reverse.

Now the action of compressed air on the human body is, mainly, twofold : mechanical and physiological—*Mechanical*, as shown first in its influence on the circulation. We have seen that it has an intropulsive agency, driving the blood from the surface of the skin and aërial mucous membranes into the deeper tissues, such as the muscles, bones, and internal organs, especially those wholly or partially protected from air-pressure by bony cavities, like the brain, the spinal cord, the heart, the liver, spleen, and kidneys, the uterus and ovaries. Now, it is obvious that its use is contraindicated in congestions, or hæmorrhages, or inflammations of any of these organs ; and we have seen by the accidents occurring in the pneumatic tubes, and among divers, that very severe lesions of the brain and spinal cord follow excessive pressures, especially when quickly produced.

On the other hand, this intropulsion of blood may do good, by causing fulness and increased action of certain organs, such as the kidneys, the liver, the ovaries, the salivary and other glands, and by drawing away or deriving blood from the lungs and air-passages, when these latter are congested. Where there is fever, which means congestion of internal organs, this influence will aggravate it. Remembering the reduction of the number of pulse-beats, and the prolongation of the cardiac diastole, we may conclude that compressed air will benefit cases where congestion of the right side of the heart and of the liver is the chief feature.

Compressed air exercises a mechanical influence on the lung-tissue. Besides reducing the amount of blood in the bronchial passages and alveolar walls, it distends both the bronchi and the alveoli, especially those portions of the lung which, from not being penetrated in ordinary respiration, become partially blocked with secretions, and impenetrable to air at the ordinary pressures. This is proved by the appearance of the respiratory murmur, after compressed air-baths, in portions of the chest from which it has been absent for long periods ; also by the diminution of dulness and the freer expansion of the chest-wall, and by an increased pulmonary capacity.

Physiologically, the introduction of more oxygen into the blood, thus supplying it with a richer combustion-element, may lead to more rapid tissue-changes, and is another reason against the use of compressed air in inflammatory affections ; though it is, at the same time, a strong argument for its employment in all those affections where there is imperfect aëration of the blood, such as emphysema and chronic bronchitis. From these considerations we may expect benefits to accrue in old exudations of the pleura and lung, as in chronic pleurisy, chronic pleuropneumonia, and chronic pneumonia, where both the mechanical and the physiological influence of compressed air may be brought into play with great advantage. There is another effect which I do not pretend to understand, which, nevertheless, has been noted in many of my cases, that is, a *sedative* influence on the nervous system, and especially on the nerves of the mucous membrane of the air-passages ; compressed air subdues cough and bronchial spasm. From the mechanical effects, we should expect it to be beneficial in all catarrhal affections of the air-passages, such as laryngeal and bronchial catarrh and asthma, and it is in these affections that it proves most successful. As these are generally closely complicated with pulmonary vesicular emphysema, it will be convenient to consider the influence of compressed air on this disease, and then on the numerous conditions with which it is associated.

Emphysema.—We know that, in the tense or large-lunged variety of this affection, the thorax is distended to the utmost, the diaphragm is pushed down, the heart and liver are displaced downwards, the thoracic dulness of the latter generally entirely disappearing, and the impulse of the former being detected in the epigastrium. The breathing is shallow, and the dyspnœa great; percussion and auscultation teach us that the chest contains air, but that, owing to its being more or less stagnant, the blood does not get that perfect aëration which it requires, and consequently we see a dusky complexion, blue extremities, and sometimes a livid countenance. A course of compressed air-baths effects a wonderful change; after them the patient states he can breathe more freely, and can ascend steps and hills with greater ease. His cough and expectoration are decidedly reduced. The respirations are slower and deeper, the pulse is slower and firmer. Physical examination shows the thoracic distension to be diminished. The line of hepatic dulness, long absent, reappears, and rises to the normal level. Cardiac dulness is again detected, and the impulse is felt no longer in the epigastrium, but in the normal position between the fifth and sixth ribs. The excessive resonance gives place to something approaching the ordinary note; and, although prolonged expiration and wheezing sounds are heard, there is no longer the weird stillness formerly existing over large tracts of lung, for breath-sounds are audible in all directions, some healthy and some morbid.

Cyrtometric measurements show that the girth of the chest at various levels has diminished as much as from half an inch to two inches. Nevertheless, the vital capacity, as ascertained by the spirometer, is increased, and it would appear that most of these changes are more or less permanent.

Simonoff considers that the great improvement in emphysema is arrived at partly by raising the general standard of health and nutrition, and partly by preventing catarrh. He does not believe in opening up and developing healthy lung-tissue. It is not likely that actual development does take place, but some important change must occur to account for the above phenomena; and when we consider this result of the compressed air-bath, we can hardly regard vesicular emphysema as an invariably progressive disease, which is its usual description. The great improvement may be due partly to the presence of the condensed air on the bronchial vessels and muscle, whereby congestion and catarrh are reduced, and the muscular spasms allayed; but most of it must be owing to the healthy tissue being freed from obstructions, and rendered more available for respiratory purposes, and to the recovery of their normal dimensions by a large number of pulmonary alveoli, hitherto emphysematous; otherwise, how could we account for the diminished girth, the return of organs to their normal position, and the increased spirometric measurements?

Let us now take some illustrative cases.

Case I.—William B., aged 41, bricklayer, admitted September 24th, 1884, fifteen years ago, had pleurisy, and had been subject to winter cough for many years, but enjoyed fair health till three years ago, when he had severe bronchitis, and since then cough had persisted, accompanied, at first, by free expectoration, and dyspnœa on exertion. The breath had improved, but was still short; he had not lost flesh; cough was severe, expectoration scanty. Weight, 9 st. 6½ lbs; Pulse, 112; respirations, 24, shallow. *Physical Signs.*—Chest somewhat flattened, with little expansion, and superficial veins much enlarged. Excessive resonance in upper parts. Wheeze and sonorous rhonchi heard everywhere; some fine crepitation audible in the left interscapular region. No cardiac or hepatic dulness to be detected.

October 15th. Since last date, his cough had been more troublesome, and he had had nocturnal dyspnœa regularly. His breathing was always wheezy, and, although various forms of treatment had been tried, he was not relieved; he was ordered the compressed air-bath.

November 8th. After the fourth bath, felt his breathing much easier. Cough more moderate, and expectoration free.

	Pulse.	Respiration.	Temperature.
Before bath ...	108	18	98° Fahr.
After bath ...	86	12	98.4° Fahr.

November 12th. Sixth bath; pulse, respiration, and temperature records much the same as the last. Spirometric observations, before the bath, 159; after bath, 167.5; after the next bath (seventh) these rose to 181.5.

November 15th. Physical examination showed the chest resonant, but there was some cardiac dulness below the fifth rib on the left side, over a small triangular space, close to the sternum. Hepatic dulness was detected one inch above the lower border of the seventh rib on the right side. Inspiration was still wheezy, and expiration prolonged and musical. In the posterior regions there was more breathing, but still sonorous rhonchi. No crepitations were audible in the left interscapular region.

	Right.	Left.
Measurements at level of the third rib	18 in.	17¼ in.
Measurements at level of the nipple	17½ in.	17 in.

November 24th. He had had ten baths. Cough not so distressing, and expectoration reduced since this treatment commenced; the patient felt he could take breath easier. Spirometer, 183. The wheezing sounds had ceased, and respiration was harsh, with prolonged expiration.

December 20th. The patient had had twenty-one baths; cough less, breathing easy; expectoration trifling. Breath on going upstairs was equal to what it was before the attack of bronchitis three years ago. He slept soundly, and there was no nocturnal dyspnœa. The pulse had generally fallen during the bath, and the respirations had diminished, occasionally to as low a number as 12. The temperature had not varied greatly, but had ranged between 97.8° and 99.6° Fahr., generally rising slightly in the bath.

	Right.	Left.
Measurements at level of the third rib	17¾ in.	16½ in.
Measurements at level of the nipple	17 in.	17 in.

This is a diminution at the upper level of one inch, and at the lower level of half an inch.

Chest is resonant; some cooing sounds were audible in both fronts; respiration was much freer, but sonorous rhonchus was present. Hepatic dulness 2 inches above the lower border of ribs on the right side; the heart's position the same as in last report. The patient was now suffering from a cold, caught four days ago, on going to the bath, and his spirometrical standard, which had risen to 183, had fallen, since, to 156. Weight, 9 st. 12 lbs., showing a gain of 5½ lbs. during his stay in the hospital.

The improvement in this case was steady and well marked. There was distinct diminution of the cough, entire disappearance of the nocturnal dyspnœa, and reduction in the amount of emphysema, as proved by the size of the liver and heart, and the diminution of the thoracic girth at various levels. The most remarkable feature was the rapid increase of the spirometric standard, unfortunately reduced later on by fresh catarrh; and, as the observations were taken very carefully, each result being the mean of three trials, they may be relied on as correct. Those taken before and after the sixth bath are also interesting, showing that a considerable increase of vital capacity may be due even to one bath. Judging by the above, and also by the patient's own statement, that his breath on ascent was as good as before the bronchitis three years ago, we may conclude that the improvement is likely to be permanent.

Case II.—Frederick A., aged 10, was admitted November 5th, 1884. His father had phthisis; his mother suffered from chronic bronchitis; one brother died of bronchitis. The patient had whooping-cough seven years ago very severely, followed one year later by bronchitis, and had been subject to a winter-cough ever since, which continued all through last summer. He had lost flesh during the last two years. He complained of pain over the sternum, and had had attacks of vomiting lately. The cough was troublesome, chiefly at night, but there was no expectoration. The diagnosis was chronic bronchitis and emphysema.

Physical Signs.—Chest somewhat flattened under both clavicles. The cardiac impulse was felt in the epigastrium, and was altogether absent between the fifth and sixth ribs. Cardiac dulness commenced below the fourth rib on the left side. The whole chest was over-resonant, but breath-sounds were tolerably distinct everywhere; hepatic dulness was absent.

	Right.	Left.
Measurements at level of the third rib	11¾ in.	11¾ in.
Measurements at level of ensiform cartilage	11¼ in.	11½ in.

November 11th.—He was ordered compressed air-baths.

November 12th.—He had had one bath.

	Pulse.	Resprtns.	Temp.	Spirometer.
Before bath	106	28	98° F.	82.5
After bath	80	18	98.2° F.	87.5

November 17th.—He had had three baths. Cough nearly gone. Hepatic dulness could be distinguished below the sixth rib, and, posteriorly, for a finger's breadth at the right base. On the left side, stomach-note was audible between the sixth and seventh ribs. The spirometer-observations gave 90. Pulse, respiration, and temperature about the same.

December 20.—He had had seventeen baths, and seemed greatly improved. He had lost cough and gained colour and one pound in weight. The pulse and respiration had steadily fallen in frequency, the former averaging between eighty and ninety, and the latter once reached as low as 14. After the seventeenth bath, they were as follows.

	Pulse.	Resprtns.	Temp.	Spirometer.
Before bath	90 ...	20 ...	98.4° F.	
After bath	84 ...	16 ...	98.4° F.	... 90

	Right.	Left.
Measurements at level of the third rib...	11½ in.	... ... 11½ in.
Measurements at level of the ensiform cartilage	11½ in.	... ... 11 in.

showing a reduction of half an inch at the upper, and of a quarter of an inch at the lower level.

Physical Signs.—The chest was no longer over-resonant, and the note was fairly normal. Cardiac dulness could be detected as high as the third interspace; the impulse was felt in the normal position, and had disappeared from the epigastrium. Hepatic dulness could be detected, as at the last examination. The breath-sounds were fair everywhere, except in the lower posterior regions. The boy took two more baths, and left the hospital, January 5th, greatly improved.

Remarks.—As no other treatment but the bath was used in this case, we may give it the credit of the reduction of cough, the large diminution of the emphysema, as evidenced by the smaller chest-measurements, the return of the organs to their normal positions, and the spirometric observations. Doubtless, the youth of the patient rendered him more susceptible to atmospheric influence.

Case iii.—C. D., aged 33, bricklayer, was admitted September 24th, 1883. His father, mother, and brother died of phthisis. Three years ago, he was confined to his bed for six weeks with cough and expectoration, which had lasted ever since, and had lately been accompanied by shortness of breath on exertion. Expectoration had lately increased, and averaged about four ounces a day; and cough was troublesome, chiefly at night and on rising in the morning. Weight, 8 st. 5 lbs.

October 15th. Examination of the chest showed a well marked pigeon-breast malformation; great collapse of the lower portions of the chest beneath the mammæ. Heart's impulse visible in epigastrium on the left side of the ensiform cartilage. Cardiac dulness commenced below the fifth rib, about two inches from the line of the cartilages; hepatic dulness was altogether absent. The whole chest was over-resonant, and respiration was weak everywhere.

	Right.	Left.
Measurements at level of the third rib	17 in.	... 16 in.
Measurements one inch below the nipple-line	16½ in.	... 16 in.

Pulse 84; respirations 20. The diagnosis was bronchitis and emphysema.

November 5th. The patient had had two baths, and found his cough better, and the expectoration diminished. His breathing also was easier. After the second bath, the pulse fell from 108 to 96, and the respirations from 22 to 17.

	Right.	Left.
Girth at third rib	16½ in.	... 15¾ in.
,, one inch below nipple	15¼ in.	... 15¾ in.

Hepatic dulness could be detected below the seventh rib on the right side.

December 10th. He had had sixteen baths, and improvement continued. The measurements showed no great change; the right side, at third rib, 16½ inches; the left, 17 inches; at the ensiform cartilage, 15¾ inches at the right; and at the left, 16½ inches.

The patient continued to take baths until he had had thirty-eight, and always felt relief to his breathing during the bath and for some hours afterwards. For the last month of his stay in the hospital, he had no baths, on account of suffering from acute pleuro-pneumonia; and complained much of the deprivation. The relief from them, though marked, was only temporary; but the prominent results—namely, reduction of pulse and respiration—were noticed throughout, although the chest-measurements gave a negative result. The rise of the diaphragm was shown in the increased area of hepatic dulness.

Chronic bronchitis is held by the Germans to be greatly benefited by the air-bath, the improvement being due to the increased pressure on the larger tubes causing diminution of the blood in the bronchial membrane, and consequently less exudation of serum into the coats of the bronchi; hence less pressure on the lymphatic system. Oertel finds this treatment to answer best in pure bronchial catarrh, but to be less effective when either emphysema is present, or the thorax is deformed, or again where the right side of the heart is dilated. My own experience is that the cough is quieted, and that the amount of expectoration is reduced. There appears to be an improvement in the muscular tone of the bronchial tubes; and this improvement may be due partly to the pressure on the vessels, and partly to the larger amount of oxygen supplied without effort. I do not hold with Oertel; for, in most of the cases of bronchitis under my care, emphysema has been present, and in some also malformation of the chest, and yet all have considerably benefited by the compressed air-bath.

Subjoined is a case of chronic bronchitis and emphysema.

Case iv.—Henry F., aged 48, shopkeeper, admitted September 19th, 1884. Sixteen years ago, he had sunstroke, from which he recovered in one year. He had had winter cough for fifteen years, which has been continuous during the last three, and had obliged him to relinquish work. In this period, he had been subject to nocturnal attacks of dyspnœa, occurring generally between 12 and 4 A.M. He had not lost flesh lately. The cough was exceedingly severe at night, and the effort produced sweating: the expectoration was abundant, thick, purulent, and contained no tubercle-bacilli. Breath was very short on exertion. Weight, 8 st. 9 lbs.

Physical Signs.—Chest over-resonant everywhere; no hepatic dulness to be detected; cardiac impulse perceptible in the epigastrium; and cardiac dulness was noted over a small triangular space, limited above by the upper edge of the fifth rib, and below by the seventh rib, and internally by the median line. Breathing was very feeble over the whole chest; some crepitation at the left base. Pulse 100, feeble, and at times irregular; respirations 24.

September 24th.—

	Right.	Left.
Measurements at level of the third rib	17 in.	... 16¾ in.
Measurements at level of the ensiform cartilage	16 in.	... 15¼ in.

The patient's cough was very severe, and in addition he had double inguinal hernia, and was so feeble that he was confined entirely to bed.

November 9th.—The cough had been reduced by treatment, but was still troublesome; he had a double truss for the hernia, which answered well. The expectoration was less. The appetite was very poor. Pulse about 100. The patient was now up and dressed. The nocturnal attacks of dyspnœa continued. He was ordered the compressed air-bath. Spirometric observations gave a mean of 67.5.

November 11th.—First bath:

	Pulse.	Respirations.	Temperature.
Before bath	100	32	99° Fahr.
After bath	80	30	98.6° ,,

Spirometric observations, 92.5° after bath.

November 15th.—He had had three baths, and no more attacks of nocturnal dyspnœa. He was improved in cough and breathing. After the last bath, the respirations were 28, and the temperature 98.6° Fahr. Pulse fell after last bath from 108 to 98. The patient was still too weak to walk to the bath, and was carried there and back. He had had phlebitis of the right forearm, which confined him to bed for one day. Since then he had been up, and had not missed any baths.

November 18th.—Spirometric observations had been taken twice since the 11th, and showed an increase, the last being 88 before the bath of to-day, and 94 after.

November 24th.—He had had seven baths, and during the last two had complained much of headache. The cough and expectoration had greatly diminished. The phlebitis was much better. There had generally been a reduction of pulse and of respirations after the bath, though the latter were always somewhat hurried.

Seventh bath:

	Pulse.	Respiration.	Temperature.	Spirometer.
Before bath	92 ...	32 ...	98.2° Fahr.	... 90
After bath	84 ...	28 ...	98.6° ,,	... 94

Strength was increased, and the patient could now walk to and from the bath.

	Right.	Left.
Measurements at level of the third rib...	16½ in.	... 16¼ in.
Measurements at level of the ensiform cartilage...	15½ in.	... 15¼ in.

showing a decrease at first level of one inch, and at second of half an inch.

Physical Signs.—Chest less resonant generally. Liver-dulness was now perceptible along the upper edge of the seventh rib. Cardiac dulness was detected between the left nipple and the sternum; the impulse was felt between the fifth and sixth ribs, beating very feebly, but

some pulsation was still detected in the epigastrium, this indicating that the heart had returned nearly to the normal position. Respiration was clearer, and the breath-sound was tolerably free. Slight crackle was audible just below the right nipple.

December 8th.—After the seventh bath, the patient suffered so much from headache, that the treatment was discontinued, and four days later the headache ceased. He was leaving the hospital improved in every respect, and had gained in weight. Measurements and spirometric observations gave the same result as after the last compressed air-bath.

Remarks.—This was a well marked case of chronic bronchitis, in which acute symptoms had supervened; but the complication of the double hernia, and his great feebleness and extensive emphysema, rendered it doubtful if any benefit could be expected from the compressed air treatment. The return of his strength was, perhaps, as remarkable as his improvement in cough and breathing; and it was unfortunate that the headaches caused by the compressed air stopped the use of it. The increase in the spirometric measurements after the first bath was very great.

NOTES ON THE MEDICAL CORPS OF THE SWISS ARMY.

By G. J. H. EVATT, M.D., Surgeon-Major, Army Medical Staff.

I had an opportunity, some time ago, of being present at the mobilisation of a large body of medical officers of the Swiss Medical Service, and seeing something of their system of organisation; and it seems to me worthy of study by the medical officers of our regular army, as well as by the militia and volunteer surgeons.

1. *The Army generally.*—The Swiss army is really a compulsory national militia, in which all males must serve for a certain number of years, and it is called out annually for training by districts, as our militia is called out by battalions. It is, however, infinitely more complete than is our militia, which is in no sense an army, but simply consists of a number of battalions of infantry, some garrison-artillery, and two or three battalions of engineer-militia. Our militia has no cavalry, is entirely devoid of a transport-corps, has no commissariat units of any kind, and the medical service of the militia is practically non-existent.

From Switzerland, we may learn how, in some measure, to combine a completely localised and popular national army with many elements of military efficiency. Until our militia is the result of universal military service, and until it has a defined commissariat, transport, and medical service, it cannot compare to the Swiss national service.

2. *The Medical Officers.*—In common with all males in the country, all medical men practising in Switzerland are liable for service in the national army between certain ages.

If I had to-morrow to choose from amongst the various European armies, except England, a most workmanlike, well organised, and completely contented medical corps, I would choose the Swiss service. After seeing something of the medical services of several foreign armies, the Swiss medical men seem to me to be men of great self-reliance, full of confidence in themselves, full of belief in the dignity of their work, and have, from their army-rules, complete and absolute equality in the national service. With such men, and under such rules, success is always possible. Without these conditions, however great the substantive advantages may be, failure is inevitable, and initiative impossible.

I attribute the high *morale* of the Swiss Medical Service to the dignity of manhood produced by the free government under which they live, and to the importance attached to the soldier's life in a country where, for long years, a wide popular suffrage has obtained.

The Swiss Medical Corps officers are really civil physicians called in annually, at certain centres, for compulsory drill and training in hospital-administration by permanent instructors. Every autumn, such local mobilisations occur in the district, and one may see the medical officers and the non-commissioned officers of the medical corps, at the appointed town, on the parade-ground, practising the "goose-step," and brushing themselves up in their military drill, before the rank and file of the medical corps join a few days later.

When these men join, they are posted to the various units of field-hospitals which compose the companies of the mobilised medical regiment; they are drilled and lectured, and finally take part in the autumn manœuvres with the mobilised army corps to which they may belong. The men were lodged in various houses in the town, and the officers lived at the hotels, all dining together at noon daily, in the chief hotel of the town. The principal medical officer, Colonel Goldlein, presided, and I had the honour of dining with the sixty medical officers on one occasion.

The medical officers wear a special light blue uniform, and a shako like the remainder of the army, having on its plate a Geneva Cross. The men wear similar shakos similarly distinguished.

Only educated and completely trustworthy private men are allowed to serve in the medical corps, and I should think them the most reliable and trustworthy of any rank and file in Europe so employed, for there is still much to look for in the development of such men in every European army.

The quartermasters of the Medical Corps wear the dress of the quartermasters of the Army Quartermaster Corps, and are apparently attached for duty. There are also a small separate body of apothecaries belonging to the Medical Corps.

3. *Rank and Grading.*—The Swiss Medical Corps, like the medical services of the American, Italian, Turkish, Dutch, and other armies, is graded into military ranks with military titles, from colonel, the highest title in use in the army, downwards through lieutenant-colonel, major, and captain, to lieutenant. These titles are used on duty, and the officer commanding the medical mobilisation was always spoken to and of as Colonel Goldlein. This rank seemed equal to the average army-rank of the remainder of the national service, lieutenants of the Medical Corps being graded with average lieutenants, captains with captains, and so on.

In a medical corps working as a disciplined body, there must be defined ranks and gradings, and they must be more or less equal to the average of the army in which the medical officers serve. The drawback of relative rank is its want of definiteness, and its want of recognition, and, worse than all, its tendency to be showered in too great a quantity on its recipients. The result of such systems is that rank is cheapened, and discipline suffers. If we were to abolish the lieutenants' grade to-morrow, and make all our young men captains, their position would not be practically improved, for somebody must still be junior, and do the junior duties; but by abolishing the junior grade, discipline would be injured by abolishing a check over which men should pass either by selection or examination. The Swiss say that, as a rule, rank should be equal for all corps and classes in the army for length of service, and that social intercourse between corps is destroyed by confining high nominal rank on any special corps, and thereby throwing it out of gear with the remainder of the army. As to the military title, they say it produces a feeling of equality in an army, which is entirely absent in those which do not have it. They say it paralyses the attempts of any class in the army to degrade those who do not have it; and it brings into the fold of the national army those lost sheep who without it are, officially, mere camp-followers. They deem it a protection against personal rudeness, and they consider that it teaches to the whole army the fact that the central government of the State recognises in its service no depressed class. For them it is the true test between a national and a caste or class-army. But, say they, it acts in an entirely opposite direction, in being an agent of discipline in a corps of specialists, who, presuming on the supposed value of their specialism, would claim high nominal rank, and thereby derange from another side altogether the equipoise of the military machine. Military organisation demands that, however high or important the specialism may be, the specialist shall enter the national service just on the same footing as any other officer, and rise in his corps by steps equal to the average ranks of the other classes in the army. It is practically equality by discipline and organisation; and in the end the officers of the special corps do not lose, for their reputation does not depend on their mere army-rank so much as on the good name and high *morale* of the corps. The mere fact of being a lieutenant is not important, for we all know that a lieutenant in a very special *corps d'élite* has ever more consideration shown him than the same rank in some unimportant regiment; but officially, and for discipline purposes, they are alike, and in the eyes of the national administration there should be no difference in treatment.

Officers of every branch of the Swiss army have military titles, and, on meeting or passing each other, salute as a matter of discipline, the junior taking the initiative. This salute may be regarded as a good outward test of internal discipline in any army, and it is thoroughly carried out in Switzerland.

4. *Technical Training of the Officers and Men of the Medical Corps.*—The officers and men are trained in infantry-drill; and on it is grafted the special technical ambulance-drill, including the pitching and administration of field-hospitals. If we could imagine that, for fifteen or twenty days every year, the whole of the medical officers of the regular army, militia, and volunteers, with the rank and file of the medical staff corps, militia medical reserve, and volunteer ambu-

lance companies, were mobilised at Aldershot, and at every division head-quarters through the country, for training, it would rather resemble the Swiss system. I was struck very much by seeing Colonel Goldlein, Principal Medical Officer of the Divisional Mobilisation, lecturing his officers on field-routine and administration, and on antiseptic surgery. The whole mobilised corps of officers were collected in a large room at the medical head-quarters, and were daily lectured in the forenoon by the principal medical officer. It was a sight I had never before seen in any army, and it struck me as an admirable practice.

But, to make a principal medical officer thus free to be in truth the commander and instructor of his corps, the Swiss Code frees him from all petty detail, while making him completely responsible. How do the Swiss achieve this? Nothing is more easy; they give him a staff. He has a secretary, an adjutant, and two permanent mounted orderlies. This is, of course, an enormous help, and frees the principal medical officer from the drudgery of detail for nobler aims. But, far more than this, they place between the principal medical officer and the medical corps of hospitals and transport columns an executive commander of the medical corps—a medical officer who acts as a *catchment basin*, and saves the principal medical officer from a mass of detail. Of this officer, more by-and-bye.

The advantage of this personal and corps staff is, that the principal medical officer—this most important officer—has suitable assistance to do his work thoroughly; so that, if he fail, he may be figuratively hanged. The excuses of deficient assistance, absence of suitable staff, and too heavy a burden of routine details, are not available to hide personal inefficiency; and the nation and the army can isolate facts, and place the finger accurately on the weak individual. Colonel Goldlein could not be free to teach and to superintend if he were burdened with a mass of detail, important, it is true, but only important in its proper place.

The medical officers have complete military command of themselves and their men, and the transport of the medical corps is entirely under their control. I was particularly struck by Colonel Goldlein sending word to a large board-school near the town that, at two o'clock in the afternoon, he would turn it into a field-hospital. That afternoon, the corps marched to the place, and regularly unpacked their *fourgons*, and fitted it up as a hospital. This is a highly instructive parade, which I have never seen in any other army.

The sergeants of the medical corps have small trumpets, very tiny and neat, which they use as signals for calling together scattered ambulance-detachments on the field.

Regular cooking-cars on wheels are supplied to each unit of the field-hospital. Medicines are reduced to a minimum, the principle being plenty of needful drugs.

Curiously enough, though belonging to a mountainous country, it is only in two districts that mule-equipment is supplied to the medical corps; elsewhere, ordinary wheeled carriages are used.

4. *Detail of the Staff of the Medical Corps.*—The staff of a Surgeon-General, or *Médecin-en-chef*, of an army corps, consists of (1) chief of the staff, really a medical assistant adjutant-general, dealing with personal correspondence, and the right hand man of the surgeon-general; (2) chief of the transport, a medical officer dealing with the movement of the sick, convoys, and all correspondence as to transport; (3) chief of the field-hospital service; this officer would be assistant quartermaster-general, dealing with the location and administration of the war-hospitals, a most needful and highly important officer; (4) chief medical storekeeper, responsible for the special medical stores of all kinds needed by the army corps; (5) delegate of the Red Cross societies, a most needful official to curb and restrain, and endeavour to keep in order, the undisciplined levies who often rally under the Red Cross in war-time.

Is this a sufficient or too large a staff? Doubtless it is barely enough. If the surgeon-general of an army corps is to survive at all in a long campaign, he must have at least such assistance.

B. *Divisional Medical Staff.*—This consists of one principal medical officer (lieutenant-colonel), one adjutant, one secretary.

C. *The Battalion Staff* consists of two mounted medical officers, one warrant medical officer, two orderlies, one ambulance sergeant of bearers, twelve bearers, one hospital-orderly per company in addition.

D. *Cavalry Staff* consists of one medical officer, one orderly per squadron mounted.

E. *A Battery Staff* consists of one medical officer, one hospital-orderly, two stretcher-bearers.

F. *Staff-Surgeon for the Staff.* One medical officer, two hospital-orderlies.

It is important to note that a medical officer by himself is never seen; trained subordinates are ever with him; and, at the medical mobilisation, all these regimental orderlies, etc., attend for instruction.

5. *The Field-Hospitals.*—Let us understand clearly this section. In all continental armies, the term "field-hospital" is used for a much larger unit than with us. Our field-hospitals would by them be called "ambulances," or sections of a field-hospital. I think, however, we are right, and that a 100 bed-unit, if it be complete, self-contained, and fit to work perfectly by itself, is worthy of the name "field-hospital."

With this explanation, I say the Swiss Division has but one field-hospital. But what is that field-hospital? It consists of many subdivisions, namely:

G. The headquarters staff of the field-hospital, corresponding to what we would call the headquarters staff of an infantry battalion;

H. Five sections of the field-hospital called "ambulances," or, as we would call them, "field-hospitals," like five companies in an infantry battalion;

I. Five columns of carriages, like our bearer-companies, with a difference;

K. The reserve of medical material, for the division only.

Let us glance at these subdivisions.

G. *The Staff of the Field-hospital* consists of one chief surgeon, one adjutant, one quartermaster, one apothecary, one sergeant-major. These five officials practically co-ordinate and combine into a medical battalion the five sections, or "ambulances," of the division; through them all correspondence reaches the principal medical officer, and they inspect and keep touch between the sections. They must save the principal medical officer immense trouble.

To understand this system, let us apply it to our own army. We are, it is said, to have two bearer companies, and four field-hospitals in each of our divisions; that is to say, six medical corps units; and there are, in a division, at least twelve military fighting units, or a total of eighteen different units. The principal medical officer, therefore, receives, every morning, at least eighteen reports, which he must combine and co-ordinate, and to which he must reply. The Swiss system protects the principal medical officer from these eighteen reports; firstly, by giving him a secretary and an adjutant, an enormous help; secondly, by making all the medical corps units subordinate to a chief surgeon, who also has an adjutant, quartermaster, and apothecary. Our principal medical officer is really like an assistant adjutant-general of a division, dealing with the companies of a battalion separately, while the Swiss principal medical officer deals not with the companies, but with a battalion-commander who really co-ordinates the companies; that is to say, the divisional medical corps of the Swiss army is really a divisional regiment under its own chief, subordinate to the principal medical officer, while ours are a series of independent companies, each dealing directly with the principal medical officer.

Divisional Medical Arrangements.

ENGLISH.

A. General commanding Division.
B. Principal Medical Officer of Division.

M. Fighting Division, 12 Units.	I. Field-Hospitals, 4 Units.	K. Bearer-Companies, 2 Units.
— — —	— —	— —
— — —	— —	
— — —		
— — —		

SWISS.

A. General commanding Division.
B. Principal Medical Officer of Division.
C. Principal Medical Officer's Secretary.
D. ,, ,, ,, Adjutant.

M. Fighting Division, 12 Units.	E. Chief of Medical Corps.		
	F. Apothecary.	H. Adjutant.	G. Quartermaster.
— — —			
— — —	I. Five Field-Hospitals.	K. Five Transport Columns.	L. Reserve Material.
— — —	| | | | |	| | | | |	|

This diagram shows the intense personal centralisation of our divisional system, and shows that a divisional principal medical officer falling sick or getting wounded would be a great blow to the efficiency of the medical corps of the division.

With the Swiss system, principal medical officers might come and go, but the corps would still survive, because decentralisation, the one great secret of German efficiency, has been very thoroughly carried out.

Let us remember that Switzerland, placed between France, Germany, and Italy, has had great advantages of seeing varying systems at work; and, to my mind, she has accepted the lessons.

H. *The Sections of the Field-hospital called "Ambulances."*—Just as

if a battalion had five companies, so the Swiss field-hospital has five "sections," each called "ambulances," or, as we would call them, "field-hospitals." Each section has four medical officers, one quartermaster, one apothecary, and thirty-four non-commissioned officers and men of the medical corps.

This is a very neat unit; but as it is intended only for European warfare, it is not an accurate guide for us, who can find no assistance whatever in a New Zealand fern-thicket, on the plains of Egypt, on the Crimean steppes, or in the jungles of Ashantee. We must embark with the means of being efficient, or we shall never be efficient at all.

I. *The Column of Sick Transport Carriages.*—So far as I understand it, there are no definite units, called "bearer-companies," in the Swiss service. They separate all the sick transport-wagons into units by themselves, and call them "transport-columns," assigning to each two medical officers and ten rank and file, and thirty-two wagons. These act as convoys; and by adding a column of carriages to the *personnel* of an ambulance (field-hospital) a bearer-company is made *pro tempore*.

It seems to me that it will always be a drawback in our service to think that, however efficient the medical officers and men of a bearer-company may be at work, the declaration of peace extinguishes them as an unit, and their good or bad tradition perishes. The Swiss system abolishes this, for it separates the main body of the *personnel* into a field-hospital, and leaves but two officers and ten men with the thirty-two wagons. It is this small body alone which perishes as an unit. If we ever did this, we could once and for all break up the medical service into field-hospital units, permanent alike in war and in peace; and simply add on a transport-column to a field-hospital unit, and call it a bearer-company, and use it as a chief dressing-station on the field; just as the battery is the artillery unit, so the field-hospital would be the medical unit; three, four, or five such units forming hospitals for 300, 400, or 500 men. The permanency of the unit, in war and in peace, is the keystone of the arch of efficiency as far as the care of the sick is concerned.

K. *The Reserve of Medical Material for the Division.*—This is a very essential element of field efficiency. To ask an officer commanding a field-hospital to act also as medical storekeeper, and issue medicine for the division, is to handicap very much the working power of the hospital as a nursing agency. The Swiss avoid this by attaching to each division a reserve of medical material under the apothecary of the headquarters of the field-hospital, for divisional supply only. A couple of wagon-loads of such material, under an apothecary, with a sergeant and a couple of men, would be a great help in all our wars. The surgeon-general has, as I pointed out, an officer dealing specially with the army corps medicine-supply on his staff.

Limits as to space prevent me from dealing with other important points in the medical organisation of this interesting army—an army, I feel certain, we shall one day copy in many of its points of organisation. I may summarise the points of interest as follows:

1. The staff of the surgeon-general of the Army Corps, its number, and its adaptability for work.
2. The staff of the divisional principal medical officer, enabling that officer to be the teacher and real commander of his corps, and freeing him from unimportant detail.
3. The large battalion aid on mobilisation.
4. The bearers allowed to each artillery-battery.
5. The practical formation of a divisional medical regiment, by interpolating a chief surgeon between the divisional principal medical officer and the "sections" of the field-hospitals, thus co-ordinating their work, securing the all important daily and hourly inspection, while freeing the principal medical officer of the division from perpetual trivial detail matters connected with them.
6. The abolition of the bearer-company as a separate unit, and the utilisation of the *personnel* of unoccupied field-hospitals as such, aided by the "transport-columns."
7. Lying under all, yet towering over all, and permeating all, the absolute equality in rank, status, and consideration afforded to the Swiss Medical Corps by their army rules.

THE LATE MR. CHARLES C. ELLIS.—A very handsome tablet has been erected in the Baptist Chapel, Oswestry, to the memory of this gentleman, bearing the following inscription:—"In loving memory of Charles Cartwright Ellis, L.R.C.P., M.R.C.S., of Mount Oswald, Oswestry, who departed this life November 6th, 1884, at the early age of 22 years. This memorial was placed here by the staff, students, and nurses of St. George's Hospital, Hyde Park, London, in appreciation of his many sterling qualities, and as a tribute of the esteem and affection in which he was held. 'Thy will be done.'"

THE ETIOLOGY OF ENTERIC FEVER.

By ALEXANDER COLLIE, M.D.Aberd.,
Medical Officer of the Eastern Hospitals.

IV.

IT is so long since my last paper on this subject appeared (January 1880), that a few words of recapitulation may not be out of place. The object of the papers was to show that enteric fever is contagious; and by contagious I mean communicable by direct personal intercourse—in most cases, probably, by means of the recent stools, although it is by no means affirmed that no other emanations from the sick person can produce it. In support of this view, the cases of Maria and Sarah Allen were narrated, two laundry-women, whose duty was to sort the dirty linen, and to wash what was soiled. In this work, Maria Allen had been engaged off and on for two years, and continuously for six months, and Sarah continuously for two years, without contracting enteric fever, although exposed for the periods mentioned—no disinfectants being used—to all the soiled enteric fever linen of the hospital. If decomposed enteric fever stools produce enteric fever, why was it not produced in the case of these two women? They were susceptible subjects, as was afterwards proved by the fact that, when exposed to direct personal intercourse with a person sick of it, they took the fever. At the end of the two years of service in the laundry, a young man was admitted into the hospital suffering from enteric fever. This patient was the brother of Maria Allen's sweetheart; and, when Maria learned this, she visited the patient on four different occasions after April 1st, 1878, remaining with him about ten minutes each time. On or about April 28th, she began to be ill, and passed through a well marked attack of enteric fever. She was visited daily by her sister Sarah, who fell ill on the 20th of the following July. Comment is almost needless.

I then related the history of nineteen other cases of enteric fever amongst the nurses, assistant-nurses, and ward-servants, all of whom, with one exception, had been nursing or working in the enteric fever wards.

Briefly, at the Homerton Fever Hospital, enteric fever has been found to attack susceptible subjects, as scarlet fever and typhus fever do; but, as it is, like the former, a disease of childhood and early youth, a large number of nurses are protected by reason of their age, which, even in the present day, nearly always exceeds 20, very often 25, and in many cases 30. This is the reason why enteric fever is rarely seen in hospital-nurses; and, for the same reason, scarlet fever is rarely seen. But it has never yet been argued that scarlet fever is not contagious. The importance of age in the etiology of enteric fever will be seen from the following table.

Percentage of Attacks of Scarlatina, Typhus, and Enteric Fever in the Different Quinquennial Periods.

Ages.	Scarlatina.	Typhus.	Enteric.
0 to 5 years	20.5	4.	2.75
5 ,, 9 ,,	34.0	10.6	11.6
10 ,, 14 ,,	17.75	17.75	22.6
15 ,, 19 ,,	13.	17.75	25
20 ,, 24 ,,	9.3	11.5	26.8
25 ,, 29 ,,	4.5	7.5	9.75
30 ,, 34 ,,	1.75	8.6	4.6
35 ,, 39 ,,	1.	6.75	3.5
40 ,, 44 ,,	0.75	8.75	2
45 ,, 49 ,,	0.4	4.75	1.75

NOTE.—The calculations are based on 9,830 cases of scarlatina, 1,923 of typhus, and 3,523 of enteric fever, admitted into the London, Stockwell, and Homerton Fever Hospitals during the ten years ending 1880.

In opposition to the view here maintained, it has been urged that, because the experience of the London Fever Hospital is different from the experience of the Homerton Fever Hospital in this matter, therefore the enteric fever amongst our nursing staff was probably due to drains. To this it was replied, first, that the experience of the two hospitals might be different, and yet that the difference need not be dependent upon a difference in the drainage systems; secondly, that an examination of drains by competent persons showed that the drains at Homerton, although not free from objection, were, for practical purposes, efficient; an opinion which was supported by an analysis of the persons exposed to the drains and the persons attacked with enteric fever.

For, besides the nurses and servants, 956 patients suffering from other acute diseases than enteric fever were exposed to an atmosphere, *ex hypothesi*, contaminated by sewer-air from drains containing enteric stools, but not one of these persons contracted enteric fever. The persons who contracted the fever were, excepting one laundry-woman and Bentick, a doubtful case, persons who nursed enteric fever patients. Third, it was urged that no fair comparison of the two hospitals could be made, because of the difference of their age. It was pointed out that the London Fever Hospital, having been in existence for nearly eighty years, would necessarily be in possession of a nursing-staff more protected by previous illness than a hospital which had just been opened. This opinion is confirmed by the further experience of this hospital, which, in the first six years of its existence, gave twenty-one cases of enteric fever amongst its staff, whereas (excepting the steward's clerk, who did not live in the building, and who had here no necessarily direct contact with the sick), in the second six years of its existence it has only given seven. Lastly, it was maintained that the experience of the London Fever Hospital, properly interpreted, was not different from the experience of this hospital, but similar. This view is supported by the incidence of enteric fever on the two staffs during the years 1878, 1879, 1880, 1881, 1882, and to November 1883. During these years, the admissions for enteric fever, and the nurses attacked in the two hospitals, were the following.

—	1878.	1879.	1880.	1881.	1882.	1883.	Total.
London Fever Hospital:							
Enteric Fever Admissions ..	101	69	75	120	85	105	555
Nurses Attacked	0	0	0	4	0	4	8
Homerton Fever Hospital:							
Enteric Fever Admissions ..	292	143	131	226	230	183	1205
Nurses Attacked	0	4	1	1	1	0	7

If our steward's clerk be added, the number here would also be eight.

With these preliminary remarks, I proceed to relate briefly the history of the cases which have arisen in the years mentioned.

E. Swanson, aged 22, entered the service on August 31st, 1878. From this date until February 3rd, 1880 (with the exception of January 1st, 1879, when she was on night-duty in an enteric fever ward) she was assistant-nurse in the third scarlet fever ward, and, with the exception stated, nowhere else. On February 3rd, 1880, the third scarlet fever ward, having been cleared of the scarlet fever patients, was occupied with enteric fever patients, Swanson continuing to perform the duties of assistant-nurse. On March 7th, she was found to be suffering from enteric fever, having been ailing three weeks. She was discharged recovered on May 2nd.

E. West, aged 29, entered the service on September 2nd, 1878. She was on day-duty as an assistant-nurse in an enteric fever ward from September 4th to October 29th. From October 30th to April 23rd, 1879, she was on duty as night-nurse in a scarlet fever-ward. From April 23rd to May 4th, she was off duty. On the latter day, and on the fifth, she was on night-duty in an enteric fever ward. From May 5th to 9th she was off duty. From the latter day to June 23rd, she was on day-duty as an assistant-nurse in an enteric fever ward. On the night of June 24th, she was on night-duty in a scarlet fever ward. On the 25th of this month, she was found to be suffering from enteric fever. She was discharged recovered on August 29th.

H. Longland, aged 25, entered the service on September 11th, 1878. She was on day-duty as an assistant-nurse in a scarlet fever ward from the 17th of this month to the 28th. From this time to June 16th, 1879, she was on day-duty as an assistant-nurse in an enteric fever ward. From June 17th to the 21st, she was in charge of a case of abdominal abscess; and from this time to July 2nd, she was on duty in an enteric fever-ward, on which day she was found to be suffering from enteric fever, having been ailing for a week. She was discharged recovered on October 19th.

E. Goodfellow, aged 22, entered the service on July 10th, 1879. From the 11th to the 29th of this month, she was on night-duty in an enteric fever ward. From this time to October 30th, she was on night-duty in a scarlet fever ward. From this time to November 5th, she was on night-duty in an enteric fever ward. From November 6th to the 10th, she was in charge of special cases, not enteric fever. From November 11th to the 21st, she was on night-duty in an enteric fever ward as an extra nurse, because the duties were heavy. From the 22nd to the 24th, she was on night-duty in the same ward by herself. At this time, the ward contained eighteen and nineteen acute cases daily during the fourteen days from the 11th to the 24th. From November 25th to December 1st, she was on special night-duty, in charge of a doubtful case. From December 2nd to the 11th, she was on day-duty in a scarlet fever ward, when she was found to be suffering from enteric fever, having been ailing for three weeks, and definitely ill for about a week. She was discharged recovered on March 26th.

E. Brown, aged 22½, entered the service on July 10th, 1879. From the 11th of that month to August 21st, she was engaged in nursing scarlet fever. From August 22nd to September 3rd, she was engaged in nursing enteric fever. From September 5th to October 31st, she was in charge of scarlet fever patients. From November 1st to the 11th, she was again in charge of enteric fever patients, on which latter day she was found to be suffering from enteric fever, with which she had been ailing for about fourteen days. She was discharged, recovered, on January 15th, 1880.

H. Austin, aged 33, male, entered the service on November 21st, 1880, but there is no record of his daily work. It can be made out, however, that some time in January 1882, he was in attendance upon a delirious patient, from whom he contracted typhus fever. Some time in November 1882, this man admitted and bathed an enteric fever patient, who looked so like a patient with typhus, and had such a strong smell, that Austin thought he would be sent to a typhus ward. He was sent to an enteric fever ward, and Austin followed on November 26th.

Of these cases three deserve special notice. Swanson was an assistant nurse in the hospital, in a scarlet fever ward, a ward adjoining the enteric fever ward, the drains of which were continuous for seventeen months. To the emanations from them, if there were any, she was exposed during seventeen months, with impunity; but within a month of the time when the ward was occupied with enteric fever patients, she contracted the disease. The case of Nurse Brown is discussed at length in the JOURNAL of November 6th, 1880. The peculiarity of it is the unusual (so far as hitherto believed) length of the incubation-period, which appeared to be about eight weeks. This would have been, to some, a complete answer to the opinion that her fever was caught from enteric patients in the hospital, although nothing certain is known of the incubation-period of enteric fever. But since the publication of Nurse Brown's case, and another of a like kind (BRITISH MEDICAL JOURNAL, November 6th, 1880), in which I pointed out that the incubation-period appeared to be about eight weeks, further and independent evidence has appeared in support of my contention on this point. Mr. Welch, in a pamphlet on enteric fever, says that the incubation-period is sometimes "long," and that "from observations by Dr. Saunders, A.M.D., at the Cape, and from examples from Egypt, it seems certain that the recognised time of the incubation-period must be extended to six weeks, or even nearer two months, in exceptional instances." (*Enteric Fever*, p. 45.)

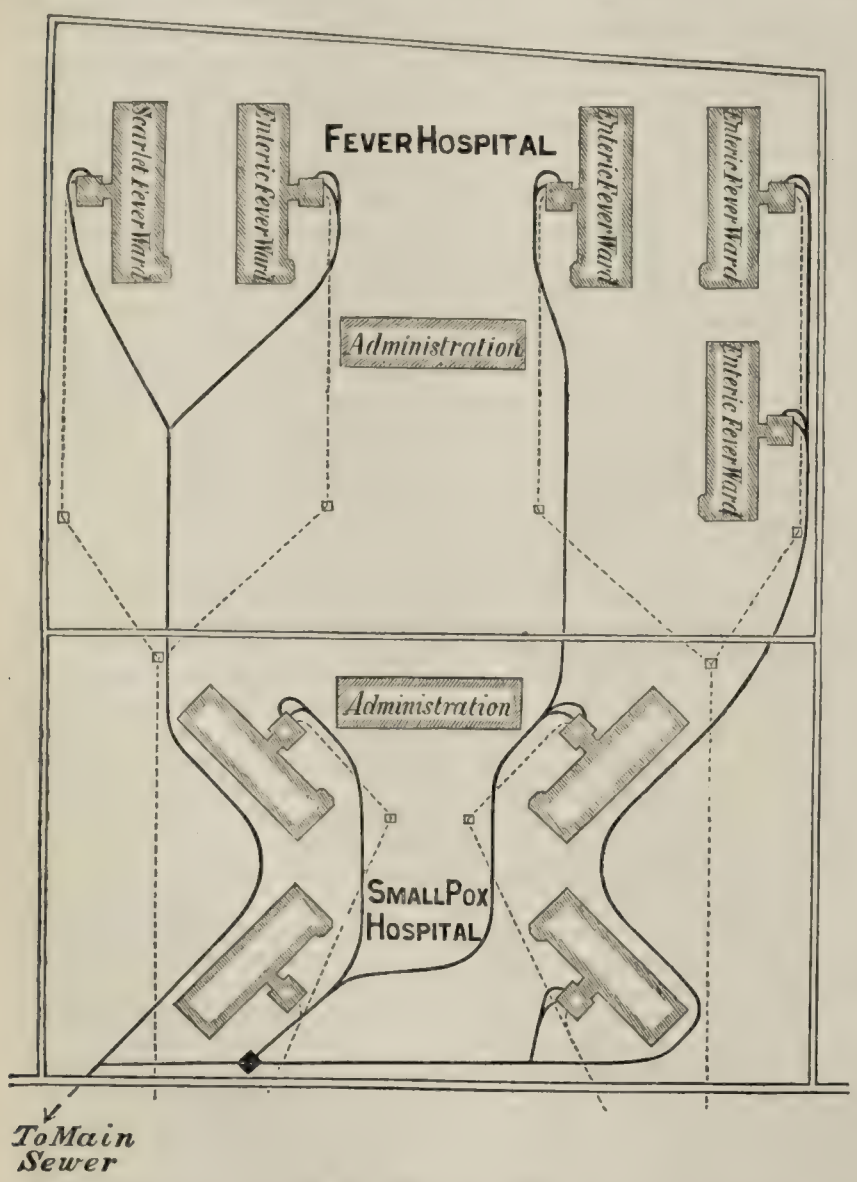
If this be true, it throws quite a new light on the etiology of enteric fever, for almost all conclusions as to its causation have been founded upon the belief that the incubation-period does not exceed two to three weeks. In particular, in cases arising in hospital amongst nurses, it will be of the utmost importance to find out, not merely where the nurses were on duty when they fell sick or immediately before, but for some considerable time before. Austin's case is worthy of notice, because his work at the mortuary at *post mortem* examinations, and in disinfecting clothing, brought him into contact with decomposed stools for about two years with impunity. This danger he escaped, a very considerable one at *post mortem* examinations, until, in November 1882, he bathed a patient who stank strongly. In these cases, as in those already published, the one factor common to all is close contact with the enteric sick. This is the first group of cases. One Horton, who makes the seventh of the nursing staff who contracted enteric fever, will be described in another group, where the conditions were different from those of the six just narrated.

I now come to the second group, for which I am indebted to the kindness of my colleague, Dr. Gayton. The cases which belong to this group arose in the Homerton Small-pox Hospital, so that, before proceeding to deal with them, it will be necessary to say something of the history of this hospital. From February 1st, 1871, to September 19th, 1879, the Small-pox Hospital, with the exception of two periods during which it was used for the treatment of scarlet fever, was occupied with small-pox. During this period of nearly nine years, 6,771 cases of small-pox, and 171 cases of scarlet fever, had been treated. During the same period, 487 persons had been engaged in nursing there. Of these 7,429 persons, the great majority of whom, being small-pox and scarlet fever patients, were of the age susceptible of enteric fever, not a single one contracted it.

The drainage forms part of the drainage of the fever-hospital, with which it is directly continuous, as may be seen from the following

sketch, in which the old drainage, the drainage in question, is marked by the black line; the red indicates the new drainage now being constructed.

On the hypothesis that the drainage of the Fever Hospital was defective, that of the Small-pox Hospital was equally so, because it was part of it, made in every detail exactly like it. For a period of nine years, therefore, 7,429 persons have been exposed to sewer-air from drains through which the stools of 1,293 enteric fever patients had passed, but without the least effect on any single person. The case of the patients is more remarkable still. Being small-pox and scarlet fever patients, the majority were under 30, a large number were under 25, and many were under 20. They were, therefore, a large number of them, of the susceptible age, but not one contracted enteric fever. But for the assertion that the cases which arose in the Fever Hospital were due to defective drainage, it might have been said that the absence of enteric fever for nine years in 7,429 persons, each one of whom (excepting those who died), for about one month, made daily use of a drainage-system in direct communication with the drainage of an enteric fever hospital, was proof that, for practical purposes, the drainage was efficient. Had it been practically inefficient, it would have shown its inefficiency in the form of cases of enteric fever amongst some of the many susceptible persons exposed to its influence. But it did not. If it be true that, given susceptible persons and a sufficiency of exposure to sewer-air from drains containing the motions of enteric fever patients, enteric fever will be the result, why did it not result in this case? Here were all the factors: (*a*) susceptible persons; (*b*) enteric fever stools; and (*c*) exposure from defective drainage. But the product of these factors, "enteric fever," where is it?



It was alleged that certain cases of enteric fever which arose in the Homerton Fever Hospital were due to the exposure of susceptible persons to the influence of defective drainage. Good. Why, then, under conditions essentially the same, were there no cases of enteric fever in the Small-pox Hospital? The definition of cause (omitting the metaphysics of the definition) is, that which being posited, the effect is also posited. "Causa est id quo posito ponitur effectus, quo sublato tollitur." In the case of the Homerton Small-pox Hospital, this definition would have to read, "Causa est id quo posito tollitur effectus;" for about the cause, defective drainage, there was no doubt. It was the assertion of those who think differently from me on this subject. About the conditions there was still less doubt, because the number of persons exposed was large, and many of them were of the susceptible age. Here, then, in the Small-pox Hospital, was the cause *and* the conditions; but there was no effect. Either the one or the other was wanting. But neither was. Those who maintain that defective drainage was the cause of the cases which arose in the Fever Hospital must explain how it was that, with the same drainage and the same other conditions, there was complete immunity from enteric fever on the part of 7,429 persons, unless they are prepared to accept the definition of cause which we have suggested, and to say, "Causa est id quo posito tollitur effectus."

This absence of the effect, enteric fever, lasted up to September 29th, 1879; but upon that day the Small-pox Hospital became subject to new conditions. It was, owing to the pressure of fever in the Fever Hospital, opened for the treatment of enteric fever. The nurses and servants of this hospital were now subjected to the same influence as those of the Fever Hospital—those of them who nursed enteric fever patients—and with a similar result. Within six weeks there were two cases of enteric fever, followed by a third some weeks later, amongst the nurses in the enteric fever wards. There was a fourth case—that of the porter who bathed the male cases; but, as there are points of special interest in this case, it is not included in this group.

On February 7th, 1880, the Small-pox Hospital was closed for enteric fever, and, on the following day, all the enteric fever patients having been moved to the Fever Hospital, it was opened for small-pox. From that day to this there has not been a single case of enteric fever. Again, the conditions of the two hospitals are changed, and there is the same change in the result.

It may be urged, however, that, whilst the general drainage was good, it by no means followed that the ward-drainage was also good. An answer to this objection has been already given. It may be here added that the soil-pipes, which are four and eighteen feet in length from the closets to the siphon which connects them with the main drains, were taken to pieces; the siphon was taken up, and the drains beyond the siphon exposed. On the soil-pipes was a thin coating of matter, which yielded, on analysis by Dr. Graham, the following result.

The substance, dried at 105° Cent., contained in 100 parts:

Organic matter	28.15
Mineral matter	71.85
	100.00

The organic matter contained 2.95 of fatty substances. The mineral matter consisted almost entirely of carbonate of lime.

The original substance, dried at 105° Cent., yielded by the Wanklyn process:

Saline ammonia	0.100 per cent.
Albuminoid ammonia	0.750 ,,

The foregoing experiments are sufficient to show that the substance was carbonate of lime, mixed with nitrogenous and fatty organic matters, such as one would expect to find on a drain-pipe. On the floor of the drains beyond the siphon was a thin bluish-white soapy material. Of anything in the form of obstruction, there was a complete absence.

I now proceed to narrate briefly the cases, the notes of which are by Dr. Gayton.

A. Adams, aged 37, entered the service on October 1st, 1879, when she was placed on duty in an enteric fever ward. On November 10th, she was found to be suffering from enteric fever. She was discharged to the Isle of Wight to recruit on December 20th.

M. Barham, aged 18, entered the service on June 30th, 1877, as a nurse in the Small-pox Hospital. She continued to nurse small-pox patients until September 28th, 1879, at which time enteric fever patients began to be admitted. She was then placed in charge of enteric fever patients, and on November 16th she was found to be suffering from enteric fever, having been ailing for about ten days. She was discharged to the country to recruit on January 8th.

M. Witchell, aged 30, entered the service as a small-pox nurse on December 11th, 1877, and remained as such until October 1879, when enteric fever was admitted, and she was engaged to act as receiving nurse, in which capacity she would bathe the female enteric patients. On December 3rd she was placed in charge of an enteric fever ward, and on the 9th she began to complain. On the 19th she was unable to continue her duties, and was sent to the ward with enteric fever. She was discharged recovered on February 14th.

I now come to the third group, which arose under circumstances in which specifically infected drains could have had no part, because they were abolished. On October 4th, 1881, at which time there were four enteric fever patients in the four wards forming the east side of the hospital, the water-closets were nailed up, and their connection with the main drainage cut off at the point where the ward-drain joins the hospital-drain. A pit was dug in one of the airing courts, and into this pit the motions of the enteric fever patients were thrown as soon as they were passed, and covered over with dry earth. Communication between the ward and specifically contaminated drain was, therefore, completely cut off. There remained, of course, communication with the drains and the wards by means of the baths and the scullery-sinks; and, from the pythogenic theory, this would have been enough. But here we are arguing on the hypothesis that enteric fever is specific; and, therefore, although air from the drains might have escaped through the baths and scullery-sinks, such air could not have contained enteric fever poison, because none went into them. These arrangements appeared to me to supply the conditions for a fairly accurate experimental inquiry, so far as concerns the drains and the decomposed stool theory. And here it may be as well that I should repeat, that I am not arguing that drains may not convey enteric fever, but that our drains did not convey the fever in the cases which arose in the fever and small-pox hospitals. The contention in these papers is, that the disease is contagious in the ordinary sense; that in susceptible persons, who for the most part are young adults, it arises by direct contact with the sick, if the contact be sufficiently close and prolonged, as in the case of nurses. That the contagium does not spread to any great distance, say, from one bed to another, in a well ventilated, well kept room, is a factor bearing on the question, How far does the contagium spread? not at all on the question, Does it exist? Typhus fever and enteric fever have been treated together over and over again with impunity, but who doubts that typhus fever is contagious? I am not recommending that the diseases should be treated together when it can be avoided, for the simple reason that the precautions necessary to the success of the practice can rarely be obtained. That enteric fever, however, does now and then spread in hospital-wards, there appears to be little doubt. Dr. Sharkey has given some instances; and when it is more generally recognised that the disease does arise by contagion, we shall probably hear of more. The widely spread belief, that it cannot arise in this way, necessarily leads inquirers to look for another mode of origin. But to return. The drains at the Homerton Fever Hospital—that is, specifically infected drains—have no existence. The closets are all nailed up, and the connection between the ward drain and the main drain is taken up. Nurses and others could not, if they would, pass enteric fever or other motions into the drains. In each ward, there was an additional assistant nurse to carry the motions immediately they were passed, and throw them into the pit. This was the condition of things from October 4th up to March, 1882. Now, whatever has not been eliminated is a possible cause. But drains at Homerton were eliminated; therefore, drains at Homerton were not a possible cause, or, more correctly, a means of conveying the cause. In these conditions, L. Horton, aged 18, entered the Bradley ward as an assistant nurse on October 8th. She was on duty until November 6th, when she was found to be suffering from what was probably enteric fever. She was discharged recovered on January 2nd. There was continuous fever for twenty-two days, with the general appearance peculiar to enteric fever. This is not a striking result, but it has been the yearly average amongst the nursing staff during the last six years, 1878 to November 1883. It may be fairly said, therefore, that the absence of drains specifically infected made no real difference in the incidence of enteric fever on the nursing staff of the Homerton Fever Hospital.

There were two other cases during this period, one that of a patient, the other that of a visitor to an enteric fever patient.

A. C., aged 17, was admitted to the hospital on January 6th, 1882, supposed to be suffering from enteric fever, and was placed in the Collins enteric fever ward. Some time after his admission, we came to the conclusion that pneumonia was the illness from which he was suffering. On January 16th, he was able to sit up. On the 17th, he had full diet; and from this time to February 2nd, when he was discharged, he was up and about daily. On the 10th of the same month, he was readmitted with distinct enteric fever. He died on the 14th.

At the *post mortem* examination, which was attended by Dr. Henderson, of the London Fever Hospital, numerous ulcers were found on the lower part of the ileum, just on the point of sloughing; no evidence of a relapse.

H. A. was admitted into the hospital on October 19th, 1881, from a college in Queen's Square, Bloomsbury, certified to be suffering from scarlatina. She was seen by my colleague, Dr. Twining, who sent her into a scarlet fever ward. From the scarlatina she was apparently so far recovered, that, on the 23rd, she was placed on a diet.

On November 2nd, she was again definitely ill, and had been ailing two or three days.

On the 5th, enteric fever was diagnosed, and she was removed to an enteric fever ward. On the appearance of an apparently new illness on November 2nd, H. A.'s mother, who was a servant in a well-to-do family in Kensington, was communicated with. She left her situation, took lodgings at 71, Ballance Road, Hackney, and visited her child, first in the scarlet fever ward and then in the Godding enteric fever ward daily, between November 5th and 12th, when she was compelled to desist through illness.

On November 24th, I was asked to see her. She said she had been suffering from sore-throat, general weakness, and loss of appetite. On examination, her throat was somewhat relaxed, and her pulse and temperature were normal. She might, I thought, have had a mild attack of scarlatina, contracted by visiting her child in one of our scarlet fever wards. I told her there was little the matter with her, ordered her some quinine, and said she would probably be well in a few days. On December 8th, she was admitted with enteric fever.

It is not contended that these three cases are conclusive. It might be objected that Horton's case was not decided enough to found a conclusion upon; and although conclusions upon this question have been founded upon less satisfactory evidence, I think that, having regard to the conclusions intended to be drawn from it, the objection is a valid one. To the second case, it might be objected that the sanitary conditions of the lodgings which Susan H. took at Ballance Road, Homerton, in order that she might visit conveniently her sick child, were sufficient to account for the case. Such water as she drank was probably a more or less diluted solution of sewage; stinks of all sorts were so common that public meetings had been held on the subject; the soil on which the houses were built was made soil, and made chiefly of a compost of various kinds of dirt; the street was rarely free from some form of zymotic disease; and, as a matter of fact, known at the Hackney Town Hall, a death from enteric fever was reported as having occurred at No. 118, Ballance Road, on July 29th, 1881, and, what is more to the point, one on October 28th, at No. 92, Hassett Road, the street just behind Ballance Road, and not far from 71, where Susan H. lived. To the third, it might be objected that the illness from which she finally died had been hanging about her from January 6th; that the pneumonia, if it existed, was an unimportant incident, or, if it did not exist, that it was enteric fever beginning in this way, as some say it does; and that, about the end of February, when she was going about, she was really suffering from the first stage of an enteric fever caught outside the hospital; and that, therefore, the case proves nothing at all.

These, briefly, are objections to the view sought to be established; objections which might easily be enlarged upon. Individually, I do not think these cases of great importance; but together, whilst far from conclusive, I think they deserve consideration from those who attach little importance to the view that enteric fever is communicable from the sick to the healthy, by personal intercourse in circumstances in which decomposition can have no part, except, of course, such decomposition as may have taken place within the body. Whatever conclusion may be drawn from them, and whatever objections may be taken to them as evidence in favour of the view that enteric fever is an infectious disease, one fact is indisputable, and that is, that three persons fell sick of enteric fever within about a fortnight of their exposure to enteric patients, in rooms cut off completely from drains; in rooms in which there were no decomposing stools; and that these three persons were not exposed to any other known source of contagion; that is, briefly, the absence of the cause, "specifically infected drain," and "decomposing stool," was not followed by the absence of the effect, enteric fever.

MEDICAL CENTENARIANS.—Dr. Christopher Columbus Graham, who died on February 3rd, 1885, at Louisville, Kentucky, had celebrated his hundredth birthday on October 10th, 1884. He is described as a man of remarkable physical and mental power, who practised as a physician for a period equal to an average lifetime, and spent his old age in scientific and literary pursuits. Another reputed centenarian still survives in Dr. O. S. Taylor, of Auburn, New York, who, it is said, completed his hundredth year on December 17th, 1884. He entered at Dartmouth College in 1809, and graduated in 1813.

MEDICAL MAGISTRATE.—Mr. Frank Spencer Watson, Colonial Surgeon at St. Helena, has lately been appointed a justice of the peace.

ON LEUCODERM, VITILIGO, VEN KUTTAM (TAMIL) OR CABBARE (SINGHALESE), AND SEVERAL NEW METHODS OF TREATMENT.[1]

By PHILIP S. BRITO, M.B.,
Late Demonstator of Anatomy, Aberdeen University.

The appearance of the unfortunate victims of vitiligo is striking, and scarcely fails to evoke a feeling of horror and pity for the afflicted, whose condition is deemed incurable. The picture of an otherwise dark person, perhaps a shade removed from the typical sooty hue of the negro's skin, marked with spots perfectly white, and, from the contrast, appearing fairer than the skin of the fairest European, must, to even eyes familiarised to the sight, appear repugnant. These spots vary from a mere speck to several inches in size, and, in advanced cases, the body being nearly all colourless. To the best of my recollection, they first appear about the lips, nose, eyelids, soles, palms, and forehead, or perhaps the conspicuous situation challenges attention first. Gradually they enlarge peripherally, and by the coalescence of several smaller ones. In the instance of a beggar, this, or a similar change, had progressed to such an extent that the appearance he presented was that of one in whom the conditions were reversed, namely, of a white man undergoing melasmatic transformation. To be strictly accurate, it must be stated that this unfortunate patient had the appearance of the leprous physiognomy, while the other cases I am adducing presented quite a healthy skin, but for the characteristic absence of pigment. In a young lady of my acquaintance (between the ages of 20 and 25) the visible parts of the body had become so perfectly leucodermic that one could scarcely say whether he had before him an individual of a fair skinned race or not. In a third, that of a gentleman, there was a large colourless area, implicating the greater part of the nose, cheek, lips, and part of the brow. On the dorsal and palmar surfaces of the hand, I noticed smaller but similar patches.

The decolorised part assumes an oval or roundish appearance; is not raised above the level of the healthy skin; in short, differs in no way from it except in colour. It is distinctly circumscribed, so that it is quite an easy matter to see where the white skin ends and the dark begins. These areas are not confined to one side of the body, but freely spread beyond the mesial line. To the best of my knowledge, there seemed no disturbance of the vascularity of the part, for I noticed, especially about the lips, distinct indications of blood-supply; in fact, from the greater transparency, the mucous membrane was rosier even than in health. The sweat-glands were also unaffected, for I noticed these parts bedewed with perspiration. The sensation of the part is probably intact.

Age.—This disease cannot be assigned to any special period of life, but I have seen examples oftener in adults than in childhood. When it manifests itself early in life, it does not seem in any way to affect the general health. Several children, thus afflicted, have been seen to grow up to manhood otherwise healthy. As the child grows, the spots also enlarge, but their growth is subject to great variation; for, in some, the blanching is rapid, while, in others, indolent. In a patient in whom the disease manifested itself early, the vitiligo was confined to her lips and heels, while the hands were speckled over with spots varying from a pea to a florin-piece and larger; and this, even after she had attained to middle age. But, though thus comparatively stationary in her, the disease spread with marked rapidity in her daughter, the young lady alluded to before.

Sex.—Either sex may be liable to this disease, but my impressions are that it is commoner in females.

Diathesis.—No special diathesis nor mode of life seems to predispose to the disease; but heredity appears to act as a strong factor in its production. Like other diseases of this kind, it may follow the law of atavism, passing over one generation to reappear in the next. Collateral branches may also show evidence of this disease. Though heredity plays an important factor in its occurrence, the disease is liable to appear in those also who have no such history.

Distribution.—Though India, Ceylon, Africa, Egypt, and probably many other parts of the world inhabited by dark skinned races would furnish the most striking instances, yet I believe that this condition is to be met with nearer home. The blanched white appearance occasionally encountered on the face, and other parts of Europeans, is probably of the same nature, but it fails to attract attention from the absence of the contrast furnished by the dark skin around.

Pathology.—The question of pathology opens up a wide field for discussion. Until we are in a position to settle definitely why the cells of the rete Malpighii should, in certain races, have the function of manufacturing or attracting melanin, and why not in others—why, under certain circumstances and influences, we find pigmentation occurring in and disappearing from the body—until we settle these vexed points, we must cloak our ignorance by attributing these phenomena to some obscure nerve-action. The classical experiments of Lister on the pigment-cells of the frog, establish beyond a doubt the intimate relationship existing between these elements and innervation, and they give some semblance of truth to the otherwise mere suggestion that pigmentation is due to nerve-influence. But another factor, besides that of nerve-influence, should be taken into consideration, namely, the quality and quantity of the mother-pigment from which other pigments are derived.

The weight of opinion inclines strongly in favour of the hæmoglobin of the blood being the source of almost all pigments found in the body. other facts were wanting, I might adduce, as tending towards the corroboration of such derivation, the results I obtained in watching the changes which mammalian and amphibian blood underwent in its passage through the alimentary canal of the leech.[2] But what subtle changes in the circulating fluid and the circulatory mechanism may have taken place in vitiligo I am unable to state, beyond what has been mentioned above on this head.

It must be confessed that this, being a record of the impressions and observations of an anteprofessional period, these and other essentials, it must be evident, could not then have formed the subject of a close and scientific investigation, and also because contact with them was generally avoided. This caution arose from the disease in question being regarded as a phase of that loathsome affection, leprosy. It is no wonder that these two diseases should have been confounded by the lay public, for we find even the profession led astray. The chief factor in originating this mistake is the occurrence of pigmentless spots in both diseases; but, actually, the one is as distinct from the other as two diseases can be. For aught we know, this common symptom may be quite an accident in the case of leprosy; for many typical cases of lepra Arabum occur without the appearance of the white spots known as morphœa alba, while in vitiligo, the occurrence of this symptom is indispensable to constitute vitiligo.

Diagnosis.—Nothing can be more perfect than the graphic account given by Sir Erasmus Wilson, in his *Lectures on Dermatology*, which picks out at once the leprous from the non-specific disease, and to which the reader is referred. Further, as aids to diagnose the vitiliginous from the leprous transformation, I extract the following from Hebra as being very apposite. "In vitiligo, there are only white and brown patches. The white ones are sharply defined, disc-shaped, and always have convex borders, etc.....In other respects, the skin is normal in character, smooth, pliant, and of normal sensibility. The patches of vitiligo are surrounded on all sides by brown ones, the contours of which are consequently concave.....The spots in lepra present various shades of colour, they are more permanent, and for the most part not sharply defined. At the same time the skin has undergone other pathological changes, it is infiltrated or atrophic, hyperæsthetic or anæsthetic. The last mentioned circumstances also help to distinguish isolated sharply defined morphœa-spots from those of vitiligo. The hairs upon the white spots of lepra seldom become grey, and hardly ever uniformly so.' (Hebra, *On Diseases of the Skin*, vol. iv, New Sydenham Society.) How far the reverse of this last character, which is said to obtain in leucopathia, may be recognised as of diagnostic value, I shall presently discuss.

It was here that I looked into the literature of the subject, more especially into Hebra; and, while in the main the slight account I have furnished corresponds more or less with the full and lucid views enunciated therein, I venture, with all deference to that eminent and distinguished dermatologist, to take exception to certain of his observations. He writes: "The pubic hairs and the hairs of the scalp are quite white, in isolated tufts and curls, *Poliosis circumscripta* (Fuchs), while the surrounding hairs, for instance, are of a normally dark colour. If we separate the white hairs from one another, we then discover that the portion of skin corresponding to the group of the latter is white over a patch of a circular form—is without pig-

[1] To Professor Struthers' able criticism of the text I am indebted; and were I to pass without a word of mention, I should be guilty of ingratitude for a kindly service which, I am quite satisfied, has naturally enhanced, in my estimation, what little value this contribution may have.

[2] See *Journal of Anatomy and Physiology* for April 1882, On the Digestion of Blood by the Common Leech, and on the Formation of Hæmoglobin Crystals. By William Stirling, M.D., Sc.D., Professor of the Institutes of Medicine, and Philip S. Brito, Student of Medicine, in the University of Aberdeen.

ment." From what has been said once before, the condition of the pubic hairs must be left uncontested; but, if my own vivid and lasting impressions be of any weight, I must say that, in one instance at all events, I was struck rather by the absence of this whitening of the hairs over visible parts than by the opposite contingency. In the instance of the young lady, the hair of the scalp was jet black. Here, once more, I must claim the reservation I have already made; but my impressions in regard to her are too strong to let them pass without a word of dissent. Dr. Hebra writes further on: "It would seem that the disease commences in middle life only. We have never seen it in children." A footnote, appended evidently by the editor, would seem to contradict this statement, and I have on several occasions seen the condition developed in children as well.

Treatment.—"We are not able to cure vitiligo by any of the remedies or methods of treatment which are at present at our disposal. We can neither prevent the production of fresh pigmentless patches, nor arrest the progress of those already formed, nor permanently reproduce the normal pigmentation of the skin artificially on the whitened parts." Thus commences Hebra the section on Therapeutics. The only mode of treatment he offers seems apparently to apply to those cases of vitiligo appearing in "pigment-mole (nævus), or brown, flat acquired wart." His object is to deprive the rest of the pigment, and thus do away with the piebald disfigurement. For this purpose, he employs certain escharotics, "which cause a rapid removal of the epidermis." He cautions against the use of cantharides, cortex meserei, croton-oil, mustard-seed, and sulphuric acid, "whose application, experience teaches us, is followed by the production of fresh epidermis, which also appears of a dark colour." It is evident that his treatment is inapplicable to the vitiligo developing in dark races. We must, therefore, resort to some other means. In the face of the quotation with which I began this paragraph, and of the unlimited experience of Hebra, the greatest dermatologist any age has yet seen, it would seem hopeless to advocate any method of treatment as likely to be effectual in arresting the abnormality. But I will, nevertheless, indicate certain means which seem, theoretically, plausible enough, though one would not be surprised if the employment of some of them resulted in failure.

1. Why not use those very remedies for the destruction of white patches whose application Hebra thinks would result in producing epidermis of a dark colour? In this group, we should, *par excellence*, include silver-nitrate. Should the employment of these caustics result in the renewal of an epithelium without pigment, the following may be given a trial.

2. Excision of the patch when small and conveniently situated, the incision extending a good way into the sound black skin. Allow the parts to granulate, and perhaps the new epithelium, which is formed from the neighbouring healthy cells, may take on a healthy action.

3. Excision succeeded by grafting skin from the same or a different individual. Dr. M——, of Bengal, a graduate of the Aberdeen school, mentioned to me the instance of a European lady, who grafted a piece of skin of an Indian gentleman on to her neck, and that the graft took, retaining its original hue. Readers of Mr. Bryant's excellent work on *Surgery* will be reminded of a companion story. But what is more to the purpose is the fact, settled beyond a doubt by that eminent surgeon, that the grafts give their type to all the cells developed from them. Let me quote his conclusive remarks: "That the engrafted portions grow by the proliferation of their own cells is likewise proved by the fact that, in the case of a white man, upon whose ulcerated leg I engrafted four small pieces of black skin, the whole being no larger than a barley-corn, the black skin grew twenty-fold in ten weeks..... gradually enlarging, and sending out prolongations, which joined till one patch of black skin had formed." (*Practice of Surgery*, third edition, vol. i, p. 164.)

4. Dermic injections of solutions of silver-nitrate, and subsequent exposure to sun-light.

5. Inunction with a paste containing silver-salts, and tattooing with similar preparations.

6. Lastly, I would lay some stress upon the long continued internal administration of argentic salts, till the condition known as argyria is induced. For this purpose, the nitrate is preferable to the oxide, which latter is less apt to induce staining. A course, extending over three months, ought, on theoretical considerations, to have the effect of rendering the leucodermic areas darker. I am aware this artificial pigmentation will not correspond to the natural hue of the normal pigment; but, judging from the feelings of the patients themselves, any sort of pigmentation, I should suppose, would be preferable to the ghastly whiteness.

It may be said that, as the salt is uniformly deposited in the skin, any darkening power it may have on the white patches will be compensated by the additional darker hue induced in the surrounding skin. A little consideration of the physical effects of light upon a sensitive surface will meet this objection. When the photographer wants to protect any part of his prepared silver-paper from the darkening action of light, he employs a blackened medium to absorb the rays of light, and prevent their penetration. The pigment in the neighbourhood will fulfil this function of the screen, while the perfectly colourless vitiliginous spots will allow the free entrance of the solar rays, which could hardly fail to act on any silver present. Further, we may protect the surrounding pigmented regions, and expose only the diseased parts, aiding additional deposition, if need be, by some of the other methods detailed above. Again, the use of baths, which have for their object the removal of the deposited silver, carefully protecting the blanched areas by unctuous or other applications, may be resorted to under immediate medical supervision. If cyanide of potassium be thought too dangerous a remedy, the thiosulphate (formerly called hyposulphite) of sodium may be tried with safety.

The use of argentic nitrate recommends itself from another consideration. From the disease sometimes manifesting itself in corresponding parts, as the hands, or feet, not being confined to one side; and, further, from the experiments of Lister, quoted before, and from other considerations, we were driven to assign a neurotic origin to it. This drug has of late been largely and beneficially used in several such affections, and may be also beneficial in this instance, too.

Apart from this, if the cells of the rete Malpighii, which, according to Hebra, appear normal, the only difference being the absence of pigment from them, are concerned in excreting the salt, it is probable—I say probable—that, in doing so, they may be stimulated to regain their former legitimate physiological function. In this connection, let me remark that it has not been recognised as a fact of therapeutic value, or, if it has been, not with sufficient importance, that, in order to expect a drug to be effectual in removing a morbid condition from a tissue, it must be of such a nature that it should act on, modify, or be excreted by, that tissue in which the disease is situated.

When these measures first suggested themselves, I was in hopes that a practical experience would have supplemented their theoretical advocacy; but, as I am debarred, at present, from testing their utility, by the absence of suitable cases, I court publicity with the hope that some investigator, whose results will be gratefully waited for, will work out the details.

CLINICAL MEMORANDA.

REPORT OF EIGHT CASES OF DIPHTHERIA.

It may be of interest if I report the results, with the treatment, of eight cases of diphtheria, which came under my care during a recent epidemic.

Case I.—A child, 2½ years old, when first seen, had membrane on both tonsils. The throat was painted with glycerine of carbolic acid, while perchloride of iron was given internally. The following day, there was membrane in the trachea; and, as the parents refused to allow tracheotomy, an emetic was given, causing the expulsion of a large plug. The patient, however, sank during the night.

Case II.—A child, 12 months old, was seen for the first time during the night. It then had a small patch on the right tonsil, which was painted with equal parts of strong hydrochloric acid and glycerine, perchloride of iron being given internally. The patient only lived till the following morning.

Case III.—A child, aged 2 years and 7 months, was moribund when seen, dying a few minutes after my arrival.

Case IV.—A child, 12 months old, was seen with membrane on the back of the pharynx. Perchloride of iron was given, and the throat swabbed frequently with syrup of chloral-hydrate. The following day, the glottis was involved, but the parents refused to have tracheotomy performed, and the child died the same day.

Case V.—A child, aged 1 year and 4 months, seen first with membrane on the pharynx and tonsils, was ordered sulpho-carbolate of soda with some aromatic ammonia in alternate doses with perchloride of iron. The throat was frequently swabbed with syrup of chloral-hydrate. The patient apparently recovered, but died suddenly on the ninth day after disappearance of all symptoms.

Cases VI, aged 5 years; VII, aged 3 years; and VIII, aged 6 years, were treated in exactly the same way as Case V; all recovered.

Remarks.—Analysing the above cases, we have four deaths due to the direct effects of the poison; one due to a sequela, namely, paralysis of the heart. These were all under 3 years of age. The remaining

ones recovered, being 3 years old and upwards; of course, in proportion to the age, the powers of resistance were greater, but still the symptoms were materially modified by treatment. In all, the chloral removed the livid condition of the throat; the child breathed more easily after each application; and the pain caused by swallowing seemed less. But to what extent the sulpho-carbolate of soda influenced the disease, I am unable to say; yet the fact remains that only was benefit derived, or did recovery result, in those cases in which it was used. I should add stimulants were used in all.

H. C. ALDERTON, L.R.C.P., M.R.C.S.

AMENORRHŒA PRODUCING EXCESSIVE VASCULAR TENSION.

A YOUNG lady, aged 15, of delicate constitution, who had grown very fast, had a severe attack of enteric fever. Six weeks after the attack began, there were no unfavourable symptoms, except that the pulse persistently ranged between 110 and 130. Repeated examinations of the lungs and heart failed to reveal anything further abnormal. After a fortnight's treatment with digitalis and cinchona, the pulse was still hard, and ranged about 120. The dose of digitalis was increased from 10 to 15 minims of the tincture. A week's further treatment produced no effect. She was improving in all other respects, but the pulse still averaged 120. She was sent to Brighton for a change; owing to circumstances, she could only remain a fortnight. She came back looking well; she was gaining flesh, eating well, sleeping well. There was some breathlessness, of course, but remarkably little. The menstrual function had been established a year prior to the fever. She had not menstruated since she was taken ill. I regarded the amenorrhœa and the rapid pulse as alike effects of the enteric poison. A month later, however, she menstruated once more, and the pulse at once subsided to 90. She has since remained perfectly well.

E. PAGET THURSTAN, M.D.Cantab.,
Southborough, Tunbridge Wells.

SURGICAL MEMORANDA.

CASE OF SEVERE TETANIC SYMPTOMS: RECOVERY.

S. N., aged 32, had suffered paralysis of the left lower extremity since the age of eleven months. She had all her life enjoyed fairly good health; she had a weak ulcer near the ankle of the paralysed limb. I was called to see her on March 10th. For a few days previously, she had had a swelling in her mouth, probably a small abscess connected with the teeth. At my visit, it was impossible to examine the mouth, which was firmly closed by well marked lock-jaw. The whole muscular system was in a state of spasm; there were well marked *risus sardonicus* and opisthotonos. There was troublesome constipation at first, which was relieved by enemata. Then doses of bromide of potassium and chloral hydrate were administered, and continued for two or three days, when she refused to take more, as she said it made her mouth sore. Whilst she was taking the medicine, it made her sleep; but produced very little, if any, relaxation of the spasm. No medicine was given for more than a week, when rather severe bronchial symptoms, with difficulty of breathing, set in. She was quickly relieved of these symptoms by doses of carbonate of ammonia, and the tetanus began to abate, the patient being able gradually to open the mouth and take solid nourishment. The general spasm and lock-jaw continued for more than a fortnight. On April 4th, twenty-five days after my first visit, I found her quite recovered. I presume the tetanus was produced by nerve-irritation from the abscess in the mouth; and the patient may be said to have recovered from a sharp attack without medicine.

CHARLES BALLARD, M.R.C.S., etc., Oxford.

VARICOSE ULCERS OF THE LEG, WITH SPECIAL REFERENCE TO THEIR TREATMENT BY MARTIN'S BANDAGES AND SPONGE-GRAFTS.

THE most common cause of ulcers of the leg is undoubtedly the presence of one or more varicose veins. Very often the affected leg or legs may appear at first sight entirely free from them, but a minute inspection will generally reveal a small varicose vein, leaving the ulcer at its upper edge. The scars left by varicose ulcers are generally pigmented, and might be called copper-coloured.

With regard to the treatment of these ulcers; the system is nearly always low, tonics are, therefore, indicated. I have always found that good bottled "cooper," which is as cheap as bad draught beer, was as good a tonic and agreed better with the stomach than simple stout. The local treatment with Martin's bandage and sponge-grafts, which I shall describe presently, I have found very successful. Several of my patients had already tried rubber-bandages and given them up, but all of these are now wearing them, although their ulcers are cured. The medical man ought himself to bandage the leg evenly and not too tightly from the roots of the toes upwards, nearly covering the heel, to just below the knee, several times, so as to thoroughly instruct the patient how to do it. When the patient can do this properly, the bandage should be applied before getting off the bed in the morning, and should not be taken off until after going to bed at night. The bandage ought to be washed with cold water every two or three days. With respect to the sponge-grafts, I prepare mine in the following manner. Using a fine piece of new sponge, which I always keep in a bottle of weak solution of carbolic acid, I cut off a piece from the outside with a pair of sharp scissors, so as to make a smooth surface. I then pinch up the sponge in a pair of dressing-forceps, so as to leave the pinched up smooth surface a little above the edge of the forceps; this I cut off with a sharp razor, and so get a very thin section of the sponge. When dry, a number of these sections may be conveniently carried in an envelope in a pocket-book. The way to apply one is to damp it first, and then to cut it to the shape of the ulcer, but a little smaller. It should be laid smoothly on the ulcer, a piece of soft rag placed over it, and the bandage evenly put on over all. The sponge will adhere in a very short time by the growth of granulations between its interstices. Should it not be painful or offensive, it may be left on till it falls off with the scab, or is absorbed. Sometimes, however, in a few days it is painful from the confinement of discharge. It should be taken off, a warm linseed-poultice applied to clean the wound, and a fresh piece of sponge applied as before. The wound will, however, be found to be smaller after each application until it is healed. I was at first afraid to apply the sponge to ulcers which appeared irritable. I found, however, that the sponge suited them equally well; and I should not now hesitate to apply the sections to any ulcer.

In the treatment of these varicose ulcers, and indeed of varicose veins in general, experience has taught me that the patient should always sleep with his heels higher than his head. This may be effected by putting blocks of wood under the legs of the bedstead at the foot. It is of no use whatever to put pillows, etc., under the foot of the mattress.

JOHN A. FRANCIS.

Edenham, Southsea.

OPHTHALMOLOGICAL MEMORANDA.

CONVERGENT CONCOMITANT SQUINT AND CONSECUTIVE AMBLYOPIA.

THE appearance in the BRITISH MEDICAL JOURNAL of March 28th of two short abstracts of papers read at the Harveian and the Midland Medical Societies, and the publication within the last eighteen months of two handbooks of ophthalmology in the English' language, afford me an opportunity of protesting against the assumption conveyed, that such a thing as squint-amblyopia, or secondary amblyopia, due to suppression of the retinal image, exists. Not only is there no positive proof to be adduced in favour of the view, but the negative evidence is overwhelming. There is little to be added to the clear and lucid exposition of Schweigger, except to verify it; and ophthalmologists will have no difficulty in so doing. Briefly stated, amblyopia *ex anopsiâ*, or squint-amblyopia from suppression, exists only in the imagination of ophthalmologists. Congenital amblyopia, especially monocular, is sufficiently common to account for the visual defect found in squint. When free from true retinal amblyopia, but suffering with corneal astigmatism, the visual acuity of the squinting eye, carefully tested, is not found to be depreciated by the strabismus. From disuse, the image-holding power of the retina is lowered. Visual acuity in its relation to squint is as follows. Equal visual acuity of the two eyes is represented by persistent alternating strabismus. Slight monocular amblyopia causes at first alternating strabismus, but finally determines the amblyopic as the fixed squinting eye. High monocular amblyopia determines the fixed eye from the commencement. In the weakness from disuse of the image-holding power of the retina lies the secret of the apparent visual improvement which, in a few cases, certainly takes place after parallel axes are obtained; it also assures us that under no conditions can an eye become visually acute after operation, where such eye has been shown to be distinctly amblyopic during the squinting stage.

I will only say, further, that a clear appreciation of these points will

save both operator and patient some disappointment; and will refer those interested to page 161 *et seq.* of Schweigger's *Handbook of Ophthalmology.*

P. H. MULES, M.D.,
Surgeon to the Manchester Eye Hospital.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

GUY'S HOSPITAL.

A FATAL CASE OF ANTHRAX.

(Under the care of Mr. CHARTERS SYMONDS.)

[WE are indebted to the House-Surgeon, Mr. SALVAGE, for notes of the case.]

M. M., a man aged 38, was admitted on Sunday, March 24th, suffering from charbon. For sixteen years, he had been engaged in a hide-warehouse, and during the previous week had been employed at a wharf, moving hides imported from China. Three days before admission, the patient's neck felt sore, and he noticed a small pimple, about the size of a pin's head. On the two following days, this pimple grew larger, and became a little painful. On the day before admission, he felt sick, and suffered from headache. When seen on Sunday about midday, the man looked in perfect health, and, except for a headache, felt so. On the back of the neck, an inch and a half below and behind the right ear, was a small reddish-brown irregular patch, about one-eighth of an inch in diameter, surrounded by a zone of very indefinite vesicles. Around this, the skin was hard and dusky red for about three-quarters of an inch. On handling the "pustule," it could be felt as a circumscribed swelling, and was elevated about a quarter of an inch above the surrounding skin. There was no lymphatic imflammation, but just anteriorly there was some infiltration towards the ear. The vesicles being pricked, the fluid examined, and the characteristic bacillus found, the whole mass was freely excised down to the deep fascia, some fibres of the trapezius being exposed at one point. The temperature at the time of operation was 99.4° Fahr.; six hours later, it was 103.8° Fahr., with a pulse of 120. The man was ordered three grains of quinine every six hours, a calomel-purge, and stimulants if the pulse rose.

He had a fairly good night, and next morning, March 25th, felt comfortable, except for a headache and slight nausea. The temperature was 99°, and the pulse 100. On dressing the wound, the œdema in front was found to have extended and reached the angle of the jaw; there was no lymphatic inflammation. At 9 P.M., he was much in the same condition; he had taken his food well, and was free from pain.

At eight o'clock the next morning, March 26th, he was reported by the sister to be quite sensible, and nothing unusual was observed; but, about 8.45, his breathing attracted attention, and he was found in a restless insensible condition, with stertorous breathing. At 9 A.M., he was throwing his arms wildly about, was breathing heavily; his face was dusky, and he was quite insensible; the pulse was 110, and the temperature 99.6° Fahr. Free incisions were at once made in the neck all over the brawny area, which had extended during the night; to encourage bleeding, a poultice was applied. The right basilic vein was opened, and twenty minims of a solution of perchloride of mercury, 1 in 1,000, were injected. This was repeated half an hour later, and again after a further interval of two hours. Ten minims of liquor ammoniæ fortior were also injected, diluted with an equal quantity of water. No benefit resulted from this treatment; the man still continued restless, with stertorous breathing, the face became more and more livid, he gradually grew weaker, and died at 3 P.M. on March 26th, just forty-eight hours after the removal of the charbon, and about five days after inoculation.

At the necropsy, made by Dr. Carrington, extensive meningeal hæmorrhage was discovered. The blood was confined beneath the arachnoid, but was widely diffused over the brain; numerous anthrax-pustules were found in the mucous membrane of the stomach and small intestine; these appeared as elevated patches, with a brown central slough, surrounded by a zone of intense injection. The valvulæ conniventes were œdematous, and there was a little ascites. The cellular tissue of the neck was œdematous, and the aryteno-epiglottidean folds, especially the right, so swollen that it seemed impossible that any air could have entered the trachea. There were also a few small hæmorrhages into the lungs a short distance below the pleura, and one of very considerable extent at the left base. The spleen weighed 17 ounces, but was not soft. The bacillus anthracis was found abundantly, not only in the serum before death derived from the vesicles, but also after death in the serum of the œdematous tissue of the neck.

REMARKS BY MR. SYMONDS.—This case was one of unusual severity in respect of the general symptoms, while the local affection was at first slight. The only character determining the nature of the "pustule" was the zone of vesicles, for the centre had not the usual depressed dark appearance. So small was this local "pustule," that I deemed it necessary to confirm the diagnosis by an examination of the fluid drawn by a puncture from the vesicles before operating. The characteristic bacillus was recognised after staining in the usual way, and at once the whole mass was freely excised. The rapid rise of temperature, after the operation, must be attributed to another cause than the anthrax-poison. The intravenous injection was used with a view of destroying the bacilli, but already the fatal hæmorrhage had occurred. Still it seemed possible that a sudden development of the bacillus might explain his symptoms, and, on this ground, the injection was used. It is not uninteresting to note that neither the perchloride nor the ammonia had any appreciable effect. The subject of anthrax amongst the wharf and warehouse labourers of Bermondsey has been fully inquired into by Mr. Davies-Colley, who published a series of cases in the *Medico-Chirurgical Transactions*, and later by Mr. Spiers, who reported to the Local Government Board.

METROPOLITAN FREE HOSPITAL.

SEVERE CARDIAC DYSPNŒA; GREAT BENEFIT FOLLOWING VENESECTION.

(Under the care of Dr. DUDLEY.)

[Reported by CHARLES POWER, M.A., M.D., and EDWARD RICE, M.B.Lond., House-Surgeons.]

A. T., AGED 64, a stout farmer, who had been an athlete in his younger days, and had always enjoyed good health, had an attack of rheumatic fever eighteen years ago, from which he appeared to recover perfectly. Shortness of breath, which he attributed partly to his having lately become very stout, and partly to flatulence, had been present for a year. During November and December 1884, he had four attacks of "faintness," from which, however, he soon recovered. On January 12th, he had another attack at an hotel, and was at once admitted to this hospital.

On admission, his breathing was short and laboured; his countenance anxious, and face of a dusky hue; the pulse was very rapid and weak, and the extremities cold. There was slight general bronchitis; the heart-sounds were inaudible. There was no œdema, but the urine contained a trace of albumen. From this attack he soon recovered under the influence of hot-water bottles and stimulants, and remained fairly well until early on the morning of January 16th, when he was seized with another attack. The dyspnœa and lividity were very marked; the extremities were cold, and the skin covered with profuse perspiration; the pulse was very rapid, and somewhat weak. An emetic was administered, but without effect; then hot-water bottles were applied to the feet, and a mustard-plaster to the præcordium. The patient, however, rapidly became comatose, and apparently moribund. Twenty minims of ether injected subcutaneously had no effect on the coma or dyspnœa, but the pulse became full, hard, and bounding.

The house-surgeons decided, considering the changed character of the pulse, to try the effects of bleeding. Sixteen ounces of blood were taken from the veins of the arm, with an immediate alleviation of all the symptoms. The pulse became soft, though still full; the lividity and dyspnœa passed away, and the patient became at once conscious, sat up, and spoke. About an hour after this the emetic acted, the vomited matter consisting of a quantity of mucus; this afforded further relief. From this time he progressed favourably; he was kept in bed and on low diet until January 19th, when he was allowed to get up; and, on January 30th, he left, apparently in his usual health. Careful examination of his heart before he went out revealed no signs of any abnormal condition.

It may be mentioned that, about three months previously, the same patient was brought to the hospital suffering from a similar severe attack. On this occasion, rest and stimulants sufficed to restore his equilibrium.

REMARKS BY DR. DUDLEY.—There is no doubt that judicious venesection saved the life of this patient; for, during this severe

attack of dyspnœa, the right side of the heart was gorged, and its distended walls were unable to contract. The inference to be drawn from the history of this case is, that the patient has fatty degeneration of the heart. Dry cupping is a remedial application, from which I have seen much benefit in cases of embarrassed respiration, and is another method of treatment not so much used at the present day as it ought to be.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 21ST, 1885.

J. SYER BRISTOWE, M.D., F.R.S., President, in the Chair.

Displacement of Lumbar Vertebræ.—Mr. ARBUTHNOT LANE referred to a paper he read recently before this Society, in which he described the modifications which the lumbo-sacral articulation underwent, owing to the transmission of the superjacent weight through it to the pelvis, in labourers. He found that they varied within broad limits, having at one extreme the cases in which the centre of pressure fell behind the body of the fifth lumbar vertebra. In the other extreme, the centre of pressure fell somewhat in front of the body of the last lumbar, so that there was in it a marked tendency to forward displacement of it, which was opposed by the articular processes of this vertebra. In this case, the spinous processes did not share in supporting or transmitting the weight to those of the sacrum, which were, proportionately to the bodies, but slightly developed. He had since found two remarkable modifications of the lower part of the column, resulting from pressure. The first of these presented most of the changes characteristic of the first group referred to above. The spinous processes and laminæ of the sacrum were enormously enlarged, and were very dense. The bodies were small, and cancellous in structure. The body of the fifth lumbar vertebra was displaced backwards, producing a condition diametrically opposite to that called spondylolisthesis. The second specimen, on superficial examination, appeared to belong to the second class of pressure-changes; but a vertical median section showed that this belonged to the same class as the specimen first described. It was taken from a subject who had evidently performed for a long time hard work, in carrying loads on the left shoulder, back, and neck. The lumbar spine was very convex, and presented the appearance of spondylolisthesis. On making a vertical median section, the last fibro-cartilage was seen to be increased in depth; superjacent weight, therefore, had been transmitted to the sacrum chiefly through the spinous articular processes, which were very much thickened. This had resulted in the sacrum yielding transversely about its centre, the upper part going forwards and downwards, so much so that, if the plane of the upper surface of the sacrum were continued forward, it would pass one inch below the lower magin of the symphysis. The diameters between the angle of the sacrum and the upper and lower margins of the symphysis were three and a half inches. The spinous processes of the sacrum were much enlarged, as were the laminæ. The sacrum had, during the later period of life, been acted upon by an upward pressure, probably due to a continuous sedentary position. This had served to increase its anterior concavity still further.

Cerebral Vessels in Congestion.—Dr. HANDFIELD JONES had examined the smaller cerebral vessels and capillaries in meningo-cerebritis, and in other conditions in which there was congestion. He found that the capillaries were obstructed by large leucocytes, which clung to the walls of the vessels probably during the last hours of life. In the arterioles he had seen more and bulkier corpuscles. Elongated corpuscles were not unfrequently met with. They probably originated from muscle-nuclei. The amœboid qualities of the corpuscles were very marked. The walls of the capillaries were very indistinct, and had sometimes broken down. In inflammation, the smaller vessels seemed reduced to mere tubes of corpuscular material, the adventitia not being recognisable. Denudation of the vessel-walls appeared to be the consequence of preceding hyperplasia. He had at first looked upon these conditions as distinctly pathological, but more recently he had met with changes of the same kind in cases where no cerebral congestion had occurred.—Dr. SAMUEL WILKS asked what were the conditions under which the changes occurred.—Dr. HANDFIELD JONES said that the changes were seen in inflammation and congestion, but were not certainly morbid.

Hypospadias.—Dr. WILLCOCKS showed the pelvis and genito-urinary organs from a case of hypospadias. The child was born at the seventh month; it was registered as a girl. On pulling back a preputial fold, a small glans penis came into view, and there were nodules in the "labia," which were clearly testes. Dr. Willcocks showed a drawing of a similar case of mistaken sex which had recently been under the care of Mr. Edmund Owen. The testicles were found, at the age of sixteen months, in the apparent labia. Dr. Willcocks also showed the testicle removed by Professor George Buchanan from the labia of a child, aged 9, who was supposed to be a girl. A small vaginal passage was present, but no rudiment of a uterus. In his own case, this vaginal passage was represented only by a small depression between the urethra and anus.—Mr. GODLEE related the case of a hypospadiac, born before due time, in whom the testicles did not descend until nine months of age. There appeared to be a rudimentary vagina.—Mr. J. H. MORGAN said the question of greatest interest was, whether the external organs of generation might be developed in the direction of one sex, while the internal organs were developed in the direction of the other.—Dr. S. WILKS observed that, in these cases, the difficulty in determining the sex was often increased, owing to the body assuming the feminine configuration in adult life. Hunter had observed this in the lower animals. Dr. Wilks quoted the case of a supposed woman, who was minutely examined by a well known obstetric physician, and even shown to the Royal Society. After death, the organs were found to be male.—The PRESIDENT quoted the case of a supposed woman, who, however, was built and walked like a man, and had the voice of a man, and hair on the face. He believed that functional combination of the sexes in one individual had never been observed.—Mr. MORGAN said that Otto had described a case in the sheep.

Destructive Disease of Lung from Obstruction of Bronchus.—Dr. PERCY KIDD showed specimens from two cases, in which destructive disease of the lung could be traced to obstruction of the main bronchus. The first case was that of a man, aged 38, who was admitted with physical signs of an aneurysm of the aorta, and consolidation and excavation of the left lung; he expectorated nummular purulent sputa. The aneurysm was found, after death, to involve the descending aorta, and to press on the left bronchus and the trachea; it had thin walls, and contained a small amount of thrombus at its posterior aspect. The right lung was healthy; the left lung was as large as the right, and riddled with cavities, situated in pigmented fibroid tissue, and intersected by numerous bands of a similar nature. Some of the cavities had a bronchiectatic appearance, and all contained reddish puriform liquid and some caseous material. There was slight amyloid disease of the liver, spleen, and intestines. In the second case, a woman, aged 25, the obstruction was due to extensive scarring of the trachea, involving the left bronchus, which was so constricted as to admit only an ordinary probe. The left lung was riddled with trabeculated cavities, bronchiectatic in some parts, separated by fibroid lung. The cavities contained a reddish fluid, and some putty-like material. The right lung contained some tubercular groups. The thyroid, mediastinal, and mesenteric glands, liver, spleen, kidney, gastro-intestinal and urinary mucous membrane, were all affected with marked amyloid disease. The symptoms were night-sweats, shortness of breath, and rapid wasting of eight months' duration. The fingers were clubbed; the left side of the chest was almost motionless and dull, with bronchial breathing and pectoriloquy. Signs of excavation became marked; albuminuria and dropsy, followed by profuse diarrhœa and hectic fever, determined the patient's death. Examination of the secretions from the pulmonary cavities, in both cases, failed to reveal any tubercle-bacilli. The first case resembled the case recorded by Dr. Irvine; the destructive disease of the lung being probably due to the mechanical results of compression of the bronchus by an aneurysm, pressure on the pulmonary nerves being of secondary importance. The second case differed; the lung-disease being the result of an internal stricture of the bronchus, it could not be attributed to pressure on nerves, and strongly supported Dr. Irvine's view, that the lung-changes had, in the main, a mechanical origin.—Dr. CREIGHTON said that destructive changes in the lung were not unfrequently produced by syphilis; syphilis was certainly present in one of these cases, and he asked whether the influence of this element had been considered.—Dr. GOODHART thought that, in considering the way in which the destructive lung-disease was produced, the ulceration at the seat of pressure ought not to be overlooked; it might set up secondary infection of the peripheral parts of the lung.—Dr. EWART observed that, where the lung was completely collapsed, no ulceration of the pulmonary tissue occurred at the seat of pressure.—Dr. SEMON said that Dr. Irvine had attached much importance to the ulceration at the seat of pressure.—Mr. R. J. GODLEE asked Dr. Kidd whether he saw any analogy in this lung to the changes seen after tracheotomy and cut-throat, where the foul secretions set up septic pneumonia.—Dr. HALE WHITE observed that, in ulceration from other

causes, no such lung-changes were produced.—The PRESIDENT said that the cavities looked as if they were of long duration; that would appear to render it possible that the destructive disease was an antecedent condition altogether. He further remarked that the possibility of pressure on the blood-vessels could not be excluded.—Dr. KIDD, in reply, said that the aneurysm was of at least eighteen months', and probably four years', duration; in the second case, the symptoms were chronic. Both patients had syphilis, but all the symptoms could not be attributed to it. He thought the mechanical action was of the chief importance.

Acute Ulceration of Colon.—Dr. W. H. ALLCHIN showed a specimen taken from the body of a woman who died after having been ill for nineteen days, the prominent symptoms being diarrhœa and abdominal pain, followed by bloody stools and exhaustion; the diarrhœa was unchecked by treatment. The temperature ranged from 99° to 102°; the urine presented no abnormal characters; the colon was the only organ found to be diseased after death. The small intestine was quite healthy, the disease being accurately limited to the large intestine, which, throughout its whole length, was occupied by numerous large ulcers. The base of the ulcers was clean, and not thickened; the edges were thickened, and had undermined edges. The ulceration conformed to the acute type. The case corresponded with the description of acute follicular ulceration of the colon. He believed that a chronic form was not uncommon in middle-aged women.—Dr. WILKS referred to the medico-legal aspect of the case, as it had been denied that acute inflammation of the colon, such as might be compared with dysentery, ever occurred in this country. He had met with several cases of acute ulceration of the large intestine, which were clearly not due to the administration of an irritant poison.

Cyst of Small Intestine.—Mr. W. H. BATTLE showed a cyst which had been removed from the wall of the small intestine. The patient was a married woman, aged 35. Eight years before she came under treatment, she had an attack of jaundice, accompanied by ascites. The jaundice disappeared in two years, but the dropsy lasted for five or six. On the subsidence of the dropsy, she first noticed a swelling in the abdomen on the left side. There was a rounded swelling situated in the left hypochondrium, immediately below the costal arch, of the size of a large egg, movable, but not moving with respiration; it was very tender and painful. In the hypogastrium was another swelling, hard, also tender and somewhat movable, smooth, and extending from the left side of the middle line into the right iliac fossa. Mr. Sydney Jones performed abdominal section, and removed the cyst, which was sessile, and occupied a considerable section of the intestinal wall, to which it was firmly attached, and from which it was carefully peeled. The lymphatics over the surface of the intestinal folds were in a somewhat dilated and varicose condition. The pelvic tumour proved to be an uterine fibroid. The patient made a good recovery. Examination of the cyst showed it to be smooth on the surface, about the size of a small orange, white and glistening. Microscopical examination of the cyst-wall showed a laminated appearance, but no evidence of glandular structure, nor of epithelial lining. The contained fluid, some of which was removed by tapping at the time of operation, was thick, of a yellowish colour, looking like yellow paint. Microscopically, it consisted of cholesterine-crystals, fat, and molecular matter. Chemical examination showed the presence of a large amount of fat and albumen.

Gastrostomy.—Mr. BRUCE CLARKE showed the organs from two cases in which gastrostomy had been performed. In one case, the disease was situated at the lower end of the œsophagus, while in the second the upper part of the œsophagus was affected. Both patients recovered from the operation. In the first case, where the stricture was pervious, the stomach was not contracted; while, in the other case, where the stricture was not pervious, the stomach was very much contracted. In this case, he had made the opening into the duodenum instead of into the stomach, owing, probably, to the contracted state of the stomach.—In reply to Dr. SEMON, Mr. BRUCE CLARKE said that the patients both died of asthenia, six weeks and seven weeks respectively after operation.—The PRESIDENT asked how long the patients might have been expected to live if the operation had not been performed.—Mr. CLARKE thought not more than one week, as the general condition in both cases was very unfavourable.

Card Cases.—Mr. R. J. GODLEE: Acute Necrosis, with Pericarditis and large patches of softening.—Dr. NORMAN DALTON: Multiple Angioma of Liver.—Dr. HADDEN: 1. Cyst of Broad Ligament containing Coagulated Albumen; 2. Ulceration of Intestine originating in Hæmorrhage.—Mr. J. HUTCHINSON, Jun.: Hydrocele of Cord.—Dr. TURNER: 1. Tumours of Adrenals; 2. Suppuration of Simple Fracture of Hyoid Bone.—Dr. SILCOCK: Entero-colitis.—Dr. GOODHART: Specimens of Enteritis and Colitis.—Dr. HEBB: Aortitic Valvulitis, with Embolism of Coronary Artery and Middle Cerebral.—Mr. SHATTOCK: Fracture of Superior Cornua of Thyroid.—Dr. CHAFFEY: Solitary Kidney.—Dr. PITT: Syphilitic Ulceration of Larynx and Trachea.—Dr. HALE WHITE: 1. Enormous Hypertrophy of Heart; 2. Large Triple Phosphate Renal Calculus.—Mr. MAKINS: Primary Carcinoma of Tibia.

MEDICAL SOCIETY OF LONDON.

MONDAY, APRIL 20TH, 1885.

W. M. ORD, M.D., President, in the Chair.

Treatment of Gangrenous Intestine.—Mr. MITCHELL BANKS read a paper on the treatment of gangrenous intestine in strangulated hernia, and related a successful case of resection of the small bowel. He observed that the all important question in strangulation with gangrene was the plan upon which the gut should be treated. Resection was an operation which was only rarely possible, but as an illustration of the class of case to which it was applicable, he related the history of a young man who was admitted into the Liverpool Royal Infirmary on November 7th, 1883. He was a well nourished strong man, aged 23, who had long noticed an inguinal hernia; this had always been easily returned, until it descended, three days before admission, when at sea. Taxis had been applied by a surgeon, and very violently by the patient; the tumour had also been aspirated. When admitted, he was tranquil; the pulse was 80, and there was no fever. He suffered, however, from constant retching, and the scrotum was livid, swollen, and had bullæ on the surface, and there was œdema of the penis, so that the case looked at first sight like rupture of the urethra. It was found that the hernia was congenital; the sac contained a dark bloody fluid, and in it was a long loop of small intestine, swollen, black, and covered here and there with lymph; it had an offensive odour, and was distended with sanguineous fluid. The stricture was produced by the external ring. On pulling the gut down, it was found that, doubtless owing to a second stricture at the external ring, the gut had ulcerated through higher up; the sac was thoroughly cleaned, and covered by a guard of carbolised gauze. The gut was then pulled down until healthy gut was reached, and the gangrenous portion excised; a wedge-shaped piece of mesentery was also excised; the mesentery contained extravasated blood, and the glands were swollen; the bleeding from the mesenteric vessels and the gut was most profuse, and the necessity of tying a large number of vessels much prolonged the operation. The peritoneum of the mesentery was united by a continuous suture of catgut, first on one side and then on the other. Then the ends of the gut were turned inwards for about a third of an inch, so that peritoneum should come against peritoneum; interrupted stitches were put in all the way round inside the bowel, bringing the inverted edges together. On the exterior a continuous suture was taken all round, passing only through peritoneum. This was practically what went by the name of the Czerny-Lambert suture. The most difficult part was just along the mesenteric attachment, where a small area was uncovered by peritoneum. He thought the fingers of an assistant were better than any instrument for facilitating the introduction of the stitches. Owing to the increase of bulk caused by the inversion and stitching, the bowel could not be reduced until the inguinal canal was freely incised; the sac was tied and removed, leaving only a portion below in relation to the testicle. The operation occupied over two hours, and the patient, at its conclusion, was in a state of collapse. He soon rallied, and ten hours after the operation, he passed flatus; the temperature fell below normal several times during the first four days, and only on a few occasions subsequently rose above it. The lower part of the sac was left to form the tunica vaginalis. The most important point in the after-treatment was the dietary. For four days, the patient was given only ice, and subsequently the diet was limited to Valentin's meat-juice, in small quantities, until the twelfth day. On the twenty-third day, he had the first movement of the bowels, after an enema. Six weeks after the operation, he was taking ordinary light diet, and could move about easily without inconvenience. Seventeen months later, when last seen, he was perfectly well, and apparently no stricture had been produced. Mr. Banks then passed on to discuss the general question of the treatment of gangrenous intestine. He referred to the statistics published by Mr. Makins, who collected fifty-five cases of resection of intestine; the percentage of deaths was fifty-two; the cause of death, in the majority of cases, was septic peritonitis. The operation was first performed in 1727, but not systematically until recent years. According to Mr. Makins's further table of forty cases of resection of intestine for artificial anus, the percentage of deaths was only thirty-eight. This seemed to point to the secondary resection as the best line of treat-

ment in the great majority of cases. If, then, it were decided to leave the gut *in situ*, he thought it best simply to lay the gut open, and not to touch the stricture. In six cases of gangrenous intestine under his care, three recovered well under this method; two were moribund when operated on; but in the sixth case, on the sixth day, when the patient was apparently in a fair way to recover, perforation of the intestine occurred just inside the internal stricture. The really important question was, whether the stricture should be divided or not. He held that it should not. Death in strangulated hernia was brought about, not by peritonitis, but by absorption of septic material effused into the peritoneal cavity. Division of the stricture might open up a way into that cavity. The plan advocated by Spence, of pulling down a sound piece of gut, was doubtless good, but he questioned whether it was necessary to divide the stricture to do this. The cases appropriate for resection were very few; the patient ought to be strong and in a good condition, and skilled assistance must be at hand.—Mr. TREVES was in favour of excision of the gangrenous portion of gut, which was a well defined area; an artificial anus was then formed. He referred to the danger in resection of not getting beyond the area of gut where gangrene was incipient; many cases had failed from gangrene in the line of the stitches. The excision of a wedge-shaped piece of intestine was liable, as he had found by experiments on dogs, to lead to disturbance of the nutrition of the part. If resection were performed, he thought discontinuous sutures very preferable to the continuous suture, and Chinese twist to gut. In Littré's hernia, at least, the stricture should, under no circumstances, be divided.—Sir WILLIAM MAC CORMAC thought any practical surgeon would agree with Mr. Banks that the operation of resection must be limited to a few cases; he was also disposed to agree with Mr. Banks that the strictured part of the gut ought to be left alone, and that, therefore, the stricture should not be incised.—Mr. MORRANT BAKER also agreed with Mr. Banks that, to the majority of cases, the operation of resection was inapplicable, as the patients were generally in too feeble a state to withstand so severe and prolonged a process. As a rule, he had followed the practice common at St. Bartholomew's Hospital, and had divided the stricture; but the success of the method was not great, and he was inclined to reconsider the question; he very much doubted the wisdom of pulling down the intestine, for, by so doing, adhesions, upon which the safety of the patient depended, might be broken down.—Mr. JOHN MORGAN doubted whether the operation of resection could replace the ordinary practice of leaving the gut *in situ*. The artificial anus might subsequently be dealt with. The length and difficulty of the operation, and the large mortality after resection, were strong arguments against its general adoption.—Mr. MAKINS thought that secondary resection was a very much better procedure, not only because, in primary resection, the general and local conditions were unfavourable, but because it would be quite impossible to render the gut aseptic. He still thought a mechanical contrivance an advantage, as, in so prolonged an operation, an assistant could not keep up even and uniform pressure, and the manipulation to which the gut was subjected was unnecessarily increased.—Mr. A. P. GOULD thought that, if the practice of pulling more intestine down were followed, gangrene of that portion would probably occur, as a still further quantity of mesentery would be also pulled down, the pressure on the strangled gut increased, and the part of the intestine newly pulled down would become strangulated, and very quickly gangrenous.—Mr. BERNARD PITTS considered that the duration of the strangulation was an important element in coming to a decision; where strangulation was of long standing, immediate resection would be performed under very unfavourable local as well as general conditions.—Mr. WALTER PYE suggested that the greater amount of strain on the mesentery, produced by pulling down the gut, might lead to eventual destruction of the adhesions.—Mr. MITCHELL BANKS was glad to find that all the speakers agreed with him, in looking upon the operation of primary resection as one that could be but rarely performed. Whether the piece of gangrenous bowel were slit up, or removed, or left alone, was a matter almost of indifference. Mr. Treves apparently held the same view as to treatment as Mr. Spence. The portion of gut removed measured between thirteen and fourteen inches.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, APRIL 16TH, 1885.

THOMAS MORTON, M.D., President, in the Chair.

Ulcerative Endocarditis.—Dr. R. W. BURNET read notes of a case which had been under his care for two months in the Great Northern Central Hospital. The earliest complaint had been of slight pains and swelling of the ankles. The symptoms having become acute, the patient was admitted into hospital. He was then weak, pale, and somewhat emaciated; skin dry and harsh; pulse 110; temperature 102.5°, respiration 36. The heart's impulse was normal; there was a systolic thrill, and a systolic murmur was audible at the apex and in the axilla. Ulcerative (or infective) endocarditis was diagnosed. The patient gradually became worse; the temperature varied from 100° Fahr. to 104.5° Fahr.; pulse 120 to 130. The murmur became very rough. The urine became albuminous, and the patient gradually sank. At the necropsy, the lungs were congested and œdematous. The pericardium was thickened and adherent; the ventricles were thickened and dilated; the mitral valve was thickened, but smooth; the posterior surface of the left auricle was covered with adherent vegetations; the aortic valves were incompetent, thickened, and thrown into folds; the aorta was healthy. There was a large infarct in the spleen, and two other infarcts of older date. No noticeable changes were found in the other organs. Dr. Burnet gave abstracts of three other cases, one of which had been under observation for four months. In this case, there was, in addition to extensive disease of the heart, pleurisy, pneumonia, and pericarditis. The heart was very large, hypertrophied and dilated; the mitral valve and chordæ tendineæ were much thickened; on the mitral and in the left auricle were numerous vegetations. There were embola in the spleen and left kidney. In one of the other cases, there was gangrene of the foot. Dr. Burnet pointed out that the first case was typical of a class of cases in which endocarditis followed upon old rheumatic mischief, and that the rheumatic symptoms need not be severe, although the cardiac affection might ultimately prove fatal. He alluded to a clinical lecture by Dr. S. Wilks (BRITISH MEDICAL JOURNAL, January 14th, 1882) on this subject, and to the recent Gulstonian Lectures by Dr. Osler; and, in concluding his paper, quoted the views of the latter in regard to the pathology of this form of endocarditis.—Dr. BROADBENT commented upon the pathology of the affection and upon the usual modes of death. Occasionally, cases might recover; of this, there existed clinical as well as anatomical evidence.—Dr. EWART called attention to the fact that fatal endocarditis often ran its course without any ulceration. Applied to such cases, the term ulcerative endocarditis was a misnomer. It might be well to discontinue the use of the prefix.—Dr. J. WILLIAMS referred to a case of the disease occurring in the puerperal state. Independently of endocarditis, cardiac murmurs were very common in puerperal women. Dr. Angel Money had recognised the presence of a *bruit* over the site of the left auricle, and at the fourth cartilage, in 60 per cent. of Dr. Williams's puerperal patients. This was probably due to the hypertrophy and dilatation of the heart, and to physiological changes in the composition of the blood.

Hæmophilia.—Mr. J. ERNEST LANE read a paper on hæmophilia. Having commented upon the hereditary nature of the affection, he referred to its marked prevalence in the male sex. In the female, the disease probably remained in a latent form. Thus the daughters of a male patient, although exempt, might transmit the idiosyncracy to their sons, whilst the direct male descendants remained healthy. Attention was also drawn to the fact that "bleeder" families were unusually prolific, the number of births being almost double the ordinary average. The comparative rarity of the disease was explained by the fact that in these families the number of sons far exceeded that of the daughters. Of 37 children born in six of these families, 27 were boys and 10 girls. The symptoms were classified under the following headings:—1, Spontaneous bleedings; 2, traumatic bleedings; 3, effusions into joints, Referring to the last symptom, Mr. Lane considered that the swellings of the joints were usually due to synovial and not to hæmorrhagic effusions. The views of Virchow and Wachsmith as to the pathology of the disease were quoted. With regard to the treatment, he recommended the habitual use of purgatives such as sulphate of soda, or compound jalap-powder. The hæmorrhages should be treated by the use of styptics, preference being given to the perchloride of iron. He referred to a case in which transfusion had been performed by Mr. Samuel Lane, when the patient was at the point of death from hæmorrhage induced by an operation for squint.—Dr. M. HANDFIELD JONES briefly narrated an example of the disease which had come under his notice, in which the diathesis had been traced through three generations. There was apparently a close connection between the number of members in a family and the fatality of the disease, the percentage of deaths from bleeding increasing rapidly the larger the number of children. Moreover, among the younger children hæmophilia proved more rapidly fatal than in the earlier members. Dr. Handfield Jones differed from Mr. Lane in thinking that hæmophilic patients rallied quickly from large losses of blood.—Mr. SEDGWICK looked upon hæmophilia as a congenital defect of the vascular system, and upon the associated affection of some of the joints as usually due to effusion of blood. The female trans-

mittors did not exhibit any exceptional tendency to hæmorrhage, even during child-birth. Families of bleeders, both in this country and in America, probably inherited the defect in many cases from a common source, through the occasional extension of the usual limits of atavism. In some forms of the diathesis, such as epistaxis, hæmoptysis, and umbilical hæmorrhage, the structural defect in the blood-vessels was more limited than it was in hæmophilia.

ACADEMY OF MEDICINE IN IRELAND: SUBSECTION OF ANATOMY AND PHYSIOLOGY.

D. J. CUNNINGHAM, M.D., President, in the Chair.

Method of Exhibiting the Alternation of the Sectors of the Crystalline Lens.—Dr. BENNETT exhibited an easy method of demonstrating alternation of the sectors of the crystalline lens of the eye to a class, by injecting either into the posterior side of the capsule of the lens, or between the vitreous humour and retina, a small quantity of mercury, which formed a bright reflecting surface, the shape of which depended on the surrounding tissues. The results obtained by the mirror posterior to the vitreous humour appeared to give the best results. He stated that, for a successful demonstration, an eye not too fresh and a top-light were desirable.

Anomaly of Arch of Aorta.—Mr. M'ARDLE read a paper on this case. The branches derived from the transverse portion from right to left were—right carotid, left carotid, left vertebral, left subclavian, and right subclavian. The only ones having a peculiar course were the right carotid and right subclavian. The former at its origin was somewhat to the left of the trachea. After ascending for half an inch it passed directly to the right, in front of the sixth and seventh rings of the trachea, and then upwards on the right side of that structure. The subclavian came off from the posterior aspect of the arch on a level with the remains of the ductus arteriosus; thence it passed in from off the second and third dorsal vertebræ, and behind the trachea and œsophagus, so that these structures were compressed between it and the foregoing vessel. The only other peculiarity of this trunk was its cone-shaped origin, where it was at least half as large as the aorta. It diminished to the normal size before giving off a single branch.—The PRESIDENT said the case which Mr. M'Ardle had described was one of the commoner varieties met with in the dissecting-room of the anomalous arrangement of the aortic branches. It was one of the most interesting of all the anomalies, because at first sight it appeared to be very difficult of explanation. The difficulty, however, at once disappeared on close examination. It had been shown lately that the anomaly was associated with the transference or transposition to the right side of the thoracic duct. This was explained by supposing that the thoracic duct, like the aorta, was laid down in the form of two lateral tubes, which afterwards fused. It was interesting to notice the relation of the laryngeal nerve, because the fourth arch, counting from above, was obliterated, and therefore the nerve was not recurrent at all, having nothing to hook round. There were about five cases on record of the transference of the thoracic duct to the right side. These were given by Drs. Crookshank, M'Donnell, Brown, and Arthur Thomson of Edinburgh.—Dr. BENNETT instanced, as unique in its surgical aspect, Kirby's case, in which he examined the parts after death, and in which a foreign body lodging in the œsophagus had wounded a subclavian vessel abnormally in its way. Still more remarkable was the fact that the patient, though suffering from an impacted body in the œsophagus, died from an entirely different cause—namely, the impaction of food in the glottis.—Mr. M'ARDLE replied.

Anomalous Coronary Branch arising from Pulmonary Artery.—Dr. BROOKS gave a description of the anomaly. This case occurred in an old female subject in the dissecting-room of Trinity College, Dublin. The abnormal branch arose from the left anterior sinus of Valsalva of the pulmonary artery; it was rather under an eighth of an inch in diameter, and its branches ramified chiefly on the infundibulum of the right ventricle, a few small ones supplying the coats of the pulmonary artery. Both the normal coronary arteries were present, and were rather large.—The PRESIDENT, Dr. LITTLE, and Dr. PURSER took part in the discussion, and Dr. BROOKS replied.

Musculus Sternalis in Anencephalous Fœtus.—The PRESIDENT communicated a paper which he received from Professor Shepherd, of McGill College, Montreal. In six specimens, Professor Shepherd had found the anomalous muscle, and in five of these he had been able to make out its nervous supply to be the same as that of the pectoral group of muscles.—Dr. BROOKS mentioned having seen two cases this year of the pectoralis minor getting a nerve as a branch of the second intercostal. Seeing, then, that in some cases the pectoral muscles might get a branch from the intercostals, it was an additional argument in favour of the musculus sternalis really belonging to the pectoral group.—Mr. ABRAHAM expressed himself greatly interested in the paper. It was certainly with great diffidence that he himself brought forward the view therein expressed two years ago, and therefore it was gratifying to him that that view had since then received such able confirmation.—Dr. BENNETT and the PRESIDENT also took part in the discussion.

Vena Azygos Major ascending on the Left Side, and the bearing of this anomaly on the Development of the Azygos Blood-vessels.—Dr. BROOKS said that the case occurred in a male subject, and appeared to be a transposition, from right to left, of the normal arrangement. The vein ascended on the left side of the bodies of the dorsal vertebræ, receiving the left intercostal veins, with the exception of the first and second, and also a branch from the right side, which entered it at the level of the eighth dorsal vertebra, and was formed by the confluence of two veins, which lay on the right side of the bodies of the vertebræ; the superior of these two received the sixth, seventh, and eighth intercostal veins; the inferior collected the blood from the ninth, tenth, and eleventh intercostal spaces. The left azygos, thus formed, attained to the size of an ordinary azygos major; it crossed the junction of the transverse and descending portions of the aortic arch, and opened into the left innominate vein. A small vein opened in the ordinary position of the (right) azygos major; it was formed by the confluence of four intercostal veins, but the trunk lay not in the ordinary position of the azygos major on the bodies of the vertebræ, but on the ribs external to the gangliated cord of the sympathetic. This peculiar position was interpreted as representing a larger portion of the posterior cardinal vein persisting than usual. A remarkable bend in the course of the left azygos, whereby a portion crossed the necks of the tenth and eleventh ribs, was explained in the same way. Reference was made to the symmetrical condition of the azygos veins in the embryo as affording a ready explanation of the transposition—the right, instead of the left, azygos system having been broken up.—The PRESIDENT remarked that this anomaly was also of interest from a comparative anatomy point of view, because, in some of the lower animals, it was the normal arrangement for the vena azygos major to pass up the left side, the opposite to that in the human subject. In the sheep, this was the case. In marsupials, it sometimes chose the one side and sometimes the other. The Tasmanian wolf was an example of its passing up the right side, as in man.

Andaman Skeleton.—The PRESIDENT gave a description of an Andaman skeleton, and compared it with those of other races. He referred to the two elaborate papers which had been communicated by Professor Flower to the Anthropological Institute upon the osteology and affinities of the Andaman islanders, and showed how closely the skeleton in his possession bore out the many remarkable facts described by that author. He especially directed attention to the lower jaw, vertebral column, and sternum. He compared the lower jaw with that of a European child of five years old, and showed how closely they resembled each other. In both the feebly marked chin, the poor development of the basal or subdental part of the body, the low ascending ramus, and shallow coronoid notch, were very manifest. The cervical vertebræ were distinguished by their spinous processes exhibiting very little tendency to bifidity. The bodies of the lumbar vertebræ were not moulded in such a fashion as to give any assistance in the formation of the lumbar curve; in fact, the sum of their anterior measurements was considerably less than the sum of their posterior measurements. The sternum was remarkable for its extreme narrowness; but this was a feature which, the author considered, might possibly be an individual peculiarity, as he had had no opportunity of examining this bone in other Andaman skeletons, and Professor Flower had not mentioned it in either of his papers. The author concluded by stating that Professor Flower had unquestionably put his finger upon the salient point in connection with the Andaman skeleton, when he called attention to the many infantile characters which it exhibited.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

MARCH 26TH, 1885.

W. A. GARRARD, M.R.C.S.Eng., President, in the Chair.

Old Disease of Knee.—Mr. GARRARD exhibited the knee-joint of a patient whose thigh he had amputated the previous week. The cartilages were almost destroyed from extension of articular ostitis; the joint was disorganised; the stump had healed by primary union. The disease was of twenty years' standing.

Hermaphrodism.—Mr. THORPE related an interesting case of hermaphrodism.

Pneumothorax independent of External Injury.—Mr. S. MORTON related a case of a man, aged 24, who had pneumothorax on the left side, and who, in jumping from a dray, caused rupture of air-cells into the pleural cavity. He had been, up to that moment, in good health. There was no cough, no wasting, no history of phthisis. Next day the heart was found pushed over to the right side; its apex was felt two inches below and one to the left of the right nipple. There was an amphoric resonance general on the left side; the diaphragm was pushed downwards. The patient suffered acute pain, with dyspnœa, for five days, after which he always said he felt well. In seven weeks the heart had returned to its normal position. After this, he had general pleurisy on the same side, followed by effusion. After seventeen weeks he was quite well. The chest-sounds were normal.

Enlarged Spleen.—Dr. PORTER showed two cases of enlarged spleen. In one case, a child, a year and ten months old, had a large hydrocephalic head, with wide fontanelles, and all the symptoms of rickets. The spleen was of enormous size, occupying the greater part of the abdominal cavity, but placed obliquely, so that the lower end extended into the right iliac region. In the other case, the diagnosis was less obvious. The history was one of rapid enlargement since last Christmas, the spleen extending downwards as low as the level of the anterior superior iliac spine, and forwards as far as the middle line, the free anterior border and hilus being felt close to the umbilicus. When the patient first came under Dr. Porter's treatment a month ago, there was very distinct friction-fremitus, and friction-sounds were heard over the tumour, with pain and tenderness on manipulation; these symptoms had since disappeared. The patient, a forgeman, aged 24, had suffered from caries of the spine since eight or nine years of age, but had been able to follow his employment up to within a few weeks of the present time. He had marked angular curvature. He had never had any abscess or prolonged discharge of any kind. There was no history of syphilis. There was no cachexia, nothing abnormal in the blood, no enlargement of the liver, no kidney-symptoms. Dr Porter concluded that, though of rapid development, the case was one of amyloid spleen probably, the sequel of the bone-disease from which the patient had suffered.

The Implication of the Mastoid Bone in Ear-disease.—Mr. SNELL read this paper. After preliminary remarks as to the relation of disease in the ear to affections of the mastoid bone, several cases were related in which the mastoid bone had been affected with suppuration, or in a less degree. The importance, in all cases, of providing a free escape of pus by the Eustachian tube and meatus was insisted upon, and the value also of cleansing the ear with some disinfectant. The value, in different circumstances, of warm fomentations, leeches, iodine, belladonna, and cold with Lieber's tubes, was mentioned. Wilde's incision had been employed in several cases; in some the bone had also been opened, being softened, or an aperture had been enlarged, and the exit of pus had given speedy relief to symptoms of a very aggravated character. Referring to the dangerous class of cases in which the interior of the mastoid suppurated, and it became necessary to perforate the bone, the steps to be taken were mentioned, and allusion was made to the anatomical structure of the process, and the frequency with which it was composed of sclerosed, or, at all events, less pneumatic tissue. The varying position forwards of the lateral sinus, and its bearing on the operation, was referred to. A case was related in which the symptoms appeared to be pointing to mischief in the interior of the bone, with an absence of external swelling, etc., where, with an incision down to the bone, and the accompanying bleeding, speedy relief to the alarming symptoms was given.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, MARCH 6TH.

J. B. BRADBURY, M.D., President, in the Chair.

Lobular Pneumonia and Sudden Death in Children.—Dr. RANSOM read the notes of some cases, illustrating how fatal lobular pneumonia may be suddenly developed in children without attracting the attention of unskilled attendants.

An Epidemic of Typhoid Fever.—Dr. ANNINGSON gave an account of an epidemic in a long overgrown village, with a population of 2,458. It had many of the characters of a town, without the certain powers for its proper sanitary administration. It lay partly on the outcrop of the greensand formation and partly on the blue gault. The epidemic was confined to the part of the village which lay on the gault, and was known as Church End. Two cases existing at parts remote from this, were distinctly traced to it, but had not become fresh centres of infection. To obviate the difficulty of obtaining pure water at Church End, three feed-wells had been sunk, two in some open ground to the east side of the village, about two chains distant from each other, and a third in the High Street. From these several sources the water was conducted, by glazed pipes, to a succession of wells or reservoirs made in the gault. The earlier cases of typhoid fever occurred in the middle of January last at the top and bottom of a by-path leading from the High Street to garden and orchard-ground. The sanitary state of this path and the cottages adjacent was very bad, and it was along this path that the water-supply of one of the feed-wells was brought, and thence along the High Street to the Church. Analysis showed serious pollution at the first pump supplied at the head of the path, while the source proved to be pure. There was no evidence that the other feed-wells were polluted. The total number of cases up to February 28th, was 66, with 6 deaths.

Thoracopagus.—Professor MACALISTER exhibited, for Dr. Musson, of Clitheroe, in Lancashire, an example of prosopo-thoracopagus. The child was born February 28th, and seemed to be in the sixth month. The mother ceased to menstruate August 10th, 1884, and, a few days after this, the town was placarded with portraits of the "Two-headed Nightingale," which was exhibited on September 10th; she saw the pictures, and thought much about it. The specimen was like most of its kind; both children were females, the heads and limbs of both being perfect.

Rheumatoid Disease of Shoulder-joint.—Professor HUMPHRY said that the joint which he exhibited had been removed after death from an elderly man. The altered form of the shoulder and want of prominence of the tuberosity of the humerus suggested a dislocation, but the patient said that the shoulder had been in this state for thirty years, and no injury was mentioned. The glenoid surface was convex; the articular surface of the humerus concave. The altered glenoid surface was covered by a granulated fibrous or fibro-cartilaginous layer. The concave surface of the humerus was more uneven and exposed, but was partially covered (at the middle deepest part) by a similar layer. The margin was raised and nodulated. A small flattened ovoid body was loose in the joint, and was found to be composed of bone.

An Accessory Lobe to Left Lung.—Mr. LAURENCE HUMPHRY showed an abnormal structure, which he had removed from the body of a child a year old, who died of tubercular meningitis and acute general tuberculosis. It was lying in the left pleural cavity, in the vertebral groove between the base of the lung and the diaphragm, and was suspended by a thin pedicle of blood-vessels and connective tissue to the descending aorta, from which it received its blood-supply. It had no connection whatever with the lung, neither was there any communication with, or attachment to, any part of the air-passage. It measured about two inches long by one broad, was flattened on the posterior surface, and rounded anteriorly, and had the appearance of fœtal lung, but it was much harder. Sections under the microscope showed lung-tissue, containing bronchioles lined with columnar epithelium, and thick-walled unexpanded air-vesicles, with a plentiful supply of blood-vessels, also large masses of caseating tubercle, with well marked giant-cells. Mr. Laurence Humphry had only been able to find one reference, which was in Rokitansky's *Lehrbuch der Pathologischen Anatomie.* It was difficult to understand, supposing it originally to have been connected with the lung, how it came to be so completely separated. There was an interesting paper on the subject by Dr. Collins in the *Transactions* of the Royal Irish Academy for 1874.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, APRIL 2ND, 1885.

CHARLES OLDHAM, F.R.C.S., President, in the Chair.

Oxygen Apparatus.—Dr. MACKEY showed a new portable apparatus for inhalation of oxygen gas (G. Barth and Co.), consisting of a moderate sized iron bottle containing compressed oxygen, a bag of goldbeater's skin into which the amount for use, on each occasion, could be introduced, and a mouthpiece, with graduated screw, for regulating the proportion of air admitted for dilution of the gas.

Pyloric Stenosis.—Dr. G. J. MALCOLM SMITH related a case occurring n an intemperate man, aged 64. In 1878, when he was first seen, the symptoms, which had been so far obscure as to render diagnosis difficult during life, included occasional attacks of severe epigastric pain, more or less relieved by pressure, pyrosis, anæmia, and emaciation. There was no vomiting, no tenderness or dilatation of the stomach, and the attacks of pain were variable, lasting a few hours or a few days, there being fair health in the intervals. Solid food made him worse, but liquids often eased his pain. Bismuth, sedatives, and alkalies were given without marked result. In 1880, the pain became

much more severe, and there was occasional copious coffee-ground vomiting. This had no definite relation to food, and was often absent for weeks. Several times he was apparently dying, but rallied, and was relieved by opium in full doses. For six months before his death, in November, 1883, he was mostly in bed, from weakness, etc. At the necropsy, all the organs were found healthy, except the stomach, the mucous membrane of which was much injected, and the pylorus "was a thick hard ring, an inch broad and half an inch thick, leaving a canal which admitted the passage of a large probe only by force;" there was no ulceration. A special point, illustrating difficulty of diagnosis, was the absence of gastric dilatation.—The CHAIRMAN and Mr. VERRALL remarked upon the bearings of such a case on those operated on by dilating with the finger by Professor Loreta (JOURNAL, February 21st.).

Impacted Fracture of Femur.—Mr. N. P. BLAKER read notes of a case of impacted fracture of the femur just above the condyles, following a fall, on the knees, from a horse. The patient, a lady of middle age, after being assisted into the saddle, rode seven miles home, and went up thirty-six stairs to her room by aid of a stick and the bannisters. She then dressed and came down to dinner, and went back again in the same manner, but without bearing any weight on the left leg. On the third day, when seen in bed, there was much swelling of the left knee-joint, and the leg being known to be shorter than the right (in consequence of a former accident), fracture was not suspected. Next day, however, there was considerable displacement; the ends of the fractured bone were prominent, with crepitation, etc. It was presumed that the horizontal position favoured the separation of parts previously impacted. Good recovery ensued after six weeks' application of a long splint, with a weight at foot.—Dr. UHTHOFF referred to a case of impacted fracture of the tibia which occurred at Guy's Hospital, and was not recognised by many until after the formation of callus.

Asphyxia from Cervical Adenitis.—Dr. WHITTLE related two cases in which enlarged cervical glands seriously obstructed respiration. In one, a child, asphyxia was imminent, and only averted by hurried tracheotomy. Death followed in about ten days from broncho-pneumonia, and abscesses were found connected with the cervical glands. In the second case, a parotid abscess formed, and subsequent pneumonia, and temporary cardiac dilatation occurred, but recovery ensued after leeching, pilocarpin, etc. The patient was an adult woman.

Fall from Great Height; Trifling Injury.—Mr. SEYMOUR BURROWS related the case of a child, who fell fifty-six feet from a window into an area without permanent injury. He was taken up unconscious, and remained in a state of collapse four or five hours, but rallied under large doses of brandy. Ecchymosis on the back of the legs and on the buttocks showed that he fell in a sitting posture, with legs extended. For three months he was kept quiet on his back, but, after that time, was quite well.

Vomiting of Gall-Stones.—Mr. SEYMOUR BURROWS related the case of a lady, aged 58, with a history of hepatic disorder, who, being attacked with colic, vomiting, etc., brought up two moderate sized biliary calculi. Next day a number were passed *per rectum*. Death occurred a week afterwards.

WEST HERTS MEDICAL ASSOCIATION.

APRIL 8TH, 1885.

PETER HOOD, M.D., President, in the Chair.

Cholera.—Dr. C. E. SAUNDERS read a paper on cholera, in which he gave a chronological account of its early history in India, and of its advance, in 1817, to parts of Europe, and, in 1831, to England. The next visitation was in 1848-49, then in 1853-54, and the last in 1865-66. Dr. Saunders, in discussing the various theories as to the cause of cholera, showed that many observations contradicted one another, and concluded from this that cholera could not occur without its specific contagion. The one factor constant to all outbreaks was filth in some form or other, and the pollution of water certainly, and possibly other media, with the excreta of cholera-patients. The conclusions arrived at by the two International Sanitary Conferences, held at Constantinople and Vienna in 1866 and 1874 respectively, were, that cholera was not carried by the air for any but very short distances from the source of infection, and that no instance of an outbreak had ever been known to occur in less time than it would take a man to travel the distance. Dr. Saunders attached importance to Professor von Pettenkofer's theory, which was that a soil permeable to air and water, and containing much organic matter, with a fluctuating subsoil-water, was an essential condition for the propagation of cholera, although it was probable that the cholera-poison was of the nature of a microbe swallowed in water. The author considered that it was premature to accept the belief that Koch had discovered the bacillus on which cholera depended. Dr. Saunders insisted that it was misleading to use the term cholera for any but Asiatic cholera, and especially objected to diarrhœa being qualified by the prefix choleraic. In conclusion, he laid down rules for the hygienic management of a case of cholera, especialy alluding to the precautions necessary to be taken in dealing with the excreta, and the best method of disinfection.—Mr. CAYLEY gave his experience of twenty-seven years of practice in India. He considered that, in the comma-bacillus of Koch, a valuable means of diagnosis was to be found.—The President, and Dr. Brett, and Mr. Stradling, joined in the discussion.

Ichthyosis.—Mr. FISHER showed some photographs of an interesting case of ichthyosis, which had greatly improved under treatment.

WOLVERHAMPTON DISTRICT MEDICAL SOCIETY.

THURSDAY, APRIL 2ND, 1885.

C. A. NEWNHAM, M.R.C.S., in the Chair.

Patients and Specimens.—Mr. VINCENT JACKSON showed a boy, aged 14, both of whose Elbows he had Excised, and who had strong and useful arms; also a boy whose os calcis he had excised.

Dr. BATTERHAM showed a man whom Mr. Manby had successfully Trephined for a Compound Fracture of the Skull, with perforation of the dura mater.

Dr. DINGLEY showed a boy, aged 15, suffering from Pseudo-Hypertrophic Muscular Paralysis; also the organs from a case of Purpura Hæmorrhagica.

Climacteric Disorder.—Mr. MANBY read a paper on climacteric disorder, and commenced by defining it as "a disordered state of function, which tends to develop retrograde metamorphoses coming on about the climacteric period from forty-three to fifty, but quite distinct from the menopause, in women." After graphically describing the various symptoms of this disordered condition, Mr. Manby urged change of air and generous diet as the best treatment.—At the close, Dr. Totherick, Dr. Lycett, Dr. C. R. Smith, and Mr. Jackson took part in the discussion.

REVIEWS AND NOTICES.

DE L'INTERVENTION CHIRURGICALE DANS LE TRAITEMENT ET DIAGNOSTIC DES TUMEURS DE LA VESSIE. Par le Dr. ALFRED POUSSON.

ON SURGICAL INTERFERENCE FOR THE DIAGNOSIS AND TREATMENT OF TUMOURS OF THE BLADDER. By Dr. ALFRED POUSSON. Paris: G. Masson. 1884.

PROFESSOR GUYON is well known as the ardent supporter of hypogastric cystotomy in cases of tumour of the bladder, in preference to the operation of perineal incision, or *boutonnière* operation, advocated and practised by Sir Henry Thompson; and we have here the work of a pupil of Professor Guyon, who follows his master's principles. It does not appear to contain much that is original; but the subject is thoroughly treated, and the arguments in favour of the views of Professor Guyon are strongly given. There are some points in the work that deserve careful notice. The author's objections to Sir Henry Thompson's procedure are, that the perinæum is often too deep to enable the surgeon to reach the bladder by the finger; that, if the prostate be large, the difficulty is too great; and that, when the finger, under any circumstances, is in the bladder, it is too restricted in its movements to be of any service for accurate diagnosis. There is no doubt that there are objections to be considered, which have occurred to every inquirer; but Sir Henry Thompson's experience, which is to be valued as exceptionally large, does not lead him to regard them as being very formidable. He urges that the operation is comparatively safe and simple; whereas hypogastric cystotomy is a grave undertaking, and does not afford the expected facilities for ascertaining the extent or nature of the growth, or for its removal.

If we examine the grounds for these divergent opinions, we shall find that Dr. POUSSON has only performed the operation upon the dead subject, and that he was able to explore with the finger thoroughly in thin subjects only. Professor Guyon, too, does not appear to have performed exploration by the perineal incision upon the living subject; and it must be allowed that parts are more capable of exploration by the elasticity of the tissues here than in the dead subject. Moreover, it is only just to take Sir Henry Thompson's positive experience against these negative opinions.

But Professor Guyon's advocacy of the hypogastric operation has to be considered without prejudice, and Dr. Pousson is an able exponent. He has apparently had no personal experience; but the work is of considerable value, as giving several cases of Professor Guyon's which have not hitherto been published. The points urged in its favour are, that it enables the operator to examine the interior of the bladder thoroughly with the finger, and even with the naked eye, "though to a less extent;" and that the operation, thanks to modern improvements in surgery, is "comparatively safe." But it must be asked whether, after all, the difficulty of thorough exploration from above the pubes, even by the finger, is not also great in the same class of subjects as where there is difficulty in reaching the bladder from the perinæum owing to the patient being fat. Moreover, can a practically useful naked-eye view of the interior be obtained? The cases given do not indicate this. And is the position of the wound so suitable for drainage subsequently, as after the perineal incision? This is not fully taken into account. Then, we cannot help feeling that the operation of hypogastric cystotomy is a much more serious one than the perineal. Professor Guyon's cases here given are extremely interesting, and one in particular is worth mentioning somewhat fully.

A patient, 58 years of age, had hæmaturia for six months, without pain. The loss of blood being excessive, Professor Guyon operated by the hypogastric method; and, after two months, the man left the hospital, able to return to work, and without any hæmaturia. But, three months later, fresh hæmaturia occurred, which became intractable, and greatly reduced the patient, so that a second operation was resolved upon, and performed by Professor Guyon. A galvanic *écraseur* was used, after the finger had detected a button-like prominence, pediculated and attached to the base of the bladder; and no other could be felt or seen. The hæmaturia ceased as before; but the patient sank in three days, exhausted by the previous hæmorrhages. In the second operation, the incisions were made through the scars of the old operation, and hardly any blood was lost. The necropsy showed the removal to have been complete as regards the original tumours; but there were commencing growths besides.

This is an important case, but it does not show that the operation gives a very thorough means of exploring the bladder, nor of removing the morbid growths. But it shows that a second operation by the hypogastric method is possible without great risk to the patient.

Three other unpublished cases of the operation by Professor Guyon are given, but they are not very satisfactory. One died in three days, one in four days, and one in three months, with recurrence of the growth. In none of these cases was the operation itself fatal, but, on the contrary, it was followed by cessation of the bleeding. In each case, the rectum was artificially distended, and the bladder filled with boric acid water before the operation was commenced.

The work contains a systematic account of the history of the different forms of treatment, and an account of the anatomy and pathology of vesical tumours. They are divided into malignant and simple, and the situation of the attachment of the growths is tabulated. A full account is given of the means of diagnosis, and a rather amusing burst of indignation is directed against English surgeons, who operate with the sole object of arriving at a diagnosis.

One short section, which treats of partial excision of the bladder, is particularly interesting. But one of the grounds for the suggested operation is remarkable: "there are *no lymphatic vessels* to the bladder, and malignant tumours (therefore) develop slowly, and the neighbouring tissue remains for a long time healthy."

Glück's, Fischer's, and Vincent's results as regards animals are given in favour of the operation being tried, and Snamenski's recent researches are summarised, from which it is evident that partial or even complete resection of the anterior wall of the bladder is comparatively harmless in dogs. We feel that the operation may be of value in some cases of tumour of the bladder, and think that Mr. A. T. Norton's recent case of successful removal of part of the vesical wall in the female for a papillomatous growth points in the same direction.

The work concludes with a long table of cases of operation for tumours of the bladder, which will be a very useful reference for those who are interested in the subject; and surgeons now feel that what used to be a hopeless class of cases may be treated successfully, thanks to Sir Henry Thompson's advocacy of the one, and to Professor Guyon's advocacy of the other form of operation.

DENISON'S SEASONAL CLIMATIC MAP OF THE UNITED STATES.

THIS map is compiled from the meteorological returns made to the Signal Office of the United States. There are nearly 150 stations represented on the map, so that a very large amount of work must have been expended in its compilation. The results have been computed at the Office, and the statistics for each quarter also summarised by the officials; but the curves drawn from the statistics by Dr. DENISON, as well as the methods of showing the results, appear to be correct. Different colours are used for showing the amount of dryness or moisture for each quarter, in the different States, by a blue tint for moisture, and a red for dryness, the relative amount of each being shown by the intensity of the tint. Dryness and moisture are, of course, only relative terms, as saturation of the air with moisture is represented by 100, the mean for the United States being 67 per cent. of relative humidity. All places which have less comparative humidity than 67 are classed amongst the dry, and those that have more than that proportion are placed amongst the moist climates. In this way, it can be seen at once by the intensity of the tint, not only that the atmosphere of a certain State is more moist than of others, but also, by a comparison of the different quarters, if it be always so. The map also indicates the proportion in which the excess occurs. The same information as to dryness is indicated by varying tints of red.

The statistics for each station are shown on the map in a summary form for each quarter of the year. The elevation of each station is mentioned. The following information is also given, namely: the mean cloudiness per cent. of the time the sky was cloudy; the mean relative and absolute humidity; the mean rainfall and snow in inches; the mean daily and monthly range of temperature; also the mean seasonal temperature, which affords the basis for making the seasonal colour-plates. Considerable attention is bestowed on the movement and direction of the wind, the latter of which is shown by arrows having certain modifications in shape—namely, (*a*) arrows showing the prevailing direction of the wind, (*b*) indicating the rain-bearing winds, and (*c*) those showing pleasant weather winds. The mineral springs are also marked by stars, and their special constituents or temperature are mentioned in very many instances. If statistics be wanted for any given station, they can be readily found, for the quarters and for the year, by referring to the tables printed on the map. The isothermal lines are of a brownish-red in the quarterly, and of a blue colour in the annual map.

The Annual Climatic Map of the United States, which is pasted on the back of the Quarterly Map, shows the mean amount of cloudiness, and therefore, inferentially, of sunshine, during the year, by varying depths of red colour; the lightest indicating least cloud, and therefore most sunshine, whilst the deeper shades correspond with excess of cloud and diminution of sunshine. The mean cloudiness is, of course, obtained in the usual way from the returns. The mean annual temperature of every station is shown by blue isothermal lines running across the map in the ordinary manner, and of rain by the same colour; but the rain-curve forms a broken, whilst the temperature-curve is formed of an unbroken, line. The mean values are the same in number as those of the quarterly maps, from which they are obtained in the ordinary manner. The American statistics possess great value, because the observations are taken at the same local time at all places, and extend over so large an extent of land, that the course of storms can readily be predicted, except when they are intercepted by lofty mountain-ranges. The observations are taken three times a day—namely, at 7 A.M., 12.45 P.M., and 11 P.M., and telegraphed to the Signal Office Bureau at Washington, where they are discussed and tabulated before the mean monthly values (on which the quarterly are based) are published. The times of observing are better than in England, as they are taken earlier and later, so that so long an interval does not elapse during the night. Any one, therefore, wishing for information as to the meteorological phenomena of the different States of America, will obtain it correctly by consulting these maps. It must not, however, be forgotten that climate does not depend alone on the meteorological phenomena of any given place, because soil, drainage, aspect, exposure, or shelter from certain winds, etc., modify very materially the climate of different localities.

PIGMENTED XERODERMA.—Professor Pick of Prague has recently described, in the *Vierteljahrschrift für Dermatologie und Syphilis*, three cases of this affection in children belonging to the same family. At the age of eighteen months, small yellowish patches were first observed in the neighbourhood of the eyelids, then on the whole of the face, and on the dorsal surface of the hands and feet. Later on, wart-like tumours developed themselves, and, between them, small depressed scars became visible. This disease presents much analogy with an affection described by Vidal, and called by Professor Pick progressive lenticular melanosis.

MEDICAL MAGISTRATE.—Mr. J. F. M. Miles, of Dingle, has been appointed a justice of the peace for Kerry.

NOTES ON BOOKS.

DR. F. T. ROBERTS'S *Handbook of the Theory and Practice of Medicine* (H. K. Lewis) has just reached a sixth edition. The work is already so widely and favourably known, that it is scarcely necessary to say more, on the present occasion, than that the author has taken care that its value as a text-book shall be fully maintained. It has been subjected by him to careful revision, so as to bring up the information contained in it to the present standard of medical knowledge. On unsettled points, such as the true position of the comma-bacillus in the etiology of cholera, Dr. Roberts speaks with judicious caution; but he has endeavoured to incorporate with the text such views as have seemed to him worthy of notice. Recently introduced remedies, for example, cascara, are mentioned in speaking of treatment; and, in an appendix, the author offers some remarks on antipyrin and cucaine, which have lately attracted much attention. The book is a valuable and trustworthy guide both to the student and to the practitioner; he who masters its contents, and supplements them by clinical observations as opportunities are afforded to him, can scarcely fail to obtain a competent knowledge of the science and practice of medicine, according to the most approved teaching of the present day.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

FRIEDRICHSHALL MINERAL WATER.

SOME further improvements are in course in the method of caption of this old-established and favourite mineral aperient water. These, by preventing the access of sweet water, and avoiding the dilution of the mineral water, will considerably increase its mineral strength and efficacy. Such improvement will doubtless be of considerable value, as it will enable the water to be used in smaller bulk, and, therefore, more conveniently than heretofore; and thus its efficacy, in practice, will be increased. The testimony of Bamberger, Frerichs, and Seegen, and other foreign as well as eminent British authorities, has for many years concurred in indicating Friedrichshall water as an aperient which, for habitual use, is unrivalled. Its richness in chlorides gives it especial alterative value; and there is a great body of physiological evidence, collected by Mosler and Mering, as well as of clinical evidence from the hands of Sir Henry Thompson and others in this country, indicating the especial value of Friedrichshall in preventing the formation of uric acid; and establishing the fact that, unlike mineral aperients, its dose may be progressively diminished during continuous use. The improvements in the method of capturing and bottling the water, so as to free it from dilution, will no doubt add to its long established popularity.

AN IMPROVED CANNULA FOR DRAINAGE IN ASCITES, ETC.

SIR,—I am much obliged to Mr. Cotterell for his kind intentions in showing me the proper way to use Dr. Southey's trocar, a way I gave up long ago, because, amongst other reasons, withdrawing the head of the trocar through the rubber-tubing generally left a slit which, of course, as Mr. Cotterell must know, destroyed the siphon-action of the tubing. If Mr. Cotterell has only tried the proper way, I would strongly advise him to use the tubing without puncturing it, he will, I feel sure, be gratified with the result. The remainder of Mr. Cotterell's letter being merely matters of opinion, needs no comment from me.—I am, yours sincerely,

W. Y. VEITCH.

"COMBINED RECTAL AND INTRA-UTERINE IRRIGATOR."

SIR,—I observe, in the BRITISH MEDICAL JOURNAL of April 18th, a description of an instrument, as above named, by Dr. J. S. Coleman, of Augusta, Georgia, U.S.A. He speaks of it as a modification of the "Metro-clyst" he introduced to the profession in the *Medical Record*, of New York, for May 10th, 1879. On November 14th, 1878, I procured a patent, in France, for an essentially similar invention; and although I intended it principally as a means for cleansing and medically treating the vagina and os uteri, I stated in the specification that "Instruments constructed as hereinbefore described and illustrated, may (when made in suitable sizes) be used with advatage in any passage or wound requiring dilatation during irrigation." This invention of mine was shortly afterwards favourably commented on by the medical press in various parts of Europe, and it is quoted in the catalogues of surgical instrument-makers.—Yours truly,

HENRY GREENWAY.

Plymouth.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 25th, 1885.

THE SALE OF POISONS BILL.

THE Poisons Bill, which was read a second time in the Lords on March 19th, has now, on the motion of Lord Carlingford, been referred to a Select Committee of the House of Lords, and will there undergo a severe scrutiny.

The Bill, as we have pointed out, contains provisions of great stringency respecting the sale of poisons. The requirements as to the sale of arsenic are re-enacted completely, uncoloured preparations of arsenic not being allowed to be sold in quantities of less than ten pounds; arsenical pigments being exempt from this provision, though subject to all the other provisions as to the sale of deadly poisons. And this leads us to note the schedule of poisons at the end of the Bill, divided into three parts, instead of two as in the present Act. The first part of the schedule includes the more potent poisons, such as prussic acid; and these are only to be sold retail by a chemist or a medical practitioner, the sale being registered. The second part embraces the less potent poisons, such as opium; and these likewise are to be sold only by the classes of persons above mentioned. The third part of the schedule is new, and embraces the mineral acids, butter of antimony, and the two disinfectants, carbolic acid, and chloride of zinc. These, when sold, are, like all the scheduled poisons, to be labelled "poison," and with the name and address of the vendor, but with this reservation, that there is no restriction as to the class of persons dealing in them. They may, in fact, according to the Bill, be sold by anyone. The schedule of poisons may well be amended; for, as was pointed out on the second reading, preparations of phosphorus are unaccountably omitted.

There is one great advantage in the Bill, namely, that the Privy Council is empowered, without any reference to any other body, to add to, alter the position of, or remove altogether from the schedule, any poison whatsoever. Indeed, the Pharmaceutical Society, having not greatly exercised its powers under the existing Statute, appears about to lose all control of the sale of poisons in the Bill. The Privy Council is to have the disused power of the Society, to regulate the dispensing of poisons; and the supposed exclusive power of the Pharmaceutical Society to prosecute peccant grocers and others dealing in poisons disappears, we hope, for any offence committed under the proposed Act is to be punishable on summary conviction, under the Summary Jurisdiction Acts.

The saving clauses of the present Act as to the medicines prescribed by medical men are retained, but one thing doubtful under the

existing Statute is made clear in the Bill. All medicines for external use that contain a scheduled poison, are to be labelled "poison," and with the name and address of the person selling the medicine, be he medical man or chemist. Wholesale dealing in poisons is not interfered with, except that "poison" labels are to be used; and there is no attempt to define what is a wholesale transaction. No attempt, either, is made to deal with that large class of poisons used in the arts, and in ordinary domestic life. Perhaps this task has been felt to be too Herculean. We confess that we have hitherto seen no satisfactory proposition advanced to deal with this large class of substances. In one small household we lately found the following articles, all poisonous, and all articles familiar to most persons: arsenical wall-papers; wall-papers containing chrome-yellow; toys covered with arsenical green paint; ink and blacking, both containing oxalic acid; hydrochloric acid for cleansing the pans of closets, and for cleansing sponges; plate-powder containing corrosive sublimate; carbolic powder for the drains; dilute oil of vitriol for cleaning brass; ammonia for removing grease-stains; cyanide-powder for cleaning jewellery; white (lead) paint; sugar of lead; Goulard water; binoxalate of potash for removing inkstains; bichromate of potash, sulphate of copper, and nitric acid for a youth's batteries; a silver marking-ink; arsenical fly-paper, beetle-powder, and various vermin-killers, including phosphorus-paste, strychnine rat-powder, and a rat-powder containing barium-carbonate. This list will afford some faint idea of the number of articles of domestic utility which many persons, with the best intentions, would place under severe restrictions as to their sale. Life would, perhaps, be not worth living were the sale of poisons to be too rigidly restricted.

The relation of the Bill to patent medicines we indicated in our article in the JOURNAL of March 28th. It will now be necessary that the provisions should be carefully considered; and we trust that those gentlemen who took part in the debate at the annual meeting will carefully consider the clauses of the Bill, and favour us with their criticisms.

One serious omission we note in the Bill. At present, though it is incumbent on a dealer in poisons to keep a register of the sale of poisons, he is under no obligation to produce it to anyone, and hence, in cases of murder, serious difficulties have been thrown in the way of the police by the absolute refusal of chemists and druggists to produce their poison-books. There ought, in the new Act, to be a provision that every dealer in poisons should be bound to produce his poison-book to the police in case of necessity, under a penalty for refusal. A clause to this effect ought to be introduced into the Bill now before Parliament. A great improvement would thereby be effected in the administration of the law, and in the checking of crime.

THE OXYGEN-REQUIREMENT OF THE BODY.

THE enormous reducing power, or, in other words, the intense affinity for oxygen, displayed by living protoplasm, has hardly been estimated sufficiently. As Pflüger says, considered chemically, protoplasm represents a giant-molecule transcending in complexity an ordinary chemical molecule, as the sun transcends in size the smallest meteor. For instance, the formation of chromogens oxidising in the air after the death of the protoplasm, shows that the latter exerted a protecting action against oxidation during its life. Again, certain algæ have been shown to have the power of reducing sulphates; indeed, the whole theory of fermentation rests on the reducing powers of protoplasm. Professor Ehrlich, of Berlin, has published a monograph of 167 pages, in which are embodied the results of his endeavours to estimate the oxygen-affinity of the various tissues and organs of the body during life by means of experiments with reducing agents. Reduction, however, could not be regarded as an absolute measure of the oxygen-affinity, for histology showed that the tissues have special predilections; for example, osmium-salts are reduced by the medullary nerve-sheath, gold-salts by the axis-cylinder, and silver-salts by the connective tissue. The agent chosen in the reduction-experiments was "alizarine S.," a combination of alizarine-blue and sodium-bisulphate, obtained from an aniline factory. This substance easily became blue (on oxidation), but afforded considerable resistance to reduction, by which a leuko-product was offered, called alizarine-white. By injecting poisonous doses of alizarine S. in various animals, the various tissues of the body, including the skin and mucous membrane, became more or less blue in a few minutes. Death quickly ensued, and the animal was examined immediately afterwards, especially for the presence of the white product. The latter was looked for by appropriate chemical tests, and the organs which contained it represented the sites of highest reducing capacity, and, therefore, of highest oxygen-affinity. The results, which varied somewhat with the species of animal, were curious. In every case, the lungs were the site of greatest reduction, as no blue was found in them, even during life, but only the leuko-product. The liver also reduced during life, but to a less degree. The heart and grey matter of the brain were rendered blue during life, but rapidly reduced the colouring matter after death. And some organs, such as the pancreas and submaxillary glands, only reduced long after death, or not at all. The parts found deeply stained immediately after death were the connective tissues, serum of blood, and serous fluids, the epithelial structures, including the surface of the body and various glands, including the gastric, the salivary and buccal, the lacrymal, the mammary, and the testes. The submaxillary glands stored up more blue than any other organs, and were even an index of the presence of alizarine-blue in the blood, while, strange to say, the parotid showed hardly a trace of blue. The medullary part of the kidney was highly coloured, but the renal cortex reduced during life.

Various reasons, depending chiefly on the colloidal experiments of Graham, are given to show that the serum of the blood conveying the agent over the body circulates alizarine-blue, not in the dissolved form, but in a very finely granular condition, held in suspension by (colloidal) albumen, as a pseudo-solution. Hence, its distribution is made to depend, to a great extent, on the porosity of the absorbing surfaces of an organ, in other words, on the fineness of its meshes. This explains the abundance of alizarine-blue in the submaxillary gland, and its scarcity in the far more finely meshed parotid, and several other peculiarities of the kind. Similar experiments were made with indo-phenol-blue, and with cœrulëin. Indo-phenol-blue circulates in the soluble form, and behaved very differently from the above, as it parted with its oxygen more readily, only a few organs being coloured, chiefly the heart and brain. As the result, the organs and tissues are divided into three categories as regards their oxygen-saturation, namely, 1. Those of high oxygen-saturation (not reducing indo-phenol-blue, still less alizarine-blue); such are, grey nervous

substance, the heart, the renal cortex, and, curiously enough, a few well defined groups of muscles; the latter included the muscles of the eye, the tongue and the larynx, the diaphragm, and the buccal muscles; 2. Those of lower oxygen-saturation (reducing indo-phenol-blue, but not alizarine-blue); these include the bulk of the parenchyma of the body, most of the voluntary muscles, almost all smooth muscle, almost all the glands, and, lastly, connective tissue; 3. Those of high oxygen-affinity (being able to reduce alizarine-blue to alizarine-white); this group embraces the lungs, the liver, fatty tissue, the gastric mucous membrane, and part of the intestinal muscular coat, namely, the duodenal.

Professor Ehrlich comes to the conclusion that protoplasm, though physiologically saturated with oxygen, is not so chemically, as Pflüger wrongly maintains. Even the most highly oxygenated organs, the heart and the grey cerebral substance, are chemically unsaturated. Evidently no just idea has hitherto been formed of the extremely intense oxygen-affinity of living protoplasm. A wide field for investigation is opened out by the above experiments, which are a good example of the painstaking character of modern German scientific work. It is a striking fact that the lungs, which are so freely supplied with oxygen, should be the most powerful reducing organs in the body, so much so as to form alizarine-white during life, while permeated with oxygen and with the alkaline blood. Fatty tissue also reduces powerfully. Fat-formation depends on the presence of a powerfully reducing protoplasm, and this is in harmony with physiological and pathological facts, and is, moreover, supported by the brilliant success of Professor Oertel's method of reducing corpulency, a method based upon increase of oxidation-processes in the body.

The interposed layers between the oxygen of the blood and the protoplasm proper of the tissues, greatly hinder the immediate diffusion of oxygen from the former to the latter. For example, in an acinous gland we have, first the vessel-wall, next a thin connective tissue stroma, then the lymph-space surrounding the acinus, and finally the membrana propria of the cell itself. But "cell" and 'protoplasm" are not quite synonymous terms, and the oxygen has still to traverse the more indifferent regions of the cell, the paraplasm, before it reaches the true respiratory protoplasm. The great distinction here made between the outer layer of the cell, the paraplasm, and the protoplasm proper, reminds us of Beale's distinction between formed tissue and formative tissue, and leads Ehrlich to the presumption that certain micro-organisms, which are the active agents in various infectious diseases, and which cannot subsist without oxygen, may be deprived of vitality within the cell, without requiring the aid of any special agent or ferment. There is no free oxygen within the true protoplasm, but, on the other hand, great oxygen greed, and even so extremely intercellular an organism as the tubercle-bacillus apparently cannot live without oxygen. At any rate, this will explain the fact that bacillary growth on serum occurs only when the inoculations are superficial, and in broth only when not more than one centimètre beneath the surface. Bacteria generally are far coarser than the particles of colouring matter above spoken of, which were found abundantly in some secretions, such as the bile and urine. Now, bacteria have been found in the urine by several observers, amongst others by von Recklinghausen and by Watson Cheyne. Possibly, therefore, the liver and kidneys may be sites for their elimination. Possibly, again, the immunity against reinfection after infectious diseases may be due to the fact that the protoplasm of the body has acquired by experience a facility for taking up the bacteria causing the disease, and for thus causing their death by deprivation of oxygen. Metschnikoff has already advanced such a theory (as regards leucocytes within the eye, called by him "phagocytes"), without, however, attempting an explanation of the way in which the bacteria are killed.

RIGHTS OF RAILWAY-PASSENGERS.

Questions as to the liability of railway-companies for injuries sustained by their passengers are of frequent occurrence, and are of great interest, both to that large section of the public who hold railway-shares, and to that still larger section who have to travel by railway. Many people seem to be under the impression that, if a man sustain an injury whilst on the premises of a railway-company, the company are bound to pay him a liberal compensation; and the verdicts of juries, who after all represent public opinion, give countenance to this view. The law does not, however, impose quite such a wide liability on the companies; they are only liable if they, or their servants, have neglected to do something which, either under their contract with the passenger, or under the duties imposed on them by law, as carriers, they ought to have done; and if the injury were the consequence of such neglect, the law is plain, and all judges are agreed upon it; but its application to the circumstances of a particular case is not always easy, and often has given rise to serious differences of opinion among the highest judicial authorities.

One of these cases is that of Wright *v.* the Midland Railway Company, which was some time ago determined in the Queen's Bench Division. The action was brought against the Company to recover damages for the death of a passenger, who was knocked down and killed while crossing their line. He had taken a ticket, and was waiting in a waiting-room for his train, which had to come to the opposite platform to that where he was. He heard the train approach, and, while crossing the line to get into it, was knocked down by the engine, and killed. There was no porter stationed at the spot to warn passengers, and no bridge or other means of crossing the line otherwise than on the level. It was alleged that this constituted negligence on the part of the Company, and was so found by the jury, who gave a verdict for the plaintiff, damages £100. The Court, however, consisting of Justices Field, Manisty, and Lopes, reversed this verdict, and entered judgment for the defendant company, on the ground that, though they might have been guilty of negligence (which they seemed to think was the case), the unfortunate man's death was caused not by that, but by his own negligence. It was not disputed that he might have seen, and did in fact see, the approaching train, and if he had not chosen to cross the line in front of it he would never have been injured. Under these circumstances, it seems that the judgment of the court was right, and the verdict of the jury was wrong. The decision in such cases, however, always must depend on the view of all their circumstances taken together, and the plaintiff may succeed in persuading the Court of Appeal that there was some negligence of the Company which caused the man's death. As in the cases of Smitherman *v.* the South-Eastern Railway, and Slattery *v.* the Dublin and Wicklow Railway, both of which went to the House of Lords, the jury sympathised with the passenger, and found a verdict for him without giving much weight to the evidence of his negligence. Judges in such matters, in correcting the mistakes of the jury, are sometimes apt to go beyond their proper province,

and to deal with questions of fact apart from those of law, and this is perhaps inevitable. The fact that such questions should be carried on appeal from court to court, and that a plaintiff who has recovered a verdict should afterwards be deprived of it, is pointed at by some persons as showing a defect in our judical system. They say that the verdict should be final, and judgment should follow upon it as a matter of course. Where, however, verdicts are as often wrong, as in cases of this class they are, to give finality to them would cause a greater injustice than the expense of repeated appeals is now. Poor plaintiffs no doubt wage an unequal fight when they go to law with a powerful company, and sympathy is naturally enlisted on the side of the individual who has been injured, rather than on that of the corporation which is asked to pay for the injury. It is, however, admitted that, in administering justice, we have no right to be charitable at the expense of a company, merely because it is rich, and can afford to pay. This is what the verdicts of juries, if they were not subject to review, would often do ; and while that is so, the necessity for appeals must continue. Until juries are allowed to give verdicts as they like, persons who seek to recover damages on the ground of negligence should be sure they can make out a case, otherwise the result of litigation may only be to render them liable eventually to pay a large bill of costs. The protracted appeals in railway-cases are pointed at as scandalous, but the blame rests quite as much with those who, with but slight legal grounds for claiming damages, choose to begin an action, as with the companies who, by all legitimate means, resist claims which they, with the experience of other similar claims to guide them, believe to be in all probability unfounded.

MR. E. HUBRY FENWICK has been appointed Examiner in Elementary Physiology at the Royal College of Surgeons.

DR. J. SYER BRISTOWE will deliver the Cavendish Lecture at 8 P.M., on June 5th, at the West London Hospital, on "Hysteria, and its Counterfeit Presentments."

DR. FRANCIS H. CHAMPNEYS has been elected Obstetric Physician and Lecturer on Midwifery and Diseases of Women to St. George's Hospital, in the place of Dr. Robert Barnes, who has resigned.

THE President of the British Gynæcological Society has issued cards for a *conversazione*, at the Marlborough Rooms, Regent Street, on Tuesday, May 12th, at 9 o'clock.

PROFESSOR F. S. B. de Chaumont has accepted the presidentship of the autumn congress of the Sanitary Institute of Great Britain, to be held in Leicester, from September 22nd to 26th inclusive.

A CIVIL LIST pension of £100 *per annum* has been awarded to Mr. Edward Scott Docker, Deputy Inspector-General of Hospitals, in recognition of his discovery of the uses of ipecacuanha in the treatment of dysentery, and of his services towards Her Majesty's forces.

WE are requested to announce that the annual general meeting of the Association of Members of the Royal College of Surgeons of England will be held at 4 P.M. on Tuesday, May 5th, in the Westminster Town Hall ; Dr. Danford Thomas in the chair. All Members of the College are invited to attend.

H.R.H. THE PRINCE OF WALES, Vice-Patron of University College Hospital, has kindly consented to preside at a festival dinner in aid of the funds of that charity on Wednesday, May 13th, at the Langham Hotel, at 7.30 P.M. We are informed that the amount now owing by the hospital to tradesmen and bankers exceeds £8,000.

WE are requested to remind the members of the Metropolitan Counties Branch, that the Senate of the University of London has consented to receive a deputation of the Branch, at the University Building, Burlington Gardens, on Wednesday next, April 29th, at 4.45 P.M. The members of the deputation will assemble at the University at 4.30 P.M., and gentlemen desirous of being present are invited to send their names as soon as possible to Dr. Henry, 132, Highbury Hill, N. It is hoped that the importance of the subject under consideration will ensure a numerous attendance.

THE object of the deputation, as is probably well known to our readers will be to lay before the Senate of the University the resolutions passed at the General Meeting of the Branch, held on March 6th (see BRITISH MEDICAL JOURNAL, March 14th), and to endeavour to obtain such a relaxation of the present regulations—especially those relating to the Preliminary Scientific Examination—as will render the medical degrees of the University more accessible to those pupils of the metropolitan schools of medicine who may be desirous of obtaining them. At the same time, it is not proposed that the efficiency of the examinations in strictly professional subjects should be lowered.

STRONG evidence of the want of a more accessible source of degrees for English students than at present exists, is supplied by the numbers who go to the Scotch universities for the degree of Bachelor of Medicine. From some statistics which have been shown us, it appears that during the ten years 1875-1884, out of 1,287 graduates of the University of Edinburgh, 452, or 35 per cent., are indicated in the official returns as having come from England and Wales. At Aberdeen, during the same period, out of a total of 515, 159, or 30 per cent., came from places in the kingdom south of the Tweed. In Glasgow, the percentage is smaller.

THE LATE MR. RABBETH.

WE desire to correct the statement, made in our last issue, that "a committee, of which the Archbishop of Canterbury is president, intend to establish at King's College a scholarship to be named after the deceased;" and to state that, through the kindness of the father of Mr. Rabbeth, a sum of money has been placed at the disposal of the Council of King's College to found such a scholarship ; and the whole of the funds subscribed will be devoted to the founding of two cots, one in each of the hospitals with which Mr. Rabbeth was connected.

OUTBREAK OF CHOLERA IN JÁTIVA.

THE *Siglo Médico* of April 12th confirms the report of the appearance of cholera in Játiva, in the province of Valencia, Spain. Following the usual rule, the cases of "gastro-enteritis" have become "suspicious," and finally acknowledged as Asiatic cholera by the Junta de Sanidad. Seventy deaths are said to have occurred already. Dr. Ferran, who was one of the Barcelona Commission to Marseilles, and who has published some very original views on the development of the comma-bacillus and its preventive inoculation, is studying the epidemic on the spot.

AMERICAN PRECAUTIONS AGAINST EPIDEMICS.

THE Secretary of State of the United States has instructed all the American Ministers and Consuls abroad promptly to advise him of the outbreak of epidemic diseases in their ports and stations. Extensive precautions will be taken to prevent the introduction of epidemics into the country.

GABRIELE BUCCOLA.

ITALY has hosts of workers in the van of science. Buccola, who died, aged 30, at Turin, on March 5th, was amongst these a man of power and of marked originality. His chief writings were *On the Laws of Heredity*, *The Laws of Time in the Phenomena of Thought*, and *The Electrical Reaction of the Sense of Hearing*. Scarcely had he, in the Chair of Psychiatry, in his native Palermo, begun to reap the first fruits of his labours, when his career was terminated.

THE EASTERN HOSPITAL REVELATIONS.

THE Local Government Board have commenced an inquiry into the circumstances connected with the financial mismanagement and appropriations at the Eastern Hospital of the Metropolitan Asylums Board. The gravity of the affair appears to be fully recognised, for as many as three Commissioners, Mr. Hedley, the poor-law inspector for the metropolis; Dr. Bridges, the medical inspector; and Mr. George Taylor, the Board's inspector of audits, have been detailed for the inquiry. The requests of several Boards of Guardians for an independent inquiry, whatever that may mean, are a little unreasonable. Clearly it is to the interest of the Local Government Board to have the matter sifted to the very bottom. Mr. Hedley and Dr. Bridges are both accustomed to the holding of sworn inquiries, and are familar with the circumstances of the hospital; whilst Mr. Taylor, though his name comes less before the public, has an intimate acquaintance with poor-law accounts, and was, before his appointment at Whitehall, a barrister in some repute. The result of the inquiry will be awaited with anxiety. Something much more stringent in the way of auditing will have to be practised, if we are to be spared these oft-recurring misappropriations by officials.

VACCINATION OF CHILDREN IN PUBLIC INSTITUTIONS.

AT a meeting of the Vaccination Officers' Association, held at the Charing Cross Hospital Medical School, on Saturday, April 18th, the members considered the best means of securing the vaccination of children born in public institutions, and it was resolved: "That the attention of the Local Government Board be called to the large number of children who are permitted to leave public and parochial institutions unvaccinated; and that it be respectfully suggested that, if a special fee were paid to all medical officers of public and parochial institutions for successful cases of primary vaccination, to a great extent the returns of vaccination would be improved."

DIARRHŒA AND POLLUTED WATER.

IF the recent serious outbreak of diarrhœa at Hull should eventually prove, as suspected, to have been related to the pollution of the water-supply, the epidemic would, apart altogether from its magnitude and local importance, be of interest as the first of its kind that has been recognised in this country as due to polluted water. Of cholera-epidemics due to this cause we have abundance of examples, though happily not recent ones; and of typhoid fever-epidemics, too many to be counted. But it chances that no epidemic of water-borne diarrhœa has been recorded, though there would appear to be no reason for this beyond a happy immunity. It is on every ground very important, therefore, that the exact facts as to the epidemic in Hull should be carefully and elaborately sifted without delay by a skilled and practised observer. Dr. Ballard, of the Local Government Board, whose interest in the etiology of diarrhœa is well known, would surely do well to apply his synthetical mind to the occurrences at Hull. The special committee appointed by the corporation, we understand, will resume their inquiry, suspended upon the engineer's admission that doubtful water had been pumped into the mains. Dates and details are to the last degree important in an inquiry of this kind; and no time should be lost in collecting all the available particulars as to recent occurrences at the waterworks. Otherwise the memories of those implicated in the irregularity—never, as it would appear, very good,—will, even with the best intentions, be infallibly and hopelessly dulled as to acts which, trivial in themselves, may nevertheless have been of the most tremendous import to the water-drinkers. There now appears to be reason to believe that the suspected water was pumped into the main for a much longer time than was at first supposed; and there even seems to be some doubt as to whether the pumping ceased entirely until after the epidemic broke out. It would be a pity if an epidemic so large and extensive were allowed to die out without teaching us some useful general lesson. We trust, therefore, that a strong and combined effort will be made to track the real cause of the mischief to its lair. The only epidemic of diarrhœa on record which appears to bear a resemblance to that at Hull is one at Hartford, Connecticut, about seven years ago. This was proved to have been due to the substitution, on an emergency, of the river-water for that from the reservoirs. On examination, it was found that a large sewer opened but fifty feet below the main inlet water-pipe. By the tide and an eddy the sewage was sent back directly over the inlet pipe, and was so pumped up into the water. The onset of the epidemic was sudden, severe, and extensive, and limited to the region supplied by river-water. Nearly every family in the affected district had one or more cases, and in many no one escaped.

AMBULANCE-CLASSES FOR LADIES.

THE Princess Christian, whose great interest in ambulance-work is well known, undertook, on Tuesday last, the presentation of medals and certificates of honour to the successful candidates in various competitions of the Polytechnic St. John Ambulance Association Class for Ladies in the great hall of the institute. The Princess, who was accompanied by Prince Christian, was received by Sir James M'Garel Hogg, M.P., who presided, Sir E. A. H. Lechmere, M.P., and other members of the St. John Ambulance Association. The Chairman, in opening the proceedings, congratulated the assembly upon the spirit of chivalry which had animated a large number of young ladies to take upon themselves duties not altogether of a pleasant character, although wedded to the cause of humanity and charity; and on the still more gratifying spectacle of the emulation of chivalrous spirit shewn by one of Her Majesty's daughters, who were ever ready to take a part in every good work that could be found for them to do. The St. John Ambulance Association was an institution of the greatest value and importance, and it was delightful to find a large number of the gentler sex banding themselves together to be useful to their fellow-citizens. The Princess Christian then, at the request of the Chairman, presented the various prizes to forty-seven ladies who had been successful in gaining them, three of the number being, in addition, medallists. Prince Christian, in replying to a vote of thanks to Her Royal Highness, said that the Princess was not only herself a member of the Order of St. John, but she was also the possessor of two certificates for proficiency in ambulance-duties. He could assure them that the Princess considered it a duty of which she was extremely proud, and she would always be ready to aid in any good work for the benefit of all classes in the country.

A JAPANESE MEDICAL SOCIETY.

WE have lately received copies of the *Supplement to the Transactions of the Sei-I-Kwai*, a society founded at Tokio in January 1881 for the advancement of medical science in Japan. Among its objects are the establishment of a medical museum and library, and the erection of a building equipped with apparatus, etc. A meeting of the Society is held every Wednesday evening, at which clinical cases are reported and papers read and discussed. Once a month, there is a discussion on a special subject, the nature of which has been previously decided. The Society numbers eighty-six members, including seven foreign members. The President is Mr. Kanehiro Takaki, who was some years ago a distinguished student at St. Thomas's Hospital, and who now holds the office of Director-General of the Medical Department o

the Japanese Navy. The *Transactions* of the Society are published monthly, in Japanese; and the *Supplement*, which first appeared in January of this year, consists of eight pages in English, containing translations of articles of interest read before the Society, and notes on other matters of interest. In the two numbers before us, the first original article is one by Mr. K. Takaki, on four cases of ovariotomy in which he operated, three of the patients recovering. There is also an interesting paper on the nature of the "Fugu," or Tetrodon-Poisoning, by Dr. K. Ösawa, translated by S. Tsuruda.

THE INTERNATIONAL SANITARY CONFERENCE.

THE Italian Government has telegraphed invitations to the European Powers to take part in the International Sanitary Conference to be opened at Rome on May 15th. All the States taking part will be represented by a plenipotentiary and technical delegates. The Conference, we believe, in addition to discussing the methods for preventing the introduction of cholera into Europe, will also occupy itself with the discussion of general epidemic diseases, and the idea of founding a permanent International European Sanitary Council will also be raised.

EDUCATION UNDER HEALTHY CONDITIONS.

THE concluding days of the Manchester Conference on Education under Healthy Conditions were taken up principally with a discussion on the subject of Physical Exercises. Mr. Charles Roberts read a paper on the "Correlation of Mental and Physical Education." Miss M. A. Chreiman, of the Physical Training College, London, followed with a paper advocating the physical training of women. Mr. John Holm said the good average *physique* of the British race, due to our predilection for active sports, had a retarding influence on the introduction of gymnastics. At the same time, he condemned much of the apparatus now used in ordinary gymnasia, expressing the opinion that the parallel bars were most objectionable, sharing with clubs and dumb-bells the invidious distinction of producing the gymastic stoop, combined with stiffness of the shoulders. His preference was for the Swedish system of gymnastics, which, if carried out in accordance with the teaching of Ling, was free from the blemishes of our system, while capable of fully developing the body. The discussion was taken part in by Dr. Shuttleworth (of the Royal Albert Asylum for Idiots), Miss Blyth (Edinburgh), Dr. Watts, and Mr. Broadfield. In reply to the President, Dr. Watts said he did not believe there was any falling off in the health and strength of school-children in consequence of the vigorous application of the system of compulsory attendance. He thought it was pretty generally known that infant mortality was decreasing, and that adult life was lengthening. At the close of the conference, Lord Aberdare expressed his belief that there was no serious foundation for the cry of overpressure, and nothing in the requirements of the Code too severe for the scholars. He considered that the report of Dr. Crichton Browne was unnecessarily extravagant. They ought for the present to be content with the changes which had been made in the Code, and not tinker it any further until it had had a longer trial.

THE MEDICAL STUDENTS' REGISTER, 1884.

THE *Medical Students' Register* of 1884, of which a copy has been forwarded to us from the General Medical Council Office, bears evidence of that care and skilful arrangement of detail of which we have before had occasion to speak in reviewing this publication. From a summary given of the number of medical students registered during each year in each of the three divisions of the United Kingdom from the commencement of students' registration in 1865 to the end of 1884, we note that the total number of students in that period in the three kingdoms has been 28,955. The numbers registered during 1884 have been: in England, 896, against 817 in 1883; Scotland, 617, against 596 in 1883; Ireland, 444, against 370 in 1883; making a total of 1,957 against the total in 1883 of 1,783. The highest number of medical students registered in any one year was in 1881, when there was a total of 2,171, of which England contributed 1,064. Of the total of 1,957 for 1884, 69 were students registered in Indian, colonial, and foreign universities and colleges. In the list of places of medical study whereat students were registered as having commenced medical study in 1884, the University of Cambridge furnishes 107; St. Bartholomew's Hospital, 86; Owens College, Manchester, 67; St. Thomas's Hospital, 54. But the highest number of students was registered at the University of Edinburgh, namely, 270; the University of Glasgow following with 141.

THE POISONS BILL.

THE Government Bill for regulating the sale of poisons having now been referred to a Select Committee of the House of Lords, on the motion of the Lord President of the Council, it is of no use to discuss the necessity for such reference. But unless the Committee deal with the subject much more promptly than is the habit of the Committees appointed to consider the amendment of the law on a question of intricacy and technicality, its appointment practically means the shelving of the Bill for the present year. Perhaps Lord Carlingford is not sorry for this; at all events, the Earl of Milltown, who seems to have suggested the Select Committee, distinctly contemplates such a fate for the Bill.

WANDERING LUNATICS: A COLLISION OF AUTHORITIES.

THE condition into which the workhouse-authorities have been thrown by recent lunacy-proceedings may only be described, in common figurative language, as "a kettle of fish." No one seems to be sure what the law is in the matter of admission of lunatics into workhouses; and, therefore, the conclusion is thought to be safe not to admit them at all. But, unfortunately, another danger arises; and the other day a magistrate, at the Southwark Police Court, threatened to indict the authorities of the Lambeth Infirmary, under the Act, if they persisted in refusing to admit one Herman Knabe, a German waiter, apprehended by the police as a wandering lunatic. The unfortunate man was refused admission several times, and was for the third time taken to the workhouse by order of the magistrate—with what result has not transpired. It is clear that, while the magistrate was justified by law in sending Knabe to the Lambeth Infirmary, the proper course would have been to take immediate steps to place him in an asylum. It is to be regretted that all acute cases, except those arising from drink, are not placed, in the first instance, in a lunatic asylum. In the same newspaper which contains this case is the report of a charge, made at the Hammersmith Police-Court, against Joseph Wise, a platelayer on the Great Western Railway, as a wandering lunatic. On a previous day, the Acton relieving officer had taken the necessary proceedings before the court, and obtained an order for his admission into the Isleworth Workhouse. In this instance, also, the authorities refused admission to the unfortunate man, and he was brought back to the police-station, where he was locked up all night in the cells, under the care of the constables. In the morning, he was very ill; and, on being examined by the divisional surgeon, he was found to be labouring under apoplexy. It was expected the man would die. Mr. Paget took the evidence, and entered the case as "too ill to appear." In the event of his death, the authorities may find that, in endeavouring to escape the perils attendant on admission, they have fallen into those which clearly attach to refusal to admit when the proper order is obtained. Mr. Biron has been greatly exercised in consequence of the refusal by the authorities of the Lambeth Workhouse to admit a wandering lunatic named Beguet, who was brought before him on Monday at the Lambeth Police-Court, labouring under an acutely maniacal attack. The workhouse authorities justified their action on the recent judgment of Mr. Justice Wills in the case of Hicks *v.* Bedford. Hicks, it will be remembered, was confined in the lunatic-ward of the Marylebone Workhouse for fourteen days without the formalities required by the 16 and 17 Vict., c. 97,

sec. 68, having been complied with. It cannot be doubted that Mr. Justice Wills merely gave effect to the letter of the law, while the workhouse officials followed the very general custom of evading it. The admission had been accompanied by a medical certificate, but no magisterial order. In the case of Beguet, likewise, a medical certificate was obtained, but nothing more, and in consequence Mr. Lloyd, the surgeon to the Lambeth Infirmary, refused to admit him. In this course he was clearly justified, as he maintained, by the decision of the judge referred to. The cases as reported in the papers appear to be similar ; but Mr. Biron held that Mr. Lloyd was mistaken in regarding them as such. The patient was conveyed to the Brookwood Asylum, and Mr. Biron observed that he should bring the matter before the Local Government Board. It is difficult to see how it can do otherwise than support the refusal on the part of the Lambeth Workhouse to admit Beguet.

CHARITY COMMISSIONERS AND CRAMMING.

THE head master of the Grammar School at Uttoxeter has entered his protest against the mischievous number of subjects required by the Charity Commissioners. Mr. Allen, M.A., addresses a letter to the Rev. G. F. Browne, Cambridge, in which he says : "How are we to find time to teach arithmetic, English grammar, II Kings, Gospel of St. Mark (Greek and English), II Corinthians, Shakespeare's *Richard II*, geography and history, Virgil's *Æneid*, II, and Latin grammar, with unseen translation, Euripides' *Heracleidæ*, Greek grammar with unseen translation, Euclid, and algebra, and do justice to one or two ordinary school-classes at the same time?" Impossible. But what we are concerned with is the strain on the scholar rather than on the master, bad as that must be. We thoroughly approve Mr. Allen's suggestions, that (1) a special period of history is quite enough for boys of ordinary abilities between the ages of twelve and sixteen to master, and that (2) the geography should consist of Europe and one other division of the world in order. To the questions which Mr. Allen asks in a scheme he has also issued for the administration of the Grammar School—namely, whether any but boys of exceptional ability can, in the limited time usually allotted to their education, acquire anything but a smattering of information in so wide a range, and whether the intellectual interests, even of exceptionally gifted boys, would not be better consulted by a more thorough training in fewer subjects—we have no hesitation in answering the first in the negative, and the second in the affirmative. In Mr. Browne's answer to Mr. Allen's letter, he engages to lay it before the Syndicate; but it does not make the slightest reference to what scholars suffer in consequence of the system enforced by the Charity Commissioners, as a reason for reforming it.

MR. SHIRLEY MURPHY.

WE have received a circular, signed "J. W. Gandar, 157, Camden Road, and J. A. Heaton, 8, St. Bartholomew Road, Honorary Secretaries," and addressed to members of the profession, on behalf of Mr. Shirley Murphy. The circular quotes the following passage from a recent number of the *Pall Mall Gazette*. "The retirement of Mr. Murphy from the post of officer of health of the parish of St. Pancras is a public loss which ought not to be allowed to pass without notice. It is no disparagement to the other officers of health in the London district, to say that no one of them has been more energetic and successful than he has in applying Torrens's Act to the crowded dwellings of the poor, or more ready with suggestions and support to those who are concerned about their sanitary condition. He had succeeded in carrying out the prescribed reforms in all the unwholesome dwellings of the parish, except in one last worst slum, and it was in encountering the worry and opposition that his attack on this den provoked that his health broke down, and he was forced to abandon the work. The Vestry of St. Pancras will be the first to miss his wise counsel and strenuous action." These words, the circular continues "express a very widespread feeling, not only in St. Pancras, but throughout all the circles where Mr. Murphy's special abilities are known ; and it is felt that an opportunity ought to be given for the expression of sympathy and regret which Mr. Murphy's enforced retirement has evoked. It was entirely owing to Mr. Murphy's exertions, that a dangerous outbreak of typhoid fever through infected milk was arrested last year, and it is to his unceasing labours that a constant water-supply has been laid on to so large a portion of the parish. We may add for ourselves the expression of the high esteem in which we hold Mr. Murphy's attainments, energy, and judgment. It is a public misfortune that a medical officer of such singular merit and capacity has been forced out of the public service by the influence of those who were opposed to the work of sanitation. He has suffered for his valuable services ; and the whole circumstances illustrate so strongly the danger of efficiency in officers, and the weakness of our metropolitan sanitary administration, that we trust that the attention of the Home Secretary and of Parliament will be forcibly directed to this lamentable history, and its moral. It is proposed to present an address and testimonial to Mr. Murphy, and a general committee is being formed for that purpose." The circular gives a list of the members of the executive committee already formed—namely, His Honour Judge Chalmers, Honorary Secretary of the London Fever Hospital; The Hon. Lady Henry Somerset; Dr. J. G. Glover; The Rev. Mark Wilks; J. H. Badcock, Esq., M.R.C.S.; and John Hamer, Esq., Honorary Secretary to the Mansion House Council. Subscriptions may be forwarded to the Treasurer, the Secretaries above named, or any member of the Executive Committee, or may be crossed and paid into the City Bank, Ludgate Hill Branch, to the "Murphy Testimonial Fund."

OMNIBUS-SEATS.

THE common omnibus is a curious instance of a survival of what is certainly not the fittest. It has had a great commercial success ; but improvements that ought to have been made long ago are only slowly being forced upon the metropolitan company. The darkness and closeness of the interior of the omnibus, as a rule, remain ; the perilous descent from the roof in many cases still recalls the hazards of Alpine "climbing" without ropes or a guide. The observation of continental custom, probably, has done what common sense might have done without it, and given us, in a few cases, seats on the roof which look towards the horses, and are roughly adapted to the human frame. It might wisely go a step further, and provide some sort of cushion to fill up the spaces between the bars of the light wooden framework of these seats. As they are, they are excellent positions for anyone to take up who likes being thoroughly blown on ; but that kind of thoroughness is not always satisfactory, and certainly favours rheumatic penalties to the bold, and not always hardy, rider.

LEGACIES TO CHARITIES : A CAUTION TO TESTATORS.

IN the accounts of "Wills and Bequests" which periodically appear in the newspapers, we often read of large legacies to hospitals and similar institutions. Readers of the law-reports may also occasionally notice cases in which the validity of such bequests is contested, and may perhaps doubt whether the intentions of the testator have always been successfully carried out. The law as to charitable bequests is by no means simple. Considerations of public policy limit the ways in which persons may give their property, especially after their death, to charitable objects ; and the rules of construction observed in our courts often prevent or alter the effect of bequests which do not offend against any statutory prohibition. With the former class of difficulties which beset a testator, we do not at present propose to deal ; our remarks here are confined to cases where, from want of sufficiently accurate language, a testator's wishes cannot be observed. It often happens that a will shows a clear intention to devote property to charitable purposes, but the particular charity for which the benefit is intended is not denoted with certainty. In such cases, the

courts profess to try to carry out the testator's wish, and, by means of the doctrine of "cy prés," that is, of going as near as possible to that wish, find out some object to which the bequest can be devoted. The ways in which this doctrine has been applied have sometimes been curious, and bequests have certainly, in some cases, been devoted to objects which no one but a vice-chancellor could think to be in the remotest degree akin to the charity for which the legacy was originally designed. But sometimes even the ingenuity of the Court of Chancery has been unable to find a recipient for the legacy, and, in such cases, the bequest fails altogether. The rule is as follows: "Where a testator bequeaths his property to a particular charity, which ceases to exist in his lifetime, or where, from any other cause, the particular charitable object is *ab initio* incapable of taking effect, the gift will fail." A case, which was recently decided by Mr. Justice Pearson, illustrates this rule. A Mr. Henry Ovey, by his will, gave £500 to "the Ophthalmic Hospital near Hanover Square, London." It appears that there was formerly an institution called "the Royal Infirmary for Diseases of the Eye," in Cork Street, close to Hanover Square; but it ceased to exist in the year 1872. There is now no ophthalmic institution of any kind within a mile of Hanover Square, the two nearest hospitals being in Westminster and Marylebone respectively. Upon the above facts, Mr. Justice Pearson decided that the intention of the testator was to give his £500 to the institution which formerly existed in Cork Street, and not to benefit ophthalmic hospitals generally; and consequently that, as the institution in Cork Street had ceased to exist, the bequest failed. In this particular instance, the residue of Mr. Ovey's property is to go to any hospital of a charitable nature which his executors may select, and consequently the failure of the legacy to "the Ophthalmic Hospital near Hanover Square" will only mean that so much of the amount as has not been consumed in costs, will go to some other hospital. But usually the residuary legatee is an individual who is quite ready to pocket any windfalls in the shape of lapsed legacies which may come to him, and charities consequently lose the benefit intended for them. It is, of course, futile to expect that testators will cease to make unintelligible wills; but if they take care to select existing institutions to be the recipients of their posthumous bounty, they will avoid one source of confusion. Gifts to hospitals not only afford gratification to the giver, but benefit medical science, and the failure of such gifts is therefore an evil to be avoided as far as possible.

THE ROTHERHITHE GAS EXPLOSION.

GUY'S HOSPITAL, on Monday night, was the scene of exceptional surgical activity. Mr. Clement Lucas was summoned to see a patient whose elbow had been crushed by a dray-wheel, and was engaged in amputating the arm, when the sufferers from the gas-explosion were brought in. These were, Henry Venn, aged 39, suffering from gas-poisoning, for which he was being treated when the explosion took place, and a few bruises; Mrs. Venn, aged 29, who found herself seated in the chimney with the mantlepiece on her legs, had comminuted fracture of the right leg, and contusion of the right hip, injury to the right elbow, with fracture of the internal condyle of the humerus; Mrs. Harris, aged 49, had crushed leg and feet, requiring double amputation below the knees, severe scalp-wounds, one six inches in length, and lacerated ear; Mrs. Ewington, aged 42, required double amputation of the left leg and right thigh, for compound comminuted fractures; J. A. Bower, aged 29, medical assistant, had severe contusions of both ankles, and fractured rib. Whilst these were being attended to, a case of strangulated hernia was admitted, which, under chloroform, was subsequently reduced. This had scarcely been effected when a man, aged 70, was admitted, with a compound comminuted fracture of the ankle, which required amputation. Altogether, six amputations were performed, four through the leg, one through the thigh, and one through the arm. Up to a late hour on Wednesday, were living, and progressing as well as could be expected.

A "BLACK HOLE" IN MANCHESTER.

MUCH credit is due to Mr. Justice Wills for exposing, in his charge to the grand jury, last week, some very dark spots connected with the administration of justice in Manchester, which are certainly suggestive of a famous "Black Hole." He has recently thought it is duty to go over the magnificent buildings in connection with the Assize-Courts and prison in Strangeways, and, while admiring much of what he saw, he was deeply pained and scandalised to find the wretchedly insufficient accommodation provided for prisoners who were confined in the cells below the Court, while awaiting their turn to be placed in the dock. It appears that sometimes over one hundred prisoners, many of them possibly innocent, are confined at the same time in ten cells, each cell being 16½ feet by 8½ feet and 13 feet in height. They are lighted by gas; they have no means of ventilation provided; in the corner of each is a water-closet! No wonder the learned judge asks, "What is likely to be the condition of the mind and body of the man who had been locked up in one of these cells, till late afternoon, with half a dozen or perhaps ten others, and then had to meet in court a charge, on the result of which his liberty for a good many years might depend?" No wonder he characterised such an indiscriminate mixing up of untried prisoners "as leading to unspeakable degradation, and as a scandal on the administration of justice, which was hardly to be expected at this period of the nineteenth century." The grand jury are taking the matter up, and means will be probably taken to put an end to this disgraceful state of things.

THE PRELIMINARY SCIENTIFIC EXAMINATION OF THE UNIVERSITY OF LONDON.

WE understand that the Senate of the Univerity of London, at its Meeting, on Wednesday, decided not only that the Preliminary Scientific Examinations should be held twice a year, but also that candidates should be allowed to divide the examination. In future, therefore, a candidate will be able to take up Chemistry and Physics at one examination, and Biology at another, or, we presume, *vice versâ*. This change is, undoubtedly, a move in the right direction; it will tend to increase the efficiency and thoroughness of preparation, and will be a real boon to a large number of students. The position of candidates who take up all the subjects at one examination and fail in one is not clearly defined; however, it would be something of a hardship if they were compelled to present themselves again in all the subjects, after passing a creditable examination in several at a previous examination, while other students who only took up one section of the subjects would be required to present only the subjects previously omitted.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SINCE March 3rd, when a deputation of this Association attended the College by invitation to discuss with a Committee of the Council the various recommendations which had been presented by the Association, of which meeting a note was published in the JOURNAL of March 7th, no further communication has been received from the College. The secretaries have, however, recently received a letter from the secretary of the College, enclosing the report of the Committee on the mode of election to the Council, and on other matters relating to the charters and by-laws. By this it is recommended to the Council that there shall be no "delay in submitting to the proper authorities the alterations in the charters, inasmuch as the several alterations therein proposed by the Council were submitted to a meeting of the Fellows and Members on March 24th, 1884, and acceded to at that meeting, and as the only two further alterations in the charters subsequently proposed, relating respectively to the qualification of a Fellow for election to the Council and to the mode of nomination of candidates for the Council, have been adopted by the Council in accordance with the proposals of the Association." Thus it will be seen that the Council have declined to allow any alterations in the proposed

new charter on three subjects which the Association consider of deep importance, namely, (1) the appointment of examiners, (2) the election of president, and (3) the alteration of charters and by-laws without seeking the consent of the Fellows and Members. A meeting of the Committee of the Association was held on Wednesday last, at which it was decided that the Association of Members should be asked to send a deputation to meet a subcommittee of the Association, and to consult upon the respective views of each body. It was also decided to appoint local secretaries, in order to encourage the Fellows in London and the provinces to more energetic action in behalf of their own interests as members of the body corporate.

BILLS AS TO LOCAL GOVERNMENT.

THE nation at large is pretty well resigned to the now inevitable conclusion that it is useless to expect legislation this year, on any subject whatever, that is unconnected with the redistribution of electoral areas; but there are some members of Parliament, of unusually sanguine temperament, who refuse to read the signs of the times, and are perpetually attempting to extract some consolation from one or other of the members of the Government as to the prospects of measures in which they are interested. Last week Sir Charles Dilke tried to galvanise himself, as well as the honourable members who questioned him, into the belief that there was still some hope of his bringing in this year his promised Local Government Bill. On Monday of this week, Sir William Harcourt had to make a prognosis as to no fewer than three separate Local Government Bills that are in a more or less perfect state of development; but he could not harden himself to an unfavourable opinion of the vitality of any one of the three. Though he could give to Mr. Firth "no definite statement at present in regard to the London Government Bill, or other measures affecting the metropolis," and was not "able, at the present time, to fix," for the comfort of Mr. Whitworth, any date for carrying out the resolution passed by the House as to Local Option, he told Mr. Richard, with considerable gratification, that a Bill had been already drafted to deal with the question of cemeteries, and would be brought in "soon." Not one of these Bills has the remotest chance of passing. Would it not be wiser to face the inevitable at once?

THE SOCIAL SCIENCE ASSOCIATION.

IT was, perhaps, inevitable that the witlings should profess to detect, in the resolution of the Social Science Association to forego its provincial meeting this year, a symptom of impending paralysis, and should make merry at the relief of the community from a part, at least, of what someone has called the "plague of congresses." To those who are unable to distinguish between things great and small, good and bad, the decision of the Social Science Council may seem a fit subject for hostile criticism. There can be no doubt, however, that the Council have exercised a wise discretion in postponing their visit to Bath for another year, attractive as was the prospect of an autumnal pilgrimage to that interesting and historic city. The Social Science Congress is always fixed for a date towards the end of the vacation; and this year, at that time, everyone who has leisure for the pleasant distractions of congresses and conferences, will be busy, directly or indirectly, with the then imminent political struggle. Anyone who knows aught of the blight which the excitement of a general election casts upon other developments of social activity, must fully recognise the wisdom of the Social Science authorities in preferring no congress at all to one deprived of all its life and spirit.

THE REPORT OF THE ROYAL COMMISSION ON THE HOUSING OF THE POOR.

THE reply of Sir Charles Dilke to Sir Walter Barttellot's question on Tuesday, to the effect that the report of the Royal Commission on the Housing of the Poor will be presented to Her Majesty in the course of next week, must not be taken as meaning that the report will be available for general study and criticism by that date. In fact, it may very probably be Whitsuntide before the report is actually published. As there is unfortunately no hope this session of any legislation based upon the report, a short delay in its appearance will not much matter; and if, as is sincerely to be hoped, the political complications which now monopolise public attention have passed away when the report sees the light, so much the better for its chances of consideration. It is a little curious that members of the Commission should have been so highly mysterious as to the contents of the report, in their recent deliverances on the general subject of the public health. Sir Charles Dilke, in his speech at the banquet given by the Edinburgh City Council in honour of the Commission during its Easter visit to the Scotch capital, was oracular to the last degree; and Sir Richard Cross, speaking at a gathering on Monday to celebrate the opening of some model dwellings for the workmen of Messrs. Chubb, the safemakers, was also ostentatiously reticent about the report. It will probably be found, when the necessity for this painful secrecy has departed, that the most important of the Commissioners' recommendations is the proper carrying out of the law that already exists, rather than the heaping up of fresh Acts of Parliament, to be, like their predecessors, more honoured in the breach than in the observance. Sir Richard Cross complained, with some justice, that the Acts with which his name is associated had not had a fair trial; though Mr. Torrens might make the same complaint with much greater justification. The present is not the occasion, however, for a criticism on the general working of the Artisans' Dwellings Act. We shall doubtless hear all about this in the report of the Royal Commission, which will be awaited with some little anxiety and curiosity.

SCOTLAND.

AN unusual bathing fatality is reported from Greenock, where a boy, while bathing in a stream, fell on his side against a broken bottle. The abdominal walls were cut through, and the intestines protruded. He was conveyed to the infirmary, but succumbed to his injuries within forty-eight hours.

HONORARY DEGREES IN THE GLASGOW UNIVERSITY.

IN the list of the recipients of the honour of LL.D at the next graduation ceremonial of Glasgow University, we observe the names of Dr. John Struthers, Professor of Anatomy in the University of Aberdeen, and of Dr. James B. Russell, Medical Officer of Health for the city of Glasgow.

THE NATIONAL AID SOCIETY.

CONSIDERABLE activity is being shown in the establishment of branches of this very useful Society throughout Scotland, and one of the latest is that in the Annandale district of Dumfriesshire, under the patronage of the Duchess of Buccleuch. All these Scotch branches are affiliated with the Princess of Wales National Aid Society for the benefit of sick and wounded soldiers in time of war.

GRADUATION IN THE UNIVERSITY OF EDINBURGH.

THE spring graduation in Edinburgh University, which is mostly for conferring degrees in Arts, and on honorary graduates, took place on Wednesday, April 22nd, in the large hall of the United Presbyterian Synod Buildings. The Chancellor of the University, Lord President Inglis, presided, and was accompanied by the new principal, Sir William Muir, and several members of the Senatus Academicus. Among the graduates who received the honorary degree of LL.D., was Dr. C. J. B. Williams, of London, who graduated M.D. Edinburgh, in 1824. The address to the graduates was delivered by Professor Chrystal. After the ceremony, a commemoration-service was held in St. Giles'Cathedral, in which the minister and choir o the cathedral took part, the sermon being delivered by the Rev. Professor Taylor.

CHAIR OF BOTANY IN THE UNIVERSITY OF GLASGOW.

OFFICIAL intimation has now been received that the vacancy in the Chair of Botany at Glasgow University, caused by the removal of Professor Bayley Balfour to Oxford, has been filled by the appointment of Mr. F. O. Bower, M.A., F.L.S., Lecturer on Botany at the Normal School of Science, South Kensington. Mr. Bower was formerly a student of Trinity College, Cambridge, and graduated, with first-class honours, in the Natural Science Tripos.

DEATH FROM SULPHURETTED HYDROGEN GAS.

THE very rapid death of a boy, aged 15 years, from the inhalation of sulphuretted hydrogen gas in its pure state, is reported from Irvine. He was engaged in a chemical laboratory there, and was assisting in carrying out some experiments. In the absence of the person in charge, he approached a boiler which he had been cautioned not to go near, because of the presence of this gas, and immediately he fell down insensible. Though he was at once removed to the pure air, and every effort was made, under medical supervision, to restore animation, he never recovered consciousness, and died in an hour.

THE DUNDEE DAY-NURSERIES ASSOCIATION.

THE value of day-nurseries, as bearing on the health of the infant population of our large towns, is now fully recognised, and we are glad to see, from the first annual report of the Dundee institution, that the movement in that city has met with very gratifying success. During the year, as many as 4,337 children had been admitted and cared for, while their mothers were engaged in their daily avocations; and so much have the parents appreciated the arrangements, while on the part of the public there has been so much liberality, that it has been decided to open a second home in the east end of Dundee.

THE GLASGOW UNIVERSITY COUNCIL ASSOCIATION.

THIS recently formed association held its first general meeting on April 14th. As previously mentioned, its objects are to break down what is regarded as university monopoly of teaching, both in reference to the right to teach and to the subjects to be taught; and, secondly, so to amend the constitution of each university as to transfer the executive and administrative power to a body representative, in large measure, of the General Council, and capable, from its composition as a whole, of acting always in the public interest. The report presented stated that the Association, at present, numbers 717 members, and that gratifying evidence of support had been received from many quarters. The chief business before the meeting was the consideration of the report by the Provisional Committee. This, of course, was formally adopted, and the office-bearers for the ensuing year were elected. Exception has been taken by some to the name which the Association has assumed, and to the somewhat narrow basis on which it has been established, it being only open to members pledging themselves to support the above-mentioned modifications in the present constitution of the university. As regards the latter objection, if those who have started the Association think that they can best attain its objects by limiting the programme of its work to certain points, they are wise in doing so; but by assuming the title they have done, they seem to imply that they are the mouthpiece of the General Council of Glasgow University, whereas they really represent only those members of it who have banded themselves together to obtain certain details of university reform. Some further modification in the name of the Association might bring out this point more clearly, and, while satisfying non-members, would not impair the position of the Association.

THE BURGH POLICE AND HEALTH (SCOTLAND) BILL.

SOME interest is already, very properly, being felt as to what is to be the fate of the above measure, which has been introduced into the House of Lords on behalf of the Government. The Bill is a very comprehensive one, and consists of 529 clauses. Should it become law, it is proposed that it should come into operation on May 15th, 1886. Of the seven parts into which the measure is divided, the most interesting to the medical profession is the one that deals with the sanitary provisions for the mitigation and prevention of disease. Under this heading, we have compulsory notification of infectious disease, the duty of reporting the case being laid on the medical attendant, he being compelled to intimate to the medical officer of health every case of infectious disease occurring in his practice, under a penalty of forty shillings; and, if his diagnosis be confirmed by the medical officer of health, he shall be paid a fee of two shillings and sixpence. In connection with house-sanitation, provisions have been introduced to ensure the water-supply of every house for drinking-purposes being brought direct from the main, and not from cisterns placed over water-closets or otherwise exposed to contamination; while the authorities are to have power to apply the smoke-test when they have reason to suspect that the drains in connection with any house are defective. There are also stringent provisions against the sale of milk from an infected farm or dairy, and for the prevention of nuisance arising from smoke. Looking to the intimate bearing that the measure has on the daily life and personal liberties of the inhabitants of all our towns and burghs, it is only right that very careful supervision should be exercised over the Bill on its passage through Parliament.

THE SCOTTISH ANTIVIVISECTION SOCIETY.

ACTUATED, no doubt, by the desire to infuse some new vitality into the above waning and unappreciated Society, an effort was made last week by some members of it to establish a branch in Glasgow. This is the first occasion on which there has been any public attempt to rouse the sympathies of the Glasgow people in the direction of the total suppression of vivisection; and this may, to some extent, account for the somewhat reckless style of oratory indulged in by some of the speakers, many of whose statements were not only characterised by an entire absence of argument, but had no foundation in fact. Two of the clerical speakers thought it their duty to make special attacks on Professor Rutherford of Edinburgh, who was described "as one of the most notorious vivisectionists in the kingdom," and as a scientist "whose experiments were more horrible and torturing than those conducted on the Continent;" while his physiological laboratory was spoken of "as a perfect slaughter-house." Fortunately, in the present day, we have to deal with a very enlightened popular opinion in reference to the question of experimental inquiries on animals, and the benefits that have accrued from them to suffering humanity, so that the extravagant language and morbid sentimentality of the anti-vivisectionists carries little weight with it; and we shall be surprised if this new Glasgow branch of the Scottish Antivivisection Society shows any more vigour than the decaying parent-stem of which it is an offshoot.

HOSPITAL-SHIP FOR THE NILE.

ALONG with the Nile steamboats just completed on the Clyde, to the order of the Government, and despatched this week to Egypt, was one that has been built on behalf of the National Aid Society for the Sick and Wounded in Time of War, and is to serve as a hospital-ship. This vessel is about ninety feet long, by eighteen broad, and is, in general appearance, similar to the other boats, being propelled by a large paddle-wheel suspended from the stern, and being provided with awnings and curtains; but her distinguishing feature is the erection upon deck of a hospital to accommodate fifty patients. Its interior is furnished all round with pillowed, spring, and cushioned seats for the patients; while, to allow the slinging of stretchers with wounded men on them, the Zavodovsky plan has been adopted. This is carried out by stretching from side to side of the hospital a strong cable supporting a firm wooden spar, from which depend broad straps, looped at the ends for receiving the handles of the stretchers. In this way, six rows of patients can be carried from end to end of the hospital in two tiers of three abreast. The dispensary and the officers' quarters, as

well as an ice-making machine, are placed on the upper deck; and, with the view of excluding the sand, which, in the neighbourhood of the Nile, has been found very inconvenient, the hospital has been furnished with wire blinds of very fine texture, instead of windows. Everything seems to have been done to render the vessel suitable for the work in which she is to be engaged; and it is interesting to note that she was completed and in full working order within twenty days of the date when the contract was entered into by Sir R. Loyd Lindsay on behalf of the National Aid Society.

IRELAND.

Sir Henry Acland, K.C.B., President of the Medical Council, was in Dublin last week. He inspected the Branch Medical Council, the School of Physic (Trinity College), and the School of the Royal College of Surgeons in Ireland. When visiting the latter institution, he was introduced to a meeting of the Council then sitting, and gave the members present the benefit of his views on matters of medical legislation, etc., in an address.

IRISH PRISONS' REGULATIONS.

By a recent order it has been notified that, whenever the surgeon of a gaol considers a prisoner's life to be in danger by further confinement, he must without delay communicate with the Under-Secretary, also with the Prisons' Board, and with the Governor of the prison.

THOMPSON MEMORIAL HOME, LISBURN.

This building, erected by the generosity of the relatives of the late Dr. Thompson, as a fitting memorial to the memory of a distinguished surgeon, has been of considerable service to the inmates admitted within its walls since its completion, now some months since. A meeting of the General Committee was held recently to receive a donation, and to admit additional patients. Twenty-five persons had been admitted, but in order to give still greater facilities for the extension of the work, Mrs. Bruce, a daughter of the late Mrs. Thompson, now offered a cheque for £10,000, which donation she hoped would enable the committee to authorise the admission of additional inmates. The princely gift having been suitably acknowledged, a resolution was adopted that ten more patients should be admitted, making a total of thirty-five. We may add that the erection of the home, with its fittings, cost the founders £22,000, while a sum of £38,000 has been invested for the support of the institution.

THE IRISH MEDICAL ASSOCIATION.

A special general meeting of this Association was held in the Royal College of Surgeons, Dublin, on Saturday last, at 4 p.m., "to consider the terms of a Superannuation Bill about to be introduced by Government." Notwithstanding the interest which it might be expected poor-law medical officers would take in such a meeting, there was but a sparse attendance, and it was considerably after the hour at which the meeting was summoned before the twenty members necessary to form a quorum assembled. In the absence of Dr. Hemphill, of Clonmel, the President of the Association, Dr. Tagert, Chairman of Council, was moved to the chair. Dr. Jacob explained to the meeting the object for which it had been summoned. He showed how, owing to the opposition of some members of the Irish "National" party, the Union Officers' Superannuation Bill, which was supported by the Association, had been blocked. Speaking as a private individual, he expressed his conviction that no measure containing a compulsory clause providing for the award of pensions on the Civil Service rate by the Local Government Board directly, such as that Bill proposed, would have a chance of becoming law. He therefore suggested that it would be a wise course for the Irish Medical Association to adopt and support the Bill now proposed by the Poor-law Officers' Association, which might be looked upon as a kind of compromise. By this Bill, which, it is understood, would be supported by the Government and by the Irish party in the House, it is proposed that a general rate for superannuation of poor-law officers, medical as well as lay, should be struck for all Ireland; and that the granting of pensions to union officers should, as at present, still be left to the discretion of the boards of guardians, but subject to an appeal to the Local Government Board. After some discussion, a resolution embodying Dr. Jacob's suggestion was put to the meeting, and declared lost. Resolutions were then adopted to the effect that, while the Association would preserve an attitude of "dignified neutrality" towards the Bill about to be introduced at the instance of the Poor-law Officers' Association, it could not support any Bill that did not contain provision for compulsorily pensioning the poor-law medical officers.

THE MEMBERSHIP OF THE IRISH COLLEGE OF PHYSICIANS.

In the House of Commons, on April 17th, Dr. Lyons, M.P. for Dublin city, obtained leave to bring in a Bill to amend the Medical Act of 1858. The object of this Bill, that is now introduced at the instance of the King and Queen's College of Physicians in Ireland, of which corporation Dr. Lyons is a Fellow, is to obtain registration under the Act for the grade of membership recently instituted by that College. The University of Dublin, and the Royal University of Ireland, who both grant degrees in obstetrics, which, being also of recent institution, are not scheduled as registrable qualifications in the Act of 1858, are giving their support and assistance to the proposed measure; and in order to embrace these and any future degrees in obstetrics that may be conferred by the universities, a clause providing for their registration has been added to the Bill, with the approval of the King and Queen's College of Physicians. In view of the distant incidence of medical legislation, it is hoped that, in justice to the holders of these degrees and diplomas, Dr. Lyons' Bill will speedily become law.

MAHOMED MEMORIAL FUND.

The following additional subscriptions have been received.

	£	s.	d.		£	s.	d.
W. A. Aikin, Esq.	1	1	0	T. A. Ives Howell, Esq.....	3	3	0
R. W. Brogden, Esq.	2	2	0	Hugh R. Ker, Esq.	1	1	0
Percy H. Gardner, Esq.....	1	1	0	J. V. Salvage, Esq.	1	1	0
T. S. Howell, Esq.	5	5	0				

The Treasurer and Secretaries wish to express their cordial appreciation of the courtesy and kindness that have been shown by the Editor of the British Medical Journal, in inserting notices relative to the fund, and in thereby much promoting its success.

Arthur E. Durham, Treasurer.
James F. Goodhart, } Secretaries.
W. H. A. Jacobson, }

Royal College of Surgeons of England.—At the recent primary or anatomical and physiological examination for the diploma of membership of the Royal College of Surgeons of England, 387 candidates presented themselves. Of the 42 having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred in both anatomy and physiology, 9 for six months, and 21 for three months; 24 were referred in anatomy for six months, and 18 for three months. In physiology, 9 were referred for six months, and 54 for three months. Out of the 317 candidates examined, 42 failed in both subjects, 43 failed in anatomy, and 63 in physiology, making a total of 148 referred candidates. At the pass examination, which was commenced on the 21st inst., 251 candidates presented themselves.

The Eastern Counties Asylum for Idiots.—The Mayor of Cambridge presided on Wednesday at the annual election of inmates of the Eastern Counties Asylum for Idiots; and there was afterwards a public meeting in the Guildhall, at which the Vice-Chancellor presided. It was decided to raise a fund of a thousand guineas in the university, town, and county, for the purpose of establishing a "Cambridgeshire Ward" in the new building of the institution at Colchester. The High Sheriff (Mr. Carberry Evans) gave fifty guineas towards this object, and several other promises were announced.

THE DYNAMITE EXPLOSION AT THE ADMIRALTY OFFICE.

We understand that, in addition to the slight concussion from which Mr. Swainson is suffering as the result of the explosion at the Admiralty Office, he has also received two rather extensive scalp-wounds, an injury to one eyelid, with subconjunctival effusion of blood, and abrasions of the hand and arm, which, when he was admitted to St. Thomas's Hospital, were covered with mortar and dust. At 8 P.M. on the evening of admission, he had entirely recovered conciousness, and was progressing favourably.

THE INTERNATIONAL MEDICAL CONGRESS, 1887.

The arrangements for the meeting of the International Medical Congress, to be held in Washington in 1887, are already in an advanced stage. A series of rules have been adopted, and a preliminary organisation has been nearly completed. The first rule provides that the Congress "will be composed of members of the regular medical profession, and of such persons as may be specially designated by the executive committee, who shall have inscribed their names on the register of the Congress, and shall have taken out their tickets of admission. As regards foreign members, the above conditions are the only ones which it seems, at present, expedient to impose." The American members of the Congress are to be appointed by the American Medical Association, by regularly organised State and local medical societies, and by societies devoted to special departments of medicine; each society being entitled to one delegate for every ten members. The societies entitled to representation are to elect their delegates at their last regular meeting preceding the meeting of the Congress; and to furnish the Secretary-General with a list of the delegates so appointed.

The rules for the guidance of the meeting are apparently similar to those which have been in force at previous congresses.

The following officers of the Congress have been appointed: *President*, Austin Flint, sen., M.D. (New York); *Vice-Presidents*, H. I. Bowditch, M.D. (Boston); H. F. Campbell, M.D. (Augusta); N. S. Davis, M.D., LL.D. (Chicago); R. P. Howard, M.D. (Montreal); L. C. Lane, M.D. (San Francisco); T. G. Richardson, M.D. (New Orleans); A. Stillé, M.D., LL.D. (Philadelphia); the Chairman of the Committee on Finance; the President of the American Medical Association; and the Surgeons-General of the United States Army and Navy: *General Secretary*, J. S. Billings, M.D., LL.D., United States Army (Washington): *Treasurer*, John M. Browne, M.D., United States Navy (Washington). There are also a large General Committee, comprising many well known names; an Executive Committee, of which Dr. I. Minis Hays, of Philadelphia, is Chairman; and a Committee on Finance, of which Dr. William Pepper (Philadelphia), is to be Chairman, is in course of formation.

There are to be nineteen sections, which, with the nominated presidents, are as follows. 1. Medical Education, Legislation, and Registration: *President*, H. P. Bowditch, M.D. (Boston). 2. Anatomy: *President*, Joseph Leidy, M.D., LL.D. (Philadelphia). 3. Physiology: *President*, John C. Dalton, M.D. (New York). 4. Pathology: *President*, F. Delafield, M.D. (New York). 5. Medicine: *President*, J. M. Da Costa, M.D. (Philadelphia). 6. Surgery: *President*, David W. Yandell, M.D. (Louisville). 7. Obstetrics: *President*, Thaddeus A. Reamy, M.D. (Cincinnati). 8. Gynæcology: *President*, Robert Battey, M.D. (Rome, Georgia). 9. Ophthalmology: *President*, Henry D. Noyes, M.D. (New York). 10. Otology: *President*, Clarence J. Blake, M.D. (Boston). 11. Dermatology and Syphilis: *President*, W. A. Hardaway, M.D. (St. Louis). 12. Nervous Diseases and Psychiatry: *President*, S. Weir Mitchell, M.D. (Philadelphia). 13. Laryngology: *President*, George M. Lefferts, M.D. (New York). 14. Public and International Hygiene: *President*, Hosmer A. Johnson, M.D., LL.D. (Chicago). 15. Collective Investigation, Nomenclature, and Vital Statistics: *President*, N. S. Davis, M.D., LL.D. (Chicago). 16. Military and Naval Surgery and Medicine: *President*, David L. Huntington, M.D. (U.S. Army). 17. Practical and Experimental Therapeutics: *President*, Horatio C. Wood, M.D. (Philadelphia). 18. Diseases of Children: *President*, Abraham Jacobi, M.D. (New York). 19. Dental and Oral Surgery: *President*, Jonathan Taft, M.D. (Cincinnati).

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

Any qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member *by the Council* or by any recognised *Branch Council*.

Meetings of the Council will be held on July 8th, and October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, June 17th, and September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Francis Fowke, *General Secretary*.

COLLECTIVE INVESTIGATION OF DISEASE.

Inquiries are in progress on the subjects of

Chorea, Diphtheria,
Acute Rheumatism, Old Age,
Cancer of the Breast.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

Paroxysmal Hæmoglobinuria.
Albuminuria in the Apparently Healthy.
Sleep-Walking. Acute Gout.

The "Sleep-walking" form may be filled in by a non-medical person, if necessary.

Puerperal Pyrexia.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the Journal of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

The Connection of Disease with Habits of Intemperance.—A schedule of inquiry upon this subject has been prepared by the Committee, and will be issued with an early number of the Journal.

Returns are still received on Acute Pneumonia.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161a, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

South Indian Branch.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. Maitland, M.B., Honorary Secretary, Madras.

Lancashire and Cheshire Branch.—Notice is hereby given that a special general meeting of this Branch will be held in the Town Hall, Chester, on Friday, May 1st, at 6 P.M., to consider an alteration in the rules of the Branch, whereby the rule now in force respecting the competency of any five members of the Branch to nominate ordinary members of the Council, shall be made to apply to the office-bearers of the Branch and its representative members in the Council of the Association.—Charles E. Glascott, M.D., Honorary Secretary, 23, Saint John Street, Manchester.

North of England Branch.—The spring meeting will be held in Bishop Cosin's Library, Durham, on Thursday, April 30th, at 2.30. The following papers have been promised: Dr. Hume: On the Operation of Perforating the Mastoid Cells. Dr. Murphy: On Recent Improvements in Ovariotomy. Mr. G. E. Williamson: Notes of some Eye Cases. The following specimens will be shown. Dr. Foss: A Diseased Tibia, for which amputation was performed. Mr. S. W. Broadbent: Set of False Teeth removed from the pharynx. Dr. T. W. Barron: Two Vesical Calculi from two cases of lithotomy. Dinner at the County Hotel at 6.—David Drummond, Honorary Secretary.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT MEDICAL SOCIETY.—The annual meeting will be held at the Royal Pier Hotel, Sandown, on Thursday, April 30th, 1885, at 4.0 P.M.; Joseph Groves, Esq., M.B., President, in the chair. Agenda: Statement of accounts for the past year; election of officers for the ensuing year; a report of the proceedings of the District during the past year; an address by the President-elect, Daniel Beaton, Esq., M.D.; a case of Perityphlitis, Joseph Groves, Esq., M.B.; Dr. Squibb's apparatus for the approximate estimation of Urea in Urine, W. E. Green, Esq. Gentlemen who are desirous of introducing patients, exhibiting pathological specimens, or making communications, are requested to signify their intention at once to the honorary secretary. Dinner at Pier Hotel, 6.0 P.M.; charge 6s., exclusive of wine. Trains leave Sandown at 8.0 P.M.—W. E. GREEN, Honorary Secretary.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT MEDICAL SOCIETY.—Ordinary meeting at Grosvenor Hotel, Queen's Gate, Southsea, on Thursday, April 30th. The chair will be taken by the President, Dr. Axford, at 4.15 P.M. Agenda: 1. Annual statement of accounts and election of officers. 2. Living Specimens: Dr. C. C. Claremont. 3. Pathological Specimens—Osteo-Sarcoma of Tibia: R. E. Power, Esq.; Medullary Sarcoma of Kidney: E. T. Crouch, Esq.; Epithelioma of Hand, Cancer of Penis, Stricture of Colon, and Ovarian Tumour: H. P. Gardner, Esq. 4. Microscopic Sections: Dr. F. J. Driver. 5. Septicæmia, with an illustrative Case: J. R. Kealy, M.D. 6. New Aural Inflator, Evacuator and Injector: Dr. Ward Cousins. Gentlemen who are desirous of introducing patients, exhibiting pathological specimens, or making communications, are requested to signify their intention at once to the honorary secretary. Dinner at 6.30 P.M.; charge, 5s., exclusive of wine, etc.—J. WARD COUSINS, Honorary Secretary, Riversdale, Kent Road, Southsea.

METROPOLITAN COUNTIES BRANCH: WEST MIDDLESEX DISTRICT.—The next meeting of the above District will be held on Thursday, April 30th, at 8.30 P.M., at the Horbury School Room, Notting Hill (near Notting Hill Gate Station). The President of the Branch, C. Macnamara, Esq., will take the chair, and open a discussion with the following object: To elicit information regarding the relation that is supposed to exist between the absorption of pus or effete substances into the circulation; and affections of the synovial membranes, tendons, or ligaments leading to chronic disease of one or more joints. The details of cases are much required which tend to prove that "arthritis deformans" sometimes commences in affections of the joints and surrounding structures, caused by the absorption of matter into the system from the urethra, vagina, tonsils, diseased bone (teeth), etc. It is expected that Dr. Ord, Dr. Hare, Dr. Gilbart Smith, and others, will take part in the discussion.—ED. HART VINEN, M.D., Honorary Secretery, 17, Chepstow Villas, Bayswater.

YORKSHIRE BRANCH.—The spring meeting of the Yorkshire Branch will be held at the Elephant Hotel, Doncaster, on Wednesday, April 29th, at 3 P.M., when the following papers will be read. Mr. Knaggs: A case of Subclavian Aneurysm, associated with Aneurysm of the Aorta. Mr. J. W. Teale: Two Clinical Cases. Mr. McGill: A case of Nephrectomy. Dr. Dyson: A case of Hæmoglobinuria. Mr. Charles Atkin: Acute Arthritis in Infants; case of Meningitis and Otorrhœa, ending in recovery. Dinner at 5.30. Tickets, 7s. 6d., exclusive of wine.—ARTHUR JACKSON, Secretary, Wilkinson Street, Sheffield.

BORDER COUNTIES BRANCH: SPRING MEETING.

THE spring meeting of this Branch was held at Maxwell's Hotel, Galashiels, on Friday, March 20th. The chair was taken by the President, Dr. MUIR. Twenty members and five visitors were present.

New Members.—The following members of the Association were elected members of the Branch: H. McLean Wilson, M.B., C.M., Penrith; W. H. Calvert, M.B., C.M., Melrose; P. G. Borrowman, M.B., Earlstoun; W. H. P. Evatt, L.R.C.S.I., Selkirk; J. H. Dryden, L.R.C.P. and S., Dumfries; C. E. Paget, M.R.C.S., Kendal; R. J. Collie, M.B., C.M., Dumfries.

Paper.—Dr. LOCKIE (Carlisle) read a paper on Pneumonia.—In the discussion which followed, the President, Dr. Haddon, Dr. Campbell, Dr. Somerville, Mr. Hall, Dr. Lediard, and Dr. Borrowman, took part.—On the motion of Dr. MURRAY, a vote of thanks was passed to Dr. Lockie for his very interesting paper.

Patients Shown.—1. Dr. Somerville (Galashiels) showed a patient with Caries of the Cervical Vertebræ, resulting from a fall on the head. 2. Dr. Murray (Galashiels) showed a case of Subperiosteal Excision of the Tibia. 3. Dr. Murray showed a case of Recovery after Extensive Destruction of the Skin about the Knee-joint by Molten Lead.

Specimens.—Dr. Basil showed, for Dr. Grierson (Melrose), several Pathological Specimens.

Dinner.—Business having been concluded, the members and visitors adjourned to dinner, thirty-three sitting down; Dr. Muir in the chair, and Mr. Hall (Carlisle) in the vice-chair.

The Next Meeting of the Branch will be held in Carlisle.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE ninety-fourth meeting of this District was held at the Ship Hotel, Faversham, on March 26th, Mr. GARRAWAY in the Chair.

The Annual Meeting was fixed for May 28th, at Canterbury, when cases of chorea will be discussed.

Papers.—The following papers were read.

1. Dr. Bowles related cases illustrating the Difficulties of the Diagnosis of Aneurysms, which led to an interesting discussion.

2. Dr. Eastes read a case of Empyema, which gave rise to a good debate.

3. Dr. White described the Illinois Northern Hospital for the Insane in the United States, and made some general observations on the treatment of patients of unsound mind.

Dinner.—The members afterwards dined together.

SPECIAL CORRESPONDENCE.

LETTERS FROM THE EAST.

V.

The Census of Egypt.—The Sanitary Service.—Its Last Reorganisation.—Its Constitution and Personnel.—Its Budget.—Local Organisation.—The District Physicians.—The State of Cairo.—The Sheikh of the Cesspools.—The Fault of Europeans.—The Statistics of Bowel-disease.—The Nemesis of Sanitary Neglect.—Danger to the Army of Occupation.

MR. ERNEST HART writes, in continuation of his letters from Cairo:

In 1882, an elaborate census of the population of Egypt was made, under the auspices of the Khedive, by a French gentleman named Albert Boinet. The volume in which the results are tabulated is exceedingly well got up; the most minute particulars being afforded under all the usual heads; but it is unfortunately very doubtful whether the accuracy of the information can be relied on, so the following figures must be regarded as approximate only.

According to M. Boinet, Egypt is inhabited by 6,806,381 souls; of whom 95.05 per cent. are classed as "Egyptians with fixed habitations;" 3.61 per cent. as Bedouins; and 1.34 per cent. as foreigners.

The Egyptian population, properly so called, may, therefore, be said to amount to about six and a half millions; the actual numbers being 6,469,716; and the division of the sexes as follows: males, 3,216,847; females, 3,252,869.

The following table shows the "fixed inhabitants" according to groups of population, with additional columns giving the average number of sick treated during 1884 in the various government hospitals, and the total number of doctors residing in the country.

Centres of Population.		Fixed Inhabitants.	Number of Doctors in Government Employ.		Number of Doctors not in Government Employ.		Daily Average Number of Sick in Government Hospitals.
			Europeans.	Natives.	Europeans.	Natives.	
Moudiriehs. Lower Egypt. Governments.	Cairo	352,419	7	17	46	21	669*
	Alexandria	181,200	3	9	42	3	133
	Damietta	43,501	1	1	1	The *Medical List* shows the names of about 70 native doctors more, but it is not known where they reside, or whether they practise.	8
	Rosetta	19,267	—	1	—		3
	Port Said	14,060	2	1	11		48
	Suez and Ismailia	9,977	1	3	6		18
	El Arish	2,629	—	1	—		—
	Kosseir	2,190	—	1	—		—
Upper Egypt.	Beherah	364,050	1	7	—		24
	Charkieh	435,380	—	9	3		29
	Dakahlieh	578,144	1	8	1		28
	Gharbieh	908,041	1	13	5		64
	Kalionbieh	254,198	—	5	—		14
	Menonfien	642,609	—	7	1		21
	Assiout	549,776	1	12	1		44
	Beni Souef	193,305	—	5	—		11
	Fayoum	200,967	—	5	2		14
	Guiseh	274,406	1	5	—		17
	Minia	294,655	1	5	1		20
	Esna	221,813	—	5	—		3
	Guerga	515,972	1	6	—		15
	Kena	383,819	—	6	—		7
	Oases	27,341	—	—	—		—
		6,469,719	21	132	120	? 94	1,190

* Including about 290 in the lunatic asylum.

From the above, it is plain that, for the great mass of the population, there is no qualified medical aid whatever; for even if every native doctor were properly instructed, which is far from being the case, as I showed in my last letter, there would even then, in the Moudiriehs, containing nearly six millions of inhabitants, be only one medical man for every 50,000 souls.

The Sanitary Department of the Egyptian Government has the

high sounding title of "Direction des Services Sanitaires et d'Hygiène Publique." It was originally instituted by the celebrated Clot Bey in 1825; and, though sadly shrunken in dimensions and shorn of power, still retains the same general outline. The last reorganisation of the many which it has undergone took place in 1884, under the authority of a decree dated February 15th, and signed by the Khedive, the President of the Council (Nubar Pasha), and the Minister of the Interior (Sabet Pasha). This decree is divided into five sections, containing twenty-seven articles, and may be summarised as follows.

Section I places the "direction" under the Minister of the Interior, with orders to survey the execution of all sanitary measures, with special reference to endemic, epidemic, and epizootic diseases; while paying due attention to the laws of religion and the manners and customs of the country. Quarantine is under a separate administration, and no power is given to make nominations or changes in the *personnel* of the department, which is the prerogative of the minister.

Section II provides for a "Comité Sanitaire," composed as follows: the Director (native); the Subdirector (European); the Sanitary Inspector of Cairo (native); the Director of the Cairo School of Medicine (native); the Subdirector of the School of Medicine (native); the Principal Medical Officer of the Egyptian Army (European); the Principal of the Veterinary School (non-existent). This Committee authorises medical men, dentists, apothecaries, midwives, and veterinary surgeons to practise in Egypt, provided they are in possession of diplomas, and of a certificate of moral character; examines all questions and measures submitted by the Direction; gives advice on all medico-legal points; and selects examiners for the periodical examinations in the School of Medicine.

Section III defines the duties of, and lays down rules to be observed by, sanitary inspectors.

Section IV provides for the independence of the School of Medicine, making it subordinate merely to the Minister of Public Instruction.

Section V treats of "general dispositions." In Article 22, it is laid down that governors, mudirs, and all civil and military authorities, are responsible for the carrying out of sanitary rules, provided always, that the laws of religion, etc., are respected.

The *personnel* of the Sanitary Department may be divided under ten heads, as follows.

A.

Office.	Salary Per Annum.	Incumbent.
	£	
Director	1,200	Ismail Pasha Yousrey.
Subdirector	1,000	Surgeon-Major Greene.
Sanitary Inspector	600	A. H. Hooker, Esq., F.I.C., F.C.S.
Do. do.	480	Dr. Chaffey Bey.
Inspector Lower Egypt	480	Dr. Loutfi Bey.
,, Upper Egypt	480	Vacant.
,, Cairo	360	Dr. Nadim.
,, Alexandria	300	Dr. Rifky Bey.
Veterinary Inspector	360	Dr. Santoro Bey.
Do. do.	300	Dr. Safouat.
Chief doctor Cairo Hospital	360	Dr. Herbert Milton.
,, ,, Lunatic Asylum	240	Dr. Battaglia.
,, ,, Alexandria Hospital	480	Dr. Varenhorst Bey.
Second ,, ,, ,,	360	Dr. Dutrieux Bey.
Third ,, ,, ,,	300	Dr. Schiess Bey.
Doctor attached to the Direction	360	Dr. F. Engel.
	7,660	

B.

—	Number.	Rate of Pay *Per Annum.*	Amount.	Average.
		£	£	£
147 Medical Men receiving less than £20 per month.	8	72	576	
	85	96	8,160	
	3	108	324	
	23	120	2,760	
	8	144	1,152	
	1	168	168	
	12	180	2,160	
	3	192	576	
	1	204	204	
	3	216	648	
	147	—	16,728	113

C.

—	Number.	Rate of Pay *Per Annum.*	Amount.	Average.
29 Apothecaries	4	72	288	
	20	84	1,680	
	2	96	192	
	2	144	288	
	1	240	240	
	29	—	2,688	92

D.

—	Number.	Rate of Pay *Per Annum.*	Amount.	Average.
30 Veterinary Surgeons.	11	72	792	
	16	84	1,344	
	3	96	288	
	30	—	2,424	80

E.

—	Number.	Rate of Pay *Per Annum.*	Amount.	Average.
53 Writers	1	30	30	
	3	42	126	
	3	48	144	
	26	60	1,560	
	3	72	216	
	1	78	78	
	5	84	420	
	3	96	288	
	2	120	240	
	2	144	288	
	2	180	360	
	2	300	600	
	53	—	4,350	82

F.

—	Number.	Rate of Pay *Per Annum.*	Amount.	Average.
2 Analytical Chemists.	1	144	144	
	1	192	192	
	2	—	336	168

G.

—	Number.	Rate of Pay *Per Annum.*	Amount.	Average.
11 Storekeepers etc.	2	30	60	
	2	36	72	
	1	48	48	
	1	54	54	
	2	60	120	
	1	168	168	
	2	180	360	
	11	—	882	80

H.

—	Number.	Rate of Pay *Per Annum.*	Amount.	Average.
49 Midwives	3	30	90	
	1	36	36	
	4	42	168	
	41	48	1,968	
	49	—	2,262	46

I.

—	Number.	Rate of Pay *Per Annum.*	Amount.	Average.
361 Male Servants.	2	15	30	
	293	18	5,274	
	6	21	126	
	60	24	1,440	
	361	—	6,870	19

K.

—	Number.	Rate of Pay *Per Annum.*	Amount.	Average.
99 Nurses for Foundlings, etc.	99	15	1,485	15

The following sums, to meet various expenses, are sanctioned in the Budget for 1885 :—

	£
Railway fares	400
Telegraphs	50
Travelling expenses	300
Rent	431
Vaccination	188
Food at Cairo and Alexandria Hospitals	8,110
Burial expenses	230
Forage	48
Water	109
Dahabeah for Upper Egypt	192
Various expenses, including food in provincial hospitals	5,764
Medicines and materials	3,200
Reserve fund	2,773
	21,795
A to K	45,685
Total	£67,480

It will be seen, from the above, that the Direction Sanitaire has no real sanitary power, for it has no funds at its disposal to carry out improvements, and must depend on mudirs and governors to give effect to its recommendations. The process is usually as follows. A district medical officer writes to the Direction to say that a certain village, or town, is in an extremely unsanitary condition, as he has already frequently reported. An inspector is then sent to view the place, and almost invariably confirms the medical officer's statement. The Direction next writes to the mudir or governor, who replies that he is extremely sorry, but he really has no money or means to remedy the defect. The Minister of the Interior is then begged to interfere and exercise his power, which, after a time, he usually does by ordering a letter to be written to the governor or mudir, who replies to the effect that the utmost energy is being expended in making the place a model of sanitation. This reply is quickly sent in triumph to the Direction, and the matter drops ; but, at his next visit, the inspector invariably finds that sanitary matters are no whit better than they were.

In the towns, large sums should be available for conservancy and cleansing purposes, but, owing to the complicated way in which Egyptian accounts are kept, it is difficult, if not entirely impossible, to find out anything about them. For Cairo alone, there is said to be a sum of £10,580 yearly at the disposal of the governor, but, if so, the results are marvellously small.

In Alexandria, some years ago, the leading merchants, finding that Government would do nothing for them, instituted a voluntary tax on all cotton exported, and devoted the proceeds to the amelioration of the sanitary condition of the town. Streets were paved, sewers constructed, and many needful works executed, to the infinite benefit of the community in general. When, however, it was lately proposed that a municipality should be formed, and that a portion of the proceeds of the octroi duties, which amount to a very considerable sum, should be diverted for sanitary purposes, in addition to the voluntary tax, official opposition immediately reared its head in such a pronounced manner, that the merchants, disheartened, have threatened to suspend their works, and allow the city to relapse into a state of sanitary chaos.

The subjoined table shows the heads of expenditure, as sanctioned by Government, for 1884 and 1885 respectively.

	1884.	1885.
	£	£
Central direction	5,396	5,612
Medical service, Cairo	4,376	4,400
Cairo Hospitals	12,791	13,034
Medical service, Alexandria	3,137	2,919
Alexandria Hospital	4,784	5,352
Sanitary inspection, provinces	2,208	2,970
Medical service, provinces	24,516	27,220
Medicines and materials	—	3,200
Reserve fund	10,000	2,773
Total	67,208	67,480

The number of medical officers employed by the Direction is 153, exclusive of the sanitary inspectors, 21 being Europeans, and 131 natives. Of the latter, only four possess European diplomas, the rest having qualified at the Cairo Medical School. The nationality of the 21 Europeans is as under :—Greeks, 6 ; Italians, 4 ; English, 3 ; Swiss, 2 ; Germans, 2 ; Belgian, 1 ; Norwegian, 1 ; Austrian, 1 ; Russian 1.

The 14 moudiriehs of Egypt, with a population approaching six millions, contain 3612 villages, in which are congregated almost the whole of the inhabitants. Each Moudirieh has a chief medical officer, who receives a salary of £180 a year ; a hospital-surgeon on £120 a year ; and from four to thirteen medical officers of districts, who are paid £96 each. Their duties consist in affording gratuitous medical aid to the poor ; in exercising a surveillance over sanitary matters ; in the verification and registration of deaths and births ; in monthly visitations of the villages in their districts ; in the despatch to the Direction, every fifteen days, of returns showing the number of births, deaths, cases of vaccination, and numbers of sick treated ; as well as a statement of the mortality among animals, and of the condition of those slaughtered ; in the compilation and despatch of reports detailing the observations made by them when on tour through their districts ; and in the investigation of all medico-legal cases.

It is needless to add that it is perfectly impossible for such a limited number of men—even if their qualifications were of the highest order—to perform satisfactorily such multifarious avocations. As a matter of fact, their time is almost entirely occupied in doing medico-legal work for the tribunals, or in attending to police-cases, to the almost total neglect of their other and more important duties.

In addition to the regular and paid medical element in Egypt, there is also a large staff of unpaid officials who, in a certain sense, are attached to the Direction. These are the "barbiers sanitaires," of whom no fewer than 3,637 are distributed amongst the villages. Sanitary barbers are nominated by the chief doctors of provinces ; and, as the appointment carries with it exemption from taxes, the post is much sought after. On the village barber and his wife it is that the Egyptian people depend in sickness ; both being equally ignorant, or rather, both possessing that small amount of knowledge which is a dangerous thing. They receive no training or instruction whatever, but are nevertheless looked on as forming part of the sanitary body. Their duties consist in visiting the dead, in order to register the cause of decease ; but, as few of them can write, the latter duty is generally performed by the tax-gatherer. The barber also is circumcisor and vaccinator in general to his village, and is supposed to keep up a constant supply of lymph. He also is charged with the supervision of surface-cleanliness, and is empowered—in theory—to order the inhabitants to sweep and water their streets. He is obliged to give such surgical aid as he possesses to all wounded people, and to those stung by scorpions or other venomous animals ; and he also on his own account practises as a physician, his treatment consisting chiefly in blood-letting and the use of the actual cautery. Medicines, as a rule, he does not dispense ; but he is a great believer in charms, and also in the efficacy of anointing with oil.

Cairo and Alexandria are divided for medical and registration purposes into twelve and five *quartiers* respectively, each being in charge of a medical officer. In theory, their duties are heavy, for it is laid down in regulations that they shall—

1. Give gratuitous aid and medicine to the poor ;
2. Cause to be seized all foods, drinks, or other substances which may be hurtful to health ;
3. Watch carefully over sanitary matters throughout their districts, and find out all infringements of sanitary rules ;
4. Perform vaccination ;
5. Take care that no one attempt to exercise the practice of medicine, pharmacy, etc., without due authorisation ;
6. Verify deaths, and, if these have occurred from natural causes, deliver permission for burial.

The pay these gentlemen receive is £8 a month ; the duty is therefore naturally, except in one or two instances, performed in a most perfunctory manner, for, if properly carried out, it should occupy their whole time.

So much for the theory and machinery of sanitary organisation, for an account of which I am greatly indebted to Surgeon-Major Greene, the recently appointed head of the sanitary department. The appointment of Mr. Greene followed upon the resignation of Dr. Sandwith, whose replacement became necessary in consequence of his having exposed certain financial abuses in the administration. This denunciation led to an inquiry, with the characteristic result ; the witnesses varied their story concerning the principal person inculpated. The charges were declared to be "not proven," but the corollary "don't do it again," took the form of calling upon the acquitted defendant to resign, and subsequently dealing in the like manner with the too chivalrous plaintiff. Mr. Greene appears to be fortunate in having as the administrative head of his department a pasha—Ismail Pasha Jousrey—who speaks English fluently, is acquainted with English methods of business, and shows a lively interest in the progress of the work which this department is expected to perform.

In the opinion of Ismail Pasha Jousrey, with whom I had an interesting interview, the chief want of the department is a larger budget,

and there can be no doubt that it is wretchedly crippled for want of funds; but I arrived at the conclusion that even much larger funds would by no means suffice to cure the radical defects arising from maladministration, some of which it might even aggravate, for, where the disease is, there the vultures gather.

What is first needed in the department, appears to be a more efficient control over the local budgets, which are at present spent under the control of the local governors, and the power of enforcing the due expenditure of the funds already provided. At present there is no such power, and there is no doubt that the larger part of these funds are not applied so as to get good sanitary results; as the only power which the sanitary department has at present, is to memorialise, to remonstrate, and to protest. It may well be understood that its main function must, under such a system, consist in undertaking fruitless journeys of inspection, making recommendations which are pigeon-holed for future reference, giving advice which is not acted on, planning works which are not carried out, mourning over provincial hospitals, which are nearer to charnel-houses or prisons than to houses of recovery or dispensaries, fighting over bad appointments which "persons of influence" wish to make, and watching, in more or less despair, while the stream of feeble jobbing, ignorant prejudice, and corrupt waste flows rippling by.

Let me take one or two examples which lie under the eyes of the chiefs of government resident in Cairo, and which may well serve to indicate what happens up country. I have mentioned that the sum allotted in the sanitary budget for Cairo amounts to about £10,000 a year. In what mysterious way it is spent it is hard to say, but, after taking a short round in the Arab quarter, in the heart of the city, immediately behind the vegetable-market in the neighbourhood of the Esbekieh, and after entering into one or two of the better sort of houses, in response to friendly invitations from Arab acquaintances whom I made in the search for *anticaz* for my collection, I do not hesitate to say that the sanitary inspector, who draws a handsome salary, evidently limits his activity chiefly to that pleasing occupation. Of the foulness of the ground, of the ordure which covers the soil in these narrow lanes, of the sickening stenches which arise from the open cesspools in the courtyards and within the houses, no language, of whatever force or pictorial effect, could give any adequate idea. As an illustration of the sanitation of the better and "fashionable" quarters occupied by the Europeans, take the following authentic little narrative, from a thoroughly intelligent and well informed English friend, who is well authorised to speak, and by no means a grumbler.

"As a sort of counterblast to what you have heard, or may hear, about improvements in the sanitary service, allow me to relate the following.

"For the last fortnight we have been obliged to sleep with our windows shut, on account of the authorities emptying a cesspool belonging to the next house, the opening of which is in the pavement under our windows. It is not considered necessary to give warning to neighbours that such an operation is about to take place, to give one a chance of sleeping out of town, or making any other arrangement. Probably the only warning one receives, is to wake up about three in the morning with a violent diarrhœa, diphtheria, or ophthalmia. For your information, the *modus operandi* of emptying a cesspool in Egypt is as follows. The pit has not been opened for years (say four years). The proprietor makes a contract with the 'sheikh of cesspools' to have it cleaned. The sheikh gets the necessary authority from the police. The contents of the cesspools are supposed to be taken out into the desert. Six or eight box-carts, each containing two open barrels, congregate at the entrance to the cesspool about ten o'clock at night. The contents of the cesspool are bucketed into the open barrels by certain unfortunate creatures, and, as each cart is loaded, it starts for the desert. A bunch of straw or piece of canvas is put into the mouth of each barrel, and away they go. You may imagine what follows. The jostling of the rickety carts splashes the whole of the contents of the barrels into the street, and it is the simplest affair in the world to track a given cart from its start to its destination—giving it half an hour's start—which is not always the desert, because, before it goes a mile, the barrels are empty, and it returns for a fresh supply; and this ought to be the A B C of sanitation. People often wonder where their children get enteric fever, diphtheria, ophthalmia, etc. The reply is easy—in the street.

"Not long ago, I had occasion to complain to a sheikh of cesspools that his prices were too high. He said he could not help it; he had a far way to carry the 'stuff,' and the distance was very much increased by certain English officials refusing to allow his carts to pass down the streets in which they lived. He added that he had much further to go than the people who cleaned the latrines of the citadel and other military stations, because they put the contents of their barrels on board barges at Kasr-el-Nil, conveyed it a short distance down the Nile, and emptied the 'stuff' into the river. Very comforting for Alexandrians, when it is remembered that there is always a good stock of typhoid fever in the Citadel Hospital."

Now most private houses in Cairo may be pithily described as consisting of a few salons and a cesspit. The Europeans are greatly to blame in the matter, and almost deserve the suffering and the sickness which they have brought upon themselves. Sheltering themselves under the "capitulations," they resent any interference with their domestic arrangements, and, by way of endowing Cairo with some of the leading blessings of civilisation, they have introduced a system of water-closets without drains, leading into cesspits with pervious and porous walls, without ventilation, and emptied at pleasure in the barbarous method above described. As a further refinement, they require the roads to be watered; so that, having thoroughly, every year to an increasing degree, permeated the soil with polluting organic matter, they take every precaution for aiding its slow putrefaction, and carrying its miasmata into the air, and refuse even the antiseptic aid of a dry soil and a baking sun-heat. That the natives should be unaware of the first principles of physics, and unable to appreciate the necessity of ventilating cesspits, of constructing them with concrete and impervious walls, or emptying them by pumping into hermetically closed vessels, so much might be expected; but the Europeans show a positively aggressive defiance of the first elements of healthy existence in cities. It is, I am assured, a fact, that the water supplied to the new and fashionable quarter of Cairo does not even undergo the pretence of filtering, as does that supplied to the older part of the town; and this on the score that so much water is here required for the gardens, that the unfiltered water is cheaper. I have already said how polluted is the source of all the drinking-water of Cairo.

Revisiting Cairo after five years, I do not hesitate to declare that I find its sanitary condition to be, in some very important respects, far worse than it was then, and progressively deteriorating. The permeation of the soil with putrefactive filth is continually increasing; and, thanks to the system of water-closets without drains, which I have described, it is making rapid strides from year to year. This, combined with the system of watering the stinking earth in the noonday sun, makes the air reek with stenches, which are only the sentinels that warn the heedless multitude of the dangers which they are preparing. No wonder that, with a soil reeking with filth, with all natural dry-earth conservancy abolished, with drinking-water of which the sources are becoming annually more polluted, enteric fever, in true and bastard forms, dysentery, and diarrhœa, are the causes of an immense mortality. Of the actual figures it is, of course, very difficult to get any really accurate estimate in a country where the registers are not made in such a manner as to command complete confidence. Dr. Sandwith gives the following figures.

Taking the death-rate of Cairo and Alexandria, where alone it can be considered fairly accurate, during the first five months of 1883 and 1884, we find that, out of a total of 19,439 deaths, 5,466, or 28.1 per cent., were caused by bowel-complaints. Out of this number, Cairo is responsible for 33.9 per cent.; and Alexandria for only 17.5 per cent., or about half the average at the capital.

The following table also shows that in Cairo there was no great difference between the number of intestinal cases in the year preceding and the year following the cholera-epidemic, whereas in Alexandria the number fell from 860 in 1883 to 313 in 1884.

These figures are tolerably eloquent. Especially when it is remembered that the European community of Alexandria lately took the wise steps of forming a volunteer organisation of their own, with spontaneously contributed funds, which, under the able direction of Dr. Mackie, and others, set to work to cleanse their soil and water, and to establish a more rational conservancy. I cannot doubt that, if the Government of Egypt were to show themselves in earnest about sanitation, and to place the administration in the hands of an European expert, accustomed to deal with questions of conservancy, the residents would very willingly conform to regulations, of which it would be easy to demonstrate the necessity, if they wish to diminish the heavy death-toll which this present neglect entails, and from which Europeans and natives alike suffer. So far as I could find, from conversation with native and European medical men, intestinal diseases constitute a very, and indeed, the main factor in the sickness and mortality of children. Gastric, and probably enteric fever, are exceedingly rife among the children; and the mortality is less with them than with adults, and, passing through it in early life, they appear, as might be expected, to suffer less severely in adult life. European adults, entering the country, are now very largely affected by intestinal disease; and it will be

Cairo.

Diseases.	1883.						1884.					
	January.	February.	March.	April.	May.	Total.	January.	February.	March.	April.	May.	Total.
Dysentery	159	129	188	146	129	751	148	131	118	119	131	647
Gastric and typhoid fever	99	99	92	106	137	533	71	71	84	153	193	472
Gastro-enteritis	199	154	229	159	241	982	176	149	146	180	257	908
						2,266						2,027
All other diseases	900	711	941	773	909	4,234	874	756	812	841	851	4,134
						6,500						6,161

Alexandria.

Diseases.	1883.						1884.					
	January.	February.	March.	April.	May.	Total.	January.	February.	March.	April.	May.	Total.
Dysentery	54	51	53	45	34	237	23	24	26	20	24	117
Gastric and typhoid fever	50	52	89	93	76	360	15	22	22	13	26	98
Gastro-enteritis	83	60	44	41	35	263	27	30	9	12	20	98
						860						313
All other diseases	634	636	675	586	557	3,088	512	455	486	492	472	2,417
						3,948						2,730

certainly found to be the main cause of disease in the army of occupation. It is the nemesis of sins against the laws of nature—clearly enough understood, and carefully enforced by the old Mosaic and later Mohammedan laws of cleanliness and conservancy, but long neglected by the natives, and of late years openly defied by the Europeans, who have aggravated the danger against which they should have protected themselves and the native population. This letter is already too long. I will in another letter speak of the remedies I propose.

OUR TROOPS AT KORTI.

[FROM OUR SPECIAL CORRESPONDENT.]

March 23rd, 1885.

THE troops forming the Nile column, under Brigadier-General Brackenbury, C.B., returned to Korti on the 8th of March, and on the 16th of March the last of the force arrived from the desert. The troops of the Nile column were very healthy, and their percentage of sick very low. On arrival at Merawi, all slight cases that were likely to be fit soon again for duty, were transferred to the hospital there; all the other sick and wounded—8 officers and 43 non-commissioned officers and men—were brought on to Korti, and transferred to No. 1 field-hospital.

The first convoy of sick from the desert-force reached Korti on January 29th, and the last on March 16th; the total of sick and wounded from the desert having been 26 officers and 275 non-commissioned officers and men. On return from the desert, the troops generally presented a healthy appearance, but some of them were a good deal worn out by hardships and exposure. It was necessary to admit a large number to hospital, for enteric fever and other diseases contracted in the desert.

With a view to have the hospital at Korti cleared for the reception of the sick and wounded, it was deemed advisable to transfer all chronic and convalescent cases suitable for removal to Abu Fatmeh, there to be disposed of by sending on to Cairo those not likely to be fit for service during the campaign, and retaining, for further treatment in hospital, those likely to recover within a reasonable period, and to be fit again for active service. In order to meet the additional requirements, the hospital accommodation at Abu Fatmeh was increased so as to provide for 120 instead of 80 patients.

The prevailing diseases at Korti have been diarrhœa, dysentery, and enteric fever. The disease, in a large proportion of the cases of enteric fever, was contracted in the desert, and was of an unusually severe type. Several capital operations have been very successfully performed by Surgeon Dick, who is a cool and skilful operator. Surgeons Laffan and Jencken have also operated very successfully; all the operations and dressings were conducted antiseptically. All the wounded are doing well.

The first sick convoy, 55 in number, for Abu Fatmeh and the north, left in the steamer *Nassif Kheir*, and two barges (nuggers) in tow, on February 5th, in medical charge of Surgeon Tuckey, who has been specially detailed for sick convoy-duty; a second, consisting of 25, in medical charge of Surgeon-Major L'Estrange, left on February 7th, in a nugger towed by a pinnace; and on February 17th, a third convoy of sick and wounded, 7 officers, and 46 non-commissioned officers and men, left in the *Nassif Kheir*, and barges attached; on February 23rd, another convoy of sick and wounded left, in medical charge of Surgeon-Major Watling; and on the following day, 4 officers and 16 non-commissioned officers and men left in the Yarrow boat *Lotus*. Two other convoys of sick and wounded have left during March.

The steamer *Nassif Kheir* and Yarrow boat *Lotus* have been entirely employed on sick convoy-duty since February 5th. There is accommodation on board each for three or four officers and about sixteen men in swinging cots. Each nugger attached or in tow is able to accommodate, on an average, twenty-six sick and wounded men. The nuggers or hospital-boats and steamers were specially fitted up for the transport of sick, under the personal supervision of Surgeon-General O'Nial, the principal medical officer of the expedition. They are provided with stretchers, mattresses, cooking-places, and everything necessary for the comfort and welfare of the sick; and ample provision is made for a supply of warm clothing for patients whose equipment has been partially lost or has become unfit for wear. By means of matting and blankets, two compartments have been constructed on the deck of each nugger, fore and aft, which give very comfortable accommodation for the more serious cases.

At first, the steamers and nuggers were able to go the whole way to Abu Fatmeh, but now, owing to the fall of the Nile, the patients have to be transferred at Dongola to a smaller description of boat, called a madieh. Arrangements are made by the commandants at the various stations on the line of communication to ensure a sufficient supply of fresh meat, milk, eggs, fowls, etc., being in readiness on the arrival of each sick-convoy. The departure of each convoy, and probable time of arrival at next station, is notified by telegraph.

The line of communication is, for medical administration, divided into four sections:—No. 1, from Assiout to Korosko, inclusive, under

Brigade-Surgeon Norris ; No. 2 section from Halfa to Firket, under Surgeon-Major Will ; No. 3 section, from Ahsarat to Abu Fatmeh, under Surgeon-Major Corban ; and No. 4 section, from Dongola southward. Deputy Surgeon-General Lithgow, the principal medical officer of the line of communication, takes the immediate personal supervision of No. 4 section.

The hospital at Korti (No. 1 field-hospital) was made a dieted one on February 1st, the diets sanctioned being low, milk, chicken, roast, and entire. It was recommended that the meat and bread on entire diet, and the tea and sugar for breakfast and supper on all the hospital-diets, should be increased to the amount sanctioned for the ordinary field-rations, and also that one ounce of butter should be added to the milk-diet. This addition was considered necessary, as the meat has a large proportion of bone, and is very inferior in nutritive qualities. The increase of tea and sugar and butter on the milk-diet, was necessary for the comfort and welfare of the sick. The recommendation met with the approval of the Principal Medical Officer, and was sanctioned by the General Officer Commanding.

The hospital is intended for the accommodation of 200 patients, but it is capable of extension for nearly double the number. It is well situated, amongst mimosa trees, on high ground on the left bank of the river. The marquees are sufficiently apart to allow free ventilation. A corps of 25 native labourers is attached for the general fatigue duties of the hospital ; they keep the ground well watered and cool, and attend to the general cleanliness of the surface, the latrines, urinals, &c.

On the 12th of February, Lord Wolseley, accompanied by his staff, visited the hospital. Before leaving, he expressed himself very highly pleased with its condition and management, adding that he had never seen a hospital in the field in a better state. On the 21st, Major-General Dormer also visited it, and expressed himself as well pleased with it in all its details. It is intended to evacuate Korti within the next week ; the sick are being transferred from time to time to the hospitals now being established in the summer camps.

It having been decided for sanitary reasons to remove all the troops from Korti, the Commanding Royal Engineer and the Sanitary Officer of the expedition were directed by Lord Wolseley to proceed down the river as far as Abu Gus for the purpose of selecting sites for summer camps ; one to be between Korti and Debbeh for a movable force of 2,500 troops, one for a similar number between Debbeh and Abu Gus, and one for 1,000 men at Abu Gus, also one for 1,000 at Abu Dom. For the health and comfort of the troops, it was very desirable that the sites should be near the river, but on account of much of the left bank being under cultivation (it was necessary to choose the sites on the left bank) it was very difficult to select places suitable both in a military and in a sanitary point of view. The site ultimately chosen was at Abu Dom, which is hereafter to be known as Merawi, the desert-ground above and below the fort ; it is high and dry, and well exposed to the prevailing winds.

The camp between Korti and Debbeh is to be at Tani, eight miles below Korti ; it also is on clean high and dry desert-ground, with clean foreshore and good current of water. The camp between Debbeh and Abu Gus is at Kurat, three miles below Debbeh ; and the one at Abu Gus is two thousand yards south of Abu Gus ; all are necessarily on the left bank. The commandants at the various camps have received orders to have straw huts constructed for the troops and hospitals, and native bedsteads are ordered to be purchased, in order that the men may be well raised up from the ground.

The force at Merawi is under the command of Colonel Butler, C.B., and consists of a detachment of Royal Engineers, one troop 19th Hussars, 1st Battalion Royal Highlanders, the Egyptian Camel Corps, and two guns of the Egyptian Camel Battery.

The head of the column, under the command of Major-General the Hon. J. C. Dormer, C.B., is now established at Tani. The column will be composed of a detachment of Royal Engineers, one troop 19th Hussars, 1st Royal West Kent Regiment, 2nd Essex Regiment, 1st South Stafford Regiment, Egyptian Camel Battery (four guns), half of the Mounted Infantry Camel Regiment, and the head-quarters of the 11th Transport Company, Commissariat, and Transport Corps.

The column at Kurat will be under the command of Brigadier-General Brackenbury, C.B., and will consist of one troop 19th Hussars, 1st Royal Irish Regiment, 2nd Duke of Cornwall's Light Infantry Regiment, 1st Gordon Highlanders, head-quarters of the Mounted Infantry Camel Regiment, detachment of the Naval Brigade, and head-quarters of the 9th Transport Company of the Commissariat and Transport Corps.

At Abu Gus, the troops will be under the command of Colonel Wolseley, A.D.C., and will be composed of one troop of the 19th Hussars, head-quarters Royal Sussex Regiment, 9th Battalion Egyptian Army, and a portion of the Southern Division of the Royal Artillery. At Handak (Shabadood) will be the head-quarters of the Light Camel Regiment ; and at Abu Fatmeh (Hafir) will be stationed the Heavy Camel Regiment.

The army head-quarters are to be stationed at Dongola, and are to move there on the 23rd instant. The troops there will be the head-quarters of the 19th Hussars, and of the Naval Brigade, the Guards' Camel Regiment, and 100 men of the Royal Sussex Regiment.

During the past week, most of the troops have been leaving Korti, and large quantities of ordnance, commissariat, and hospital stores have been sent to the various camps. The Heavy Camel Regiment, 267 of all ranks, in medical charge of Surgeon Faluey, left for Hafir, near Abu Fatmeh, on the 10th instant, and, on the 12th, the Guards Camel Regiment left for Dongola. Both regiments left in whalers, 15 men, with 2 Canadian voyageurs, to a boat. On the 14th, the Essex Regiment, 15 officers, and 311 non-commissioned officers and men, left in whalers for Tani. Next day the Gordon Highlanders, 18 officers and 436 non-commissioned officers and men, left in whalers for Kurat camp. On the 18th, the head-quarters Royal Irish and the Duke of Cornwall's Light Infantry left in whalers for Kurat. On the 20th and 21st the Royal Sussex left. On the 23rd (to-day) the Mounted Infantry and the Bearer-Company proceed by march route to Tani and Kurat.

The following is the distribution of the Movable Field-Hospital and Bearer-Company during the summer ; at Tani Camp, Nos. 2 and 4 sections of the Movable Field-Hospital, under Surgeon-Major Melladew and Surgeon Allin, and Nos. 1 and 3 sections at Kurat Camp, under Surgeons Briggs and Dick. The head-quarters and right half company of the Camel Bearer Company are to be at Tani Camp, the light half company at Kurat Camp.

Nothing is being left undone to make the Movable Field Hospital and Bearer-Company complete and efficient in every respect. Officers experienced in the working of both have been appointed to inquire into and report upon any modifications or improvements that could be introduced into the organisation of both.

The Medical Department has suffered a great loss by the deaths of Surgeons Turner and Bradshaw. The former died of acute dysentery on March 5th, and the latter of enteric fever on the 13th ; both contracted their diseases in the desert. They were very promising officers, and were held in the highest estimation. Surgeon Turner had served in the India Frontier Force, the Afghan War, and the Egyptian campaign of 1882. At the time of his death he was in medical charge of the 19th Hussars ; the men of the regiment requested that they might be allowed to perform the melancholy duty of carrying his remains to the grave. Surgeon Bradshaw had little over one year's service. He entered the department in February, 1884. At the entrance-examination he obtained a distinguished position, and was awarded the first place in the list of candidates, and the Martin Memorial Medal. The 19th Hussars and the Royal Irish furnished the usual armed parties at the funerals, which were attended by the General Officer Commanding-in-Chief, and nearly all the officers in camp.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Congress of French Surgeons.—Tarseotomy.—Osteotomy and Osteoclesas.—A new Drainage-tube.—Microbes and Diathesis.—Cucaine as an Anæsthetic.—The Inhibitory Phenomena of Cucaine.—A new Ether.—Pulmonary Tuberculosis in Families.

THE Paris Congress of French Surgeons, which was suggested to the Société de Chirurgie last July (see Paris letter, July 5th, 1884), by M. Demons, of Bordeaux, opened its first session on Easter Monday, at the Ecole de Médecine. M. Trélat was elected president, and M. Ollier, of Lyons, vice-president ; and M. Pozzi, secretary. The president, in his opening address, said the aim of the Congress was to assemble all surgeons speaking the French language, and it already numbered 250 members ; among whom, besides the Paris surgeons, were their brethren from the provinces, Alsace and Lorraine, Switzerland, Belgium, also from Italy, and other foreign countries. The Congress continued five days.

The first paper was read by Professor Gross, of Nancy, on "Removal of the Posterior Cuneiform Bone in Talipes Varus." In this species of deformity, the author recommended removing the astragalus, and performing resection of the anterior of the extremity of the os calcis. When the antiseptic method was adopted, he did not consider it a dangerous operation ; the foot recovered its normal shape, and frequently all the movements could be executed ;

but this faculty, as well as that of walking, depends on the condition of the muscles prior to the operation. Professor Gross observed that, notwithstanding the success of this operation, the deformity might reappear.

M. Demons, of Bordeaux, read a paper on "Osteotomy and Osteoclasis in Knock-knee." Straightening the limbs by mechanical means, M. Demons declared, produced too much injury to the articulation, and too much general disturbance, notwithstanding all the recent improvements in the apparatus used.

M. Houzel, of Boulogne, described a new method of dressing wounds, especially desirable where pus had to be removed and contact with the air prevented. Two drainage-tubes were placed in the wound. The portion in contact with the interior of the wound had lateral apertures, the remaining portion had an unbroken surface, and extended into a receptacle filled with carbolic acid, the wound was then covered with antiseptic dressing, which excluded the air. The India-rubber drainage-tubes were filled with pus, and as they and the receptacle were beyond and below the wound, they acted as a siphon, not only allowing the pus to run off, but by suction facilitating its evacuation from the wound without introducing air, as the free ends of the drainage-tubes were immersed in a carbolic acid solution.

M. Abadie, in a communication on microbes and diathesis, recommended surgeons not only to carefully disinfect wounds, but also the surrounding atmosphere. MM. Jeannel, Saulamé, of Toulouse, and Cauchois also read papers on microbes and infection.

M. Arloing has made an extensive series of researches on the physiological action of cucaine, which led him to the following conclusions. Hydrochlorate of cucaine is a purely local anæsthetic. Contact of the terminal nerve-plates with cucaine is the principal cause of anæsthesia. Cucaine provokes constriction of the capillary blood-vessels; but M. Arloing does not think the corneal insensibility produced by cucaine ought to be attributed to regional anæmia, inasmuch as anæsthesia can be produced before and after section of the cervical branch of the sympathetic nerve. The anæsthetic effects of salts of cucaine are very evident on epithelial mucous membranes, on one especially in which the nerve is intra-epithelial, that of the cornea. Thus it may be argued that anæsthesia from cucaine depends on contact, and this is not impeded by the local circulation. In the nerves, where the nerve-elements are protected by the peripheral connective tissue and the lamellar sheath, anæsthesia is more slowly produced. Interstitial injections of cucaine anæsthetise small nerves, as has been proved in the enucleation of the eye-ball. A solution of cucaine deposited on the surface of the eye-ball of the guinea-pig slowly penetrates through the epithelium; the nerve-terminations are impregnated. It traverses the cornea, circulates among the lymph-canals and aqueous humour, bathes the iris, and finally passes into the circulatory system, and kills the animal. M. Arloing concludes that cucaine-salts temporarily modify the physical properties of protoplasm, the elements of nerve-terminations, also fibrillar elements. Dr. Brown-Séquard believes that the anæsthetic effect of cucaine is due to inhibitory phenomena. In a communication to the Biological Society, he stated that the fact that wounds become anæsthetised when the animal's larynx is irritated by carbonic acid, chloroform, or galvanisation, suggested to him that the action of cucaine is inhibitory. Dr. Brown-Séquard observed that, by slightly stimulating his laryngeal mucous membrane, he relieved a feeling of intense fatigue, and also removed rheumatic pains. He injected hydrochlorate of cucaine along the superior laryngeal nerve of an animal. All the wounds inflicted were anæsthetised, and the sciatic nerve was stretched without producing the slightest pain; an analgesic zone existed round each wound. All the wounds inflicted after the application of cucaine were in a state of hyperalgesia. Dr. Brown-Séquard therefore refuses to admit the anæsthetic effect of cucaine and further asserts that, if a large dose be injected, the poisonous properties of cucaine prevent the anæsthetic phenomena.

M. Rabuteau has prepared a new ether—the salicylate of methyl. It is almost white, has an agreeable smell, and is almost insoluble in water. It is prepared by treating methylic alcohol by salicylic acid or sulphuric acid, or even a better formula is that of sodium-salicylate, sulphuric acid, and alcohol. It is a mono-ethyl, and therefore almost an acid, and forms salts in presence of an alkali. It colours salts of iron violet, and behaves like salicylate of soda. This ether does not produce anæsthesia. Part of the dose of salicylate of methyl is utilised in the organism, and part eliminated by the respiratory and renal organs. The vapour of salicylate of methyl is easily detected on being brought into contact with iron-perchloride.

M. Leudet, of Rouen, has made a communication to the Paris Académie de Médecine, entitled "Pulmonary Tuberculosis in Families." His communication treats solely of the behaviour and reappearance or propagation of tuberculosis in families and their branches. His observations include his own extensive experience and that of his father. M. Leudet endorses M. Peter's view, that only subjects in a condition favourable to contract tuberculosis are endangered by contact with contagion; the germ, the parasite, or the microbe alone is not an all-powerful factor, but must be associated with a predisposition. M. Leudet's statistics include 143 families of Rouen. These he divides into two groups, one composed of 55 families, numbering 415 persons; each family reckoned one tuberculous member, thus there remained 360 non-tuberculous. The second group was composed of 88 families, numbering 1,070 persons; each family included from 2 to 11 tuberculous members. Among the 1,485 people composing the 143 families, there were 312 tuberculous. Families which have been kept under observation during several generations are subdivided. In 55 families, where there was only one tuberculous member in each family, only two had good health; all the others suffered from indulging in excesses, were scrofulous, lymphatic, syphilitic, or struck with infantile paralysis. Ten among these tuberculous subjects, notwithstanding Koch's theory, had chronic bronchitis. In 108 families, tuberculosis was hereditary. The descendants of tuberculous people are generally attacked between the ages of 15 and 30; this is independent of the age when the predecessor exhibited tuberculosis. Hereditary tuberculosis is manifested earlier in the descendants than it is in the successors of sufferers from acquired tuberculosis. Children of tuberculous fathers and mothers are more surely tuberculous than those who inherit the disease from one parent. A tuberculous patient cured can transmit the disease to his children a long time after his cure. A father and his children may die from tuberculous affections, and the mother may remain healthy. M. Leudet has observed, in the propagation of tuberculosis, that children die off one after the other. Among 57 children of tuberculous families, he states that 31 tuberculous children died in quick succession. This occurs in children whose fathers and mothers are not tuberculous, but they are attacked at a more advanced age, and the succession of deaths is not so rapid. The duration of the disease has no influence on heredity. Cure is rare; it is possible at all stages of the disease, but it is more improbable in a tuberculous condition than when caverns exist.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

Dr. Koch on Cholera-experiments on Animals.—Professor von Siebold.—Establishment of a Schweninger Sanatorium.—Professor Frerichs Successor.

I AM able to announce that Dr. Koch will very shortly publish the results of some highly interesting experiments on animals. He will also probably refer to recent discussions. From Dr. Klein's statements in London, it is clear that he at last acknowledges that Koch's comma-bacilli are a distinct species. This is all that Koch wants him to admit for the present. But it is curious that Dr. Klein should have only now seen that Koch laid stress on the cultivations in gelatine-material. From the very first, Koch has laid special stress on the fact that the microscope alone cannot be relied upon, and that artificial cultivations are absolutely necessary.

The death of Professor Karl von Siebold, at the age of 81, on April 7th, is announced from Munich. He was well known as a physiologist and anatomist. He was the son of Professor Adam Elias von Siebold, the founder of the Lying-in Hospital of the Berlin University. Von Siebold was born in 1804, and studied medicine in Göttingen and Berlin. In 1840, he was appointed Professor of Physiology and Comparative Anatomy at Erlangen, and went to Freiburg in Breisgau, in 1845. In 1850, he accepted a professorship at Breslau, and assumed the direction of the physiological institute there. In 1853, he went to Munich, to found a similar institute there, and was appointed Professor of Physiology and Comparative Anatomy.

It is announced by a Rhenish paper that Prince zu Solms-Braunfels is interesting himself in the building of a sanatorium in which the patients are to be treated according to the so-called "Schweninger Method." An architect has drawn the plans, which are said to have met with Professor Schweninger's approval. The sum required for the undertaking is 300,000 marks (£15,000). When this sum has been subscribed, the building will be commenced.

Professor Senator, Director of the Augusta Hospital, and of a department of the Royal Charité Hospital for internal diseases of women, has been provisionally appointed for the ensuing summer Director of the first University Clinic, in the place of the late Professor von Frerichs.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Close of Winter Session.—Dinner to Lord Rector.—Commission on Housing of the Poor.—Drainage of Pulmonary Cavities.—Case of Double Uterus.—Eye Infirmary Extension.—Dispensary for Skin-Diseases.—Ear Hospital and Dispensary.

ALL the classes in the Medical Faculty of the University closed on the 3rd instant. There was no formal ceremony to mark the end of the winter session, as each professor distributed in his own class-room the prizes and certificates gained by the students of his class. This plan will lessen the length of the ensuing graduation-ceremony at the end of the month, as it leaves only the general University prizes and the medals to be presented in addition to the conferring of the degrees. Last week, the preliminary examination for those about to commence the study of medicine was held, and the numbers who presented themselves were up to former years. The only other piece of university intelligence at present is a revival of the rumour that the chair of botany has been conferred on Professor McNab, of Dublin. The truth is that the announcement is altogether premature, and that, whatever may be done in the near future, no formal decision has been come to in the matter.

Not the least pleasing of the circumstances connected with the recent rectorial election was the public dinner given to Professor Lushington by old students of his own. It was in every way a success, and was very numerously attended. The words that fell from the Lord Rector when he spoke in reply to the speech of his health showed how much he appreciated and felt the compliment that had been paid him. He has had his rectorial address printed, and a copy of it has been given to every student of the University.

The Royal Commission on the Dwellings of the Poor have commenced their inquiry in Edinburgh, as to the housing of the working classes in Scotland. The first day was taken up with the Edinburgh witnesses, and some striking evidence was given in reference to the decrease in the city death-rate. The second day was devoted to the witnesses from Glasgow. These were four in number, and included our medical officer of health, Dr. Russell. The evidence was taken in private, but it is understood that it dealt very largely with the work of the City Improvement Trust. The magnitude of this undertaking is to some extent shown by the statements of one witness, Sir William Collins, who explained that as yet the work was only about half completed, but that, so far, altogether £1,600,000 had been expended in the purchase of property, and of that sum £470,000 had been raised by means of assessment. It was claimed for the Trust that so far it has been eminently successful. No doubt, it has been a great benefit to the city from a sanitary point of view, but it is an open question whether financially it has been so. When the evidence of the Commission is published, that of Dr. Russell as to the health-statistics of the city, and as to the various sanitary arrangements in force, will be found very interesting and important.

The puncture and drainage of pulmonary cavities is a subject that has of late begun to be so much discussed, and, by some, been so warmly commended, that it may not be out of place to mention here that this line of procedure was recently put into practice at the Western Infirmary, in the treatment of a case under the care of Professor Gairdner. The patient was a boy, whose left lung was evidently the seat of a gangrenous cavity, as shown by the physical signs present and the fœtid pus expectorated. A fair trial having been given to ordinary medical treatment, and no improvement following, it was considered that the best chance of recovery lay in opening into and draining the abscess-cavity in the lung. This was done by Professor George Macleod, and a drainage-tube was inserted. At the time of the operation, the boy was in a very weak condition, and though he lived some days subsequently, no improvement followed. The *post mortem* examination revealed a very interesting condition of matters. A large abscess-cavity in the base of the lung had been opened into, and in it lay the drainage-tube inserted at the time of the operation ; but, in addition, there was also found a foreign metallic body, which had clearly been the cause of the abscess, and which must have been accidentally swallowed at some time or other. No adhesions having taken place between the walls of the pleura over the cavity in the lung when this was opened into, the fœtid contents had made their way into the pleural cavity, and had set up recent pleurisy. The remainder of the left lung was studded with secondary abscesses, a few of which were also found in the right lung, so that the causation of the mischief and its subsequent course, as read by the *post mortem* examination, showed the case to be unfavourable for a line of treatment which, under other conditions, might have proved beneficial, and which experience showed to be not difficult of being carried out.

Another case of interest that occurred lately at the Western Infirmary was one of double uterus. The patient had been in Dr. McCall Anderson's wards, and was delivered there prematurely of a seven months' child. She died about a fortnight subsequently, and the *post mortem* examination revealed a very abnormal condition of the generative system. The uterus was divided into two lateral compartments by a fissure, which extended so far down as to justify the appellation of double uterus, while the presence of only one ovary and only one kidney still further added to the rarity of the case. The occurrence of impregnation and parturition, under these circumstances, render a record of the case, with its full clinical history, of great interest, especially as to how far the non-pregnant uterus had sympathised with its fellow, and of what changes it had been the seat.

Considerable additions are being made at present to the Eye Infirmary in Berkeley Street. The new buildings are being erected behind the present hospital, and consist of two large wards, and a lofty well lighted operating-room, with a north-west exposure. The latter will meet a decided want, as the present room where the operations are done is not well adapted for operative work. I understand, too, that the directors are taking steps to put a stop to some of the weak points in their out-patient department. It has long been a matter of notoriety that many of the applicants for advice have not been of the social position that entitles them to gratuitous treatment. With a view of checking abuses in this direction, it has been decided that all applicants for advice must bring a subscriber's letter. In this way, some guarantee is given that the applicant's circumstances entitle him or her to the services of the medical staff ; and while it will, to some extent, no doubt diminish the numbers of the out-door patients, it will ensure that only those get advice who are really in a position to require charitable aid.

Two of our other special hospitals have just held their annual meetings, namely, the Dispensary for Skin-Diseases, and the Hospital and Dispensary for Diseases of the Ear. The former of these has two wards for the treatment of patients in the Western Infirmary, and a separate building in the city for dispensary purposes. There were 105 admissions to the Western Infirmary wards during the year, and 1,446 patients sought advice at the Dispensary, both figures showing a decided increase over previous years. The summer practical course, which is conducted by Dr. McCall Anderson for the benefit of the senior medical students, makes this institution an important and valuable factor in medical training, and the numbers that attend the class show that its advantages are fully appreciated.

The Ear Hospital is also able to make public a favourable report, both as to the amount of work done, and the money expended on doing it. Especially in its indoor patients is an increase seen; and this fact, as well as the larger number of students attending the cliniques, has induced the directors to look out for larger and more commodious premises, which they have secured in Elmbank Crescent, and thither it is proposed to move at the beginning of next month. Students of the University will thus find the hospital more accessible than it was formerly, and in this way they will have every opportunity of making themselves acquainted with the details of one of the most important of the branches of professional knowledge, and one which was, in former years, too much neglected.

ABERDEEN.

[FROM OUR OWN CORRESPONDENT.]

Extension of the Medical School.—British Association.—Royal Infirmary.—Professor Ogston.—Opening of the Summer Session.

ANOTHER winter session was brought to a close in this medical school at the end of March, and, since then, until last week, the professors and assessor-examiners were busy with the professional examinations. The list of those who passed the respective examinations will be found elsewhere. The graduation ceremonial took place on April 17th. During the session, a committee of the Senatus has been busy devising plans for the extension of Marischal College, as the continued and steady progress of this school necessitates large additions to the buildings. We have already given a sketch of the proposed addition, and we believe the Senatus have appointed a committee to lay the proposal before the Government, and to ask them for assistance. Glasgow obtained £120,000, and Edinburgh £80,000 for their respective buildings, and Aberdeen now is much in want of similar assistance.

The local committee is making every effort to secure the success of the forthcoming meeting of the British Association. The Guarantee

Fund is now considerably over £2,300, and subscriptions are still coming in. Lord Aberdeen is to give an excursion to Haddo House, and Mr. Irvine to Drum Castle, while there will be several exhibitions, including one of the natural history of the district, an archæological collection, and an artists' exhibition. Some of the sections will meet in Marischal College, and some in other buildings, and it is suggested to have all the places of meeting connected by telephone. It has not transpired who are to give the evening lectures, or who are to be the vice-presidents and secretaries of sections.

Professor Alexander Ogston, who has been at Suakin for the last two months, is expected to be in London on May 2nd, in time for resuming his summer course of operative surgery. Professor Hay is to begin a new class of practical medical jurisprudence and hygiene.

The report of the managers of the Royal Infirmary has just been issued, and it is stated that the total number of persons admitted to the wards was 2,090, while 802 obtained advice and medicine as outpatients. Improvements have been made throughout the year with a view to diminishing the expenditure, and otherwise beneficially affecting the Infirmary. Two substantial and comfortable ambulances for conveying patients to the Infirmary have been provided by private subscriptions.

The summer session begins on Monday, April 27th, when the usual practical and other classes will be opened. We believe there is a very good entry of intending medical students for the preliminary examination.

CORRESPONDENCE.

SURGICAL TREATMENT OF ABDOMINAL ANEURYSM.

SIR,—In writing on this subject in your JOURNAL for April 11th, I ought possibly to have noticed in more detail the case to which Mr. Hutchinson refers in your last number. I was acquainted with it; and, had not the exigencies of space restricted my remarks to the briefest possible allusion, I would have endeavoured to discuss it and some other cases of alleged cure of abdominal aneurysm.

With regard to Dr. Daly's case, the tumour appears to me, from the description given of it in the *London Hospital Reports*, to have been situated considerably lower than in Signor Loreta's patient, as it is said to have presented about two inches below the ensiform cartilage; and in saying that, "so far as I am aware, no aneurysm *so situated* has been cured by rest and medicine," I did not intend to deny that a cure, spontaneous or medical, had been claimed in some cases of abdominal aneurysm, but not (so far as I know) in any situated so high up on the artery. The situation of the tumour is of great importance, of course, in respect of the operative treatment, since, the lower down it is placed, the more accessible does it become; and I should conjecture that the same is the case (though to a less extent, perhaps) with regard to its curability by rest and medicine; that is, that an aneurysm adhering so intimately as in Signor Loreta's case it did to the stomach, spleen, and colon, must produce more formidable symptoms, and be less amenable to treatment, than one growing lower down. And certainly the symptoms in that case appear to have been very formidable. With regard to the case of Dr. Daly and Mr. Hutchinson, I entirely believe in the correctness of the diagnosis and the reality of the cure, though I am more disposed to attribute the latter to rest than to the action of the acetate of lead; as also in Dr. O. Rees's original case of popliteal aneurysm. Acetate of lead has had an abundant trial during these last twenty years, and has usually seemed to do more harm than good; and aneurysm has been known to appear while the patient was suffering from lead-colic.

With regard to the preferability of rest, diet, and medicine over operation, considered absolutely, no one would dissent from Mr. Hutchinson, nor, I think, would any experienced surgeon differ from him as to the occasional occurrence of spontaneous cure. Yet, we must allow that the expectant treatment has its dangers also in these desperate circumstances. The very volume which contains Dr. Daly's case relates, a few pages further on, one in which an abdominal aneurysm, presenting no symptoms of unusual severity, burst a few days after the patient's admission, and while he was doubtless at perfect rest. In this case of Signor Loreta, the symptoms were exceptionally acute and distressing; and the surgeon might not unnaturally think that, if anything were to be done, it had better be attempted without delay. On this point, the author is not very explicit. All he says is as follows: "Such a design"—that is, the design of performing some operation to interrupt definitively the communication between the sac and the arterial current—"was justified by the pronosis which many accomplished physicians had pronounced on the poor man's future, in case he were abandoned to the progress of the disease, which had afflicted him for so many months. A speedy death was his only prospect, either by hæmorrhage from rupture of the sac, or by nutritive exhaustion." He does not otherwise discuss the prospects of cure by rest, diet, and medicine; but I think any one who reads his account of the rapid progress and extreme gravity of the symptoms, will allow that the case was a very unpromising one for that treatment. While, therefore, agreeing in the main with Mr. Hutchinson, that rest and medicine should naturally occur first to the mind, in treating a case of internal aneurysm, I think we are not justified in charging Signor Loreta with any rashness in his treatment of the case before us; while the brilliant success of his operation shows that there is still a ray of hope, for some at any rate, of the most desperate instances of abdominal aneurysm. I would repeat, however, that direct operative measures, such as were carried out in this case, must be regarded as only applicable in exceptional cases.—I am, sir,

THE WRITER OF THE ARTICLE ENTITLED AS ABOVE.

SIR,—The case of abdominal aneurysm reported by Mr. Hutchinson, seems to resemble so strongly one recently under my care, that I venture to bring it before your notice, if only to corroborate the value of rest in similar cases.

On December 12th last, I was called to see Mrs. D., aged 57, mother of nine children, the youngest being 15 years old. I found her in a very weak condition, suffering from constant sickness, and complaining of great pain in the epigastrium. On examining the seat of pain, I found an unmistakable tumour, about the size of an orange, which pulsated strongly, both vertically and laterally, and, on auscultation, yielded a loud *bruit*. I could not come to any other conclusion but that I had to deal with an abdominal aneurysm, which was the sole cause of the sickness and pain. The circulation generally seemed very weak. There was no possibility of the tumour being caused by fæcal accumulation, as the patient had been under treatment for some time for disordered stomach and liver, and, consequently, thoroughly well cleared out. Perfect rest was ordered. Bismuth and bromide of potassium were given to allay irritability of the stomach, and pills of morphia and hyoscyamus to procure rest. On the 14th, tincture of belladonna was added to the mixture. The sickness soon subsided, and gradual improvement took place. As the patient recovered, my belief in the correctness of my diagnosis was shaken, and, at last, after two months' rest, when there was no tumour, no *bruit*, and no pain, I reluctantly came to the conclusion that I must have been totally wrong, and should have held that opinion till now, if I had not read the case reported by Mr. Hutchinson. At any rate, it seems to prove that a long trial of this plan should be adopted in all similar cases, whether real aneurysms or not, before performing such an operation as Professor Loreta's.—I am, yours faithfully,

THOMAS PERCIVAL.

Knottingley.

TREATMENT OF GOÎTRE BY IODINE-INJECTIONS.

SIR,—I have known sudden death to occur from the extraction of tooth; I have known the passage of an uterine sound into a health uterus to produce metritis and peritonitis, the patient's life being wit difficulty saved; I have known tetanus and death to follow the ampu tion of a finger. How often do we hear of death occurring under the administration of anæsthetics! Are we, therefore, justified in classing any of the above procedures as dangerous to life? Certainly not.

I would class iodine-injections for goître as about as dangerous as any of the above operations, but not more so. Dr. Felix Semon's letter in the BRITISH MEDICAL JOURNAL of April 4th, in reply to my paper of March 28th, does not, in my opinion, prove that the operation ought to be classed as a risky one, considering that, according to his own showing, it has been performed many thousands of times, and the only authenticated fatal case is Moritz Schmidt's, which occurred in a patient suffering from fatty degeneration of the heart; there is no mention that any cerebral embolism was discovered at the necropsy—a condition which might result from perforation of a vessel by the needle used in the injection. This mishap, in all probability, caused the death of Schwalbe's patient. Edmund Rose mentions six, and Seitz two, fatal cases following iodine-injections; but of these Dr. Semon gives no particulars.

The occurrence of suppuration in a goître after iodine-injection must be extremely rare, and ought not to occur, providing the goître is in a non-inflammatory condition when injected, and also that the needle is well oiled with carbolic oil, all air carefully excluded from the syringe and needle, as I mentioned in my former paper, and the

tincture of iodine pure. Care must be taken that the neck is not grasped, bruised, or strained, while the iodine-injections are being done; this precaution is necessary for months after the injections have been given up.

Dr. Morell Mackenzie has had no unfavourable results, and advocated the process of iodine-injection for adenomatous goître very strongly at the international meeting at Copenhagen.

Dr. Semon himself has done the operation over two hundred times, and has had no unforeseen result. I must express surprise that he should have injected iodine so frequently, considering the operation, as he does, so dangerous to life, particularly as, in the large majority of his cases, there must have been no actual danger to life from dyspnœa or dysphagia, had the cases been allowed to remain without surgical treatment.

Mr. Pugin Thornton, in Quain's *Dictionary of Medicine*, speaks highly of the treatment of goître by iodine-injection, and does not refer to it as a procedure dangerous to life.

It would be very useful to the medical profession at large, if surgeons who have done the operation frequently would give their experiences in the pages of the BRITISH MEDICAL JOURNAL. I have now done the operation three hundred and one times, with no unforeseen result.

In conclusion, I must say, considering several thousands of iodine-injections have been done for goître, with loss of life in only two authenticated cases, and one of these (Moritz Schmidt's) a doubtful result of the injection, that iodine-injection seems to me to be a safe, rapid, and most successful mode of cure in adenomatous goîtres; and this I would maintain, even if the number of deaths owing to puncture of a vein or artery were raised to the number mentioned by Rose, Seitz, and others.

I may mention, though it is unconnected with goître, that I have recently treated a large fatty tumour by iodine-injection with most beneficial results, the tumour having almost entirely disappeared.—I am, Sir, yours obediently,

W. J. TIVY, F.R.C.P.E., F.R.C.S.E.

8, Lansdown Place, Clifton.

GREENWICH UNION INFIRMARY.

SIR,—In consequence of the decision of the Croydon County Court Judge, in the case of "Don Bavand *v.* Morrison," I have received a circular letter from the Coroner of West Kent, informing me that he will in future withhold the fees he has heretofore paid me or any other medical superintendent in his district, for making a *post mortem* examination, or for giving evidence at an inquest. I maintain that a workhouse infirmary is not a public institution in the meaning of the Act, William IV cap. 89, sec. v, August 17th, 1836. It is neither supported by endowments nor by voluntary subscriptions. No patient can be admitted to a workhouse infirmary without having first obtained an order from the relieving officer of the district, and countersigned by the medical officer. Again, workhouses were in existence when the Act was passed, and I maintain that an infirmary is part of a workhouse, being supported by the rates and taxes to which it belongs. An infirmary is not open to any but persons chargeable on the rates of the said parish to which they belong. I think the matter is worthy of being duly considered, as receiving no coroners' fees will materially affect the medical superintendents of England. Can anyone suggest means by which the fees hitherto paid can be still be claimed?—I am, Sir, yours obediently,

WALTER C. S. BURNEY,
Medical Superintendent of the Greenwich Union Workhouse
April 14th, 1885. and Infirmary.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

LECTURES AND PRACTICAL INSTRUCTION.—The lectures and courses of practical instruction in the subjects of the examinations for medical and surgical degrees at the University of Cambridge for the Easter Term commenced on Monday last. The Long Vacation courses will commence on July 6th.

UNIVERSITY OF OXFORD.

EXAMINATIONS FOR THE DEGREE OF B.M.—The following notice has been issued by the Regius Professor of Medicine. Candidates are informed that examinations for the degree of Bachelor of Medicine will commence in the Medical Department of the Museum as follows: The second (or final) examination, Monday, June 8th, at 10 A.M.; the first (or scientific) examination, Friday, June 19th, at 10 A.M. Candidates for either of these examinations are requested to send in their names, on or before May 23rd, to "the Regius Professor of Medicine Medical Department, Museum, Oxford." Candidates for the scientific examination are to state whether they have passed the preliminary honour examination in the school of natural science; and, if not, whether they desire to present themselves for physics and chemistry only at this examination, or for all the subjects thereof.

MILITARY AND NAVAL MEDICAL SERVICES.

THE APPOINTMENT OF SURGEON-GENERAL TO THE BENGAL ARMY.

DEPUTY SURGEON-GENERAL SIMPSON'S appointment as successor to Surgeon-General J. M. Cunningham, has given rise to some controversy in India. Objection has been taken not only to the choice of Dr. Simpson as Dr. Cunningham's successor, but also to the manner in which the appointment was made. It is said that the claims of Dr. Payne have been put aside in the face of the fact "that, in point of seniority, public service, ability, and professional distinction," Dr. Payne is the superior of the officer on whom the choice of the Government has fallen. This, no doubt, is a strong statement of opinion, which we quote from one of the most influential newspapers in India, that stoutly advocates the cause of Dr. Payne. This JOURNAL is not called upon either to accept or deny the estimate of Dr. Payne's superior claims; it is enough to say that his good work in India has always been recognised by us on every fitting occasion. At the same time, there is a part of the case which those who advocate Dr. Payne's cause think fit to keep in the background, but which must have been taken into account by those who advised the Viceroy on the matter of appointing a successor to Dr. Cunningham.

Dr. Payne, by universal consent, has always been one of the most fortunate men in his service. Throughout his whole career he has held posts of considerable importance, with handsome emolument pertaining thereto. So much was this the case that, when his turn for promotion to administrative rank came to him, Dr. Payne declined promotion, giving up military rank for the pecuniary advantages he enjoyed. Under the rules of the service, this election was final. It was not open to Dr. Payne to reconsider the question at a future time. By-and-by circumstances changed, it became to his advantage to obtain the rank he had declined; and, as it suited the purpose of his powerful friend, the Hon. Ashley Eden, then Lieutenant-Governor of Bengal, to have Dr. Payne in an administrative position, the rule of the service was set aside, and that officer was promoted to the rank he had previously declined. This, of course, gave him once more the seniority which placed him in a position to claim promotion to the highest position in the service.

That Dr. Payne would have made an admirable surgeon-general, and discharged the duties of the post with ability, we do not doubt; but, considering the very irregular manner in which he was promoted to the grade of Deputy Surgeon-General, after for his own advantage declining promotion, we think, although a point may have been stretched, and Lord Ripon in this, as in other matters, may have so acted as to leave his successor little choice, that Dr. Payne, all things considered, has no just cause of complaint.

We have drawn attention to this almost personal question, because it admirably illustrates the ill effects of jobbing, and breaking through the established customs and rules of a public service to meet the convenience of men in power, and to serve the private interests of individuals, however meritorious.

ARMY MEDICAL SERVICE.

SURGEON-MAJOR A. B. ROBINSON has been granted retired pay, and received the honorary rank of Brigade-Surgeon. He entered the service September 30th, 1864, became Surgeon March 1st, 1873, and Surgeon-Major September 30th, 1876. Mr. Robinson served with the 17th Lancers in the Zulu war in 1879, and was present in the engagements on the Zuinguin Mountain, and at Ulundi (medal with clasp).

Surgeon-Major J. H. USSHER, M.B., has retired on temporary half-pay. His commissions date—Assistant-Surgeon, March 31st, 1868; Surgeon, March 1st, 1873; and Surgeon-Major, March 31st, 1880. He was in the Ashantee war in 1873-74, and has the medal with clasp therefor.

Surgeon T. D. PALMER, 8th Brigade North Irish Division Royal

Artillery (late the Duke of Connaught's Own Sligo Artillery Militia) has been promoted to be Surgeon-Major.

Acting-Surgeon A. H. Robinson, M.D., of the 2nd East Riding of Yorkshire Artillery Volunteers, has resigned his appointment, on which he entered on November 23rd, 1881.

Acting-Surgeon A. V. Ford, 4th Volunteer Battalion Essex Regiment (otherwise the 4th Essex Volunteers), has been transferred, in the same capacity, to the 3rd Hampshire Volunteers.

Lieutenant R. T. C. Robertson, M.B., has been appointed Acting-Surgeon to the 2nd Lanarkshire Volunteers. Mr. Robertson has held a commission as Lieutenant in this corps since August 5th, 1882.

Brigade-Surgeon J. Jameson, M.D., has been directed to officiate as Deputy Surgeon-General H.M.'s Forces, Madras, in the place of Deputy Surgeon-General Chapple, promoted.

A despatch from Brigadier-General Brackenbury has been published, giving an account of the action at Kirbekan on February 10th, and in which he says: "Surgeon-Major C. H. Harvey, Medical Staff, accompanied the column throughout the day, and his dispositions for the care of the wounded were all that could be desired."

A despatch is also published from Sir Charles Wilson, giving an account of the operations of the force that marched northwards from Korti, from the time when Sir H. Stewart, severely wounded, left the command in the hands of Sir Charles Wilson. In this despatch is the following paragraph: "I beg to draw special attention to the admirable way in which the bearer-company, under Surgeon A. Harding, was worked during the advance of the square—not a wounded man was left behind; and also to the devotion to duty shown by the medical staff under Surgeon-Major F. Ferguson, M.D., who worked steadily through the night of the 19th-20th, though almost exhausted from want of sleep and their labours after the fight at Abu Klea."

Surgeon J. J. Pope, formerly Staff-Surgeon Royal Artillery, died on the 6th instant at South Crescent, Bedford Square, aged 49. He entered the service on April 1st, 1861, and retired on half-pay December 1st, 1873; but does not appear to have seen war-service.

A telegram received at the War Office, dated Suakin, April 17th, mentions the following as among the sick and wounded who had left for England on the preceding day. Surgeon-Major J. Fleming, dysentery; Surgeon U. J. Bourke, dysentery; Surgeon M. Digan, Royal Navy, gunshot wound of axilla; Surgeon F. Jeans, Royal Navy, remittent fever.

Surgeon-Major B. B. Connolly died at the right camp, near Dongola, on April 18th, from enteric fever. He entered the Army as Assistant-Surgeon September 30th, 1871; became Surgeon, March 1st, 1873; and Surgeon-Major, November 18th, 1882. Mr. Connolly was in the Franco-German War in 1870-71, and was at Sedan (German steel war-medal). In the Zulu War in 1879 he was Secretary and Statistical Officer to the P.M.O. Lines of Communication (medal). He also served in the Egyptian War in 1882 (promoted Surgeon-Major, medal, and Egyptian bronze star), and in the expedition to the Soudan in 1884, he was P.M.O. of the Cavalry Brigade (mentioned in despatches, and clasp).

Brigade-Surgeon W. G. Don, M.D., has been granted retired pay, with the honorary rank of Deputy Surgeon-General. Dr. Don's commissions date: Assistant-Surgeon, January 22nd, 1858; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1873; and Brigade-Surgeon, September 1st, 1883. He served in the Baltic during the Russian war in 1855, and was at the bombardment of Sweaborg (medal), and during the mutiny in India in 1858-59, where he had medical charge of a pursuing column in Malwa, and was in the action at Rajpore (medal).

Brigade-Surgeon S. S. Skipton, M.D., has also retired with a step of honorary rank. He dates as Assistant-Surgeon from June 9th, 1854; Surgeon, June 15th, 1866; Surgeon-Major, March 1st, 1873; and Brigade-Surgeon, June 28th, 1884. Dr. Skipton (*Hart's Army List* says) was attached to the 49th Regiment in the Crimea from July 23rd, 1855, including the siege and fall of Sebastopol (medal with clasp, and Turkish medal); was attached to the 14th Light Dragoons in the Central India Field Force under Sir Hugh Rose in 1858, and was present at the siege and capture of Rahatghur, relief of Saugur, capture of Gurrakotah, and pursuit across the Beas; at Malthone, battle of the Betwa, siege and capture of Jhansi, capture of the Fort of Loharree (mentioned in despatches), and various affairs during the advance on Calpee, action of Golowlee, capture of the Fort and Arsenal of Calpee, action of Morar, and recapture of Gwalior (medal with clasp).

Surgeons-Major J. E. Clark, W. G. Ross, M.D., John Anderson, C.I.E., G. F. Dooley, E. R. O'Brien, M.D., and J. N. Davis, M.D., have been granted retired pay, with the honorary rank of Brigade-Surgeon. Mr. Clark's commissions as Assistant-Surgeon and Surgeon-Major bear date February 1st, 1859, and April 1st, 1874; Dr. Ross's, October 1st, 1862, and April 28th, 1876; Mr. Anderson's and Mr. Dooley's, March 31st, 1864, and April 28th, 1876; Dr. O'Brien's, September 30th, 1864, and September 30th, 1876; and Dr. Davis's, April 14th, 1863, and March 18th, 1877. Mr. Clark was engaged in the Egyptian war in 1882, and has the medal and bronze star granted for the campaign; but neither of the other gentlemen mentioned is credited in the Army Lists with having seen war-service.

Surgeon T. W. Thompson has resigned his commission in the Middlesex Yeomanry Cavalry.

Dr. G. J. Eady has been appointed Acting Surgeon to the 1st Volunteer Battalion Queen's Royal West Surrey Regiment (late the 2nd Surrey Volunteers).

Surgeon-Major M. L. White, on duty in the Madras Presidency, has been granted leave to England for six months, on medical certificate.

Surgeon H. J. R. Moberly, who has been doing duty at the Station Hospital, at Madras, has been directed to do duty at the Station Hospital, at Bangalore.

Mr. F. G. Tooker, M.D., has been appointed Acting-Surgeon to the 19th Lancashire (Liverpool Press Guard) Volunteers.

Acting-Surgeon John Scott, M.B., has resigned his appointment in the 20th Lancashire (2nd Manchester) Volunteers.

Acting-Surgeon C. K. Morris, 2nd Volunteer Battalion Lincolnshire Regiment (otherwise the 2nd Lincoln Volunteers) has been promoted to be Surgeon.

INDIAN MEDICAL SERVICE.

Deputy Surgeon-General B. Simpson, M.D., Bengal Establishment, Inspector-General of Civil Hospitals, Bengal, has been appointed Surgeon-General and Sanitary Commissioner with the Government of India from March 29th, *vice* Surgeon-General J. M. Cuningham, M.D., who completes five years' tour of office on that date.

Deputy Surgeon-General A. J. Cowie, Bengal Establishment, has been appointed Inspector-General of Civil Hospitals, Bengal, *vice* Deputy Surgeon-General B. Simpson, with effect from the date on which he may assume charge of his duties.

Surgeon-Major G. S. Sutherland, M.D., Bengal Establishment, has been promoted to be Brigade-Surgeon, *vice* Brigade-Surgeon W. H. Kirton, who has retired. Dr. Sutherland entered the service on the 4th of August, 1857, and became Surgeon and Surgeon-Major twelve years therefrom. He served during the Indian mutiny campaign in 1858-59, and was at the capture of Lucknow, and in the operations in Oude (medal with clasp).

Surgeon-Major E. Bonavia, M.D., Bengal Establishment, is promoted to be Brigade-Surgeon, *vice* Brigade-Surgeon J. Jones, M.D., who has retired. His commissions are contemporaneous with those of Dr. Sutherland.

Deputy Surgeon-General W. J. Moore, C.I.E., Bombay Establishmene, is appointed Surgeon-General from April 1st, *vice* Surgeon-General T. B. Beatty, M.D., F.R.C.S., whose period of service expired on that date. Mr. Moore entered the service on the 20th of November, 1852. He served in the Persian war in 1856-57, and was at the landing in Hallilah Bay, and at the capture of Bushire (medal with clasp).

Surgeon-General T. B. Beatty, M.D., Bombay Establishment, Surgeon-General with the Government of Bombay, has retired from the service, which he joined on the 20th of March, 1851, on a pension of £1,050 per annum. The Army Lists do not assign him any war-service.

Surgeon C. B. Hunter, Bengal Establishment, Officiating Medical Officer to the 11th (Prince of Wales's Own) Bengal Lancers, has been appointed to the medical charge of the Bundelcund Political Agency, in addition to his own duties.

The services of Surgeon D. Elcum, Madras Establishment, have been placed at the disposal of the Public Department.

Surgeon J. C. Marsden, Madras Establishment, has been appointed to the medical charge of the 29th N.I. at Berhampore, *vice* Surgeon W. A. Quayle.

Surgeon A. S. Faulkner, Bombay Establishment, in medical charge of the 19th N.I. at Deesa, has returned to duty by permission of the Secretary of State for India.

The undermentioned officers have received leave of absence for the periods specified: Surgeon C. W. S. Deakin, M.B., Bengal Establishment, for 304 days; Surgeon C. Monks, Bombay Establishment, in medical charge of the 4th N.I., and Officiating Civil Surgeon at Aden,

for one year on private affairs; Surgeon-Major S. O. B. BANKS, Civil Surgeon of Surat, for one year and 174 days on private affairs.

Surgeon-Major R. C. ANDERSON, M.D., died at Ferrybank, Waterford, on February 2nd last. He became Assistant-Surgeon in the Army May 22nd, 1840; Surgeon, May 18th, 1849; Surgeon-Major, May 22nd, 1860; and retired with the honorary rank of Deputy Inspector-General, November 7th, 1865.

Brigade-Surgeon C. J. JACKSON, Bengal Establishment, has been appointed civil surgeon of Moorshedabad, *vice* Brigade-Surgeon S. M. Shircore, whose services have been replaced at the disposal of the Military Department.

Surgeon-Major J. F. P. MCCONNELL, M.B., Bengal Establishment, superintendent of vaccination in the Ranchee Circle, has been appointed civil surgeon of the 24th Pergunnahs, in the place of Brigade-Surgeon C. J. Jackson, but will continue to officiate as Professor of Materia Medica at the Calcutta Medical College.

Surgeon J. B. GIBBONS, Bengal Establishment, has been confirmed in the appointment of resident physician at the Calcutta Medical College Hospital.

Surgeon F. F. PERRY, Bengal Establishment, on return from special duty, has resumed his duties as civil surgeon at Jullunder.

Surgeon-Major J. O'M. MCDONNELL, Bengal Establishment, in medical charge of the 14th (Ferozepore) Native Infantry, has been appointed to the civil medical charge of Jhelum.

Surgeon-Major A. CAMERON, M.D., Bengal Establishment, on his return from deputation with the camp of the Lieutenant-Governor, is appointed to the civil medical charge of Nynee Tal.

Surgeon-Major A. MCCLORG, M.B., Madras Establishment, has been appointed to the medical charge of the station hospital at Port Blair, in addition to his present duties.

Surgeon R. Ross, Madras Establishment, has been appointed to the medical charge of the wing of the 9th Native Infantry at Moulmein.

Surgeon C. M. THOMPSON, Madras Establishment, whose services have been replaced at the disposal of the Military Department, is ordered to do general duty under the Deputy Surgeon-General of Her Majesty's Forces, Eastern District.

Surgeon D. N. PARAKH, Bombay Establishment, has been directed to act as Civil Surgeon at Surat.

Surgeon H. W. B. BOYD, Bombay Establishment, has been appointed Acting Assistant-Surgeon David Sassoon Hospital, and Assistant Civil Surgeon at Poona.

Surgeon-Major H. DE TATHAM, M.D., Bombay Establishment, is to act as Civil Surgeon of Dhoolia.

Surgeon-Major H. A. LEWIS, Bombay Establishment, has been transferred from the Presidency Circle to general duty Mhow Circle.

The undermentioned gentlemen have been granted leave of absence for the periods specified: Surgeon-Major W. R. HOOPER, Bengal Establishment, for 280 days, on medical certificate; Surgeon A. W. MACKENZIE, Bengal Establishment, in medical charge of the 5th Punjab Infantry, at Dera Ismail Khan, to Cashmere, from March 15th to September 15th; Surgeon-Major J. T. WELSH, Bombay Establishment, for six months, in extension on medical certificate.

THE NAVAL MEDICAL SERVICE.

THE undermentioned Surgeons have been gazetted to the rank of Staff-Surgeon in Her Majesty's Fleet from the 1st instant: R. D. WHITE, M.A., M.D.; JOHN WILSON, M.A., M.D.; H. J. MADDERS, M.D.; ALEX. FLOOD; MICHAEL FITZGERALD; S. F. HAMILTON; and C. M. MAGRANE. All of these entered the service on April 1st, 1873. Dr. Wilson received officially the highest approbation of the Admiralty for the creditable manner in which he performed his duties when Surgeon in Malta Hospital in 1881. He served on board the *Hecla* during the bombardment of Alexandria in July 1882, and the subsequent operations there; he was present in the Suez Canal during the occupation, and had medical charge of a battery at Ismailia (medal with clasp, and Egyptian bronze star). He is also University Gold Medallist. The other gentlemen mentioned are not credited in the *Royal Navy List*, to which we are indebted for the above particulars, with service under fire.

Staff-Surgeon W. H. STEWART, M.B., has been promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet.

Staff-Surgeon H. SCANLAN, M.B., has been placed on the retired list of his rank. Mr. Scanlan entered the service as Surgeon, March 30th, 1872, and became Staff-Surgeon twelve years thereafter, but does not appear to have seen war-service.

The following appointments have been made at the Admiralty during the past week: ALEXANDER FLOOD, Staff-Surgeon, to the *Forward*; S. F. HAMILTON, Staff-Surgeon, to the *Dolphin*; C. W. MAYNARD, Staff-Surgeon, to the *Penelope*: EDWARD MEADE, Fleet-Surgeon, to the *Iron Duke*; W. F. SPENCER, Staff-Surgeon, to the *Rapid*; H. J. MADDERS, Staff-Surgeon, to the *Duke of Wellington*; H. F. KIEWIEZ and C. L. NOLAN, Surgeons, to the *Iron Duke*; R. F. YEO, Surgeon, to Sheerness Dockyard; J. F. DONOVAN, M.D., Surgeon, to Malta Hospital; Mr. SAMUEL HAMILL, to be Surgeon and Agent at Burnham, Brancaster, and Thornham; JAMES ROBERTSON, Staff-Surgeon, to the *Conquest*; ROBERT NELSON, Fleet-Surgeon, to the *Thunderer*; MICHAEL FITZGERALD, Staff-Surgeon, to the *Orion*; E. G. SWAN, Surgeon, to the *Thunderer*; D. W. DONOVAN, Surgeon, to the *Alexandra*, additional.

NAVAL MEDICAL SERVICE.

SIR,—Some of your readers may, perhaps, be interested in the following statistics, taken from a recent (not the last) Navy List, showing the distribution of naval surgeons. The 13 newly entered surgeons, who spend a few months at Haslar Hospital, are excluded from the calculation. Out of nearly 200, 43 are serving at home in ships, and 16 in shore-appointments—hospitals, marine barracks, etc.: total at home, 59. Abroad, there are 36 in the Mediterranean station, 17 in China, 12 in the Channel Squadron, who are, of course, at home a good deal, and about 8 in each of the following: North America and West Indies, East Indies, South-East Coast of America, Australia, Cape of Good Hope, and West Coast of Africa. The Pacific has 2, and 6 are employed on "particular service," that is, troop or store-ships. There are 5 on half-pay. In foreign hospitals, 11 are employed. Hence, it appears that rather more than one quarter are at home. About one third of those employed afloat are serving in gun-vessels or gun-boats, small ships, extremely uncomfortable. The pay of a surgeon is quite sufficient to live on; there is not much margin left, however, for amusement; marriage, without considerable private means, is impossible. Medical officers are, on the whole, very much dissatisfied with the service, one of the chief causes of complaint being the niggardliness of the leave given, six weeks yearly being the nominal allowance, but this can rarely be obtained.

I should have stated before that the statistics refer only to "surgeons," namely, those under twelve years' service. After that time, promotion to "Staff-surgeon" takes place, and in eight years more to "Fleet-surgeon." Staff-surgeons have very little time indeed at home; fleet-surgeons a good deal.

—I am, sir, yours truly,

R. N.

MEDICO-LEGAL AND MEDICO-ETHICAL.

UNCERTIFIED SINGLE PATIENTS.

THE prosecution by the Lunacy Commissioners of a lady who had under her care an alleged lunatic at Hove, West Brighton, has ended in a judgment which appears to us to be very just. The particulars of the case have been already given in our columns, but it may be stated that a Mrs. Sparling, of Hove, was charged with receiving Charlotte Guise as a lunatic into her house (unlicensed) without certificates. The fact was admitted, and the defendant pleaded guilty. It appears that she had at one time been Miss Guise's governess, and the patient's parents naturally, therefore, requested Mrs. Sparling to receive her into her house, when she became mentally affected. In the first instance, the requisite legal documents were obtained. This was some time prior to 1880, at which time she left the defendant's and eventually returned home in better health. For some reason, it was decided to place her again under Mrs. Sparling's charge, although as is alleged in an improved condition mentally. Under these circumstances, it was not deemed necessary to obtain certificates. To what extent it was at that period a border-land case, we have no means of judging. Be this as it may, there can be no doubt that, when Dr. Gasquet visited the lady several months ago, she was of unsound mind, and that the law had been technically broken. Proceedings were instituted immediately after the inspection. We confess we think that the commissioners might have been a little less peremptory in their measures, and have contented themselves with obliging Mrs. Sparling to obtain the statutory order and certificates. The anxiety and worry entailed by the prosecution seems out of proportion to the offence committed in a case of this description, and unnecessary pain is caused to the friends of the patient by the publicity given to the fact of their having an insane person in the family. The law upon which such prosecutions are based may be a necessary one, but surely some discretion should be exercised by the Lunacy Board in enforcing it. It is evident that the judge felt that no intentional crime had been committed by the defendant. He thought that even to inflict a fine would be a little hard. Mrs. Sparling had, he said, been misled into a view which, under the circumstances, was not a very unnatural one, that, the patient having been sent away, and then sent back again, she did not come within the requirements of the law. It was very wrong, because the law was so strict; but everything justified "the greatest leniency;" so Mrs. Sparling was allowed to go, having been bound over in the sum of £50 to appear when called upon for judgment.

We must think that the authorities in Whitehall were unfortunate in their choice of a case by which to exemplify the requirements of the law, and the consequences which attend upon its infraction. A little of the leniency to which the judge referred might have been exercised by the Lunacy Board with advantage to all concerned.

PRACTITIONERS AND DISPENSARIES.

SIR,—I should like your opinion on the following facts.

In the first place, let me say there is only another practitioner, besides myself, residing in the district.

Seven years ago I bought this practice. During my predecessor's tenure here he established a dispensary for the working classes; payment at the rate of one shilling per month for families, children, on attaining the age of sixteen years, to be paid for extra.

My brother practitioner, I will not say opponent, because we have always been on friendly terms, and assisted each other in the absence of either of us, feels somewhat aggrieved because men, members of a club of which he is the medical officer, have joined this dispensary for the sake of the attendance on their families.

I have had no hand in this, and the people who have joined the dispensary have done so without the slighest solicitation on my part, and entirely voluntarily on their part.

My predecessor did send out circulars, drawing the people's attention to the dispensary, a thing which I consider very unprofessional, and which I should never think of doing. Now what I should like to know is, how does the scale of payment mentioned correspond with payments to dispensaries in other parts? Of course, midwifery and vaccination cases are extra. I also should like to be informed whether my brother practitioner has any reason to feel himself aggrieved because one of his club-patients enters his family into the dispensary mentioned?

You must bear in mind that I found the dispensary formed when I came here, and, so far as I myself am concerned, have let the thing rest on its own merits; and if the thing has succeeded it has been because I have endeavoured to do my duty to the poor people who have placed themselves under my care.

There is another thing to be borne in mind; and that is, that many of the men here are in clubs, for whom we get four shillings per head per year, and when we consider that to enter his family into the dispensary he would have to pay thirteen shillings a year more, I do not think that a working man can afford to pay much more.—I am, Sir, yours truly, J. HOWARD.

*** Under the circumstances narrated by our correspondent, we are clearly of opinion that his "brother practitioner has not any just reason to feel himself aggrieved" on the point to which he takes exception in the matter of the dispensary; more especially since the members of his clubs continue to pay their annual subscriptions to the "medical fund," and merely avail themselves of the dispensary for their families, otherwise medically unprovided for. Be that as it may, his remedy is simple and practicable:—namely, to provide a like institution in his own immediate district for the families of his club members; a suggestion and a sacrifice which we think our correspondent will do well to make, with the view to maintain the past friendly and mutually assistant relations with his unintentionally injured and aggrieved professional brother.

MEDICAL ETIQUETTE.

SIR,—A better-class family of the name of H., from India, settle here. We are on friendly terms, and they accept my hospitality. Later on I have some slight ground to believe that they have had sickness in their family, and that Dr. T. has attended them. At or about 9 A.M. on December 5th, 1884, Master John H. is brought to my house by one of his school-companions, suffering from a couple of severe wounds of the head. I stitch them and dress them and send him home. I call, and intimate that the further attendance will devolve on Dr. T. I am very hardly pressed to continue the attendance on the case. I, however, decline. Dr. T. is then sent for, and takes the care of the case, having had the circumstances explained to him.

On April 2nd, about 8.30 A.M., I receive a message to see a Mrs. McE., a decent old working woman. The case turned out to be one of some little urgency, but from some fault, either of my servant or the messenger, or both, very probably, no idea of urgency is conveyed to me. I go to see the patient two hours later, and see Dr. T. leaving the house. At the door I ascertain from the daughter-in-law that, tiring waiting for me, they had sent for Dr. T. I explain to Dr. T. that I was called to the case before him (Dr. T. had already been informed of this by the son) and that, from no fault of mine, I have only now obeyed the summons, and that by continuing to attend the patient, he would profit by my misfortune. Dr. T. did not resign the case to me, and meeting me the next day, stated that the attendance would not be of long duration, and that the people never meant to call me.

Considering the two cases, without relation to each other, did I exceed in my duty to Dr. T. in Master H.'s case? And did Dr. T. in any way fail in his duty to me in Mrs. McE.'s case?

Presuming that my action in Master H.'s case is a sample of my invariable mode of action towards my fellow practitioners, am I entitled to similar conduct from them? Yours truly, J. G.

*** In "considering the two cases without relation to each other," which have been submitted to us by Dr. J. G., we may venture to assure him that, although he did not "exceed his duty to Dr. T. in Master H.'s case," he rightly understood and ethically fulfilled it; and, in our opinion, it would only have been a graceful concession on the part of Dr. T. to have reciprocated the professional act in the case of Mrs. McE., who, we infer, was not an old patient of Dr. G.'s, otherwise Dr. T.'s conduct should have been governed by the following rule. "When a practitioner is called to an urgent case, in a family usually attended by another, he should (unless his further attendance in consultation be desired) when the emergency is provided for, or on the arrival of the attendant in ordinary, resign the case to the latter; but he is entitled to charge the family for his services."

PARTNERS' SHARES IN THE GOODWILL OF A BUSINESS.

SIR,—Would you kindly let me have your advice in the following case? A. B. and C. B., father and son, went into partnership as country doctors, in 1873; A. B.'s share being two-thirds, and C. B.'s share one-third. In 1880 C.B. paid A. B. twice one-sixth (that is two years' purchase), and so they became equal partners.

It was simply agreed that if either died, the other should buy of the executors the deceased partner's share in the goodwill, "the value to be ascertained by arbitration."

The father has died, and the point in question is, what amount or number of years' purchase is usual? On what basis should it be looked at? If the goodwill is to be valued as the goodwill of a deceased man, it is surely not worth six months' purchase. But if the agreement mean, "as if it were a going concern," the son should pay either the usual introduction-price (whatever it may be), or two years', on the strength of that having been the basis in 1880. I should feel greatly obliged if you would kindly let me have a few lines on this question in your next issue, and remain, yours faithfully,

MEMBER BRITISH MEDICAL ASSOCIATION.

*** In reference to the somewhat difficult question, we deem it well to remark, that in all business transactions, whether between near relatives or otherwise, such a matter as that now at issue should be clearly defined in the usual deed of partnership, and not left to chance arbitration. The surviving partner in our correspondent's case can scarcely fail to have a more or less clear idea of the basis on which the partners mutually wished "the value of the goodwill of the deceased partner's share to be ascertained" and determined. If a "Member," therefore, will communicate to us what he believes to have been the principle of the intended basis, when "it was simply agreed that if either died, the other should buy of the executors the deceased partner's share in the goodwill" of the practice, we will endeavour, by reading between the lines, to solve the point in question.

FEES.

M.B.CANTAB.—The fee in such a case as that referred to by "M.B." is generally more or less governed by the class of patient, local custom, and the status of the practitioner, and varies from one guinea upwards, for any distance not exceeding three miles. Under all the circumstances, we are inclined to think that a fee of five guineas, inclusive or exclusive of railway fare, as our correspondent may deem judicious, for each journey, would be sufficiently remunerative to him, and not too exacting from the patient. We may add that frequency of attendance, and facilities of travelling by rail, may, in exceptional cases (especially, in these exceptional times), and on the recommendation of the local medical attendant, be regarded as a valid reason for a moderate reduction of the consultant's customary fee.

MEDICAL FEES FOR ADJOURNED INQUESTS.

DR. THOMAS MARSDEN, of Bridgwater, writes to ask if medical witnesses are entitled to extra fees when inquests are adjourned, and they have to attend more than once before the coroner. He gives a case in question, and says he was summoned by the coroner to give evidence on an inquest held upon the body of a person who died suddenly. At the inquest, a *post mortem* examination was ordered, and, at the adjourned inquest, he again attended, and gave evidence thereon. We have very recently answered this question, and we have now only to repeat that the fee of two guineas alone is payable by law; one guinea for giving evidence, and one guinea for a *post mortem* examination. This sum is fixed as the full remuneration by the Medical Witness Act, 1837; and there appears to be no legal power on the part of the coroner to increase the fee, or, on the part of the witness, to recover extra payment, although extra services have been rendered.

MEDICAL ETIQUETTE.

"M.B.," on hearing of the course pursued by the practitioner in question, instead of "at once sending him a note pointing out his unprofessional conduct, and desiring an apology," thereby assuming his culpability and condemning him unheard, would, in our opinion, have acted wisely in apprising him of the reputed facts which had come to his knowledge, and courteously soliciting an explanation; failing in which, our correspondent would have been more or less justified in appealing to the judgment of the profession through the medium of the JOURNAL, or to some other "Court of Honour."

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, April 20th.

Poisons Bill.—Lord CARLINGFORD, in moving that this Bill be referred to a Select Committee, said that the measure was a very necessary attempt to improve the law relating to the registration of poisons. The subject was one of great perplexity and no little difficulty, and he hoped their lordships would agree to the motion.—The Earl of MILLTOWN, who had given notice that on the motion for going into Committee on the Bill he would move, "That the House resolve itself into Committee on the Bill this day six months," said he felt very strongly that a measure on this subject was necessary, right, and proper. At the same time, however, he was of opinion that the Bill now before their lordships was not a good one, and that it was extremely likely to harass and hamper legitimate trade. It had been brought forward without any reference to the interests of the trade or to the interests of the public, and on that ground he appealed to the noble lord some time ago to refer it to a Select Committee. The noble lord did not at the time see his way to respond to the appeal, but had now done so, and he had no doubt that the inquiry on the subject

would prove to be of great value. He should withdraw his notice on the paper. The motion was agreed to.—Petitions against the Poisons Bill were presented by the Earl of HARROWBY, from the chemists of Stafford and Liverpool; by the Earl of MILLTOWN, from the Pharmaceutical Society of Great Britain, from the Pharmaceutical Society of Ireland, and pharmaceutical chemists and registered chemists and druggists of Carlisle and Leicester; by the Earl of LATHOM, from chemists of Southport; by Lord YARBOROUGH, from the Lincoln Chemists' Association and chemists and druggists in Lincoln; and by Lord BRABOURNE, from pharmaceutical chemists and druggists of Woolwich.

Thursday, April 23rd.

Poisons Bill.—The Marquis of SALISBURY presented petitions against the Poisons Bill from chemists and druggists of Chesterfield, Huntingdon, Colchester, Coventry, Penzance, Pontefract, Newark-on-Trent, Oxford, and Gloucester.—Lord MONK BRETTON presented a similar petition from chemists of Scarborough.—Petitions to the same effect were presented by the Earl of MILLTOWN from the Executive Committee of the Chemists' and Druggists' Trade Association of Great Britain, consisting of more than 3,800 chemists and druggists, and from the pharmaceutical chemists and registered chemists and druggists of Nottingham.

HOUSE OF COMMONS.—Monday, April 20th.

Expenditure of the Eastern Hospitals.—Mr. G. RUSSELL, in reply to a question put by Baron H. de Worms, stated that the Government had been asked by the Metropolitan Asylums Board, and several boards of guardians, to institute an inquiry into the expenditure of the eastern hospitals, and the inquiry had been intrusted to three of the Board's inspectors, Mr. Hedley, Dr. Bridges, and Mr. George Taylor. These gentlemen had all had much experience in taking evidence. Since the arrangements for the inquiry were completed, the Government had been informed by one of the metropolitan boards of guardians that they had passed a resolution in favour of the appointment of a special inspector for the purpose, and that they had forwarded a copy of it to the several boards of guardians in the metropolis, and asked them to pass similar resolutions. The Government believed that three boards of guardians had expressed concurrence in their view. The Board, however, saw no reason whatever for making any alteration in the arrangements as to the inspectors by whom the inquiry was to be held.—In reply to a further question, on the same subject, from Lord A. PERCY, Mr. G. RUSSELL said it would devolve on the inspectors to summon such witnesses as they deemed necessary for the purpose of the inquiry, and the witnesses would be examined by the inspectors on oath.

Tuesday, April 21st.

Militia Surgeons.—Sir E. Wilmot gave notice of his intention on that day four weeks to bring forward his motion on the subject of militia surgeons.

The Health of the Troops in the Soudan.—The Marquis of HARTINGTON, in reply to Sir F. MILNER, said that from the circumstances under which the forces were now placed in the Soudan it was scarcely possible to state the exact percentage of sickness. On the whole, however, the health of the troops was reported good. The Government had not received any accounts showing that an extraordinary amount of suffering prevailed among the troops on the Nile. All the arrangements for the accommodation of the troops were made locally. Large supplies of clothing and other requisites had been sent out, but it would be impossible to state how far the means of transport at the disposal of the authorities in Egypt enabled them fully to reap the advantage of such arrangements.

The Detention of Pauper Lunatics.—Mr. J. TALBOT asked the President of the Local Government Board whether his attention had been called to recent decisions of magistrates as to the detention of pauper lunatics in workhouses pending their admission to lunatic asylums; and whether he intended to promote such legislation as would make it clear that such detention was legal, in order to prevent the scandal of lunatics being confined in prisons.—Mr. G. RUSSELL: The question is now under consideration, in connection with the Lunacy Bill which has been brought in by the Lord Chancellor.

Wednesday, April 22nd.

Public Health (Members and Officers) Bill.—Mr. ACLAND moved the second reading of this Bill, the object of which was to exempt certain officers of corporations from certain penalties to which they were now subject.—Mr. G. RUSSELL said the Bill had the entire concurrence of the Local Government Board.—After some further conversation, the Bill was read a second time.

OBITUARY.

JAMES WHITEHEAD, M.D.

ON Good Friday, Manchester lost, in Dr. James Whitehead, one of the most distinguished members of the medical profession. At the age of 74, he terminated a long professional career of honourable and exemplary usefulness. His life was sufficiently remarkable to warrant more than a passing notice.

He was born in Oldham in 1812. His father, though unqualified, had a wide fame as a herbalist, and he had a great ambition that his son should commence life in the medical profession, with greater advantages than had fallen to his own lot. He gave his son all the education his knowledge and opportunities could afford. Commencing life with advantages such as they were, he entered the Marsden Street School of Medicine, walking to and from Oldham to Manchester, a distance which involved a journey of ten miles each day. He afterwards became a pupil of Mr. Clough, of Lever Street, Manchester, and subsequently of Mr. Lambert, of Thirsk. In 1836, he visited Paris, and remained in that city two years, learning the French language, and visiting the various hospitals.

His knowledge of French, and his intimacy with Parisian medical literature and hospital-practice, was a little vanity he never attempted to conceal, and frequently formed, in conversation, a striking background, to reveal a simplicity of character rarely met with amongst men holding a similar position in the profession.

He commenced general practice at 123, Oxford Street, Manchester, in 1838, and he was appointed demonstrator of anatomy to the Marsden Street School in 1842. In the same year, he removed to 133, Oxford Street, and married Elizabeth, daughter of Thomas Hayward Radcliffe, of Bank House, Clitheroe. His wife died, at the age of 24, September 20th, 1844.

The loss of his wife was a terrible grief to him, and influenced his thoughts and tinged the conduct of his after life. The nature of his wife's death determined him to devote his attention to the diseases specially common to women and children; and, in order to further this object, he, in conjunction with Dr. A. Schoepf-Merei, a Hungarian refugee, took a house in Stevenson Square, and opened a hospital for out-patients, free to women and children. This hospital was assisted by ladies, and eventually developed into the present clinical hospital, which was opened in 1856, and contains fifty-six beds, and an attached convalescent home with twelve beds. To this hospital he gave much of his valuable time up to a late period of his life. It was always his habit to commence his hospital-duties at seven in the morning—a time when most of his cotemporaries would be comfortable in their beds.

He became a Fellow of the Royal College of Surgeons in 1845, M.D. St. Andrews in 1850, and M.R.C.P. London in 1859. He was a member of various learned societies, both British and foreign. He became lecturer on obstetrics at the Royal School of Medicine, and for many years he was on the staff of St. Mary's Hospital for the Diseases of Women and Children.

He wrote several works of no mean merit, but nothing he ever wrote could be accused of having been written with the object of promoting his personal interests. Amongst his published works are: *Diseases of the Uterine System*, *Hereditary Diseases*, *Reports of the Manchester Clinical Hospital*, and, under the pseudonym of Philothalos, *The Wife's Domain*. He contributed many excellent papers to various medical journals, amongst which may be selected those on "Division of Muscles in Spinal Disorders," and "A Case of Cæsarean Operation."

One of the most distinguishing features of his career was his success in cases of sterility, and upon this subject he had commenced a series of letters to the writer of this obituary. In these, he explained his views, and described his practice in such cases. His intention was, unfortunately, never completed, being suddenly interrupted by the gradual loss of his sight. In 1853, he removed to 87, Mosley Street, and, since that time, he conducted an extensive and lucrative practice as a consulting physician, and made a name that will long remain beloved and honoured as one in the front rank of those whose aim in life has been to ameliorate the sufferings of women and children. "He was called to do good work in his generation, and he answered nobly to the call." He retired from practice in 1881, and left Manchester to live at an estate he had purchased in Sutton, in Surrey. During the last three years of his life, cataract developed in his right eye, and then in the left, and for two years the eye first attacked was quite useless to him. In 1883, iridectomy was performed to relieve the glaucomatous condition of the left eye, and he was looking anxiously

forward to both cataracts being removed to within a few weeks before he died. Four months ago, he mentioned to the writer a difficulty he found in swallowing, and, somewhat ominously, the conversation on that particular occasion, unsuspiciously led to his reminiscences of the last sufferings of his old friend, Marshall Hall, who died from cancer of the œsophagus.

A remarkable feature was commented upon, which is, perhaps, not generally known in connection with the last illness of Marshall Hall; that, up to a late stage of his illness, when he could no longer take any other solids, he could always swallow mutton. Little did he suspect at the time that he was himself suffering from the same disease. During the last few weeks of his life he was attended by his neighbour, Mr. Bosworth, of Sutton, who writes that he was first asked to see Dr. Whitehead on March 18th, when he found him complaining of a troublesome cough, and inability to take any solid food; he had been living on soups and milk for two months. He stated that, for some time, when he attempted to take solid food, it appeared to rest on a ledge, and that he had to drink something to wash it down.

On March 26th, he had a severe rigor, with elevated temperature, rapid pulse, and his countenance appeared very blue. He vomited some dark blood, and passed pitch-coloured stools. He rallied for a few days, and was seen by Dr. Wilks, who could only confirm the opinion that death was close at hand. After death an examination was made, and the stomach was found full of blood. The œsophageal and pyloric openings were quite healthy; but, in the middle of the œsophagus, there was an ulcerated mass, evidently of a malignant nature.

On April 9th, he was buried in the Ardwick Cemetery, in accordance with a long expressed wish, in the vault which contained the remains of his wife, whose memory he had for many years cherished with unabated affection. The hearse was driven by his old coachman, Francis Jones, who for twenty-seven years had regularly driven him on his professional rounds. At his funeral, numerous old friends, a mixed crowd of old patients, all evidently attracted by the deepest feelings of gratitude and respect, and most of the leading members of the profession in Manchester, assembled to pay their last sad homage of regret to the remains of one who could justly claim to be universally beloved and esteemed.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HOSPITAL-MANAGEMENT UNDER THE METROPOLITAN ASYLUMS BOARD.

An inquiry by the Local Government Board has been opened, respecting the management of the Eastern Hospital for Fever and Small-pox at Homerton. The Commissioners were Mr. Hedley, the chief of the Metropolitan Poor-law Inspectors; Dr. Bridges, the Medical Inspector; and Mr. Taylor, Barrister-at-Law, the Inspector of Audits. This inquiry was with regard to alleged maladministration in the way of unnecessary expenditure. Dr. Collie, the Medical Superintendent, has been suspended from his office pending the results of the inquiry; at the same time, the steward has resigned, and the Clerk of the Committee, who had also resigned, has disappeared.

The opening part of the inquiry was directed to elucidate the facts as to the carrying out of the orders framed by the Local Government Board laid down for the management of the asylums, the character and mode of expenditure, and the circumstances under which extraordinary quantities of wine had been consumed in the asylum when a very large number of patients were children. The managers of the Asylums Board laid before the Commissioners detailed statements as to the expenditure of the asylum during the year ending Michaelmas last, when the average number of patients was 234. The cost of the patients for the year was £13,523, a little more than 3s. 1d. each; while the cost of the officers was £18,432, or more than 4s. 2d. each. Warming, cleansing and lighting, repairs to buildings, and other incidentals, brought the outlay for the year on the asylum and patients to £59,940, a rate rather above 13s. 9d. per head of the patients, against 8s. 1d., the cost in the South-Western Asylum, where, moreover, the number of patients had been less.

Mr. Jebb, the clerk of the Asylums Board, stated that the late chairman of the Eastern Asylums Committee, Mr. T. Hodges, had, up to a certain period, brought him the notices issued to contractors, informing them that their cheques were drawn, and Mr. Hodges, bringing the contractors' receipts, had received their cheques. Mr. H. Reeves, the accountant clerk of the Board, stated that the diet-sheets of the Eastern Asylum had never been kept on the form prescribed by the articles of the Local Government Board, and hence it had become almost impossible to check the diets, which, in case of an infectious asylum, could not be put down as the regular three meals a day laid out in the diet-tables. He had called the auditor's attention to the fact that, in one place, small bottles of Beaune had been ordered, and large bottles had been charged.

Dr. Alexander Collie, who had been thirteen years medical superintendent of the Homerton Fever Asylum, and for the last twelve months the superintendent of both the Fever and Small-pox Asylums, stated, that he did not regard himself as being responsible for the lay as well as the medical charge of the Asylum. He allowed that the dietaries as given in the sheets would not be found to agree with the bed-cards, and he acknowledged that he had not had these sheets prepared as an authority to the steward for the stores to be issued; but that the superintending nurse had prepared the sheets from slips furnished at night by the nurses copied from the bed-cards. He had not signed these sheets before the issue of the stores; but he had signed them afterwards. The daily date on the sheets was no guide to the date on which he had signed the sheets, and said that this irregularity was owing to the pressure of the duties upon him when fever and small-pox were very high. The diet-sheets, prescribed by the Local Government Board's order, were, he said, ill-adapted to the service of an infectious asylum. Having his attention drawn to allowances of Beaune to wards in which there were only twenty-five to twenty-seven patients, the majority of whom were young children, he said that he should not have signed the sheets, giving from seven to fourteen large bottles of Beaune to these wards, if he had seen the entries. He did check some of the items, such as champagne, of which a small quantity was issued, and his initials were pointed out to him as appearing on the sheets, in addition to his signature at the bottom; but he could not account for not having seen the extraordinary quantities of Beaune ordered in his name for wards in which the occupants were principally children, the entries, too, appearing day after day, and he could only say that he was very much overpressed by the duties. He suggested that the figures had been changed after his signature had been placed on the sheets; but the commissioners pointed out there were no erasures or alterations of figures apparent.

With regard to the extraordinary charges for clothing supplied to patients in the year (£4,157), he said that he had ordered this in the safety of the public, as the patients came to the hospital in rags; but he had not kept a record since 1881 of the clothing destroyed. The only officers who were allowed wine were the medical officers, the steward, and the matron. He could not give the order by which this allowance was made, but so he understood it, and he believed his allowance was one bottle of port or two bottles of Beaune a week. He ordered the sick officers wine on bed-cards as if for ordinary patients. He had caused the discharge of nurses for drinking the patients' wine. The total wine and beer bill for the patients in the last quarter of the financial year was £598, while the same for the officers was £750 over the same period.

The superintending night-nurse, Eleanor Howard, who, in July last, made out the diet-sheets, gave testimony, the effect of which was that the sheets were tampered with after they left her hands. Where she had written "1" bottle of Beaune a "2" had been added, making the figures "12." Where she had written "2" a "1" had been added, and thus, instead of one, two, or three small bottles of Beaune being ordered for a ward, from seven to fourteen bottles had been ordered, but these quantities had never come into the wards. Indeed, the witness said she never saw any but the small, or reputed "pints," in the wards, and only one, two, or three of these. This evidence was corroborated by Elizabeth Honey, a nurse, who said that, during the whole time she had been in the asylum (eleven years), she had not seen in any one ward so much wine as was stated to be supplied to the wards in July. The wine came in the reputed "pints," and not in the larger bottles.

At Thursday's proceedings of the Commissioners, Mr. Bashford, the late steward of the asylums, was examined as to the mode of taking the contracts; and he admitted that only the lowest prices in the tenders were read out to the committee, at the suggestion of the chairman of the committee; but the witness ordered the goods at the highest prices, which were not read out to the committee. The witness had been present at the opening of the tenders, but knew at the time that he should order at the higher prices not read to the committee. The witness's examination further was postponed.

Dr. Duncan Burgess, who is acting medical superintendent of the

Eastern Asylums, was called, and stated that he went there in May, 1883, as an assistant medical officer. He denied that so many bottles of wine, as were set down in the diet-sheets, as having been ordered for the fever-ward in July of last year, had been ordered. He at first said that he thought a patient, since the end of last year, might have done better if he had been at liberty to order champagne; but he could not say that he had been debarred from ordering anything, though the giving of stimulants in wines had been modified. He acknowledged that he had twice told the nurse, Honey, to take two bottles of wine, ordered for the patients, out of the wards for his and another medical officer's consumption. He had satisfied himself that the patients did not suffer for the want of the wine so taken. Wine was sent to the medical officers' mess, about a pint bottle of Beaune a day for each. At first, in January, 1884, the wine was harsh, and he did not have it; but they had had it since last August. On some occasions they had champagne for luncheon, but only on six or seven times. He believed that the wine thus supplied came from the hospital stores. He had dined at the Royal Aquarium with Dr. Collie and Dr. Gayton, at the invitation of the late steward, Mr. Bashford, who presided at a large party, at which there were contractors and persons who supplied the asylum with goods; and Mr. Hodges, the late chairman of the committee, was the "honoured guest" on the occasion. He further explained, when he consumed the wine taken from the wards, he could have had wine from the stores, for he had not drawn his allowance.

The inquiry was adjourned.

MEDICAL RELIEF IN THE BRIDGNORTH UNION.

THE case of Mr. Alfred Bethell, one of the medical officers of the Bridgnorth Union, exemplifies the manner in which some Boards of gurrdians treat the gentlemen who hold office under them; and, as the application made by him recently to his board exhibits the facts of the case with sufficient clearness, we give his letter verbatim.

East Castle Street, Bridgnorth,
April 4th, 1885.

GENTLEMEN,—I beg to call your attention to the case of Thomas Bristowe. On March 21st, at 1 A.M., he called me up, saying his wife was very ill, in her confinement. I went. This case could not have been managed without medical assistance. Finding him to be destitute, I acted on the legal directions given to medical officers, and told him to apply to the relieving officer. This he did, who referred him to the Board, which happened to be sitting on that day. Your Board refused an order, after your relieving officer stating that if the man had applied to him, before he came to me, he would have given him an order. May I ask you why you refused the order? and may I ask, for the future, if you will hold yourselves responsible for any death, which may happen to mother or child, whilst I am waiting for an order to attend?—Yours truly, A. BETHELL.

The Board of Guardians, Bridgnorth Union.

Before reading the letter, the chairman informed the board that its contents were such "that he was sure that they would agree with him that when they had heard it read, they would certainly order the dismissal of the writer, or call on him to resign at once." With this the board did not concur; but they directed that the letter should not be acknowledged. We further learn that the members of the board resident in the locality where Bristowe lives, endorse the statement as regards the man's destitution, and confirm the view of their relieving officer as to the need that existed for assistance. We are also informed that it is not an unusual circumstance for the board to refuse payment for service to their poor sick, where, from a creditable sense of humanity, attendance has been given by their medical officers, in urgent cases, without an order.

We much fear that Mr. Bethell has no legal remedy against the board, unless he can clearly make out that the man had had medical relief before, under similar circumstances; and, even then, a body of guardians, who could act so shamelessly, would not hesitate to defend their conduct if proceeded against, and, as the law stands, probably with success.

We do not hold that it would be of the least use to send the statement to the Local Government Board. All that would be done by that department would be to send Mr. Bethell's letter to the guardians, who would direct their clerk to frame some plausible reply, a copy of which would be sent to Mr. Bethell, with the intimation that they (the department) could not afford him any assistance.

Harsh as it may appear, it could, under such circumstances, hardly afford matter for surprise if medical officers were to refuse to attend any case, however urgent it might be, until an order for attendance had been duly given. A coroner's inquest, where the jury censured a board of guardians for their penuriousness and inhumanity, might possibly bring a sense of shame.

FEES FOR ATTENDANCE WHEN SUMMONED BY POLICE.

J. W., SURGEON, writes:—I was called up at 1 A.M., during December last, by a constable (no police-surgeon being to be found) to attend an old woman who had been knocked down and had her shoulder dislocated. I reduced the dislocation, and afterwards attended the patient for about ten days. On forwarding my account of £2 2s., I am informed by the chief constable that the magistrates are not responsible; I think they are.

*** Our correspondent has a claim on the constabulary for the night-visit but nothing more. His after-attendance was optional, and therefore he could not establish any right to charge for the same. In our judgment, he could sustain a claim for 10s. 6d. and no more. In the metropolis, 7s. 6d. only is paid by the police for the visit of the divisional surgeon. The same sum is also paid to any other surgeon who is willing to honour a police-case, but the certificate of such case, and attendance, should be requested at the time. Under the circumstances, we feel satisfied that anything beyond the sum we have mentioned could not be obtained.

MEDICAL RELIEF AND THE FRANCHISE.

SIR,—The Dungannon Board of Guardians have unanimously adopted a resolution disapproving of the clause in the Registration of Voters (Ireland) Bill, which was introduced by the Chief Secretary to the Lord-Lieutenant, which would entitle persons to the rights of the franchise who had been in receipt of medical relief, as the guardians considered that such a clause would materially affect the rates, and that the Bill, if passed with that clause, would cause no end of medical relief, at an enormous expense to the union. But if the medical charities were made a disqualification, a great many would pay for medical attendance who otherwise would get it at the expense of the ratepayers.

It is well to find the guardians drawing attention to this matter, as in some unions in Ireland the rates are but a few pence under ten shillings in the pound, and the issue of tickets to persons earning from 30s. a week and upwards, and even, in some cases, £2 a day, is a constant occurrence, and if an attempt is made by the medical officer to get a ticket for such persons cancelled, it is a matter of such delay, difficulty, and persecution to himself, that it is hardly ever successfully resorted to. It is unnecessary to add, that besides the injustice to the ratepayer and the medical profession, it is a practice greatly demoralising to the recipient of such relief.—I am, yours,

M.D. AND LARGE RATEPAYER.

THE VACCINATION ACTS.

SIR,—There has been always considerable difficulty in enforcing the laws of compulsory vaccination in respect of a certain number of ignorant and obstinate people, who will pay penalty after penalty until the magistrate yields, or the recalcitrant becomes a martyr.

It seems to me, that if it were understood that unvaccinated persons would forfeit certain civil rights (a list of which should be published), and that parents would be held responsible if their unvaccinated children died of small-pox, and would be liable to prosecution for damages in case of communication, from such, of disease to others, there would be fewer instances of resistance to th law.

At present, all candidates for admission to the public services must hold certificates of successful vaccination. Why should not the same be a *sine quâ non* for entry to all schools, colleges, and every place of education in the kingdom?

In this way, much of the onus of prosecution would fall on the Board Schools, which would thus be obliged to refuse admission to unvaccinated children, and at the same time be forced to compel attendance.

Medical practitioners themselves could do much in indirect compulsion, by not admitting any but vaccinated members to their sick clubs. Benefit societies could also be guided by the same rule. Finally, vaccination should be a qualification for admission to the franchise.—I am, sir, etc.,

A MEMBER, B. M. A.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Board of Examiners on the 16th instant, and, when eligible, will be admitted to the pass-examination.

Messrs. G. O. Richards, and R. B. Booth, students of Charing Cross Hospital; A. G. Hendley, A. Bentham, and W. G. S. Brown, of St. Bartholomew's Hospital; J. Penny, of King's College; J. A. Exton, and S. J. Cole, of the London Hospital; C. S. Davis, A. E. Poolman, W. E. Tresidder, W. G. Brett, and J. E. Moyse, of Guy's Hospital; A. J. Moss, of the Manchester School; L. W. Powell, of University College; C. S. Vines, E. L. Cropp, and G. S. Harris, of the Westminster Hospital; C. F. Rilot, and W. H. Charles, of the Middlesex Hospital; J. H. Fardon, of the Bristol School; F. W. Parker, A. H. Ward, and E. Le C. Lancaster, of St. George's Hospital; J. C. Barr, of St. Mary's Hospital; and R. F. Walker, of St. Thomas's Hospital.

The following passed in Anatomy only.

C. Pearse, of St. Bartholomew's Hospital; and E. S. Bell, of St. Thomas's Hospital.

The following passed in Physiology only.

J. L. Johnston, and C. H. Smale, of the Manchester School; J. D. O'Sullivan, of the Dublin School; H. B. Seddon, of St. Thomas's Hospital; J. R. Gallard, of the London Hospital; A. Norman, of Guy's Hospital; F. Gilpin, of Middlesex Hospital; and H. H. Coates, of St. Bartholomew's Hospital.

The following gentlemen passed on the 17th instant.

W. H. Cooper, W. W. Ord, C. J. James, J. H. Lotz, F. Fowler, and H. H. Heffernan, of St. Thomas's Hospital; H. W. Lewis, C. T. B. Maisey, W. W. Williams, L. Brown, G. L. Kemp, and A. Carter, of Guy's Hospital; C. C.

Sen, and C. Duer, of University College; T. H. Clarke, and J. Maberley, of Middlesex Hospital; N. E. Smyth, of the Birmingham School; J. Norton, of the Westminster Hospital; C. W. Ensor, and W. G. Sargent, of the London Hospital; W. B. Lane, and T. Lakeman, of St. Bartholomew's Hospital; and S. E. Pedley, of Charing Cross Hospital.

The following gentlemen passed in Anatomy only.

J. M. Brenner, of King's College; W. H. F. Godwin, of the Westminster Hospital; S. H. Hughes, and F. Heasman, of St. Bartholomew's Hospital; N. Tyacke, of Middlesex Hospital; G. H. Trenfield, of the Bristol School; H. Cockerton, of St. George's Hospital; and G. R. Anderson, of St. Thomas's Hospital.

The following gentlemen passed in Physiology only.

F. O. Drury, and F. Tyrrell, of Middlesex Hospital; T. W. Sargent, of the London Hospital; P. A. Linnell, of the Manchester School; and C. E. Seal, of University College.

The following gentlemen passed on the 18th instant.

T. J. Dabell, W. G. Williams, T. E. Spencer, and R. Martyn, of St. Bartholomew's Hospital; J. Forster, W. Powell, W. A. F. Twemlow, and A. H. W. Hunt, of the Westminster Hospital; J. P. Parkinson, E. B. Hastings, R. F. Gill, and J. E. Gould, of University College; C. H. Eccles, of St. Thomas's Hospital; W. Heatley, E. Baly, and A. B. Davies, of the London Hospital; H. C. Barr, of St. Mary's Hospital; W. J. Radford, and J. G. V. Sapp, of Charing Cross Hospital; G. C. B. Atkinson, and W. G. Nash, of Middlesex Hospital; F. W. Pearce, of Guy's Hospital.

The following gentlemen passed in Anatomy only.

A. Lucas, and C. R. B. Alexander, of St. Bartholomew's Hospital; E. Webster, of St. Thomas's Hospital; and F. J. Oxley, of the London Hospital.

The following gentlemen passed on the 20th instant.

L. F. F. Bryett, and H. R. Henley, of King's College; E. R. Snape, of Charing Cross Hospital; E. O. Ashe, and F. G. Twigg, of the London Hospital; G. Seymour, and E. E. Lewis, of Middlesex Hospital; R. A. Sawyer, of Guy's Hospital; C. J. Weekes, of University College; and C. W. Cooke, of St. Thomas's Hospital.

The following gentlemen passed in Anatomy only.

G. J. Cressy, and R. T. Wallace, of Guy's Hospital.

The following gentlemen passed in Physiology only.

J. C. Bell, W. G. Thorpe, of Guy's Hospital.

UNIVERSITY OF ABERDEEN.—At the late medical graduation-term, the following candidates, after the usual examinations, received Degrees in Medicine and Surgery.

Degree of M.D.—C. W. H. Brown, M.B., C.M., Godalming, Surrey; A. Campbell, M.B., C.M., Dundee; R. J. Collie, M.B., C.M., Aberdeen; W. Cooper, M.B., C.M., Belhelvie; H. W. T. Crow, M.B., C.M., London; F. C. Gayton, M.B., C.M., Surrey County Asylum, Woking; A. Hosie, M.B., C.M., Inverness District Asylum; A. MacLean, M.B., C.M., Deputy Surgeon-General, Thurso, Caithness; W. H. Stewart, M.B., C.M., H.M.S. *Clyde*, Aberdeen; W. Stuart, M.B., C.M., Stratton, Cornwall.

Degrees of M.B. and C.M.—A. W. Alcock, Bombay; J. Anderson, M.A., Marnoch; D. M. Brown, Banchory-Ternan; C. A. Butchart, Aberdeen; A. G. Connan, Aberdeen; A. H. Cowan, Aberdeen; J. S. Davidson, Mauritius; E. G. W. Deane, Barbadoes; J. Duncan, M.A., Aberdeen; H. W. Godfrey, Hornchurch, Essex; J. W. McK. Gunn, M.A., Reay, Thurso; A. E. Henderson, Sheffield; J. C. D. Irvine, Udny; F. G. Jones, Denbigh; J. M. Lamb, M.A., Aberdeen; J. Marsden, Banff; A. Milne, Huntly; J. B. Milne, Huntly; W. V. Morgan, Narberth; T. G. Paterson, New Galloway; P. W. Rattray, M.A., Aberdeen; G. Scott, Aberdeen; D. Simpson, M.A., Alvah, Banff; W. B. Simpson, Bedale; A. G. Smith, Marlborough; P. A. Sullivan, Carlisle.

Of the above-named candidates, J. M. Lamb, M.A., A. Milne, P. W. Rattray, M.A., and A. G. Smith received their Degrees in Medicine and Surgery with Highest Academical Honours; A. W. Alcock, J. S. Davidson, H. W. Godfrey, F. G. Jones, J. B. Milne, and T. G. Paterson received their Degrees in Medicine and Surgery with Honourable Distinction.

The John Murray Medal and Scholarship was awarded to P. W. Rattray, M.A. At the same time, C. M. Aird, L. Durno, J. Murray, C. Robertson, and J. H. Stenhouse were certified as having passed all the examinations, but did not graduate.

The following candidates have passed the first division of the first professional examination.

W. H. Barnby, F. W. Counter, A. D. Ellis, H. J. D. Mackay, J. M. Mackay, W. G. M. Macleod, D. MacRitchie, G. C. Milligan, R. H. Reid, F. L. Taylor.

The following candidates have completed the first professional examination.

W. Alexander, C. Angus, J. U. Black, J. Bryce, J. S. Butter, J. Crevie, J. J. Y. Dalgarno, D. M. Davidson, C. E. Duff, A. C. Ferguson, A. D. Forbes, A. N. Grieve, D'A. Harvey, G. Henry, A. C. Hutchinson, J. E. Jones, G. W. E. Kerr, E. T. Martin, W. S. McGowan, J. F. Mirza, J. Packer, J. Pearson, R. Rannie, C. Reid, G. Rose, J. Shand, E. M. de Souza, T. H. Thomson, G. Watt, J. Webster, A. Zimpel.

The following candidates have passed the second professional examination.

J. R. Anderson, T. C. Bennett, J. F. Binnie, A. T. Brown, A. F. C. Clark, F. L. Collie, E. G. Coward, W. C. Crowe, A. W. Dalgarno, T. F. Dewar, J. C. G. Duffus, G. Findlay, H. F. Forbes, J. Galloway, W. H. Gray, W. Greig, H. J. Hargrave, A. G. R. Ingram, J. E. Jefferis, P. J. Lumsden, D. G. G. Macdonald, G. B. D. Macdonald, A. Mackay, F. MacRae, W. Milligan, A. Milne, J. S. Milne, J. C. Myles, P. J. Nicoll, G. M. Reid, J. Russell, W. Scatterty, A. Simpson, J. W. Smith, J. Souter, E. M. de Souza, R. B. T. Stephenson, A. J. Stuart, J. D. Thomson, J. T. Thorne, J. M. Trail, C. T. D. Urquhart, W. D. Urquhart, C. F. White, A. Whyte, G. Williamson, R. G. Wills.

The next professional examination for Degrees in Medicine commences on Saturday, July 18th.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the quarterly First Professional Examination for the Licence in Medicine of the College, held on Monday, April 6th, and following days, the undermentioned candidates were successful.

E. A. Huntley, J. W. Power, H. Solomon.

At the usual monthly examinations for the Licences of the College, held on Monday, April 6th, and following days, the undermentioned candidates were successful.

For the Licences to practise Medicine and Midwifery.—R. Blackwell, Lymm; W. Dillon, Pallasgrean, co. Limerick; R. H. J. Fetherston, Melbourne, N.S.W.; D. C. M. Lunt, Manchester; J. McFadden, Letterkenny, co. Donegal; J. D. McFeely, Londonderry; P. A. Piel, Dublin; J. Robinson, Dublin; H. J. Thornbury, Lucan, co. Dublin; E. Woods, London.

For the Licence to practise Medicine only.—T. J. Dillon, Edenderry; A. A. Doyle, Naas; J. Heffernan, Cahir; S. Horneck, Wexford; J. Lowney, Castletown Roche; E. J. R. MacMahon, Ballynacally, co. Clare; S. Palmer, London; H. Shackleton, Bradford; H. B. Strong, London; R. H. Treloar, M.D., South Australia.

At a quarterly examination held on Thursday and Friday, April 9th and 10th, the certificate in Sanitary Science was granted to

J. Ellis, M.D. Brussels, L.K.Q.C.P.

APOTHECARIES' HALL.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 9th, 1885.

Cockerill, John William, St. Bartholomew's Hospital.

The following gentlemen passed on April 16th.

Carless, Albert, King's College.
Crowdy, Francis Demainbray, St. Thomas's Hospital.
Rattray, Alexander, Edinburgh University.
Warner, Frederick Ashton, St. George's Hospital.

MEDICAL VACANCIES.

The following vacancies are announced.

BELMULLET UNION.—Medical Officer. Knocknalower Dispensary. Salary £110 per annum and fees. Applications to Dominick O'Donnell, Honorary Secretary, Kilcommon Lodge. Election on April 27th.

BRADFORD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.—Assistant Medical Officer and Dispenser. Salary, £120 per annum. Applications by April 30th.

CAMBRIDGE FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Medical Officer. Salary, £210 per annum. Applications to W. P. Littlechild, Vine Cottage, Queen's Lane, Cambridge, by April 25th.

CELBRIDGE UNION.—Medical Officer, Workhouse. Salary, £100 per annum, and £15 yearly as Consulting Sanitary Officer. Applications to S. Manning, Clerk of Union. Election on April 29th.

CITY OF LONDON LUNATIC ASYLUM, Stone, near Dartford, Kent.—Assistant Medical Officer. Salary, £120 per annum. Applications by April 30th.

COOMBE LYING-IN HOSPITAL, Dublin.—Assistant-Physician. Applications to Dr. S. R. Mason, 92, Harcourt Street, Dublin.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon. Applications by May 11th.

HACKNEY WORKHOUSE.—Assistant Medical Superintendent. Salary, £120 per annum, with residence and rations.

HARTLEPOOLS FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary, £130 per annum. Applications to T. Tweddell, Commercial Terrace, West Hartlepool.

HULL ROYAL INFIRMARY.—Assistant House-Surgeon. Applications by May 5th.

LIVERPOOL DISPENSARIES.—Two Assistant House-Surgeons. Salary, £108 per annum. Applications by April 27th.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £70 per annum. Applications to the Chairman of the House-Committee by April 25th.

MANCHESTER ROYAL INFIRMARY.—Medical Registrar. Salary, £50 per annum. Applications by May 2nd.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—House-Surgeon. Salary, £50 per annum. Applications by May 5th.

OMAGH WORKHOUSE.—Medical Officer to Workhouse.—Salary, £100 per annum. Applications to Clerk of the Union. Election on May 2nd.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—Physician. Applications by April 30th.

PAROCHIAL BOARD OF PENNYGOWN AND TOROSAY.—Medical Officer. Salary, £100 per annum. Applications to Alex. Macdougall, Inspector of Poor, Auchnacraig by Oban.

QUEEN'S HOSPITAL, Birmingham.—Resident Surgeon. Salary, £50 per annum. Applications by April 25th.

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, Wigan.—Junior House-Surgeon. Salary, £80 per annum. Applications by April 27th.

ROYAL BERKS HOSPITAL, Reading.—Senior Physician. Applications by May 23rd.

MEDICAL APPOINTMENTS.

BENHAM, Henry James, M.D.Lond., M.R.C.S., appointed Physician to the East Suffolk and Ipswich Hospital.

BRAMWELL, Hugh Ransom, M.B. and C.M.Edin., appointed Resident Physician to the Royal Infirmary, Edinburgh.

CLARK, William Thomas Marston, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health to the Twickenham Urban Sanitary District; Surgeon to the Boys' Home, Twickenham; Surgeon to the Twickenham Provident Dispensary, and Surgeon to the Twickenham Lying-in Charity.

HAWKINS, Francis Henry, M.B.etc.Edin., appointed Assistant-Physician and Registrar to the Hospital for Epilepsy and Paralysis.

HOLLIS, Elphinstone, M.D.Edin., appointed physician to the East Suffolk and Ipswich Hospital.

HUZZEY, Reginald Lee, M.R.C.S., L.S.A., appointed Medical Officer to the British Consulate at Zanzibar.

LANE, John William, M.D., L.R.C.S.I., etc., appointed Medical Officer to the Clun Union Workhouse, Bishop's Castle, *vice* H. M. Lemon, M.D., etc., resigned.

VERRALL, T. Jenner, M.R.C.S., appointed Assistant-Surgeon to the Sussex County Hospital.

WHITTAKER, J. H., L.R.C.S.I., appointed Surgeon to the Royal Hibernian Military School, Phœnix Park, Dublin.

WILLIAMS, W. M., M.B., appointed Medical Officer and Public Vaccinator to the Pentrefoelas District of Llanrwst Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTHS.

DARTNELL.—On March 29th, at 5, St. Margaret's Banks, Rochester, the wife of W. A. Dartnell, K.R.C.P., L.R.C.S.Edin., of a daughter.

MONKS.—On April 6th, at Regent House, Wigan, the wife of E. H. Monks, Jun., L.R.C.P. and S.Edin., of a daughter.

MARRIAGES.

BURCHELL—WEBBER.—On April 9th, at the Parish Church, Aldeburgh-on-Sea, Suffolk, Peter Lodwick Burchell, M.B.Lond., F.R.C.S.Eng., to Emily Anne Frances, widow of T. H. Evans, Esq., second daughter of the late William Webber, F.R.C.S.Eng., and granddaughter of the late Sir Thomas Preston, Bart., of Beeston Hall, Norfolk.

FAULKNER—BASS.—On April 21st, at the Parish Church, Sandbach, by the Rev. J. R. Armitstead, M.A., vicar, John T. Faulkner, M.D.Lond., of Stretford, son of John Faulkner, Beech House, Urmston, to Alethea Prudence (Letty), younger daughter of M. P. Bass, Offley House, Sandbach, late of Urmston. No cards.

HUNT—BAWTREE.—April 16th, at St. Mary-at-the-Walls, Colchester, by the Rev. Canon Luard, Vicar of Stanstead, Essex, uncle of the bride, assisted by the Rev. J. W. Irvine, Rector, and Rural Dean, and the Rev. J. G. Bullock, Rector of St. Nicholas and St. Runwald, Edgar Atlee Hunt, M.R.C.S., L.R.C.P., L.S.A., of Colchester, eldest son of Josiah Hunt, Esq., of Queen Anne's Gate, Westminster, and Putney, S.W., to Charlotte Mary, third daughter of John Bawtree, Esq., of Colchester.

DEATH.

JONES.—On April 20th, at her residence, River House, Enfield, Helen, the wife of Philip W. Jones, L.R.C.P.Lond.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Althaus: A Case of Syphilis of the Brain. Dr. West: On Hæmaturia in Granular Kidney. Dr. Herbert Snow: On the Free Use of Caustic Potash in the Treatment of Cancer of the Cervix Uteri.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Doran: Notes on so-called Non-Ovarian Dermoid Tumours. Dr. Hale White: On the Pathological Histology of the Semilunar and Superior Cervical Sympathetic Ganglia. Dr. Hale White will exhibit a series of Microscopic Specimens in illustration of his paper at 8 P.M.

FRIDAY.—West London Medico-Chirurgical Society, 8 P.M. Mr. Percy Dunn will show a Heart with *Ante Mortem* Clots in Right Ventricle which have suppurated; Abscess in the Brain of a Child aged 8; Primary Scirrhus of Liver. Mr. Burrows will show some experiments with Pancreatine. Mr. E. Hurry Fenwick: Latent Calculus. Mr. Bruce Clark: A Case of Cancer of the Prostate. Mr. C. B. Keetley: Antiseptic Surgery at the West London Hospital.

MEDICAL MAGISTRATES.—Mr. Edward Jackson, of Wheelton, Chorley, Lancashire, has been placed on the commission of the peace for the county.—Dr. Henry G. Thompson has been appointed a magistrate for the borough of Croydon.

ST. JOHN AMBULANCE ASSOCIATION.—The Duke of Buccleuch has become President of the newly formed Dumfries centre.

ULSTER HOSPITAL FOR CHILDREN AND WOMEN, BELFAST.—The gold medal, presented by Professor Dill of the Queen's College, Belfast, for distinguished answering on the diseases of children and women, and on practical midwifery, has been gained by Mr. John Lockhart Livingston.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M. —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2 o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W.; 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

Distilled Water for Drinking.

Sir,—With reference to the discussion on cholera at the Royal Medical and Chirurgical Society, I now ask your permission to support the opinion already expressed in the Journal of January 3rd last, by Dr. D. de Villeneuve, on the value of distilled water for drinking purposes, especially in cholera-epidemics.

My attention was drawn to this question during an epidemic of diarrhœa in this neighbourhood in July last; and, feeling convinced of the value of distilled water, I was led to design a suitable apparatus to provide a supply of it in private houses in all cases where pollution of water-supply was believed to be an important factor.

I hope this aspect of the question may receive consideration; for, I would ask, if impurities in our drinking-water be capable now and again, under known circumstances, of promoting the spread of so dire a disease, does it not follow that the highest degree of purity of that article is one thing required to be provided for the sufferers from the disease?

Should my little design, or an improved modification of it, as shown in the Journal of February 14th last, prove useful, I shall be gratified. Mr. Kirk, 27, Bond Street, Leeds, is the maker. The Inland Revenue Commissioners have unfortunately imposed a tax of ten shillings *per annum* on each water-still. This, I am pleading with the Government, should be either remitted, or reduced to a nominal charge of one shilling *per annum*.—I am, sir, yours truly,

Pontefract. George P. Atkinson, M.R.C.S., etc.

The Contagion of Dengue Fever.

Sir,—In a recent issue (March 14th, p. 551), under the heading "Dengue Fever in New Caledonia," you remark that, although there had been upwards of nine hundred cases, yet, "curiously enough," there had not been one death. May I venture to say that the "curiosity" would have been much greater had there been a death? For, although this disease is one of the most infectious, and, as I can testify from unpleasant personal experience, one of the most painful that there is, yet death is a very rare occurrence. In an epidemic at Bermuda in 1882, in which about five hundred cases came under my observation, not one death was recorded. In that epidemic, which attacked both whites and blacks impartially, inflammation of the cellular tissue, affecting chiefly the face, neck, and scrotum, was especially prevalent as a sequela, none but the lightest cases escaping. I am not aware that this is noted in the text-books as a characteristic of the disease; in fact, the descriptions in the books then available to me, differed greatly from the disease as I then found it, and I believe that was the experience of other medical officers at the time.

While on the subject, and *apropos* of a note in the Journal, March 28th, recording a case of small-pox in which the infection was conveyed by letter, the following may be interesting.

During the epidemic of dengue above mentioned, an officer who was confined to his quarters, convalescing from the disease, wrote a letter home to his father in England. About three days after the receipt of the letter, that gentleman complained of being ill, and eventually, from his description, had a rather severe attack of what, had he been in Bermuda, would have been called dengue fever. As it was, his medical attendant was puzzled to give a name to it. The disease did not spread to the other members of the family, and the patient made a good recovery.—I am, sir, your obedient servant, Henry J. Barnes,

Fort Pitt, Chatham. Surgeon Medical Staff.

Etiology and Treatment of Cholera.

Sir,—Nothing can be more unfortunate than the divergence of opinion with regard to the etiology of Asiatic cholera, and I am convinced that prolonged discussion alone can put an end to this state of things. Ever since the admirable essay of Dr. James Simpson on this subject, and since the work of Mr. N. Radcliffe appeared, I have remained convinced that cholera is one of the germ-caused diseases, like scarlet fever, measles, and whooping-cough, and that, like typhoid fever, its mode of transmission is almost always through the infection of the water-supply. This was the opinion almost unanimously adopted by the International Congress held in Brussels some years ago, and in which I took part; for then, with the exception of Dr. John Chapman, now of Paris, every speaker declared himself a believer in the contagiousness of cholera. And yet, at this moment, it is quite puzzling to me to understand how men of great experience, like the Army Indian Staff, should so frequently maintain that Asiatic cholera is merely an ordinary disease, like diarrhœa of summer origin. But this was what I found to be the case in the Liverpool meeting of the British Medical Association, when I had the fortune, or misfortune, to be nearly the only speaker on the side of the contagiousness of that disease.

Mr. Macnamara, in common with other observers, has mentioned a case where nineteen persons swallowed water contaminated with cholera-dejections, and of these five were seized with the disease in thirty-six hours. This fact completely explains the outbreak of cholera in Broad Street, which was clearly traced to the contaminated water of the pump in that locality, and the epidemic in London in the East End in 1854, caused by the infection of the water in that district.

The real importance of this question lies in the way in which the sick should be treated, so that the disease shall not spread. I hold that the patient with cholera should be at once sequestrated, and that all his dejections should at once be thoroughly disinfected. In this way the disease, I am convinced, could not spread.—I am, sir, yours obediently, Charles R. Drysdale.

London.

The University of London and the Medical Schools.

Sir,—Nothing could be more opportune than the letter of "M.D. Lond," in the British Medical Journal for March 28th. I trust he is only giving expression to the views of many more of equal standing, if so, there is a prospect that the present controversy and labours will end in great good to the profession and his Alma Mater. What he says would have come with a bad grace from any other than a London M.D., notwithstanding its truthfulness and evident knowledge of the real state and effect on those passing through its curricula. They could not tolerate to be told so by any but one of themselves. Since it is so, let them realise the facts, and adapt the institution to the needs of the profession; there is no occasion to lower its standard. I deny that the examinations are so much higher and difficult than others that they need be puffed up. The long intervals and inconvenient regulations add expense out of proportion, deterring many from completing what they began in earnest, and fail to accomplish, through its being long drawn out.—I am, sir,

Excelsior.

The Management of the Third Stage of Labour.

Sir,—There appears to be as much misconception about the proper management of the third stage of labour, the expulsion of the placenta, as of any other part of the conduct of mechanism of parturition. Ask one accoucheur what he does to get rid of the placenta, and he replies, "Oh, I leave it to Nature." Then why not leave the first and second stages to Nature also? Ask another, and he says, "I wait about half an hour, and if it then be loose in the vagina I remove it, but never interfere with it before the expiration of twenty minutes or half an hour." One will remove it by "expression," another by feeling for the insertion of the cord, and making gentle traction.

There seems to be a theory pretty generally entertained that the placenta should not be evacuated before the lapse of half an hour, more or less, after the birth of the child; and this theory—which, to my mind, is wrong—leads to error in practice. I can discover no reason whatever for supposing that the placenta should not come away immediately after the birth of the child.

Suppose we consider the cavity of the uterus at the full period of gestation to be twelve inches long. The placenta, which is about eight inches in diameter, is attached to the uterine surface without tension of uterus or placenta. But the contraction of the uterus as the child is born almost closes its cavity, so that, instead of measuring twelve inches, it does not measure more than four or five; and, of necessity, it follows that the placenta must be separated, and I find facts to agree with theory on this point. During the last two or three years, it has been my practice to "examine" immediately after the child is born, and often before the cord is divided, in order to discover the condition of the placenta, and, in the great majority of cases, it has been lying partly in and partly out of the uterus. In the greater number of the remaining cases, it has been lying quite loose by the time the child has been separated. I do not tie the cord until the child has breathed freely; because, although the placenta may be separated, there is often blood in it which should enter the infantile blood-vessels, and which, no doubt, is drawn into them by the inspiratory efforts of the child.

It is a good practice to place the left hand over the uterus, and compress slightly just after the child is born; this aids in expelling the placenta. It is not always possible to measure the time from the birth of the child to the birth of the placenta; but I have often done this, and the average interval between the two events has been about three minutes. I have been called to aid others in removing the placenta, where the difficulty resulted solely from allowing it to remain for the orthodox twenty minutes; and several times I have found the uterus firmly contracted, with an os barely admitting two fingers, through which I could feel the placenta, and rotate it in the uterine interior, a placenta which would have been removed with the greatest ease two or three minutes after the conclusion of the second stage of labour. Such cases cause great pain to the woman, often keep up profuse hæmorrhage, and, lastly, cause a great waste of time. Of course, cases occur now and then where the placenta is intimately adherent to the uterine walls, and requires picking off; but these are clearly abnormal, and I have only attempted to treat of normal cases in the above remarks, which, I hope, may be of use to some young accoucheur.—I am, etc., H. Drinkwater, M.B.

Syphilis and Marriage.

Sir,—Amidst much controversy on the treatment of acquired syphilis by mercury and iodide of potassium, separately or together, I should be grateful if some member would give me his advice on the following.

A young man, aged 25, of fair social position, consulted me with the following history. In March, 1882, he contracted syphilis. The primary sore appeared six weeks later, followed by roseola of the scalp and copper-coloured spots, chiefly on the arms. He consulted a medical man, who prescribed three grains of hydrargyrum cum cretâ, twice a day, and five grains of iodide of potassium three times daily, telling him to continue the latter for a length of time. He adds that he gave up both after a month, as he was quite well again. Since then he has lived most temperately, and has enjoyed very good health. The only symptoms now present are slightly indurated inguinal and cervical glands. My patient chiefly seeks advice as to his intended marriage—"Is it safe," he asks, "or will it be more so in a year or so?" I should also be glad of any hints as to appropriate treatment, as I am inclined to long continued small doses of mercury without the iodide of potassium.—I enclose my card, and remain, yours, etc., Junior Member.

*** It would not be safe for the patient to marry at present. In a year's time there would be much less risk, provided a course of treatment with mercury were undergone in the interval.

Hereditary Transmission and Transmutation of Disease.

Sir,—I shall be greatly obliged if any members of the Association will furnish me, from their own experience, any of the following, namely, 1, a family tree showing the transmission of phthisis, gout, and rheumatism, through (if possible) three generations, and two or more collateral branches of the family; 2, any instances of the transmutation by heredity of nervous diseases, for example, epilepsy, hysteria, or alcoholism, into insanity, or *vice versâ*; 3, any good instances of the hereditary transmission of skin-diseases.—I am, sir, faithfully yours, James A. Lindsay, M.A., M.D.

37, Victoria Place, Belfast.

Fleming's India-rubber Bags.

Sir,—In your report of the meeting of the Medical Society of London, on March 30th, in the discussion on the treatment of angular curvature, I referred to Dr. W. T. Fleming's India-rubber bags; by mistake, your reporter gives the name as "Fletcher."—Yours faithfully, Bernard Roth.

Hospitals for Morphinism.—An institution for the treatment of persons addicted to the chronic abuse of morphia was established in Berlin by Dr. E. Levinstein, who, as is well known, devoted much attention to the subject. Dr. Levinstein, however, died three years ago, and we are not aware of the existence of any other institution of the kind.

Uric Acid and Nitrite of Amyl.

Sir,—In the Journal of April 11th, it is stated that "Messrs. Guiseppe and Sansone, of Turin, have discovered that the inhalation of a few drops of nitrite of amyl causes a larger quantity of uric acid to be passed." Now I should like to hear whether this fact will in any way influence the treatment of gout. It seems to me that any substance capable of largely increasing the excretion of uric acid from a system in which it is acting as a poison, must of necessity take a high place as a remedy for gout.—I am, etc.,

Birmingham. William Donovan, L.R.C.P.Ed.

Reform at the College of Surgeons.

Mr. Nelson Hardy has forwarded us the subjoined, with a request for publication.

1, Southville Park Villas, Dulwich, S.E.
April 21st, 1885.

Sirs,—In reply to your invitation to attend a meeting of the Association of Members of the Royal College of Surgeons of England, on May 5th, I am afraid that, as I do not approve of the separation of Fellows and Members into hostile camps (for which I am bound to say your Association is not wholly responsible), my presence at your meeting would hardly help you, unless, indeed you are prepared to take some steps for co-operating with the Association of Fellows, in which case I would gladly assist.

It appears to me, as I believe it does to others, that the series of resolutions passed at the meeting held in the College, in March, 1884, affords a basis on which Fellows and Members ought to be able to work for the common good. Those resolutions asked, *inter alia*, for the following important reforms; namely, 1, that the Fellows and Members should be invested with a larger share in the management of the College; 2, that no important alteration should be made in the constitution or relations of the College, without the consent of the Fellows and Members; 3, that there should be an annual meeting of the Fellows and Members, at which the annual report of the Council should be presented, received, and adopted.

Had the Fellows and Members, since the meeting, unitedly adhered to this moderate programme, there can, I think, be no doubt that the Council would have been, ere this, forced to yield; but dividing into two associations, each bent upon obtaining as much for its own order as possible, the interests of the profession fell an easy prey to those who believe in the ancient maxim, *divide et impera*, and the Council of the College has been able, for a whole year, to act as if it had never accepted any of these proposals, not even the third, in a modified form, or as if its acceptance of that proposal was one of those "inoperative" resolutions which Mr. Marshall told us the Council was in the habit of passing. As there may possibly be some in both your Association and the Fellows' who will agree with me in thinking that our true policy in view of the determined hostility of the Council and permanent officials of the College to all real reform, should be to seek union rather than to divide our forces, I shall send a copy of this letter to the medical papers.—I am, dear sirs, faithfully yours,

H. Nelson Hardy.

The Honorary Secretaries, Association of Members of the Royal College of Surgeons.

Trusses.

Afflicted writes: "Some weeks ago I found myself the unfortunate possessor of a right inguinal hernia, for which I have since worn an ordinary circular truss; but my discomfort has been so great, that I shall be glad to ask my medical brethren, through the medium of the Journal:—1. What kind of instrument shall I find most serviceable? 2. From what maker can I obtain it?"

*** A correspondent writes: "I have found Salmon and Ody's very good, but there are others that might be suitable to some cases. In some difficult cases the surgeon's, as well as the maker's skill is required to devise modifications. Cheap trusses often do much harm. I lately had a very troublesome case, the result of a hard pad and bad spring.

Fermentation.

Mr. J. S. Muir.—See Duclaux's *Handbook on Fermentation*, one of the series published by the Health Exhibition. In Mr. Watson Cheyne's *Antiseptic Surgery*, the matter is also discussed in detail, and many references are given. Dr. Paul Bert's work is entitled *La Pression Barométrique*; in it will be found the most complete series of observations yet published on the subject of barometric pressure in relation to fermentations.

Olive Green Stools.

Sir,—For the last six weeks a patient has passed stools of a light olive-green colour. When the bowels have not acted for a day or two, the colour is much darker, almost black. Treatment has had no effect. As far as I can ascertain, writers on diseases of the liver do not allude to this condition, its causes or consequences. One only attributes it to acidity of the small intestines.

Any of your correspondents who can suggest the cause and treatment of this condition, will much oblige.—Yours truly,

M. B.

Permanganate of Potash in Amenorrhœa.

Sir,—Prescribers of the above named drug will find unguentum resinæ a convenient and suitable excipient when ordered in pill-form, whilst kaolin is difficult to manipulate, and of a stony hardness when made up and dried.—Yours faithfully,

A. H. Bampton, M.D.

Plymouth.

Surgeons' Consulting-Room Couch.

X. Y. Z.—In reply to our correspondent's question, "What sort of couch is best for use in a surgeon's consulting room?" a correspondent (E. N. S.) writes: The particular kind would depend upon the use for which it was required. There are gynæcological couches, which, however, are by no means universally liked by specialists; and, upon the whole, a simple upholsterer's couch, without sides, and a slight sloping head-rest, is the best for general purposes. In my own room I use an equilibrium chair-couch, which is beautifully balanced. The patient sits upon it as in an ordinary arm-chair, and then, either by his own very slight exertion, or by my hand, the chair is extended into a couch, and I have had stops added, so that it can be fixed in any position. I have also had one of the arms made to turn back, to allow me to get more thoroughly at a patient. My reason for having this chair is partly because it takes up less room than an ordinary couch, and partly for the benefit of paralysed people or helpless cripples, who can more easily be placed in a recumbent position on it. It is made by Batchelor, of Croydon.

Earliest Physical Signs of Phthisis.

Sir,—If some of your readers would state, from observation, what may be considered the earliest physical signs of phthisis, giving one as the more probable, I shall feel myself obliged.—I am, sir,

L.R.C.P.Ed.

Removal of Surplus Hair by Electrolysis.

Sir,—May I ask, through your columns, for a means of removing surplus hair by electrolysis? Where can I see such a plan in practice? I have a lady patient with a growth of hair on the face; and she wishes it to be eradicated, so that it will not grow again.—Yours truly,

T. R. Allinson, L.R.C.P.Ed.

C. T. Brookhouse, M.D.—Arsenite of bromine, or liquor arsenici bromatus, may be had of Martindale, New Cavendish Street, W.; Harvey and Reynolds, Leeds, and many manufacturing pharmacists.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. O. T. Williams, Holyhead; Dr. Ward Cousins, Southsea; Dr. Clark, Dundee; Mr. C. O. Elkerton, London; Mr. J. Furley, London; Mr. W. A. Ellis, London; Mr. Alfred Harvey, Birmingham; Our Edinburgh Correspondent; Our Dublin Correspondent; The Secretary of the Royal Medical and Chirurgical Society, London; Professor McKendrick, Glasgow; Mr. T. M. Stone, London; Mr. J. Tweedy, London; Mr. H. de Styrap, Middlesboro'-on-Tees; Our Berlin Correspondent; Dr. H. C. Pope, London; Mr. E. Hurry Fenwick, London; Mr. W. H. Pearce, London; Our Cairo Correspondent; Our Manchester Correspondent; Dr. H. Tuke, London; Messrs. Ingram and Royle, London; Dr. Myers, London; Mr. J. W. Battenham, Wolverhampton; Dr. J. T. Faulkner, Stretford; Dr. Huggard, London; The Rev. T. L. F. Slack, Omagh; The Pure Water Company, London; Mr. G. G. Parsons, Frome; Dr. C. W. Suckling, Birmingham; Mr. H. Nelson Hardy, London; Dr. E. G. Wake, London; Messrs. P. Blakiston and Co., Philadelphia; Mr. Henry Greenway, Plymouth; Mr. Newton H. Nixon, London; Mr. Thomas Percival, Knottingley; Mr. R. Benham, London; Mr. T. Whitehead Reid, Canterbury; Dr. D'Arcy Adams, London; Mr. F. A. Eaton, London; M.B.; Mr. W. T. Robertson, Port Said; Our Aberdeen Correspondent; Dr. Curnow, London; Dr. Morgan, Manchester; Dr. E. E. Meeres, Plymouth; Messrs. Street and Co., London; Mr. Joseph Lewis, Birmingham; Dr. Edwardes, London; Dr. A. H. Bampton, Plymouth; Mr. Martindale, London; Dr. H. Tizard, Weymouth; Dr. W. Ewart, London; Mr. A. F. Blagg, Clifton; Dr. H. J. Benham, Ipswich; Mr. A. Duke, Dublin; Dr. Styrap, Shrewsbury; Dr. J. O. Affleck, Edinburgh; Mr. Heather Bigg, London; Dr. Brailey, London; Messrs. Mappin and Co., Birmingham; Mr. Ernest Sansom, London; Mr. R. Freeman, London; Dr. Mackey, Brighton; Dr. J. Aikman, Guernsey; Mr. R. F. Benham, London; Dr. Maurice G. Evans, Cardiff; Our Paris Correspondent; The Secretary of the Medical Faculty, Aberdeen; Dr. Davies, Sherborne; Dr. MacAlister, Cambridge; Dr. R. J. Dunglison, Philadelphia; Dr. Spencer Smyth, Forest Hill; Dr. W. D. Miller, Berlin; Mr. J. B. Richardson, Torquay; Dr. Thorowgood, London; Dr. V. Poulain, London; Dr. Bristowe, London; Dr. S. H. Wright, Southport; Dr. Alder Smith, London; Mr. George Eastes, London; Mr. Walter Rivington, London; Mr. Oliver Pemberton, Birmingham; Mr. H. R. Bramwell, Edinburgh; Mr. L. Humphry, Cambridge; Mr. F. Pethridge, London; Mr. W. Marston Clark, Twickenham; The Secretaries of the Harveian Society; Miss B. Flackton, London; Dr. Spender, Bath; Mr. E. M. Reeve, King's Lynn; Dr Whitla, Belfast; Our Birmingham Correspondent; Mr. J. E. Lane, London; Dr. Thin, London; A M.B., C.M.; Mr. Louis Kettons, London; Mr. Simeon Snell, Sheffield; Dr. Joseph Rogers, London; Mr. J. Lionel Stretton, Kidderminster; Mr. Mark H. Judge, London; Mr. James A. Aldis, Walsall; Dr. H. Rayner, London; Dr. Macdonald, Liverpool; Mr. Alfred Brown, Sale, Manchester; Dr. Walker, London, etc.

BOOKS, etc., RECEIVED.

A Treatise on Gout and Rheumatism. By P. Hood, M.D. London: J. and A. Churchill. 1885.

Micro-Chemistry of Poisons, including their Physiological, Pathological, and Legal Relations, with an Appendix on the Detection and Microscopic Discrimination of Blood. By T. G. Wormley, M.D., Ph.D., LL.D. Philadelphia: J. B. Lippincott and Co. 1885.

Voice; Use and Stimulants. By Lennox Browne, F.R.C.S. London: Sampson Low and Co. 1885.

The Child's Voice. By Emil Behnke and Lennox Browne, F.R.C.S. London: Sampson Low and Co.

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REPORTS
TO THE
SCIENTIFIC GRANTS COMMITTEE
OF THE
BRITISH MEDICAL ASSOCIATION.

REPORT ON
THE CHOLERA-BACILLUS.

By W. WATSON CHEYNE, M.B., F.R.C.S.,
Assistant-Surgeon to King's College Hospital, etc.; Research Scholar of the British Medical Association.

(Continued from page 823.)

I SHALL now proceed to describe the morphological characters and the appearance of the cultivations of the cholera-bacilli. And first I may state that I took care to ascertain, on my return from Paris, that I was working with Dr. Koch's organism. For I sent to Dr. Koch several tubes containing cultivations of the organisms which I had obtained, with the request that he would examine them, and let me know whether they were cultivations of his organism, and whether they were pure cultivations. Dr. Koch kindly examined them very carefully, and answered both my questions in the affirmative. I was thus able to go on with my observations, with confidence that I was dealing with the proper organism.

The cholera-bacillus varies very much in form, according to the conditions under which it is growing; but the general type is that of a short rod somewhat curved. I cannot describe it better than has been done by Dr. Koch, who says that it is at most about two-thirds the length of the tubercle-bacillus, and curved, the curve being commonly about that of a comma (see Fig. 3). The degree of curvature, and the length and thickness of the organism, vary, however, very much, as I have just said, with the conditions under which it is grown. The forms which it assumes, when it grows rapidly, may be readily studied in the following manner. A number of slides, with small depressions or cells hollowed out in their centre, are placed in beakers plugged with cotton-wool, and sterilised in an iron box raised for three hours to the temperature of 300° Fahr. When they are cool, a little vaseline is brushed round the margin of the cell, and the slides are laid on a sterilised glass plate, and protected from dust by a glass shade. A similar number of cover-glasses are cleaned and sterilised by passing them several times through the flame of a Bunsen burner, and placed on a pure glass plate under another shade. By means of a purified syringe, to the end of which is attached a narrow bent glass tube, a minute quantity (about one-third of a minim) of a pure infusion of meat, neutralised, and containing 3 per cent. of peptone, is placed on the centre of each of these cover-glasses. Each drop is then inoculated from a pure cultivation of cholera-bacilli. (The purity of the cultivation is easily ascertained by making glass-plate cultivations in nutrient jelly at the same time, as formerly described; and this, of course, ought always to be done.) The cover-glasses are now seized in purified forceps, inverted, and placed over the cell on the slides, the edge of the cover-glass being pressed down so as to diffuse the vaseline all round. Care must be taken not to use too much vaseline, otherwise it may run over the glass, and become mixed with the cultivating fluid. With a little practice, one can easily manage to have the infected drop hanging from the middle of the cover-glass without any admixture with the vaseline. These slides are now placed in an incubator, kept at the temperature of the human body. After the lapse, say of an hour, one is removed, the cover-glass lifted off, inverted, placed on the top of the incubator under a glass shade, and dried rapidly. When dry, it is passed through the gas-flame three times, to fix the layer to the glass, and to render the albuminoid materials insoluble in water, and it is then stained in a suitable solution (fuchsin, methyl-violet, etc.). After staining, it is washed in water, or, after the methyl-violet, in weak acetic acid, dried thoroughly, and mounted in Canada-balsam By removing slides at intervals of half an hour to an hour, and preparing the cover-glasses in the manner described, a beautiful series of permanent preparations, illustrating the mode of growth, may be obtained and studied at leisure.[3] To get a regular series, showing the successive stages of growth, the same amount of fluid and the same number of bacilli must be placed on each cover-glass. This is readily managed by inoculating, in the first instance, the flask of meat-infusion with the bacilli, and then placing it in an incubator for two or three hours. The bacilli grow and diffuse themselves through the liquid. Before use, this liquid is well shaken, and by means of a finely graduated syringe,[4] the same quantity of fluid, and hence probably the same number of bacilli, is placed on each cover-glass.

In the early specimens taken, say in from one to three or four hours, the appearances obtained are shown in Fig. 2. The bacilli



Fig. 2.—Cholera-bacilli which have been growing for four hours in meat-infusion, kept at the temperature of the human body.

are, as a rule, much smaller than in cultivations in gelatine, and their curve often very slight, or it may be not at all evident. As a rule, however, even those which appear straight will show, when examined with a high magnifying power, a thickening in the middle, which projects more to one side than to the other; that is to say, while one side appears quite straight, the other will appear somewhat convex. In some individuals, however, even this slight thickening will not be manifest. At first sight, one might think that the cultivation had become impure, but this is not the case, for the following reasons. In the first place, I have always tested the material used, and found that it was pure. Then these appearances are most noticeable in the specimens which have been one to three or four hours in the incubator. In the later specimens, the curved forms are much more numerous and marked than in the earlier, which would not have been the case had an impurity existed from the beginning. I have also often applied this method to well characterised forms of bacteria, to spores, etc., and I have never found any evidence of impurity, unless in one or two cases where the specimens had been kept in the incubator for about two days, and then only very few accidental forms were present as compared with the numbers of the organism originally introduced. But what is the most important point, and what definitely excludes the idea of contamination, is that I base this description only on the observation of chains of bacilli in which some of the members showed the well marked curve, and others not; I do not base it on the examination of individual isolated bacilli alone. The existence of this, which we may call the straight stage of the cholera-bacillus, is of great importance to bear in mind, as it is probably the form which many of the bacilli assume in the intestinal contents in the early period of cholera, and as it would be impossible to recognise them as cholera-bacilli by the microscope alone, more especially when mixed with other bacteria. Hence, the discrepancy between the microscopic estimate and the estimate by cultivation, with regard to the numbers of these bacilli present in any given case, a discrepancy not remarked by me alone, but by several other observers. Indeed, from the very first, Dr. Koch found it impossible to distinguish by the microscope alone, in a mixture of bacteria, these bacilli from "other very similar forms of intestinal bacilli."

If now we examine the specimens which have been in the incubator for a longer time (eight to ten hours) we find fewer small bacilli and a large number of larger distinctly curved forms, more especially at the edge of the drop; and in many instances these are in pairs, forming the S-shaped form described by Dr. Koch. And there may also be a few spirillar forms, but I have not seen many in that stage. After this time development becomes less marked, and apparently soon ceases; whether from exhaustion of the nutriment or of the oxygen contained in the cell I cannot say, but I think most probably for the latter reason.

If a cultivation in the nutrient jelly be examined after two or three days' growth, at a temperature of 18° C. to 20° C., most of the forms will be seen to be markedly curved, though considerable variation exists, and some almost straight rods may often be found (see Fig. 3). From a very early stage of their growth in gelatine, they tend to group themselves together, to form little irregular zoogloea-masses—the highly refracting particles seen in the cultivations with a low power, and likened by Koch to bits of glass; while in the fluid jelly (for they render the gelatine fluid), there are large numbers swimming about very actively. Now in these zoogloea-masses, the bacilli are, as a rule,

[3] I have applied this method, with great success, to the study of other bacteria, as, for example, to the study of the mode of spore-formation and sprouting of spores of the bacillus alvei, as will be described in the June number of the *Microscopical Journal*.

[4] See description of syringe in Sir J. Lister's paper on "Bacterium Lactis," in *Pathological Transactions*, 1878.

very distinctly curved. In those free in the fluid, the degree of curvature varies very much, some, as I have said, being almost straight. In the fluid, there will also be found S-shaped forms, consisting apparently of two organisms united end to end with the curves in opposite directions. In some cases, the union occurs with the curves in

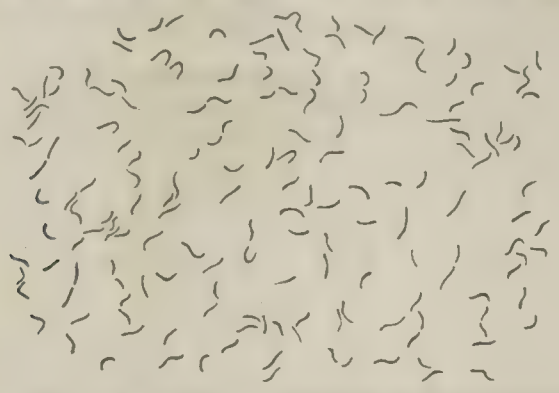


Fig. 3.—Cholera-bacilli from a cultivation in the nutrient jelly.

the same direction, as in the numeral 3. Longer spirillum-like forms may also be observed, likewise evidently composed of a row of comma-bacilli. If the cultivation be examined after five or six weeks, definite spirillar forms will be seen (how formed, whether from continued elongation and twisting of a single individual, or from fusion of the individual members of a chain, I cannot say). The spirals are uniform in thickness throughout, and do not show any trace of division (see Fig. 4).

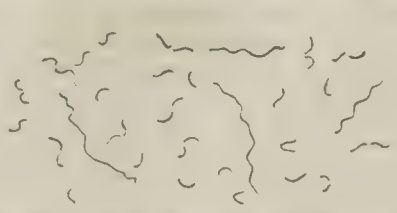


Fig. 3.—Cholera-bacilli from an old cultivation in the nutrient jelly, showing the spirillar forms.

Examined under a high power, (one twenty-fifth oil-immersion lens), bacilli are very often seen, which do not stain equally throughout, but in which there may be two or three circular parts in which the stain is different in intensity from that in the rest of the rod. Examined on a dark ground, many of the rods are seen to be somewhat beaded, as is so often observed in other bacilli. It is not always possible to demonstrate this beaded apance in every specimen of these bacilli, hence it probably depends partly on the amount of stain taken up, and partly on the stage of growth of the organism. Mr. E. M. Nelson also states that he has observed flagella in many specimens of this organism, generally one at each end (see Fig. 5). To my eye, these flagella appear very in-



Fig. 5.—A cholera-bacillus from a drawing by Mr. E. M. Nelson, showing the flagella. It can also be seen that the substance of the rod is not uniform, but may be resolved into three granules. (This and all the drawings of the bacilli have been made with a $\frac{1}{25}$ oil immersion-lens. In this case, a high eyepiece has been employed.) The flagella have come out far too thick in the woodcut.

definite; but my vision is not so sharp as Mr. Nelson's, and I am the more inclined to accept his observation, as more than one independent observer has drawn the flagella in specimens demonstrated by Mr. Nelson, without having been told what they were to see. That flagella should exist is in the highest degree probable.

The amount of curvature is, as far as I can judge, dependent to a great extent on the rapidity of growth of the organism. The more rapidly it grows, the shorter it is, and the less marked is the curvature. The more slowly it grows within certain limits, the more marked is the curvature, and the greater the number of S-shaped and spirillar forms. The most perfect specimen which I have seen, where the curve was marked in all the organisms, was obtained from a very slow and imperfect cultivation in jelly, which had not been neutralised, and which was distinctly acid. And I am told on good authority, though I have not yet had time to repeat the observation for myself, that, if 5 per cent. of alcohol be added to the nutrient jelly, the growth is slow, and the great majority of the forms observed are spirillar.

I do not wish, however, to attach too much importance to the mere rapidity of growth as modifying the morphological characters of this organism, because I think other as yet undefined conditions also play an important part. One of the most peculiar forms which I have seen was found in the contents of the large intestine of the guinea-pigs, which died after injection of cholera-bacilli. I tested the fluid by cultivation at the time very carefully, and found that it contained almost a pure cultivation of cholera-bacilli; there was certainly not more than one other kind of bacterium for every hundred cholera-bacilli. The appearance of this material, on microscopical examination, after staining, is shown in the accompanying figure (see Fig. 6).

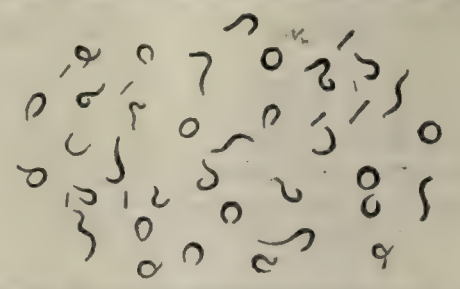


Fig. 6.—Contents of the large intestine of a guinea-pig, killed by the injection of cholera-bacilli into the duodenum.

Large fat, coiled, almost worm-like organisms, will be seen, which, as I know by cultivation, are cholera-bacilli, but which could not be recognised as such by the microscope alone.

Dr. Klein has also described a peculiar appearance when these organisms are grown on agar-agar jelly at the temperature of 18° Cent. to 20° Cent. According to him, the bacillus becomes vacuolated, and this clear space in the centre increases in size till the remains of the bacillus form a ring. He showed a beautiful specimen in support of this view at the recent debate at the Royal Medical and Chirurgical Society. I have not yet come across this appearance, but I am looking for it.

Leaving now the morphological characters which, though interesting, are the least important from a diagnostic point of view, I shall go on to describe the appearances on cultivation. I need not enter minutely into this matter, as I have nothing to add to Koch's description, which was published in the JOURNAL last year, and I shall therefore only enumerate the chief points.

In glass-plate cultivations, the colonies are evident in about twenty-four hours, and appear, under a low power, as small, somewhat irregular pale masses (see Fig. 7). These gradually increase in size, and, where

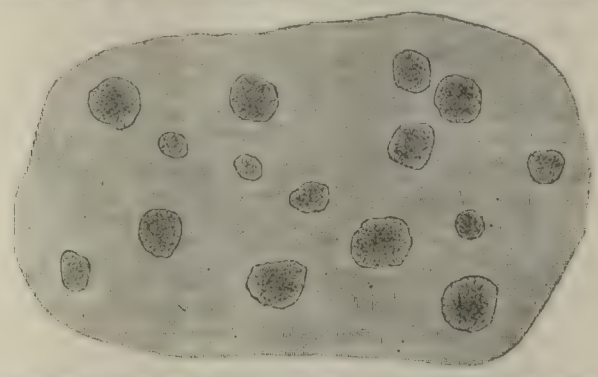


Fig. 7.—Colonies of cholera-bacilli in glass-plate cultivation, after 24 hours' growth. The larger colonies are at the surface of the gelatine. × 80.

near the surface of the jelly, a small depression forms over them, so that, on looking from the side at the surface of such a cultivation, it presents numerous little depressions instead of the original smooth surface of the gelatine, each depression corresponding to a colony of these bacteria. As the colony increases in size it becomes less compact, and the gelatine in the immediate vicinity becomes fluid. At this stage, the appearance is that of an irregular shaped mass of highly refracting granules, in the centre of a small area of fluid jelly, and floating about in the fluid are also other small refracting masses (see Fig. 8). When exa-

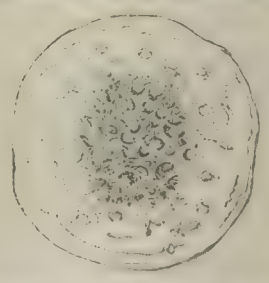


Fig. 8.—Colony of cholera-bacilli in glass-plate cultivation, after three days' growth, × 120.

mined with a high power, these masses are seen to be aggregations (zoogloœa-masses) of comma-shaped bacilli, and the fluid is seen to contain large numbers of very actively moving bacilli. The character of the movement is very difficult to determine on account of its great rapidity, but

the S-shaped and spirillar forms move in a distinctly corkscrew manner. I do not think that the single bacilli swim in this spiral manner, but of this I am not quite certain. When a bacillus is about to become incorporated in a zoogloea-mass, its motion is very characteristic. It moves backwards and forwards in part of the arc of a circle, the curvature being directed towards the centre of the circle, and away from the mass to which it is ultimately to be attached. After floating backwards and forwards in this way for some time—a movement which, I think, can only be accounted for by the presence of flagella—the range of movement becomes less and less, till the organism comes to rest at the edge of the mass.

The colony goes on increasing in size for a few days, but ultimately ceases to extend or extends only very slowly. Dr. Koch reckons the ultimate extent of the colony at about one millimètre. This depends apparently on the amount of gelatine present, and is the result when ten per cent. is employed; but apparently, if five or three per cent. gelatine be used, the colony may attain a considerably larger size than that mentioned. Something, I think, also depends on the amount of peptone added to the cultivating material. These appearances on glass-plate cultivations, taken as a whole, are, so far as I am aware, peculiar to the cholera-bacilli. I know no other organism which forms colonies on plates, which cannot be distinguished from those of the cholera-bacilli by a low power of the microscope.

The test-tube cultivations are also characteristic, but hardly so markedly as the glass-plate cultivations. In twenty-four hours, at a temperature of 18° Cent., growth is evident along the needle-track as a whitish line, broader at the upper part and gradually tapering to the lower (the exact appearance depends of course on the size of the platinum wire employed; in all cases where a typical appearance is wanted, as thin a wire as possible should be used). At the upper part the gelatine begins to evaporate, and there is a slight depression. During the next twenty-four hours the growth becomes more marked, and the depression increases in size so as to look like an air-bubble at the top of the track (see Fig. 9). In the following days the jelly at



Fig. 9.—Test-tube cultivation of cholera-bacilli after two days.

the top becomes liquid, and this liquidity extends gradually to the bottom of the track; thus there is a funnel-shaped appearance, from the greater amount of fluid at the top than at the bottom. At the same time, the mass of bacilli falls to the bottom of the fluid and assumes a somewhat rosy colour, so that there is a rose-coloured convoluted string running down the lower part of the track. The fluid at the upper part, which in about a week has extended to the sides of the test-tube, becomes clear, except a very thin layer at the top, which remains opalescent, the top itself being often covered with a very fine scum. Scattered over the solid gelatine forming the sides of the funnel are seen numerous small irregular highly refracting particles. These are the small zoogloea-masses which have fallen to the sides and bottom of the funnel-shaped cavity (see Fig. 10). The rapidity with which the gelatine becomes liquid depends very much on the amount of gelatine, and possibly of peptone, present, as before remarked. In about three weeks, the jelly in the tube becomes entirely liquid, and then we have a clear fluid with a somewhat rosy mass at the bottom, a fine scum at the surface, and a narrow layer of opacity beneath it. In such a tube, the bacilli will be found alive after six or seven weeks from the date of inoculation. No one of these characters is of itself peculiar to the cholera-bacilli. They must all be looked at together, and the rapidity of growth must be taken into consideration as well. To my mind, the most typical appearance is that of the highly refracting particles lying on the side of the funnel, the liquid in the neighbourhood being quite clear. The only other organism that I know which produces a somewhat similar appearance is Flügge's comma-bacilli, to be mentioned presently.

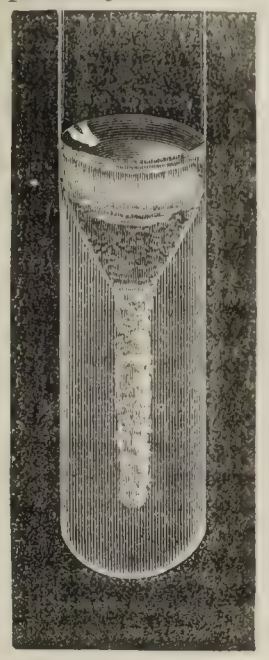


Fig. 10.—Test-tube cultivation of cholera-bacilli after ten days. A very large air-bubble is seen, as well as the other characters described.

I have previously mentioned that the reaction of the material should be neutral, or slightly alkaline; and Dr. Koch did not think that this bacillus would grow at all in jelly which had not been neutralised, that is, which was distinctly acid in reaction. Not that he holds that all acids would prevent growth; for he points out that the surface of potatoes is acid, and yet these bacilli can be made to grow on them. I have, however, in two or three instances, obtained distinct growth of the cholera-bacilli in jelly which had not been neutralised, and which was found, when tested, to be distinctly acid. The growth was very slight; and, in fourteen days, there was only a thin whitish growth along the track of the needle (not more than is formed by the typhoid-bacillus in neutral jelly in the same time), and there was no liquefaction of the jelly, nor did the growth spread over the surface of the jelly. The air-bubble appearance was also present. As I have previously mentioned, the comma-shape was well marked in all the bacilli in these cultivations.

In the neutralised meat-infusion with peptone, made solid by agar-agar, the cholera-bacillus grows fairly rapidly; but it does not produce any liquefaction of the material, nor is the growth distinguishable from that formed by many other kinds of bacteria. Indeed, it is a very curious fact that agar-agar material is of very little use, compared with gelatine, as a medium for distinguishing bacteria from one another, many forms growing almost in precisely the same way in it.

On the cut surface of boiled potatoes, the bacillus does not grow at a low temperature at all; but, at the body-temperature, it grows fairly rapidly, and forms a brownish layer, which, according to Dr. Koch, closely resembles that formed by the bacillus of glanders.

It grows readily on blood-serum, at the temperature of the body, and liquefies it.

When grown in meat-jelly, containing 3 per cent. of peptone, a smell is evolved of a somewhat fæcal character, but not very strong. This smell is said by Nicati to resemble the characteristic odour of cholera-evacuations; but with regard to this, I cannot speak from personal knowledge, for I did not pay particular attention to the odour of the cholera-evacuations. When grown in meat-jelly containing no pepton, or only one per cent., I have not detected any odour at all.

Dr. Koch has stated that these bacilli, when dried, rapidly lose their vitality; in three hours, they are completely dead. I have had no difficulty in confirming this observation.

[*To be continued.*]

THE International Sanitary Conference will commence its labours in Rome on the 1st May.

MEDICAL MAGISTRATE. — The Lord Chancellor has placed Mr. George Booth, M.R.C.S., on the Commission of the Peace for the borough of Chesterfield.

ON BURIED SUTURES, WITH REMARKS ON THE IMPORTANCE OF SUTURING SEPARATELY, PERIOSTEUM TO PERIOSTEUM, MUSCLE TO MUSCLE, DEEP FASCIA TO DEEP FASCIA, AND SKIN TO SKIN, AFTER DEEP INCISIONS OF ALL KINDS.

By C. B. KEETLEY, F.R.C.S.,
Senior Surgeon to the West London Hospital; Surgeon to the Surgical Aid Society.

Buried sutures, or "sunk sutures," as they have been also called, are such as are completely covered by the skin, and do not involve that structure at all. In the form of sutures uniting the fragments of fractured bones, especially the olecranon and patella, they have long been employed, and also as sutures to unite divided nerves and tendons, as well as wounded veins, intestines, and other hollow structures. But all the above mentioned forms of buried suture differ essentially in their objects from those to which I wish to call attention. The former have each a narrow and very limited, though, perhaps, extremely important aim. For instance, a patella is sutured with a view to getting secure bony union, a wounded intestine with a view to preventing extravasation of fæces into the abdominal cavity.

The sutures of which I now wish to speak, are employed with intent to influence the whole course and final result of wounds in general. For instance, let us suppose buried sutures of the first kind to have been used to unite the two ends of a divided nerve; the use of the other kind of buried sutures would now commence, and proceed as follows.

Whatever muscles or aponeuroses had been divided in cutting down upon the nerve would be restored to their original relationships, and kept there by aseptic animal sutures, such as carbolised gut; then the wound in the deep fascia would be separately sewn up. Finally, the wound in the skin would be closed by either catgut or silver, or whatever might be preferred. What good do we expect to get from this?

1. We need no drainage-tubes. No spaces or pockets are left wherein blood or serum can collect, and, therefore, it does not collect. I presume that all wounded vessels, of a size such that the blood-pressure would force blood out of them in spite of the buried sutures, have been carefully secured, and that the wound is thoroughly aseptic.

2. The sutured muscles and aponeuroses are eventually perfectly restored as regards function, as also is the deep fascia. Even the deep fascia has important functions, especially in certain localities, and in connection with the following points.

3. Deep, rough, and depressed cicatrices are avoided.

4. Necrosis of bone and sloughing of soft tissues are prevented.

To dwell for a moment or two on the history of the subject (before illustrating its practical application by a description of my own experience), it has first of all to be confessed that this, like other important developments of antiseptic surgery, has attracted most attention in Germany. There it appears to have originated in the practice of Werth, the gynæcologist, who praised these sutures highly, as tending to success in operations for ruptured perinæum. It is, however, Esmarch's assistant, Neuber (the inventor of decalcified bone drainage-tubes) and Professor Küster, who are the chief apostles and pioneers of this great advance in surgery, for such I esteem it. It was a pamphlet by the former, giving an account of the amputations done at Kiel during last year, which first called my own attention to the matter.

Neuber has worked out the subject thoroughly, more especially in a pamphlet entitled *Vorschläge zur Beseitigung der Drainage für alle frischen Wunden* (Lipsius and Fischer, Kiel, 1884).

Küster read his paper at the last meeting of the Society of German surgeons. In the discussion which followed, Esmarch having stated that, with these sunk sutures, drainage-tubes could be altogether dispensed with, he was asked, "What, after excision of the hip?" He thereupon answered, shortly and decisively, "Yes."

Turning to my own experience, which, though sufficiently varied, is small as compared with that upon which Neuber, Küster, and Esmarch base their assertions, I have carefully recorded the details of two amputations of the thigh, and one of the leg, two excisions of the hip, one case of *évidement* of the bones of the knee-joint, one wedge-osteotomy of the hip, one osteotomy of the tibia and fibula, one operation for ununited fracture of the same bones, two suturings of fractured patellæ, one removal of sequestrum in necrosis of the symphysis pubis, with large abscess in the abdominal wall; one operation for congenital contraction of the knee by open antiseptic incision; one incision to examine a chronic swelling of the parotid, one excision of multiple sebaceous glands of the head, and two cases of resection of the quadriceps extensor cruris. In all these seventeen cases, except two, the buried sutures have done all which sanguine hopes could expect of them. But, in stating this, I must confess that I have not always dared to dispense with drainage-tubes. I simply thought I ought to feel my way cautiously. Of the two cases which I have mentioned as being exceptions, one was an almost hopeless case of amputation of the thigh in an old lady, over 70, who suffered from sloughing of almost all the soft parts of one lower extremity, from the knee downwards, with burrowing of pus up to the hip, the cause being erysipelas. She died forty-eight hours after the operation. The remaining case possibly casts a slur upon buried sutures, or upon their employment in my hands. A man, aged 30, with advanced strumous disease of the knee, tuberculous disease of both lungs, and hectic fever, had the knee freely excised, and all the diseased synovial tissues removed with scissors and sharp spoons. The bones were then fixed firmly together with silver sutures, and the wounded soft parts secured with buried sutures. His only hope could lie in speedy osseous union. Unfortunately, the edges of the flap sloughed. Thus, frequent changes of dressing, with consequent slight disturbances of the ends of the bone, were necessitated. Finally, our efforts to keep the wound aseptic failed, and amputation was performed. I think it possible that my covered sutures had seriously interfered with the imperfect blood-supply in this poor enfeebled creature.

I will describe briefly two or three of the above cases and their results. In amputating the leg, two lateral and very short rounded skin-flaps were made. A very short distance (about half an inch) above the angles of junction of the skin-flaps, the muscles were divided by a circular sweep. The periosteum was divided nearly as low down as the muscles, and turned back up to the level where the bones were divided. The periosteum must be reflected to an eighth of an inch or more beyond the point of division of the bone, and carefully held out of the way, without being stripped further up, while the saw is being used. Next, the vessels are tied until it is time to put in the sutures. About three or four will draw the periosteum securely over the cut surfaces of each bone, leaving a small opening opposite the medulla. Next, the muscles and aponeuroses of the extensor side are united to those of the flexor side, more or less *en masse*, by five or six sutures of strong catgut. These sutures had better not, as a rule, be made to go quite through to the deep surfaces of these structures, but should be half an inch to one inch from the cut edges at the superficial surface. The bones are thus completely covered. Next, the deep fascia should be separately sutured, and lastly the skin.

Almost the first time I ever tried buried sutures was in an amputation of the leg (middle third) done in February 1884 in the West London Hospital. The flaps, when thus sewn up, were too tight to allow room for a drainage-tube to be inserted without violence. Therefore none was used, except one of very small size passed through one corner of the skin-incision, but not into the depth of the wound. This case was further complicated by the fact that, owing to an unhealthy condition of the marrow, the medulla of both tibia and fibula was scraped out right up to the upper epiphyses of those bones; and the medullary cavities, thus emptied, were injected with liquor hydrargyri perchloridi (whose strength, it may be remembered, is just over 1 in 1,000).

Healing took place throughout by the first intention, except as regards the skin, which gaped a little when its sutures gave way. However, the muscles, and doubtless the periosteal sutures, held on; and the edges of skin soon, as it were, crept together again. The temperature rose on several days to 101°, and then gradually sank to normal on the tenth day. There it remained, except that, once or twice during the next month, it rose to 102°, for no reason in any way connected with the stump, as far as could be made out. The patient has long been quite convalescent, and is using an artificial leg.

After the excisions, the wedge-osteotomies and the suturing of the patellæ, the excellent results, as regards freedom of the skin-cicatrix from cicatricial anchorage to the bone, were very manifest. They contrasted strongly with the deep valleys which soon follow incisions for resection, when sutured in the ordinary way. This good effect is, of course, particularly valuable in the face.

Resection of the quadriceps extensor for infantile paralysis, with loose knee, would not be justifiable without the use of buried sutures. Concerning the ultimate result of these cases, there has not been time yet to judge; but in each of my cases I have succeeded in shortening the muscle an inch and a half, with rapid healing of the wound by

first intention, no deformity or depression, and merely a longitudinal, linear, undepressed cutaneous scar. No drainage-tubes were used.

The large abscess-cavity in connection with the necrosed symphysis pubis extended outwards as far as the iliac crest, and was nearly as wide. It was supposed, when sent to me, to be an inguinal hernia. I slit it up, scraped out its lining thoroughly, and closed it in with sutures which passed from side to side beneath its floor, but not through the skin; it was thus reduced to a long narrow and shallow groove. This I closed with superficial sutures. The deep sutures held on till the depth of the cavity was obliterated by the healing process. At the lowest angle of the wound, a drainage-tube was passed straight down to the small cavity from which the necrosed symphysis had been extracted.

In no cases have I found these sutures more brilliantly successful than in dealing with sebaceous cysts of the head. Having dissected out three from the scalp of a gentleman, I obliterated the remaining cavities by two buried sutures in each, passing them well beneath the floor of each small wound. No cutaneous sutures were used at all; the skin-wounds did not gape. Over the wounds was placed a coat of salicylic acid dissolved in ether, as well as a little powdered salicylic acid. No bandages were used. The patient went daily to his work at Somerset House, attended a garden-party in the meanwhile, and, a fortnight afterwards, washed the salicylic scab, as it might be called, off three sound linear cicatrices. It is important to say that he was not allowed to brush his hair during the treatment; it was kept both tidy and aseptic by occasionally sponging with a wash containing spirit, corrosive sublimate, and rose-water.

In conclusion, I have to say that it is only in strictly antiseptic surgery I would venture to recommend the use of these sutures; but that, in the case of all surgeons who have faith in antiseptic theory and practice, they will find in buried sutures an effective and beautiful addition to their methods.

THE PATHOLOGY OF RODENT ULCER.

By F. T. PAUL, F.R.C.S.,
Surgeon to the Royal Southern Hospital.

WRITINGS on the microscopic characters of rodent ulcer may be said to have originated in the well known monograph by Thiersch, on epithelial cancer, published in 1865. Anterior to this, the clinical features of the disease had been very carefully studied and described by Jacob, Paget, Hutchinson, and Lebert; and though they recognised its distinct identity as an infiltrating and ulcerating growth of a specific nature, a better knowledge of its minute structure was required to avoid the very natural difficulty of confounding it with lupus, syphilis, tuberculosis, or epithelioma. Thiersch's contribution is in every way worthy of the position which it occupies, and the illustrations accompanying the text show the author's clear conception of the histological features of this disease, which he described as flat epithelial cancer, in contradistinction to the ordinary infiltrating form of epithelioma. Though regarding rodent ulcer as a variety of epithelioma, his researches encourage the opinion that it has a special origin in the sebaceous glands. Other observers soon followed, and their writings are without exception the result of careful and thorough investigation, becoming more and more valuable as the work of the microscope has become more and more perfect. In 1867, Mr. Moore of the Middlesex Hospital, published his pamphlet, in which he described rodent ulcer as a form of epithelioma. In 1871 and 1873, Mr. Hulke expressed similar views at the Pathological Society. In 1872, Dr. Collins Warren, in his Boylstonian prize-essay, maintained the opinion that the growth commenced in a small-cell exudation, which developed under the influence of the rete Malpighii; this, of course, must be regarded as a variety of the epithelioma view. In 1878 and 1879, Dr. Thin, at the Pathological Society, originated and supported what has since been called the sweat-gland theory. In 1879, Drs. Tilbury and Calcott Fox, at the same Society, read their paper in support of the opinion that the growth started in the root-sheath of the hairs; Mr. Butlin, in the discussion which followed, supported the sebaceous gland theory of Thiersch. In 1882, Dr. Sangster, at the annual meeting of the British Medical Association, read a paper also in support of the root-sheath view; and an additional paper, tending in the same direction, has since been published in the BRITISH MEDICAL JOURNAL, by Mr. Hume, of Newcastle.

There has then been a considerable diversity of opinion concerning the true nature of rodent ulcer, since the appearance of the writings of Thiersch. They may be classified as follows.

1. As a variety of epithelioma—Moore, Hulke, Collins Warren; and as depending upon the nature of the soil in which it grows—Hutchinson.
2. As a carcinoma of the sebaceous glands—Thiersch, Butlin, and others.
3. As a carcinoma of the sweat glands—Thin.
4. As a carcinoma of the hair-follicles,—Tilbury and Calcott Fox, Sangster, and Hume.

The present communication is based upon the microscopic examination of twenty-two cases, in all of which the entire growth has been excised with the knife, and placed in my hands for investigation. Twenty of them were clinically unmistakable, the other two were doubtful. A few more cases of chronic epithelioma of the hand were clinically regarded as allied to rodent ulcer; but, since their structure is distinctly epitheliomatous, they are not included, though it is quite possible that they may have equal claims to be. It would occupy too much space to describe the cases individually; and I shall, therefore, be content with generalising some of the broader clinical facts, asking that the diagnoses may be accepted as correct, on the ground of the clinical experience of the observers, confirmed, if you will, by a personal examination of the specimens, as there are microscopical preparations here from every one of the cases.[1]

The strange observation that rodent ulcer is, with very rare exceptions, limited to the face, is borne out by these cases, as all occurred in the skin of the face. Seven were on the cheeks; seven on the eyelids (the two doubtful ones both on the upper eyelid); three on the forehead; three on the side of the nose; and two in the skin of the lips, one the upper and the other the lower, but both quite away from the red border. Sixteen occurred in males and six in females, bearing out the general opinion that the disease is more common in men than in women. The average age of commencement was 50, varying from 35 to 72; the earliest cases being in women. The great length of time occupied by an ordinary rodent ulcer in attaining a sufficient degree of severity to awaken any apprehension in the class of people who are usually attacked by it, is such as to mislead us to a certain extent as to the age when it commences; and I am sure that it ought not to be regarded as a very uncommon occurrence in the fourth decade of life. The average duration of the disease before operation was six years, varying from six months to fourteen years. This fact is, of course, of no great value, as the disease varied proportionally in extent, except that it is in accordance with the usual experience of the chronic nature of the growth. Those ulcers which were of short duration were small shallow sores, covered with a scab, and showing the characteristic pale raised border of infiltration; while in one case the growth was a mostly subcutaneous nodule in the loose skin of the lower eyelid. The older growths had all the usual rodent characters, destroying the skin, muscle, eye, bone, etc., just as they happened to fall within the area of infiltration.

The specimens have generally, and always recently, been prepared by hardening the tissue in bichromate of ammonia, and subsequently in spirit; the sections have been cut by Bevan Lewis's microtome, stained in logwood and eosine, and mounted in Farrant's solution. The sections have, of course, always been taken through the growing margin into the surrounding skin, which has in all cases been carefully examined.

It is not necessary, at the present time, to say anything in reference to the purely carcinomatous type of the disease; that is admitted on all hands. I have, therefore, directed my attention entirely towards elucidating to what variety of carcinoma rodent ulcer belongs; or, in other words, of what epithelial tissue it is an atypical form. In some cancers this is a point which is easily decided; for instance, in epithelioma, cylindrical epithelioma, and some thyroid, hepatic, and other cancers. In others, it is equally difficult. Take, for example, an ordinary scirrhus of the breast. This is so mildly typical of breast-tissue, that most pathologists, even now, regard a scirrhus of the breast as a type of cancer which may occur at any part of the body, when it cannot possibly bear any other relation to a primary cancer of another organ, than that they are all epithelial new growths. Rodent ulcer also is so slightly typical of any epithelial cutaneous structure—or, rather, it is so liable to show relationship with all the dermal epithelial evolutions, that great difficulty is met with in attempting to class it satisfactorily.

It being accepted that rodent ulcer is a carcinoma of the skin, we have to decide whether it must be regarded as a carcinoma of the entire skin,

[1] The specimens, which were shown in the Section of Pathology at the annual meeting of the Association in Belfast, were obtained as follows: five from Mr. Bickersteth; two from Mr. Reginald Harrison; two from Mr. Mitchell Banks; three from Mr. Rushton Parker; two from Mr. Shadford Walker; two from Mr. Edgar Browne; one from Mr. Puzey; one from Dr. Little; and four were my own.

or only of one of the dermal appendages; and if the latter, whether it is always an atypical growth of the same appendage, or whether it should be subdivided into carcinoma of each variety of appendage. With these difficult questions in view, I propose to consider:

1. The minute structure of the growth;
2. What normal skin-elements, or other skin-growths, show any relationship to this;
3. Whether it has any special affinity for, or tendency to spread in one particular skin-structure rather than the rest;
4. Whether its remarkable localisation to the skin of the face bears upon its origin;
5. Whether any microscopical evidence can be obtained as to its earliest formation—that is, the primary growth, not the marginal increase.

1. *The Minute Structure of Rodent Ulcer.*—Carcinoma, in whatever organ it develops, is liable to vary in its minute structure. In one typical form, the epithelial elements are arranged in acinous groups; in the other, in duct-like columns of cells. The former is usually designated acinous cancer, the latter tubular cancer; and although, for purposes of classification, it is convenient to make this a clear distinction, it is really only an artificial one. For instance, in a series of cases of cancer of the breast, I find a large majority of specimens of acinous cancer, and very few of pure duct-cancer, and an intermediate group passing from one to the other. The same condition certainly holds good in carcinoma of the liver and prostate, and, probably, of all other acinous glands; but in strictly speaking tubular glands, such as those of the intestine, the carcinoma is almost constantly tubular. It seems not unlikely that this difference in structure depends upon the degree of evolution attained by the carcinoma under examination. A tubular growth is more embryonic than one that has attained to an acinous development. Thus a tubular epithelioma is one which consists solely of epithelial cells, resembling those of the rete mucosum. An acinous epithelioma, on the contrary, shows horny and nested cells—that is, the highest evolution of epidermal cells. A duct-cancer of the breast resembles the immature tissue of the virgin gland, an acinous cancer the fully developed organ of pregnancy. Rodent ulcer follows this general direction. It is sometimes absolutely tubular, sometimes transitional, frequently entirely acinous. Taking the two extremes, it is difficult to recognise them as being the same class of growth, but the chain of intermediate cases is so complete, as to leave no doubt of their association.

Beginning in the skin, the various forms of rodent ulcer extend, after the manner of epithelioma, in all the elements of the skin itself, and in all the adjacent tissues; avoiding only that which is so readily infected by other kinds of carcinoma, namely, the lymphatic system. In the acinous variety, the groups of cells are strikingly disposed like those of epithelioma; and, also like them, the marginal cells are cubical or cylindical, and placed vertically upon the surrounding layer of connective tissue. The bulk of each acinus is made up of elongated cells, often very irregularly arranged; their disposition has been very aptly described by Sangster as though disturbed by opposing currents. Those which are next to the marginal layer have frequently their long diameters disposed at right angles to the cylindrical cells; but there is no constancy in their manner of arrangement, nor indeed in their character as cells. The marginal cells are usually epithelial like, smaller and more delicate than those of the rete Malpighii, or of an epithelioma, but distinctly the same variety; whereas the intermediate cells are very sarcoma-like, or remind one very strongly of the spindle-shaped cells in an embryonic hair-bulb. Frequently, however, they are rounded or irregular in shape, but always much smaller than in epithelioma. The central portion of the acinus is yet more variable. Very large acini usually contain only a little central *débris*, which falls out in the section; others are filled with a delicate mucous tissue very poor in cells; and the remainder—no inconsiderable number of the whole—with nested cells; nested cells which are sometimes the result of a central aggregation of degenerated cells, unstainable, and therefore forming soapy-looking pseudo-pearls; or the result of endogenous multiplication, when the cells are large, epithelial like, and stain brightly. In size, the acini are often the equivalent of those of sebaceous glands, sometimes they are smaller than this, often many times larger. The central structure, when myxomatous, not unfrequently breaks up the mass of the acinus into a network of epithelial cells, supported by mucous stroma. I have specially noticed this in deep infiltrations in the orbit.

Tubular rodent ulcer is far less common than the acinous variety. Perhaps it is never absolutely pure, though occasionally the structure appears almost uniform throughout. The most pure tubular structure was met with in a very small rodent ulcer of the nose. It consisted of columns of cubical cells, in some parts almost exactly like a sweat-gland; in others the lumen was filled with spindle-cells, which here and there so distended the tubes as to resemble an acinous development; but there was no central aggregation of cells into a pseudo-pearl, nor any central *débris*, nor other specialised tissue. The intermediate cases resembled generally the acinous variety, but in some parts fell off into a more or less perfect tubular structure. In no variety of rodent ulcer can the ephithelial cells be said to attain to a distinctly horny character, nor to show the typical prickles of the cells of the rete mucosum like epithelioma; but the occurrence of nested cells is certainly not uncommon.

In addition to what may be called the normal varieties of rodent ulcer, the twenty-two cases include two distinctly aberrant forms of growth; one occurred in the upper lip of a woman, aged 58, quite away from the red border, as a thick infiltration, ulcerated in the centre. It had existed three years, and was considered by Mr. Bickersteth to be a rodent ulcer. Throughout almost the whole of the growth, the infiltration consisted of large spherical acini of uniform appearance, almost touching each other; each acinus consisted of a marginal layer of elongated cells, all the remainder being composed of similar round sarcoma-like cells, giving the microscopic appearance quite a different effect from ordinary rodent ulcer. An exact counterpart of this structure was met with in a multiple adenoma of the sweat-glands of the face; and I should have considered it to be an ulcerated adenoma, had not I found, near the ulcerated margin, a marked reversion to the ordinary type of rodent ulcer. The other aberrant case occurred in a man, aged 63, as an ulcer perforating into the nasal cavity, and it also had an unusually thick border of infiltration. It had existed for twelve or fourteen years, and was regarded by Mr. Bickersteth as an undoubted rodent ulcer. Here the cells were like the rete mucosum, the only case in which this was noticed; but, instead of being arranged as in epithelioma, they formed very long straight columns, of only one or two cells deep, penetrating far into the subcutaneous tissue, and perfectly uniform throughout the whole growth. This might be called a tubular epithelioma, if regarded entirely from the histological point of view; but, clinically, it could only be spoken of as a rodent ulcer, and, until the minute anatomy of the growth is more clearly recognised than at present, the clinical features have the first claim in establishing a diagnosis.

In the foregoing description of the minute structure observed in a number of cases of rodent ulcer, it has been easy to describe the remarkable variability of the growth, and the different types and characters to be met with; no doubt, it reads as though few cases resembled each other, nor do they entirely, but there is a subtle, almost indescribable, uniformity of type traversing most of these varieties, which enables a practised histologist to at once recognise the nature of the growth under the microscope.

As in all other new growths, every variety of rodent ulcer extends in mutual relationship with a small-cell infiltration; but whatever interdependence exists is capable of a temporary abrogation; and, quite in conformity with the chronic character of the growth, the small-cell infiltration may develop into normal granulation-tissue over the surface of the sore, and may, for the time, allow cicatrisation, although it is invariably followed very shortly by a renewed activity on the part of the epithelial elements, at the margin and base of the growth.

2. *What normal Skin-Elements or other Skin-Growths show a Relationship with Rodent Ulcer?*—Innocent epithelial growths usually closely resemble the tissue in which they grow. For instance, an adenoma of the breast, or a papilloma of the skin, shows the same relationship with the parent-tissue that we observe in the case of innocent connective tissue-growths, such as lipoma, exostosis, fibroma, myxoma, etc. In the same way, malignant epithelial tumours are stamped with the nature of the parent-tissue, though, on account of their imperfect development, they never attain to the precision of structure met with in the innocent tumours. This resemblance of carcinoma to the organ in which it originates is much more striking than is generally admitted, or even supposed. It is such that the tumour can very frequently be referred to the parent-organ through its structural similarity; and I have met with numerous examples, apart from epithelioma and cylindrical epithelioma, of cancers of the breast, liver, prostate, kidney, nasal mucous membrane, thyroid body, etc., in which anyone could at once recognise their special identity. But the evolution of carcinoma is commonly imperfect; and, in the embryonic stages, no one can gather sufficient information from the appearance presented by the malignant tissue to indicate its identity with the normal tissue. An absolutely embryonic condition of the growth is not likely to pervade the whole tumour, nor to be marked in many consecutive cases; so that, in taking a considerable group of

any one class of new growths, we may feel pretty sure that the parent-tissue will be distinctly indicated in some of them, even though the indication may very likely have to be traced through the known structural evolution of that parent-tissue.

It is unfortunate that, amongst all the carcinomata, rodent ulcer shows the least striking resemblance of any of them to a normal tissue, and what resemblance is to be traced is not constant. For instance, while one specimen may show a tubular structure, and be referred to the sweat-glands, another has cells of a character and arrangement which point towards an affinity for hair-follicles. The resemblance in the former case, when present, is marked, but in the latter can only be traced through the character of the cells forming the acini; thus, the marginal layer resembles the columnar cells of the root-sheath more than those of the rete mucosum, while the spindle-shape and whorled arrangement of the intermediate cells may indicate an abortive attempt towards the development of embryonic hair-bulbs. Sebaceous glands being only diverticula from hair-follicles, it seems probable that any cancerous development related specially to them would be a variety of the hair-follicle type of growth. The large fatty pseudo-pearls sometimes met with in rodent ulcer may mean a sebaceous transformation of the central cells of the acini. The only other epithelial tissue of the skin is the epidermis itself, the atypical formation of which is, without question, epithelioma; and that there are cases of epithelioma which have the clinical characters of rodent ulcer, such as chronic growth, rodent ulceration, and absence of glandular infection, every one must admit. At present, such cases are only distinguished from the rest after a microscopical examination; but it is questionable whether the clinical line of demarcation between epithelioma and rodent ulcer is not more correct than an artificial separation based entirely upon minute structure. I was prepared to rely more upon a relationship between the minute structure of rodent ulcer and some normal skin-element, than upon any other point, in determining its origin; but a very careful and impartial examination of these twenty-two cases has led me to the conclusion that, if it can be said to be an atypical formation of any epithelial cutaneous tissue, it must be regarded as being equally associated with all the dermal appendages, and I think that it is. Apart, then, from other considerations, there are some grounds for assuming—though they are less clear than in other varieties of carcinoma—that, on this account, rodent ulcer may be described as a chronic carcinoma of the skin, showing very abortive attempts in its evolution towards the development of the dermal appendages.

Innocent glandular growths in the skin are not of common occurrence. It is not without importance that they are met with, like rodent ulcer, almost exclusively upon the face, with the exception of some sebaceous formations which do not belong to the class of adenoma. My own experience is limited to six examples of solid glandular tumours in the skin; one multiple, occurring all over the face and spreading into the scalp, one near the eyebrow, two on the cheek, one on the nose, and one in the scalp. In only the first could the distinct origin of the growth be traced. The patient was under the care of Mr. Rushton Parker, and he removed a large cluster of tumours from the forehead, together with the skin to which they were attached. In the latter, microscopic tumours were found, which clearly showed that the primary changes occurred in the sweat-glands. A young growth consisted of spherical acini of small round cells with bright nuclei and indistinct cell-wall, and a marginal layer of elongated cells. The acini were surrounded by a fairly distinct basement-membrane, and were separated by very little connective tissue. Between them duct-like structures were seen at intervals, lined with cubical epithelium, and also portions of sweat-glands. In older growths many of the cells had undergone a sort of colloid change, which had quite a clear fatty appearance, but was unaffected by osmic acid. This is the case of adenoma, which has been alluded to as being exactly like the infiltration in one of the cases of rodent ulcer. It strongly confirms the relationship with sweat-gland tissue, which is indicated by the structure of the tubular variety. One, at least of the remaining cases of adenoma, a tumour of the cheek of twenty-five years' duration, is certainly based upon similar structure; but the others, which were of more recent growth, consisted of epithelial cells, infiltrating a myxomatous matrix, and reminded one strongly of the familiar adenomyxoma of the parotid. Whether these adenomas originated in sweat or sebaceous glands, I cannot tell, the one from the scalp was certainly thought to be of sebaceous origin; but, be this as it may, they are all very much like the deep infiltration of rodent ulcer, which has been referred to as a network of cells in a mucous stroma, so much like, indeed, that in many parts one cannot be distinguished from the other.

3. *Has Rodent Ulcer any special Affinity for, or any special Tendency to spread in, one Skin-Structure more than another?*—Much stress has been laid by all recent writers upon observations intended to determine the mode of growth of rodent ulcer, particularly in reference to its tendency to infiltrate certain epithelial skin-structures; and, having decided which structure is most commonly affected, they have at once concluded that the primary growth originated in a similar tissue. Thus, one investigator finds that changes are to be observed in the surrounding hair-follicles, and concludes from this that rodent ulcer is a carcinoma of the hair-follicles. Others hold similar opinions, based upon similar grounds, respecting the sebaceous and sweat-glands. But even though rodent ulcer does involve these structures, and it certainly does, the fact really proves nothing as to its origin. An epithelial growth may always implicate neighbouring epithelium, and though a primary cancer of a glandular organ often shows a special tendency to convert the epithelium of that organ, yet its normal mode of extension is entirely independent of it; while it is also true that a secondary growth may possess the same influence on the gland-epithelium. The mode of increase throws no light upon the minute origin of rodent ulcer, and, as a matter of fact, when a sufficient number of examples are examined, it soon becomes apparent that the growth in its extension constantly involves all the dermal appendages, one as much as another, but not all of them put together one-tenth nor one-hundredth part as much as the usual mode of growth in the connective tissue spaces of the skin, in relationship with a small-cell infiltration. Exactly the same holds good of epithelioma. I have specimens in which it infiltrates sweat and sebaceous glands and hair-follicles: but this does not affect its undoubted origin in connection with the rete mucosum, though it is no unusual thing to find this latter—here admittedly the parent tissue—lying in close proximity to the growth, and yet affected by it in no way, except perhaps by pressure.

4. *The Localisation of Rodent Ulcer to the Skin of the Face.*—The disease is probably not entirely localised to the face, but it is a remarkable fact that sores of the same clinical characters situated elsewhere have almost, without exception, a genuinely epitheliomatous microscopic structure. The adenomata of the skin appear to be very much limited to the same region, while papilloma, like epithelioma, may be met with anywhere. If we had any reason to believe that the origin of rodent ulcer was connected specially with sebaceous glands, then their luxuriance in the skin of the nose and cheeks, and in the large Meibomian glands of the eyelids, might account for these parts being its favourite sites. But there is no sufficient reason to associate rodent ulcer with sebaceous or Meibomian glands, while the usual adenoma of these situations is probably of sweat-gland origin. However, the localisation of rodent ulcer and skin-adenomata on the face is, to my mind, the strongest piece of evidence that I have met with, in favour of associating the origin of the former with the glands of the skin.

5. *Is it possible to obtain Microscopic Evidence of the Commencement of a Rodent Ulcer?*—Somehow or other, it seems to be taken for granted that the first step in the direction of the formation of a new growth involves only the most minute area of tissue, and that, therefore, a rodent ulcer in the first instance is evolved from a single gland or hair-follicle, and not from an appreciable tract of skin. On the other hand, the areas of irritation, which we are justified in regarding as the source of some other new growths, appear to undergo a malignant transformation over a space much more than microscopic from the first. An ordinary epithelioma, or a sarcoma following injury, might either of them be taken as examples. We are so much in the habit of regarding epithelial developments as budding from germs, that it seems only rational to suppose that a carcinoma has budded from some little spot that is diseased, perhaps from only a single cell. But as far as we know it, the first stage of every postembryonic new growth is a condition of irritation and inflammation; a condition which may remain unaltered for an indefinite length of time, and which, but for some specific influence, might have returned to a normal state, though under this influence it becomes transformed into an innocent or a malignant growth. The primary tract of irritation, however, in both its simple and its transformed conditions, involves an appreciable area of tissue, of a size, I have no doubt, large enough to be capable of occasional detection and examination in all the stages of its existence.

The microscopic changes which take place during the transition from subordinate inflammation to independent new growth in a tract of irritated tissue can be only a part, and an insignificant part, too, of the whole story; unless, indeed, the presence of a pathogenic organism were to be revealed, which is perhaps improbable. It is, however, quite worth while working out the steps in the transformation as far as they can be seen with the microscope; and it is at least of much importance to be able to identify them, as far as may be, with the normal processes of inflammation and growth. This much seems to me to be clear, that all postembryonic new growths have a common

origin, of the nature of inflammation; that their subdivision into innocent and malignant tumours depends upon the specific infecting or non-infecting character of the inflammation; and that their mature structure develops entirely under the influence of the tissue first affected, so that the tumour is always an imperfect edition of the parent-tissue. Now it is supposed that, if the skin as a whole suffer a chronic irritation, such as that produced by soot or a clay pipe, in certain people the rete mucosum will take on an independent growth, resulting in an epithelioma; but that if the primary irritation affected only a sweat-gland, hair-follicle, or sebaceous gland, the growth would be a rodent ulcer. That an epithelioma commences in an irritation of a patch of skin or mucous membrane is undoubted; it remains, however, an open question whether rodent ulcer has a more limited origin.

In dealing with specimens of pre-cancerous formation in the skin, it is, of course, impossible to be certain as to the correctness of the diagnosis; but surgeons of large experience not unfrequently excise conditions of warty or other alterations in the skin which have become irritable, because, in their opinion, such a state may go on to the development of a carcinoma. It is very probable that, in such cases, the opinion is often correctly formed, and sometimes it is proved to be so by the earliest cancerous changes having actually commenced. I have had several times the opportunity of examining such portions of skin, and the microscopic changes present in them have been uniform and simple. There is an area of increased vascularity, over which a dense infiltration with inflammatory cells is seen, placed just beneath the epithelium. The latter is thickened, the superficial cells being piled up in warty form. The cells of the rete mucosum are evidently undergoing rapid multiplication, the lower layers being often crowded, and sometimes appearing as a mass of nuclei. It seems, at this stage, as though the epithelial cells ceased to be able to pass upwards in normal rotation; and one finds instead that, throughout the area of warty thickening, there are buds of rete mucosum penetrating below what is still easily recognisable as the old line of the basement-membrane into the dense inflammatory infiltration, and then it seems as though the epithelial cells, being really the reproductive layer of the rete mucosum, and being now surrounded by an embryonic tissue, become independent, and henceforward grow with the characters of malignancy.

On only two occasions have I had the opportunity of examining tissue which, it was supposed, might have become rodent ulcer; both were from the upper eyelid. One case was that of an old lady, in whom a small tract of warty growth appeared upon the upper eyelid, and was removed by Mr. Shadford Walker, because he considered it an early condition of rodent ulcer. It showed exactly the same pre-cancerous changes as have been described as occurring in epithelioma. The other occurred as a small papule on the edge of the upper eyelid of a gentleman, aged 47. It had been coming four years, and I snipped it off, as it was irritating the cornea, without excising a portion of the eyelid. The growth in this case was of the nature of a congenital mole; that is, the lymph-spaces of the connective tissue were full of epithelial-like cells, though he was not aware of its congenital origin. The base remains still in the eyelid, and will be excised and examined if independent growth at any time assert itself. The smallest rodent ulcers that I have examined, and some have been very small, even before ulceration had commenced, have yielded no evidence as to their minute origin, since, in all of them, the growth had gone entirely over to the cancerous stage. Under the head of minute origin, then, I have not much evidence to offer as to the primary changes in rodent ulcer; but, what there is, points in the direction of its probable origin in the skin, as a whole, and does not tend to associate it with any particular dermal appendage.

While one follows with the microscope the visible changes which accompany the first steps in the formation of a new growth, one seeks, and seeks in vain, for the presence of a motive power. Whether the excitant is engendered by a chronic irritation of the part, or whether it is only rendered locally active by it under certain constitutional conditions, are questions which remain at present unsolved. But the degree of evolution to which a new formation may attain, must plainly depend, to a large extent, upon the nature of this excitant. The more it resembles the normal stimulus to growth and development, the more perfect and limited will be the development of the new growth, as obtains in a fibroma or a papilloma. The more intense the excitant, the more embryonic and unlimited the growth, as in sarcoma and carcinoma. But if it may be that, in some cases, there are local or constitutional conditions, which can weaken the effect of the excitant, then it seems possible that what would otherwise have been an epithelioma, might become a rodent ulcer. For many reasons, I would have preferred to believe that rodent ulcer was a specific variety of carcinoma, and there is much to be said in favour of its association with the glands of the skin; but I am not at all clear that we have any evidence to show that the carcinoma of any anatomical region is susceptible of specific subdivisions in its origin, although it certainly may attain to very different degrees of evolution. For the subjoined reasons, I incline to regard rodent ulcer as a form of chronic carcinoma of the skin, rather than as a carcinoma of any special dermal appendage.

1. Because its structure varies greatly, and because in normal development the rete Malpighii produces very various epithelial structures.

2. Because there are to be seen appearances in the minute structure of certain rodent ulcers, which resemble some points in the evolution of the several dermal appendages.

3. Because, also, there are points of resemblance between certain rodent ulcers and the innocent epithelial growths of the skin.

4. Because the general arrangement and type of the growth is like a slow growing epithelioma.

5. Because it passes insensibly into epithelioma.

6. Because its minute origin, so far as it can be surmised, is the same as in epithelioma.

THE EMPLOYMENT OF THE ELECTRO-MAGNET IN OPHTHALMIC SURGERY: ADDITIONAL CASES.

By SIMEON SNELL, M.R.C.S.Eng.,
Ophthalmic Surgeon to the Sheffield General Infirmary, and to the Institution for the Blind.

The value of the electro-magnet in ophthalmic surgery has been now practically tested, its merits have been demonstrated, and the subject occupies a recognised place in all recent text-books on diseases of the eye. This being the case, I do not propose to add much here to what I have said on previous occasions (British Medical Journal, 1881, vol. i, p. 843, and 1883, vol. ii, p. 957; and *The Electro-Magnet, and its Employment in Ophthalmic Surgery*, Churchill, 1883) as to the manner, etc., of using the electro-magnet, but rather to place on record additional cases, in which its employment has been of service.

A point, however, which it seems desirable to notice, on account of its great importance, is that, in most cases, to be used with the best success, and to be most favourable for the preservation of vision, the interval between the receipt of the injury and the operation for the removal of the foreign body must be short. In many of the cases coming under observation, the eyeball had been seriously disorganised, before an opportunity was afforded for using the electro-magnet. The instrument[1] used in all the cases is the same as previously described by me. Increased experience has rendered more positive the opinion before expressed, that it meets well the objects we have in view.

Case I. *Conjunctiva.*—On January 25th, 1884, a young man applied at the Sheffield General Infirmary. A week previously, he had been struck, whilst at work, by a piece of steel on the left eye. On the outer side of the eyeball, at a little distance from the cornea, there was now noticed a dark mark under the conjunctiva. This was thought to be the chip of steel, over which the wound had closed. The electro-magnet, with a stout needle attached, was held over the situation of the fragment, touching the conjunctiva, and a few times withdrawn a little distance. After a short time, the piece of steel was found to be coming through the conjunctiva, at the old wound, and was withdrawn attached to the magnet. The patient did not appear again. Vision was perfect ($\frac{20}{20}$), and there was no deep wound. The fragment was a minute round piece, weighing 1½ millegrammes (0.023 grain).

Case II. *Conjunctiva.*—Thomas B., aged 25, a mill-wright, came to the Sheffield General Infirmary on May 2nd, 1884. He had been engaged "shafting a hammer," and, in knocking the shaft out, he struck the head of the hammer with his own hammer, and a splinter, flying off, had hit his left eye. On his applying at the infirmary, some effusion of blood was noticed on the outer side of the sclerotic; no foreign body was then detected. On May 6th, when seen by me, a small black speck was noticed deep under the conjunctiva. On applying the electro-magnet, it was observed to move. A small incision was made, and after a little difficulty the fragment, a narrow rod-shaped piece, was removed with the magnet. It was situ-

[1] Made by Cubley and Preston, High Street, Sheffield.

ated deeply underneath the conjunctiva, in proximity to the rectus tendon. The fragment weighed 8½ millegrammes (0.132 grain).

Case III. *Sclerotic.*—W. D., aged 43, an engineer, was engaged on September 25th, 1884, in straightening a pair of "cutters" with a wedge-hammer, and was hit in the right eye from a piece of steel flying off the hammer. A man at the works took some bits out, and he continued his work. The eye remained painful, but he supposed this was in consequence of the blow it had received.

On October 1st, he first came to me. On the outer side of the sclerotic, just beyond the cornea (ciliary region), was a small dark mark. The conjunctiva was separated over this, and the electro-magnet, both with a needle attached and without, was applied to the spot, but failed to bring away any fragment. It seemed evident that, if there were a piece of steel there, it was deeply placed and firmly fixed, and that it might possibly be thrust inwards in endeavouring to remove it. The next day, the presence of a piece of steel was rendered positive by the dipping of the suspended magnet when placed over the dark mark. After dissecting the conjunctiva away from the sclerotic wound, this latter was a little enlarged, and still the particle was so firmly fixed that the electro-magnet failed to extract it; and t was eventually removed by means of a fine pair of splinter-forceps. The fragment was a small oval piece, and weighed 2 millegrammes (0.03 grain).

Case IV. *Eye-lids: Orbit.*—Simeon P., aged 39, was engaged on the afternoon of July 23rd, 1884, in "welding a head on the tension-bar," when a piece of metal was driven off the "swauge," and struck his right eye. When seen in the evening, the eye-lid was swollen and rather ecchymosed; the ocular conjunctiva was in a similar condition. There were films of hæmorrhage in the vitreous humour, but a careful search revealed no foreign body inside the globe, nor indeed any point where it could have entered. In the upper eyelid, especially when the patient looked down, and closed the eye, a hard swelling about the size of a small pea was noticed. Supposing this to be a foreign body, no wound of the conjunctiva was detected on the inner side of the eyelid, nor at the retrotarsal fold; there was, however, a good deal of ecchymosis of the conjunctiva. The nature of the swelling was at once rendered evident by introducing one of the points attached to the electro-magnet under the eyelid, towards the retrotarsal fold; for, on withdrawing it, the "tumour" felt externally was seen distinctly to follow the magnet. The removal was effected from the external rather than from the internal surface, as the position of the foreign body made it more difficult to reach it in the latter direction. The piece of steel was found situated deeply, more in the orbit, almost, than in the eyelid, and by the side of, but deeper than, the elevator of the upper eyelid. It was presumed that the fragment of steel had impinged against the eyeball with sufficient force to cause hæmorrhage into its interior, and had then sped onwards under cover of the upper eyelid. The piece of steel was rather more than three-eighths of an inch long, and was tolerably thick as well; its weight was 225 millegrammes (3.933 grains).

Case V. *Orbit.*—On January 16th, 1884, Walter A. was chipping a tyre at Messrs. Cammell's works, when his right eye was rendered immediately blind by a splinter from the tyre striking it. He applied at the infirmary without delay. A wound was found on the inner side of the sclerotic, and vitreous humour had escaped; there was hæmorrhage also into the eyeball. He was placed in bed with an ice-bag over the eye. On January 20th, the hæmorrhage had cleared up a little, but no view of the fundus could be obtained. A suspended magnet held over the eyeball was considered to "dip distinctly." The patient declined to give his consent to enucleation.

January 23.—The consent of the patient having been obtained, the original wound was reopened, and the electro-magnet introduced, but did not detect any fragment of metal. The globe was then excised, and, in dividing the optic nerve, a small piece of sclerotic was left attached to it. On removing this subsequently, something hard was felt, and, in introducing the electro-magnet, a "click" was audible, and the fragment was apparently loose, and easily removed. It was thought at the time that the fragment in reality lay loose in the orbit, just beyond the globe; and it may be that, in dividing the optic nerve, the scissors had slipped into the posterior wound in the eyeball (point of exit), and so a portion of sclerotic was left. The piece removed was a thick fragment, and weighed 745 millegrammes.

Case VI. *Cornea.*—Mr. John T., aged 27, was driving some nails into a door, and was using a file instead of a punch, as the door had to be painted and grained. On striking the file, however, some pieces flew off the tip (broad end); one of these fragments hit him on the forehead, and the other in the right eye. This was on June 5th, 1883, and on the 6th he came to me. He fancied the piece was still in the eye. Near the sclero-corneal junction, a small piece of steel in the cornea was seen with difficulty, and with focal illumination, better in some directions than others, and it was placed deeply, almost in the anterior chamber. Efforts were made to remove it, but resulted in opening the anterior chamber. It may be mentioned that no visible effect was produced on the fragment by the electro-magnet when in close contact with the cornea. Nor was there any deflection of a suspended magnet (sewing-needle magnetised), either before or after the fragment had been subjected to the influence of the electro-magnet. The next day, June 7th, the chip of steel was removed in the following manner. A narrow iridectomy-knife was passed through the cornea near the periphery, and, having the cornea in front of it containing the fragment, served as a base to work upon in its extraction, and avoided the danger of pushing it into the anterior chamber. With the iris-knife for a base in the manner mentioned, the corneal tissue was opened up by a broad needle in front of the piece of steel, and then it was immediately removed with the electro-magnet. The situation of the chip was so near the anterior chamber, that, in dissecting the cornea over it, the fragment moved about on the iridectomy-knife. The operation was followed by slight iritis, which, in the course of a few days, subsided. On June 30th, vision was = $\frac{2}{20}$. The piece removed was very small, but was lost when sent to be weighed. The magnetic needle used in this case was not such a delicate suspended magnet as has been employed in other cases.

Case VII. *Lens.*—Samuel H., aged 24, a roll-turner, was engaged on June 25th, 1884, centreing the end of a roll with a chisel, and a piece of iron from the roll flew off, and hit his left eye. On his coming to the Sheffield General Infirmary, on June 27th, it was noticed that there was a wound of the cornea, corresponding to the upper border of the pupil. It was about one-eighth of an inch in length, and its long axis was almost horizontal. The lens was opaque, and, in the lower part, was a mere yellowish mark, divided at its outer part by a brownish line. The pupil acted fairly well to atropine. Vision was limited to shadows.

June 28th. The original wound was reopened and enlarged, the lens-capsule torn through, and the point of the electro-magnet introduced, and withdrawn with the fragment of metal attached; softened lens-matter was allowed to escape. Pain was at first entirely relieved; then it returned, and, ophthalmitis setting in, the globe was enucleated on August 4th, 1884. The weight of the fragment removed was 7 millegrammes (.108 grain).

Case VIII. *Vitreous Body.*—Wm. W., aged 36, a boiler-maker, living at Rotherham, was employed on June 28th, 1883, in cutting rivets from a boiler, and, while thus occupied, a "chipping" had hit the right eye. He was rendered immediately blind. He was seen by a surgeon, who recommended his applying at the Sheffield Infirmary, whither he came on July 7th. He was then suffering acute pain, and vision was lost in the right eye. On the outer side of the sclerotic and below the cornea, there was an oblique wound; it invaded the ciliary region, and was now closed. There was iritis; and, though the pupil dilated somewhat to atropine, and the lens was clear, no foreign body could be detected in the interior of the eye; and the vitreous chamber was occupied with effusion.

The presence of a foreign body was suspected, though not visible; and, a few days later, he being then an in-patient, the particle, if any, having been well magnetised by the close proximity to the eyeball of the electro-magnet, a delicate magnet was held suspended over the eye. It gave most unmistakable evidences of the presence of a fragment of steel, the dipping being especially marked just over the wound.

On July 16th, the patient having been placed under ether, an incision was prolonged downwards from the old wound, and, the original one being reopened, made it somewhat T-shaped. Immediately the point of the electro-magnet was inserted, a click was heard, and it was evident that the fragment was situated in the vitreous body, just inside the wound. It was drawn by the electro-magnet into the wound, but appeared too large to be dragged out. The wound was, therefore, enlarged, and the piece seized with forceps, and extracted. It measured half an inch long, by one-eighth of an inch wide. On the 18th, the eyeball was excised. The weight of the fragment removed was 175 millegrammes (2.7102 grains).

Case IX. *Vitreous Body.*—Joseph C., a collier, aged 22, was admitted into the Sheffield General Infirmary on September 28th, 1883. On the 8th of that month, whilst driving an iron wedge into the coal, in order to split off a large lump, a "flash" from the wedge entered his left eye. He continued his work, however, thinking that a "mite" had hit the eye and rebounded. Towards night, vision was noticed to be rather dull. The next day, being worse, he consulted a medical man, who, he alleged, removed a piece from the cornea. He continued at his employment until a fortnight later, when, in con-

sequence of the eye becoming worse, he consulted Mr. W. M. Jones of Wath, who, recognising the condition of affairs, sent him to me at the infirmary on the 28th. On examination, a small foreign body could be seen floating in the vitreous humour. On the cornea, a scar of a small wound was detected on the inner side, opposite the pupillary margin. The iris was adherent to the lens-capsule at a point corresponding to the corneal scar; and the piece of steel had evidently passed through the lens into the vitreous body; but it was only a little hazy, and that at the point of adherence to the iris.

September 29th. The conjunctiva was separated for a little distance, to form a sort of flap; and, after bleeding had ceased, the sclerotic was punctured with a Gräfe's knife at a point between the internal and inferior recti. The small point attached to the magnet was introduced, and immediately withdrawn, with the fragment attached. The conjunctiva was united over the sclerotic wound with a suture.

On October 4th, the suture was removed. Eye quite quiet. On October 13th, he was discharged. Vision was $\frac{20}{40}$ with +2·5 D. The weight of the chip removed was $\frac{1}{8}$ milligramme (.0046 grain).

CASE X. *Lens and Vitreous Body.*—Benjamin V., aged 28, was struck on the left eye on August 12th, 1882. He was cutting a steel bar, and it "rebounded" and hit the eye. On admission as a patient at the Sheffield General Infirmary, four weeks after the injury, there was a small wound in the cornea and reaching into the ciliary region (outer side), and that the lens was opaque. Projecting from the wound was an eyelash; this was removed. Atropine drops were used. The history of injury, as given by the patient, appeared to render improbable a piece of metal having entered the eye. Later, however, the iris was seen to be peculiarly pushed forwards at one point, and what looked something like a metallic body was detected. He resisted all endeavours for attempted removal, and ceased attending.

In October 1883, however, he returned in consequence of the eye being painful; vision was much reduced. The appearance in the iris, before mentioned, was more marked, and the point sticking through the iris was coated with exudation. Removal of the foreign body was advised, and performed on October 22nd. Through a corneal wound, the point of the electro-magnet was introduced, and immediately, by the attraction it exerted on the point in the iris, decided its character. By the aid of the magnet, the fragment was dragged about the wound from point to point, and very much loosened. The electro-magnet without a needle attached, was employed, and the fragment advanced well out at the corneal incision. Still it could not be altogether withdrawn, and required a good hard pull with forceps to extract it. A portion of iris, in which the piece of steel was entangled, was excised. The good eye showed some slight signs of irritation. The patient refused to become an in-patient. He declined enucleation, and when he disappeared, the globe was softened but painless. The chipping was a narrow piece about three-eighths of an inch in length, and its weight was 60 milligrammes (0.92 grain).

CASE XI. *Vitreous Body.*—Arthur S., a cutler, aged 21, was admitted as an in-patient on September 20th, 1883. On the 16th he was hit on the right eye by a chip, when engaged in striking. He was immediately rendered, as he says, blind, and ceased working. He was treated elsewhere, and when he came to the Infirmary on the 17th, his condition was as follows: the eyelids were œdematous; the lens was clear, but in the vitreous body were some floating hœmorrhagic films; no foreign was visible, nor was any wound detected; He could see fingers. Atropine drops were ordered. The following day, he was in about the same condition.

September 19th. He suffered a great deal of pain last night. The œdema of the lids was greater; sight was much reduced. On very careful examination with a magnifying glass, on the inner side of the sclerotic, a short distance from the cornea, a small horizontal line was noticed, as if representing the point of entrance of a foreign body. It was covered with œdematous conjunctiva and very indistinctly made out.

September 20th. The eye had been very painful; vitreous was cloudy, and there was a good deal of iritis. The conjunctiva was dissected up from the mark which had been noticed in the sclerotic, and as it appeared to be the wound closed, it was reopened and another incision prolonged from it (between the inner and lower recti) and making the wound somewhat T-shaped. The point of the magnet was introduced, and at once withdrawn with the particle of steel adhering to it. Pain was at once relieved, and he passed a good night. Subsequently the eyeball softened and was enucleated on January 4th, 1884. The fragment extracted was a sharp-edged triangular chipping, and it weighed 17 milligrammes (.2654 grain).

CASE XII. *Vitreous Body.*—John H., aged 40, residing at Barnsley, was admitted an in-patient at the Sheffield Infirmary on August 10th, 1884. On the 5th of the month, he had been struck on the left eye by a fragment of steel. He had been cutting a piece of steel to make a die, and a chip from the chisel had sprung off. He did not come to Sheffield until the 10th. Then the conjunctiva was rather swollen and inflamed. On the outer side of the cornea, at the lower part, was a small scar, marking, it was thought, the point of entrance of the foreign body. The iris was dirty looking; the lens was opaque, and rather yellowish. No piece of metal was visible, and a small magnet suspended over the eye gave no decided indications. He was suffering acute pain. It was decided to remove the cataractous lens, and to insert the point of the electro-magnet. A section with a Gräfe's knife was accordingly made through the cornea, above, towards the periphery; the lens-capsule was opened, and the point of the electro-magnet inserted, and pushed to the back part of the lens at its lower part, and immediately withdrawn with a splinter of steel attached. The softened lens-matter was let out, and there came also pus, apparently from the anterior part of the vitreous body, making it doubtful whether the foreign body had been located in the lens, or posterior to it. Probably it was in the front part of the vitreous chamber. He experienced immediate relief from pain, and left the infirmary of his own accord two days later. He afterwards returned, and the eyeball was enucleated on September 12th; the globe was very painful, and thoroughly disorganised. On section, the vitreous body was found to be suppurating. The piece of steel removed weighed 15 milligrammes (0.231 grain).

CASE XIII. *Retina: Vitreous Body.*—The next case possesses such features of interest that I purpose recording it more in full at another time, and now only give sufficient details for our immediate purpose. William A., aged 26, a mechanic, came to the Sheffield General Infirmary on August 10th, 1883. Three months before, he had been hit in the left eye with a chipping. On his admission, a small mark, in the sclero-corneal junction, on the inner side, at its middle, was detected. The pupil acted freely, both to light and to atropine. Refraction was hypermetropic.

With the ophthalmoscope, the media were found to be clear, and upwards and inwards (inverted image) from the optic disc was a black glistening body, surrounded with whitish effusion; this was believed to be the piece of steel. Vision was $= \frac{20}{30}$. The field of vision, taken with a perimeter, showed a gap corresponding to the situation of the foreign body. In November, the fragment could no longer be seen, but still the whitish exudation was visible; the eye remained quiet, and vision was good.

February 22nd, 1884. He returned to-day with some amount of pain, and had iritis; Vision $= \frac{20}{70}$; no foreign body was visible in the fundus. By February 25th, Vision $= \frac{20}{200}$. The vitreous body was cloudy, and iritis was more intense. He consented to an attempt to extract the fragment of steel, which it was presumed had become loose, with the electro-magnet. Accordingly, after separating a conjunctival flap, the sclerotic was punctured between the inferior and external recti, with a Gräfe's knife, the direction being meridional, and the primary incision being joined by a second cut at its middle. After introducing the point of the electro-magnet, and withdrawing it, substituting a stouter extremity, and again passing it into the interior of the eye, the small fragment of steel was found entangled at the wound, and removed. The conjunctival wound was closed by two sutures. The pain subsided, as did also the iritis; the pupil has remained somewhat occluded, but he can count fingers, and promises, with the aid of an iridectomy, to see well again. The fragment had a whitish coating on one side, whilst the other was unaffected; it weighed 4 milligrammes.

The case is an interesting example, of which I have seen others, of preservation of vision with a foreign body embedded in the fundus oculi. The case suggests several questions. Where was the foreign body situated? Had it remained fixed in the retina, and become coated over with exudation, and in this way rendered difficult to detect with the ophthalmoscope, and, in this case, it had only recently fallen into the vitreous body? or had it separated from the retina as long ago as November, when the black shiny mark was no longer visible? The appearance of the fragment supports the former, but these questions I propose to discuss when I record, in more detail, this, as I take it to be, exceptionally interesting case.

At the time of writing this paper, the two following cases have occurred in the casual department of the infirmary.

CASE XIV.—A man, aged 40, applied with a piece of steel in the left cornea. The stoutest point of the electro-magnet was attached, and then, on being brought almost into contact with the cornea, was withdrawn with a minute particle adherent.

In other similar cases, the electro-magnet has proved also of service

but I have elsewhere pointed out how, from the nature of the particles embedded, it is not always equally applicable.

CASE XV.—A man, aged 34, was struck in the right eye by a piece of steel from a chisel with which he was cutting some iron. A dark mark was noticed under the conjunctiva, on the outer side of the globe, and, on applying the electro-magnet, it was noticed to move, and it was readily extracted through a small incision in the conjunctiva. The particle was about one-eighth of an inch long. In both these instances, the fragments of steel were removed by Mr. J. R. Turner, and to him and to Mr. P. Priestley, I am indebted for many of the notes of the cases here related.

The fifteen cases now recorded make, together with those previously published by me—nineteen in number—a total of thirty-four. Now, as previously, I make no record of the numerous instances in which wounds, in somewhat doubtful cases, have been "probed" by the electro-magnet; if these were calculated, the aggregate number would perhaps be doubled. Of the cases themselves, I would merely remark that they illustrate the wide applicability of the electro-magnet to the various parts of the eye; of course, they vary much in value and interest, but they form a complete series.

It will have been noticed that a delicate suspended magnet has been made use of in some instances as an aid to diagnosis, and that in some cases it afforded distinct indications. For example, in Case 3, the dipping of the needle rendered it certain that there was a fragment embedded in the sclerotic. Again, in Case 9, which was regarded as a "suspicious case," when the suspended magnet was brought in front of the eye, the deflections were of the most distinct kind, and were particularly marked in the region of the sclerotic wound. In this latter case, it was thus inferred that a fragment of steel was situated inside the eye, and, moreover, that it was located near the point of entrance. The subsequent operation proved the correctness of these conclusions. The chip in this instance was, of course, of large size, but in others, comparatively small splinters, the suspended magnet has given indications of their presence.

ADDENDUM.—The three following cases, briefly related, and making a total of thirty-seven, have occurred since the paper was written.

CASE XVI. *Lens.*—In the early part of November 1884, Harry U., a lad aged 17, was struck on left eye with a chip from a punch. First seen, December 5th; lens opaque, and, at outer part, was a whitish patch of lymph. Cornea punctured with keratotome on December 8th; needle of electro-magnet advanced to whitish patch, and withdrawn with pin of metal, weighing two millegrammes. Cataract removed April 3rd, 1885, with $+ 3\frac{1}{2}$, $V = \frac{2}{3}\frac{0}{0}$.

CASE XVII. *Vitreous.*—Peter K., aged 23. Accident to left eye with a "wedging" of steel on December 4th, 1885. On December 29th, vitreous filled with exudation; lens clear; foreign body had penetrated below, just beyond corneal edge; a small horizontal scar is now visible. The sclerotic was incised, as in previous cases, between external and inferior recti, and point of magnet introduced; failure, however, to remove fragment resulted.

January 12th, 1885. Eyeball was enucleated, and small piece of steel, $12\frac{1}{2}$ millegrammes, was found embedded in the centre of a mass of organised lymph, in the vitreous cavity, some little distance behind the lens.

CASE XVIII.—Charles C., aged 34. Date of injury, March 10th, 1885. On the 16th, the condition was as follows; a small linear scar of cornea towards the inner side of middle, a corresponding one, also, in the anterior capsule, through which a little lens was protruding; in the posterior capsule (lens being not thoroughly opaque), a square mark was noticed, probably an opening. A small flap was made in the cornea below, and some of the lens allowed to escape, and the needle of electro-magnet introduced through the posterior capsule into vitreous, and a small fragment removed, weight $1\frac{1}{3}$ millegramme. The case has since progressed well.

BEQUESTS.—The late Mr. James Gorman, of Dublin, whose will was recently unsuccessfully contested in the Probate Court, has left by it a sum of £45,150 in charitable legacies, including the following bequests to Dublin hospitals: to St. Vincent's Hospital, £400; to the Convalescent Home attached to said Hospital of St. Vincent, and known as Linden, Blackrock, county Dublin, £50; to the Mater Misericordiæ Hospital, £400; to St. Joseph's Hospital and Infirmary for Sick Children, £500; to the Hospital for Incurables, £500; to the Fever Hospital and House of Recovery, Cork Street, £500; to Our Lady's Hospice for the Dying, Harold's Cross, £500; to the Coombe Lying-in Hospital, £300; to St. Michael's Hospital, Kingstown, county Dublin, £500.

THE Leicester branch of the St. John Ambulance Association has presented an ambulance-waggon to the Corporation of that town.

DEATHS FROM ANÆSTHETICS IN 1884.

BY ERNEST H. JACOB, M.A., M.D.,
Assistant Physician to the General Infirmary, Leeds.

THE following deaths occurring during anæsthesia for surgical purposes have been recorded in the journals, or have come to my knowledge, during the past year.

I.—*Deaths under Chloroform.*

Locality.	Sex.	Age.	Operation.	Mode of Death.	Remarks.
1. Portsmouth Hospital	M.	45	Papilloma of tongue	—	Face became livid, pulse ceased before operation was begun. No *post mortem* examination.
2. Manchester	M.	—	—	—	Heart malformed.
3. Carlisle Infirmary ..	M.	17	Disease of ankle	—	Syncope after vomiting. No *post mortem* examination.
4. Glasgow	M.	—	Adhesions in joints	—	Sudden syncope after very little chloroform had been taken.
5. Derby	M.	8	—	—	"Paralysis of heart" immediately after administration. *Post mortem* examination, organs healthy.
6. Nottingham	M.	33	Extraction of tooth	Syncope	Organs healthy, *post mortem* examination.
7. Manchester Workhouse Infirmary	M.	71	—	Asphyxia	
8. Glasgow Western Infirmary	M.	26	Fracture of leg	Syncope	
9. Guildford	M.	—	Injury to hand	—	

II.—*Deaths from Mixtures of Chloroform and Ether.*

Locality.	Sex.	Age.	Operation.	Remarks.
1. Sussex County Hospital	M.	26	Irreducible hernia	Chloroform given, followed by ether. There was albuminuria and a double aortic *bruit*. Death by asphyxia. No degeneration of cardiac muscle.
2. The New Hospital for Women	F.	32	Exploration of kidney	Sudden syncope. *Post mortem* examination, kidneys full of abscesses, heart pale. Patient previously much exhausted. The A.E.C. mixture was used.

III.—*Deaths from Methylene.*

1. London	F.	23	Uterine operation	Syncope in three minutes, after inhaling only 10 minims.
2. S. Devon Hospital ..	M.	19	Suture of nerve	Syncope. *Post mortem* examination, right lung congested, heart hypertrophied.
3. Bedminster	M.	—	Extraction of tooth	

IV.—*Deaths from Ether.*

1. Gloucester Infirmary	M.	50	Cancer of mouth	Patient very ill and feeble. Face became pale about five minutes after beginning.
2. St. George's Hospital	F.	43	Sloughing fibroid of uterus	Patient much exhausted; large goitre; breathing ceased, no air admitted on artificial respiration. Tracheotomy performed.
3. Metropolitan Free Hospital	boy	—	Operation for bronchocele	Death by spasm of expiratory muscles epileptic. (?) Lungs could not be inflated.
4. Leeds Infirmary ..	F.	54	Ovariotomy	Patient very feeble, great displacement of organs. Took ether badly at first, breathing became shallow and ceased. Death occurred about twenty minutes after commencement, ℥j of ether only having been administered.
5. Leeds Infirmary ..	F.	64	Ovariotomy	Patient much exhausted, but took ether well. Twelve hours after operation, began to have dyspnœa, and died with congestion of lungs, seventeen hours after operation.
6. Leeds	F.	38	Ovariotomy	Patient exhausted; breathing became feeble, and ceased.

A third death occurred at the Leeds Infirmary a short time since under the influence of ether, though this would probably have occurred whatever anæsthetic had been given. The patient, a woman, aged 43, suffering from acute intestinal obstruction, was admitted for the purpose of having a colotomy performed. She was constantly vomiting liquid fæcal matter. During the period of anæsthesia, some of this passed into the trachea, and, in spite of tracheotomy, she was asphyxiated.

In reviewing the cases of death from chloroform and ether respectively, one is struck by the difference in the character of the operations; the deaths from chloroform being mostly in comparatively healthy persons, during slight operations. The deaths from ether occurred, without exception, in persons severely debilitated by disease. It is doubtful how far such a case as No. 5 should be attributed to the anæsthetic; in a large hospital there are many chances of a patient taking cold during removal from the theatre to the ward.

Since January 1st in this year, one death from chloroform, and one from ether, have been recorded.

EXTRACT FROM A CLINICAL LECTURE ON A NEW OPERATION FOR NASO-PHARYNGEAL OR FIBROUS POLYPUS.

By FURNEAUX JORDAN, F.R.C.S.,

Surgeon to the Queen's Hospital, Birmingham, Professor of Surgery in Queen's College.

Gentlemen,—This is the second young woman from whose nose and pharynx I have removed a fibrous growth by a very simple operation. This growth comes in young adults of both sexes. It is often attended by severe hæmorrhage. It deforms the bones of the face. Ultimately, it interferes with the functions of breathing and swallowing.

Many methods have been used for its removal. Mr. Syme advised forcible avulsion by curved forceps carried through the mouth. Mr, Cooper Forster has shown the dangers of this method in a remarkable case, in which it gave rise to fracture of the base of the skull. Nélaton reached the growth by dividing the soft palate. The upper jaw has been excised for the purpose. More frequently, the upper jaw has been so loosened, that it could be turned upwards or downwards, according to the judgment of the operator.

The operation I now describe to you I have found to be efficient, simple, and followed by but little scarring. The leading principle of the operation is to thoroughly uncover the bony orifice of the nasal cavity. This is done by making a triangular flap out of the upper lip and the side of the nose. A curved bistoury is carried under the lip into the affected nostril, and made to cut its way out. Then the soft part of the nose is divided on one side of the middle line in a line



with the cut in the lip (the wood-cut shows the incision). A few touches of the knife permit the flap to be turned well outwards. The nasal cavity is found expanded, well defined, and open to any sort of manipulation. To-and-fro traction by one or two fingers in the pharynx, and one or two at the front, aided, perhaps, by snips of scissors or knife, readily detach the tumour, which falls into the hand in the mouth. If the bone-opening should be found too small, I would enlarge it with strong bone-forceps. I believe the need for such a step would rarely arise. Delicate adjustment and stitches leave scars so fine, that only resolute search can find them.

Probably similar incisions would be found very useful in cases where the nostril is filled with ordinary, but obstinate and crowded, polypi, and also in cases of malignant polypus, where it is deemed well to clear the nostril for a time.

VARICOSITY OF THE LINGUAL VEIN AS A DIAGNOSTIC SIGN.

By G. CECIL DICKSON, M.B., Carnoustie, N.B.

Much has been written on what the physician may learn from an inspection of the cavity of the mouth, but I have found no reference in works on diagnosis to the state of the lingual veins being indicative of other more important vascular changes.

Under certain conditions, and especially in elderly persons, the ranine and lingual veins are remarkably dilated and varicose; they are much enlarged, and present many bulgings, which extend in a racemose manner to the edge of the tongue. This is most easily observed by directing the patient to place the tip of his tongue against his upper incisor teeth; the main vessels will then be seen, but the branches will be better observed by its being turned somewhat to one side. In the following two cases, this condition was most marked.

D. T. had, in 1880, when aged 79, an attack of right-sided hemiplegia, with aphasia; and, since then, had been liable to frequent attacks of unconsciousness, accompanied with lividity of the face, twitching of the limbs, and great irregularity of respiration. He was stout and florid. The lingual veins were remarkably varicose, and so large as to project from the edge and be seen from the dorsum. The pulse was weak and irregular. In 1884, he had senile gangrene of the right leg, and died, six weeks afterwards, in one of his convulsive attacks.

G. M., aged 83, had an attack of aphasia in May 1884. He recovered, but since then his face frequently became much flushed, and his speech confused. The lingual veins were much dilated and varicose, especially on the left side. The heart's action was weak and irregular, and occasionally there was a mitral systolic murmur. In February 1885, he died in an apoplectic attack, accompanied with right-sided hemiplegia and cerebral breathing.

In these two cases, the condition was evident, and, although there was no necessity to indicate the exact lesion, yet death certainly resulted from vascular changes in the encephalon, probably either thrombosis or hæmorrhage; and they indicate to us, what theory would also suggest, the diseases that are liable to occur when this varicose state of the veins is present. The lingual vein being a branch of the internal jugular, will indicate the state of the blood-current in it, and so will approximate to the state of the brain-sinuses, the veins of Galen, and, indeed, the whole intracranial venous system. Distension and varicosity of the linguals will become associated with passive congestion in them, precisely the conditions in which thrombotic and hæmorrhagic lesions are apt to occur.

Its cause is indicated in these cases, as in several others I have observed, by the state of the heart, which was beating feebly and irregularly, just the condition which tends to produce venous congestion.

The appearance of the capillaries and veinlets in the nose, lips, and ears, gives us a clue to the state of the circulation of the head; but the lingual vein, from its large size, is specially manifest, while, from being covered only by mucous membrane, it is clearly seen, and, moreover, by being thus so fully supported externally, it will most readily yield and bulge from internal causes. It is difficult to see what local causes in the mouth could induce it, and it is thus contrasted with the saphena vein, varicosity of which more usually arises from some pressure either in the limb or in the abdomen, and, also, the latter, belonging to the inferior canal-system of veins, will not indicate the cerebral state as the lingual.

Just as varicosity of the hæmorrhoidal veins at the other end of the alimentary tract points out the state of the portal venous system, so a varicose condition of the lingual becomes indicative of a dilated state of the whole jugular system.

Like other diagnostic signs, there is a wide limit, varying at each age, within which this may occur in health. It is only an exaggerated varicosity that would seem to be prognostic. It does not always accompany the arcus senilis; that suggests rather arterial anæmia than venous hyperæmia.

Dr. Richard Fitzgerald, of Tarbert, county Limerick, died last week, deeply regretted. The members of the Board of Guardians of the Glin Union have passed a resolution, expressive of the loss which the district has sustained by his untimely death.

Increased Salaries.—The Northfleet Local Board have increased the salary of Dr. John E. Crook, the medical officer of health, from £30 to £50 *per annum*. The Biggleswade Guardians have increased the salary of Dr. Charles Burnett, one of the district medical officers, from £30 to £40 *per annum*.

CLINICAL MEMORANDA.

VALVULAR DISEASE OF THE HEART, ACCOMPANIED BY RHEUMATIC SUBCUTANEOUS NODULES.

THE case related by Dr. Edge, in the JOURNAL of April 11th (p. 737), reminds me of a case I attended some time ago. A delicate strumous girl, aged 14, and showing signs of development, was suffering from general debility, due to a slight sore-throat. I found that she had a slight rotary lateral spinal curvature, for which I ordered tonics, a nourishing dietary, fresh air, and gymnastics. A week or two afterwards she complained of her fingers being sore, which was thought to be due to the physical exercises which I had recommended; but on examination, I found some of the interphalangeal joints of both hands enlarged and painful; and, my attention being drawn to her elbows, I found on the posterior surface of both joints numerous nodules, quite loose, in the subcutaneous tissue, and varying in size from pins' heads to small peas. When the limbs were flexed, these nodules were very distinct, and looked like points of bone. These soon disappeared as the girl's health improved. Shortly after the rheumatism became well, choreic movements showed themselves, first in the limbs, and then in the face, and then they became general. The heart was not affected in any way. The attack lasted some weeks, and was of severe character. She is quite recovered, and is now very greatly improved in health; though some of the finger-joints, or rather the articular extremities of the phalanges, occasionally swell and become painful. The catamenia have not yet appeared.

F. W. JORDAN.

TREATMENT OF SPINA BIFIDA BY MORTON'S METHOD: SUCCESSFUL RESULT.

THE recent discussion on Mr. Mayo Robson's paper at the Clinical Society has brought to my recollection a case which I treated several years ago, the record of which has lain undisturbed in my note-book ever since. Here I had intended to let it remain until fortune should favour me with a group of cases worthy of publication. I have waited seven years; and during all that time, I have not seen another case. Even now, however, I should be in no hurry to bring my solitary experience before the profession, but for the circumstance that the Clinical Society appear to have a Spina Bifida Committee, who may be glad of any help to the elucidation of the problems set before them. The deformity is not a common one; and the sum of each man's experience cannot be great, unless he be exceptionally placed. Any case accurately recorded at the time of observation is, therefore, not to be despised; though I am too familiar with the utter worthlessness, for the purpose of drawing conclusions, of solitary successes as illustrating the value of any particular line of treatment.

April 9th, 1878.—Mary Ann C., aged 25 days, had a spina bifida over the sacrum. It was tapped; and three ounces of clear fluid were drawn off. The fluid was clear, neutral, albuminous, and contained abundant chlorides. Half a drachm of Morton's iodo-glycerine solution was injected. The opening was sealed with flexible collodion. On April 10th, the child had been restless all night, but had slept during the forenoon. There was no constitutional disturbance. The tumour was as large as before the operation. On April 17th, the tumour was contracted to about half the size it had been before tapping. On May 12th, it was much smaller; but there was still some fluid. Half an ounce was drawn off, of the same characters as before. Half a drachm of Morton's iodo-glycerine solution was injected. Flexible collodion was applied to the wound. On June 1st, the part was quite firm and contracted. The child was well, and had no bad symptoms.

ROBERT SINCLAIR, M.D., Dundee.

THE COMMUNICABILITY OF CONSUMPTION.

THE perusal of Dr. Burney Yeo's paper on Some Points in the Etiology of Phthisis has induced me to offer a very few remarks on the communicability of this disease. Since 1863, I have been on the medical staff of the Victoria Park Hospital for Diseases of the Chest, and have had many hundreds of cases of consumption pass under my notice. Once only have I met with an instance in which the lung-disease seemed due to contagion, and this was many years ago, before we knew anything of the tubercle-bacillus.

A woman from Edgware was admitted, under my care; and, when I had examined the upper part of her chest, I said that the apices of the lungs seemed clear. When I examined posteriorly, I found a well marked cavity at the base of the right lung. The existence of this limited disease caused me to inquire rather specially into the history of the case, and I learned that this woman had for many months nursed her husband, who had died of consumption, and who suffered much in his throat. I remember observing to my assistants, at the time, that it really looked as if a germ of disease had been drawn by the patient into the right bronchus, and this had set up destructive disease in the lower part of the right lung. The patient left the hospital much relieved, and I have not heard of her since. We know that in warm countries, such as Italy and Spain, consumption is regarded as a contagious disease. I can understand this; for it is in such climates where the most active and rapid forms of consumption occur, and the disease is often brought to a high state of cultivation by the way in which the patients are confined to close airless rooms. Tubercle-bacilli grow and multiply in a congenial soil, just like mushrooms on a dung-heap. In cold climates, the disease is very often of inflammatory origin, and fairly amenable to treatment.

Practically, I do not think there is any risk to persons, whose mucous membranes are sound and well nourished, in attending upon those who are ill with any form of phthisis, provided the attendant do not sleep in a room with the patient, and get a due allowance of open-air exercise. When, however, any one who is about among consumptive people begins to cough, it is a sign of disturbed and enfeebled mucous membrane; the soil is being prepared for the bacilli; and at once such an one ought to get right away from all that savours of phthisis, and make a sea-voyage to Australia and back.

JOHN C. THOROWGOOD,
Physician to the City of London Hospital for Diseases of the Chest, Victoria Park.

SURGICAL MEMORANDA.

ANEURYSM OF FEMORAL ARTERY: LIGATURE OF EXTERNAL ILIAC ARTERY: RECOVERY.

H. C. M., aged 24, consulted me on the 3rd of November, 1884, about a swelling in the right groin; he had noticed it only a short time, and had no pain in it. Being a member of the dramatic profession, he had been travelling about the country. He had taken advice about it, and was told that it was an abscess, and was directed to poultice it. He is very tall and thin; has had good health, with the exception of syphilis, which he has contracted twice, and for which he was treated with mercury for a long time; he is highly nervous and sensitive; his family history is good, but with a strong taint of gout. When I first saw him on November 3rd, 1884, he had a swelling, about the size of a small walnut, in the right groin; it pulsated strongly, had a thrill in it, and a loud rasping *bruit;* it expanded, and pressure over the external iliac artery stopped the pulsation and diminished the swelling, which filled again immediately the pressure was removed; he had no pain, and was only annoyed by the constant beating.

I diagnosed aneurysm of the femoral artery close up to Poupart's ligament, and advised him to give up all his engagements and remain at home for rest and treatment. I next saw him on November 15th, 1884, when I found the aneurysm notably increased in size, and, after a fruitless attempt to control the circulation by the use of Signoroni's tourniquet, it was discontinued, in consequence of inability to bear the pressure. He now began to have pain of a neuralgic character, preventing sleep, and making him roll about in agony, which was only controlled by hypodermic injections of morphia, repeated at frequent intervals. He had taken iodide and bromide of potassium, quinine, digitalis, and belladonna, without any benefit. The aneurysm had now increased to the size of a large plum, and the pain from the pressure of it was intense; there was some œdema of the foot and ankle; the pulsation and *bruit* were strong and loud, and extended somewhat under Poupart's ligament, and it was evident that nothing but ligature of the external iliac artery was likely to afford him relief. The application of belladonna-liniment, and ice, gave him temporary ease.

After a consultation with my friends, Mr. Hatherly and Mr. Littlewood, I proceeded to operate on December 14th, 1884. The bowels were previously emptied by two large enemata; and whilst he was under chloroform, I made an incision three inches long, a little above Poupart's ligament, from the inner margin of the abdominal ring, slightly curved outwards towards the anterior superior spine of the ilium; the muscles and fascia were divided on a director, and the artery was easily felt, and seen pulsating at the bottom of the wound; the sheath was opened, and a ligature of ox-aorta passed round the artery. The ligature broke, and I then used one of prepared kangaroo-tendon, which answered well. The branch of the crural nerve was seen and carefully excluded; the peritoneum was not wounded. There was very little hæmorrhage; all pulsation in the aneurysm ceased. The edges of the wound were brought together with carbolised catgut, and a catgut

drain was put into the inner angle of the wound, which was covered simply with Gamgee's antiseptic gauze. The leg was wrapped in flannel, and hot water-bottles kept to the foot. Slight pulsation returned on the second day, which, however, soon subsided. For ten days it was absolutely necessary to keep the patient under the influence of morphia (by hypodermic injection); he was in a state of delirium the whole time. He took nearly six pints of milk, and two tins of Brand's essence of beef, daily. His pulse never exceeded 108, and his temperature averaged 99.3°, and never rose above 101°, which it reached on the third day. The circulation was re-established about the end of forty-eight hours. Pain ceased from the time of the operation. The sutures and drain were absorbed at the end of fourteen days, and the wound healed, except about a quarter of an inch in the centre; the amount of discharge daily was very small, but continued up to January 17th, 1885. The bowels were relieved by the enema at the end of the second week, and then daily. He was moved on to a sofa at the end of a month. The aneursym has now diminished in size and is firm.

On February 9th, the patient had progressed well; he had no pain; he had been out, and could walk about with very little inconvenience.

JOSEPH THOMPSON,
Consulting Surgeon to the Nottingham Dispensary.

SWALLOWING A SAFETY-PIN.

ON March 16th, 1885, I was requested to visit S.L., aged 3½ years, who had swallowed a few hours previously a large safety-pin, an inch and a half in length. I found the child looking very pale, and somewhat frightened. The mother had given him a small quantity of castor-oil, which had caused sickness, and relaxed the bowels once only. I ordered quiet, and a diet of hard-boiled eggs, biscuits, and milk, under which treatment the bowels became constipated. On the seventh day, 15 grains of compound rhubarb-powder was administered twice, bringing away, in the solid fæces, the pin, on the following day, the eighth after it had been swallowed. It was introduced into the child's mouth by the child's brother, only 18 months old, who was playing with him, and pushed it down his throat; for a few seconds only it lodged in the gullet, causing a choky sensation. No pain was experienced at the time, nor was there any at the time it passed *per anum*. It was evidently voided lengthways, the child straining, owing to the constipated state of the bowels.

SPENCER SMYTH, M.D.
Forest Hill.

CASE OF PAPILLARY TUMOUR OF ANUS.

TOWARDS the end of February last, I was asked by a midwife to examine a woman, 26 years of age, who, a fortnight later, was expecting to be confined for the first time. She said she was suffering from the presence of a growth near the anus, which was, from its position and size, very annoying, preventing her from assuming the sitting posture, and interfering with the act of defæcation.

Since early girlhood, she had had some warts on the perinæum, but only at the sixth month of pregnancy (about twelve weeks previously) had those next the anus begun to grow and occasion discomfort. She had always been more or less troubled with constipation; but of late this had been more confirmed, the bowels only being opened about once a week. Her mother, who was present, stated that, as a girl, she herself had been unusually subject to large masses of warts on the fingers and hands; and she was evidently convinced (a common belief among Scotch country-folk) that she had got them by milking a cow whose udder was affected in a similar manner. On separating the hips, a large purplish papillated mass, three inches in diameter, was seen to be in reality double, half rising from a pedunculated base on each side of the anus at the junction of the skin and mucous membrane; it was very friable in consistence, and readily bled when handled. The papillæ were elongated, with bulbous extremities, most of them reaching to the root of the tumour. On being ligatured, the tumours grew dusky throughout, and shrank somewhat. They were then easily removed with a pair of scissors, one coming away entire, the other in pieces. The hæmorrhage was but slight, and was easily controlled by the application of pledgets of lint soaked in alum-water. The stumps of the tumour were touched daily with nitrate of silver, and the bowels kept open by laxatives for some time; and no tendency to further growth was manifested. Several small warts, like those ordinarily occurring on the fingers, varying from the size of a pin-head to that of a pea, were seen scattered over the perinæum, having evidently escaped the changes that had taken place in those on the verge of the anus. About three weeks later, she was safely delivered of a healthy child.

Sections of the tumours showed them to be composed of long capillary loops, like those of granulation-tissue, covered by thick layers of epidermic cells, similar to the papillæ of a wart, but enormously hypertrophied.

The increased blood-supply of the pelvic viscera incidental to advanced pregnancy, together with the sluggish venous return of the constipated bowel, had probably heightened the blood-pressure in the anal warts beyond the resisting power of the epithelial covering, and forced them out to form the tumours described above.

The facts that, after their removal, when the bowels were kept open by laxatives, there was no tendency to recurrence, and that the other warts on the perinæum escaped the hypertrophy, argue considerable influence on the part of the sluggish venous return in causing the overgrowth of those on the margin of the anus.

J. MACKENZIE BOOTH, M.A., M.B., C.M.,
Physician to the Aberdeen General Dispensary.

THERAPEUTIC MEMORANDA.

THE IMPORTANCE OF SHAMPOOING AND GYMNASTIC EXERCISES IN THE TREATMENT OF EPILEPSY.

WHATEVER may be the healing virtue of "rest" in a surgical sense, there are diseases in the treatment of which too much bodily rest and too much sleep may be medically injurious; that is to say, they are injurious in adding to the lethargic dulness which is the natural sequel of certain morbid processes; so that our duty as physicians lies in counteracting, by outward means, the depressing effects of internal and invisible forces. I do not wish to say that drugs have been too highly estimated in treating epilepsy; their effects are more striking than in the treatment of most other diseases, and are one of the approximate certainties of medical art; but other remedial agencies have been valued too little. It may be proper to think of drugs first; but long ago Dr. Russell Reynolds recommended "wholesome mental exercise," and I wish now to add a plea on behalf of wholesome bodily exercise as well. Bodily exercise means bodily education, or the training of the muscles into stronger and more harmonious action; and by soothing and regulating the motor nerves, all the disorderly phenomena of epilepsy may be brought into comparative subjection and quietness.

Among the useful hints which have been offered by Dr. Radcliffe on this subject, he has warned us that the "sleepy epileptic" must be roused early, and made to leave his bed. Similarly, the stupid and idle epileptic must be summoned to his martial drill, and his senses kept "alive" by stir and movement. But even when the faculties are acute and femininely sensitive, the stultifying effects of the long-continued epileptic convulsion may be appropriately met by gymnastic exercises and systematic shampooing of the whole body. In February 1884, Dr. Radcliffe kindly entrusted to my care an epileptic lady of middle age, refined in manner, but almost emaciated in form, and the mother of two healthy and happy young children. Medicines of a special kind had been long administered, including cod-liver oil; but, during the last few months, the steady improvement has been materially quickened by the following plan of action. The body is sponged with hot water every day; the arms are moved up and down frequently (this expands the narrow chest), and clubs of moderate weight are raised with the hands. Walking in the open air has been encouraged on all possible days. Once a week, a professional shampooer comes and carries out a complete massage of the whole body. Two epileptic girls, children of farmers in a neighbouring county, have rapidly improved under similar management.

What I have now written is probably quite familiar to experts in neurology; but Trousseau says nothing about it, and, in the best English monographs, the hygienic treatment of epilepsy receives scanty recognition. Assuming that a rational scheme of medication is adopted in any given case, I claim that regular shampooing and gymnastic exercises may greatly help our therapeutic work, and sometimes make all the difference between success and comparative failure.

JOHN KENT SPENDER, M.D.Lond.,
Physician to the Mineral Water Hospital, Bath.

THE Rev. Dr. West will retire at the end of the Easter term from the head-mastership of the Medical College at Epsom, which he has held for fifteen years. The Council have appointed the Rev. W. Cecil Wood, M.A., as Dr. West's successor. Mr. Wood, who is now Head Master of Birkenhead School, has had much experience in important public schools, especially at Wellington College, where he was a master for eight years.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

SHEFFIELD GENERAL INFIRMARY.

(Cases under the care of Mr. ARTHUR JACKSON.)

[Reported by CHARLES ATKIN, F.R.C.S., House-Surgeon.]

CARIES OF THE INTERNAL CONDYLE OF THE FEMUR: PARTIAL EXCISION: RECOVERY WITH A MOVABLE JOINT.

A. F., a little girl, aged 4 years, was brought to the infirmary with the following history. Two years earlier, she had fallen down and hurt her knee. It swelled up in consequence, and became very red and inflamed. It remained in this state for about three months, when "matter formed, and pointed behind the knee." This was opened, and the wound continued to discharge till admission, but no bone had at any time come away in the discharges.

On admission, the child appeared well-nourished but very anæmic; the right knee-joint was maintained in a semi-flexed position, and the whole limb adducted. The joint was evidently swollen, especially on the inner side, where the edge of the patella was hard to define. There was no pulpy feeling, nor any increased heat, redness, nor tenderness, and the child complained of no pain, except when straightening of the limb was attempted. The muscles were only slightly wasted. Behind the joint was a sinus, leading upwards and inwards to the internal condyle, whence ichorous pus exuded, and the probe detected softened cancellous tissue. The patient was kept at rest for some three or four weeks, and placed on a liberal diet. Mr. Jackson then opened the joint, with the usual transverse incision, under chloroform. Finding that the internal condyle only was diseased, he sawed it off obliquely, and closed the wound, after stitching the ligamentum patellæ to the fascia covering the tibia. The spray was not used, nor was gauze applied as a dressing, but simply carbolised oil-lint, surrounded by absorbent wool, and the limb was comfortably packed in a pillow. In front the incision healed rapidly, and, though a sinus remained internally for some time, it finally closed in about two months.

Gentle and regular motion was commenced at the end of the second week, but not much could be done because of the contraction of the tissues behind, owing to the long continued suppuration. About four months after the operation, therefore, the child was again put under chloroform, and the limb forcibly straightened. This was followed by profuse hæmorrhage from the original sinus behind the joint, which had apparently nearly healed. No ill results, however, ensued, as it did not recur after the application of a compress and bandage.

Six months after admission, she went out with free motion in the joint. The limb, slightly shorter than the other, was strong enough to help to bear her weight, and to allow her to move about actively with no pain or inconvenience, and very much improved in general health.

REMARKS.—Disease limited to the internal condyle is rare, though common at the junction of the lower epiphysis with the shaft; that it might have gone on to complete disorganisation of the joint is not improbable, though it lasted two years without doing so. If the amount of the disease could have been exactly known beforehand, division of the ligamentum patellæ might have been avoided, but it allowed the joint to be more thoroughly examined, and certainly did not impair the power of extending the joint. Gouging out the diseased part would have been more tedious, uncertain, and altogether less satisfactory. It was thought justifiable to try to obtain motion in so young a child, therefore it was unnecessary to hamper it with splints. To have got the limb into a straight position would have necessitated the removal of a large wedge of bone, as the structures behind were much contracted, owing to the long continued suppuration, and serious damage to the vessels and nerves might have resulted. One vessel certainly did give way, but whether the popliteal artery or only a branch, it is impossible to say.

COMPOUND COMMINUTED DISLOCATION OF RIGHT ASTRAGALUS: EXCISION: RECOVERY WITH A MOVABLE JOINT.

J. M., a collier, aged 37, was admitted, with the following history. Whilst bending down at work, a mass of coal fell on his back, doubling him up and throwing him forwards; his foot being at the same time entangled, the whole strain fell on his right ankle-joint.

On admission, he was suffering from great shock; there were extensive bruises all over his back, shoulders, and hips, and two ribs were fractured on the right side; in front of the right ankle was a jagged wound, about an inch and a half long, through which the anterior articular surface of the astragalus protruded; the foot was twisted inwards, whilst the projecting bone inclined more to the outer side, being rotated so that the inferior surface faced internally; the bone was only partially loose, and crepitation showed that it was fractured and comminuted. There was no movement in the ankle-joint.

The displaced bone was removed the same day by Mr. Jackson, under ether, when it was found that the posterior portion was in its proper position, separated from the comminuted anterior fragments by a fracture running obliquely downwards and forwards; this being dissected out, the limb was placed on a back-splint with a foot-piece, and the wound lightly dressed. On the fourth day, pneumonia and pleurisy followed as a sequel to the fractured ribs, but the temperature never rose above 103° F., and he recovered slowly. The wound went on satisfactorily for some time, discharging freely; but, as soon as it showed a decided tendency to heal up, pus accumulated in the space formerly filled by the bone, and burrowed, causing abscesses about both malleoli, and up the calf. He went out, with the wound healed, about three months after the accident. In another three months' time he returned, complaining of the middle toe of the affected foot, which, owing to the loss of its extensor tendon, had become painfully flexed into the foot. This being amputated, he returned home with an useful foot, there being some movement between the tibia and the os calcis.

DYSURIA: CYSTOTOMY: RELIEF.

J. C., a stove-grinder, applied at the infirmary in March of last year, complaining of great pain in micturition.

He stated that he had always been a very healthy and sober man; he had never had any venereal disease. He was married, and had two children. In October last, he first noticed "tingling pains" about the region of the anus, and general uneasiness in sitting. It became so intolerable that he had to give up his work. Shortly after, his urine began to scald him, and he experienced great pain at the beginning and end of micturition. He also stated that his urine had always been quite clear until lately, when it had become slightly turbid, and that he had never passed any gravel or blood. He was under the care of Dr. Banham till May, when he was admitted, and shortly afterwards transferred to Mr. Jackson, as his symptoms seemed likely to be alleviated by surgical means. On admission, though his distress was evident, and his face showed the appearance of much suffering, yet all important objective signs were negative. Examination of the bladder by a sound revealed no stone, stricture, or tumour; by the rectum no abnormal swelling could be detected, nor increased heat, but the finger caused him most violent pain. The urine was pale, clear with the exception of a little mucus, of specific gravity 1016, and contained neither blood, pus, nor any abnormal crystalline deposit. Drugs having failed to relieve him, it was decided to try what "physiological rest" would do towards lessening the irritability of the neck of the bladder. Accordingly he was placed under ether on May 14th, a median incision was made in the perinæum, and a catheter inserted and tied in. For three weeks the urine ran continually through the tube, which was not removed for that time, a stream of warm dilute carbolic lotion being syringed through daily to keep it from becoming clogged with mucus. The pain was at first aggravated by the operation, and morphia-suppositories had to be constantly given; but the great difficulty was, in the subsequent nursing, to absorb and catch the urine which dribbled through the wound outside the catheter, to prevent the urinous smell, and to avoid bed-sores. Happily this was done, and he went out on June 21st, thirty-eight days after the operation, with the wound healed, and very much relieved. Since then, he has reported himself very much better than he was before the operation, the old symptoms only coming on after over-exertion.

GLOUCESTER COUNTY ASYLUM.

SPONTANEOUS RUPTURE OF THE HEART.

(By HARDING H. TOMKINS, M.R.C.S., Assistant Medical Officer.)

H. A., a widow, aged 63, was admitted on July 25th, 1881, in a state of acute melancholia, being suicidal and at the same time dangerous to others. She suffered from chronic bronchitis; her family history was good physically, though bad mentally, two of her relations having become insane.

By 1883, she had become quiet during the day, but maniacal and very obscene by night, requiring twenty grains of chloral-hydrate each night; she was, however, in good health. Subsequently, her bodily health gradually declined, until, by November 1884, she had become very quiet and rather depressed.

On January 7th, 1885, she complained of feeling weak and tired, and was therefore kept in bed, where she remained without any special symptom, taking her food as usual. She remained in bed until January 10th. On that day, a nurse, who, on leaving her just before, had not noticed any change, on returning, a few minutes after, found her breathing heavily, ghastly pale, and apparently dying.

When seen by Mr. Tomkins, two or three minutes later, she was unconscious, with eyes wide open and dilated pupils, the conjunctivæ being almost insensitive; she was cold and pulseless; neither could any sound be heard over the cardiac area. By the direction of Mr. Craddock, the Medical Superintendent, who was also present, fifteen minims of hydrochloric ether were administered hypodermically, hot-water bottles were placed round her, and a mustard-plaster applied to the chest, after which the pupils contracted somewhat, and the conjunctivæ regained their sensitiveness; she was also able to swallow a little brandy-and-water. Her pulse was now very feeble, running, and irregular, numbering 180 beats to the minute. In a quarter of an hour, the injection was repeated; but she gradually grew worse, and relapsed into a semicomatose condition, suddenly dying one hour and a few minutes after the attack.

The *post mortem* examination was made forty-seven hours after death. The body was free from external marks of violence, but the skin throughout was of a peculiar white and wax-like appearance. The brain weighed fifty-one ounces and a half. The ascending parietal convolution on the left side was in a state of yellow softening, as also were the whole of the right occipital lobe, and about two-thirds of the left cerebellar, slender, and inferior lobes. The arteries at the base were atheromatous, and contained calcareous plates. The heart weighed twelve ounces and a half. On opening the pericardium, a large dark clot was seen entirely hiding the heart; this proved to be six ounces and a half in weight. On removing the heart, there was seen a jagged opening into the left ventricle, an inch and a quarter long, running at the posterior aspect parallel to the septum, and about midway between the base and apex of the heart. On opening the heart, the internal opening was found to be hidden by the base of a musculus papillaris, which was ruptured, and the aperture was but little larger than would admit the head of a probe. The left ventricle was rather hypertrophied, and the whole substance of the heart was very fatty, the point of rupture appearing more particularly so, and also being much thinned. A section through this opening showed the muscular fibres to be much torn up, and separated to a greater extent even than the external opening. All the valves were very atheromatous, except the pulmonary. Microscopic examination of a specimen taken from near the rupture showed little more than streaks of granules, the proper heart-structure being entirely hidden, or replaced by fat; here and there, ill-defined muscular fibres could be seen, these also were studded with the products of fatty degeneration.

Remarks by Mr. Tomkins.—Although there is nothing remarkable in the fact of a heart so diseased rupturing, yet spontaneous rupture without any premonitory symptoms of note is sufficiently rare to make the case worthy of note; added to which there is the fact, stated by Dr. Henry Kennedy, that, in fatty degeneration of the heart, only one case in nine is associated with valvular disease, which is then usually aortic disease, whilst in the case under consideration all the valves were found to be diseased. Another fact which adds to the interest of the case is that, a few days after the patient H. A. died, a male patient died whose heart presented a part of the left ventricular wall (exactly corresponding to the part which ruptured in the case of H. A.) so thinned as to measure only one-eighth of an inch, the walls being fatty, and the aortic valve incompetent. This patient had great softening of the left hemisphere, especially the island of Reil, corpus striatum, and optic thalamus, which were practically fluent, and a tumour—presumably a syphilitic gumma—in the superior anterior frontal convolution of the same side. Here the left middle cerebral artery was completely blocked by an old clot, which appeared to have formed in consequence of the greatly diminished calibre of the artery, which was simply a calcareous tube. The man was brought in by the police, only able to shuffle his right leg and just move his right arm, being also aphasic; consequently, nothing could be ascertained of his history.

It appears probable that, in the case of H. A., collapse occurred upon rupture of the musculus papillaris, and that after this the heart partially regained its power, although the blood was gradually tearing up its structure, and forcing its way towards the pericardium; on rupturing this, the pericardial cavity was suddenly filled, all action instantly ceased, and the patient died. This explanation of the time the patient lived after the first symptoms seems suggested by the laceration in the substance of the heart-wall being much greater than the inner or outer opening.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 28th, 1885.

George Johnson, M.D., F.R.S., President, in the Chair.

Notes on so-called Non-Ovarian Dermoid Tumours.—The object of this paper, by Mr. Alban Doran, was to show that many dermoid cysts of the abdomen that had been described as non-ovarian, were really ovarian cysts that had become separated from their pedicles. Dermoid cysts of the great omentum were generally of this class. A woman, aged 33, under the care of Dr. Bantock, in the Samaritan Hospital, had noticed, for six years, a swelling lying rather to the left of the umbilicus. It shifted to the right side after pregnancy, and then appeared as an obscurely fluctuating tumour, extending towards, but not deeply into, the right flank. There was tympanitic resonance over the tumour, especially towards the right side. The tumour was exposed by an incision made along the outer border of the right rectus muscle. On tapping it, some fluid resembling pus was drawn off. The tumour was intimately connected with the great omentum, and strongly adherent to the ascending mesocolon. The right ovary was found healthy; the left was not examined, as there was no suspicion, at the time of operation, that the tumour was ovarian. It proved to be a dermoid cyst, and it was afterwards suspected to have arisen from the left ovary. Mr. Doran then related a second case, where the ovarian origin of the dermoid tumour was proved by examination of the uterus, and a third where a normal ovary was found high out of the pelvis adherent to the omentum, with its pedicle much stretched. Some dermoid abdominal cysts had been rightly described as non-ovarian, having occurred in men. The origin of dermoid cysts developed between the bladder and rectum was very uncertain; such cysts were sessile, and thus could not come under the conditions that formed the subject of this paper. On carefully considering the cases described or referred to by Lebert (*Gazette Médicale de Paris*, 1852), as instances of non-ovarian dermoid cysts of the abdomen in women, the evidence as to their real nature was found to be very defective. The ovaries appeared to have often been overlooked. The shrivelled stump of a self-detached ovarian pedicle bore some resemblance to an atrophied ovary, and thus might be a source of fallacy. Lastly, the separation of an ovarian tumour from its pedicle was a condition which had not been recognised when Lebert's cases had occurred. That pathologist quoted examples of uterine dermoid cysts, but these all appeared to be simply instances of the discharge of hair and teeth from the uterus or vagina, a complication not unknown in cases of dermoid ovarian disease. The paper included an analysis of some of Lebert's cases, taken not from his works, but from the original clinical reports, which often failed to prove that the tumours were non-ovarian. Since ovarian pathology had been more studied, few, if any, cases of non-ovarian dermoid abdominal cysts in women had been described, excluding, perhaps, those instances where such cysts had developed between the uterus and the rectum. No museum-specimen of dermoid abdominal tumour could be safely held up as non-ovarian, unless there was very clear evidence that the pelvic viscera had been carefully searched, and both ovaries accounted for.—Dr. Ord remarked that he had shown a specimen to the Society, a few years ago, of a dermoid cyst taken from the abdomen of a man. From such consideration of the subject as he had then undertaken, he came to the conclusion that such an event must have been the result either of inclusion of superficial tissues, such as happens sometimes distinctly in rifts in the neck, or else of aberration of development of an ovarian kind, by which a piece of blastema of the ovary or testis had gone wrong at a very early stage of development. The more he considered Mr. Doran's hypothesis, the more probable he came to think it was the true history of the origin of these wandering abdominal dermoid cysts.—Dr. Creighton was unable to recognise any *a priori* reason why dermoid cysts should not develop from the omentum. He could not agree that all dermoid cysts in the neck were formed by inclusion of rifts of superficial tissue; for he had himself seen cases where he thought the hair and other epiblastic tissues were being developed from mesoblastic cells.—Mr. Juler asked if Mr. Doran considered these tumours to be congenital in the ovary, or subsequently developed, and pointed out their frequent occurrence at the outer angle of the orbit, where he had found them apparently developed from the periosteum.—Mr. Howard Marsh spoke of a case of ovariotomy in a child aged 7 in which he had found a dermoid cyst, and inquired if all ovarian cysts in children were dermoid.—Mr. Alban Doran, in reply, said he was very glad to find he had the support of Dr. Ord's opinion. In males, abdominal dermoid cysts had almost always been found to

lie between the bladder and rectum, and it was very possible that they were developed from some relic of abnormal tissue there corresponding to the ovary. He admitted that there was no *a priori* reason why dermoid cysts should not be developed from the omentum, but unfortunately it was against universal clinical experience. He recognised respectfully the great importance of the discoveries of the modern science of embryology, and its division of the structures of the body by their origin from epiblast, mesoblast, and hypoblast; but he could not lay much stress on the arguments drawn from that science and applied to pathology. Ovarian cells, after union with sperm-cells, became distinct and perfect beings; these dermoid cysts he regarded as imperfect distinct beings formed from ovarian cells without sperm-cells. That some other dermoid cysts could be formed by inclusion of the surface-tissues there could be no doubt; he had seen such processes in progress himself.

On the Pathological Histology of the Semilunar and Superior Cervical Sympathetic Ganglia. By W. HALE WHITE, M.D.—This paper was founded on an examination of about a hundred and fifty sections of the above ganglia, from which it was concluded that the external appearances of the ganglia were of no importance whatever in pathology, unless they were obviously affected by malignant disease, abscess, tubercle, etc., or had become implicated in some inflammatory condition of surrounding parts. The typical ganglionic nerve-cell resembled other ganglion-cells; it was larger and more rounded than those from the anterior cornua. No inference could be drawn from the number of nerve-cells to be seen in a section, for the normal arrangement was irregular, the sections were not in the same place, and all ganglia were not the same size. Many cells had no processes, and some had neither nucleus nor nucleolus. As a general rule, the cells were wasted in patients who had died of wasting diseases, but this was subject to many exceptions. Pigmentary degeneration might or might not be accompanied by a diminution in the size of the cell, and was almost universal in sympathetic ganglia; perhaps this might be the cause of some of the slight ailments from which all suffered. In the present state of knowledge, the varying appearances from pigmentations had no significance; the variations within the normal limit were very great, and, in at least four-fifths of the cases, the cells were abnormal. Pigmentation of the nerve-fibres did not occur. The amount of fibrous tissue varied much in different specimens and in different parts of the same specimen. The superior cervical contained more blood-vessels than the semilunar ganglion. In the former, the normal arrangement was for a large artery to run down the long axis; there was no constant arrangement in the latter. In chronic Bright's disease the small arteries were thickened; otherwise, in this malady the specimens were normal. In acute inflammation of the ganglia, the section was obscured by the enormous number of escaped white blood-cells; there was also some multiplication of the cells of the connective tissue. This might be accompanied by congestion. It had been found only in diabetes and purpura hæmorrhagica, and was the only pathological lesion on which he could speak with certainty.—The PRESIDENT congratulated Dr. Hale White on his exploration of territory that was hitherto almost unknown, and thanked him for many useful, though negative, results.—Dr. DYCE DUCKWORTH could not presume to sufficient knowledge to criticise Dr. White's conclusions at all in detail. They had been reached by careful work, which had been undertaken solely with a view to the extension of knowledge. He should be glad to know if he had examined any cases of exophthalmic goître, in which the condition of the inferior cervical ganglion was certainly of importance; or of Addison's disease. Dr. White had said that he had found few multipolar cells; did he find them in the adrenals? and did he consider them true nervous cells, or structures of some special function?—Dr. ANGEL MONEY asked Dr. White if he had used the gold method in preparing any of his specimens, or osmic acid, or Weigert's method. These might possibly give some more information, as the last-named was very useful in enabling us to distinguish the fibres from the cell-substance. From what little investigation he had himself made, he should quite corroborate Dr. White's conclusions.—Dr. PERCY KIDD asked from how many cases these one hundred and fifty specimens had been taken, and whether those containing many small cells were from young people.—Dr. HALE WHITE, in reply, regretted very much that, in the last two years, he had not been fortunate enough to come across a case either of exophthalmic goître, or of Addison's disease, in the *post mortem* room; he looked forward, however, to an early opportunity of investigating the condition of the sympathetic ganglia in the latter. He had often used osmic acid to show that the granular matter in the nerve-cells was not fatty; but had prepared all his one hundred and fifty specimens by the same method, namely, by chromic acid and logwood, in order that no differences found in them should be attributed to the method of preparation. They were taken from certainly less than one hundred and fifty cases, but he did not know the exact number.

CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 24TH, 1885.

ARTHUR E. DURHAM, F.R.C.S., Vice-President, in the Chair.

A Case of Sporadic Cretinism.—Dr. SIDNEY PHILLIPS exhibited the patient, and described the case. The patient was a child, aged 10¼, who had come under observation at St. Mary's Hospital. The parents were healthy, and there was no history of syphilis, tubercle, or rickets in the family. Two months previously to the birth of the child, the mother had received a severe fright from a fall of a child into a well. Labour was natural, and no forceps was used. The child exhibited nothing unnatural till nine months old. The child was now 2 st. 7 lbs. in weight, 2 ft. 7¾ ins. high. There were large masses of fatty tissue above the clavicles, the thyroid gland was absent, the voice croaking, the hair scanty, the head very large, the anterior fontanelle unclosed. There was marked lordosis, and the child, though able to walk, was unsteady on the legs. She was childish in intellect, but good tempered, and her mental condition was mainly remarkable for the extreme torpidity and hebetude. Besides these symptoms, the limbs and face were œdematous, but firm; they pitted on very firm pressure, but the pitting disappeared more quickly than in cases of dropsy. The hands were spade-like, the feet short and square, the limbs very much enlarged; the tongue was also enlarged. Dr. Phillips pointed out that, besides other signs of cretinism, there was here present a condition much allied to, if not identical with, the disease known as myxœdema. That the mental condition was somewhat different from that in myxœdematous adults, was accounted for by the early age at which it came on, before the mind had had time to become developed. It was pointed out that ten cases of a similar nature had now been recorded, two of them by Mr. Curling, four by the late Dr. Hilton Fagge, and one each by Dr. Fletcher Beach, Dr. Langdon Down, and Dr. Routh. On examining the records of these, it appeared that six of the ten cases presented signs, more or less marked, of an œdematous state; and Dr. Phillips pointed out that it was not, therefore, an exceptional occurrence in association with myxœdema, but must be looked on as part and parcel of the disease. Foderé's opinion, quoted by the Sardinian Commission, that cretinous infants mostly became œdematous, bore this out. Experimental removal of the thyroid had been shown by Kocher to produce cretinism in human beings. In monkeys, Mr. Horsley had produced myxœdema by ablation of the gland; it was, therefore, to be expected that myxœdema would occur with other cretin-symptoms where the thyroid gland was deficient. There was no evidence as to what caused this deficiency of thyroid gland in the present case; but this was the third out of the ten cases in which there was a history of fright during pregnancy. The cause, whatever it might be, must have been transient and accidental rather than due to the locality inhabited, or the parents' health, since all the other eight children born of the marriage were perfectly healthy.—No discussion followed the reading of this paper.

A Case of Inguinal Aneurysm: Ligature of the External Iliac Artery with two Kangaroo-Tail Tendon Ligatures, and Division of the Artery between them: Suppuration of the Sac: Ultimate Recovery.—Mr. W. J. WALSHAM gave particulars of this case. W. F., aged 33, a strong and muscular man, came under Mr. Walsham's care on February 4th, 1884, for an aneurysm, of the size of a small cocoa-nut, in the right groin. The patient had been in the army, and had had syphilis. He had only noticed the aneurysm two months, and attributed it to a fall whilst carrying a sack of coals on his back. He had followed his employment of a dock-labourer till within a week of his admission to the hospital, when he had to give it up on account of pain and swelling of his leg. The aneurysm, which presented all the characteristics of that disease, measured 5½ inches in its longitudinal diameter, 7 inches in its transverse, and projected 2 inches above the level of the thigh; it extended about an inch above Poupart's ligament. The right lower limb and the penis were swollen and œdematous; pulsation could be stopped with difficulty by pressure on the external iliac. The patient was placed in bed, and the limb bandaged and raised, but the aneurysm increased in size. Mr. Walsham tied the external iliac artery on February 8th. The vessel was readily exposed in the usual way, and two strong kangaroo-tail ligatures having been applied three-eighths of an inch apart, the vessel was divided between them with scissors. The ligatures were then cut short, a drainage-tube inserted, and the wound closed with stout catgut-sutures. The steam spray-apparatus failed in the middle of the operation. The wound was dressed with carbolic gauze. On the second day after the operation, the wound was found united by

the first intention, except at its lower part. From this time the patient progressed favourably in every way, except that a sinus remained where the drainage-tube had been inserted, and the aneurysm, which ceased to pulsate on the application of the ligature, remained soft, and did not diminish in size. On March 27th, his temperature rose to 101° Fahr., and on the 28th, to 103° Fahr., whilst the pulse was 132. The wound was then dressed, and appeared healthy. Nothing fresh was noticed about the aneurysm. On the 29th, temperature had fallen to 96.6° Fahr., and the pulse to 120. The patient complained that the bandage felt tight, and it was loosened by the house-surgeon. On the 31st, Mr. Walsham found on his visit that the aneurysm had given way at one spot, where the cuticle was raised into a blister by fluid black blood, which was oozing from a pin-prick aperture in the sac. The parts around were red and swollen; the sinus where the operation-wound had been was healthy. The aperture in the aneurysm was closed by lint soaked in collodion, and a nurse placed on guard. On April 1st, the aperture in the sac increased to the size of a penny-piece, and a black clot, of the size of a walnut, was projecting. A probe soaked in a strong solution of perchloride of iron was thrust into the sac, through the clot, in six or seven places, and the clot covered with collodionised lint. On April 2nd this was repeated. On the 3rd, the aneurysm was evidently sloughing, and a poultice was applied. On the 10th it was level with the thigh, and freely suppurating. On the 17th, the site of the aneurysm was occupied by a healthy granulating wound. On May 17th, the patient was discharged with both wounds soundly healed.

Remarks.—The aneurysm had formed so rapidly, had attained so large a size, its increase was so marked during the few days it was under observation, and the sac was so thin, that ligature was resorted to without any attempts to cure it by pressure. Mr. Walsham had collected all the cases of aneurysm in the groin published in the English weekly periodicals, etc., since 1870. They numbered 67 cases. Of these, 36 were treated by pressure, or by pressure and subsequent ligature. In 9 only was pressure successful; in 2 of the remainder, pulsation ceased in the sac, but the patients died, apparently from the effects of the pressure. In the rest, pressure failed entirely, and ligature had to be resorted to. Not only in these did pressure fail to cure the aneurysm, but it appeared in 15 to have placed the patient in a worse condition for subsequent ligature, and in some, in considerable danger of life. In three, or possibly four, death seemed attributable entirely, or in great part, to the pressure. In face of these results, Mr. Walsham was inclined to question whether, as generally taught, pressure ought, as a rule, to be attempted in aneurysms of the groin before resorting to ligature. Since the revival of the method of applying two ligatures and dividing the artery between them, this appeared to be the first case in which it had been employed on the external iliac. The advantages claimed for the method were, first, that it diminished risk of secondary hæmorrhage by removing longitudinal tension of the vessel, and by insuring that no part of the artery above the upper, and below the lower, ligature was deprived of the nourishment it received from its sheaths; and, secondly, the artery being divided completely across, there could be no chance of its calibre being restored through the slipping of the knot, the too rapid absorption or giving way of the ligature, or the failure of division of the internal and middle coats. A restoration of the calibre of the artery from one or other of these causes had now, in several instances, led to a return of pulsation in the aneurysm; and in consequence, in some cases, to its rupture and fatal hæmorrhage. In the last place, Mr. Walsham advocated the leaving of the suppurating sac to nature, in place of incision, and turning out the clots, as advised by many—a proceeding which had led to severe, or even fatal, hæmorrhage.—Mr. DURHAM said that cases of this kind were by no means common. There was often doubt as to the best mode of treatment. The most remarkable case he had ever seen was with Mr. Hilton, twenty-five years ago, at Rochester. There was an enormous inguinal hernia. The artery was ligatured above the aneurysm, either the common iliac or the external iliac artery; he was not quite certain which. Sloughing took place. The patient ultimately recovered. The case was not followed up; but, four years afterwards, an aneurysm occurred on the other side of the body, also extending, as the other had, up to Poupart's ligament. This second aneurysm was cured by pressure upon the external or common iliac artery. The patient lived for six years afterwards, and then died of aneurysm of the aorta.—Mr. SYMONDS thought the point of great interest was the kind of ligature adopted. Before it could be determined what kind of ligature to use, a large number should be collected, and treated antiseptically with the different kinds of ligature. When catgut, treated antiseptically, had been used, the hæmorrhage was rare, comparatively to what it used to be in such cases treated under the old method.—Mr. RICKMAN GODLEE asked whether Mr. Walsham's case had been aseptically or antiseptically treated, and whether, through the sinus, there was any sign of the ligature coming away. He thought that the method of tying the artery in two places would obviously get over the danger of the artery opening up.—Mr. T. SMITH had a great belief in tying the artery in two places. He thought he had ligatured every artery in the body except the subclavian, either with kangaroo-tendon or with catgut. He knew that several of his colleagues were converted to this method. Mr. Carden had always done it so that the artery might not lie in a pocket of pus, and therefore tied it in two places. Some arteries retracted more than others; the brachial retracted much more than the femoral. All would allow that this method diminished the risk of secondary hæmorrhage; the artery, instead of being in a condition of elastic tension, was then, like the artery in a stump, released from this tension. The ligature, as usually passed, left a tiny sinus, in which no doubt pus might collect. A drainage-tube was best passed right down into the wound to prevent the formation of any sinus.—Mr. HOWARD MARSH said he quite concurred with Mr. Walsham, and must express a high estimate of his method. It conferred the greater amount of certainty of not wounding the vein. The aneurysm-needle had to be passed round the artery at a time when separation of that vessel from the vein was not complete. In one recorded case, a piece of the vein was tied up with the artery, and the patient died of pyæmia. He agreed with Mr. Smith as to the varying degrees of retraction of different arteries. He considered that Mr. Syme's thirty-one successful cases were far above the average. He thought that, up to the present time, there had been a considerable amount of failure, which one would wish to see eradicated. It was hardly worth while to endeavour to cure an aneurysm by pressure and then by ligature; the ligature should be applied at once. Pressure and subsequent ligature afforded the patient a far less favourable chance than ligature applied straight off.—Mr. WALSHAM, in reply, said he saw no sign of the kangaroo-tail tendon being retained in the wound. The ligature had been soaked in a weak carbolic acid solution. It was only since the year 1870 that this operation had been performed antiseptically.

A Case of Renal Lithotomy.—Dr. DICKINSON described the case, which was that of a young man who had been in St. George's Hospital with hæmaturia, due, as was considered, to stone in the kidney, under the care of Dr. Dickinson, as far back as 1877. He was last admitted in April, 1884. His age was then 19. His parents had been, on the previous occasion, advised to bring him up to a sedentary occupation, instead of which they made him a blacksmith. He suffered with repeated hæmaturia, brought on either by exertion on movement or by drinking beer, and had occasional pain in the right renal region. The blood was corpuscular; there was no albumen, except what was due to the blood; and the diagnosis of stone in the right kidney appeared to admit of no doubt; while, excepting the stone, there appeared to be no renal disease. He was somewhat spare in frame, and appeared to be so favourable a subject for operation that Dr. Dickinson requested Mr. Rouse to undertake it. This was accordingly done on May 8th, 1884. An incision was made in the right loin, as in Amussat's operation, the kidney exposed, and a stone felt inside it with the finger and with a needle. The kidney was then incised, a stone weighing sixty-five grains removed, and a smaller one felt, which eluded the attempts which were made to extract it. This, however, which was found to weigh only two grains, came away spontaneously on the fourth day after the operation. The larger stone was about as large as a filbert, the smaller of the size of a pea. They were not cut, but presented the appearance externally of oxalate of lime. The urine discharged abundantly through the wound. The progress of recovery was interrupted by an attack of septicæmia, which was undistinguishable from pyæmia, excepting by its products. A severe rigor occurred on May 22nd, and was repeated on many subsequent days. The temperature went up to 107°, and presented a daily maximum which for twelve days, with one exception, ranged between this point and 103°; while it was eleven days further before it assumed anything like a normal level. The febrile attack was accompanied at its commencement by pneumonia, as was shown by characteristic expectoration, and later by rheumatoid swellings of several joints, notably of the left elbow, wrist, and knee, all of which were red, painful, and tender, while the knee contained an appreciable amount of fluid. Quinine and stimulants were freely given, under which the adverse symptoms disappeared. The wound in the meanwhile had been healing without interruption, and on July 16th was closed. The patient was last seen on October 27th, when he returned to the hospital to show himself. He was in perfect health, and was about to resume his work as a blacksmith. The stones were exhibited.—Mr. DURHAM said this case was an excellent instance of the operation. He remembered that many years ago a paper was read by Mr. Thomas Smith advocating this operation, and it must be very gratifying to him

to find that his suggestions had been so eagerly followed up. His own first attempts in operating for stone in the kidney had failed. He thought, however, that improvements in our diagnosis of the condition would no doubt lead to greater successes. Some more certain means of diagnosis were required than we at present possessed.—Mr. THOMAS SMITH said that he had never had an opportunity of performing the operation until two months ago; the difficulty of ascertaining the presence of stone in the kidney was not only before the organ was exposed, but even when it was presented to view. Two months ago he saw a lady with such severe indications of renal calculus, and in such a dangerous state, that operation was inevitable. When he had removed the kidney, and held it in his hand, it looked perfectly healthy. On cutting into it, however, he found a detached stone in the pelvis surrounded by half an ounce of phosphatic *débris*, which had allowed the kidney to preserve its normal contour. The great question to decide was, whether it was better to remove both the kidney and the stone, or to extract only the stone. He was not quite certain which would prove the more satisfactory operation.—Mr. WALSHAM referred to a case in which he had removed a stone. The age of the patient was 45. No blood was passed at any period, but the urine was full of pus. There was a large swelling in the right lumbar region. He came to the conclusion that the case was one of stone impacted in the pelvis. He cut down on the kidney, made a lateral incision, and came down on the swelling. By the aspirator a large quantity of pus was drawn off. The stone was so very large, that he concluded it would do more harm to clear out the calculus only, so he removed the whole kidney. No bad symptoms resulted, and the patient had every prospect of making a good recovery.—Dr. BENHAM said it was very remarkable that cases which had been so near pyæmia had been cured. In the old days, for the treatment of this condition, large doses of calomel had been given internally. Was it possible that in Dr. Dickinson's case the diarrhœa which had been present might have been beneficial?—Mr. SYMONDS said it was a matter for consideration how far surgeons were justified in exploring the kidney before closing the wound or removing the structure in cases where there was no blood and no pus.—Mr. HAWARD said exploration with the needle would be performed with very little danger, and if a stone were not discovered, it would be better to wait until more urgent symptoms arose. In one case, he had punctured the organ in about twenty places without finding any stone. Here there had been retraction of the testicle, vomiting, pain in the loins, and all the severe symptoms usually denoting stone in the kidney; these symptoms, however, only occurred at intervals. He was strongly of opinion that it was better simply to remove the stone than to extract both stone and kidney. In one case, he had removed six ounces of pus by the needle.—Mr. GODLEE said the removal of the entire kidney was usually a dangerous operation, and still more so if the kidney were large than where it was small. It was far safer to take the stone out. In one case the woman would have died certainly if the kidney had been removed. He thought that the easier operation should be done first, and, further, he could not help thinking that it was quite possible to keep the wound antiseptic as long as was desired.—Dr. DICKINSON, in reply, said he was astonished to hear Mr. Smith expressing an opinion as to the advisability of extracting the kidney as well as the stone. He thought it a very serious matter to take out the organ if it could be avoided. He quite agreed with Mr. Haward on the question of antiseptics. He thought that the reason why antiseptics were not used on this occasion was because Mr. Rouse had considered this method of treatment was not practicable, under the circumstances.

Living Specimens.—Mr. J. R. LUNN: Four cases of Osteitis Deformans; Mr. R. W. PARKER: A case of Thyrotomy, with preservation of the voice; Dr. STEPHEN MACKENZIE: 1, A case of Osteitis Deformans; 2, A case of Hereditary Multiple Tumours; Mr. RUSHTON PARKER: A case of Ununited Fracture of the Olecranon, wired antiseptically, with resultant close union.

MEDICAL SOCIETY OF LONDON.

MONDAY, APRIL 27TH, 1885.

W. M. ORD, M.D., President, in the Chair.

A Case of Syphilis of the Brain.—Dr. ALTHAUS read a paper on this case, which was that of a clerk, aged 28, who had had a hard chancre about four years before, and, after having been apparently well for three years, was affected with ophthalmoplegia of the left eye, and six months afterwards with hemiplegia of the right side. When admitted into hospital, he showed almost complete paralysis of all the muscles supplied by the third, fourth, and sixth nerves, including the iris and the ciliary muscle. The intellect was impaired; and there was incomplete hemiplegia of the right side. Dr. Althaus argued that this group of symptoms could only be due to syphilis. With regard to the hemiplegia, he laid chief stress on the age of the patient, the fact that there had been no apoplexy when the stroke occurred, and that the paralysis had been incomplete from the beginning. Ordinary hemiplegia did not occur in the prime of life, except where there was heart-disease, or diabetes, or tabes spinalis, or alcoholism; it was almost invariably ushered in by apoplexy, and was complete at least for the first few days or weeks; nor was it accompanied with palsies of the ocular muscles. A peculiar symptom in the present case was an enormous exaggeration of the tendon-reflexes in the palsied limbs, out of proportion to the degree of paralysis as well as of muscular rigidity which were present; and Dr. Althaus was inclined to consider this as a pathognomonic symptom by which syphilitic hemiplegia was distinguished from ordinary hemiplegia. With regard to the nature and seat of the pathological lesion, he argued that there was a gumma at the base of the brain, near the inner surface of the crus cerebri, close to the pons Varolii, which, by compression, had caused paralysis of the three cranial nerves mentioned, and, by further extension later on to the crus itself, which contains the crossed pyramidal strands, caused softening of these parts, and thereby hemiplegia. He concluded with some remarks about the prognosis of syphilitic lesions of the brain generally, stating that specific treatment was only successful in primary and truly specific lesions; but where a gumma had already caused wasting of the cranial nerves and softening of cerebral tissue—that is, secondary and non-specific lesions—no amount of mercury and iodide of potassium could effect a cure. From this he drew the conclusion that an energetic specific treatment should be adopted as soon as the slightest symptom of syphilitic brain-disease was observed, so as to disperse the primary specific lesions, and prevent the occurrence of incurable secondary lesions.—Dr. ORD referred to the difficulties of localisation of the lesion causing the various symptoms in this case. With regard to the symptom specially commented on by Dr. Althaus—exaggeration of the deep reflexes—he should very much like to hear the value of this symptom discussed.—Dr. DRYSDALE said it was since 1858 that our knowledge of cerebral and spinal syphilis had been gained. He referred to cases of syphilitic lesions of the brain which had come under his notice.—Dr. K. FOWLER was interested in the exaggeration of the deep reflexes; he had observed this symptom in neurasthenia from almost any cause. The occurrence of hemiplegia at the period of life mentioned in the paper was not, in his opinion, conclusive of syphilis.—Dr. CLARK asked whether headache had been present in this case. He believed that muscular tone exercised an influence on the deep reflexes. He had seen a case of hemiplegia in the course of renal disease in a young girl.—Dr. ALTHAUS said that, in aphasia due to syphilitic lesion, the prognosis was gloomy. The deep reflexes were not exaggerated in the side which was not paralysed. Cephalalgia was not present in this case.

The Free Use of Caustic Potash in the Treatment of Cancer of the Cervix Uteri.—Dr. HERBERT SNOW read a paper on this subject, in which he reviewed the statistics of extirpation of the uterus, and showed the severe mortality which followed the abdominal or the vaginal operation. In many cases, the *écraseur* was unable to remove the whole of the disease of the cervix uteri. The actual cautery had too superficial an action to be of any great service. Chloride of zinc caused much pain and distress, which lasted a long period. These objections did not hold with regard to potassa fusa. Half an hour or an hour was recommended to be spent in the employment of successive sticks of potassa fusa, for the treatment must be thoroughly carried out. None of the cases suffered from peritonitis; and unless the patient got up too soon after the operation, nothing distressing need be feared. All the cases were greatly benefited, and no alarming symptoms were encountered. Fixation of the uterus and infiltration of the vaginal wall were regarded as prohibiting the employment of this method of treatment. It was only by degrees that he had ventured to apply the caustic so freely as he now advocated. He illustrated the paper by narrating several cases in which the treatment had been adopted. The object of the paper was to show that potassa fusa could do all that the vaginal cutting operation could perform, without running the risk of the severe operation.—Dr. EDIS said that he had performed Marion Sims's operation of the removal of a conical portion of the cervix with much benefit. He did not believe that potassa fusa could exercise any curative influence on malignant disease of the cervix.—Dr. C. H. F. ROUTH was struck with the circumstance that in the cases narrated the patients died in from four to nine months. He believed that cancer, if left alone, would last longer than if operated on. Potassa fusa in his hands had proved harmful; bromine was the most effectual local remedy. External vegetations were best healed by tincture of gall-nut or hazeline.

—Dr. W. R. Rogers said that potassa fusa had been used for all sorts of uterine ulceration; in his hands it had set up so much irritation of the bladder that he was compelled to give up the use of it.—Dr. Heywood Smith said that potassa fusa was of value in areolar hyperplasia of the cervix uteri. He had observed that Chian turpentine changed the character of the secretions, and in other ways proved beneficial.—Dr. H. Snow briefly replied.

Exophthalmic Goître.—Mr. Spencer Watson showed a case of exophthalmic goître in a female child, with slowness of speech and dulness of intellect, in which tonic treatment had been beneficial.—Dr. Ord said that, in some of the cases of myxœdema which he had seen, he had observed in the early stage symptoms which usually accompanied exophthalmic goître.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Thursday, April 9th, 1885.

W. A. Garrard, M.R.C.S., President, in the Chair.

Cancer of Testicle.—Mr. Barber showed a testicle which he had removed from a man aged 52, who had been admitted into the infirmary suffering from phlebitis of the right femoral and saphena veins. On examination, the right testicle was found to be enlarged and heavy, but quite painless. The man deemed it hardly worth mentioning, as it had caused him no uneasiness for four years. Mr. Barber commented on the chronicity of the case, as microscopical examination showed the growth to be of a cancerous nature. No doubt disease was more extensive in the lumbar glands, causing the thrombosis and œdema which had first attracted attention. The cord was only slightly thickened, and fluid was present in the tunica vaginalis.

Large Vaginal Tumour.—Mr. Atkin exhibited a large vaginal tumour for Mr. Favell. The woman from whom the tumour had been removed had had symptoms for twenty-four years, three years after her first and only confinement. She was now forty-nine, but looked older, owing to the regularly recurring hæmorrhages every three weeks for the last seven years. For the last four months, partial prolapse of the tumour had occurred at the vulva after any slight exertion, but the night before admittance into the infirmary, the whole tumour suddenly slipped out, accompanied by profuse hæmorrhage. When first seen, an oval mass larger than a child's head, weighing four to five pounds, was found lying outside the vulva, but attached to the posterior wall of the vagina by a broad pedicle. This was divided, after having been tied with a double ligature. The uterus seemed to have been forced up out of the pelvis, the os only just being within reach. On section, the growth was found to be very succulent, and gangrenous changes commencing; but, on microscopical examination, it was seen to be of fibro-cellular nature, undergoing mucoid degeneration.

Addison's Disease.—Mr. W. W. Banham related some notes on a case of Addison's disease. The patient was a female, aged 33, who attributed the cause of her complaint to fright. The case was a most typical one, with marked pigmentation of the skin, excessive nervousness, anæmia, and exhaustion. She had some other conspicuous symptoms, namely, repeated attacks of menorrhagia and several miscarriages, cramps in the muscles of her legs, and great muscular weakness, and was troubled with nausea and vomiting. Her urine was saffron-coloured. A *post mortem* examination had been made, and microscopic sections of the suprarenal capsules, prepared by Mr. Atkin, were exhibited, these showing marked pathological changes. The relater of the case, remarking on pigmentation, referred to similar deposit in pregnancy, and in some cases of leucocythæmia.—Dr. Law and Dr. Banham took part in the discussion, the latter mentioning a case of exophthalmic goître under his care, in which there was a deposit of pigment in the skin.

Atheroma of Heart.—Mr. Baldwin showed a case of atheroma of the heart, in which the right coronary artery was surrounded by an osseous plate, rendering the artery nearly impervious. The specimen was from a man, aged 47, a heavy drinker when young, who suffered from vague anginal pains over the chest, with a systolic *bruit*. Death occurred suddenly during an attack. The aortic valves were thickened, but free from atheroma. The aorta was very atheromatous; the muscular substance on section looked glazed, like gum painted over it. The left ventricle was slightly dilated, and its walls were thinner than normal.

Hæmoglobinuria.—Dr. Hardwicke, of Rotherham, read a paper on hæmoglobinuria, giving particulars of a case under his own care, showing that a chill was the immediate cause of the occurrence of each attack in this instance, and afterwards remarked upon the accounts of the disease given by Drs. Elliotson, Prout, Watson, G. Harley, G. Johnson, Dickinson, Gull, Murchison, Pavy, Greenhow, Hassall, Habershon, and Stephen Mackenzie, and called attention to the cases of the latter, as compared with his own case, which occurred in a lady, aged 58, in contradistinction to what was generally the case in adult males.—Dr. Dyson, Dr. Law, Mr. Browning, Mr. Baldwin, and the President joined in the discussion which followed.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Ordinary Meeting, April 10th, 1885.

S. C. Smith, M.D., Vice-President, in the Chair.

Tuberculosis of Liver and Intestines in a Child.—Dr. Jacob showed microscopical and other preparations from the intestine and liver of a case of tuberculosis occurring in a child aged 1 year, and causing death by acute intestinal obstruction. (The whole of the abdominal viscera, freshly removed, had been shown to the Society at a previous meeting by Mr. Hartley.) The glands were enlarged into great masses, completely surrounding and obstructing both the cæcum and the ileum, at a point a little way above the cæcum, for about two inches. The liver showed, microscopically, great fatty infiltration, and considerable increase of the connective tissue.

Second Attacks of Scarlet Fever.—Dr. Jacob read a paper on this subject. A child, aged 2 years, was admitted into the Fever Hospital with symptoms of scarlet fever, from which disease her mother was at the time suffering. After a slight attack, the child was discharged perfectly well, there being no desquamation. A few days afterwards she was readmitted, suffering from very severe symptoms of a renewed attack—high fever, ulcerated throat, and convulsions—which rapidly proved fatal. The notes of a second case of precisely similar character had been given him by the kindness of Dr. Blore, the Resident Medical Officer of the Fever Hospital, which also ended fatally. In such cases it might be held: 1, that the diagnosis of either attack was incorrect; 2, that the second attack was a relapse, an auto-infection, such as was seen in cases of typhoid fever; 3, that the second attack was caught in the hospital; the first attack had given no prophylaxis. If this last alternative were the correct view, it would be important not to expose a very light case of the fever to the risks of a second infection.—Dr. S. C. Smith thought a definite time might be required to develop the protective influence of a first attack.—Mr. William Hall related the case of a patient who had repeated attacks of sore-throat, fever, and roseolous rash, with no connection with scarlet fever, but apparently due to some form of blood-poisoning.—Mr. G. Carter related a case similar to those given by Dr. Jacob, except that the patient recovered after the second and more severe attack, which was accompanied by most acute renal complication.—Dr. Gordon Black had recently attended three members of one family suffering from sore-throat and bilious vomiting; but, in a fourth member becoming affected in the same way, a well marked scarlatinal rash was developed. This patient, after complete convalescence, suffered from, apparently, a second attack.

Hare-lip in three Consecutive Births.—Mr. J. J. Pickles related the case in which a mother in three consecutive pregnancies gave birth to children the subject of hare-lip, there being no hereditary tendency or other apparent cause for the deformity.—Mr. Cautley Dawson and Mr. Jessop related cases somewhat similar.

Ununited Fracture of the Olecranon.—Mr. Jessop showed a young man with perfect movement at the elbow, on whom he had operated for ununited fracture of the olecranon, by wiring together the fragments some months previously; the arm, previous to operation, had been weak, and almost useless for several years.

Fœcal Fistula.—Mr. Jessop also showed a man on whom he had operated for fæcal fistula, the opening being high up in the jejunum, as shown by the motions being liquid and full of bile The patient had been stabbed in the abdomen several years before, and had ever since had the fistula, for which he had been several times unsuccessfully operated on. The operation consisted in opening the abdomen, detaching the intestine from the abdominal walls; refreshing the edges of the opening in the gut, which was of the size of a shilling, and placed opposite the mesenteric attachment; carefully suturing the edges of the gut by twelve carbolised silk sutures, eleven being passed from within outwards, and the twelfth from without inwards, through all the coats of the bowel; returning the closed bowel; and stitching up the abdominal opening, as in ovariotomy. Flatus passed a few hours afterwards, and, after the second day, the temperature continued normal. The man recovered without a bad symptom. Mr. Jessop remarked that this was the second case he had successfully treated by this method.—Mr. Wheelhouse looked on the case with great satisfaction, since on this very man he had, several years ago, done every

operation he could think of, without any benefit. He had not, however, seen the case until some time after the accident, when the fistula was fully established.

Clinical Study of the Liver, viewed through the Urine.—Dr. G. OLIVER read a paper on this subject; first taking into consideration the tests. He remarked on the unsatisfactory character of the tests for the biliary acids as they were found in the urine, Pettenkofer's reaction being difficult to apply, and reacting directly only with the chlorate of sodium. He showed the application of a test-solution, founded on the normal physiological reaction of the bile on the albuminous contents of the duodenum, composed of peptone (Savory and Moore's) 30 grains; salicylic acid, 4 grains; acetic acid, 30 minims; and water, 8 ounces; cleared by repeated filtration. On adding to this a small quantity of urine containing bile-salts, precipitation occurred. He recommended that all urines should be diluted to the density of 1008. This could be done most easily by adding water till a properly weighted bulb remained stationary, and by noting the amount of water added; the specific gravity could be ascertained at the same time. The precise amount of excess of biliary acids could be estimated by comparing the opacity with that of a standard test, in the manner he had recommended for the estimation of albumin. The reaction required a certain amount of acidity, no precipitation taking place if the acid were in excess or defect; and this explained the fact of albumin and bile coexisting in the same urine without precipitation. Bile-pigment was not in all cases present with the other constituents in the urine; and in one specimen he showed there was a large excess of biliary salts, but an absence of bile-pigment as shown by the ordinary tests.—The discussion was postponed to the next meeting, when the clinical aspect of the subject will be treated.

MIDLAND MEDICAL SOCIETY: ORDINARY MEETING.

WEDNESDAY, APRIL 1ST, 1885.

T. H. BARTLEET, F.R.C.S., President, in the Chair.

Myxœdema.—Mr. H. BRACEY showed a case of myxœdema. The patient, a woman, aged 57, presented all the usual symptoms of the disease. Her sister died last June of myxœdema in a London infirmary. The patellar reflexes in this case were increased, and the urine contained a trace of albumen.

Mr. J. W. TAYLOR showed an instrument for dilating the cervix uteri.

Excision of the Radius.—Mr. CHAVASSE exhibited a patient, aged 19, who had suffered from necrosis of the radius ever since he was an infant. Sequestrotomy had been performed nine times. As, latterly, the symptoms seemed suggestive of myeloid sarcoma, the entire radius was excised a year ago. The patient had now an useful limb, being able to feed and wash himself, and to carry an ordinary bucket.

Yellow Atrophy of Liver.—Dr. GARMAN showed crystals of leucin and tyrosine, from a case of acute yellow atrophy of the liver.

Cervical Pachymeningitis.—Dr. SUCKLING showed a boy who had suffered from pachymeningitis cervicalis hypertrophica. The disease began three years ago with rigidity of the neck, shooting-pains along the great occipital and other nerves, followed by paralysis of both upper extremities with rigidity. The hands were strongly flexed on the forearms. Paralysis, with rigidity of both legs, followed. The patient had been under Dr. Suckling's care for two years, and recovered entirely, with the exception of a little tucking of the left knee.

Perforating Ulcer of Foot in Locomotor Ataxy.—Dr. SUCKLING showed a man suffering from perforating ulcer of the foot, which was the first symptom of locomotor ataxy. There were two sinuses, one on the under surface of each great toe, opposite the phalangeal joint, which did not lead down to dead bone. The patient had suffered from these sinuses for two years. Dr. Suckling saw him about twelve months ago, when there were no signs of locomotor ataxy; but, when examined last March, loss of patellar reflexes, swaying movements, and the Argyll-Robertson pupil, had supervened. There was no anæsthesia or sweating of the feet.

Irrigation of the Uterus.—Dr. NEALE showed an instrument, made of vulcanite, for irrigating the uterus; the chief object of its design being to combine in one piece the smallest injecting-tube with as roomy an ejecting one as possible, so as to allow the immediate removal of *débris* from the uterus. The makers were Messrs. Woodall, of York.

Intracranial Hydatid.—Mr. H. LUPTON described a case. The patient, a girl aged 13, had noticed a swelling on the head for about twelve months, which, after discharging purulent material, subsided and refilled again repeatedly. Mr. Lupton at first thought he had to deal with a suppurating cyst, and proceeded to operate with the intention of dissecting out the cyst-wall, but no cyst was to be found; the bone was rough, and an aperture was felt through into the skull. The hole was just large enough to admit the tip of the little finger; and, when the finger was withdrawn, it was followed by an ounce or two of fluid, and about a dozen daughter-hydatids. The cavity was washed out and drained, daughter-cysts occasionally came away, but, in about a month, the cavity ceased discharging, the hole in the skull closed up, and the girl perfectly recovered. The site of the perforation was close to the occipital protuberance.

The Germ-Theory of Phthisis.—Dr. HEADLEY NEALE read a paper on the germ-theory of phthisis, pointing out the difficulty of harmonising the theory of the micro-organismal origin of the disease with the well established fact of its heredity; the arguments employed pointing to the conclusion that physico-chemical changes must precede the botanical aggression. The subject of the antiseptic treatment of phthisis was touched upon, the author drawing attention to the difficulty of applying antiseptic material topically to the air-vesicles and their phthisical contents.

REVIEWS AND NOTICES.

ADDRESS ON RIVER-POLLUTION, delivered at the Parkes Museum of Hygiene. By HENRY ROBINSON, C.E. London: E. and F. N. Spon.

To this address, recently delivered by Professor HENRY ROBINSON, C.E., at the Parkes Museum of Hygiene, the author has appended the discussion which followed. In his address, he reviews briefly the various steps which have been taken in the past, both to inquire into the subject of river-pollution, and to check the progress of this increasing evil; the Rivers Pollution Prevention Act of 1876 is justly criticised, and its grave defects are clearly pointed out. As is well known, the execution of this Act devolves upon local sanitary authorities, who are in general themselves the greatest offenders against the provisions of the Act, whilst aggrieved individuals can only compel the sanitary authorities to move in the matter through the agency of the Local Government Board. It is not surprising that, under these circumstances, the Act of 1876 has been, and still is, practically a dead letter. The Act is, moreover, framed in such ambiguous language, that evasive interpretations are greatly facilitated, and a conviction is rendered exceedingly difficult.

In referring to the pollution of rivers by sewage, the author points out how much the prevention of river-pollution has been impeded by the widespread opinion which exists, that sewage-matters become rapidly destroyed in the course of a river's flow, an opinion which he apparently himself endorses, and by which, therefore, his argument is very much weakened. As Professor Robinson, however, is not a chemist, it cannot be expected that he should be aware how greatly this self-purifying power of rivers has been exaggerated for party purposes. It is obvious, however, that, as long as engineers, and even some eminent scientific men, continue to countenance this doctrine of self-purification, it is wholly unreasonable to expect either that sanitary authorities should do their best to prevent the admission of sewage into our streams, or that magistrates should feel themselves justified in convicting for offences of this nature. It was also pointed out, in the course of the discussion, by Dr. Percy Frankland, that the real danger of sewage-pollution depends upon those pathogenic micro-organisms which may at any time be present in sewage-matters, and regarding which there is not a particle of evidence to show that they suffer destruction in the most prolonged flow of a river. We notice with regret that Professor Robinson, in his reply to these remarks, should have given expression to views diametrically opposed to the facts which have been abundantly established by the biological researches of the past ten years: "I do not agree that those germs, which are created in concentrated filth, and in a high temperature, are likely to live long in a river with a much lower temperature. Those germs would probably conform to the ordinary rule of life, and exist in a state of temperature and filth which is congenial to their nature; and if they were removed from those conditions, they would cease to exist." These remarks clearly show how slow is the distribution of the fruits of scientific research, even amongst the learned sections of the public; for, if there be one point upon which bacteriologists are entirely agreed, it is surely that the spores or germs of micro-organisms are endowed with powers of endurance which are altogether unequalled in the remainder of the vegetable and animal kingdoms.

After pointing out the shortcomings of the old Act, the author describes the nature of the Bill which is now be-

fore Parliament, and which is intended to place the law respecting river-pollution on a more satisfactory basis. The principal points in which the new Bill differs from the old Act are two: thus, first, the machinery for enforcing its provisions is greatly improved; and, secondly, the ambiguity as to what constitutes pollution is clearly defined by the prescription of certain standards of purity with which all matters discharged into water-courses must comply. It is with regard to these standards of purity that the greatest difference of opinion exists; thus, on the one hand, it is contended that these standards are too stringent, whilst on the other it is considered that they would operate disadvantageously in consequence of their inelasticity. It is evident, however, from the criticism which they frequently receive, that the real nature of these standards is but imperfectly understood. Thus, in the course of the discussion, it was stated by Captain Douglas Galton that the standards would give a water of a degree of purity which is scarcely obtainable even in the water-supplies of many of our towns. Now, as a matter of fact, the actual laxity of these standards may, perhaps, be best realised by bearing in mind that the Thames itself at the outfall of the metropolitan sewage complies in nearly all respects with their requirements, and that the Thames at Woolwich is generally actually within the prescribed limits of impurity. There is, in fact, scarcely a river in the country which would itself infringe these standards; and we must point out how desirable it is that this misapprehension with regard to them should be removed. There are not wanting, however, persons, including the author himself, who consider that ultimately no pollution of a river should be allowed at all; but there can be no doubt whatever that a certain amount of river-pollution is unavoidable, unless the great industries upon which our national prosperity mainly depends are to be wholly paralysed; and all legislation in the matter must duly take into consideration the manufacturing interests of the country, which are of paramount importance. We are of opinion that, without some definite standards of purity being fixed, any Act will be liable to evasion; and that, if the standards proposed be enforced, although our rivers will not be restored to their original purity, their condition will be very greatly improved.

THE NATIONAL DISPENSATORY; CONTAINING THE NATURAL HISTORY, CHEMISTRY, PHARMACY, ACTIONS, AND USES OF MEDICINES: including those recognised in the Pharmacopœias of the United States, Great Britain, and Germany, with numerous references to the French Code. By ALFRED STILLÉ, M.D., LL.D., and JOHN M. MAISCH, Phar.D. Third edition. London: J. and A. Churchill. 1884.

AMERICA is a big country, that part of it known as the United States particularly, the people of which claim to be Americans *par excellence*. They hold that anything produced beyond their boundary is not worthy of the name of being American. They produce big books, such as dictionaries, dispensatories, and an *Index Medicus*: the latter will, when completed, consist of many large volumes. Of dispensatories, which are more our province at present, the *United States Dispensatory*, first published in 1883, was for many years the standard work of materia medica there for the student, as well as of reference for the medical practitioner; it quite supplanted the *United States Pharmacopœia*, which was rarely seen, and its fifteenth edition, lately produced by a staff of new blood, indicates that it still holds its own, notwithstanding the success its competitor, now before us, has had. The first edition of the latter, known as the *National Dispensatory*, appeared in 1879; the second was little more than a reprint; the third, produced towards the end of last year, contains the alterations necessitated by the appearance of the new United States, German, and French Pharmacopœias. The authors lament not being able to include the new *British Pharmacopœia*. Although a large book in the first instance, these alterations and numerous additions increase its bulk considerably. Estimated by size, we find that the *United States Dispensatory*, twelfth edition, weighs 4 lbs. 2 oz.; the *National Dispensatory*, first edition, 5 lbs. 13 oz., and the third edition, before us, 7 lbs. 12½ oz.; whereas the *London Directory* (this year's), weighs only 9 lbs. 11 ozs. This weighing operation being over, we give a sigh of relief that our student days are passed, and that in England medical students are not required to charge themselves with a subject out of a book nearly as large, as well as nearly as close printed and "dry," as the *London Directory*. We also feel some satisfaction in thinking that here, in England, suffering humanity is able to shuffle off its mortal coil without the aid of such an armament as this work contains, and that a little quiverful of well proved definite remedies, in the hands of a physician who knows how to use them, will give much better results in the treatment of disease. Not that we would stop therapeutic investigation, but we should be glad to see a number of old drugs, which have been proved to be effete, cast into oblivion, to let those of more definite action come prominently forward.

We notice in this edition of the *National Dispensatory* the inconvenience of having, as the last *United States Pharmacopœia* has, the formulæ expressed in parts by weight; the authors have translated these into definite weights and measures, both metrical as well as the apothecaries' weights. The arrangement of the subject-matter, although on the lines of the *United States Dispensatory*, differs from the latter in not being divided into three parts; it is, instead, strictly alphabetical. Under the head of "Allied Drugs," useful information is given respecting the plants of allied species to those yielding officinal drugs. Such hints ought to prove useful to practitioners in distant parts of the globe, and as sources of supply when useful drugs become extinct. Generally, the information is well and carefully brought up to date. There are articles on Jequirity Seeds; Chinoline, and its derivative Kairine (but not Antipyrine or Thalline). Euphorbia pilulifera, which proves an useful remedy for asthma in Australia, is also mentioned; so are the Remijias, which yield the cuprea-barks of commerce, and homoquinine or ultraquinine, obtained from them (cupreine, also found in them, is a more recent discovery). There is also an article on Cuca and Cucaine, but the extensive use the latter has had during the last few months is a posterior application of it. Mention is also made of the use of menyanthis, or buckbean, as a bitter tonic, "reputed to be also antiscorbutic, emmenagogue, and vermifuge;" as an emmenagogue, its use has been lately resuscitated here. Taken altogether, the ancient and modern mixture in the book makes it a very useful work of reference.

NOTES ON BOOKS.

The Student's Botany. By E. MACDOWELL COSGRAVE, M.D., etc., Lecturer on Botany and Zoology, Carmichael College of Medicine. (Dublin: Fannin and Co.; John Falconer. London: Baillière, Tyndall, and Cox. 1885.)—This volume is intended to meet the wants of students preparing for the examinations of the Royal University of Ireland. It contains a glossary of botanical terms, which appears to be fairly complete, and is decidedly the best part of a very dry book. A short chapter on the classification of plants is followed by a description of the selected natural orders, each illustrated by a type which is easily obtainable. Lists of the members of each order used in the *Pharmacopœia* are appended in their proper place. The volume provides in a convenient, and, so far as we have been able to judge, accurate, form the dry facts of botanical classification. The subject is the mere husk or rind of botany, and has given the author, who appears to have discharged his depressing task with care and knowledge, few opportunities for showing the wider significance of the facts with which examiners deal.

Syllabus of a Course of Lectures on Physiology delivered at Guy's Hospital. By P. H. PYE-SMITH, B.A., M.D., F.R.C.P. (J. and A. Churchill. 1885.)—In preparing this little book, the author has followed the examples of the late Dr. A. Swaine Taylor and of Dr. Burdon Sanderson. His object has been to place before the student a connected series of suggestive notes for the purpose of self-examination; so that, in using it, he finds presented to him the main points on which knowledge is desirable, but regarding which he has to ask himself, "What do I know about this?" A book of this kind, or even an elaborate table of contents to a text-book, such as those which are prefixed to Dr. C. J. B. Williams's *Principles of Medicine*, and Mr. Erichsen's *Science and Art of Surgery*, is, in our opinion, of great utility to the diligent student who desires to test the extent to which he has profited by the instruction which he has received. On the other hand, no one need expect Dr. Pye-Smith's *Syllabus* to serve as a cramming book for examinations. The author says that he has endeavoured to make it useless for such a purpose; and he has succeeded well. A considerable number of diagrams interspersed in the text, and an appendix of notes and tables bearing on various points of useful knowledge in physiological matters, increase the utility of the book.

Helps to Health: the Habitation, the Nursery, the Schoolroom, and the Person. With a Chapter on Pleasure- and Health-Resorts. By HENRY C. BURDETT. (London: Kegan Paul, Trench, and Co., 1885.)—This book fills a gap in popular sanitary literature by providing, within the compass of one volume of very moderate size, an useful collection of facts not easily found elsewhere unless a sanitary library be at hand. On some of the subjects dealt with, Mr. Burdett is able to speak from his own knowledge or experience. He discusses questions of house-sanitation from a sound practical standpoint, and it is only necessary to turn over the pages for a moment to find that he

has been able to present these subjects in an eminently readable manner. The chapter, for instance, dealing with all the matters relating to the "choice of a house," "house-drainage," and the practices of "jerry builders," will prove of the greatest use to those about to take a new residence. Upon other subjects, Mr. Burdett has had the advantage of the skilled co-operation of Mr. Percival, M.B.Lond., Mr. Keith Young, and Surgeon-General Moore, C.S.I. The volume thus contains articles on the nursery, the school, and the care of the person, on food and drink, on work and rest, on the interior arrangements of the house, and on health-resorts. The advice on personal hygiene is generally good and sensible; but we must seriously protest against the recommendation (pp. 31-32) to give infants "a few drops of brandy slightly diluted with water," as a remedy for flatulence, "in the first few months" of life. Brandy is a dangerous drug when prescribed in this loose fashion. This mistaken recommendation is the more conspicuous, as the subject of alcohol, when dealt with in its proper place in the book, is very sensibly treated. The concluding chapters on the sanitary powers and duties of the citizen, and a list of the names and addresses of the urban sanitary officials, are calculated to be of great use in practice, and would alone make the book one worth possessing.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

DR. HAGEDORN'S NEEDLE AND NEEDLE-HOLDER.

Dr. Hagedorn, of Magdeburg, has recently invented an improved form of surgical needle. The kind of needle in general use has a stem, the section of which forms either a circle or an oval. It is flattened at the inner side of its curve, so as to form a broad double edge, which is transverse to the curve and terminates in a point. Hence, when used for the introduction of a suture by the side of a wound, it makes a puncture, or rather, a small vertical incision, parallel with the direction of the wound. On tying the suture, the inner magin of this incision is dragged inwards towards the wound; so that an elliptical, or even triangular, gap is formed at the site of the puncture, which may be slow to heal, and sometimes causes a small fistula. The point of the old kind of needle, flattened on its concave side, is weak, and apt to deviate from its intended direction in tough or hardened tissues.

On the other hand, the stem of Dr. Hagedorn's needle forms an oblong parallelogram on section. It is of equal width and thickness throughout its entire length, and is curved on its axis, with its short cutting edge on its convex side near the point. This edge is about three times the width of the needle. The curve of the needle forms a semicircle.

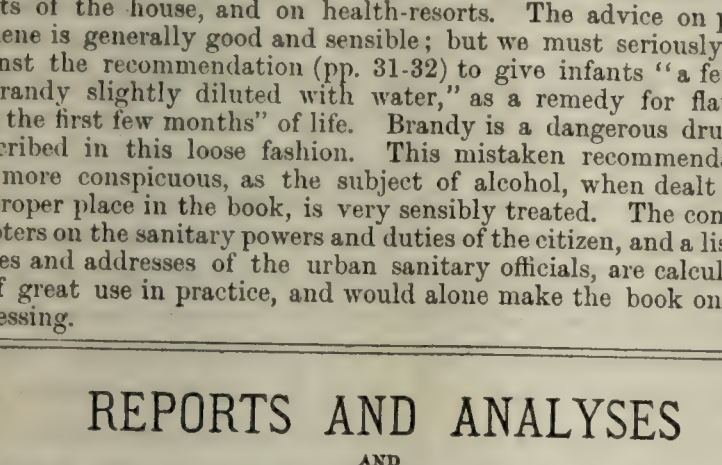


Fig. 1.

Being curved on the edge, this needle is more resistant than the older form, and the point follows, without deviation, the intended direction of the puncture. The eye perforates the flat side, so that it can be made larger and more tapering at the terminal end, in consequence of which even a stout double thread will pass without difficulty through the puncture. The needle is of equal thickness throughout, so that it can be firmly grasped by a holder at any point whereby its direction will be much facilitated, without any fear that it may be broken. The cutting edge is on the convex side, and cannot be injured or blunted by the needle-holder, and may readily be resharpened. Owing to the form of the needle, the incision which it makes is not vertical, but horizontal, and, therefore, at a right angle to the edge of the wound, so that the two edges of the stitch-wound, on tying the suture, are drawn into close apposition. These needles cause less injury to the tissues than the older form, which is of high importance, especially in sutures of nerves and tendons.

As there are operations where a shallow-curved, or even a straight, needle is required, Messrs. Krohne and Sesemann, of Duke Street, Manchester Square, make five different forms (see Fig. 1), of which they are ready to supply sample-cards containing graduated sizes, beginning at the largest, No. 1. In Fig. 1, Nos. 6 and 10 (the smallest) are represented. Dr. Hagedorn has contrived a needle, with a round point, for intestinal sutures. The smaller sizes, with short cutting points, are well adapted for operations on the eye; and the above-named instrument makers also supply a stouter and a thinner form of needle, useful in plastic operations on the female organs.

Dr. Hagedorn has also invented a needle-holder, which can grasp the needle firmly without any risk of breaking it. The needle can be seized or disengaged with equal readiness; and its point, after having passed through the tissues, can be taken hold of without injury to itself or to the surrounding soft parts, being guarded by the jaws of the needle-holder.

The needle-holder (Fig. 2) consists of a steel-rod, ending in a

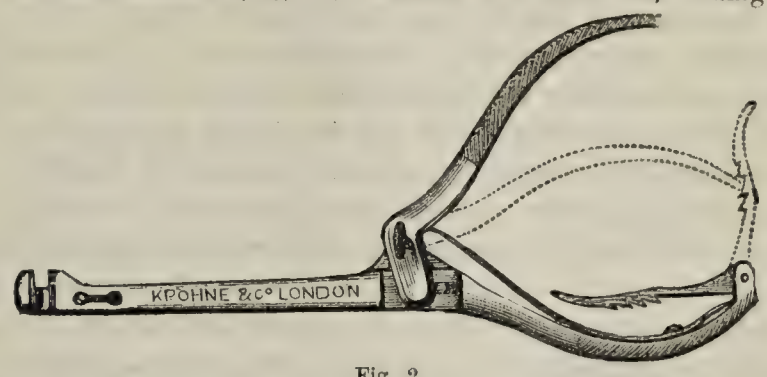


Fig. 2.

handle, upon which a similar shorter rod is made to glide up and down. Both rods form, at a right angle to their anterior termination, the jaw, which is lined with copper. The up and down movement of the rods is effected by a lever-handle, held in position by a movable screw. A ratchet on the lower part of the handle serves for fixing the needle. The first tooth on the ratchet will fix a stout needle, the second and the following third tooth finer needles. A slight pressure with the little finger on the ratchet will easily release the stop, and set the needle free. In using it, the needle-holder is held in such a position that the little finger is near the ratchet, ready for releasing its hold by slightly pressing against it. Care must be taken that the needle is placed in the longest diameter of the jaw, with the inner curve close to the stem of the fixed rod. Only when the needle has been grasped in this manner will its perfectly firm position be secured. This needle-holder, which takes up but little room, will, after a little practice, be managed with the greatest facility. It is made of several sizes and strengths, to meet the various requirements. Two kinds are especially made for gynæcologists, one with a rectangular, and another with an oblique jaw.

Dr. Hagedorn's needles and holder have been employed for plastic and abdominal operations at the Samaritan Free Hospital, by Drs. Bantock and Percy Boulton, with the most satisfactory results. Professors Bardeleben, Fritsch, Olshausen, and other continental authorities, have spoken and written in high favour of these new contrivances. Easy introduction and extraction of the needle during the application of sutures, and the least possible amount of damage to tissues, are matters of the greatest importance in plastic operations, Dr. Hagedorn's needles and needle-holder must therefore be considered to be valuable inventions, since they fulfil all these requirements.

DOMESTIC EXERCISING BAR.

A very useful exercising bar, which can be easily fixed in any doorway without interfering with the use of the door, has been shown us by the Misses Wells, of 56, Welbeck Street. It affords a ready means of exercising the arms and back. This kind of exercise is now much recommended for patients afflicted with curvature of the spine, and for its purpose no apparatus could be more simple. It is provided with brackets, so that it can be fixed in place in a few minutes by anyone possessing a gimlet and a screw-driver; and it is sold at a very moderate price.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 2nd, 1885.

MEDICAL DEGREES FOR LONDON STUDENTS.

THE deputation of the Metropolitan Counties Branch, which, on Wednesday, had an interview with the Senate of the University of London, may probably have laid the basis for a new departure in the history of that University, which will be alike of value to the University itself and to the medical profession, not only in London, but throughout the country. It would be telling a more than thrice-told tale to repeat at length the successive propositions of the argument which have, we may fairly say, convinced most reasonable persons, if not all, that it is at once important and just to the interests of teaching in the metropolis, and to the interests of the medical profession at large, that greater facilities for acquiring the status of doctor shall be afforded to the medical students in the metropolitan schools, and to the great body of English practitioners who present themselves for licence and examination in the metropolis. London is not only the greatest centre of activity in medical teaching in this country, as is the essential appanage of its vast population, of its central position, and of its metropolitan character, but in London are situated the chief graduating centres of England; and whatever occurs to advance or to deteriorate the efficiency, the influence, and the prosperity of medical teaching and graduating bodies in the metropolis, must affect directly and indirectly the whole profession throughout the country. It is a sufficiently palpable anomaly, and one which obviously affects equally the dignity and the usefulness of the University of London itself on the one hand, and the fair claims and rightful position of the candidates for graduation from metropolitan schools on the other, that the only graduating body in London which has the power, at present, to grant the title of M.D., is, from whatever cause, at present debarred from bringing within its influence, and conferring its privileges on, 93 per cent. of the students of the London schools. The authorities of the University itself must be perfectly conscious of the essential weakness of such a position; and this central fact is one which cannot, we hope, fail to govern their deliberations upon the representation made to them by the deputation of this week, and will, it may be hoped, have sufficient weight to induce them to change essentially the point of view from which they have hitherto regarded this question. Able and distinguished as are the members of the Senate of the University of London, it will not be paying them an unjust compliment, nor is it intended to disguise any sentiment of unexpressed satire if we say that the very age, dignity, and veteran experience of some of its most ancient and respected members are apt, in themselves, to be obstacles to that free, new, and vigorous departure of reform for which the present really critical juncture urgently calls. The occasion is not one for small peddling improvements. It is hopeless to suppose that the actual canvas will suffice for the much larger picture, on which alone the lines for the University of London of the future can be drawn. It will be necessary to discard some, at least, of those exclusive notions of a highly privileged university of *élite*, to which those who are attached to the stereotyped traditions of Burlington House are supposed—perhaps very wrongly supposed—fondly to cling. We credit the Senate of the University of London with the possession of sufficient breadth, originality, and intellectual vigour, to believe that they are really capable of considering what has become a great question from a large point of view. In this lies our hope that the representations of this deputation, which undoubtedly express, in the main, the aspirations and desires of the general body of the profession, will be received without prejudice, discussed without preconceived objection, and treated with freshness of view, and as from an enlarged horizon.

The deputation was happy in finding the Senate of the University of London presided over by Sir James Paget, the Vice-Chancellor. His presence in the chair, even without the distinct and emphatic statement which he subsequently made, was a guarantee that the facts and arguments which the deputation had to put forward would be seriously weighed and discussed by the Senate. That there are, as Sir James Paget urged, grave difficulties, only to be appreciated fully by those called upon to administer the University, there can be no no doubt; but that the difficulties in the way of popularising the degrees of the University of London are greater than the advantages which would accrue from the adoption of such a policy, is what we may take leave to doubt.

It is hardly sufficient for the Senate of the University to be open to conviction. It has accomplished a great work in the past by contributing largely to raise the standard of medical education; and it is now its duty to resume its position in the van, and still further raise the general standard by extending its influence, and supporting the efforts of the metropolitan medical schools to provide a thorough practical education in medical subjects.

Mr. Macnamara, Dr. Bristowe, and Sir William Mac Cormac, all endorsed the opinion frequently ventilated in these columns, that the minimum requirements in the purely medical subjects are not excessive, and that the real difficulty lies in the two earlier examinations. As we were able to announce last week, the Senate has already yielded something with regard to the preliminary scientific examination; candidates may now pass that examination in two parts, but the peculiarly stringent and vexatious regulations with regard to biology remain, and must continue to deter large numbers of students from attempting to pass the examination. The present regulations were drawn up, doubtless, with the excellent object of discouraging cramming, and compelling an objective study of biology; they have been carried too far, however, and the wisest course would be to reconsider them altogether. This brings us at once to the suggestion that the Senate should have the advice of boards of studies, upon which men actually engaged in teaching should sit. It is difficult to see how the Senate can reject so reasonable a proposition, and one which has worked well elsewhere, without incurring the charge of standing in the way of the legitimate expansion of the metropolitan medical schools. If boards of studies had existed when the present

regulations with regard to the preliminary scientific examination were issued, they would never have appeared in their present obnoxious form. The practical difficulties in the way of altering the matriculation examination are certainly greater, because that examination is not specially devised for the medical student. The Senate, however, ought to remember that the University was intended especially to improve medical education, and that its duties in this direction may render it necessary that the trouble and expense of laying down a special curriculum for medical students may have to be faced. Sir James Paget seemed to assume that it was necessary to maintain the medical degrees as "honour-degrees." That some special "honour-degree" is a want in London, cannot be denied; and the total abolition of all academical distinctions would be far from a desirable end. But there is no need for such an ending. At Oxford and Cambridge, the same degree in arts is given to all; yet everybody knows that the manner in which the degree is taken implies radical differences in the amount of proficiency displayed. The man who has taken a double first, or who has been a senior classic or a senior wrangler, is known and marked for life. Is there any insuperable difficulty in applying the same principle to the medical curriculum of the University of London? The injustice is, not that the specially able or hardworking men should be specially honoured, but that the reward of their excellencies should be a title which is granted as a peculiar possession to them at the expense of men who thoroughly deserve the honourable distinction of M.D.

Financial considerations are sometimes urged as a reason against more frequent examinations; in other words, that the cost of examining would become excessive. The obvious answer is that in proportion as the University is popularised, and the numbers of candidates become greater, the income of the University would be proportionately increased, and the funds out of which the examiners are paid would largely grow. The more this argument is examined, the more we are satisfied that financial considerations will be found to tell in favour of enlarging the boundaries of the University, and attracting seventy per cent. of the students, if possible, instead of seven.

In these sentences we venture to indicate, in the merest outline, some of the leading features of the specific reforms which might be immediately effected, and the lines upon which they must proceed. The main principle which ought certainly to guide the discussion of the question is that it is necessary to provide greater elasticity, a freer power of choice, less stringent regulations, and less oppressive accumulation of subjects, opportunities less widely spaced in time, and less obstructive in character to students who have failed in one or more subjects for presenting themselves again for examination. The avenues to the University through its matriculation arts examination need to be opened more widely. In this respect, the recent regulations of the Victoria University may be very advantageously studied. We would lay especial stress on the importance of the Senate considering in an affirmative sense the proposition for establishing boards of studies in connection with the medical schools, which boards of studies would have, as their immediate function, the duty of revising questions for examination before they are set to candidates. The system of employing examiners, whose questions are subject only to their own peculiar opinions or prepossessions, is one which undoubtedly works ill. It is a frequent cause of great injustice, and is apt to breed suspicions and to raise objections, which are frequently just, and in all cases injurious. The establishment of such boards of studies would be accepted, from the outset, as an indication that the authorities of the University of London do not desire to fortify themselves in the citadel of imperial isolation, but sincerely wish to place themselves in closer relation with the constantly growing and frequently changing character of medical education. Even if its effect were less than we believe it would be, and than it is the opinion in the medical schools generally that it would be, the moral and intellectual influence of such a change would give to the University of London a grasp of the medical schools, which would at once largely add to its power, and greatly increase its influence and attractiveness. Sentiment goes for something in such questions, as well as hard logical considerations. The case in this instance is, in our opinion, doubly strong, because both sets of considerations are enlisted in favour of such a modification of the constitution of the University.

THE ROYAL COLLEGE OF SURGEONS AND ITS FELLOWS.

In the first week of January, we expressed the opinion, in a leader bearing the above heading, that we had good reasons to believe that the decisions of the Council of the College, at a recent extraordinary meeting, upon the recommendation of the Association of Fellows, had given rise to disappointment and dissatisfaction. Unfortunately, we have now to repeat the same in respect to the action of the Council at its last meeting, only in less measured terms, since we are certain that it has caused great dissatisfaction amongst the Fellows. A paragraph in the last number of the Journal, page 852, derived from official sources, stated the causes of discontent. A hasty glance at that paragraph might lead an impartial observer to think that the Association is offended because it cannot get all that it asks; but, in reality, it has only put forward claims that, after due consideration, it believes that it has full right to demand.

The College Council tends to fall into all the errors of all corporate bodies, errors only counteracted by unceasing vigilance from without. Once elected, the member of Council feels his helplessness, and has to rely on permanent officials and standing rules, and other formalities. After attending a few meetings, he begins to understand the business of the executive of the College, and, at the same time, wishes no complications nor anything that may prevent him from working comfortably in a groove, free from external interference. The idea of any threatened change becomes irksome, and his colleagues can readily prove to him that it must be undesirable. If members of the examining Court and Board belong to the Council, especially in large proportion, all the evils above suggested react upon the entire examination-system. Hence the request of the Association of Fellows that not more than one-half of the members of the Court of Examiners, and not more than two members of the Board should have seats on the Council, was exceedingly reasonable, if not too modest, and its rejection has given rise to much irritation.

Another tendency of a member of a corporation is to adhere to the election of chiefs by annual rotation, which saves trouble and responsibility. We recently devoted a leading article to a full discussion of this subject, and showed how, from trustworthy sources, we had learned that most of the Members of Council showed a great dislike to the project of nominating one or more Members for selection by the Fellows. We further explained that there was no insuperable objection to this project, which was very similar to the system in force at the older medical

societies. The welfare of medical government must not be subjected to obstacles because gentlemen in positions of power and trust are afraid of offending each other. The only question where the Council have still a few valid arguments upon their side is that relating to the term of office. There can be little doubt that a councillor of two years' standing can do more good than a junior colleague; but he can also do more harm, since he knows how to obstruct as well as how to work. Hence, the question is as broad as it is long. It must be admitted that newly elected members of Council must ever be under obligations to permanent officials; and thence arises a suggestion, which does not appear to have been put forward, that the Fellows, at least, might have some control over what is locally known as "the office." Otherwise, frequent deadlock in negotiations with the Council is inevitable.

The most reasonable request of the Association claims the consent of the Fellows and Members to any proposed alteration of charters and by-laws. No fair argument can be brought against it by the Council; and we trust that the Association will not rest until this request has been granted. It is absurd to attempt to defend the practice of passing laws over the heads of those whom those laws directly concern. We are glad to learn, not only that the Association is about to appoint local secretaries, but also that it is entering into active relations with the Association of Members.

COMPETITION FOR APPOINTMENTS IN THE ARMY MEDICAL SERVICE.

We print, elsewhere, a schedule of the required qualifications in candidates for commissions in the army medical staff, which has just been sent to us (April 23rd) by the Director-General of the Army Medical Department. It contains the special information which any one desirous to gain admission into Her Majesty's British Medical Service must necessarily obtain as a preliminary measure, and particularly shows the terms on which the competitive examination for appointments in the service is to be conducted. We have compared this schedule with the one formerly distributed, as well as the regulations under which the competition for army medical commissions has hitherto been conducted with the regulations laid down in the official document just issued. Neither the former nor the present schedule bears any date, nor can we find it expressly stated that former schedules are annulled by the one just received; but, as the last competitive examination for army medical commissions was conducted under the terms of a different schedule, it may be taken for granted that it is intended that all similar competitive examinations in future will be carried out according to the rules laid down in this latest schedule.

We may say at once that we do not find any change in the nature of the general or professional qualifications which are required from candidates for commissions. The limits of age—between 21 and 28 years—are the same; as are also the certificates of character, proofs of physical fitness, qualifications in medicine and surgery and certificate of registration, demanded from the applicants. Indeed, the paragraphs embodying these requirements are almost word for word the same in the former and present schedules.

There is, however, considerable difference in the explanation given in the new schedule of the nature of the examination, which those who desire to compete for appointments in the army medical service have to undergo, and also as regards the manner in which the appointments announced for competition are finally awarded. These matters are described in Paragraphs 4 to 6 of the schedule. The description of the examination itself, and of the conditions on which success in the competition depends, is given more fully, and in language less liable to misinterpretation, than it has been in previous schedules. The examination consists of two parts, a compulsory part, and a voluntary part. The subjects of examination which are compulsory are distributed under four headings, and are (*a*) anatomy and physiology; (*b*) surgery; (*c*) medicine, including therapeutics, the diseases of women and children; and (*d*) chemistry and pharmacy, with a practical knowledge of drugs. The subjects of examination which are voluntary are French, German, and natural science. To each of the four compulsory subjects 1,000 marks are allotted, as the highest number attainable. In the voluntary subjects, a maximum of 300 marks is allotted to natural science, of 150 marks to French; and of the same number of marks to the German language.

We notice that an important change has been made in the number of marks assigned to the fourth of the compulsory subjects: namely, chemistry, pharmacy, and a practical knowledge of drugs. The maximum number of marks attainable under this head was only 100 in the former schedule; while in the present schedule, as already mentioned, the number is 1,000. This subject has, therefore, been raised in estimate to an equal footing with each of the other three compulsory subjects; and it is evident that the general results of the examination must be materially influenced by this change. It is stated, in a note, that the examination in chemistry will be limited to the elements of the science, and to its application to medicine, pharmacy, and practical hygiene; and, if the inquiry be restricted to the practical points indicated, it does not seem objectionable, having regard to their professional importance, that the value above mentioned should be assigned to this section of the compulsory part of the examination.

By the terms of the competition, the candidate must qualify in the compulsory part of the examination; that is, he must obtain at least one-third of the marks assigned as a maximum to each of the compulsory subjects. Whatever number of marks he may gain in the voluntary division, they will not help in rendering a candidate eligible for a commission, unless the foregoing condition in respect to the compulsory subjects have first been complied with. But every candidate who qualifies in the compulsory subjects has then the advantage of any marks he may gain in the voluntary subjects, presuming they exceed one-third of the total number in each subject; and his position in the final list will be improved in proportion to their number. It is laid down that, unless the competitor gain one-third of the marks allotted to each voluntary subject, the marks gained in that subject are not allowed to count. A wide range is included under the heading of natural sciences. As explained in the schedule, they comprehend comparative anatomy, zoology, natural philosophy, physical geography, and botany, with special reference to materia medica. At the close of the competition, the candidates who have qualified are arranged in a separate list, and their final relative positions are settled by the addition of the marks they have gained in the compulsory part of the examination to those which they may have obtained in the voluntary part; the number of appointments offered to competition being given to the corresponding number of competitors

whose names appear uppermost in this list. It is thus we interpret the sixth paragraph of the schedule, in the words of which it is stated: "The appointments announced for competition will be filled up from the list of qualified candidates, arranged in the order of merit, as finally determined by the total number of marks each has obtained in both the compulsory and voluntary subjects." This part of the schedule concludes by announcing that each successful candidate will be required to attend one course of practical instruction in the Army Medical School as a surgeon on probation.

We have remarked thus fully on the manner in which the public competition for appointments in the Army Medical Service is conducted, and the regulations which determine their distribution, because we are aware that these subjects are not understood in many quarters. Even in the House of Commons, questions have not unfrequently been asked regarding them, to which the necessary replies might have been found in such published documents as the one we have been noticing.

The remainder of the schedule contains the conditions of service in the department itself, the rates of pay and allowances according to rank and standing in the service, the rules for promotion, for retirement, the rates of retired pay, and other such matters. As these are simply extracts from the last Royal Warrant embodying the regulations by which the pay and positions of the medical officers and the management of the department are governed—on which we have sufficiently commented on former occasions—they need no further reference in the present article.

THE library of the Royal College of Surgeons will be closed on Friday next, May 8th, owing to the large number of candidates for examination.

THE annual dinner of the Pharmaceutical Society of Great Britain will be held at the Holborn Restaurant on Tuesday, May 19th, at 6.30, for 7 P.M., precisely.

THE President and Council of the Medical Society of London have issued cards for a *conversazione* to be held on Monday, May 4th, at the Society's rooms, 11, Chandos Street, Cavendish Square. The annual oration will be delivered at 8.30 precisely, by Professor Humphry, F.R.S.

MR. CHARLES EDWARD CORMACK, son of the late Sir John Rose Cormack, has graduated as Doctor of Medicine in the Faculty of Medicine of Paris. The subject of his thesis was "The Treatment of Chronic Empyema by Estlander's Operation."

DR. HUGHES BENNETT will deliver, at the Westminster Hospital, during the ensuing summer session, a short course of lectures on the recent advances in neurology, and their practical application in the investigation of diseases of the nervous system. The first lecture will be delivered on Monday, May 4th, at 4 o'clock, and will be continued bi-weekly. Students and medical practitioners are invited to attend.

THE ARMY MEDICAL STAFF IN THE SOUDAN.

THE losses sustained by our Army Medical Staff in the Soudan campaign have been exceptionally great; the death of Staff-Surgeon Paul B. Conolly at Shubadab of enteric fever, which we chronicled last week, making the fourth medical officer who has succumbed during the last six weeks. Among the eight officers and thirty-two men, sick and wounded, who left Suakim on April 16th for England, we note the names of Surgeon-Major J. Fleming and Surgeon U. J. Bourke, who have had dysentery; Surgeon M. Digan, Royal Navy, who has a gunshot-wound in the axilla; and Surgeon F. Jeans, Royal Navy, with remittent fever.

THE RESPONSIBILITY FOR BULLYING.

FROM time to time, the public mind is startled and horrified by the discovery of some peculiarly revolting piece of cruelty, the invention of some of the bigger boys at a middle class school. As a rule, an examination of the circumstances will show that these lamentable occurrences are really to be attributed to bad management by the school-authorities rather than to any peculiar iniquity in the boys. The cruelty of the boyish disposition is a fairly constant quantity; it is a natural instinct of the strong and healthy animal to despise the weak and sickly, and the civilised boy shares this instinct with the savage. It is the duty of the managers of schools to provide healthy recreations for the boys, who will find in them a natural vent for their superabundant physical energies. At King's College School, it would appear that the boys have only some dark corridors to play in; consequently, bullying is rife; the small boys have been forced to run the gauntlet while the bigger pounded them on the back with their fists. One little boy, aged 12, has recently died in consequence of running this gauntlet three times. The cause of death was apparently acute myelitis. At the inquest, the head master was horrified to find such ill-treatment could be practised in his school, tried to throw the blame on two porters, to whom he appears to have believed he had delegated his authority, and promised to investigate the matter when the boys returned from their holidays. We are glad to learn that the Council of King's College take a larger view of their duties, and that a special meeting is to be held this day (Friday). It is, in reality, not a few big bullies, but the Council, and head master, and the system which they have worked, that is on its trial. An inquiry will only do good, if it result in rousing the Council to a sense of their mistaken policy in attempting to keep a school in a situation so ill adapted for its purpose, and on an area already overcrowded.

PLOVERS' EGGS.

THE gourmet appears to have a well founded physiological reason for his preference for the plover's egg; and the dyspeptic may profit by it. Tarchnoff has investigated the difference between the white in plovers' eggs and in hens' eggs. He finds that, in all birds which are hatched fledged, the albumen in the egg is much thinner and more watery when fresh, and more transparent when boiled, than in hens' eggs. The eggs in birds which are hatched unfledged resemble those of the hen. Pigeons' eggs are intermediate between the two kinds. To this transparent albumen, Tarchnoff gives the name of "*tata*" albumen. It contains about 2 per cent. more of water than ordinary albumen, and requires a higher temperature to coagulate it. The point about it which is important in practice, however, is that, when coagulated, it is digested and peptonised eight or ten times more readily than ordinary white of egg. In cases where the digestion is very feeble, and where it is important to sustain the strength of the patient, it is pointed out that, by using plovers' eggs instead of hens' eggs, considerable advantage might be gained.

THE EXPLOSION AT THE ADMIRALTY.

IT is highly satisfactory to learn that Mr. Swainson is progressing favourably, and that no permanent cerebral mischief is apprehended. The injury to the left eye was remarkable. The patient was struck by a splinter which flew from the seat of explosion, which was considerably above him, and to his left. As he turned his head sharply towards the right at the report of the explosion, the splinter shot across the ball of the left eye internal to the cornea, and passed over the bridge of the nose, which was slightly scratched. The conjunc-

tiva, between the cornea and the inner canthus, was torn up; and, as emphysema was produced when the patient blew his nose, the lacrymal bone and nasal duct may have been injured. The sense of hearing was unimpaired, from the first.

THE SPREAD OF SCARLATINA BY SCHOOLS.

THE great difficulty of stamping out scarlatina when it has once gained entrance into an elementary school, is well illustrated by Dr. Spottiswoode Cameron in a recent report on the health of Huddersfield. Scarlatina broke out amongst the scholars at a particularschool in that borough. Every case at this school was isolated as soon as it came to knowledge, and, so far as practicable, the clothing of every member of the family, the sick-room, and the bedding disinfected, and yet new cases kept from time to time appearing. The school was visited twice, by different persons; and, although a case was brought to light, by the second inspection, of a child, whose illness had been concealed, still there was no reason to think that, in this case, the child had carried the disease to any others. At length Dr. Cameron learned, from the mother of two quite recent cases, that two older children of hers had been ill of this disease several weeks before, that no medical man attended them, and that they went back to this very school as soon as they were well enough—that is to say, of course, while they were shedding their poisoned skin—and this without any attempt at the disinfection of their clothing. The people were exceedingly dirty, and to the want of proper isolation and disinfection of these two boys is attributed the spread of the disease to no fewer than fifteen persons. There is also a strong suspicion that two other children, attending another school, took the disease from playing with these children, who lived near. There seems no room for doubt that the poison of scarlet fever may lie for a long time dormant in the clothes, and, perhaps, also on the persons of those who have been in contact with, or in the near neighbourhood of, those suffering from the disease, as well as in the clothes and on the persons of those who have themselves had the ailment. A case similar to this occurred in the same borough a few years ago, where child after child attending the Almondbury Board School was taken with scarlet fever, although every case was isolated as it occurred. At length it was found that a girl, whose brother's skin was peeling from a slight attack of scarlet fever, in the common room of the house, was actually going to and from school. When her attendance at school was dispensed with, no further case of scarlatina occurred.

THE DISTRIBUTION OF COMPLEXIONS IN CENTRAL EUROPE.

SOME time ago, Professor Virchow collated the results of an inquiry into the relative proportions of the blond-haired, dark, and mixed types among the school-children of the German Empire. Since then, the inquiry has been extended to Belgium, Austria, and Switzerland, embracing nearly eleven million children in its scope; and, in a recent lecture at the Berlin Academy of Science, Professor Virchow showed that more than 50 per cent. of the school-children of Central Europe belong to the mixed type. The distribution of the purely blond type, which contributes more than 25 per cent., and is associated with unmixed Teutonic blood, is highest in Hanover, where it forms 43 per cent. of the population; but it is very nearly as high in the extreme East Prussian and Pomeranian districts, where history and tradition would indicate a preponderating Slavic element.

THE WATER-SUPPLY.

AT the last monthly meeting of the Royal Meteorological Society, the report of a committee on the decrease of water-supply was read. This committee was appointed to take into consideration the question of the decrease of water in springs, streams, and rivers, and also the simultaneous rise of the flood-level in cultivated countries. As far as any inference could be drawn from the records collected by the committee, it appeared that the years 1820, 1821, 1824, 1835, 1838, 1845, 1847, 1850, 1854, 1855, 1858, 1859, 1864, 1865, 1871, 1874, 1875, and 1884 were periods of marked low water. On the other hand, the years 1817, 1825, 1830, 1836, 1841, 1842, 1853, 1860, 1861, 1866, 1873, 1877, 1879, 1881, and 1883, were periods when there has been exceptionally high water. In 1852 the water was very low in the earlv part of the year, while at the end of the year, it was very high. In the intervening periods the water was of moderate altitude. It did not appear, from existing records, that there was any diminution in the water-supply of this country, and the large quantity of water which had been stored or had flowed off the ground between 1876 and 1884 was confirmatory of this view. There appeared, however, to be periods when there was exceptionally low water, and these were almost immediately followed by periods of exceptionally high water. With reference to the increase of floods, it did not appear from the records that there was any great increase in the height to which the floods rose in this country. Whether or not the height to which floods had risen in recent years had been affected by river-improvements, and the greater facility with which floods could be got rid of, or whether there was a diminution in the quantity of water, were questions upon which the committee had not yet sufficient information to speak positively.

THE DIARRHŒA EPIDEMIC AT HULL.

THE Investigation Committee appointed by the Hull Town Council, have been inquiring further into the causation of the serious epidemic of diarrhœa that occurred in that town towards the end of March. There can be no reasonable doubt now that polluted water was at the bottom of the mischief, the water from a foul and sewage-fed beck having, with culpable carelessness, been allowed to mingle with the corporation supplies. Samples taken from different points in the course of this beck, on April 20th, have been submitted for chemical analysis; but though the analyst's report may be able to tell of pollution, it certainly cannot give more convincing evidence of foulness than an ocular inspection of the beck itself, afforded to the committee at its visit when the samples were taken. We must repeat our suggestion of last week, that so exceptionally large and significant an outbreak should not be allowed to pass by without careful and detailed inquiry by a specially skilled investigator, such as Dr. Ballard. According to the local health-officer, there were, in the interval between March 22nd and April 5th, something like 18,000 or 20,000 cases of diarrhœa, evidently connected with the drinking of the town's water. The cases were almost exclusively those of persons resident within the Hull water-supply district, and the districts of Newington and Newland, which were within the area of a separate water-supply, escaped.

THE PROPHYLACTIC VALUE OF VACCINATION.

AT a time when public attention is being again directed to small-pox, in view of its serious increase in the metropolis, and when much dreary rubbish is being written on the subject of vaccination in the papers, it may be seasonable to recall the experience of Dr. Gayton, of the Metropolitan Asylums Department, as expressed in a pamphlet on *The Value of Vaccination*, recently published. Dr. Gayton is able to refer to as many as 10,403 cases of small-pox coming under his own observation, so that the risk of fallacy from paucity of numbers is absolutely guarded against. He elaborately classifies these cases by ages and by goodness or badness of vaccination-marks, and is able to draw a variety of interesting deductions therefrom. But, for our present purpose, it may suffice to say that Dr. Gayton's figures corroborate in the strongest manner the conclusion that ought surely, by this time, to be axiomatic; namely, that the severity of small-pox decreases in proportion to the efficiency of the vaccination. Of patients with good marks, only 2.97 per cent. died from small-pox; of patients with imperfect marks, 9.37 per cent; of persons said to be vaccinated, but without evidence, 27.18 per cent.; of unvaccinated persons, 43.70 per cent. (5 57 per cent. of the unvaccinated children under 5

years succumbing, and 37.19 per cent. of children above 5 years and adults). Dr. Gayton is eminently reasonable, and does not unduly dogmatise from these figures; but his conclusion is inevitable that, "leaving the largest margin for error, which experience of human fallibility might induce us to do, we have still the remarkable fact that, out of many thousands attacked, a certain number are protected from death, maintaining an almost mathematical ratio, according to the manner in which the operation of vaccination has been performed." No sophistry can dislodge vaccination from this position; and anti-vaccinators are driven to questioning the good faith of each and every compiler of comparative statistics of this kind, as the only way out of the difficulty.

CREMATION IN PRACTICAL OPERATION.

THE Sanitary Committee appointed by the City Commission of Sewers to consider the question of the advisability of erecting a crematorium, that the public might adopt that mode of sepulture should they so wish, have presented a report, in which they requested the Court's authority to visit some place where the system was in operation, so that they might witness the cremation of a human body. It having been suggested by one member that, for the purposes of the inquiry, it would be necessary to proceed to Rome, Milan, or Gotha, where the process of cremation was in actual practice, Mr. George Shaw, while admitting that Rome was the only place where cremation was in regular operation, pointed out that it was not necessary for the committee to go as far as Rome to witness an experiment of the kind, when they could see it at the crematorium at Woking. Attention was drawn to Sir Spencer Wells' lecture an abstract of which we publish on another page; Lord Shaftesbury had swept away the religious objection to cremation, and Lord Bramwell had dealt with the notion that it would serve to prevent the detection of death by poisoning. Mr. Hicks, while believing that cremation would hereafter be adopted or sanctioned in this country, urged that the recommendation of the committee was, at any rate, premature, as the Home Secretary was now engaged on an inquiry as to the bearing of the law on cremation. Mr. Malthouse expressed his opinion that the time was approaching when the question would become imminently important, seeing that London was surrounded with cemeteries and graveyards, whence the exhalation from decomposing bodies could not fail to be dangerous. On being put to the vote, the report was negatived by a large majority.

THE OUTBREAK OF CHOLERA IN SPAIN.

LETTERS from Valencia give details of the epidemic which broke out in Jativa and the surrounding villages in the last week of March. The medical men and the local authorities were unanimous in calling this epidemic cholera, and created alarm by the sanitary precautions they took; most of the people in Valencia, however, refuse to believe that it was cholera. The prevalent belief is, that the epidemic was of a dysenteric or diarrhœal character, originating in an unwholesome state of the drainage and water-supplies at Jativa. Official statistics state that, from April 2nd, when thirty-two persons were under treatment, until April 12th, only forty-two fresh cases occurred, and forty-three ended fatally. There have been no deaths and no fresh cases since April 13th at Jativa, and only a few at Alcira. The public health at Valencia is reported to be excellent. The authorities at Gibraltar have imposed three days' observation on arrivals from Spanish and Mediterranean ports. The health of the peninsula is everywhere reported to be satisfactory.

ASSOCIATION FOR PROMOTING A TEACHING UNIVERSITY FOR LONDON.

AN important conference between the Executive Committee of the above Association and representatives of the London Medical Schools will take place at 4.30 P.M. on Monday next (May 4th), at the rooms of the Society of Arts. The following medical schools have chosen gentlemen to represent them upon this occasion:—St. Thomas's Hospital: Dr. Bristowe, Dr. Bernays, and Mr. Sydney Jones; Middlesex Hospital: Dr. Cayley and Dr. Coupland; St. Bartholomew's Hospital: Dr. Norman Moore, Dr. Dyce Duckworth, Dr. Russell, and Mr. Willett; University College: Dr. Barlow, Professor Schäfer, and Professor Berkeley Hill; King's College: Dr. Curnow, Professor Bentley, and Professor Gerald Yeo; St. Mary's Hospital, Dr. Sieveking; Westminster Hospital: Dr. De Havilland Hall and Mr. George Cowell; Guy's Hospital: Dr. Taylor, Dr. Stevenson, and Mr. Howse; London Hospital: Dr. Down and Mr. Treves. It is expected that the medical schools of St. George's Hospital, Charing Cross Hospital, and the Royal Free Hospital will also be represented at the conference

LOOKING THE GIFT-HORSE IN THE MOUTH.

IN recognition of public services rendered during the last epidemic of cholera, the French Government has recently awarded a large number of gold and silver medals, "mentions honorables," and "lettres de félicitations." In addition, a number of promotions in or to the Legion of Honour have been made. As is usual in such cases, the distribution of honours has been the cause of many heartburnings. Indignation-meetings have been held. Some complain that their merits have not been duly appreciated; others object to their names being associated with the names of others whom they consider to be adventurers and unworthy; while others again there are who decline their medals because they have not deserved them. At Montpellier, the dissatisfaction found expression in a noisy demonstration against the dean of the medical school, who had been made an officer of the Legion; and in favour of two other professors, who had shown specia devotion during the epidemic, but had been rewarded only by medals. Before the uproar could be quelled, it was found necessary temporarily to close the medical school, and the dean has thought it prudent to resign. The minister who made the awards was a member of the Ferry Cabinet, and resignation has, thererefore, saved him from the consequences of his misguided generosity.

AN AMERICAN ON OVARIOTOMY IN ENGLAND.

IN these days, when continental journals vie with each other in publishing disagreeable remarks about England, it is pleasant to find how, on the other hand, writers in the United States are almost unanimous in sounding praises of our government, our institutions, our towns, our country, and our surgery. *Harpers' Monthly* has just discovered beauties of landscape in the Regent's canal, whilst, in the *Atlanta Medical and Surgical Journal*, the distinguished Dr. Robert Battey devotes an article to a subject which has been looked upon with more pride and interest than that useful waterway by qualified and unqualified Britons, namely, the progress of ovariotomy. The extraordinary results which have been obtained in Great Britain within the past three years, seventy-three consecutive operations in the hands of one surgeon, and seventy-six in the hands of another, without a death, are well caclulated, observes Dr. Battey, to excite both astonishment and admiration. American results being far less satisfactory, Dr. Battey enters into a consideration of the conditions of our success. Experience he considers to be the first of these conditions. If the best results are to be obtained in America, ovariotomy must, he believes, be put into the hands of a few, and the general practitioner must forego the ambition of swinging here and there an occasional scalp to his girdle. The second condition is "clean hands and appliances;" the third, a clean apartment and bedding. The fourth is "pure atmosphere and free ventilation;" and Dr. Battey's allusion to "the upper floors of buildings in elevated urban localities, with surroundings as salubrious as circumstances will admit," probably refers to the Samaritan Free Hospital. The fifth condition is thorough cleansing of the abdomen. Dr. Battey agrees with those English, Scotch, and Irish operators who employ the drainage-tube when the "toilet" of the peritoneum is

rom any cause incomplete. The sixth condition is skilled nursing and quietude; the seventh, early operation; the eighth, complete intra-peritoneal ligature of the pedicle. The last condition of success is antiseptic solutions and spray. He admits that "the results obtained by Dr. Bantock, in London, and Mr. Lawson Tait, in Birmingham, seem to show conclusively that the use of these solutions is not indispensable to the attainment of the best success. They have both shown by their work that scrupulous attention given to the cleansing of hands, instruments, and sponges, not only prior to operating, but frequently during the progress of the operation, is sufficient. The frequent removal of the blood from hands and implements appears to protect the abdomen from septic influence." Dr. Battey then speaks of Dr. Keith's objections to the spray. Nevertheless, Dr. Battey himself is not inclined to give up complete antiseptic precautions. He has never had a case of carbolic acid poisoning, and concludes by observing: "To the criticism that carbolic solutions weaker than one to twenty have been shown in the laboratory to be impotent for the destruction of bacteria, I answer that I am seeking by its use only the restoration of my patients to health, and the mortality in my hands since its use has dropped from twenty-five per cent. to zero. This, for me, is sufficient reason for the continuance of the method, and for the rejection of all other substitutes, until such time as more complete demonstrations shall place a clearer light before me."

OXFORD GRADUATES' MEDICAL CLUB.

THIS club, which was started successfully last year, will hold its anniversary dinner at Limmer's Hotel, George Street, at 7.30, on Thursday, May 21st, when the chair will be taken by Dr. John W. Ogle, of Trinity College. The meeting will be purely social, and will be confined to members of the club. There will be a general meeting of the club half an hour previously to the dinner, at which new rules will be proposed for approval. It is hoped that there may be a large attendance; and the secretaries, Dr. S. West and Mr. J. H. Morgan, will be glad to learn the names of those intending to be present.

RESECTION OF GANGRENOUS INTESTINE.

MR. MITCHELL BANKS read before the Medical Society, on April 20th, a valuable communication on the treatment of gangrenous intestine, and gave notes of a case of strangulated inguinal hernia where over thirteen inches of gut were resected with success. A full report was published in the JOURNAL of April 25th. Mr. Banks observed that, according to Mr. Makins' table of forty cases of resection of intestine for artificial anus, the percentage of deaths was only thirty-eight, and this fact favoured secondary resection. Hence, if it were decided not to disturb the gut, it should be simply laid open, the strictured part being left alone, and the stricture not incised. The cases appropriate for resection were very few. The patient ought to be strong and in good condition, and skilled assistance must be at hand. Sir William Mac Cormac, Mr. Baker, Mr. Pitts, and Mr. John Morgan did not speak in favour of resection, and agreed with Mr. Banks that the stricture should not be divided when gangrenous gut was laid open. Death in such cases did not result from acute peritonitis arising around the constriction, but from blood-poisoning due to extravasation of septic material into the peritoneal cavity, and division of the stricture only increased the risk of effusion of the contents of the intestine. Mr. Makins was in favour of secondary resection. Professor Spence's practice of drawing down a portion of the uninjured intestine above the stricture was deprecated by Mr. Baker, Mr. Gould, and Mr. Pye. Mr. Treves was in favour of complete resection, care being taken that none of the gangrenous portion of intestine was left behind, a frequent source of failure. The removal of a wedge-shaped portion of gut was unsatisfactory. As strangulated hernia with gangrene of the intestine is an accident of a class likely to come frequently under the treatment of practitioners who have not had the advantage of a large operative experience, it is not very probable that resection will be widely resorted to, even if the results in hospital-practice be shown on some future occasion to be more satisfactory than Mr. Banks was able to prove. Resection of intestine is really a plastic operation of considerable difficulty; and it differs from similar but easier proceedings for the cure of hare-lip or ruptured perinæum in that, in the latter, failure means continued disfigurement or discomfort, whilst in the case of gangrenous intestine it means death. Mr. Mitchell Banks has set a good example in not speaking in unqualified praise of an operation, because it has happened to prove successful in a case in his own practice.

INTERNATIONAL SANITARY CONFERENCE.

As we have already announced, the British Government will be represented at the International Sanitary Conference by four delegates. Sir Joseph Fayrer K.C.S.I., and Professor Timothy Lewis will represent the Indian Government; and Sir Guyer Hunter, K.C.M.G., and Dr. Thorne Thorne, the English Foreign Office. The attention of the Conference will be first directed to the constitution and powers of the Maritime and Quarantine Board sitting at Alexandria; the anomalous constitution of this body, which is not sufficiently responsible to any higher authority, appears urgently to call for immediate reform.

REFORM IN THE COLLEGE OF SURGEONS.

IT is probable that united action will be taken by the Associations of Fellows and Members of the College, for the purpose of obtaining such reforms and alterations in the charter, as are considered necessary in order to establish the College on a sound and liberal basis. We understand that a subcommittee of the Association of Members met a subcommittee of the Association of Fellows on Wednesday last, at the invitation of the latter. It was generally acknowledged that the interests of Fellows and Members were identical, and that the only important point at issue between the Associations was the question of representation of Members on the Council. After a friendly discussion on the subject, a provisional agreement was entered into by the representatives of the two Committees, subject of course to the sanction of their respective Associations, to the effect that Fellows and Members unitedly should elect the Council, but that no one should be eligible unless he were a Fellow or Member of ten years' standing. It is highly improbable that any exception to such an agreement will be taken by the Members. Whether it will receive the sanction of the Fellows is more doubtful, though desirable; for, unless a concerted course of action be arranged by the two Associations, the Council will obtain their charter, whilst the Fellows and Members are disputing a shadowy bone of conteution.

CASE OF POISONING BY CHLORODYNE.

AN inquest held at Peckham on Friday, April 25th, affords another instance of the occasionally, but too frequently, serious consequences of self-drugging. The subject of the inquiry was a man of middle age, who had, for some time, contrary to medical advice, treated himself for chronic asthma by taking chlorodyne. On the present occasion, he took, between Sunday and Wednesday morning—whether in many, or in one or few doses, is unknown, and matters little—an ounce and a half of this preparation. The fatal result which followed was, of course, inevitable in any ordinary circumstances. This case is a teaching one; it shows for what ordinary diseases, and on what erroneous grounds of treatment, some are willing to risk their well-being on the guarantee of patented credentials. It would be easy, but unnecessary, to enter into details in support of our present contention, and to show the inutility and rashness of using practically unguarded opium, under the name of chlorodyne, for the purpose for which it was here so disastrously applied. Such a preparation as this, it must be remembered, is usually to the purchaser a remedy of whose strength and composition he is ignorant. He buys it on the assurance of a patentee, he knows not who, that certain drops or grains will relieve him of certain symptoms, but he does not ask

whether the method proposed is the best suited to attain that end, whether the disease disappears with its more pressing signs, or whether the means of relief does not induce other evils. As is evident from the case in point, patent remedies are apt to be thus directed to meet mere symptoms; attendant dangers, and effective treatment of disease are equally forgotten or ignored. Idiosyncrasies are not even remotely considered, yet these are, particularly with respect to the employment of opiates, of great and daily importance. We have probably said enough in explanation of this unfortunate case to justify that clause in the new Poisons Bill which provides that the preparations of opium shall be legally disposed of only by the registered chemist or medical practitioner, and that under due restrictions.

PUBLIC BATHS AND WASHHOUSES.

A GOOD example of the benefit which public baths and washhouses may confer on a district is given by a statement which the assistant-superintendent of the Marylebone Baths has recently issued. The original capital borrowed by the parish for the construction of the baths amounted to £21,650. Up to 1872, the baths had returned a profit of £16,000, £7,000 of which went to pay off interest and part principal and £9,000 in the extension and further development of the establishment. Since 1872, the profits have been much larger, for, within the past four years, £1,800 have been paid to the vestry in reduction of local rates and taxes. During last season, the number of bathers amounted to 200,000, frequently exceeding 3,000 a day during the summer months. There were also 26,000 washers, for whom all requisites are provided at a cost of three halfpence an hour. There is a slight loss on this branch of the establishment, amply repaid to the authorities by the gain on the bathing-department; but the immense benefit of the washhouse to the poor amply justifies the low price now charged for its privileges. The baths are of three classes, and the water in each swimming-bath is kept constantly flowing through the bath, and is maintained at a temperature of 72° Fahr. All the baths are emptied nightly, and thoroughly cleaned. These, and other good points in their management, render these baths—which were almost the first of their kind erected in London—still an excellent example of what such baths should be.

SCOTLAND.

DR. BARNES, of London; Dr. Magee Finny, of Dublin; and Mr. R. Macnamara, Dublin, visited the examinations at St. Andrews' for the M.D. degree, on April 23rd and 24th, on behalf of the General Medical Council.

BRITISH ASSOCIATION IN ABERDEEN.

THE Natural History Society of Aberdeen has resolved to organise a local Natural History Exhibition during the meeting of the British Association in this town in September.

UNIVERSITIES BILL (SCOTLAND).

WE believe the Senatus Academicus of the University of Aberdeen has resolved to petition against certain clauses of the Universities Bill (Scotland). The Senatus objects to the transfer of their buildings from the Board of Works; they regard the grant proposed as inadequate, and ask for an explicit statement to be inserted in the Bill, making the matter of "finality" clear.

PRELIMINARY EXAMINATION IN ABERDEEN.

THE preliminary examination for compulsory subjects for intending students of medicine was held in Marischal College on April 24th and 25th. There was a very large number of candidates, perhaps more than, or, at least, as many as, in any previous year, so that there is a prospect of a good entry.

UNIVERSITY OF ABERDEEN.

THE medical classes for the summer session commenced on Monday, April 27th. There is a large number of beginners, the classes of botany, natural history, and anatomy all being well attended; while the practical classes are also being largely taken advantage of. It is expected that Professor Alex. Ogston, on his return from Suakin, will conduct his class in practical surgery, which has been commenced by Dr. McKenzie Davidson.

THE DISINFECTION OF RAGS.

THE Woodside Rag Works, at Aberdeen, the outbreak of small-pox amongst the workers in which was the subject of a question by Dr. Farquharson, on April 23rd, have repeatedly been the scene of similar outbreaks of the same disease; and it would be worth while, therefore, that some special inquiry should be made as to the precautions adopted by the proprietors for preventing such occurrences in future. Some of the better known paper-makers in England have now a regular set of regulations for minimising the dangers arising from the handling of infected rags. It is impossible, perhaps, absolutely to prevent the occurrence of a case of small-pox from this cause, without measures of disinfection which, if applied to all rags, would be prohibitively expensive. But there are certain reasonable precautions that ought to be adopted in all paper-works. Although we have no reason for assuming that other diseases are not spread by rags, we have only records of small-pox distributed in this way. Against small-pox, we have, in vaccination, an obvious and efficient protection. It should be made a condition of employment at paper-mills and rag-warehouses, that every new hand should be vaccinated, or re-vaccinated. And, since there is reason to believe that infection is conveyed into the human system in the form of dust, any measures to diminish the dustiness of the air would tend to prevent the spread of infection, as well as to benefit the general health of the operatives. Ventilation of the work-rooms should be carefully attended to. The bales of rags should, if possible, be unpacked in the open air. A preliminary dusting of the rags is to be recommended, though the dusting-machine should be so placed that the dust will not fly into the workrooms. Rags, in their conversion into paper, undergo two processes, either of which would effectively destroy any infectious matter which they might contain; namely, boiling with caustic soda at a steam-heat, and bleaching with chlorine. If either of these processes could be made to precede the sorting, the much needed disinfection would be attained. But, unfortunately, manufacturers state that this is impracticable, or at least would seriously interfere with their operations, for the reason, especially, that wetting the rags would fix the dirt in them, so as to prevent its being shaken out in the dusting-machine. The Lord Advocate is reported to have said that it was very doubtful whether, under the Public Health Act, the Board of Supervision could, in the Aberdeen case, compel the manufacturers to disinfect the bundles of rags before being used. No doubt this is so. Section 49 of the Scotch Public Health Act of 1867 (corresponding to Section 125 of the English Act of 1875) imposes a penalty on any person who "gives, lends, sells, transmits, or exposes, without due disinfection, any bedding, clothing, rags, or other things which have been exposed to infection from any dangerous infectious disorder." Of course, if this law were universally observed, the question of rag-infection would hardly arise, at any rate as regards rags of home origin. If infected rags pass into the hands of dealers, it is not because the law is not sufficiently stringent, but because of the practical difficulties in the way of its enforcement. Obviously it is the person who first sells the rags who should be responsible for their freedom from infectious properties, both because he alone is likely to know their history, and because if disinfection were postponed until they reached the paper-mills, the rags would pass through several hands while still retaining their infectious properties. It would seem hardly fair, therefore, to compel the paper-manufacturer to atone for the omissions of the first vendor by a process of disinfection

applied indiscriminately to all rags; but it would, nevertheless, be very desirable if, for the protection of their workpeople, paper-makers could see their way to the adoption of some effective means of disinfection of rags. Of the processes which have been proposed to this end, Dr. Franklin Parsons, to whose admirable summary of the subject we are indebted for many of the above suggestions, thinks that high-pressure steam seems to promise most.

IRELAND.

At the recent visit of their Royal Highnesses the Prince and Princess of Wales to Belfast, addresses were presented from the Queen's College and from the Ulster Medical Society.

THE PRINCE OF WALES.

Before leaving Dublin, His Royal Highness placed the sum of one hundred guineas in the hands of the Dean of the Chapel Royal, to be lodged to the credit of the Dublin Hospital Sunday Fund for this year. His Royal Highness could not have selected a better way of distributing his bounty among the poor of the city, than by thus helping to assist them when most in need.

ST. VINCENT'S HOSPITAL, DUBLIN.

It has been decided to appoint an assistant-physician to this hospital, and Mr. McHugh has been selected to fill the office. Mr. McHugh is a M.B. of Dublin, an Examiner in Medical Jurisprudence in the Royal University, and a Demonstrator of Anatomy in the Carmichael College of Medicine.

NORTH CORK INFIRMARY.

At a meeting of the medical staff of the North Infirmary, held recently, presided over by Dr. Hobart, the following resolution was unanimously adopted: "Resolved—That we, the members of the medical staff of the North Charitable Infirmary, desire to record our deep regret at the recent death of our esteemed and highly valued colleague, Dr. Eugene Finn. We take this opportunity of expressing our appreciation of the invaluable services rendered by him to the infirmary during the many years he was connected with it, and of the able and useful advice he was ever ready to afford each member of the staff. And we beg to tender our sincere sympathy to Mrs. Finn and her family in their sad bereavement."

THE DUBLIN SANITARY ASSOCIATION.

Among the good work done by this Association, not the least important is the attention which its Executive Committee directs to the mortality returns of the city. The death-rate in Dublin still continues abnormally high, being 50 per cent. higher than that of London. Measles caused 100 deaths in Dublin during the first three months of the year, and in the first three weeks of the current quarter, there have been 47 deaths from that disease. The death-rate for the past quarter was 34.3 per 1,000, which is exceptionally severe, the death-rate for the corresponding quarter in 1884 being 27.6 per 1,000.

THE ACADEMY OF MEDICINE IN IRELAND.

We understand that, upon the expiration of Dr. Banks's triennial period of office as President of this Academy next October, Dr. Robert McDonnell, F.R.S., will be a candidate for the post. At present, Dr. McDonnell is General Treasurer of the Academy. He took an active part in its organisation, and, as a distinguished representative of Irish surgery, would be in every way a worthy successor to the well-known physician who was unanimously selected by his brethren to be their first President. A remarkable incident occurred at the meeting of the Surgical Section of the Academy on the 24th ultimo. There was a large attendance of members, the President of the Royal College of Surgeons in Ireland and, *ex officio*, of the Section being in the chair. After the two first communications on the agenda had been made and discussed, the author of the next paper was called upon. As soon as he proceeded to read his communication, nearly all the gentlemen present—probably about fifty—rose and left the room. This movement was evidently intended to express the feeling generally entertained towards the speaker for an act which, it is stated, he committed when the Prince and Princess of Wales passed his house during their recent visit to Dublin. The member of the profession who has thus gained so unenviable notoriety is, we regret to say, for the credit of the bodies concerned, a Fellow of the Royal College of Surgeons in Ireland, and a surgeon to one of the Dublin hospitals. He is, however, very young, and has been barely six years qualified.

THE HOMES OF THE WORKING-CLASSES IN DUBLIN.

Last week Lord Carrington, one of the members of the Royal Commission appointed to inquire into the housing of the working classes in the United Kingdom, spent a considerable time in examining into the condition of the tenement-houses of the city. He ascertained the cubical contents of several of the rooms he visited, the number of persons occupying each, their occupations, and the rents they paid. He visited nearly fifty houses, and also inspected the buildings erected by the Dublin Artisans' Dwellings Company, and the clearances of unhealthy areas that have been made by the corporation in Plunkett Street and Wood Street for the reconstruction of similar model buildings. When H.R.H. the Prince of Wales, who is also a member of the same Royal Commission, was in Dublin, he, too, accompanied by Prince Albert Victor, visited a few of the houses occupied by the poor in the worst parts of the city, and some of the premises of the Artisans' Dwellings Company. This most valuable and beneficial company, which owes its inception to two members of the executive of the Dublin Sanitary Association, namely, Dr. Grimshaw, Registrar-General, and Mr. Robert O. B. Furlong, Solicitor to the Inland Revenue, was established in 1876, and has now an authorised capital of £100,000. The borrowing powers of the company are also largely availed of, so that, at the present time, their actual expenditure and engagements fall very little short of £150,000. They have about 23 acres of ground in hand, and when their two new sites, at Infirmary Road and Plunket Street, are covered, there will be cottage-accommodation for 1,019 families, and block-buildings for 172 families. Both the Prince and Lord Carrington were accompanied in their visits of inspection by Dr. C. A. Cameron, medical officer of health for Dublin.

COLLECTIVE INVESTIGATION.

LIST OF RETURNS RECEIVED DURING MARCH 1885.

The Committee desires to acknowledge the following list of returns received during the month of March.

Bath and Bristol Branch: XIII, Nelson C. Dobson, F.R.C.S.
Birmingham and Midland Counties Branch: III, G. Birt, M.B.; M. S. Allen (2); XI, Robert Saundby, M.D.
Border Counties Branch: I, T. Beaufoy Green.
Gloucestershire Branch: XIII, C. Firmin Cuthbert.
Lancashire and Cheshire Branch: Liverpool District: I, III, G. W. Steeves, (2).
Metropolitan Counties Branch: I, John King, M.D.; M. G. Biggs (2); II, John King, M.D.; M. G. Biggs (2); III, John King, M.D. (2); M. G. Biggs (2); VI, X, John King, M.D.; XIII, M. G. Biggs (2); John King, M.D.; William Odell; H. T. Butlin, F.R.C.S.
Midland Counties Branch: Leicester District: XIII, William Keal. Lincoln District: XIII, Lawrence Clapham; W. Newman, M.D., F.R.C.S. (5).
Nottingham District: II, H. Handford, M.D. (13).
North Wales Branch: I, F. H. V. Grosholz (2); J. Lloyd-Roberts, M.B.; II, O. Trefor Williams; III, O. Trefor Williams; F. H. V. Grosholz; J. Lloyd-Roberts, M.B. (2); VI, F. H. V. Grosholz (2); X, O. Trefor Williams (2).
South-Eastern Branch: East Kent District: I, T. F. Raven (4); XIII, Albert Field, M.D.; Richard Lyddon. West Kent District: XIII, E. J. Wood, M.B.
South Wales Branch: XIII, George A. Brown.
South-Western Branch: North Devon District: I, III, J. E. Square, F.R.C.S. South Devon District: XIII, H. Gordon Cumming, F.R.C.S.; T. G. C. Evans.
Southern Branch: South Hants District: I, III, XIII, John Griffin. Isle of Wight District: III, W. E. Green (2); XIII, H. M. Barker, M.B.
Staffordshire Branch: XIII, H. E. Bridgman.
Worcestershire and Herefordshire Branch: I, A. S. Currie, M.D. (2); XIII, J. W. Ridley.

CREMATION.

THE advocates of cremation cannot complain that it is difficult to interest the public in the subject. The address delivered by Sir Spencer Wells at the Parkes Museum, on April 23rd, was listened to by a crowded and distinguished audience; a very animated discussion followed, and most of the London daily papers have again discussed the matter in leading articles. Sir Lyon Playfair, who presided, grew quite eloquent on the chemical aspects of the question. Death, he argued, was one of the conditions of life; death, in the end, always produced life in another form. Victor Hugo had called the carnivora the sextons of Nature, and the Parsees had long acted on this grim idea by exposing their dead in their "towers of silence," to be devoured by vultures.

In a less direct way, the dissolution of the body, whether by burial or by cremation, tended to the same perpetuation of life by death, the body being resolved into carbonic acid, ammonia, and water, utilised by plants for their growth. Whether the change were brought about in an hour, or in three years, under the best conditions of burial, or in twenty years, if these conditions were less favourable, the results were identical.

The objections raised against cremation may be conveniently classed under four heads—sentimental, legal, medico-legal, or religious. As to the last, the question may be said to be set at rest by the opinions which Sir Spencer Wells was able to quote from the Bishop of Manchester, Canon Liddon, and Lord Shaftesbury. When three men belonging to schools of thought so essentially dissimilar are found to agree, it may be concluded that the religious prejudice, if any exist, will shortly cease. The objections, therefore, which the advocates of cremation have to fear are of but two kinds, sentimental or forensic. Those who object on sentimental grounds, can know very little of the working of many suburban cemeteries, where bodies are heaped in layers in a clay soil; neither can they ever for a moment have tried to realise what is going on in many country churchyards, where overcrowding is, unfortunately, but too prevalent.

Sir Spencer Wells quoted the report recently made by Dr. Quirk, Medical Officer of Health of the Pelltown district. Dr. Quirk reported that, in the graveyard in the village of Ooning, the soil was waterlogged, and that he had found men engaged in excavating a new grave by digging through coffins and the putrid remains of persons previously interred. A very effective contrast to such facts, and to our habit of burying the honoured dead under the floor of cathedrals and churches was, of course, easily drawn by describing the recent discovery of the ashes of an Emperor of Rome, intact and unaltered, just as they had been deposited in the cinerary urn by sorrowing relatives.

If cremation were generally adopted in England, it would be easy to make cemeteries and churchyards beautiful places of recreation. Dr. Poore's scheme to obtain this while retaining burial is ingenious, but hardly practicable. Mr. Seymour Haden spoke with a good deal of warmth against cremation, and charged its supporters with ignoring the possibilities of what he called proper burial. He contended that burial properly conducted was a perfectly harmless process. He admitted that our cemeteries, conducted as they are, were centres of pestilence, but held that when the body was properly buried, so that it could come into contact with the earth, it harmlessly decayed, and disappeared in three, or at most five, years. Dr. Poore's scheme follows up this idea; he estimates that fifty acres a year would be required to bury the dead of London, one in each grave; a grave should never be sold in perpetuity, but only for a term of years; at the end of that term the ground should revert to the community; in this way the cemetery would, in time, become public property, and could be converted into a public garden without any outlay for purchase money. We confess that the scheme is a little too much like an arrangement for obtaining something for nothing; an object often sought, since the quest for the philosopher's stone has ceased, but never yet attained. The idea that every Englishman should be buried like the old admiral, with an acorn on his breast, so that even in death he might contribute something to the good of his country, is beautiful and philosophical; but can it be made to work practically? who is to pay for the lease of the grave for a term of years? The rich man doubtless would gladly do so, but is the artisan, whose funeral is now "respectably conducted for three pounds," to provide twice that sum in order that his grandchildren may be able to amuse themselves upon his grave, or are the ratepayers to make good the difference?

The Cremation Society assumes that cremation is legal, and even its strongest opponent admits that it is not illegal. When the Society was first started, it was advised, by high legal authority, including Dr. Tristram and the present Lord Chancellor, that if cremation were practised without causing a nuisance, or exciting a breach of the peace, it was not illegal. Both Sir R. Cross, and Sir W. V. Harcourt, however, objected to cremation being actually performed, until the subject had been discussed in Parliament. Sir James Stephen's charge altered the legal position, and since then four persons have been cremated in England.

The strongest objection against cremation is undoubtedly drawn from the probability that some poisoners would escape. Lord Bramwell thinks the objection "more than unfounded." Sir Spencer Wells urged that the precautions taken by the Society were sufficient; and Dr. Cameron, M.P., thought them unnecessarily stringent, supporting his opinion by the somewhat inconsequential argument that a very large number of people are buried in this country every year without any medical certificate or examination. Mr. Seymour Haden was equally emphatic on the other side. He urged that, owing to the statute by which experiments on animals were now forbidden, the medical men of the present generation had no experience of the symptoms produced by the various poisons; and he contended that the difficulties in the way of making a complete necropsy, which would involve a qualitative and quantitative examination of all the organs, were practically so great that they would never be surmounted. But this argument is not so valid against cremation as it seems. A medical examination of the body would, in the case of a large number of poisons—the minerals and mineral acids, at least—raise a strong suspicion that death had been compassed by foul means. Death from injury or from concealed wounds would equally be discovered. The objection, therefore, practically rests for support on those rare cases of poisoning by the alkaloids where it is necessary to exhume the body in order to search for the poison, in consequence of suspicions arising long after death. Striking an average, it would appear more than probable that cremation, if it led to a certain number of poisoners escaping, would tend to favour the detection of murder in a far larger number of cases, unless, indeed, the habits of murderers and poisoners changed, and they grew wise enough always to resort to the rarer alkaloids; for—*pace* Mr. Seymour Haden—most members of the profession know the symptoms of poisoning by morphia or strychnine. The law as to the sale of poisons ought to be worked with sufficient stringency to make the purchase of the alkaloids, except with the fullest measure of publicity, impossible.

Meanwhile cremation is gradually growing in popularity; the movement in its favour is gaining ground in Austria, Switzerland, Germany, Belgium, Holland, Sweden, Denmark, and the United States. In Italy, cremation has become a recognised and established practice; it England, the crematorium at Woking remained unused for several years, and several applications had to be refused, owing to the opposition of the Home Office, but it has recently been employed, and there is some hope that the city of London may erect a crematorium at Ilford, where nine thousand bodies are interred every year. The enormous size, and the continued rapid extension of London, render the evils of the present system of burial very prominent; and there can be no question that the general adoption of cremation, for rich and poor, would supply an immediate and permanent solution of a difficulty which is already serious, and threatens to assume still more alarming proportions.

HORSE-AMBULANCES.

A MEETING of the Hospitals Association was held on April 15th, Sir William Mac Cormac being in the chair, when a paper on "Horse-Ambulances in connection with Hospitals" was read by Captain William Joynson, Chairman of the Northern Hospital, Liverpool.

Captain Joynson stated that his attention was first directed to the subject during a voyage across the Atlantic at the close of 1882. The surgeon of the Cunard ship *Gallia* described to him how, on his arrival at an American port in charge of an invalid too weak to be removed by any ordinary conveyance, a telephone-call to one of the hospitals would in a few minutes bring to the ship's side an ambulance-carriage, in which his patient could, with every comfort and without injury, be conveyed home for a trifling charge. In Liverpool, the only vehicles at all resembling an ambulance were the ill-omened looking carriages used by the local authority for the conveyance of infectious cases, which for the purpose under consideration counted for nothing. A perfect ambulance-service had now been established in connection with the Liverpool Northern Hospital. It was upon the same principle as the New York service; and the New York service was performed by eighteen ambulance-carriages, distributed amongst the principal hospitals. Although they were so stationed, they were absolutely under the control of the police; and the system of communication was so perfect that the whole of them, in case of a serious catastrophe, could

be concentrated upon a given spot in a short time. A vast amount of injury was done to persons who had met with accidents by removing them in cabs. There was another side to the question, and that was the removal of those suffering from heart-disease or other complaints. The ambulances used at the Liverpool Northern Hospital were really moving hospitals, with a surgeon on the spot to render those services which often meant the difference between life and death.

Captain Joynson explained in detail the plan on which the Liverpool ambulance was worked.

As regards rapidity of communication, the police-arrangements were found sufficient, because every substation was in telegraphic communication with the head-office. A private telephone-wire had been run from the head office into the hospital-vestibule, and another thence into the ambulance-department in rear. For night-service an electric bell was used to awaken the driver. The hospital was also directly connected with the system of the Lancashire and Cheshire Telephone Exchange Company. By kindly consideration of the executive, ambulance-calls were allowed to have a priority over other messages.

Amongst other contrivances for ensuring rapidity of action was the patent American clip-harness, by means of which it had become possible to turn out very quickly. The harness was suspended from the ceiling, just over the shafts, by a system of pulleys and hooks. The saddle and collar were hung by means of the rings upon these hooks; the breech-band was fixed to the shafts, being slightly raised by short iron stays; the traces were permanently hitched, and the reins drawn ready through the harness-rings; the bridle was without blinkers, and, as it also served the purpose of a halter, it was never off the horse's head. When the electric bell sounded, the horse was readily placed under the shafts, which, along with the harness, were lowered upon his back, the collar closing underneath by means of a spring. The reins, bit, etc., were then clasped, no buckles being used. The driver proceeded to the front of the hospital to take up the surgeon, and in less than two minutes this moving hospital was being driven to its destination. The driver blew a whistle to clear the road, and, by police regulation, all traffic gave way.

The carriage was designed by Mr. John Furley, of the St. John Ambulance Association, and was built of English oak and American ash and birch. There was room in the interior for two patients and three attendants, stretchers being provided for the former, and seats for the latter. In most cases, the carriage was only required for one patient in a recumbent position, the stretcher being placed upon the floor; but when it was necessary to utilise it for two patients, a second stretcher could be put on a shelf, which also served the purpose of a seat. One stretcher was padded and jointed, so as to be adapted to the position most likely to alleviate the pain of the sufferer. The other was a folding stretcher of the "Furley" pattern, and both were provided with telescopic handles. The interior fittings were rendered still more complete by the addition of a box for medical appliances; and the driver's seat, which would also accommodate two attendants, was made to open, and formed a receptacle in which splints, bandages, and other requisites were always kept ready for use.

The one carriage used at the Northern Hospital, Liverpool, as shown by the record that had been kept, was used on the average three times every two days throughout the year. The average time from call to departure was 2.14 minutes by day, and 4 minutes by night. The average time of each journey, from call to return, was 18 minutes and 30 seconds.

In the discussion which followed, and in which Sir William Mac Cormac, Mr. J. Furley, and Mr. Burdett took part, opinion seemed to be in favour of trying in London a similar experiment to that which has proved successful in Liverpool, but it was suggested that the area to be embraced by the scheme should, for the present, be limited. Subsequently, a small committee was formed to take the matter into further consideration.

THE GERMAN SURGICAL SOCIETY.

THE fourteenth congress of the German Surgical Society has been held at Berlin, under the presidency of Professor von Langenbeck. Amongst those present were Professor Esmarch; Professor Volkmann; Surgeon-General Mehlhausen; Professors von Helmholtz, Bardeleben, von Bergmann, Gurlt, König, Hirschberg; Surgeon-General Noth; and Staff-Surgeon Villaret.

Before commencing the business of the first meeting, the President announced that the committee had elected Sir James Paget and Sir Joseph Lister honorary members of the Society. Professor von Langenbeck said that he would retain the presidency of the Society during this congress, but that the state of his health prevented him from accepting a re-election.

About one hundred and thirty members of the Society attended the congress, and several guests were present at the meetings. The discussions of the first meeting were held in the Hall of the University, and commenced with an address from Professor Richard Volkmann, giving his personal "Experiences on Tuberculosis." He began by saying that there were two series of facts and experiences that now-a-days guided the views of the great mass of medical men as to the clinical character and the clinical importance of tuberculosis. The first was the almost regular fatal issue, or, at least, the enormous dangers accompanying tuberculous affections of the internal organs, especially the lungs, the larynx, and the intestine. The second was the conviction, now almost general, that tuberculosis was infectious; and that, in the tubercle-bacillus, the undoubted bearer of the virus was to be found. He pointed out that it was not surprising that the experiences of the physician and the surgeon were not always the same on many points; but that the surgeon had now much more to do with this disease than the physician; and that, owing to his special studies, his ability for treating tuberculosis must be greater. He recommended a general discussion of the subject, as likely to clear views and to bring forward much that was new. He then gave a summary of the points treated, in the form of forty-eight theses, under the following heads: 1, tuberculosis of the external skin and cellular tissue, as lupus, tubercle-ulcers of the skin, tuberculous abscesses; 2, tuberculous disorders of the mucous membranes accessible to the surgeon, as the tongue, the throat, and the palate, and mucous membrane of the nose; 3, tuberculosis of the uro-genital apparatus; 4, tuberculosis of the bones, joints, and sinews; 5, tuberculosis of the lymph-glands. The susceptibility to the tuberculous virus, Volkmann held to be limited to certain individuals, and with these to certain times, special organs, and tissues. As in the north of Europe, he said, tuberculosis of all kinds was very common, everybody must have often received tubercle-virus, more especially those who associate much with tubercular subjects.

Professor Braun delivered the next address on "The Operative Treatment of Intestinal Invaginations." He referred to a specially severe case in a child four months old, explaining his remarks by drawings. He had collected forty-nine cases in which it was tried to effect a disinvagination by means of gastrotomy; 27 cases (18 with adults, and 9 with children) were successful so far as the operation was concerned, but 14 of the adults, and all the children, died afterwards; the other 22 cases were a failure from the beginning. Dr. Braun, however, said that gastrotomy was necessary, except for children under five years old.

On the second day, the morning sitting was held in the amphitheatre of the Royal Surgical Clinic. The meeting, which was opened by Professor von Langenbeck, was very crowded. Dr. Fehleisen, of Berlin, delivered a first address "On the High Demonstration Operation in Lithotomy." Dr. Fehleisen brought preparations and drawings with him to illustrate how he carried out the sectio alta in as favourable a manner as possible. Professor von Antal, of Buda-Pesth, spoke on the same subject, chiefly on a modified mode of the high operation, and explained his success by giving the histories of several cases and showing drawings. Professor König, of Göttingen, suggested that no further discussion should take place on this subject, as the question of lithotomy was the first for discussion at next year's congress. Professor Maas, of Würzburg, then spoke on the median section, which he considered would be the operation of the future.

Professor König, of Göttingen, then gave an address on his method for "Resection of the Ankle in Tuberculosis of the Joint." He adopted a method for getting rid of tuberculosis from the joint different from Langenbeck's method. A discussion followed, in which Professors Volkmann and Von Langenbeck took part. Professor König mentioned that he had used iodoform as an antiseptic with great success; since using it, he had seldom met with a failure.

This address was followed by one by Dr. Bramann, of Berlin, on an "Operation for Varicose Aneurysm." Dr. Bramann introduced a man who had suffered from this, and was rendered thereby incapable of work. He had got rid of the aneurysm, and the man was again able to work as before. He showed the venous dilatation that he had cut out. Professors von Bardeleben and von Bergmann took part in the discussion on this.

Professor Gärtner, of Berlin, gave an address on the "Disinfecting Effect of Solution of Carbolic Acid." He had brought with him an apparatus of bottles and test-tubes, and displayed a quantity of cocci and micrococci of all kinds of diseases, and bacillus of enteric fever and diphtheria. He also explained how he had artificially

cultivated these organisms, and the experiments he had made with the view of preventing the formation of colonies. He said that a 3 per cent. carbolic solution in water and sublimate were sufficiently powerful disinfectants, so far as the cleansing of the hands and instruments was concerned.

In the afternoon there was a very animated discussion on the subject, introduced by Professor Volkmann, the "Experiences connected with Tuberculosis." Professors Volkmann, von Langenbeck, König, Lassar, d'Outrelepont, Esmarch, von Bergmann, Schede, Maas, and Riedel, took part in the discussion. Professor von Langenbeck cited various important cases from the rich treasures of his experience.

Professor von Bergmann delivered an address on "Pressure on the Brain." This field of pathology, he said, belonged to the practical surgeon, basing his assertion on the fact that of 22 very serious cases under his care, he had been successful in 20.

At the last sitting of the Congress, Professor von Langenbeck, yielding to the pressure of the members of the Society, consented, notwithstanding his great age, to accept re-election as President.

UNIVERSITY DEGREES FOR LONDON MEDICAL STUDENTS.

On Wednesday afternoon, April 29th, a deputation of members of the Metropolitan Counties Branch of the British Medical Association waited upon the Senate of the University of London for the purpose of laying before them certain proposals for facilitating the acquirement of degrees in the University by London Medical Students.

The following members of the Branch attended the deputation: Mr. C. Macnamara (President); Dr. Walter Dickson (President-elect); Dr. Bridgwater (Vice-President); Dr. C. J. Hare (Vice-President); Mr. Rivington (Vice-President); Mr. W. Adams (Henrietta Street); Mr. R. Argles, Mr. J. Wickham Barnes; Dr. Bristowe, F.R.S.; Dr. Lauder Brunton, F.R.S.; Mr. W. C. S. Burney; Dr. Cholmeley; Mr. Thomas Cooke; Mr. Alfred Cooper; Dr. Coupland; Dr. Radcliffe Crocker; Dr. Maurice Davis; Mr. Alban Doran; Dr. Langdon Down; Mr. G. Eastes; Dr. W. Ewart; Sir Joseph Fayrer; Dr. Clement Godson; Dr. Grigg (Secretary); Dr. G. Harley, F.R.S.; Mr. Ernest Hart; Dr. A. Henry (Secretary); Dr. G. Henty; Dr. Graily Hewitt; Dr. E. Humby; Mr. H. E. Juler; Dr. E. Liveing; Dr. M. Lubbock; Sir W. Mac Cormac; Mr. Francis Mason; Dr. T. Morton; Dr. J. L. Paul; Dr. Joseph Rogers; Sir Edwin Saunders; Mr. Sibley; Dr. Gilbart Smith; Dr. E. H. Vinen; Dr. E. S. Willett; Dr. Dawson Williams; and Dr. Burney Yeo.

The Vice-Chancellor of the University, Sir James Paget, occupied the chair of the Senate, and invited the deputation to state their views.

Mr. C. Macnamara, President of the Metropolitan Counties Branch of the British Medical Association, said: The object of the deputation in seeking this interview is to endeavour to impress upon the Senate of the London University the necessity that exists for affording facilities to metropolitan students to obtain a degree in medicine. The means by which we propose effecting this object are contained in the following recommendations adopted by this Branch of the British Medical Association, that the London University should—

a. Modify its regulations and procedure, so as to adapt them to the requirements of the medical profession in England;

b. Reconsider and modify the two preliminary examinations; and

c. Admit upon the Senate, as members of the Senate, a certain proportion of representatives of the metropolitan medical schools.

With reference to these resolutions, we would observe that the University of London, in a letter of the 17th October, 1881, to the Royal Commission, states that "to increase the number of those who might seek the degree of the University, has been, in the estimation of the Senate, quite subordinate to the maintenance of the high qualification of its graduates." The result of this policy is that, of the total registered metropolitan students, less than seven per cent. have hitherto obtained degrees from the London University; and there has of late years been a decrease in the number of our students, while the pupils of the Scotch and other English Universities have increased; in fact, the entries at Scotch schools in 1883 were as numerous as those of the metropolis; whereas, in 1873, the London students were about one-third in excess of those entering at the Scotch schools. The outcome of this state of things is well described in the eighteenth page of our printed report on the subject. In our opinion, this falling off in the numbers of our students is largely due to the fact that they are unable to obtain degrees from the London University, whereas, in Scotland, 85 per cent. of the medical students are granted degrees in medicine, and so with other universities; for instance, in the last examination held by the University of Durham, of 62 candidates, 32 satisfied the examiners; among these, 10 were St. Bartholomew's students; 2, St. Thomas's; 3, King's; 4, Middlesex; 1, Guy's; 2, St. Mary's; 1, St. George's; 1, Westminster; 1, London; all of whom are driven from London, at the very time they could most profit by our hospital teaching, to reside in Newcastle. We are convinced that these degrees are no barren titles, but that practitioners find they are associated in the public mind with a superior medical status, and can alone entitle their holders to style themselves "Doctor." Hence, as year by year a large number of graduates in medicine come to occupy the towns and villages of England, our London students, who practically cannot obtain a degree, labour under a serious disadvantage; and this from no fault of theirs, but because the University has rendered the system of examinations so elaborate, that not more than seven out of every hundred medical students can pass them. It has been stated that the failure of our pupils to obtain degrees depends on defective teaching; but Table xiii of our Report does not confirm this idea. And it is probable, if students in any other part of the United Kingdom were put to the tests demanded by the London University, that not more than seven per cent. of them would obtain degrees.

We cannot complain of the action taken by the universities to which we have referred, because it seems to us that it is one of the functions of these institutions to grant degrees to deserving students, and also to give honours to those men who especially distinguish themselves. It is in this way we propose overcoming the obvious difficulty that exists, with reference to the present graduates of the London University. Supposing the Senate meet the appeal we now address to them, we would suggest that, by placing the existing graduates of the university in the first class, their position would be enhanced rather than otherwise if a greater number of students entered the University; for of these, in future, but few would attain to such high distinction as first-class honours.

With reference to resolution (*b*), we feel that it is well within the power of the London University to meet the requirements of our students, without altering the existing high standard of professional education and examination. It is to the matriculation and preliminary science examinations that we take exception. A great number of our students can only afford a limited time to the study of medicine; and if they are to become really efficient practitioners, by far the larger portion of this time must be given up to work in the wards of the hospital, to the dissecting and *post mortem* room, and to the pathological and physiological laboratories. This being the case, medical students cannot devote more time to science than will enable them to master the elements of four subjects. Anything beyond this must compel the majority of them to resort to that most objectionable system of cramming, of which there is too much already; or else to the neglect of that practical training in the wards of the hospital, upon which their future career of usefulness depends. The preliminary science examination especially is, in our opinion, a great impediment in the way of metropolitan students obtaining a degree in medicine; and the rejections at this examination have increased from 40 per cent. in 1874, to no less than 52 per cent. in 1883. This condition of things is almost prohibitory, so far as London students are concerned, to obtaining a degree; and it is driving them away from this great centre of clinical observation and teaching. We therefore urge on the Senate the necessity that exists for limiting the scope of the preliminary examinations, especially that in science.

Lastly, with reference to our recommendation (*c*), it is evident that, as the University of London, after being in existence for fifty years, only includes 7 per cent. of our students among its graduates, it cannot be working in unison with, and, therefore, to the advantage of, the medical profession in England. We hope to see this University assume a position, with respect to the metropolitan medical schools, similar to that which exists between other universities and the various schools and colleges with which they are associated. As a step in this direction, we would suggest that the Senate might appoint a board of studies, its members being composed of teachers in our medical schools. A board of this kind might have the ordering of the examinations at which medical students are expected to appear, no written questions being given to medical students at the university examination which have not received the approval of a board of this kind. The members of such a board would form a medium of communication between the medical schools and the Senate; and unless some more intimate re-

lations than those which now exist between the Senate and our teachers be established, it seems to us that 93 per cent. of our students must remain without a hope of becoming graduates of the only university from which they can obtain a degree. It would, however, be waste of time to discuss details until we know if the Senate are prepared to accept the principles contained in the scheme we advocate. If the Senate are disposed to consider our scheme, or some modification of it, I would suggest that they appoint certain of their members as delegates, to confer with an equal number of experienced teachers in our medical schools, with instructions to draw up a plan to carry into effect the objects we have in view. My idea in making this suggestion is, that we feel, if the Senate will not assist us in this matter, we must labour to establish another university in London, so that our deserving and well educated pupils may have an opportunity of obtaining degrees in medicine. Before taking any steps in this direction, however, it seemed only reasonable to approach the London University as we have done, by means of our printed report and through this deputation. Having thus placed the fact upon which our opinion is founded before the Senate, and explained the nature of the means by which we propose overcoming existing difficulties, we can only hope that the University will meet the requirements of our London students. On the other hand, if the Senate cannot in any way accede to our request, we beg that they will say so, and then leave us free to act in some other direction.

Dr. BRISTOWE said: I agree generally with what Mr. Macnamara has just said; and I purpose, therefore, not to travel over the same ground that he has done, but to address myself to a few points which seem to me of special importance. What the medical schools of London want, and what the medical profession throughout England wants, is that the medical schools of London shall have such a relation to an university as that all their students who choose to work for it, and prove themselves deserving of it, shall be able to attain a degree in medicine. We feel that it is naturally the University of London which should assume this relation to the London schools; and that there is nothing, unless it be the unwillingness of the Senate, to prevent the complete realisation of our desires. It has been said on the part of the University, and possibly it may be said again, that it is not the fault of the University that London pupils do not seek its degrees; that the portals of the University are open to all who care to present themselves; and that if the pupils do not avail themselves of the advantages which are offered to them it is the school and the medical profession that are blameworthy. But, on the other hand, it must be borne in mind that there is not and there never has been any cordial or real co-operation between the schools and the University. The schools are absolutely unrepresented in the Council of the University. The regulations with respect to examinations, and the examinations themselves, are determined in the main by gentlemen who know nothing of medicine or what is required of candidates for medical degrees; and no means whatever are taken to attract students to the University at the moment of their entrance into the profession, when alone the initiation of a London University career is possible. It is not so much the severity of the examination of the University of London as the total want of sympathy between the University and the medical profession and medical schools which prevents the nominal University of London from becoming the real medical university for London in the same manner as the great University of Edinburgh is the medical university for the Edinburgh schools. No one, I suppose, has any wish, certainly we have none, to diminish the stringency of the later examinations for the medical degrees, of those examinations which relate to subjects which are essential to sound medical education, and a good knowledge of which makes a man an educated physician and worthy to possess a degree in medicine. But what we want to see is some modification of arrangements with respect to the matriculation and preliminary scientific examinations, which would lead to a large majority of the London students to make their first step in medical education through the portals of the University of London. It seems to me, indeed, that it would be an exceedingly easy thing, and, at the same time, a matter of the greatest advantage, not only to the University of London, but to the schools, for the University to enter into relations with the Colleges of Physicians and Surgeons, and with the schools, so that its matriculation examination should be the recognised preliminary examination for all London students, excepting those who have already matriculated at some other university. But, in order to effect this object, the matriculation examination would need to undergo some kind of modification. Possibly, for such as make up their minds not to aim at an university degree, an examination in only three or four of the present subjects of examination might be required. Possibly the examination might be reduced, to some extent, in severity for all who are intending to take a medical degree. But what I should prefer to see is, not so much a reduction in the severity and stringency of the examination, as a more thorough examination in a smaller number of subjects, and a latitude of choice of subjects for examination on the part of candidates to meet the requirements of different systems of education. The present examination, with its wide range of subjects, and the uncertain treatment of candidates, is the most unsatisfactory and misleading examination with which I am acquainted. A matriculation examination should not be one that requires the grinder's aid, but it should be one that any well educated schoolboy should be able to pass at once on leaving school. It should be to show that he has been well trained, and not merely that he has crammed himself, by some few months' labour, with knowledge which was previously unfamiliar to him, and which he will certainly very soon forget. If students could be got to matriculate, by far the greatest difficulty in the way of a satisfactory co-operation between the University of London and the schools of London would be obtained; and the grievance of which we complain would, to a large extent, be removed. But, it must be added that the preliminary scientific examination has, up to the present time, also been a serious impediment in the way of obtaining a medical degree. This depends on several circumstances which, I think, should receive attention, and, if need be, remedy. The examination in biology is altogether out of place, and of no practical use whatever. It may be all very well to require men who are arriving at the doctorate in science to study biology at an early period of their career. But for those who have, like medical men, to study human anatomy and human physiology, biology should come later. For them, the early study of biology is an absolute waste of time. There are some serious objections, too, to the examination in physics, as now conducted. But these are matters of detail which could easily be arranged satisfactorily were the Senate to consult with the representatives of the medical schools. I fully sympathise with the avowed aim of the University of London, namely, to maintain a high scientific standard for its degrees in medicine. But it ought not to be overlooked that the matriculation and the preliminary scientific examinations embrace no scientific subjects, except chemistry, which are essential for a thorough medical education, and that a man might become a great physician without having studied any one of them; and, indeed, I may point out that those medical graduates who have chiefly made the reputation of the medical degrees of the University of London, obtained these degrees at a time when no preliminary scientific examination was required of them, and when the elements of the sciences with which it deals were either thought needless to know, or were included among the subjects of the later examinations. I make these remarks, not with the object of arguing against the maintenance of a preliminary scientific examination, but to show that there are no sufficient reasons why its details should not be amenable to modification. I am glad to admit that the changes in the examinations, which have recently been announced, are changes in the direction at which we aim, and will certainly prove advantageous. In conclusion, I cannot help hoping that, when the Senate recognise the fact that our aim is not to lessen the scientific value of the London degree, but to place it before all our students as an attainable object of ambition, and to encourage them to work for it, instead of leaving London in order to obtain degrees elsewhere, at the time when it should be their chief advantage to remain in London; when they see further that our object is, while benefiting the medical schools and the medical profession, to augment, and in no way to diminish, the prestige and influence of the University; the Senate will give serious consideration to our application, and, as Mr. Macnamara has suggested, appoint a committee to consider with us the feasibility of our proposals, and, if they seem feasible, the best means of carrying them into effect.

Dr. CHOLMELEY: I wish to say a few words to accentuate what has been said already. I take it it is allowed by everyone that it is a very serious difficulty in the way of the physician or surgeon, who has taken the place of the old apothecary, that he cannot, without great expense, and altering his mode of life and study, easily get a degree. It is so great a disadvantage, that now the majority of English practitioners hold only Scotch degrees. The general practitioners are very heavily handicapped at present as compared with those who can put the letters M.D., or M.B. after their names; therefore, we are very anxious indeed to learn if the University of London, which ought to be a university for the whole of England, will help us. We believe that the main difficulties are the matriculation examination and the preliminary scientific examination. There can be no doubt about that, looking at the enormous number of rejections that take place in each of those. It appears to us that, as education is in England, it is utterly impossible for any youth of seventeen or eighteen, after leaving any of the public schools, to go in directly and immediately to that matricu-

lation examination, unless a large amount of money has been spent on his education, and he has been specially prepared for that purpose at the school. We believe, and the Senate we think does also, that the great value of the matriculation examination is to probe the degree in which a boy's intellect has been trained; but the number of subjects is so large that not 50 per cent. can get through it, even after very special preparation. Surely if the number of subjects were diminished, you might still take subjects that should be well known, and thus secure perfectly excellent teaching of the mind. It is also thought that of those subjects in which a boy must be trained, some might be divided; and that if a boy passes a certain number of subjects he may again go up only for those in which he failed before. The same view applies to some extent to the preliminary scientific examination. We are very earnest that there should be no altering of the actual practical examination; make it as good as you possibly can. We have been told that you will not listen to us, that it is useless our coming here, but it does not seem to me that a great university which was founded on the broadest and most liberal basis nearly fifty years ago, will now, towards the end of the nineteenth century, adopt the narrow plea of *non possumus*. We believe, on the contrary, that you will meet us, and consider what we have to say, and try to see if there can be a *modus vivendi* established.

Dr. LAUDER BRUNTON: After spending one or two years at London schools, our students are going to others in order to obtain medical degrees. Some of them leave us before their course is over, and go to Scotland or to Victoria University. Others, again, after taking their licence to practise from the College of Surgeons here, are trying as best they can, at a great sacrifice, to obtain foreign degrees. It comes, then, to be a question of vital importance to all engaged in medical teaching in the metropolis, how students are to get the medical degree. We trust that the London University, which has done very great service to medical education, may see its way still to keep in front, and grant degrees to medical students here. If the London University should consent to certain modifications, it seems to me it would only be an act in accordance with its principles. For a number of years it has striven, and striven faithfully, to increase the standard of medical knowledge amongst its graduates. The result is, that the degree of M.D. of the London University is no longer what it was; the standard has become very much greater. There is no doubt whatever that some of the difficulties which a candidate meets with are due to the want of accordance between examiners and teachers. What seems to some teachers worthless seems to some examiners of great importance; and it is a considerable chance whether a candidate who studies faithfully under one teacher is able to pass the examinations here, on account of the difference in opinions between his teacher and his examiner. Another difficulty is in the examinations themselves, in so far as they make a great strain upon the memories of many candidates who are expected to pass in all the subjects, and who, if they are rejected in one, are turned back for a year. Having had the honour to examine in the Edinburgh University and the Victoria University, as well as in this University, I know in regard to one subject the standard is nearly the same in the three universities; but in the other two the candidates have this advantage over those in London, that their examiners are generally a mixed body, consisting of examiners from without along with the teachers under whom they have studied. Another great advantage is that, instead of being rejected for a whole year, they generally have the chance of coming up again within a short time. It seems to me that, in setting such a standard as is at present demanded, the London University is not quite doing its best in regard to increasing the high standard amongst medical students generally. It increases the knowledge amongst the few, but it does not increase the knowledge amongst the general body to the extent that it might otherwise do. Would it be possible to modify the examination in such a way as to somewhat lower the standard to what it used to be for the M.D. degree, and retain the present standard as one representing a different degree, say Doctor of Medical Sciences, because it is in the medical sciences and not in the practice of medicine that students at present find the great difficulty? It would be a great pity if there should be another university started, because the London University has already done so much we trust it may still do more, and we fervently hope that by certain modifications it may still be able, as in the past, not only to lead the medical education in this country, but to set an example to medical education throughout all countries.

Mr. SIBLEY: We all trust, and feel sure, that the Senate will take a broad and general view of this most important question. In Edinburgh, and Scotland generally, as well as in Ireland, an university degree is well within the reach of the majority of students; in London it is out of reach, and can only be obtained very exceptionally, and by very few. There is no doubt that the principal reason of this is the stringency of the examinations, and of the curriculum, of the University of London. I suppose one may also fairly add that the high position of the University of London is, in a great degree, to be attributed to their most careful examinations. The question, however, becomes whether these careful and stringent examinations have not been carried somewhat too far, and whether they could not be relaxed, especially in the directions pointed out to-day, so that the degree may be granted to the majority of students. There is no doubt that the increased stringency of examinations, in all directions, interferes very much with the true study of medicine in the clinical form. If the preliminary examinations could be somewhat relaxed, so that the majority of the students would be able to pass them; if, also, the curriculum could be somewhat modified, and possibly the examinations reduced in severity, at all events those not directly bearing upon the clinical study of medicine and surgery, we feel confident that many more students would strive after the degree. The University of London is the proper body to undertake this office. We think it might do it without materially lowering the standard, but by offering greater facilities in all directions. We trust the Senate will favourably consider this.

Sir WM. MAC CORMAC: With an experience of examination in this University in one particular subject, and with an experience of examinations derived from other sources in many respects not less important, I have arrived at the conclusion, personally, that the examinations in the practical subjects of scientific medicine are not in any way too stringent in their requirements for the pass examinations of students at large. Therefore, if I be right in that conclusion, the difficulty which London medical students have in approaching this University must be in the earlier periods of the curriculum in those examinations which have been already advetred to. Were those examinations modified in respect of the manner in which students might be allowed to pass them, much difficulty might be overcome. If either students were asked to pass in a more limited number of subjects, in which the examination might be more far-reaching, or if they were not required to pass all the subjects at the same time, the way would be open to London medical students. In such a way, I think that those who deserve the degree of the London University would be able to get it.

Sir JAMES PAGET: I need not say that it is impossible that I should express the opinion of the Senate on the points now brought before us, otherwise than to express the very strongest opinion—more than that—the absolute fact, that it is altogether erroneous to suppose that the Senate will not be open to conviction on a matter of this sort. One speaker said it had been thought useless to approach us; but the subjects that have been discussed have been repeatedly before the Senate, both in Committees and before the Senate itself, the main difficulty being how to establish a fair medium between the paying of the greatest possible attention to examinations as fairly as possible accessible, and that which, after all, must be a great purpose of the University, that it should raise medical education in all its branches in England, and indirectly everywhere else. It has raised medical education considerably, and that has been one of its chief honours, and it can only be done by its scheme and the severity of its examinations. It is always open to the Senate to hear the statements of others, and for itself to consider all questions of that kind. It has to take care that the degree shall indicate an attainment higher than that which commonly exists, not only in the practical subjects, but in the whole of that education which goes to make a well educated gentleman as well as a practical physician. Then it has to consider how this can be done with as little difficulty, but with as great security, as possible. I may say besides, with regard to the questions the deputation has been so good as to bring before the Senate, that, on nearly every one of those points, there have been movements by the Senate, and changes of regulation, quite in accordance with them, more especially with regard to the preliminary scientific examination, and which the Senate has already decided shall be divided, that students shall be able to bring themselves to it in different orders, according to their own choice. And, in regard to the matriculation, there is even at this time a question coming before the Senate as to whether in that or other examinations a scheme may not be adopted by which a candidate rejected in one subject may be examined only in that again. I may therefore express the opinion of the Senate that it is very far from feeling itself in direct opposition to the views expressed by the deputation; only I think I may say that the Senate is conscious of difficulties in the arrangements, which are probably not so well known to any who have not to consider them from all sides and all quarters; but that this will have careful consideration I am quite sure.

Mr. Macnamara: On behalf of the deputation, I beg to thank you for receiving us so kindly.

The deputation then withdrew.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

At a meeting of Fellows held on Thursday, April 30, the following Members, nominated by the Council, were elected to the Fellowship:—William Carter, M.B.Lond. (Liverpool); Alexander Davidson, M.D. Edin. (Liverpool); Thomas Gilbart Smith, M.D.Dub.; George Ernest Herman, M.B.Lond.; David White Finlay, M.D.Glas.; Edward Markham Skerritt, M.D.Lond.; Alexander Hughes Bennett, M.D. Edin.; Alfred Sangster, M.B.Camb.; Felix Semon, M.D.Berlin; Vincent Dormer Harris, M.D.Lond.; Joseph Arderne Ormerod, M.B. Ox.; Samuel Hatch West, M.D.Ox.; Robert Shingleton Smith, M.D. Lond. (Clifton); David Boyes Smith, M.D.Edin. (Netley); George Henry Savage, M.D.Lond.; John Thorburn, M.D.Edin. (Manchester); Herbert Isambard Owen, M.D.Camb.; Robert Edward Carrington, M.D.Lond.; Percy Kidd, M.D.Ox.; Seymour John Sharkey, M.B. Ox. We regret to say that Dr. Lachlan H. J. Maclean, Sydney, N. S. Wales, one of the nominated Members has died since his nomination. The above is a very liberal list, including considerably more names than the usual number, which has commonly been not much more than half as extensive. The list is liberal in the principle on which it has been framed as well as in the number. We have received several communications on the subject. On the whole the list will, we believe, be received with considerable satisfaction.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

Any qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member *by the Council* or by any recognised *Branch Council.*

Meetings of the Council will be held on July 8th, and October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, June 17th, and September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Francis Fowke, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

Inquiries are in progress on the subjects of

Chorea, Diphtheria,
Acute Rheumatism, Old Age,
Cancer of the Breast.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

Paroxysmal Hæmoglobinuria.
Albuminuria in the Apparently Healthy.
Sleep-Walking. Acute Gout.

The "Sleep-walking" form may be filled in by a non-medical person, if necessary.

Puerperal Pyrexia.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the Journal of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

The Connection of Disease with Habits of Intemperance.—A schedule of inquiry upon this subject has been prepared by the Committee, and will be issued with an early number of the Journal.

Returns are still received on Acute Pneumonia.

The Etiology of Phthisis.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—*(a)* The influence of residence and occupation; (*b*) the previous state of the patients' thoracic organs and general health; (*c*) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161a, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

South Indian Branch.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. Maitland, M.B., Honorary Secretary, Madras.

South-Eastern Branch.—A meeting of the Executive Council of this Branch will be held at the Bridge House Hotel, London Bridge, on Wednesday, May 6th, instant, at 3.15 P.M.—Charles Parsons, M.D., Honorary Secretary, 2, St. James's Street, Dover.—April 27th, 1885.

South-Eastern Branch: East Sussex District.—The next meeting of the above District will be held at the Queen's Hotel, Eastbourne, on Friday, May 29th. Dr. Habgood will preside. Gentlemen desirous of reading papers or showing cases should communicate with the Honorary Secretary, T. Jenner Verrall, 95, Western Road, Brighton.—April 27th, 1885.

Staffordshire Branch.—The third general meeting of the present session will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, May 28th, 1885. The President, Dr. E. T. Tylecote, will take the chair at three o'clock in the afternoon.—Vincent Jackson, General Secretary.—Wolverhampton.—April 25th, 1885.

South-Eastern Branch: East Surrey District.—The next meeting of the above District will be held at the Greyhound Hotel, Croydon, on Thursday, May 14th, at 4 P.M., H. Townsend Whitling, Esq., of Croydon, in the Chair. A paper has been promised by Dr. William A. Duncan on "Chronic Metritis," and other communications are expected. Members desirous of reading papers or notes of cases are requested to inform the Honorary Secretary as soon as possible. All members of the South-Eastern Branch are entitled to attend this meeting, and to introduce professional friends. Dinner will be served at 6 P.M; charge, 7s. exclusive of wine.—J. Herbert Stowers, M.D., Honorary Secretary, 23, Finsbury Circus, E.C.

Metropolitan Counties Branch.—Notice is hereby given, that the nomination of members to represent this Branch in the Council of the Association will shortly take place, in accordance with the following by-law. "The representatives of the Branch in the Council of the British Medical Association shall be annually nominated by the Council of the Branch in such manner as the said Council may from time to time determine. Any six members of the Branch shall be entitled to nominate any one or more members as representatives, on giving notice of such election to the Secretaries of the Branch at least three weeks before each annual meeting." Members desirous of nominating candidates are invited, in accordance with the above, to send in the names to Dr. Henry, 132, Highbury Hill, N. There will be two vacancies: one caused by the appointment of Mr. Macnamara as Treasurer of the Association; the other by the death of Dr. Mahomed. The remaining present representatives are Dr. Bridgwater, Mr. Sibley, and Dr. Grigg.——Alexander Henry, M.D., W. Chapman Grigg, M.D., Honorary Secretaries.—132, Highbury Hill, N., April 29th, 1885.

A NEW BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

A numerously attended meeting was held in the Board-room of the Radcliffe Infirmary, on April 22nd, for the purpose of forming a Branch of the British Medical Association for Oxford and the neighbouring district. Sir Henry W. Acland was voted into the chair. A council of ten was chosen, representing the counties and city. Sir Henry Acland was elected the first President of the Branch; Dr. Darbishire and Mr. W. L. Morgan were elected Honorary Secretaries; and Mr. Winkfield, Treasurer. The first general meeting was fixed for June 23rd.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: SPRING MEETING.

The spring meeting of this Branch was held at Pontypridd on April 15th; Alfred Sheen, M.D., President, in the chair. Present: Dr. Isambard Owen, London, Secretary to the Collective Investigation Committee; and upwards of thirty members of the Branch.

New Members.—The following gentlemen were elected members of the Association and Branch: Messrs. J. S. H. Roberts, Pentrebach; E. R. Evans, Llandyssul; H. G. Hughes, Pentre; W. Jones, Clydach Vale; J. Davies, Aberayron; H. J. Paine, M.D., Cardiff; F. E. Pearse, Brecon; W. Howells, Talgarth; A. Devonald, Llangennech; J. W. Davies, Ebbw Vale; E. R. Jones, New Quay; W. R. Jones, Brecon; Rees Morgan, Treherbert.

Papers, etc.—The following were read.

1. Dr. GRIFFITHS (Swansea) read a paper on the value of Chloral-Hydrate applied externally in the treatment of skin-irritation and itching in certain skin-diseases; thus, by allaying the irritation, facilitating the cure of the disease. He used it in combination with oleic acid, lard, zinc-ointment, etc.; first dissolving the chloral-hydrate in a little spirits of wine.

Dr. ISAMBARD OWEN (London), by some valuable and suggestive remarks, introduced a discussion on the Etiology and Pathology of Chorea; and the discussion was taken up by Messrs. Griffiths, Fiddian, Brown, Fry, R. R. Morgan, and the President; the general consensus of opinion being that chorea was a purely nervous disease, and that it was important to inquire fully in all cases into the previous history of the patient, and his hereditary history.

Medical School at Cardiff.—A discussion took place on the desirability or otherwise of endeavouring to establish a medical school at Cardiff, in connection with the South Wales and Monmouthshire University College; and the following resolution was moved by the PRESIDENT, seconded by Dr. EDWARDS, President-elect of the Association, and carried.

"That this meeting of the South Wales and Monmouthshire Branch of the British Medical Association is of opinion that it is eminently desirable to establish a partial medical school at Cardiff, which shall carry a student on to the Intermediate M.B.Lond.; and that the following members be elected representatives of this Branch, to meet the authorities of the University, the medical staff of the Infirmary at Cardiff, and representatives of the Cardiff Medical Society, and deliberate on the possibility of forming a medical school at Cardiff, in connection with the University College of South Wales and Monmouthshire; namely, Messrs. T. D. Griffiths, George Padley, and D. Arthur Davies (Swansea), Talfourd Jones (Brecon), Evan Jones (Aberdare), and G. A. Brown (Tredegar).

The Case of Dr. David Bradley.—On the motion of Mr. FRY, seconded by Dr. GRIFFITHS, it was resolved—"That the members of the South Wales and Monmouthshire Branch, in meeting assembled, having heard a statement of the case of Dr. David Bradley, recently convicted of felonious assault, at the Leicester Assizes, desire to express the opinion that his case is eminently one in which a reconsideration of the verdict of the jury is demanded. This opinion is based on a consideration of the following facts:—1, That the complainant has been admittedly the subject of epileptic fits since childhood; 2, That such persons are specially liable to be subject to erotic delusions during and after a seizure. It is, therefore, of the utmost importance that the corroborative evidence, in such a case, should be decisive; whereas in the case of Dr. Bradley, it seems to be singularly defective."

"That a copy of the above resolution be signed by the President, on behalf of the meeting, and forwarded to the Home Secretary."

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Influence of Microbes and Ptomaines.—Treatment of Cold Abscesses.—Necrotic Abscesses.—Antiseptic Dressings in Military Surgery.—A new Warm Stage for Studying Microscopic Preparations.—General News.

M. GEANNEL and M. Laulancé, of Toulouse, have undertaken a series of researches to ascertain whether, in septicæmia, the microbes or the ptomaines, or both, provoke the septic condition. A paper on the subject was read at the Paris Congress. Soluble bodies (alkaloids or mineral salts, organic or inorganic) when placed on a granular wound, are immediately absorbed. A dog can be poisoned by moistening the surface of a granulating wound with a solution of a poisonous salt. A virulent fluid brought into contact with a freshly made wound produces poisoning. A virulent fluid placed on a wound with a granulating surface does not produce toxic symptoms unless there be a small abraded surface. In the putrescent fluids present on the surface of a wound, both ptomaines and microbes are present, and the ptomaines are absorbed; but when the granulating surface is intact, the septic condition is escaped. An abraded surface permits the absorption of microbes, and septicæmia then declares itself.

M. Cazin, of Boulogne, M. Bouilly, and M. Pozzi, read papers on the treatment of cold abscesses. M. Cazin recommends extirpation; after solidification, he dissects them out like a solid tumour. The cicatrix is barely evident, and is most frequently linear. Cure is generally rapid if antiseptic treatment be adopted. M. Pozzi described two cases of cold abscesses, both patients being in a feeble condition. He cauterised the accessible surfaces with the thermo-cautery; those not accessible, with zinc-chloride, and removed all fungous growth by scraping. Both patients were cured, and their condition was improved. M. Bouilly stated that the removal of an external tuberculous area may be followed by a permanent cure, if effected in time. He based his opinion on sixty-five cases which had fallen under his notice.

M. Boeckel of Strasbourg, in a communication on necrotic abscesses, insisted on the necessity of making numerous free incisions. In an abscess extending on the thigh below Poupart's ligament, he made an incision twelve or fifteen centimètres long, parallel with the ligament; a second vertical incision extending along the crural purulent area; a third, six or eight centimètres long, in the lumbar region. He then excised the sac, disinfected the wound, and placed drainage-tubes, which were replaced the next day by small tubes. According to the same authority, abdominal and lumbar wounds ought to be left wide open.

A considerable number of papers were read at the meeting on the dressings to be used in time of war. M. Guérin quoted M. Manoury's evidence that his cotton-wool dressing renders the removal of the wounded perfectly painless. All the authors of the communications were unanimous that antiseptic dressings should always be used; but there was a slight divergence as to the manner and kind. M. Bousquet recommended carbolic acid, zinc-chloride, and mercuric chloride. M. Bousquet considered that every soldier should carry a small parcel containing cotton-wool plugs, hemp prepared with mercuric chloride, safety-pins, and a bandage. M. Delorme preferred iodoform as an antiseptic to any other; carbolic acid came next; and mercuric chloride he placed third in the list. He considered Alphonse Guérin's wool-dressing to be as necessary as Lister's antiseptic dressing; it not only protected the wound and removed it from the influence of motion, but it prolonged the antiseptic condition of the wound. M. Bedoin considered Guérin's and Lister's dressings good in themselves, but not applicable on a battle-field. He proposed the use of unsized paper, purified by heat, then impregnated with antiseptic solution; a sheet of gutta-percha, and an India-rubber bandage. M. Chauvel recommended dry antiseptic dressings on the battle-field, at the stations, and in the ambulances of the advanced line. Mercuric chloride and carbolic acid he considered the best antiseptics. He recommended absorbent wool, antiseptic jute, and hemp. M. Hudet recommended a combination of Lister's method with Guérin's. M. Arragon recommended the decoction of valerian-root, described in his communication to the Société de Biologie last August.

At a recent meeting of the Biological Society, M. Vignal, of the Collège de France, presented a self-regulating warm stage, for using in microscopic work. It is small, easily used, certain in its results, and maintains an unvarying temperature. M. Vignal described this instrument as a modification of M. D'Arsonval's constant temperature stove. It consists of a rectangular copper box, with double sides. The space limited to the inner wall constitutes the hot-air chamber; the right side of this chamber is removed, in order to be able to place and handle the object-glass, on which is placed the preparation for study. On one side is the regulator, which is D'Arsonval's India-rubber diaphragm. On the upper part of the instrument there are two small tubes, through one of them water is introduced, and in the other, a glass tube is fixed, along which the water rises and falls, determining the pressure which acts on the India-rubber diaphragm. A thermometer is passed through a small opening in front of the instrument, and is placed in the chamber containing the preparation. An opening from upwards downwards is made in the stove, which allows the lens to reach the preparation, and also the light to penetrate; in order to prevent draughts, this aperture is closed at the lower extremity by a glass disc. A small sliding door can be brought almost into contact with the preparation in order to prevent loss of heat in the hot-air chamber. In front of the stove, there is a cylindrical diverticulum, or side-process, similar to those of funnels for filtering hot fluids. A small gas-jet heats the side-process, and is protected by a small glass cylinder, which not only prevents the gas from being extinguished by draughts, but utilises the heat it produces. This instrument has been tested, and submitted to different conditions. The temperature of the hot-air chamber has never varied more than one or two tenths of a degree, when the surrounding temperature was suddenly modified by opening a window close to the instrument, or by placing it near a source of heat; in a short time equilibrium was restored. As this warm stage continues in working order indefinitely, without personal superintendence, it is specially adapted for the microscopic study of artificial cultivations of micro-organisms.

After the execution of Gamahut, the murderer of Madame Ballerich, M. Laborde made experiments on his body. He ascertained that a direct electrical stimulus applied to the cortical substance of the brain provoked contraction of the muscles of the face. He performed his experiments while the body was being conveyed to the school of medicine.

M. Béclard, and two of the assistant-professors from the Collège de France, awaited the arrival of the body of Gamahut at the laboratory of the School of Medicine. Experiments were then made on the facial nerve, which have a certain scientific interest; but the dominant fact ascertained was the thorough suppression of general sensibility. Several other experiments also gave the same results; special sensibility only persisted. There was no visible lesion of the brain.

The war-minister has decided that all medical men and chemists of the first class who desire to be *aides-majors* in the reserve army, the active army, or the territorial, must go up for examination on the subjects named in the programme issued on January 10th, 1884.

The Assistance Publique has just entered into possession of the legacy left to it by Madame Dagnan. The testament directs that 300,000 francs (£12,000) shall be expended on increasing beds in asylums; 50,000 francs (£2,000) on increasing hospital-beds; 50,000 francs (£2,000) are to be given to the charity for children deserted by their parents, and 1,000 francs (£40) to each arondissement.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

The Hundredth Volume of Virchow's "Archiv."—Poisoning by Chlorate of Potash.—The Meeting of Naturalists and Physicians at Strasbourg.

THE first number of the 100th volume of Virchow's *Archiv für Pathologische Anatomie und Physiologie und Clinische Medicin* has lately appeared. In the preface, Professor Virchow gives an extremely interesting glance back at the past history of his work. Those who first commenced it with him thirty-eight years ago, in 1847, have passed away, but the aims they set before themselves then have been untiringly kept in view ever since. At first, the plan of the work was to exclude everything not directly connected with medicine proper, pathology, and therapeutics. In the main, this is still the fundamental principle which is taken as guide. But in the course of the many years during which the *Archiv* exists, the necessity of yielding in one and another direction has become evident. Anatomists and histologists, physiologists and embryologists, have found in the *Archiv* an asylum for their treatises which were either not willingly accepted by, or were entirely excluded from, specialist journals. "There is no civilised country," says Virchow, "in which these *Archives* are not read. All that is necessary, is to take up a series of these volumes, and to cast the eye over the index of each, in order to find the first works of many men who afterwards became famous, and the beginnings of most of the special sciences that have later successfully developed. I can say, without exaggeration, that Germany possesses no other medical journal that affords, by its original treatises, so complete a survey of the course of development of our science during the most critical period, none that has so directly taken a part in this course of development, in fine, none that unites in itself such an abundance of imperishable material." Nearly forty years ago Virchow expressed a hope that, "people would one day admit that only calm, diligent, and slow work, the accurate work of observation and experiment, will have a lasting value. Pathological physiology will then gradually develop, not as the product of individual hasty heads, but as the result of many plodding investigators, pathological physiology as the fastness of scientific medicine, of which pathological anatomy and the clinic are only outworks." And another passage in the preface of this volume says of the whole collection: "A series of works, which have changed the bases of the pathological, and partially also of the biological mode of conception, is to be found in its columns. The history of progress in medicine will constantly have to refer to them. Although open to every specialist, they have always served as a peculiar point of attraction for those workers who wished to discuss questions of general interest before the forum of the medical world." The preface also gives a sketch of the progress of various theories propounded since the foundation of the *Archiv*.

A young lady asked a chemist here some days since for chlorate of potash for gargling, and was told to take a spoonful from time to time. She misunderstood the advice, for instead of taking it dissolved in water, she took the powder in spoonfuls undissolved, and died, after five days' illness, from vomiting and asthenia.

Dr. Wolff, of the Strasbourg University, contemplates forming a section for dermatology and syphilidology at the meeting of natural philosophers at Strasbourg this year. He will be happy to receive the names of any desirous of delivering addresses on this subject.

CAIRO.

[FROM A SPECIAL CORRESPONDENT.]

Visit of Mr. Ernest Hart to Cairo.—Changes in the Sanitary Service.—Mr. Sidney Davies.—Small-Pox.—Rhinoscleroma.—Dr. Sonsino.—The Victoria Hospital.

SINCE my last letter, Cairo has been favoured with a visit by Mr. Ernest Hart, who inspected all the institutions connected with the public medical and sanitary service, and examined carefully into the way the sanitary service was working at headquarters. All the English employees of the service, and many of the leading members of the profession, availed themselves of this opportunity of making or renewing acquaintance with Mr. Hart, and assisting him in his inquiries.

There have been recently some important changes in the sanitary service, introduced by Surgeon-Major Greene. The Conseil Sanitaire formerly included among its members the Chief Medical Officer of the Government Hospital, the Chief Pharmacien of the same, and a representative of the Voirie (public buildings and roads). These members have been replaced by a representative of the Ministry of Finance, a representative of the Public Works (Colonel Scott Moncrieff's department), and one of the two Chief Sanitary Inspectors. The advantage of the change in respect of the public works and the sanitary inspector is obvious. The latter is the only member of the Conseil likely to have a particular knowledge of sanitary affairs outside the capital. In respect to a representative of the Finance Ministry, it is thought that the new arrangement will facilitate questions of cost, which are a difficulty in all Egyptian administration. There were formerly two inspectors for Lower Egypt and two for Upper. Two of these gentlemen, Mr. Hooker and Dr. Chaffey Bey, have been appointed General Inspectors in Chief, with power to examine into sanitary matters in any part of the country to which they may be sent. The two remaining inspectorships will probably be abolished as useless.

Mr. Sidney Davies has been appointed Chief Medical Officer of the Egyptian Police and Gendarmerie.

There has been lately a large mortality from small-pox; but, on inquiry, I have found that the majority of the cases that died were immigrants from the Soudan or from the provinces—places where vaccination is not rigidly performed. About half the cases were distinctly stated not to have been vaccinated. It would be, however, advisable to enforce a general revaccination, which would counteract the occurrence of such eventualities.

Mr. Sidney Davies lately showed a case of rhinoscleroma to an informal gathering of Cairine medical men, including Dr. Grant Bey, Mr. H. M. Sandwith, Drs. Vernoni, Wildt, Sonsino, and Richer. Dr. Wildt alone had seen a case before. All agreed in the diagnosis. Mr. Davies performed an alleviative operation, opening a passage in the nostril by means of the thermo-cautery. He intends to report the case fully.

It will be learnt with regret that Dr. Sonsino is going to leave Cairo at the beginning of May. Dr. Sonsino is well known on account of his researches into the life-history of filaria sanguinis hominis, Bilharzia hæmatobia, and other parasitic worms. These investigations have been carried out at the Khedivial Laboratory. Dr. Sonsino's departure will be a great loss to the scientific part of the Cairo profession. He returns to his native place in Italy. There is now a clear field for an investigator to find the intermediate host of Bilharzia hæmatobia. After Mr. Thomas's successful search in the case of sheep-rot, it should be easier to set this question at rest. It would be worth while for the British Medical Association to select a man and set apart funds for the research. The Khedivial Laboratory, as long as it lasts, offers every facility; and there is good reason to hope that, by working on the lines of Mr. Thomas, a successful result might be brought about in the course of one or two years.

Drs. Wildt (German) and Murison (Aberdeen) have been appointed joint medical officers of the Victoria Hospital. Patients must choose between these two; that is, first and second class paying patients, for others will have no choice. This plan no doubt simplifies matters; but it seems hardly fair on the other medical men of the Protestant communities, and there seems no reason why patients who will pay for it should not select their own medical attendant. Neither of these medical men will be resident.

CORRESPONDENCE.

TREATMENT OF GOÎTRE BY INJECTION OF IODINE.

SIR,—My letter, bearing the above title and published in the JOURNAL of April 4th, was neither written for the purpose of representing injection of iodine into adenomatous goîtres as a necessarily dangerous procedure, and thus discrediting this form of treatment altogether, nor for the purpose of entering upon a personal controversy with Mr. Tivy. Its only object was to show by facts, in opposition to what I believe to be dangerous statements, that this treatment was not altogether devoid of considerable, however rare, risks, and, in writing it, I was simply actuated by a feeling of public duty.

I had hoped that this motive would have clearly appeared from the tone of the letter. I now find, however, to my regret, that Mr. Tivy persists in minimising the possible dangers of the operation. To my mind, it is difficult to understand for whose benefit his last letter was written. Had I attempted to altogether discredit the operation, I could understand its defence, but as I have done nothing of that sort, and simply shown that, even in the hands of experts, it may be accompanied by serious results, continued attempts at minimising the force of uncontestable facts appear to me very regrettable.

That Mr. Tivy and others, including myself, have, so far, not met with any accident, does not prove anything against the reality of the dangers. I never said they were of frequent occurrence; but they are serious, and that is the reason why, in my opinion, practitioners ought not to be led into a false feeling of security concerning the alleged absolute harmlessness of this form of treatment.

Suppose that a young practitioner, without any personal experience in this line of treatment, makes his first injection. Immediately before the little operation—as so often happens—the patient asks whether there is any danger in the procedure. Trusting to Mr. Tivy's statement that the operation was a "most safe" one, the operator answers decidedly in the negative. Five minutes, or a few hours afterwards, the patient may be dead, or may have lost his voice for ever, or he may subsequently have to fight for life with a terrible suppuration of the injected gland. What then? Does Mr. Tivy really believe that it will be a consolation or compensation for the relatives or the practitioner himself, if it be afterwards stated that such accidents are of very rare occurrence? I hold that it is the duty of every practitioner not to perform any operation which has been shown by the experience of trustworthy observers not to be devoid of risks, however rare their occurrence may be, without previously informing the patient or his friends that there are such risks. A violation of this rule might ruin, not altogether unreasonably, the whole career of the operator.

The foregoing considerations explain, I hope, my own position with regard to this question. Mr. Tivy expresses surprise "that Dr. Semon should have injected iodine so frequently, considering, as he does, the operation so dangerous to life, etc." I cannot help calling this manner of argumentation forcing the sense of my words. Not refusing to perform an operation in which there are possible elements of danger, after stating them plainly to those concerned, is, in my opinion, *toto cælo*, different from pronouncing such an operation as "most safe."

There is one other point in Mr. Tivy's letter which urgently calls for comment. Mr. Tivy says, that "the only authenticated fatal case is Moritz Schmidt's." Now I quoted in my first letter not one, but eleven well authenticated fatal cases (six mentioned by Rose, two by Mackenzie, one by Schmidt, two by Seitz), and I entirely fail to see on what grounds Mr. Tivy excludes the other ten. Perhaps, because no particulars were given, as would almost appear from his letter. To such a line of argument I must strongly object. To begin with, I did not wish to unduly trespass upon the space of the JOURNAL, and the facts quoted by me appeared and appear, to my mind, fully sufficient for the purpose I had in view. Secondly, I myself gave particulars of two cases (Schmidt's and Schwalbe's). Thirdly, I expressly stated that Seitz gave particulars of the two other fatal cases which he mentions. I think, indeed, that Mr. Tivy ought to have made himself acquainted with them, as well as with the whole literature of the subject, before he wrote his second communication, instead of simply leaving them out of consideration and of merely observing, "of these Dr. Semon gives no particulars." Fourthly, Professor Rose gives no particulars, it is true, of the cases he mentions; but he no doubt does so for the very good reason that he knew of them privately, and that they were cases occurring in the practice of others. He thus had obviously no right to give particulars. But is his statement for that reason less valuable? I cannot for a moment imagine that it should be generally held that cases are not sufficiently "authenticated" when a man of Professor Rose's scientific standing publicly declares that he knew of them.

In my own opinion, the number of accidents reported in my first letter does by no means represent the total amount of misadventures that have actually happened after iodine-injection into goîtres. I personally know of one case, not published, the sad issue of which, indeed, mainly induced me to write my first letter. I hold myself, however, as little justified to give particulars of other practitioners' cases as probably Professor Rose did, when he merely stated that he privately knew of six cases, in which death had ensued either on the table or a few hours later.

I forbear entering upon some other controversial points contained in Mr. Tivy's letter, as, by a prolongation of this discussion, a reconciliation of our conflicting views could hardly be hoped for. I call an operation "most safe" when there is, to human foresight, no possible and uncontrollable element of danger in it; Mr. Tivy continues to call it so, when it is plainly shown that a certain number of deaths have been caused by it, not to speak of serious, though minor, consequences. No common ground of agreement is likely to be found under such circumstances. I have stated, in my two letters, the reasons which led me to write them, and, as far as possible, the facts upon which these reasons rested. The correspondence ends here, so far as I am concerned.—I am, sir, yours obediently,

Welbeck Street, W. FELIX SEMON, M.D.

THE PERITONEAL INVESTMENT OF THE HUMAN CÆCUM.

SIR,—Every candid mind must allow that Mr. Treves has done good service to the cause of scientific and applied anatomy by his recent lectures; and readers of the JOURNAL have reason to congratulate themselves on having the opportunity presented to them of becoming acquainted with much new matter connected with abdominal anatomy. But, in a few instances, Mr. Treves's investigation merely confirms facts long known and taught, although they may not have found a place in text-books. Thus, in page 474 of the JOURNAL of March 7th, he writes, "the cæcum has been entirely enveloped on all sides by peritoneum, and has been free in the abdominal cavity." All Dr. Struthers's pupils will bear me out in the remark that this fact has been long known, and has been insisted on in his lectures. It may be, this teaching is not peculiar to Aberdeen, for the teachers in other schools could not have failed to notice so evident a fact. "An excessive confidence in the infallibility of text-books" cannot be too strongly deprecated. Errors in description exist in the very best of our text-books, and it is the duty of the sound teacher to criticise these. The following are few out of a great many errors that may be cited: the existence of, usually, a bursa between the insertion of the triceps and the top of the olecranon, and in other simular situations; a right colic artery as a distinct branch; a cæcum incompletely invested by peritoneum; a nine-inch œsophagus (the average length being more than twelve); the insertion of the sartorius in front of the gracilis and semitendinosus (for the correct insertion, see Mr. Pick's edition of Gray's *Anatomy*, and preparation 64 P.b in the Museum of the Royal College of Surgeons); the internal plantar artery, confined in its distribution only to the inner edge of the foot (Mr. Ellis's description alone, and Quain's after him, supply the deficiency; and two specimens in the Aberdeen Museum dissected by the writer show the much more extensive distribution); that the blood-vessels in the ligamentum teres pierce and nourish the head of the femur (Professor Hyrtl to the contrary); and that the limitation of extravasated urine from passing down into the thigh is due to the "attachment of the deep layer of the superficial abdominal fascia to the fascia lata just beyond Poupart's ligament," whereas it is due to the interposition of Scarpa's fascia, a process derived from the fascia lata, lying in the abdomen above Poupart's ligament, and continuous with Colles's fascia of the perinæum. In all these points, most text-books offend against exactness.

Mr. Treves having confined his remarks to criticising the error in text-books with regard to the cæcum, made no mention of those who had anticipated him. Perhaps he was not aware that his discovery had claimed the attention of anatomists before; and, perhaps, during his connection with the Aberdeen University, in his capacity of assessor-examiner, the relation of the serous membrane to the caput was not made the theme of examination. In seeking publication for this article, my object solely is to supply the former deficiency.

It would seem that the "mysterious meso-cæcum, the existence of which Mr. Treves is very much disposed to doubt," is occasionally, but very rarely, present like the aforementioned bursa. One winter

in the dissecting room, I was surprised to stumble upon an unquestionable meso-cæcum, investing the caput in front and at the sides, but loosely behind and below, and attaching it to the iliac fossa. This circumstance would not have been impressed on my mind, and been noticed, but for the teaching emphasising the opposite condition in contradistinction to the authority of text-books. That it is occasionally present is borne out by the following extract from the last edition of Quain's *Anatomy*, which would be accurate but for the unfortunate statement that the cæcum is covered by peritoneum only before and at the sides.

"On the right side, it completely invests the lower rounded end of the cæcum with the vermiform appendix; but the rest of the cæcum it covers only before and on the sides, a part of the bowel behind, of variable extent, being immediately adjacent to the iliac fossa, except in rare instances, where the membrane goes entirely round, and forms a meso-cæcum."

I have no doubt that, if Mr. Treves carry on his researches so systematically and perseveringly as he has hitherto done, he will, sooner or later, be unexpectedly confronted with the "mysterious meso-cæcum."—I am, etc.,

PHILIP S. BRITO, M.B.,
Late Demonstrator of Anatomy, University of Aberdeen.

11, New Ormond Street.

SHORTENING THE ROUND LIGAMENTS.

SIR,—The tone of Mr. Burton's note, in the JOURNAL of April 4th, dispelled the dream in which I had indulged, that I had communicated to the JOURNAL my demonstration on the round ligaments, in 1869, in a form which neither a prior nor a subsequent discoverer or inventor, nor any friend or partisan, would misinterpret or disparage. Experience of original observations having shown me that our predecessors have generally stolen our best thoughts, I made ample allowance for want of acquaintance with continental work, when I said "very possibly some prior claimant may appear on the scene." Mr. Burton more than confirms my anticipation, by pointing out that some other Richmonds have been in the field on the other side of the channel; but he reduces my consideration for possible predecessors to a minimum, by converting my fairly copious "very possible," into a meagre "just possible."

In his local zeal to uphold what had not been assailed, namely, the special merits of Dr. Alexander, of Liverpool, in introducing the operation, Mr. Burton scarcely displays the full measure of cosmopolitan charity and courtesy towards prior observers in other places, but curtly dismisses the "dozen inventors who think a thing (like Mr. Rivington, Alquié, Freund, and others)" as if they had been, and are, merely endeavouring to "deprive the real inventor of the credit that is justly his due." I feel sure that no injustice to Dr. Alexander was contemplated when the earlier observations and suggestions were made and published, and that it would be a truer description of our effort to say that we were actuated by a sincere desire to aid specialists in introducing what seemed likely to prove a useful procedure, but which we had not the opportunity of testing in actual practice. In my own case, not merely had the idea sprung up independently in my mind in the course of anatomical teaching and reflection, not merely had I performed it on the ordinary dead body, but I had performed it on the body of a person afflicted with severe prolapse of the womb, and thereby demonstrated its efficacy to remedy one of the very conditions for which it is now practised. All this was with the intention of adopting the procedure in practice; but three years elapsing, and there being little prospect of my being able to command the necessary cases in the surgical wards of the London Hospital, I deemed it advisable to publish my observation just as it was made, in the hope that it would fructify either in England, Ireland, or America. The observation was in a form which, if it met the eye of an existing or intending gynæcologist, would at once suggest the performance of an operation of the kind in cases of prolapse of the womb not otherwise amenable to satisfactory treatment. Why my predecessors did not presevere with their suggestions, I cannot tell. I had not myself, by any means, abandoned the intention of performing the operation at the first opportunity, and should certainly again have urged its acceptance under antiseptic precautions, on an obstetric colleague, if I had not heard some time ago that it had already been successfully employed, and fear of peritonitis had been the main opposing element when I first suggested it.

With regard to the steam-engine, I can only say that I believe that Watt might not have been able to invent the modern steam-engine, if it had not been for the less fruitful labours of Hero of Alexandria, Branca, De Caus, the Marquis of Worcester, Papin, Thomas Savory, Newcomen, the blacksmith, Cawley, the glazier, Potter, the cook-boy, and Professor Black, of Glasgow; and I am sure that he was never under the impression that a candid recognition of the efforts of his predecessors would in any way detract from his own superior merit and good fortune. Trusting that this note will be regarded rather as the "retort courteous" than the "counter-check quarrelsome."—I am, yours, etc.

WALTER RIVINGTON, Finsbury Square.

"BIRMINGHAM HEALTH LECTURES."

SIR,—I do not think you have rightly appreciated the character of Mr. Chavasse's lecture "to men only." It is not included in the volume to which your notice refers; and I imagine that your observation that the lecture deals with "prurient matters" is only an inference. If so it is not founded on fact. It is unfortunate that many other people besides Dr. Clifford Allbutt think of any of the natural functions of the body as "nasty mysteries," since it may be questioned whether it is not from this very feeling that the "sexual hypochondriasis you speak of arises.

I venture to say that, in the opinion of the great majority of those who heard Mr. Chavasse's lecture, by dispelling the "nasty mystery" theory, he has done a great deal towards subduing this particular form of hypochondriasis.—Your obedient servant,

ALFRED N. HOPKINS.

SURGICAL TREATMENT OF ABDOMINAL ANEURYSM.

SIR,—Mr. Hutchinson has directed attention to my case of abdominal aneurysm, published in the third volume of the *London Hospital Reports*, and cured by lead, complete rest, and restricted diet, and the application of ice constantly to the tumour. It may be of interest to state that the patient was alive and well in 1872, six years after the treatment. He then left the neighbourhood, but I have reason to believe that he is still in good health. I wish also to add that it was to Mr. Hutchinson's advice the cure was due in this case. I only carried out his recommendations.—I am, etc.,

FREDERICK H. DALY, M.D.

MILITARY AND NAVAL MEDICAL SERVICES.

THE ARMY MEDICAL SERVICE.

THE following is the schedule of qualifications necessary for candidates desirous of obtaining commissions in the Army Medical Staff.

I.

1. Every candidate for a commission in the Army Medical Staff must be 21 years of age, and not over 28 years, at the date of commencement of the competitive examination. He must produce an extract from the register of his birth, or, in default, a declaration made before a magistrate by one of his parents or guardians, giving his exact age. He must produce a recommendation from some person of standing in society—not a member of his own family—to the effect that he is of regular and steady habits, and likely in every respect to prove creditable to the department if a commission be granted; and a certificate of moral character from the parochial clergyman, if possible. 2. The candidate must sign a declaration upon honour that both his parents are of unmixed European blood, and that he labours under no mental or constitutional disease, or hereditary tendency thereto, nor any imperfection or disability that can interfere with the efficient discharge of the duties of a medical officer in any climate; also that he does not hold, and has never held, any commission or appointment in the public services. His physical fitness will be determined by a board of medical officers, who are required to certify that his vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. A moderate degree of myopia will not be considered a disqualification, provided it does not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes exists. The Board must also certify that he is free from organic or other disease, and from constitutional weakness, or other disability of any kind likely to unfit him for military service in any climate. 3. Certificates of age, registration of diplomas, etc., and of character, must accompany the declaration when signed and returned. 4. Candidates will be examined by the Examining Board in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows (that is, 1,000 each to *a*, *b*, *c*, and *d*): *a*, anatomy and physiology; *b*, surgery; *c*, medicine, including therapeutics, the diseases of women and children; *d*, chemistry and pharmacy, and a practical knowledge of drugs. N.B.—The examination in medicine and surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside. The examination in chemistry will be limited to the elements of the science, and to its application to medicine, pharmacy, and practical hygiene. No candidate shall be considered eligible for the Army Medical Staff who shall not have obtained at least one-third of the marks obtainable in each of the above compulsory subjects. 5. Voluntary subjects for examination: candidates may be examined in the following voluntary subjects, for which the maximum number of marks obtainable will be: French and German (150 each), 300; natural sciences, 300. A number less than one-third of the marks obtainable in each of these voluntary subjects will not be allowed to count in favour of the candidate who has qualified in the compulsory subjects. The knowledge of modern languages being considered of great importance, all intending competitors are urged to qualify in French and German. The natural sciences will include comparative anatomy, zoology, natural philosophy, physical geography, and botany with special reference to materia medica. 6. The appointments announced for competition will be filled

up from the list of qualified candidates arranged in the order of merit, as finally determined by the total number of marks each has obtained in both the compulsory and voluntary subjects. 7. After passing this examination, every successful candidate will be required to attend one course of practical instruction at the Army Medical School, as a surgeon on probation, on (1) hygiene; (2) clinical and military medicine; (3) clinical and military surgery; (4) pathology of diseases and injuries incident to military service. 8. All surgeons on probation will be required to conform to such rules of discipline as the Senate may from time to time enact, and provide themselves with uniform, namely, the regulation undress and mess uniform of a surgeon, but without sword. 9. They will be required to attend the Medical Staff mess at Netley, and to conform to the rules and regulations thereof.

[The remaining portion of the schedule is not printed, as it only repeats the conditions of service in the Army Medical Staff, as laid down in the last Royal Warrant on the subject, which have been already published in the Journal.]

ARMY MEDICAL SERVICE.

Surgeon-Major Tobias Barnwell has been granted retired pay, with the honorary rank of Brigade-Surgeon. Mr. Barnwell entered the service September 22nd, 1858; became Surgeon March 1st, 1873; and Surgeon-Major April 1st, 1873. He was in the war in Egypt in 1882, and has the medal and Egyptian bronze star granted for that campaign.

Surgeon-Major Edward Eustace has also gone on retired pay, with a step of honorary rank. He became an Assistant-Surgeon September 30th, 1864; Surgeon, March 1st, 1873; and Surgeon-Major, September 30th, 1876. He does not appear to have seen war-service.

Surgeon-Major W. O'B. White has likewise retired as Honorary Brigade-Surgeon. His commissions date: Assistant-Surgeon, March 31st, 1865; Surgeon, March 1st, 1873; and Surgeon-Major, March 31st, 1877. He also is not credited in the *Army Lists* with having seen war-service.

Surgeon-Major Thomas Allman, Surgeon to the 3rd Battalion of the Connaught Rangers (otherwise the South Mayo Militia Rifles), has been promoted to be Surgeon-Major.

Mr. A. H. Twining has been appointed Acting-Surgeon to the 2nd Devonshire Artillery Volunteers.

Acting-Surgeon William Draper, of the 1st East Riding of Yorkshire Artillery Volunteers, has been promoted to be Surgeon.

Surgeon H. G. Dyer has been appointed Surgeon, and Acting-Surgeons Edward Roe and J. G. D. Douglas, M.D., have been made Acting-Surgeons to the 4th Hampshire Volunteers. These gentlemen are from the 2nd Hampshire Volunteers, and are to have the same rank and date of commission as those held by them in this corps.

Honorary Assistant-Surgeon W. S. Batten has been gazetted Surgeon to the 2nd Volunteer Battalion of the Worcestershire Regiment (late the 2nd Worcester Volunteers).

Surgeon and Honorary Surgeon-Major Robert Fothergill has resigned his commission in the 1st Volunteer Battalion of the Princess of Wales's Own Yorkshire Regiment (formerly the 1st North Riding of Yorkshire Volunteers), with permission to retain his rank, and wear the prescribed uniform.

The appointment of Surgeon-General J. Irvine, M.D., who it has been already announced has been nominated by the Horse Guards to succeed Surgeon-General C. D. Madden as Surgeon-General to Her Majesty's Forces in Madras, has been duly notified in India.

Surgeon F. B. Maclean, who has been doing duty at the Station Hospital, Wellington, Madras Presidency, has been ordered to proceed to Bangalore, and accompany the 1st Battalion of the Oxfordshire Light Infantry (the old 43rd Foot) to Quetta.

Surgeon A. E. J. Croly, who has been doing duty at the Station-Hospital at Bellary, is to do duty at the Station-Hospital at Wellington, Madras Presidency.

The appointment of Surgeon-Major L. A. Irving to be Medical Officer to Lord Reay, the new Governor of Bombay, is officially notified. He became Assistant-Surgeon April 1st, 1871; Surgeon, March 1st, 1873; and Surgeon-Major, April 1st, 1883.

Deputy Surgeon-General E. M. Sinclair, M.D., has been placed on half-pay on account of ill-health. His commissions are dated: Assistant-Surgeon, March 28th, 1854; Surgeon, June 28th, 1864; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, November 27th, 1879; and Deputy Surgeon-General, November 13th, 1881. Dr. Sinclair served with the 97th Regiment in the Crimea from November 20th, 1854, including the siege and fall of Sebastopol (medal with clasp, and Turkish medal). He served in Bengal, also in the 97th, in suppressing the mutiny in 1857-58, with the Jounpore Field-Force in the actions of Chanda, Unmeerpore, and Sultanpore; afterwards at the siege and capture of Lucknow, and in the operations in Bundlecund in 1859 (medal with clasp). He was also engaged in the Boer war of 1881 as Principal Medical Officer Lines of Communication and Base (mentioned in despatches).

Surgeon-Major W. F. Ruttledge has been granted retired pay, with the honorary rank of Brigade-Surgeon. His dates are: Assistant-Surgeon, March 31st, 1865; Surgeon, March 1st, 1873; Surgeon-Major, March 31st, 1877. He was in the war in Afghanistan in 1878-80, and has received the Afghan medal.

A telegram from Cairo, dated March 26th, says that the following sick left Assouan on the 25th: Surgeon O'Donnell (? Surgeon-Major R. W. O'Donnell), W. S. Pratt, M.B., and W. G. Clements.

Surgeon-Major A. L. Browne, M.D., doing duty at the Station-Hospital at Bellary, has been appointed Senior Medical Officer of that hospital, on the departure of Surgeon-Major L. M. White.

The name of Surgeon Conolly, whose death from enteric fever at Dongola was reported last week, was, by a telegraphic error, announced as Surgeon-Major Connolly. Surgeon P. B. Conolly died at the Right Camp, Shabadood, on the Nile, on March 18th. He entered the service on July 31st, 1880, and was in his 31st year, having been born on June 28th, 1854. He was engaged in the war in Egypt in 1882, was at the battle of Tel-el-Kebir, and had the medal and clasp and Egyptian bronze star granted for the campaign.

Deputy Surgeon-General J. Crerar died at the Royal Military Asylum, Chelsea, on March 21st. He entered the service on September 3rd, 1847; attained the rank of Surgeon April 6th, 1855, became Surgeon-Major April 17th, 1868, and retired on half-pay, with the rank of Deputy Surgeon-General, on January 23rd, 1878. He was appointed Surgeon to the School of Musketry at Hythe in 1878, and Medical Officer to the Royal Military Asylum at Chelsea on September 1st, 1881, and held this position until his decease.

Surgeon-General F. W. Innes, M.D., C.B., died at Hampstead, on March 23rd, in his 74th year. His commissions were dated: Assistant-Surgeon, February 10th, 1837; Surgeon, February 2nd, 1849; Surgeon-Major, October 1st, 1858; Deputy Surgeon-General December 31st, 1858; and Surgeon-General, November 18th, 1871. He retired on half-pay, May 28th, 1873. From *Hart's Army List*, we learn that Dr. Innes served as Superintending Surgeon to the force under Havelock and Outram from July 21st, 1857, until the fall of Lucknow in March 1858, and was thanked by the Governor-General for "his unwearied attention to the sick and wounded;" he was present in the actions of Oonao, Buseerutgunge (both), Boorbeeakechowkee, Bithoor, Mungarwar, Alumbagh, occupation of Alumbagh under Outram, siege and capture of Lucknow. He served with the Azimghur Field-Force in all the minor actions until the expulsion of the rebels from the Juddespore Jungle; also in Shahabad until the final suppression of the rebellion in that district (Medal with two clasps, C.B., and a year's service for Lucknow).

INDIAN MEDICAL SERVICE.

Deputy Surgeon-General M. C. Furnell, M.D., Madras Establishment, Sanitary Commissioner at Madras, has been appointed Surgeon-General with the Government of Madras from April 5th, in the place of Surgeon-General W. R. Cornish, C.I.E., whose tenure of office has expired. Dr. Furnell entered the service February 7th, 1855, and was engaged in the Indian Mutiny campaign in 1858, being present at the action at Dowdepore.

Deputy Surgeon-General G. Bidie, M.B., C.I.E., succeeds Dr. Furnell as Sanitary Commissioner at Madras. He joined the service February 20th, 1856, and also served during the mutiny in India in 1858-59.

Brigade-Surgeon J. M. Donnelly, M.D., Madras Establishment, has been promoted to be Deputy Surgeon-General. He dates as Assistant-Surgeon from July 3rd, 1856, and attained the rank of Brigade-Surgeon December 20th, 1883. He has no war record.

Deputy Surgeon-General A. J. Payne, Bengal Establishment, who retired about three months since, has been granted the honorary rank of Surgeon-General. Brigade-Surgeon W. P. Partridge, Bombay Establishmeut, and Brigade-Surgeons R. Pringle, M.D., and T. S. Veale, Bengal Establishment, have also received a step of honorary rank on their retirement.

The retirement of Deputy Surgeon-General W. Pearl, Madras Establishment, is also announced. He entered the service January 24th, 1855, and obtained the rank of Deputy Surgeon-General August 15th, 1881. He served in the Abyssinian war in 1867-68 (medal).

Brigade-Surgeon E. E. Lloyd, Madras Establishment, has also retired. He also joined on January 24th, 1855, and became Brigade-Surgeon April 1st, 1880. He was in the war in China in 1857 (medal).

It is stated that, on account of the scarcity of officers in the Indian Medical Service, it has been decided to grant commissions to the whole of the unsuccessful candidates at the recent examinations of the Medical Staff.

Surgeon A. W. D. Leahy, Bengal Establishment, Officiating Medical Officer, Malwah Bheel Corps, has been appointed Medical Officer in Cashmere.

Surgeon-Major R. L. Dutt, M.D., Bengal Establishment, Civil Surgeon of Pubna, has been appointed to act as Civil Surgeon of Rungpore during the absence on deputation of Surgeon-Major C. H. Joubert, M.B.

Surgeon-Major J. Ellis, M.B., Bengal Establishment, Civil Surgeon, has been transferred from Minpoorie to Alighur.

Surgeon M. Gaisford, Bengal Establishment, has been appointed Superintendent of the Central Jail at Rangoon.

The undermentioned gentlemen have been granted leave of absence for the periods specified: Deputy Surgeon-General A. M. Dallas, Bengal Establishment, Inspector-General of Civil Hospitals, Punjab, for 182 days on sick-certificate; Surgeon-Major R. E. Pearse, Madras Establishment, Principal Medical Storekeeper, Madras, for 90 days.

The undermentioned furloughs have been cancelled: to Surgeon M. L. Bartholomeusz, M.B., Bombay Establishment, Civil Surgeon of Sukkur; to Surgeon C. Monks, Bombay Establishment, Medical Officer of the 4th N.I., and Officiating Surgeon-General, Aden; to Surgeon-Major S. O'B. Banks, Bombay Establishment, Civil Surgeon, of Surat.

Surgeon-Major T. W. Whitelock, formerly of the Indian Medical Service, died at Regent's Park, on March 27th, in the 70th year of his age.

Surgeon-Major W. E. Johnson, M.D., Madras Establishment, Medical Officer of Coonoor, with charge of Kotagherry, has been appointed Civil Surgeon of Vellore.

Surgeon G. L. Walker, M.D., Madras Establishment, Civil Surgeon of Vellore, has been made Medical Officer of Coonoor, with charge of Kotagherry.

Surgeon D. Elcum, Madras Establishment, has been directed to act as Secretary to the Surgeon-General with the Government of Madras, *vice* Surgeon A. J. Sturmer, who is proceeding on furlough.

THE NAVAL MEDICAL SERVICE.

The following appointments have been made at the Admiralty during the past week: H. S. R. Sparrow, Surgeon to the *Asia*; J. Macdonald, Surgeon and Agent at Ardrossan.

F. H. Julyan, Surgeon to the *Triton*, additional; R. F. B. Halpin, Surgeon and Agent at Arklow, Mizen Head, and Kilmichael.

Superannuation.—Mr. Abraham J. Verity, late medical officer for the central district, the workhouse, and the Cottage Homes of the Bridgend and Cowbridge Union, has obtained a superannuation allowance of £29 *per annum*.

Welsh Mineral Waters.—The Welsh group of mineral waters, of which Llandrindod is the chief, has been rapidly growing in public favour. The accommodation at that place has been quite outstripped by the number of visitors. This has encouraged the foundation of an enterprise, which proposes to build a large hotel on the wooded slope above the springs, and looking down on the little lake. As the additional supply of accommodation is really wanted, we wish success to the undertaking.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE EFFECT OF THE "MEDICAL REGISTER."

We have several times, lately, had occasion to refer to cases relating to the provisions of the Medical Acts under which medical practitioners in this country must be registered, and unregistered persons are prohibited from recovering any fees for medical services rendered by them. The construction of these Acts has now come before the Court of Appeal, in the case of Davies *v.* Makuna, reported in the *Times* of April 23rd, and the decision given is most important. Mr. Davies, the plaintiff, is not himself on the *Register*, nor qualified to be registered, but he seems to have carried on a somewhat extensive practice, with the aid of qualified assistants. One of these assistants was Mr. Makuna, the defendant, and when engaged by Mr. Davies, he entered into the usual covenant not to practise in the neighbourhood where he was engaged as assistant. Subsequently, he broke the covenant, and on Mr. Davies bringing his action, set up the defence that Mr. Davies was not entitled to sue, being himself unregistered. The case has not yet been tried. Pending the trial, the plaintiff obtained from Mr. Justice Pearson an injunction restraining Mr. Makuna from practising in breach of his covenant, and that injunction has just been set aside by the Court of Appeal, who have held that the plaintiff is not so clearly right as to be entitled to restrain his quondam assistant from practising as he is doing. What may be the ultimate decision of the case we cannot prophesy, but the interlocutory judgment just given is a strong decision in favour of duly registered practitioners. The covenant and the breach were clearly established to the satisfaction of the Court, who intimated their disapproval of the defendant's conduct; but they felt such doubt as to the right of an unregistered man to avail himself of such a covenant, that they reversed the judgment already given in his favour. Two of the judges, indeed, threw out a hint that if Mr. Davies had employed assistants without practising himself, he might have been able to enforce the covenant. The point was not decided; and anyone who, relying on the above dicta, being himself unqualified, attempts to practise by means of assistants, may, perhaps, find himself involved in litigation of an unpleasant character. The only point that is clearly decided is that unregistered practitioners cannot invoke the courts of law to protect them in a practice, which is illegal in this country, even when it does not subject them to express penalties. But the decision of this point by the Court of Appeal is most important.

STILL-BORN CHILDREN.

Sir,—Can you tell me if any certificate is required from the medical attendant in the case of still-born children? If not, there ought to be, but I believe there is.

Is it generally known that lay baptism is held to be valid, and that consequently, it is the duty of the medical attendant, or even the nurse in his absence, to practise it in extreme cases, when there is not time to obtain the services of a clergyman?—I am, yours, Rusticus.

*** Section 18 of the Births and Deaths Registration Act, 37 and 38 Vict. chap. 88, enacts as follows:—"A person shall not wilfully bury or procure to be buried the body of any deceased child as if it were still-born.

"A person who has control over or ordinarily buries bodies in any burial ground shall not permit to be buried in such burial ground the body of any deceased child as if it were still-born and shall not permit to be buried or bury in such burial ground any still-born child before there is delivered to him either (*a*) a written certificate that such child was not born alive signed by a registered medical practitioner who was in attendance at the birth or has examined the body of such child or (*b*) a declaration signed by some person who would if the child had been born alive have been required by this Act to give information concerning the birth to the effect that no registered medical practitioner was present at the birth or that his certificate cannot be obtained and that the child was not born alive or (*c*) if there has been an inquest an order of the coroner. Any person who acts in contravention of this section shall be liable to a penalty not exceeding ten pounds."

It is a well known fact that anybody can baptise a child should it be deemed necessary, but it is evident that this does not apply to still-born children.

Unfortunately, there is no registration of still-born children, and the law as stated above is, in our opinion, open to serious abuse. The records of the Coroner for Central Middlesex show, frequently, that nurses and others have certified infants as still-born when they have lived for hours, and sometimes days, thus laying the door open to abuse and crime.

We think that the certification of still-born children should be done by a duly qualified medical practitioner only, and that the facts should be registered by the registrar of deaths for the district.

Medical Magistrates.—Dr. Herbert C. Taylor and Mr. Ebenezer Walker Kemp, surgeon, qualified as Justices of the Peace for the West Riding of Yorkshire at the Easter Quarter Session.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Friday, April 24th.

Burgh Police and Health (Scotland) Bill.—The Earl of Dalhousie, in moving the second reading of this Bill, stated that it dealt with the whole of the municipal regulations of towns, and was intended to consolidate and amend existing legislation. The towns of Scotland were very anxious that their sanitary arrangements should be incorporated with the Burgh Police Acts. The towns were nearly unanimous, with the exception of the Police Commissioners of Glasgow. Previous Acts were permissive, but these were found unsatisfactory, and it was thought desirable that this Bill should be, to a great extent, compulsory. There was no new principle in the Bill, and in asking the House to assent to the second reading, the Government were not inviting their lordships to take a leap in the dark. After some discussion, the Bill was read a second time, and was ordered to be referred to a select committee.

Cremation.—The Earl of Onslow called attention to the erection of a public crematorium at Woking, and the cremation of a body there on March 26th last, and inquired whether Her Majesty's Government would use whatever powers they had in the matter for the discouragement of the practice.—The Earl of Dalhousie said that he did not quite know what the powers of the Government in the matter were. Some time ago they were asked to legislate with a view of regulating the practice by certain safeguards. The reply of the Secretary of State was that the people of this country were not inclined to adopt it as an ordinary mode of disposing of the dead. He would endeavour to ascertain what the views of the Secretary of State now were.

Monday, April 27th.

Lunacy Acts Amendment Bill.—The Lord Chancellor moved the second reading of this Bill.—The Earl of Milltown thought that the Bill, while doing much, did not go far enough to satisfy public opinion. He regretted that the Government had not seen their way to compulsorily vesting private licensed houses in some public body, and thus getting rid of the present system carried on by lunatic asylum keepers. So long as that system, which had been described by Lord Shaftesbury, in the strongest terms, as being utterly objectionable, was allowed to continue, he feared that the public would never be satisfied with any solution of the question. He also regretted that the Bill did not contain provisions securing that the proprietor of such a house should be a properly qualified and fit person for the post, and that the medical officer should be an independent official. There were other points on which he should like to see the measure improved, as with reference to the mode of capturing and detaining supposed lunatics, the duties of visiting committees, and the powers of magistrates.—The Lord Chancellor said he heartily shared the regret of the noble Lord, that the Earl of Shaftesbury was unable to be present. There was one matter which would always prevent him from regarding this measure with complete satisfaction, and that was that, after fifty years of valuable service, Lord Shaftesbury had felt it better that he should resign his office as Chairman of the Lunacy Commissioners. Had it not been thought necessary to introduce the authority of the magistrate for the future, Lord Shaftesbury might still, in spite of other reasons, have retained his position on the Commission. His public services had been very great, and under his administration the Laws of Lunacy had been transformed; and he was perfectly sure their administration in this country would bear comparison with that of any other country in the world. At the same time, he thought it was impossible to resist the general public opinion which they found to be widely prevailing, and to be supported by very high judicial authority, that the time had come when some intervention of a public magistrate was necessary for the satisfactory working of the Law of Lunacy, so as to prevent, as far as human foresight could, the possibility of abuses in treating persons as proper subjects of confinement who really might not be so. He thought that no good answer could be given to the public sentiment that they ought to make them not only as unfrequent but as impossible as by reasonable regulation could be done, so long, of course, as they did not sacrifice the great object of all lunacy laws, which was the proper and careful treatment of those who were lunatics, and especially those who, by early treatment, might be cured of their disease.—After some remarks by Lord Stanley of Alderley, Viscount Cranbrook said that the real evil was the perfunctory way in which those entrusted with the execution of the Act discharged their duty.—The Bill was then read a second time.

Thursday, April 30th.

Poisons Bill.—Lord WROTTESLEY presented a petition from the chemists of Wolverhampton against the Poisons Bill; and a petition, complaining of certain of its provisions, was presented from the chemists of Cambridge by Lord HAMPDEN.

Contagious Diseases Acts.—The Earl of HARROWBY presented a petition from inhabitants of Redlands, Bristol, against the Contagious Diseases Acts.

HOUSE OF COMMONS.—Thursday, April 23rd.

Rags and Small-pox.—Dr. FARQUHARSON asked the Secretary to the Local Government Board whether his attention had been directed to a statement in the *Aberdeen Free Press* of April 15th, to the effect that two cases of small-pox had recently occurred among workers in the Woodside Rag Works; whether he was aware that previous epidemics of small-pox had been traced to the same source; and whether, in these circumstances, he would direct that these depôts of foreign rags, which had been proved to disseminate disease, should be subjected to very strict disinfection.—The LORD ADVOCATE said that he had communicated with the Board of Supervision in regard to this matter, and he was informed that the attention of the Board had been directed to the fact that small-pox had, on more than one occasion, occurred in the works referred to and others. In some of these cases, the infection had been traced to rags imported from abroad, as well as to the rags collected in this country. The Board's medical officer had made inquiries; but, as it appeared very doubtful whether, under the Public Health Act, the Board could compel the paper-makers to disinfect the bundles of rags before being used, the Board had mainly directed the attention of the local authority to the importance of making provision for the isolation and treatment of the infected persons. The action of the local authority of Woodside had been, on the whole, very successful in preventing the disease from assuming an epidemic form.

OBITUARY.

EDWARD WELLS, M.A. AND M.D. OXFORD, F.R.C.P. LOND.,

Senior Physician to the Royal Berkshire Hospital.

ON April 13th, at Ventnor, after an illness of about three weeks, Dr. Wells, of Reading, passed away. For more than a generation, Dr. Wells has been one of the most prominent figures, as well as one of the most deservedly esteemed and respected of the inhabitants, of Reading. It is no exaggeration to say that the news of his death, although not wholly unexpected, created a profound shock throughout the town; for not only was he exceptionally valued by his own circle for his high qualities of head and heart, but also beloved by the poor for his unfailing charity and sympathy. No movement for the good of the town in which he so long resided lacked his hearty support; and no appeal in a good cause was made in vain, either on his time, his abilities, or his purse.

Edward Wells was born in 1813, at Wiston Vicarage, Sussex; his father (the Rev. George Wells, Vicar of Aldbourne, and Prebendary of Chichester, and holding also the private patronage of Manningford, Wilts) being then vicar of that parish. At the very early age of 11, he was admitted a foundation-scholar at Winchester. Of his school-days, a fellow-pupil says: "He was probably for some time the youngest boy in the school, and passed through all the studies always a popular boy. He continued at the school until he obtained a place on the roll at New College, Oxford, in 1831." In those days, there was a rule exempting undergraduates who entered at New College from public examination, and that is the reason that the name of the deceased does not appear in the Class-list. He was elected a Fellow of his College a few years after his admission. He took his M.B. degree at Oxford in 1840, and the degree of M.D. in 1845, when he also proceeded to that of M.A. In 1842 he was admitted a Member of the Royal College of Physicians of London, and in 1849 was elected a Fellow of the same College. After taking his M.B. degree, he became a student at St. George's Hospital, London. The great prize open to medical students in those days was the famous Radcliffe Travelling Fellowship, which has so greatly aided the research of Oxford scientists, and which was then tenable for ten years, five of which had, by the conditions, to be spent abroad. Dr. Wells obtained this honour soon after he took his full degree, and studied in the hospitals of Edinburgh and Paris. After his marriage, which took place in 1842, Dr. Wells continued his studies in the hospitals of Rome, Naples, and Paris; but, in June 1845, he relinquished the Radcliffe Fellowship, in order to settle at Reading, where he succeeded to the practice of the late Dr. Pritchard Smith. Dr. Wells was the senior physician and one of the governors of the Royal Berkshire Hospital, a consulting physician of the Reading Dispensary, president of the Reading Pathological Society, a trustee of the Reading Charities, and chairman of the Committee of the Schools of Science and Art, to the promotion and success of which his cultured taste and unwearied energy contributed in a very large degree. For some years, he held a seat in the corporation. Always of studious and literary tastes, Dr. Wells was more of a reader and thinker than a writer; but he contributed some valuable monographs on clinical subjects; among them, the well known *Essays on Cretinism and Goître*, in which his foreign studies greatly aided him.

The funeral took place on April 18th, and was very largely attended.

At a meeting of the Free Library and Museum Committee of the Corporation of Reading, held on April 17th, the following resolution, moved by Mr. W. I. Palmer, and seconded by the Mayor, was unanimously agreed to: "That this committee desire to record their sense of the great loss which they and the town have sustained in the removal by death of Edward Wells, Esq., M.D. By his distinguished abilities and long continued labours in the establishment and maintenance of institutions having for their object the promotion of literature, science, and art, he was eminently qualified for membership of this committee. This committee also desire to express their sincere condolence and sympathy with the widow and other members of the deceased's family in their sad bereavement."

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

FEVER AND SMALL-POX IN LONDON.

AT the meeting of the Metropolitan Asylums Board, on Saturday, the returns from the fever and small-pox asylums showed that there had been a renewed outbreak of small-pox during the last fortnight, and that in one day as many as sixty patients had entered the wards of the asylums, a number larger than on any day since the outbreak of the epidemic in June last. In the month (four weeks) there had been received 874 fresh cases, and there had been 123 deaths. There had been 540 of the 852 who remained under treatment a month ago discharged cured, and there now remained 1,039. Of these, 566 were in the Darenth Camp, 340 were in the ships, while the balance were in the six urban asylums in the different districts of London. With regard to fever, 127 cases had been admitted to the asylums in the four weeks, 20 had died, and 166 had been discharged, leaving 234 in the five urban asylums, 174 of scarlet fever cases, 3 of typhus, and 57 of enteric fever, a diminution of the number under treatment of 59, as compared with the reports a month ago. The Board agreed, that in face of the small-pox returns, it would not be advisable to close the North-Western and Western asylums against small-pox. Memorials were received against the continuance of the Hampstead asylum for small-pox, as a nuisance in a "crowded neighbourhood;" and, on the other hand, objections were taken by rural authorities in the Darenth district, but miles away from the camp, to the association of small-pox with that neighbourhood. A great outcry had been raised, that a woman had died at Stone of small-pox, which was attributed to the asylum; but investigation proved that the woman died of abortion, and want of proper attendance.

THE ASYLUMS BOARD AND DR. BERNARD.

THE subject of the supersession of Dr. Bernard, as medical superintendent of the Stockwell Small-pox Asylum, came before the managers at their meeting on Saturday. Sir E. H. Currie, on behalf of the General Purposes Committee, proposed that a gratuity of £600 should be voted to Dr. Bernard, in recognition of his nine years' service. A demur was made to the proposal from two quarters—one party pressing that, as Dr. Bernard had been sent from Stockwell to the Darenth Camp for some undefined reason, and from the camp back to Stockwell, there must be some question of wrong-doing; while the other side urged that the sum proposed was too large. Sir E. H. Currie, in reply, said that Dr. Bernard had worked well and honestly for the Board for nine years, and had done good service for the sick poor of London. The only reason he had left the Darenth Camp was that the camp was

fitted up for six hundred patients, and there were eleven hundred, and the task was too great for Dr. Bernard. Eventually, the managers agreed to recommend that they should give Dr. Bernard £400.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,804 births and 4,271 deaths were registered during the week ending April 11th. The annual rate of mortality, which had declined from 23.5 to 23.1 per 1,000 in the three preceding weeks, rose again last week to 25.0. The rates in the several towns, ranged in order from the lowest, were as follow:—Brighton, 20.0; Leeds, 20.5; Derby, 20.9; Norwich, 21.2; Portsmouth, 22.1; Hull, 22.4; Leicester, 22.6; Salford, 23.0; Sheffield, 23.6; Bolton, 23.7; London, 23.8; Wolverhampton, 24.4; Liverpool, 24.7; Plymouth, 24.7; Bradford, 25.1; Oldham, 25.2; Bristol, 25.4; Blackburn, 25.5; Birmingham, 25.7; Nottingham, 26.7; Birkenhead, 26.9; Halifax, 28.3; Sunderland, 28.7; Cardiff, 31.7; Preston, 33.8; Huddersfield, 35.8; Manchester, 36.0; and Newcastle-upon-Tyne, 41.9. In the twenty-seven provincial towns the death-rate last week averaged 26.1 per 1,000, and exceeded by 2.3 the rate recorded in London. The 4,271 deaths registered in the twenty-eight towns included 164 which resulted from measles, 127 from whooping-cough, 49 from diarrhœa, 40 from small-pox, 35 from "fever" (principally enteric), 34 from scarlet fever, and 29 from diphtheria; in all, 478 deaths were referred to these principal zymotic diseases, against 457 and 466 in the two preceding weeks. These 478 deaths were equal to an annual rate of 2.8 per 1,000. In London the zymotic rate was 2.7, while it averaged 2.9 per 1,000 in the twenty-seven provincial towns, among which the zymotic rates ranged from 0.0 per 1,000 in Leicester and Bolton, and 0.7 in Nottingham, to 6.2 in Bristol, 8.3 in Sunderland, and 9.2 in Newcastle-upon-Tyne. The deaths referred to measles, which had been 176 and 173 in the two preceding weeks, further declined to 164, and caused the largest proportional fatality in Huddersfield, Sunderland, and Newcastle-upon-Tyne. The fatal cases of whooping-cough, which had increased in the three previous weeks from 119 to 130, were last week 127, and caused the highest rates in Manchester, Sheffield, and Bristol. The 35 deaths from "fever" showed a decline of 9 from the number in the preceding week; this disease was proportionally most fatal in Halifax and Norwich. The 34 fatal cases of scarlet fever showed a slight further increase upon recent weekly numbers, and caused the highest proportional fatality in Sunderland and Wolverhampton. Of the 29 deaths from diphtheria in the twenty-eight towns, 15 occurred in London, 4 in Cardiff, and 3 in Birmingham. Of the 40 fatal cases of small-pox, 36 occurred in London (exclusive of 4 deaths of London residents from this disease in the Metropolitan Asylum Hospitals situated outside Registration London), 2 in Sunderland, 1 in Manchester, and 1 in Leeds. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 830, 865, and 879 on the three preceding Saturdays, had further increased to 910 at the end of last week; the admissions, which had been 179 and 141 in the two previous weeks, rose last week to 185. The death-rate from diseases of the respiratory organs in London was equal to 6.6 per 1,000, and slightly exceeded the average. The causes of 109, or 2.6 per cent., of the 4,271 deaths registered during the week in these twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.—During the week ending the 11th instant, 870 births and 570 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had been 23.3 and 25.0 per 1,000 in the two preceding weeks, declined again last week to 23.4, and was 1.6 per 1,000 below the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 17.5 in Aberdeen, 18.5 in Edinburgh, 19.0 in Leith, 20.8 in Dundee, 23.3 in Greenock, 27.3 in Paisley, and and 29.0 in Glasgow. The 570 deaths registered during the week in these towns included 68 which were referred to the principal zymotic diseases, against 73 and 84 in the two preceding weeks; of these, 24 resulted from measles, 17 from whooping-cough, 10 from "fever," 8 from diarrhœa, 6 from scarlet fever, and 3 from diphtheria. These 68 deaths were equal to an annual rate of 2.8 per 1,000, which corresponded with the average zymotic death-rate in the twenty-eight large English towns. The zymotic rates in the Scotch towns ranged from 0.0 and 0.5 in Perth and Aberdeen, to 3.5 in Paisley, and 4.7 in Glasgow. The deaths referred to measles, which had been 19 and 23 in the two previous weeks, further increased to 24, and included 22 in Glasgow and 2 in Dundee. The 17 fatal cases of whooping-cough were but half the number returned in the preceding week; 10 occurred in Glasgow. The 10 deaths from "fever" exceeded the numbers in any recent week, and included 6 in Glasgow, and 2 in Greenock. The 6 fatal cases of scarlet fever showed a decline of 5 from those recorded in the preceding week; 4 were returned in Glasgow. A death from diphtheria occurred in Glasgow, Dundee, and Leith, respectively. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 5.5 per 1,000, against 6.6 in London. As many as 77, or 13.5 per cent., of the 570 deaths last week in these eight Scotch towns were uncertified.

HEALTH OF FOREIGN CITIES.—It appears, from statistics published in the Registrar-General's return for the week ending April 11th that the annual death-rate recently averaged 33.8 per 1,000 in the three principal Indian cities; it was equal to 29.2 in Bombay, 31.8 in Calcutta, and 41.2 in Madras. Cholera caused 12 deaths in Madras, 34 in Bombay, and 39 in Calcutta; 11 deaths from small-pox occurred in Calcutta; and "fever" mortality was proportionally greatest in Calcutta and Madras. According to the most recently received weekly returns, the annual death-rate in twenty of the largest European cities averaged 28.8 per 1,000, and exceeded by 3.8 the mean rate during the week in the twenty-eight large English towns. The death-rate in St. Petersburg was equal to 34.6, and showed an increase upon the rates in previous weeks; the 615 deaths included 15 from "fever," and 6 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 31.4, and ranged from 19.9 in Christiania to 42.1 in Stockholm. Measles caused 32 deaths in Stockholm; and scarlet fever, and diphtheria showed somewhat fatal prevalence in each of these three cities. The death-rate in Paris was equal to 26.7, and showed an increase upon the rates in recent weeks; 56 deaths resulted from measles, 45 from diphtheria and croup, and 23 from typhoid fever. In Brussels, the 201 deaths included 6 from scarlet fever, and 3 from diphtheria, and were equal to a rate of 25.0. The 28 deaths in Geneva gave a rate of 26.4. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rate averaged 27.0, the highest rate being 27.3 in Amsterdam; the deaths in Amsterdam included 8 from measles, and 4 from diphtheria; and 8 fatal cases of scarlet fever were reported in Rotterdam. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 28.8. per 1,000, and ranged from 23.2 and 25.0 in Berlin and Dresden, to 32.8 in Vienna, and 33.9 in Prague. Small-pox caused 20 deaths in Vienna, and diphtheria showed more or less fatal prevalence in all of these German cities, except Breslau. In Rome the death-rate was 21.3, and the deaths included 6 from small-pox, and 5 from "fever." The 88 deaths in Venice included 2 from measles, and were equal to a rate of 31.7. In Alexandria 160 deaths were returned, of which 8 were caused by whooping-cough, and 1 by small-pox; the rate was 36.0. In four of the principal American cities, the recorded death-rate averaged 26.1, and ranged from 19.9 in Baltimore to 29.9 in New York. Typhoid fever caused 12 deaths in Philadelphia and 3 in Baltimore; scarlet fever and diphtheria showed considerable fatal prevalence in New York, Brooklyn and Philadelphia.

HOSPITAL AND DISPENSARY MANAGEMENT.

COMPARATIVE EXPENDITURE OF METROPOLITAN HOSPITALS.

IN a paper read at a Conference of the Metropolitan Provident Medical Associations, Mr. Robert Frewer, Secretary of the Hospital Saturday Fund, gave some interesting statistics with regard to the cost of maintenance of out-patient and in-patient departments, which may be of use for reference. From an examination of the last annual reports, he had arrived at the conclusion, that the income of 72 hospitals and 39 dispensaries (exclusive of Guy's, St. Thomas's, and St. Bartholomew's Hospitals) was £765,000; the relief was given to 68,500 in-patients and 1,168,000 out-patients. An average of 6,000 beds were constantly occupied during the year, and there were about 4,000,000 attendances of out-patients. An analysis of those figures showed that each attendance of an out-patient cost 8¼*d.*, and every bed occupied cost £1 14*s.* 4*d.* per week. In three of the largest hospitals he found the beds were maintained at a cost of £1 9*s.* 10*d.* per week, and that each attendance of an out-patient cost 7½*d.*; while at three

of the smallest hospitals the cost per bed was £1 8*s.* per week and 7*d.* for each out-patient. At one small hospital, of good repute, with 17 beds occupied on an average, each bed cost 25*s.* per week, while the larger hospitals, having 282 and 187 beds, were only able to maintain those beds at a cost of £1 13*s.* 6*d.* per bed per week. The cost per bed for special hospitals ranged from £1 to £5, and the cost for each attendance for an out-patient ranged from 3*d.* or 4*d.* to 3*s.* or 4*s.* One consumptive hospital maintained 30 beds at a cost of £1 7*s.* each per week, and another institution of the same character had 19 beds at a cost of £2 10*s.* each. Since King's College, Westminster, the London, and the Metropolitan Free Hospitals were able to maintain every bed occupied, in a state of efficiency, at a cost of 25*s.* per bed, and each attendance of an out-patient cost less than 6*d.*, he asked why the average reached £1 14*s.* 4*d.* for each bed, and 8¼*d.* for each attendance of an out-patient.

ANDERSON'S COLLEGE DISPENSARY.

From the annual report of the directors of the Dispensary of Anderson's College, Glasgow, submitted to the annual meeting of the subscribers to the Institution, it appears that, during the past year, 5,238 visits had been paid to the deserving sick poor, of which 1,418 were new cases. During the same time, there had been 15,466 consultations at the dispensary, of which 11,944 were new cases, while the number of prescriptions dispensed was 16,062. The directors regret to state that the ordinary annual income had not been able to cover the ordinary expenditure. The meeting, which was the seventh annual one, was presided over by Dr. Fergus, and the report was adopted by it.

COUNTY AND CITY OF WORCESTER PAUPER LUNATIC ASYLUM.

The thirty-second annual report of the County and City of Worcester Pauper Lunatic Asylum affords evidence of activity and zeal of the staff in the performance of their duties. The attention paid to pathological work is creditable to Dr. Cooke, the medical superintendent. We doubt the wisdom, however, of publishing cases and *post mortem* examinations in the annual reports, as the circulation of these documents is not confined to medical men. The right place for these details is surely in the medical journals, especially in the journal which is devoted to asylum-affairs. If, however, they be given in the annual report, it might be as well to make them intelligible, which the words "failed to the villous feel growth" (*sic*) can hardly be said to be. The statistical tables are incomplete, and do not appear to correspond with those which have been adopted by the Association of Medical Psychologists.

JOINT COUNTIES LUNATIC ASYLUM, ABERGAVENNY.

This asylum, for the counties of Monmouth, Brecon, and Radnor, appears, from the thirty-second annual report, to be in a satisfactory condition. New buildings have been erected at the Abergavenny Asylum, and are approved by the Commissioners in Lunacy; the number of patients accommodated being now nearly 800. The figures in the tables appended to the report are tabulated with commendable fulness and lucidity, contrasting in this respect with those of the Worcester Asylum. It is to be regretted, however, that no reason is assigned for the discrepancy between the percentage of cases recovered given in Table iv (*a*) and in Table iii. If the transfers are omitted in either instance, which does not appear, the fact might be stated.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

Examinations for Medical and Surgical Degrees: Easter Term.—For the degree of Bachelor of Medicine, the first examination will begin on Friday, June 5th; the second on Tuesday, June 9th; the third (Part i) on Tuesday, May 12th; the third (Part ii) on Wednesday, May 13th. The examination for the degree of Bachelor of Surgery will be held on Saturday, May 16th. The examination for the degree of Master of Surgery will be held on Friday and Saturday, May 15th and 16th. The names of candidates for the third examination and for the examinations in surgery must be sent to the Prælectors of their respective Colleges on or before Monday, May 4th; those for the first or second examinations on or before Tuesday, May 26th. The certificates of candidates, accompanied by their postal addresses, must be sent to the Secretaay not less than seven days before the beginning of the examination for which they are entered. The fees for the examination must be paid to the Registrary of the University before the certificates are sent in.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 23rd ultimo.

Messrs. F. H. Barendt, L.R.C.P.Lond., Liverpool; S. Hughes, L.S.A., Liverpool; C. B. Cooper, L.R.C.P.Lond., Liverpool; T. W. Fowler, L.S.A., Matlock; S. Barwise, L.S.A., Birmingham; G. H. Carrington, L.S.A., Eccles; H. J. Robson, L.R.C.P.Ed., Leeds; R. Crosby, L.S.A., Sunderland; L. H. Armstrong, L.S.A., Cambridge Street, W.; T. A. Brown, M.B.Ed., Edinburgh; M. MacLaren, M.B.Ed., Edinburgh; R. S. Hubbersty, M.B.Ed., Stamford; F. E. H. Smith, L.S.A., Bedford; W. Arnold, L.S.A., Altrincham; J. P. S. Hayes, L.K.Q.C.P.I., Tavistock Crescent, W.; and G. F. Collins, L.K.Q.C.P.I., Dublin.

Six gentlemen were approved in Surgery, and, when qualified in Medicine, will be admitted Members of the College; three candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months, one for nine months, and one for three months.

The following gentlemen were admitted Members on the 24th ultimo.

Messrs. B. H. Scott, L.R.C.P.Ed., St. Peter's Road, E.; W. Joberns, L.S.A., Walsall; H. S. Cook, L.S.A., Birmingham; G. H. Melson, L.S.A., Knowle, Warwickshire; G. C. Hall, L.S.A., Birmingham; J. W. Cockerill, L.S.A., Portsdown Road, W.; J. T. Simpson, L.R.C.P.Ed., Approach Road, E.; O. P. Beater, M.B.Dub., Dublin; W. H. Wigham, M.B.Durham, South Shields; M. J. Wakefield, M.B.Durham, Gateshead; T. H. Fisher, L.S.A., Southport; A. F. Whitwell, L.S.A., Shrewsbury; A. Matthey, L.R.C.P.Ed., Southampton; S. M. Hebblethwaite, L.S.A., Moor Allerton, near Leeds; G. G. Hodgson, L.S.A., Brighton; G. H. Hunter, L.S.A., Fishlake, near Doncaster; H. B. Strong, L.K.Q.C.P.I., Bernard Street, W.; and F. D. Crowdy, L.S.A., Harcourt's Buildings, E.C.

Three candidates were approved in Surgery; three were referred for three months, five for six months, one for nine months, and one for twelve months.

The following gentlemen were admitted Members on the 25th ultimo.

Messrs. H. W. M. Kendall, L.S.A., Bexley Heath; J. P. Brooks, L.S.A., Tollington Park; L. Barnett, L.S.A., Swansea; C. J. West, L.R.C.P.Lond., Warwick Street, S.W.; F. G. Failes, L.S.A., King's Lynn; A. D. Edginton, L.S.A., Southampton; G. H. Baker, L.S.A., Kensington; P. S. Brito, M.B.Aberdeen, Ceylon; H. T. W. Blakeney, L.A.H.Dub., Dorking; R. Evans, L.R.C.P.Ed., Granville Square, W.C.; W. Basset, L.R.C.P.Lond., Bristol; and W. C. Lysaght, L.R.C.P.Lond., Clifton, Bristol.

Two candidates were approved in Surgery, one was referred for three months, and one for six months.

The following gentlemen were admitted Members on the 27th ultimo.

Messrs. C. R. M. Green, L.S.A., Morpeth Street, E.; A. G. Hanson, Sydney, New South Wales; E. H. Morgan, Sydney, New South Wales; E. S. S. Davis, L.S.A., Fowey, Cornwall; F. Rothera, M.B.Ed., Nottingham; J. F. Harries, L.S.A., Shrewsbury; and H. E. Browne, L.R.C.P.Lond., Wisbeach.

Twelve candidates were approved in Surgery, five were referred for six months, and one for nine months.

The name of J. L. Rees, of the London Hospital, was admitted as having passed his examination in Anatomy and Physiology on the 15th ultimo.

The following gentlemen were admitted Members on the 28th ultimo.

Messrs. W. H. Booth, L.R.C.P.Lond., Plymouth; F. P. Maynard, L.R.C.P.L., Barnes; C. L. Walsh, L.R.C.P.Lond., Oxford; F. J. Smith, L.R.C.P.Lond., Bishopsgate Street; H. Armstrong, L.R.C.P.Lond., Chalcot Crescent, N.W.; H. Tanner, L.R.C.P.Lond., Bicester; R. Creasy, L.R.C.P.Lond., Ealing; J. J. Garmany, M.D. Belle Vue Medical College, Savannah, Georgia; J. H. Blight, L.R.C.P.Lond., Sladesbridge, Cornwall; and G. N. Caley, L.R.C.P.L., Windsor.

Seven candidates were approved in Surgery, and nine were referred for six months.

The following gentlemen were admitted Members on the 29th ultimo.

P. H. Nutting, L.R.C.P.L., Warwick, of the London Hospital; S. L. Woolmer, L.S.A., Charrington Street, N.W., and W. P. Barrett, L.S.A., Cheltenham, of University College; E. Wood, L.S.A., Tottenham, of King's College; W. F. Pedler, L.S.A., Tiverton, of St. Bartholomew's Hospital; and H. Simmons, L.S.A., Ladbroke Grove Road, of the Middlesex Hospital

Seven candidates passed the examination in Surgery, and, when qualified in Medicine and Midwifery, will be admitted Members. One candidate was referred for three months, eight for six months, one for nine, and one for twelve months.

UNIVERSITY OF EDINBURGH.—The following candidates have passed the first professional examination.

C. M. Anderson, R. H. Beardsley, J. J. Bennetts, H. E. Bower, D. Brims, J. K. Browne, L. Bryson, F. H. Carlyon, G. A. Casalis, H. F. T. Chambers, L. E. Coméra, W. T. Crawford, E. C. Cridland, J. S. Davies, F. A. Day, H. Dobie, R. J. Drummond, A. S. Edwards, J. W. Edwards, J. A. Ewan, M.A., C. C. Fleming, J. W. Forbes, W. R. Forbes, J. G. Gillespie, M.A. (with distinction), T. Graham, E. E. T. B. Greville, V. B. Harley, A. Henderson, T. L. Johnston, O. Kloster, J. E. Kuhne, L. T. Lancaster, S. F. Lautrè, W. G. Laws, W. Lawton, R. S. Lee, A. D. Louttit, D. M'Bean, D. Mac Leod, J. M'Nidder, K. A. Matheson, K. Maxwell, G. E. Morrison, C. D. Musgrove, J. T. C. Nash, C. H. L. Palk, J. Petersen, T. D. Poole, R. R. Richardson, R. Richmond, D. Robertson, R. Robertson, J. G. C. Scott, R. G. Scott, E. Shaw, J. F. Smith, M.A., R. A. Smith, J. W. Somerville, F. N. Stewart, G. N. Stewart, J. Stoddart, S. Tully, F. R. Turton, R. B. Wallace, F. Watson, J. W. Watterson, R. W. West, A. Westwood, T. B. White, J. G. Williamson, W. Wilson, R. Wise, and F. S. Zaytoon.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The following candidates passed the joint examinations for the triple qualification granted by the above-named medical authorities at the April examinations held in Glasgow.

First Examination.—H. S. Belcombe, W. E. Bennett, D. Buchanan, H. Buxton, F. Cooper, G. Evans, W. E. Fellows, G. R. Fortune, W. J. France, W. F. Garrett, J. Hoyle, J. R. L. Jones, T. C. Jones, J. Kennedy, W. J. Leitch, A. J. M'Lean, N. P. Murray, W. J. Ryan, John Steele, Jonathan Steele, J. T. Wilson, J. T. Winton.

Second Examination.—D. Lees, J. Mason, A. C. Milne, J. T. Wynter.

Final Examination.—G. A. S. Gordon. M.A., A. Hill, J. B. Laing, F. G. Spittal.

UNIVERSITY OF GLASGOW.—The following are the pass-lists for April 1885.

First Professional Examination.—H. N. Bird, T. Cameron, A. Campbell, D. Craig, J. Crawford, J. Dewar, R. G. Dick, W. Dinsmore, R. J. Freebairn, R. Halliday, W. T. Hannah, T. W. Hay, T. W. Jenkins, M.A., J. W. Jordan, T. Laird, G. Lowson, J. R. Marshall, J. Melville, A. C. Morrison, W. H. Murray, J. M'I. M'Call, J. S. M'Conville, M.A., J. M'Corkindale, J. M'Kendrick, A. Park, T. L. Paterson, W. F. Paton, M.A., D. J. Penney, J. W. W. Penney, D. Pryde, D. Revie, W. Russell, A. Shanks, H. R. Sloan, J. M. Stewart, D. Stone, A. Tannahill, G. Thomson, J. B. Wallace, W. Wallace, M.A., J. D. Wilson, R. J. Wylie.

Second Professional Examination.—J. Bruce, A. Butler, J. G. Connal, S. S. Dale, T. T. Downie, J. K. Duff, M.A., A. Duncan, D. Elliot, A. G. Faulds, W. R. Forrester, A. Gray, H. Gray, R. C. Highet, G. F. Hilliard, R. Hogg, A. D. Hughes, J. A. Jackson, J. Jago, H. W. Kilpatrick, T. Kirkland, J. Love, J. Marshall, W. Millar, R. C. Miller, J. K. Morton, J. Muirhead, C. M'Bryde, J. M'Donald, T. L. Macfarlane, T. M'Geoch, A. H. M'Lean, W. T. Nicholson, H. Rhodes, H. W. Robinson, W. P. Sandilands, C. E. Scanlan, A. Shah, W. Snodgrass, M.A., J. B. Stewart, J. Stewart (Lochgilphead), R. Stirling, E. B. Tant, J. A. Ure, T. Watt, M.A., E. Williams, G. Wills, D. Wingate.

Third Professional Examination.—B. J. Adam, A. W. Aird, W. M. Alexander, M.A., B.Sc., R. M'G. Beattie, J. A. Brown, W. F. Brown, A. T. Campbell, A. Carmichael, R. K. B. Crawfurd, J. R. F. Cullen, J. Currie, J. F. Davidson, G. W. Davis, D. M'K. Dewar, J. K. Duff, M.A., W. H. Fergus, R. I. Gardner, B. E. Goff, R. W. T. Haddow, R. Hamilton, W. Hay, R. Henry, H. Hickin, W. H. Manners, J. Marshall, W. Marshall, A. L. Mathieson, A. E. Miller, H. W. B. Monteagle, D. S. MacColl, J. M'Conechy, H. M. M'Houl, C. A. MacKechnie, A. A. MacKeith, J. MacKeith, J. M'Lachlan, D. T. MacLeod, J. A. Macquarie, W. Pyle, R. Ramsay, J. Ritchie, R. Robertson, W. Robertson, J. Rowat, A. Roxburgh, H. W. Sinclair, J. Stewart (Renfrew), J. W. H. Steil, J. Thorburn, W. Wallace (Glasgow), W. Wallace (Greenock), J. Watson, J. Wyllie.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 23rd, 1885.

Gifford, George Taylor, King's College.
Hillier, Thomas Ernest, St. Bartholomew's Hospital.
Ritchie, Edward Duguid, St. Thomas's Hospital.

MEDICAL VACANCIES.

The following vacancies are announced.

BALLINASLOE LUNATIC ASYLUM.—Consulting and Visiting Physician. Salary, £100 per annum. Application to Resident Medical Superintendent. Election on May 11th.

COOMBE LYING-IN HOSPITAL, Dublin.—Assistant-Physician. Applications to Dr. S. R. Mason, 92, Harcourt Street, Dublin.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon. Applications by May 11th.

DUDLEY DISPENSARY.—Dispenser. Applications by May 6th.

ESSEX AND COLCHESTER HOSPITAL.—House-Surgeon and Apothecary. Salary, £100 per annum. Applications by May 21st.

HACKNEY WORKHOUSE.—Assistant Medical Superintendent. Salary, £120 per annum, with residence and rations.

HARTLEPOOLS FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary, £130 per annum. Applications to T. Tweddell, Commercial Terrace, West Hartlepool.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT, Manchester.—Honorary Assistant-Physician. Applications by May 5th.

HULL ROYAL INFIRMARY.—Assistant House-Surgeon. Applications by May 5th.

MANCHESTER ROYAL INFIRMARY.—Medical Registrar. Salary, £50 per annum. Applications by May 2nd.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—House-Surgeon. Salary, £50 per annum. Applications by May 5th.

OMAGH WORKHOUSE.—Medical Officer to Workhouse.—Salary, £100 per annum. Applications to Clerk of the Union. Election on May 2nd.

PAROCHIAL BOARD OF PENNYGOWN AND TOROSAY.—Medical Officer. Salary, £100 per annum. Applications to Alex. Macdougall, Inspector of Poor, Auchnacraig by Oban.

ROYAL BERKS HOSPITAL, Reading.—Senior Physician. Applications by May 23rd.

ST. MARY, ISLINGTON.—Medical Officer for the Upper Holloway West District Salary, £100 per annum. Applications by May 13th.

MEDICAL APPOINTMENTS.

HANDFORD, Henry, M.D., M.R.C.P., appointed Physician to the General Hospital, Nottingham.

HELM, Robert Dundas, M.B., C.M.Ed., appointed Resident Physician to the Royal Hospital for Sick Children, Edinburgh.

MACKENZIE, Hector W. G., M.A., M.B.Cantab., appointed Resident Assistant Physician at St. Thomas's Hospital, *vice* Percy Smith, M.D., resigned.

MYDDELTON-GAVEY, E. H., M.R.C.S.Eng., L.S.A.Lond., appointed House-Surgeon, Leeds General Infirmary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTHS.

REDMAYNE.—On Saturday, April 25th, at Ambleside, the wife of Hugh Redmayne, of a son.

WYLLYS.—April 23rd, at 23, King Street, Great Yarmouth, the wife of W. E. Wyllys, L.R.C.P.E., L.R.C.S.Ed., of a daughter.

MARRIAGES.

FARQUHAR—BUSBY.—April 23rd, at Huyton Parish Church, by the Rev. Canon Penrhyn, James Farquhar, M.D., Chattan House, Harrogate, to Mary Emma, third daughter of William Busby, Singleton House, Huyton, Liverpool.

HIGGENS—GREENWOOD.—On April 22nd, at Titchborne, Hants, by the Hon. and Rev. Everard Arundell, cousin of the bride, Charles Higgens, F.R.C.S., 38, Brook Street, W., Ophthalmic Surgeon to Guy's Hospital, to Eveline, eldest daughter of the late Colonel Greenwood, of Brookwood Park, Hants.

MATTHEWS—VEVERS.—On April 20th, at Holmer Church, by the Rev. A. E. Evans, M.A., Samuel Richard Matthews, M.D., Hereford, to Maria Elizabeth (May), youngest daughter of Henry Vevers, Esq., of Highmore House, Hereford.

DEATH.

DUNCAN.—On April 22nd, at 6, Harley Street, Cavendish Square, W., after a few days' illness, Ada Mary, the loving and much loved wife of William A. Duncan, M.D., F.R.C.S.Eng., aged 28 years.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Odontological Society of Great Britain, 8 P.M. Casual communications by Messrs. E. Lloyd Williams, T. J. Hutchinson, W. A. Hunt, David Hepburn, and C. W. Dunn of Florence. Dr. W. St. George Elliott: "Bridge Work;" with Remarks on Electro-Motors.

TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. Charlewood Turner 1. Tumour of the Brain; 2. Posterior Sclerosis of the Cord (card). Dr. Norman Moore: Malignant Disease of the Cranial Bones in a Child. Dr. Dyce Duckworth: Sarcoma of the Lung and Brain in a Child. Dr. G. N. Pitt: The Viscera of a Syphilitic Infant. Dr. Payne: Varicella Gangrenosa. Mr. Paul: A Group of Cases of Primary Carcinoma of the Liver (card). Mr. Shattock: Actino-Mycosis of the Liver (card). Mr. Bilton Pollard: Callus of the Tibia and Fibula. Dr. Hadden: Chronic Cerebro-spinal Meningitis Mr. Sutton: Typhoid Fever in Animals. Mr. Battle, for Mr. Croft: 1. Primary Sarcoma of the Kidney (card); 2. Fistula between Small Intestine and Bladder (card). Mr. Doran: Pedunculated Fibroma on the Outer Wall of an Ovarian Cyst (card). Mr. D'Arcy Power; Three Specimens of Encysted Hernia (card). Dr. Percy Kidd: 1. Tubercular Ulceration o Tongue (card); 2. Small Fibroma of Cæcum (card); 3. Tubercular Ulceration of Tongue, for Mr. H. H. Taylor (card). Mr. Churchill: 1. Congenital Papillomata of Mouth and Neck (card); 2. Acute Ostitis of Tarsus.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown by Dr. Horrocks and others. Dr. Matthews Duncan: On the Ulceration of Lupus of the Female Generative Organs. Dr. W. H. Day: Case of Uterin: Fibroid complicating Labour treated by Enucleation. Dr. John Williams: On Serous Perimetritis.

THURSDAY.—Harveian Society of London, 8.30 P.M. Mr. M. Handfield Jones Notes on a Case of Porro's Operation, with Specimen. Dr. A. de Watteville: Methods of Electrical Diagnosis in Nervous Diseases.

FRIDAY.—Clinical Society of London. Dr. Hadden: A Case of Obstruction on the Arteries and Veins extending over many Years. Mr. J. R. Lune: Osteitis Deformans. Dr. Cayley: A Case of Hæmoptysis treated by the Induction of Pneumothorax, so as to Collapse the Lung. Mr. Charters Symonds: A Case in which, at the request of the late Dr. Mahomed, a Calculus was removed from the Vermiform Appendix for the Relief of Recurrent Typhlitis.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.— Samaritan Free Hospital for Women and Children, 2.30 P.M.— Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.— Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.— Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M. —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St.Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th. ; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

EARTH-CLOSETS.

ALPHA.—We have submitted the query of "Alpha" to Mr. Eassie, C.E., who writes:

*** Earth-closets ought never to be used, in our opinion, in the middle of a large mansion, even if it be in the country, and especially in the middle of a house upon an upstairs floor. They are very frequently used in a house, in basement, ground-floor, and bedroom-floors above; but in these cases, they are built out, so as to project beyond the outer wall of the house, deliver the soil, etc., down at once to the bottom floor, and have, moreover, the whole series connected with a large ventilating-shaft.

We are aware that earth-closets are often made use of in the sick-room, and perform excellent work, as long as they are wanted; but the requirements of our correspondent are of a permanent order, and when they have been tried, under the conditions mentioned, the smell from them has made itself manifest when the earth has been charged fully to the amount of its depurating power. Earth-closets are also quite unfitted for female use. If, however, "Alpha" have a predilection for an earth-closet, he cannot do better than go to Moule and Co., 5A, Garrick Street, Covent Garden, W.C. Our own impression is that, in this case, he will find a water-closet, with a ventilated soil-pipe continuation of full sectional area, disconnected from any drain or cesspool, the best thing he can hope for.

DISCOLORATION BY NITRATE OF SILVER.

SIR,—Dr. Althaus writes (*Sclerosis of the Spinal Cord*, p. 308) "Krahmer has shown that the minimum quantity of the nitrate which will produce argyria is 450 grains. The highest amount given should therefore be under 300 grains." Mr. Owen's patient may, therefore, continue to take half a grain daily for 600 days.—I am, etc.,

T. STEELE SHELDON, M.B.Lond.

Parkside Asylum, Macclesfield.

A MEMBER (Weymouth), perhaps will be good enough to furnish the formula of the preparation which he recommends.

THE COLLEGES AND THE TITLE OF DOCTOR.

SIR,—No doubt many besides myself are pleased to see the notice which Mr. Durham has given at the Royal College of Surgeons, as reported in the JOURNAL of April 11th. I have always felt how great a hardship it was for men who took the diplomas of M.R.C.S.Eng., and L.R.C.P.London, to have to put on the door-plates Mr. ———, Surgeon, and to be thought less of than their neighbour who had taken, for instance, M.R.C.S.Eng., and M.D. of an university whose examination was, at least, not more searching than that of the College of Physicians of London. Thus, for example, in my own case, I preferred to stay in London for five years, in order that I might hold the resident appointments at Guy's Hospital, believing the experience thereby gained would be more useful in after life than an M.D. (the London M.D. was beyond my reach); and yet men of my year, who did not take any resident appointment, and some who were not deserving of it, are now writing M.D. after their names, and are more highly esteemed by the public than those who have worked harder at their hospital but do not possess the magic letters. For my part, I do not see why the united Colleges should not grant the title M.D. to those who have obtained the M.R.C.S.Eng., L.R.C.P.London; but by all means let the M.D. of London University remain.—I am, sir, yours faithfully,

SURGEON.

*** In Mr. Durham's motion, all that is aimed at is the acknowledgment of a right of those who pass the conjoint examination to be called Doctor. There is no question at present of conferring the degree of M.D.

THE HAIR FALLING OFF.

F. R. C. S. writes:—There are several things to be inquired into before treating such cases. "Is there any syphilitic taint?" I have met with cases where the hair has fallen through being tied up so very tight. The excessive strain causes the hair to break, the nutrition of the hair-follicles being destroyed. How often does the patient wash the head and hair? This is very important. Has the patient suffered recently from some illness, as scarlatina, anæmia, etc.? Often the hair falls off, unless two or three inches be cut off at once. If none of these causes can be traced, he would recommend the following liniment: Dissolve one grain of cantharidine in 2 drachms of acetic ether, and add rectified spirit ʒiii, castor-oil ʒi, and oil of lavender 15 minims. Mix well. Apply this to the roots of the hair for three days successively; then the head should be thoroughly washed by an attendant, so as to have plenty of friction, with a good lather of warm soap and water—Pears's soap is generally recommended—otherwise, the lotion may accumulate, and cause too much irritation. If this do not have the desired effect, if the correspondent will write again, "F.R.C.S." will supply him with the formula of a lotion. With one or the other, and a few simple directions, he has generally found these cases amenable to treatment.

DR. V. POULAIN recommends a lotion of one grain of antimonium tartaratum to an ounce of distilled water. This was a favourite remedy with Professor Chelius, for alopecia.

CARBOLIC ACID IN INDIGESTION.

SIR,—Mr. Dixon has done us a kindness in bringing forward the use of carbolic acid in indigestion. It is, in my opinion, in cases of aphthæ, that its effects are most pronounced; in children I have found it almost a specific, and even in those bad cases, towards the end of life, it often affords relief. In the vomiting of pregnancy it is useful, but I find nothing, for that misfortune, equal to Hewlett's preparation of bismuth and pepsine.—Yours obediently,

The Towers, Torquay. J. B. RICHARDSON, M.B., L.R.C.P.

LUNACY LAWS.

MR. W. A. THOMSON.—The Blue-book referred to in the leading article published on April 4th, may be obtained from Messrs. Hansard, 32, Abingdon Street, Westminster, or through any bookseller. Title, Miscellaneous, No. 1, 1885, Reports of Her Majesty's Representatives at European Courts, and in the United States, on the Working of the Lunacy Laws in the Countries in which they reside. Price 1s. 5d.

Cardiff Provident Dispensary.

We hold with our correspondent that the publishing the list of medical officers, and honorary surgeons and physicians, on leaflets for general distribution, is open to just objection.

We should question whether those whose names are on the said leaflets can be at all aware of this practice, and do not apprehend that they would approve of it.

No such objectionable publicity or form of advertising is adopted in the better class of such associations. In the leaflets circulated by them, the names of the medical officers, whether general or honorary, are only to be learned on application at the dispensary itself.

An Institution for Locomotor Ataxy.

Sir,—Can any of your readers recommend me a home or institution for a man suffering from locomotor ataxy? He is quite blind, but able to walk, and can pay from ten to twelve shillings weekly.—I remain, sir, yours obediently,

J. S. K.

Permanganate of Potash.

Sir,—I do not know the points at issue in Dr. Simms' letter, but it may be of interest to that gentleman to say that I was permitted, in 1852-53, by the late Dr. Dyce, whose clerk I then was, to give pills of permanganate of potash to a diabetic patient in the wards of the Aberdeen Infirmary. As I made the permanganate myself, perhaps one need not seek far for the cause of a negative result.—I am, yours obediently,

Robert Smith.

Syphilis and Marriage.

Sir,—On page 875 of the Journal of April 25th, a "Junior Member" gives the case of a patient, aged 25, who contracted syphilis in March 1882, that is, just three years ago, followed by secondary eruptions; and the "Junior Member" asks if it will be safe for that patient to marry at once, or whether he ought to wait a year or so. This is a most practical question. If permitted to give my opinion on this very important point in syphilitic dogma, I would like to say that I concur with the advice given by yourself, and would say that it would be far safer for such a patient to wait a year, or even two years, before he thinks of reproduction. I used to think that, in the course of two years after the appearance of the initial lesion, male patients might be sure enough not to have syphilitic children; but in one case, a man with palmar psoriasis appeared to me to have infected his wife and child as long as six years after infection. As a rule, of course, men are incapable of giving syphilis to their offspring after three years have passed since they contracted syphilis; but women may have syphilitic children many years after they have contracted the disease, as I have had occasion to observe at the Rescue Society's Lock Hospital.—I am, sir, yours obediently,

C. R. Drysdale, M.D.,
Formerly Physician to the Rescue Society of London.

An Accessory Lobe to Left Lung.

Sir,—I find I have notes of a case somewhat similar to the one described by Mr. Laurence Humphry at the meeting of the Cambridge Medical Society on March 6th, and published in the Journal of April 25th.

On July 29th, 1882, while resident at the General Hospital, Nottingham, I made an examination of the body of a man, aged about 40, who had suffered from epilepsy for two years, and had died comatose. Lying upon the pericardium, and distant from the rest of the lung about 1½ inch, was a lobe of lung-tissue 1¼ inch long, ¾ inch broad, and nearly half an inch thick in the centre. It was attached to the anterior margin of the upper part of the lower lobe of the left lung by a double fold of pleura, in which were a few vessels. It was light in colour, and not much pigmented. It contained plenty of air, and was evidently lung-tissue. No microscopic examination was made, as I was going away for some weeks the following day, and on my return the specimen had been lost.—I am, etc.,

H. Handford.

"P. & O." should apply, stating his age, qualifications, and experience, with references, to the secretaries of the steam-ship companies, whose advertisements are to be always found in the newspapers.

Mr. H. de Styrap.—The indications given are insufficient. What French physician? and what antiseptic?

Cucaine in Dental Surgery.

Sir,—Having watched with very great interest the various reports in the Journal about the anæsthetic effect of cucaine, and especially so in connection with dental surgery, it may be of interest, and not out of place, If I record the effect it had upon myself during the extraction of four molar stumps (two upper and two lower). I went to Mr. Wilson (dentist), of Bangor, who, after applying the usual precautions of a corner of the napkin round the stumps, applied the crystals of the hydrochlorate freely around the upper stumps (in fact, some was dropping on my tongue). In about seven minutes, he extracted the stumps with comparatively little pain, and it was only after the extraction that the full effect of the cucaine was apparent. It commenced on the side of the tongue, then extended to the velum, then the side of the cheek, and lastly the gums (though they were the parts to which the salts were applied). It was therefore evident to me that its effect is felt more quickly, is more intense, extends more deeply, and is more lasting on those parts than on the gums. The lower stumps were extracted seventeen minutes after the first application, and decidedly with less pain; the effects on the tongue, cheeks, and throat were the same.—I am, etc.,

O. Trefor Williams, M.R.C.S.E.
Rhosygaer, Holyhead.

Causes and Cure of Hæmorrhoids.

In reply to "J. N. S.," we may remind him that authorities are much divided concerning the relation of damp seats to hæmorrhoids. As most people have sometimes sat upon damp seats, and as the disease in question is very common, the relation of cause and effect is not easy to trace. Confection of black pepper is an useful mild aperient for old persons or weak adults; but, like any other laxative, is never given indiscriminately amongst patients subject to hæmorrhoids.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. E. B. Holwell, Leeds; Mr. Thomas Allen, Uttoxeter; Dr. H. Rayner, Hanwell; J. A. C.; Mr. Simeon Snell, Sheffield; Mr. J. Limont, Newcastle-on-Tyne; Mr. C. J. R. Lawday, Everton, Liverpool; Mr. A. Thom, Crieff; Mr. W. L'Heureux Blenkarne, Buckingham; Dr. Rooke, Cheltenham; Dr. de Watteville, London; Dr. W. A. Duncan, London; Dr. C. R. Francis, Clapham; Dr. Cordwent, Milverton; The Secretary of the Faculty of Physicians and Surgeons of Glasgow; Mr. F. C. Reeves, Tynan, co. Armagh; The Director-General of the Army Medical Department; Mr. R. Kershaw, London; Dr. L. Lewis, Philadelphia; Mr. Herbert Shalmerdine, Edinburgh; F.R.C.P.; The Secretary of the Pharmaceutical Society of Great Britain; Mr. A. Kinsy Morgan, Bournemouth; Mr. W. F. Somerville, Glasgow; Dr. J. S. Walker, Hanley; Mr. F. W. Saberton, Manchester; Professor Brown, London; Mr. George Rendle, London; Our Aberdeen Correspondent; Dr. J. Herbert Stowers, London; Mr. R. Wade Savage, London; The Secretary of the London Stereoscopic Company; Mr. R. G. Price, Treorchy, Pontypridd; Mr. W. H. Jalland, York; Dr. Whitla, Belfast; Mr. T. M. Stone, London; Dr. C. S. Taylor, London; Mr. J. L. Jardine, Dorking; Dr. C. Theodore Williams, London; Medicus; Mr. T. Jenner Verrall, Brighton; Mr. M. S. Donald, Carlisle; Mr. A. T. Blagg, Clifton; Mr. W. Eassie, London; Mr. George Keating, Manchester; Mr. E. Berdoe, London; Dr. T. F. Chavasse, Birmingham; Mr. F. C. Montague, London; Our Birmingham Correspondent; Mr. J. Lionel Stretton, Kidderminster; Dr. Edis, London; Mr. Meadows, Great Yarmouth; Mr. E. Noble Edwards, Brighton; Mr. J. Carter, London; Mr. C. A. Collings, Guernsey; Dr. Danford Thomas, London; Mr. Johnson Smith, Greenwich; Mr. Vesey Fitzgerald, London; The Secretary of the Medical Society, London; Mr. A. Hodges, Ryde; Mr. Lawson Tait, Birmingham; Mr. A. N. Hopkins, Birmingham; Dr. F. Daly, London; Mr. E. C. Barnes, Hammersmith; Mr. Gilbert Smith, Birmingham; Dr. Drysdale, London; Mr. Daniel Mowat, Leytonstone; Mr. T. Proudfoot, Morpeth; Mr. Stretton, Kidderminster; Our Manchester Correspondent; Our Berlin Correspondent; Mr. W. E. Hacon, Hatton, near Warwick; Mr. F. S. Reynolds, Castle Donnington; The Secretaries of the Harveian Society; Dr. Handford, Nottingham; Dr. C. E. Saunders, London; Mr. J. G. Symes, Dorchester; The Secretaries of the Odontological Soc ety; Mr. P. W. Helm, Edinburgh; Mr. A. H. Benson, Dublin; Dr. G. F. Wales, Belfast; Mrs. Atkins, London; Mr. H. A. Master, Ixworth; Mr. W. D. Spanton, Hanley; Dr. Mickle, London; Dr. C. R. Fleury, London; Mr. T. W. Wilmot, Bradford; Mr. F. J. Hawthorn, Oaken; Mr. James Rhodes, Glossop; Mr. H. E. Spencer, York; Dr. S. D. Darbishire, Oxford; Mr. Cantlie, London; The Earl of Dalhousie, London; Mr. Mordey Douglas, Sunderland; Dr. J. Ingleby Mackenzie, Rugby; Mr. Herbert Rowe, Leeds; Mr. J. J. Byrne, Preston; Mr. A. J. Brodie, Colorado; Dr. Johnstone Macfie, Glasgow; Mr. Herbert Bracey, Birmingham; Our Edinburgh Correspondent; Our Paris Correspondent; Dr. Langmore, London; Mr. G. B. Atkinson, Cambridge; Dr. C. Parsons, Dover; Dr. F. Semon, London; Mr. J. N. Cook, London; The Secretary of the Pathological Society, London; The Secretary of the Clinical Society, London; Mr. J. L. Aymard, London; Sir W. MacCormac, London; Dr. B. G. Morison, London; Dr. Styrap, Shrewsbury; Our Glasgow Correspondent, etc.

BOOKS, etc., RECEIVED.

Illustrations of Clinical Surgery. By Jonathan Hutchinson, F.R.S. London: J. and A. Churchill.

In the Watches of the Night: Poems. By Mrs. Horace Dobell. Vol. VI. London: Remington and Co. 1885.

Clinical Lectures On Scrofulous Neck. By T. Clifford Allbutt, M.A., M.D., F.R.C.P. On the Surgery of Scrofulous Glands. By T. P. Teall, M.A., M.B. London: J. and A. Churchill. 1885.

A Text-Book of Pharmacology, Therapeutics, and Materia Medica. By T. Lauder Brunton, M.D., F.R.S. Adapted to the *United States Pharmacopœia* by F. H. Williams, M.D., Boston, Massachusetts. London: Macmillan and Co. 1885.

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THE ANNUAL ORATION,

ON

OLD AGE AND THE CHANGES INCIDENTAL TO IT.

Delivered before the Medical Society of London, Monday, May 4th.

By G. M. HUMPHRY, M.D., F.R.S.,
Professor of Surgery at the University of Cambridge.

Old age acquires a gradually increasing interest, as advancing civilisation enables a larger number of persons to attain to it, and affords them additional means of enjoying it, and profiting by it. From the schoolboy-day, now full fifty years ago, when the *De Senectute* of the great Roman orator made a lasting impression upon me, the subject of old age has had some fascination for me, though multifarious avocations have prevented my giving much attention to it. In the past year, the Collective Investigation Committee of the British Medical Association, at my instance, commenced an inquiry respecting aged persons, and issued a form, with a memorandum, for the purpose of collecting information of various kinds respecting the condition, habits, etc., past and present, of persons who had attained to advanced age. The minimum age for the subjects of inquiry was fixed at 80. We are indebted to many members of the profession, and to some others, for the returns they have taken the trouble to make, which at the present exceed 500, the number of males and of females being nearly equal. These have been, in part, carefully tabulated and analysed by myself, with the aid of my friend and assistant, Mr. A. Francis. It is not to be supposed that from this, or other investigations of the like kind, any very startling results will be obtained; for the hill of knowledge is mounted with slow and laborious steps; and we must be content to advance little by little. Moreover, I do not propose to weary you with many of the details of this inquiry, which, I may observe, is not yet completed, but to make a few remarks upon the subject of old age, which will be to some extent based upon information derived from the inquiry just mentioned.

We are, I think, too much accustomed in our ideas to limit the work of development to the periods of adolescence and maturity; and, indeed, the surpassing wonders of that work—I say surpassing wonders, for, unquestionably, the processes of development of an animal body are the most marvellous, the most mysterious, and the most interesting in the whole range of the physical world—are most fully demonstrated in the early periods of life. But they do not end in them, nor even when the body has been brought to its fully matured condition. They continue in a definite and orderly manner, though with lessened and lessening activity, to the termination of life, at whatever period that termination may occur. The march of changing events in the human body, from the age of 40 or 50 to 100, is as regular, as orderly, as developmental, though less quick, and therefore less apparent, as it is from birth to adolescence, or from conception to birth. It is one of the resultants of that inscrutable *vis*, call it what you will, and refer it to what you will, which makes all nature one, which determines the course and end of each animate and inanimate object, and by which, in the well known words of Keble,

"To its funeral pile this aged world is borne."

A main feature of the "ascending," if we may so call it, development—the development from birth to maturity—is an increase of material, an increase of activity, and an increase of strength—of passive or resisting, as well as of active, strength; and the main feature of the "descending" development—the development from maturity onwards—is a lessening of material, a lessening of activity, and a lessening of strength. In the normal "ascending" development, material and strength are added to the several parts of the body in due relation to their respective requirements, so that they may all grow on *pari passu*, and the proper harmony of proportion may be maintained between them; and in the normal "descending" development, the relative proportions of the several structures and organs are preserved, while weight, force, and activity are being lowered by gradual and well adjusted diminution of material and of nutritive activity. During the time that the bones are becoming lighter and less capable of offering resistance, the muscles become, in like proportion, lighter and weaker, and with a narrowing range of action; and the associated volitional and other nerve-apparatus exhibits a corresponding lowering of energy and force. The loss of will to run, jump, and indulge in athletic sports is, or should be, commensurate with the inability of the muscles to effect the requisite movements, and of the bones to bear the requisite shocks. There should not even be a sigh for what is gone, or a longing for its return, though great—perhaps greater than ever—may be the pleasure in beholding the perfection of bodily form, and in witnessing the manifestations of strength and activity in the supple frames of the young. The weakening of the heart and the diminished elasticity of the arteries provide a proportionately feebler blood-current; and a lower digestive power and a lessened appetite provide a smaller supply of fuel to feed, not enough to choke, the slowing fires. Thus the capacity for action is diminishing, and the demand for it and the material for it are diminishing also; and all are diminishing in due ratio to one another. It may be said, indeed, that at all periods of life the healthy and well working, and especially the enduring, quality of the body, depends upon a good adjustment, a good balance, of the several parts; and it is upon the well ordered, proportionately or developmentally regulated, decline in the several organs, that the stages which succeed to maturity are safely passed, and that crown of physical glory—a healthy old age—is attained.

A time comes at length when, in the course of the descending developmental processes, the several components of the machine, slowly and much, though equally, weakened, fail to answer to one another's call, which is also weakened, when the nervous, the circulatory, and the respiratory organs have not force enough to keep one another going; then the wheels stop rather than are stopped, and a developmental or physiological death terminates the developmental or physiological decay. The old man who had gone to bed, apparently much as usual, is found dead in the morning, as though life's engine had been unable to repair itself in sleep sufficiently to bear the withdrawal of the stimulus of wakefulness. Or some exertion may be followed by too great exhaustion. Dr. Willis, the attendant upon King George III, at the age of 90, after a walk of four miles to see a friend, sat down in his chair and went to sleep, or was thought to be asleep, but he did not wake again. Or some slight, unusual, scarcely noticed excitement may have the same result. A cattle-dealer, aged 98, who attended Norwich Cattle Market on a Saturday in December of last year, soon after talking and laughing somewhat heartily with a few friends on the following Tuesday, was found to be dead. Or, a slight indisposition, further lowering the status and force of some organ, fatally disturbs the feebly maintained equilibrium. A lady, aged 94, attended the early service at church, to which she walked a distance of a quarter of a mile, to and fro, caught a slight cold, and died in the night.

How much may those who pass gently into this natural or physiological death, be envied by the many sufferers under the protracted and painful pathological processes which too often induce a premature extinction of life! The most distressing part of medical duty is the being called upon to witness, with the inability to arrest, the onward course of disease, such, for instance, as that of a slowly but surely growing cancer, boring its way into the strong and sturdily resisting frame; and the great hope and aim of medical study is to prevent such fatal interferences with the developmental processes, and to enable these processes to work out, in their own uninterrupted way, the quiet, easy, gradual method of dissolution.

Yet, strange and paradoxical as it may seem, this gradual natural decay and death, with the physiological processes which bring them about, do not appear to present themselves in the ordinary economy of nature, but to be dependent upon the sheltering influences of civilisation for the opportunity to manifest themselves, and to continue their work. For the needs of the first, or infantile, period of helplessness, Nature has made a sufficient provision in the parental instinct which protects and nurtures the young. But this lasts only so long as the requirement for it exists. It ceases as soon as the young has the ability to help itself; and it does not return, and is not supplemented by anything of its kind. It gives way before that struggle for existence which is the engenderer of selfishness, dominating over all other impulses and shutting out all heed for the worn and weary, for the feeble and the decaying. These, being unable to help themselves, are crushed out by the various provisions which Nature makes for their destruction. The good result of this great seeming evil is that all in the natural, or primitive, animal world is in the ascendant to, or in the enjoyment of, bodily perfection. All teems with budding life, or full health and strength. To falter is to fall; forasmuch as the first evidences of weakness and the beginning of decay arrest themselves by preventing the power of self-maintenance in the weak and the decaying.

The same with disease. It, in like manner, stops itself. In-

deed, it scarcely can be said to be allowed to enter into the pure realm of Nature. Sick animals are not there provided for, have no abiding place there, and soon perish; so that there is no wasting and pining, no lingering fevers, no destroying cancers, no decrepid frames. Neither the bird that fails to elude the hawk, nor the hawk that fails to seize the bird, can long continue in existence. Each animal has its so-called enemy ready and at watch to deliver it from feebleness and disease; and the sudden destruction which awaits them all, without fearful premonition, and with little pain—this killing in lieu of death—instead of being, as it is sometimes regarded, a cruel feature in Nature's plan, is a happy provision for deliverance from the slower death which increasing failure or progressing disease would have involved.

Thus, in the economy of Nature, death is swift, and comes early, as soon, at least, as failure of strength renders the animal unable to protect, or provide for, itself; and man, it would seem probable, had no exemption from this sharp, though, on the whole, beneficent law of animal life. In early times, when the race was to the physically strongest, when health, and strength, and activity were necessary to provide the hand-to-mouth means of sustenance, and to give defence, when men and animals were much on a par in this and many other respects, early death must have been the common fate, being brought about by climacteric agencies, or by the tooth of the hungry beast, or by the hand of man himself. This, indeed, we still find to be the case among some of the rude races of mankind. But in man was the germ of a better order of things, the germ of sympathy with, of feeling and love for, others; which was besides and above the mere parental instinct, and which was calculated to counteract and over-ride the selfish bent, and to raise man in this, as in some other respects, above the mere animal. This has already done much, and it has still an ample field for future development. Through the growth of this germ, it was given to man to introduce a new factor into the economy of Nature, and, by forethought, by mutual co-operation, and by care for others, which are the very essence, at any rate, the very best feature, of civilisation, to prolong life, when, by this very forethought and sympathy, life had become more valuable; and when the prolongation of it had, consequently, become more desirable; and scope was thus afforded for the carrying out of those descending or senile developmental processes which must have been nearly dormant in the earlier periods of human existence.

It was not to be expected that this good seed should be without a blending with tares; and the scope thus given for the fuller development of the physiological processes gave scope also for the development of the pathological processes, and enabled the various diseases to spring up and take their course, afflicting not man only, but those animals also which come under his fostering or protecting influence.

It may therefore be said that the prolongation of life into and through the periods of decay, and into and through the processes of disease—indeed almost, if not quite, the very existence of decay and disease—are the result of human forethought and sympathy. In other words, decay and disease are, by civilisation, substituted for quick and early death. Without attempting to balance the pros and cons of this, we know it to be a position from which there is not, and ought not to be, any disposition to recede; and if there were the wish, there is not the possibility. The onward march of civilisation is a necessity, and the onward progress of disease will tend to go with it. But it does remain for forethought and sympathy to narrow the range of the evils they have themselves engendered, or which have sprung up with them; and it is pre-eminently the noble work of our profession to contribute to this—to weed out, and check the growth of, the morbid tares, and to help the good seed to grow on to its full harvest—to prevent, that is, the origin, and to arrest the advance, of disease, and to give to the body the best opportunities for health and longevity. In this great physical work, let it be remembered, we shall not, to any great extent, succeed, unless our efforts be accompanied by equal efforts to carry out the higher and more important work of removing those impurities in the moral atmosphere, for which civilisation has much to answer, and with which the sources and spread of disease are closely—more closely, perhaps, than we think—associated.

The first requisite for longevity must clearly be an inherent or inborn quality of endurance, of steady persistent nutritive force, which includes reparative force and resistance to disturbing agencies, and a good proportion or balance between the several organs. Each organ must be sound in itself, and its strength must have a due relation to the strength of the other organs. If the heart and the digestive system be disproportionately strong, they will overload and oppress the other organs, one of which will soon give way; and, as the strength of the human body, like that of a chain, is to be measured by its weakest link, one disproportionately feeble organ endangers or destroys the whole. The second requisite is freedom from exposure to the various casualties, indiscretions, and other causes of disease to which illness and early death are so much due. Now, in both these—notably in the second—woman has the advantage over man, and she consequently attains to greater age. In the report of the Registrar-General for 1873, eighty-nine persons were returned as dying at or over the age of 100. Of these, ten only were males; and the superiority of female life is well known by insurance-offices to exist, notwithstanding the higher rate of mortality that has been observed during the child-bearing period, and which, there is reason to think, is now slowly disappearing. That this superiority is not entirely due to the comparative freedom from exposures and to the greater temperance in the woman, but is partly a result of a stronger or more enduring inherent vitality, is shown by the fact that, even in the first year of life, when the conditions and exposures of male and female infants are the same, the mortality of girls is less than that of boys. A somewhat larger number of boys are born, but they are more difficult to rear; so that the females soon gain the numerical lead, and maintain it, with almost steadily increasing ratio, to the end.

This superiority may be to some extent associated with the less wear and tear in the smaller machinery of the woman's frame as compared with that of man; and one might expect that the small persons in both sexes would live longer than those of greater stature. This, however, scarcely seems to be the case. We find from our returns that the average height of the woman above 80 is about 5 ft. 3 in., which, allowing an inch for the shortening incidental to age, makes it to fall little, if at all, short of the average middle-age stature. The men also we find to be 5 ft. 6 in., which, making a corresponding allowance, gives them a good average height. It may also be observed, which we should not have expected, that the rate both of the pulse and of the respiration is quicker in the longer-lived sex. The average pulse in the women over 80 is 78 to 79, while that in the men is 73; and the respiration in the women is 22, while that in the men is 18 to 19.

It is a point of interest, in connection with the inborn, or hereditary quality, that phthisis is reported to have appeared in some of the immediate relatives—father, mother, brothers, or sisters—of 82 of the 500 aged persons, in 51 of the relations of the 250 females, and in 31 of those of the 250 males. In the reports of some of these, it is stated, to have occurred in several members of the family; and, in a few instances, the disease was manifested in both father and mother. It is evident, therefore, that the delicacy, or peculiarity, whatever it be, of constitution, which is associated with the tendency to the development of tubercle, is not only not incompatible with longevity, but is not unfrequently associated with it.

No other special peculiarities have been shown in sufficient numbers to deserve notice here. The greater proportion are reported to be of long lived families, to have enjoyed good health throughout their lives, to have had good appetite and good digestion, requiring little or no medicine, to have been moderate or small eaters, to have taken little alcohol, and, commonly, not much meat; they have been good sleepers; and they show no traces of gouty or rheumatic affection in the joints of the hands.

I have said that the main features in the downward, or senile, developmental process are a diminution of material, and a diminution of force; and I apprehend that, in the normal state, it should be simply this—such a diminution, with, perhaps, a slight addition to the amount of oily matter naturally existing in the tissues; and that the other changes and degenerations that are incidental to age are no part of, but are rather to be regarded as deviations from, or morbid departures from, the natural phenomena.

Let us consider the changes which take place in the skeleton, forasmuch as they are the most appreciable, and, in many respects, the most interesting. The bones which, up to maturity, had been gaining in weight and size, now gradually lose weight, but do not ordinarily diminish in size, as they do in atrophy from paralysis; indeed, they not unfrequently rather increase in size, from the continuance of a slow process of subperiosteal ossification. To this, in part, may be attributed the sharp outlines which the figure of old persons commonly acquires, except in the case of those who become corpulent. The absorption takes place first and chiefly in the more vascular and cancellous parts, the bony plates becoming thinned and removed, and the cancelli and the canals being enlarged and filled with marrow, while the bony tissue itself becomes often, though not always, more impregnated with oily matter. Hence, although the walls of the shaft are being gradually thinned from within, the ends of the bones are first and most affected, which explains the greater liability to fractures near the joints in old persons than in the middle-aged. This change, with the proportionate liability to fracture, is especially re-

markable in the trochanteric and cervical parts of the thigh-bones, the strength of which is so much dependent upon the strength and disposition of the cancellous plates.

This change takes place earlier in women than in men, which may be a consequence of the earlier cessation of active occupation in them, and the less amount of outdoor exercise they usually take; or it may be due to some natural predisposition in them, associated with a greater tendency to adipose degeneration in other parts, and evincing itself, occasionally, in an exaggerated manner, in the production of osteomalacia. The greater frequency of fracture of the neck of the thigh-bone in them is to be attributed to the greater weakening which the part thus undergoes, as well as to the more near approach to a right angle which the neck naturally forms with the shaft in women than in men.

The vascular and cancellous character of the alveolar processes of the maxillary bones renders these parts peculiarly liable to undergo wasting or absorption, causing the loosening and falling out of the teeth. This takes place earlier in women than in men. The average number of teeth, according to our returns, in men above 80, is 6, and in women, 3. Of 221 males, 57 are reported to be edentulous, and of 234 females, 113 are said to be in that condition. The process of absorption and loosening of the teeth also bears a relation to the sponginess of the alveolar processes, being greatest in the upper jaw, in which the teeth, in 455 of our octogenarians, in whom an account of the teeth is given, are 736, those in the lower jaw amounting to 975. For the same reason, they are greater in the molar and premolar regions than in the incisor and canine, the numbers of teeth remaining being 559 molars and premolars, 409 canine, and 743 incisors.

This absorption of the alveolar processes, and consequent removal of a part of the bodily machine which is in full and daily use, is remarkable, though it has something of a parallel in the removal of another cuticular appendage; namely, the hair of the head. For the reasons I have given, it can scarcely take place in the condition of struggle for existence of the natural animal world, or in man in his primitive state; and it is, accordingly, commonly observed that the unearthed skulls of our early ancestors are well provided with teeth. The loss of teeth would imply a decay which the early man could scarcely have survived. What effect, in more modern life, this loss has upon the general health and the duration of the body, is not easy to determine. It is often survived for many years; and it may be noted that, as before stated, it takes place more in women than in men, though they are the longer-lived. Civilisation is doing something to supply the deficiency, which it thus brings in its train, by providing artificial substitutes; and they are, at any rate, free from some of the disadvantages, such as disease and decay, associated with the natural organs.

It is remarkable how completely the alveolar processes become cleared away, so that scarcely a trace of them remains above or below; and the whole framework of the face, which ministered with them to mastication, is attenuated, and the body of the lower jaw is reduced to the narrow bar of its hard lower margin. At the same time, the resistance of the teeth being removed, the direction of the pull of the muscles upon the jaw is altered, so as to open out the angle of the bone and bring the ramus and the body almost into a horizontal line. Thus the form of the lower jaw returns nearly to that of the infant. But there is this great difference; that, whereas in the infant, the bone consists mainly of the tooth-bearing, or alveolar part, and the subalveolar portion scarcely exists; in the senile condition the latter only remains, the former having been cleared away.

A similar alteration of form in a bone, from an alteration in the direction of muscular force, or from pressure by other cause, may, as we know, be produced in any part of the skeleton, and at any time of life; and, a very analogous change to this in the lower jaw may be observed to take place in the neck of a thigh-bone after amputation in the thigh; for, the nearly horizontal pull of the muscles upon the trochanter, not being resisted by the vertical weight of the body upon the head and shaft of the bone will have the effect of widening, or opening out the angle. Some years ago I placed, in the pathological museum at Cambridge, two specimens illustrating this; and the fact is not without its interest in connection with the often debated question, whether the converse of this change takes place in old age, that is, whether the angle between the neck and the shaft of the thigh-bone becomes lessened. A change of the kind certainly takes place in the ascending period of life, the angle being widest in infancy and lessening during growth; and this change is more marked in females than in males, the difference in the angle of the thigh-bone between the two sexes taking place, in all probability, about the time of puberty, when the pelvis is widening in the female, and the hips are becoming more prominent. But, does this alteration continue in the descending period? I have taken some pains to ascertain this, and have made several measurements of the angle at the junction of the neck with the shaft of the thigh-bone in old people; and though I have, in some instances, found it less than in the adult, in the greater number of cases it was not so. I have not had the opportunity of making sufficient measurements to settle the question; but, so far as my observation goes, the change is the exception rather than the rule; and I am not aware that a change of the kind takes place in any other bone as a mere consequence of senility, without, that is to say, there being some alteration in the direction of the pressure or forces exerted upon the bone. In the bent back of old age, the vertebræ become modified in form; but this is a consequence of the stoop, from enfeebled action of the dorsal muscles, throwing the weight of the trunk too much upon the fore part of the spinal column.

The changes which take place in the skull, during old age, are interesting. Commonly they correspond with those in the facial part, and the whole cranium becomes lighter and thinner, and, therefore, smaller. In some cases, however, it acquires an increase of thickness, by deposit of bone on the interior of the brain-case, and chiefly of the calvarial part, which seems to depend upon the lessened pressure there, and the consequent greater afflux of blood, caused by the shrinking of the brain. The increase is usually most marked in the frontal region, which accords with the fact that the shrinking is most pronounced in the frontal lobes of the brain. In not a few instances I have found, as mentioned in my treatise on the skeleton, that there has also been an increase in the density and weight of the brain-case to such an extent that, in spite of the loss of the teeth and of the alveolar processes of the jaws, and the atrophy of the face, the weight of the entire skull exceeded that of the average adult skull. In a woman, reputed to be 103, whom I examined, the contrast between the thick, dense, heavy skull, and the extremely attenuated light thigh-bone, both of which are in the Cambridge Museum of Anatomy, is very striking. In connection with this change, and the cause to which it is referred, it may be observed that other parts of the osseous system, particularly the harder parts, are liable to undergo similar changes, leading to enlarged and sclerotic conditions, when, at any period of life and from any cause, they are subject to an increase of blood-supply.

The cartilaginous parts of the skeleton become somewhat thinner, which accounts for the loss of height in the aged; but I do not think that they usually undergo any other perceptible change in ordinary healthy old age. I have invariably found the costal cartilages soft in old people in whom I have had an opportunity of making an examination after death; the body of Old Parr, as described by Harvey, therefore presenting in this respect, as I believe, no exception to the general rule. And I regard the calcification of them to be a morbid rather than a senile change—a degenerative change to which the body is liable, as it is to cataract, bronchitis, and some other conditions, when it has passed maturity; and not one of the natural senile developmental processes. At whatever period of life it occurs—and it is not unfrequent about 60—it omens ill for the further prolonged wear of the fabric. It is not quite easy to put the condition of these cartilages to the test, especially in elderly persons. It may, perhaps, be best done by estimating the elasticity perceived when gentle pressure is made upon the lower part of the sternum, though there are obvious difficulties and objections to this method; and, of 274 returns in our inquiry upon this point, it is as much as can be expected that the elasticity should be stated to be distinct in 126; in the remaining 148, it is said to be indistinct.

It may, I think, in like manner, be said, with regard to the calcification of the arteries, that it is the result of a morbid process intruding itself upon, interfering with, and arresting, the normal progress of senile development. That it is not, at any rate to a perceptible amount, a usual accompaniment of old age, is shown by the fact that, in 362 returns respecting the condition of the arteries in persons over 80, these vessels are stated to be knotty in only 40, and even in 257; they are noted as being tortuous in 71. Moreover, the pulse is reported as compressible in 311, and incompressible in 72, in the returns relating to it. In the great majority of cases, therefore, the arterial system appears to present a healthy condition in those who attain to great age.

The rate of the heart's beats, according to our returns, does not vary much as age advances. From 80 to 90, it averages 73 to 74 in men, and 78 to 79 in women. It is stated to be regular in 322, and irregular or intermitting in 85.

The respiration in 110 returns of men between 80 and 85 averages 17 per minute. In 47 returns of men between 85 and 90, it averages 19 to 20; and in 16 returns of men at and over 90, it averages 23; in women, it is a little quicker. Thus, in 86 returns of women between

80 and 85, it averages 22; in 54 between 85 and 90, it is also 22; and in 37 at and over 90, it is 23. It has to be borne in mind, however, that the not unfrequent occurrence of bronchitis in the aged raises somewhat the average rate of respiration in them.

The failure of nutritive force in the brain manifests itself in the lessening of that power of concentration and quickness of attention upon which the sharp stamping of impressions and the ready recall of them depend; hence the memory for recent events is commonly impaired. The old man meanders on in his conversation, unconscious that he is repeating himself; he remembers the tales of long past times, but forgets that he has just told them. This may go on to the condition of senile dementia. Happily, it does not often do so; and it is satisfactory to note how many of the very aged are in good possession of their mental faculties, taking a keen interest in passing events, forming a clear judgment upon them, and full of thought for the present and future welfare of others. It is no less satisfactory to find that the active, even severe and long continued, functional activity of the matured brain seems in no way to impair its enduring qualities, and that good, earnest, useful employment of body and mind are not only compatible with, but even conducive to, longevity. A good example of this preservation of mental and bodily faculty to extreme old age was presented by Titian, who is related to have been engaged in painting a picture, which has its place in the gallery at Venice, when, in his ninety-ninth year, he was cut off by the plague. The wasting of the cerebral hemispheres, which is the accompaniment of failure and feebleness of the intellectual powers, diminishes the pressure in the cranial cavity, and so causes an increase of fluid in the subarachnoid lymph-spaces between the convolutions, and sometimes, as I have already mentioned, an increase in the thickness of the skull. A similar effusion into the connective tissue of other parts of the body, especially the lower limbs, probably, also, from deficiency of pressure upon the vessels, or lowered tension of the several tissues, is liable to take place, constituting a "senile œdema." This is no uncommon thing in the aged, and is sometimes induced by temporary causes, so that recoveries from it are not unfrequent.

Of the 157 males from 80 to 85, only six are stated to have, or to have had, disease of the prostate or bladder; and, of these, three had recovered from it, one at the age of 79, although the trouble had been of six years' duration. In one, the difficulty of micturition had existed for thirty years. Thus far, the evidence was favourable, and gave rise to a hope that, when a certain period of life had been attained, this serious and painful malady would be escaped. I find, however, that of the 72 males between 85 and 90, 17 are reported to be more or less sufferers from urinary troubles. In four of these, micturition is stated simply to be slow. In others, there is more or less irritability, or incontinence, or retention. One gentleman of 88 has been entirely dependent upon the catheter for forty years. In one only of the 30 returns of men above 90 is there any mention of affection of this kind. On the whole, therefore, although the prospect of escape from diseases of the bladder and prostate gland is not quite as good as I had anticipated from the returns of the men between 80 and 85, it is evident that the aged are, to considerable extent, free from this source of trouble. Indeed, the aged body does not seem to be, on the whole, prone to disease. Few of the returns indicate the presence of any special malady. We know that even cancers, when they attack old persons, often make slow progress in them, and sometimes fail to make way at all, remaining stationary, or even withering; and the susceptibility to contagious diseases appears to decrease from infancy to old age. The nutritive processes seem to be most easily led astray in early life, when they are in greatest activity, when there is most receptivity and excitability, and most quick communication of impressions from part to part, and from organ to organ.

In the BRITISH MEDICAL JOURNAL of the 12th July last, I offered some remarks on the repair of wounds and fractures in aged persons. I had frequently noticed that it, as well as the healing of ulcers, takes place as quickly as in middle-life—indeed, sometimes more quickly; and I gave the results of a collective investigation on a small scale, which were confirmatory of that view. Since then, many instances have been communicated to me by medical men which lead to the same conclusion.

I there remarked that "the statement must be qualified in a manner which savours rather of the paradoxical; namely, that wounds in old people heal quickly, provided they do not slough. That is to say, the apparently opposite tendencies exist at this time of life—namely, the tendency to slough and the tendency to heal quickly. Such, for instance, is the experience of oculists, whose testimony on the subject I have asked. They find that the cornea sometimes sloughs after the operation for cataract in old people; but that, when it does not slough, the wound heals quite as quickly as, or more quickly than, at an earlier time of life. So in other operations. The old person may sink, or the wound may slough or ulcerate; but, if these eventualities be escaped, a quick healing may be expected.

"Certainly this would not have been anticipated. We should not have thought, when the nutritive forces are generally failing, when strength and weight are diminishing, when repair is each year less and less able to keep pace with wear, as evinced, among other things, by the fact that exhaustion is more quickly induced and less quickly recovered from; when the brain is shrinking, and memory and other mental powers are lowering, and when the circulation is becoming weaker—that, under these circumstances, the nutritive or reparative processes concerned in breach-closing—in the healing of wounds and ulcers—should manifest an increase of energy—at any rate, of rapidity—in carrying on their work. I do not know well how to explain it; but this exceptional phenomenon of nutrition is not peculiar to old age. It may be observed in some other lowered conditions. The wounds in patients exhausted by large losses of blood usually heal quickly, as they also do after operations for cancer, and in many other debilitated conditions. I do not mean in persons of naturally strumous temperament, but persons who have been weakened by illness or in other ways. So do, commonly, the gaps caused by carbuncles, and bed-sores; and very remarkable is the quick healing of the stump left by senile gangrene; that is to say, this evidence of vital energy is manifested in the part next above that which was unable to keep alive at all. An exception must be made of certain impaired conditions of the nervous system, in which wounds and sores are sometimes very troublesome."

The fact that the fracture of the neck of the thigh-bone, which may be regarded as the old person's fracture, rarely unites, will be urged in support of the opposite and more generally accepted view on this point. "It is well known, however," to quote again from the same paper, "that this failure depends, not upon the age of the patient, or on any peculiarity in the structure of the bone, or upon any changes that take place in it during the later periods of life, though those changes are such as to cause rarefaction of its cancelli and greater liability to fracture, but upon other causes. Such causes, more particularly, are the separation of the broken surfaces, which commonly occurs; the buried position of the inner fragment in the cavity of the acetabulum, which prevents any overlapping of the fragments and any throwing out of uniting matter all around it; as well as the comparative absence, and, when the fibrous covering of the neck is torn through all round, the complete absence, of tissue in which that material can be produced; and also the bathing of the fractured surfaces by the synovial fluid. That these conditions, which are found to be more or less prejudicial to bony union of fractures into other joints, and not senility, are the real causes of failure in the case of the neck of the thigh-bone, is proved by the fact that union of bone will take place at this part of the skeleton as well as elsewhere, if the fractured surfaces be fixed in apposition either by any kind of impaction or by well adjusted appliances;" and that this will occur in the aged, there is ample evidence in our museums.

The same remark does not, I fear, apply to the repair after exhaustion from fatigue. The old person is soon tired, and does not recover quickly. The restorative processes of sleep are not so brisk in him as in the young. I have often, however, been surprised at the quick recovery of health and strength by old persons who have been depressed by indisposition and illness; and I have attributed this rallying power to the general soundness of the system, and the good working balance of the several organs which has brought them to old age. To what extent it is, as a general rule, shared by the aged, and may be relied upon in them, I must leave to wider experience to decide.

After all, length of life is to be really estimated not by numbers of years so much as by good work done, not by the amount of time spent in the tame fruitless manner indicated by the pithy words of Cowper:

> "For fourscore years this life Cleora led;
> At morn she rose, at night she went to bed;

nor by endeavours solely to advance our own fortunes, or reputation, or comfort, but by persevering efforts to promote the welfare of our fellow-men.

Thus considered, how large have been the lives which many of you have spent in long laborious days and watchful nights, with little present gain or prospect of future requital, in the out-patient and *post mortem* rooms of our hospitals, by the midnight lamp, or by the bedsides of the sick in this vast metropolis, where civilisation has worked out its best and its worst results. While wishing you yet many years of the like usefulness and its assured reward, I must express the feeling that it is not right or just that, in this, the wealthiest city the world has ever seen, and in this very wealthy land, so much of the time and energies—the best time and energies—of many of the

younger members of our profession should be devoted to attendance upon out-patients, and so much time of a far larger number of the profession should be employed in the onerous and anxious duties of the poor-law service, with such very inadequate pecuniary remuneration. For the sake of all concerned, reform is needed here.

I will only further add that there are many points in relation to longevity which I have alluded to only briefly or not at all; that it will be evident, from the few figures that I have given, that we need more information; that the forms and memoranda issued by the Collective Investigation Committee can be obtained from the Secretary to the Committee, at the office of the British Medical Association, 161A, Strand; and that we shall be obliged if any of those present, or other members of the profession, will contribute to our store, especially by making returns of persons who have attained or exceeded the age of 90 years.

REPORTS
TO THE
SCIENTIFIC GRANTS COMMITTEE
OF THE
BRITISH MEDICAL ASSOCIATION.

REPORT ON
THE CHOLERA-BACILLUS.

By W. WATSON CHEYNE, M.B., F.R.C.S.,
Assistant-Surgeon to King's College Hospital, etc.; Research Scholar of the British Medical Association.

(Continued from page 879.)

A VERY important point is the behaviour of this organism in gastric juice—important with regard to the etiology of the disease, and also important in reference to conclusions drawn by Dr. Klein from the results which he has obtained on this matter, to which I shall refer in the appendix to this report. I feel it, therefore, necessary to go into the details of my experiments on this subject, instead of merely stating my results.

Dr Koch tells us two facts with regard to the relation of acids to the cholera-bacilli; first, that certain acids, more especially the mineral acids, when present in the cultivating materials in small quantities, prevent the development of the bacilli; and, secondly, that the bacilli are killed in the stomach. The latter statement is based on the fact that, after feeding animals with cultivations of comma-bacilli, and then killing them, and testing the contents of the stomach and intestines by cultivation, he failed to find any comma-bacilli. I have made a number of experiments on this subject; and the method employed will, perhaps, be best understood if I describe an experiment which I performed, in presence of Sir Joseph Lister and some other gentlemen, with the view of making certain that there was no fallacy in the experiments, as they seemed to be opposed to experiments referred to by Dr. Klein. The explanation of the discrepancy between our statements will be given in the appendix; in the meantime, I shall give my own experiments.

The normal proportion of hydrochloric acid in gastric juice is generally given as 0.2 per cent.; and in the *Handbook for the Physiological Laboratory* the following mode of preparation is described by Dr. Lauder Brunton. "The ordinary strong hydrochloric acid, specific gravity 1.16, contains 31.8 per cent. by weight of hydrochloric acid gas. To prepare a dilute acid containing 0.2 per cent. of real hydrochloric acid, measure out, with a graduated pipette, 6.25 cubic centimètres of such acid into a litre flask; fill the flask up to the neck with distilled water, and shake so as to mix properly." I therefore prepared a 0.2 per cent. solution of hydrochloric acid in the above manner, and placed it in the incubator, as I thought, from previous experiments, that it acted more quickly at the temperature of the body than at the ordinary winter-temperature. On the previous day, I had inoculated with cholera-bacilli a flask containing neutralised meat-infusion and 1 per cent. pepton. This flask had been kept in the incubator for twenty-four hours; and the fluid was opalescent, from the presence of innumerable cholera-bacilli. I also had at hand a number of tubes containing the nutrient jelly, which had been rendered liquid at the temperature of the body; and also a number of covered dishes containing sterilised glass plates, on which to pour out the jelly. A control-experiment was first performed, to show that the addition of one or two drops of this dilute acid to the jelly did not interfere with the growth of the cholera-bacilli. To an ounce of distilled water were added two drachms of the turbid meat-infusion, containing cholera-bacilli; and the mixture was thoroughly shaken up. A tube of the liquefied jelly was now taken, and two minims of the dilute acid introduced, and then one minim of the diluted cultivation of cholera-bacilli. The material was then shaken up, poured out on a glass plate, and allowed to solidify. After it had solidified, the plate was transferred to a room kept at the temperature of 18° to 20° Cent. In thirty-six hours, enormous numbers of colonies of cholera-bacilli were seen throughout the gelatine; in other words, this amount of acid had not at all interfered with the growth of the bacilli. I may here say that I have performed at various times a number of similar control-experiments, with the same result. This control-experiment having been set a-going, I then took one ounce of the warm dilute acid, and added to it two drachms of the cultivation of cholera-bacilli. The mixture was then stirred; and, at various intervals of time, I added one drop of this mixture, with a pure pipette, to a tube of liquefied jelly. The jelly was then thoroughly shaken up, and poured out on a glass plate in a covered dish. After solidification (in about an hour), these dishes were placed at a temperature of from 18° to 20° Cent. I may give this particular experiment in a tabular form, with the result; and I would remind the reader of the result of the control-experiment in which the cultivation of cholera-bacilli had been diluted to the same extent, and in which, as a result, enormous numbers of colonies of cholera-bacilli developed.

No.	Length of Time the Acid Acted.	Result.
1	20 sec.	A large number of colonies, but not nearly so many as in control-experiment.
2	30 sec.	Number of colonies much fewer.
3	9 min., 56 sec.	No development.
4	10 min., 16 sec.	,,
5	22 min., 30 sec.	,,
6	22 min., 45 sec.	,,

At the same time, I tested an artificial gastric juice, made by taking one ounce of the above dilute acid, and adding to it one grain of pepsin. After this had stood in the incubator for about ten minutes, two drachms of the cultivation of cholera-bacilli were added to it, and tests were taken, as in the former experiment. A similar control-experiment to the above was also done, with the same result, that countless colonies of cholera-bacilli developed.

No.	Length of Time the Gastric Juice Acted.	Result.
1	45 sec.	A considerable number of colonies.
2	1 min., 15 sec.	A few colonies sparsely distributed over the plate.
3	9 min., 25 sec.	No development.
4	9 min., 35 sec.	,,
5	22 min., 45 sec.	,,
6	23 min.	,,

On the same occasion, also, I made a dilute acid solution containing only 0.02 hydrochloric acid, and tested its action in a similar manner. Up to fifteen minutes, but little difference was noticeable between the number of colonies on these plates and that in the control-experiment; but, in tests taken after half an hour, the colonies were not so numerous.

The meaning of the above experiments is to my mind quite clear; namely, that artificial gastric juice containing acid of the strength of 2 to 1250 (for the addition of two drachms of the cultivating fluid to the ounce of the gastric juice reduced its strength to the above), or acid of that strength alone at the body-temperature, very rapidly kills cholera-bacilli, so that in ten minutes none are left alive. As a matter of fact, I have ascertained that acid of this strength kills all the bacilli in two to three minutes. It might be thought that the acid added to the gelatine prevented their development, but the control-experiments dispose of that objection. Or it might be said that they have absorbed a certain amount of acid, and cannot get rid of it in the gelatine; whereas, if they were in a fluid, they would lose it again, and then grow. But they were put at once into fluid gelatine, and it was about an hour before the gelatine solidified; so that there was plenty of time for osmosis to occur. But I have disposed of this by the following experiment. A mixture of dilute acid and bacilli, prepared as above, was tested in the same manner, as follows.

No.	Length of Time the Acid Acted.	Result.
1	20 sec.	A considerable number of colonies.
2	65 sec.	Very few colonies.
3	2 min.	No development.
4	3 min.	,,
5	4.43 min.	,,

At 5.50 minutes, a drop was put into a flask containing about three ounces of an alkaline meat-infusion, with peptone. This was then placed in the incubator, at the temperature of the human body. No development occurred, although it was kept for several days.

It is worthy of remark that, had I not used the glass-plate method of cultivation, but the test-tube cultivations instead, I should have got quite an erroneous impression. Thus, in the above experiment, I also inoculated a number of test-tubes with the same mixture, as follows.

No.	Length of Time the Acid Acted.	Result.
1	45 sec.	No development.
2	1 min., 30 sec.	,,
3	2 min., 32 sec.	,,
4	3 min., 32 sec.	,,
5	5 min., 5 sec.	,,

Here the result is evidently due to the fact that, with the bacilli, acid was also carried in, and that it either continued to act, and destroyed the bacilli, as is, I think, most probable, or soaked into the gelatine around the needle-track, and prevented the development of the bacilli. It is in order to stop the action of the acid on the bacilli at once, that I always put the drop into liquefied gelatine.[1]

I may say that the above are not the only experiments I have performed to test this matter; I have repeated them several times, and always with the same result. There is one other point, however, which the above experiments teach; namely, that at certain stages of their existence these bacilli are more easily killed than at others, as shown by the fewer number of colonies in the successive plates, most probably due to difference in vitality in different bacilli. I am inclined to think that the younger bacilli are more easily killed than the older, because in one experiment, where I used a cultivation twelve hours old, and which was just beginning to become opalescent, I got no development, except in the control-experiments; even thirty seconds' immersion in the acid had killed them. At what age these bacilli are most vigorous, I have not tried to ascertain; but, if it were important, some idea might be obtained with a little trouble.

I have tried other strengths of acid, as, for example, 1 to 1850, in which I found, in one set of experiments, that the bacilli were destroyed in twenty-five minutes. (They may have been destroyed much sooner; for I took the first three tests in four to five minutes, when plenty grew; and the next three in twenty-four to twenty-five minutes, when none developed.) I have also tried 1 part of the commercial acid to 1000 parts of water; that is, six times more dilute than the strength of acid in the gastric juice, as given by Dr. Brunton. With this, I got numerous colonies after twenty minutes.

The results obtained, then, so far, are that, in all the cases examined, Koch's cholera-bacillus was present, and generally in large numbers; and that I found no other organism constantly present which was new to me. Further, in the one case (No. 8) in which I took specimens of the blood and portions of the internal organs, careful microscopic investigation failed entirely to show the presence of bacteria of any kind in the organs or blood. The observations as to the form, mode of growth, and general characteristics of the cholera-bacillus, also confirm Koch's statements in all essential particulars.

We now come to the second point; namely, whether Koch's cholera-bacilli can be found in any other disease than in Asiatic cholera, or under circumstances in which any possible origin from Asiatic cholera is out of the question. In other words, is this organism peculiar to Asiatic cholera, or not? The extreme importance of this question, in presence of the difficulty in getting decisive evidence one way or another from animals, will be evident to all, and I shall return to this point subsequently. In the meantime, it must be evident that, as it is the almost unanimous statement of various observers that this organism is always present in Asiatic cholera, it follows that, unless it be peculiar to this disease, it should be widely distributed throughout the world, and should, therefore, be readily found. Although my investigations on this matter are much more complete than on the first point, I need not take up much space with its discussion, as I have entirely failed to find this organism except in cases of Asiatic cholera. A few remarks on the materials examined will, therefore, be sufficient.

But, in the first place, I must point out that there are other comma-shaped bacilli than those found in cholera, which are, however, easily distinguishable from the latter. Of these, two liquefy gelatine, and must be more specially alluded to, namely, Finkler's and Deneke's, or Flügge's. Another has also been discovered by Miller in a carious tooth, which very closely resembles Finkler's, and is probably the same, so that I need not describe it specially. For the opportunity of studying these bacteria, I am indebted to Dr. Koch, who sent them to me.

Finkler's comma-bacillus was found by him in an epidemic of cholera nostras in Bonn, and was at first thought to be identical with the organism of Asiatic cholera; but it has now been clearly shown to be a different organism. When examined without staining, it is seen to be larger than the cholera-bacillus, and the curvature is not so marked. The spirillar forms are also rarer, and the turns are not so numerous. It grows rapidly in gelatine; the colonies are round, smooth, and it liquefies the gelatine extremely rapidly. In the test-tube cultivation (see Fig. 13), the gelatine becomes very rapidly fluid, so that, in twenty-four hours, it may reach the margin of the tube at the surface, and also extend down to the bottom of the needle-track. The fluid is also uniformly muddy. On potatoes, it grows rapidly at the temperature of 18° Cent., forming a thick greyish-yellow layer over the surface of the potato. It produces a strong fæcal or urinous odour.

Flügge's or Deneke's comma-shaped bacillus was found in a piece of old cheese. It resembles the cholera-bacillus more nearly than does Finkler's, but it is easily distinguishable from it. Seen in the unstained condition, it is smaller than the cholera-bacillus, and the spirillar forms are more frequent, but they are not so long as those in cholera, and also the individual bacilli forming the spirilla are attached rather at an angle than in a regular curve. It grows rapidly in the nutrient jelly, and its young colonies are very dark, round, and of regular contour. They are irregularly granular. Liquefaction occurs much more rapidly than in the cholera-bacillus, but not so rapidly as in the case of Finkler's. A colony of Flügge's bacillus, twenty-four hours old, is very like a colony of the cholera-bacillus three or four days old. In test-tube cultivations, liquefaction occurs much more rapidly with Flugge's than with the cholera-bacillus; and here, again, a cultivation two days old is very like a cultivation of the cholera-bacillus a week old (see Fig. 12); but the fluid is somewhat turbid, and the liquefaction at the lower part of the needle-track is more extensive than with the cholera-bacillus. It does not grow at all on potatoes.

I may perhaps conveniently tabulate the differences between these bacilli. (See table on next column.)

It will be evident that, taking all these characters together, it is easy to distinguish these organisms from one another. It is not so easy to describe their differences as to distinguish the variety in practice. When mixed together in the same glass-plate cultivation, one can pick out the three kinds with the greatest ease.

There are also other comma-shaped bacilli, but they do not liquefy gelatine. Indeed, several of them will not grow in the material used for cultivating the cholera-bacillus. Of these, I may mention three.

In Dr. Koch's report on cholera, he mentions that he found in water, in the neighbourhood of Calcutta, a comma-shaped bacillus, which, however, differed in important particulars from the bacillus of cholera. It may be best if I simply quote Dr. Koch's statement. "Only once did I find in the water which, at the time of the floods, overflowed the region of the salt-water lake lying eastward from Calcutta, a form of bacteria which at the first glance had a certain likeness to the cholera-bacilli; but, by accurate examination, they appeared somewhat larger and thicker, and their cultivation did not liquefy the gelatine."

Last summer, I had the opportunity of investigating the dejecta of two cases of severe cholera nostras, one of them fatal. In both were comma-shaped bacilli, closely resembling, in microscopic appearance, Koch's cholera-bacilli; and, in the second case, there were also large numbers of spirilla as well. As I was very anxious at that time to get cultivations of the cholera-bacillus, and as it was also possible that these cases might be the first in an epidemic of Asiatic cholera, I spared no pains in my attempt to cultivate these organisms; but, although I made a large number of cultivations, I was quite unable to cultivate them, the same material and the same methods being employed which were afterwards perfectly successful in the cases of true Asiatic cholera. There can, therefore, be no question but that these organisms belonged to a separate species or variety, whatever the proper term may be. In

[1] I have described these experiments in detail, also, because I think this is a very useful method of testing the action of antiseptics on other bacteria, and better for some purposes than Dr. Koch's method with the threads.

	Cholera.	Finkler.	Flügge.
Microscopic appearance.	Distinctly comma-shaped, except the small young forms. Spirilla not unfrequent, consisting of 8 to 30 turns.	Larger than cholera, not so markedly curved; spirilla rarer than in cholera, and not so long (3 to 6 turns).	Smaller than cholera; spirilla more frequent than in cholera, but curves not so marked, more angular, and number of turns not so great, nor are the turns so wide apart.
Glass-plate cultivation in nutrient jelly.	Small irregular colonies, not round, granular; liquefies gelatine comparatively slowly; may ultimately in a few days cover area of 1 millimètre.	Regular colonies; flat contour; liquefies gelatine very rapidly, so that in 30 hours it may occupy area of 1 centimètre.	Very dark, round colonies, contour regular, surface granular; liquefies more rapidly than cholera, but not so rapidly as Finkler. The early stage is not unlike a late stage of the cholera-bacillus.
Test-tube cultivations.	Air-bubble appearance liquefies in funnel-shape; may reach edge at surface in about a week; does not liquefy rapidly at lower part of track; fluid clears; highly refracting granules on side of funnel; rose-coloured deposit.	Liquefies very rapidly; in 24 hours may reach side of tube, and also extend down to bottom of the needle-track. Fluid diffused, muddy.	Early stage of this not unlike late stage of cholera, fluid somewhat more turbid, and lower part of track sooner liquid.
Potatoes.	Does not grow under 32° C. At body-temperature, forms dark brown layer.	Grows rapidly at 18° C., forming a thick greyish-yellow layer.	Does not grow on potatoes at all.

a diseased bee, I also found comma-shaped bacilli; but, unfortunately, I did not subject them to a thorough investigation, so that I have really nothing more definite to mention than the microscopic observation, which, of course, tells us nothing with reference to the question at issue.

In saliva, more especially, however, in the accumulations on the teeth, comma-shaped bacilli are frequently present—sometimes, indeed, in considerable numbers; and as here, if anywhere, the cholera-bacilli ought to be found, if they be only accidentally present in cases of Asiatic cholera, a great deal of attention has been paid to these organisms by various observers. Dr. Koch himself, in his earliest reports, states that he has paid particular attention to this matter, and that he has entirely failed to find the cholera-bacilli in the saliva, or in the accumulations on the teeth. I have, during the course of the past winter, tested my own saliva, and that of other persons, on a number of occasions, for cholera-bacilli, but have entirely failed to find any. The experiments were performed in the same way as in the case of the cholera-evacuations, by glass-plate cultivations in the nutrient jelly; and I have done, on an average, one set of experiments (from six to ten plates) every week since the beginning of December. Not only have I failed to obtain cholera-bacilli, but I have entirely failed to grow the comma-shaped bacilli seen in the saliva. In several cases, there were numerous comma-shaped bacilli present in the material tested; but I, nevertheless, failed to obtain cultivations of them. As regards the material employed for cultivation, I have in most instances used the same nutrient jelly as was being at the same time used successfully for the cultivation of the cholera-bacillus. This material was as nearly neutral as possible, though generally, no doubt, it was faintly alkaline; in some cases, however, it was faintly acid; and in several instances it was not neutralised at all, and was therefore strongly acid. Learning lately that it was supposed that the salivary comma-shaped bacilli could be cultivated in absolutely neutral jelly containing five per cent. gelatine, I have prepared some material absolutely neutralised by the use of calcium-carbonate, as suggested to me by Professor Warden; but I have entirely failed to obtain cultivations of the comma-shaped bacilli, although considerable numbers were seen on microscopic examination. From my own experiments, therefore, I have no doubt that the comma-shaped bacilli seen in the saliva are not the same organisms as the cholera-bacilli described by Koch. The same failure to cultivate the comma-shaped bacilli of the saliva has attended attempts made by a large number of observers; indeed, with the single exception of Dr. Klein, no one has succeeded in growing them. I shall refer to Dr. Klein's experiments in the appendix; but I may here say that, in my opinion, they cannot, so long as they stand unconfirmed, be regarded as free from error. Professor Miller, a dental surgeon in Berlin, has made cultivations from a very large number of patients, and has entirely failed to obtain the cholera-bacillus. Indeed, in only one case, from a carious tooth, did he succeed in obtaining a cultivation of comma-shaped bacilli which liquefied gelatine; but, on further investigation, it turns out that this organism is very closely allied to, and in all probability identical with, Finkler's bacillus. It seems to me that we have now sufficient evidence to enable us to say definitely that the cholera-bacilli are not present in saliva; more than sufficient evidence, if we bear in mind the fact that they are always present in Asiatic cholera; and that, therefore, if they come from the saliva, and are not peculiar to cholera, they ought to be always, or at least very frequently, found in it.

I have also, in several instances, tested the evacuations from diarrhœa by cultivation for the cholera-bacillus, with entirely negative results. I have referred before to the case of diarrhœa in Paris, in which I also obtained a negative result. Then I have tested putrefying and other liquids containing various kinds of bacteria, without obtaining any cholera-bacilli. And, further, I may bring forward my previous experience with these methods of research, extending now over several years, in which I have investigated water, air, soil, in fact all sorts of materials, in the first instance for practice, and later, with the object of making myself acquainted with the various forms of bacteria, or for other purposes; the result of this experience being that I never met with these organisms till I investigated cases of Asiatic cholera.

The answer which I then give to the second point is, that I have never met with the cholera-bacillus, except in Asiatic cholera, and that the other comma-shaped bacilli as yet described, differ markedly from it in many essential points. This statement is founded on a thorough examination of a large quantity of material.

I now pass on to the third point; namely, the result of injection of these organisms, or their products, into animals. Numerous attempts have at various times been made to infect the lower animals with cholera-dejecta, but the results have been quite indefinite; in fact, the natural conclusion from them is that the lower animals are not susceptible to the virus of cholera. Cholera-dejecta have been injected into the stomach, small intestines, and veins of various animals without producing any effect. Mice seem to have been the only animals in which anything like positive results were obtained; but it is apparently now very doubtful whether they were really affected with the virus of cholera, or only with some form of septicæmia. Seeing then that the virus of cholera, supposing it to exist in the dejecta, is without effect on the lower animals when mixed with the dejecta, it could not be expected that if it were isolated from the other materials it would be more potent. Hence a failure to produce disease with any given bacterium which, for other reasons, might be regarded as causally connected with the disease, does not in any way prove that the said bacterium is not the virus sought for. As regards Koch's cholera-bacillus, the earlier results of injection into the small intestine, or into the veins, or of feeding the animals with pure cultivations, were also entirely negative. Thus the question remained *in statu quo*, and all that could be said was, that this failure did not demonstrate that these bacilli were not the cause of cholera, but, if anything, rather strengthened the contrary opinion, as showing that in this particular the relation of this organism to the lower animals was the same as that of the virus of cholera. The matter has not, however, been allowed to remain in this condition; numerous efforts have been made to overcome, in some way or other, the difficulty of infecting animals with cholera, and to some extent these efforts have been successful.

During an investigation on cholera, Nicati and Rietsch, being struck by the fact that the biliary secretion seemed to be diminished or arrested during an attack of cholera, thought that this might have something to do with the rapid growth of the cholera-bacilli in the intestine. They therefore tied the bile-duct in dogs, and then injected pure cultivations of cholera-bacilli into the intestine. They report that their experiments were successful in several instances, the animals suffering from diarrhœa, and dying in two or three days. The intestine after death was found to be reddened, and to contain fluid watery dejecta, resembling the rice-water material in man. They were also able to produce similar effects in guinea-pigs. Shortly afterwards Dr. Koch reported that he had been able, in some instances, to obtain like results in guinea-pigs. Apparently, however, the results were by no means constant.

When I returned from Paris, I wrote to Dr. Koch to inquire what his method of operating was, and he kindly gave me full details. The essential point was to inject the cultivation into the duodenum between the pyloric end of the stomach and the entrance of the bile-duct, the whole operation being done with thorough antiseptic precautions.

These precautions consist in shaving the skin of the abdomen, washing it thoroughly with watery solution of corrosive sublimate (1 in 1000), and with carbolic acid; the hands, sponges, knives, and other instruments are also thoroughly disinfected, and the wound is dressed with an antiseptic dressing. I have always, after stitching up the wound closely with silver wire and catgut, applied powdered salicylic acid in large quantity, so as to form an antiseptic crust.

The operation is by no means a difficult one, and guinea-pigs—which are the only animals I have used for these experiments—take chloroform very well. A small incision, about half an inch to the right of the middle line, extending from the lower border of the ribs downwards, exposes the lower edge of the liver and the stomach close to the pyloric end. By pulling gently on the stomach, the pyloric end and the first part of the duodenum come into view. The syringe employed was that introduced by Dr. Koch for experiments with bacteria, remarkable chiefly for the fact that the metal portions screw on to the glass, and that the washers and a portion of the piston are renewed every time the syringe is used. The syringe is always sterilised by keeping it in an iron box at 300° Fahr. for three hours after the fresh washers and piston have been applied. In injecting into the intestine, the needle is pushed through the walls as obliquely as possible, so as to prevent regurgitation into the peritoneal cavity. As a rule, cultivations in nutrient jelly were employed. A little distilled water was boiled, and allowed to cool under protection from dust. A small quantity of the growth was then removed from the tube by means of the sterilised platinum wire, and diffused in the water. I shall now give a list of the experiments I have done.

No.	Quantity.	Age of Cultivation.	Result.
1	18 minims	7 days	Found dead next morning.
2	1 minim	13 days	No effect.
3	3 minims	Mixt. of 7 and 19 days	,, ,,
4	9 minims	8 days	Died in 4 days. This animal died on a Sunday and was not seen till the following morning, having lain in the cage with the other guinea-pigs all night. When examined, it was found that the other guinea-pigs had eaten all the abdominal organs of this animal, so that there was nothing left to investigate. The other guinea-pigs remained well.
5	,, ,,	3 days	No effect.
6	,, ,,	,, ,,	,, ,,
7	,, ,,	,, ,,	,, ,,
8	14 minims	,, ,,	,, ,,
9	18 minims	5 days	Died in 2 days. This animal had a little diarrhœa, and apparently some difficulty in breathing, and spasmodic movements before death. The intestine was found to be reddened, especially around Peyer's patches, and contained a large quantity of watery fluid. This fluid, tested by cultivation from the duodenum, the ileum, and the large intestine, contained practically a pure cultivation of cholera-bacilli. Blood dark and fluid; no bacteria in blood or internal organs.
10	,, ,,	,, ,,	No effect.
11	,, ,,	,, ,,	Died in six days. In this case, again, I had a misfortune; for, being called away just as I had sat down to make cultivations from the intestinal contents, I found, on my return, that my cat had eaten everything except the head. The cat remained quite well.
12	, ,,	,, ,,	No effect.
13	,, ,,	8 days	Died in two days. Precisely the same conditions as in No 9. In one Peyer's patch there was considerable hæmorrhage.
14	,, ,,	,, ,,	No effect.
15	½ minim	13 days	,, ,,
16	18 minims	5 days	,, ,,
17	,, ,,	,, ,,	No effect. In this case, a large part of the fluid was distinctly seen to pass into the stomach through the pylorus; and this was the case, I think, in several of the other experiments.

The result of these experiments is not at all conclusive; nevertheless, in two instances, Nos. 9 and 13, a definite effect was produced. In case No. 1, the animal probably died of shock; it was the first time I had performed the operation, and I did not do it very well. As to cases 4 and 11 I can say nothing, as I could not investigate them, but I think, from the symptoms, that No. 4 was killed by the cholera-bacilli. Nos. 9 and 13 were, as I have said, quite definite. In both these animals there was diarrhœa, though this symptom was not very marked; but the appearance of the intestines after death was very like that seen in Asiatic cholera. It was evident that these animals had been killed by the cholera-bacilli; and the result is, in so far, important and interesting, as showing that when the cholera-bacilli do produce an effect, their chief action is in the intestines, and they do not penetrate into the blood, resembling, in this respect, the probable action of the virus of cholera.

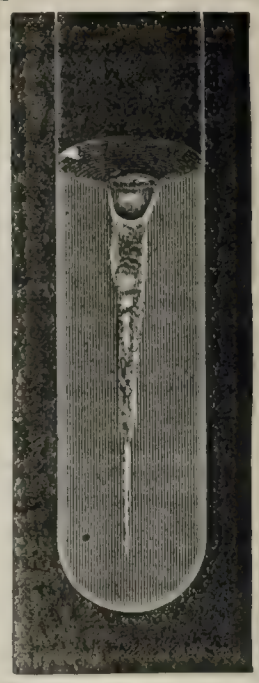


Fig. 11.—Koch's cholera-bacilli two days old.



Fig. 12.—Flugge's comma-bacilli two days old.



Fig. 13.—Finkler's comma-bacilli two days old.

As regards these cases, I am perfectly satisfied that the animals did not die of any form of septicæmia, and I made a particularly thorough investigation of this point in the case of No. 13, as I then knew that Dr. Klein was attributing Dr. Koch's successes to septicæmia.

As I have said, in neither case were any organisms found in the blood or internal organs, whether by microscopic examination after staining, or by cultivation. In both cases I inoculated other animals with the blood from the heart, without producing any effect. In none of the animals was there any trace of peritonitis. Why these two animals alone were affected, I cannot say. I have injected some of the guinea-pigs after they had fed, and others after they had been deprived of food for some hours. I have used cultivations of different ages, and cultivations in different materials, without any difference in effect being produced.

The only thing in which the two successful cases differed from most of the others, was that the bacilli were growing in jelly containing three per cent. of peptone, while, in most of the other cases, one per cent. of peptone was employed; but a subsequent attempt with jelly containing three per cent. of peptone, and also with jelly containing four per cent. of peptone, gave negative results. Hence the effects did not depend on the amount of peptone in the cultivating medium, and Dr. Koch, whom I consulted on the matter, agreed with me on this point.

I have not continued these experiments of late, partly because I expect that Dr. Koch will shortly throw much new light on this part of the subject, and partly on account of the limited number of animals on which one is allowed to experiment.

[*To be continued.*]

FURTHER REMARKS ON COMMA-BACILLI.

By E. KLEIN, M.D., F.R.S.,
Joint-Lecturer in Anatomy and Physiology at the Medical School of St. Bartholomew's Hospital.

I PROPOSE to describe here some observations with regard to comma-bacilli, which seem to me to definitely settle the question as to the relation of Koch's comma-bacilli to cholera. The experiments are not yet concluded, but the results already obtained are of sufficient importance to be made known. Having ascertained that the comma-bacilli do not, in an anatomical sense, bear that definite relation to cholera that is claimed for them by Koch, and that they occur only in dead tissues (the contents of the ileum in cholera-cases), it seemed to me probable that their presence in numbers in the cavity of the lower ileum in cholera, is due to the peculiar condition of the intestine; that is to say, that they are the result and not the cause of disease. An assumption of this kind would of course imply that the comma-bacilli are already present in the normal state, but not finding, in this state, the conditions favourable for their growth and

multiplication, remain limited in numbers. Now, it will be said that, if such be the case, then it ought to be possible to demonstrate their presence in the normal state. No doubt this would be a direct and conclusive proof, but a short consideration will show that it is of a kind which is practically impossible to give.

As is now well known, Koch's comma-bacilli possess definite characters when growing in nutritive gelatine, by which they can be isolated and recognised. For this purpose we now, after Koch, inoculate a certain quantity of liquefied (by gentle warmth) nutritive gelatine, with a trace of the material containing, besides other bacteria, the comma-bacilli, then mix it well up, and pour the gelatine out on plates or flat glass dishes, kept in a moist chamber at the ordinary temperature (between 16° and 22° Cent.) After several days, there appear the characteristic colonies of the comma-bacilli, now so well known and so often described by Koch and his pupils that it is not necessary to redescribe them. Another method of Koch, which is nearly, if not quite so useful, is this: dip the point of a needle into the fluid to be tested, and then draw it in lines over the nutritive gelatine, which has been previously allowed to set on glass plates or glass dishes, and then keep these as in the former case.

Unless only a trace be used for inoculation, the result is unfavourable, since too many common putrefactive bacteria are introduced, and these, by more rapid growth, soon crowd the gelatine, and the comma-bacilli that had been introduced have no chance of developing.

When one has to deal with mucous flakes of an acute typical case of cholera, in which the comma-bacilli are sometimes present in great numbers, these methods work satisfactorily. But, supposing we have to deal with a bacterial mixture, in which the comma-bacilli are present in exceedingly small numbers, then it will be found, from what has been just now stated, that their isolation by culture is exceedingly difficult, and, in many instances, practically impossible. I have found this to be the case in some cholera-cases, where the comma-bacilli were present in very small numbers, besides numerous common putrefactive bacteria. But I have more direct proof; I have repeated several times the following experiment. To 200 cubic centimètres of a bacterial fluid, for example, normal human fæcal matter distributed in water, crowded with all kinds of common putrefactive bacteria, micrococcus, bacterium, bacillus, etc., is added a drop of choleraic comma-bacilli (that is, many thousands), taken from a pure cultivation of these bacilli in nutritive gelatine; and then the attempt is made to demonstrate these comma-bacilli in the mixture, by microscopic examination and by cultivation on gelatine plates. For this purpose, a number of cover-glass specimens, after the Weigert-Koch method (that is, drying a thin film of the bacterial fluid on the cover-glass, and then staining it with aniline dyes), and a large number of cultivations on gelatine-plates are made, but I have not been able to discover the comma-bacilli. I have, in this way, made dozens of cover-glass specimens; I have established dozens of cultivations on gelatine-plates, but I have not been able to demonstrate the presence of the comma-bacilli. Theoretically, of course, this ought to be possible; but, as a matter of general practice, it is not so, considering that, for the cover-glass specimens, and still more for the cultivations on gelatine-plates, only a trace of the bacterial mixture can be used.

But the solution of the problem might be attempted in another way. Let us suppose that the comma-bacilli—although present in the normal intestine, but in exceedingly small numbers, too small to be capable of demonstration—require, for their appearance in numbers, that is, for a rapid multiplication, some pathological condition of the intestine, such, for instance, as obtains in cholera, this condition being favourable for their growth and multiplication, perhaps more favourable to them than to the other bacteria. Now, if we could produce such a state of the intestine, and if hereby we could create those conditions favourable for the growth and multiplication of the comma-bacilli, then we might expect to find the comma-bacilli in numbers sufficiently great to demonstrate their presence with comparative facility, both by microscopic examination and by cultivation.

We do not know, it is true, beyond the anatomical facts, what the exact nature of the state of the intestine is in cholera, whether it is the result of the action of the virus on the secretory nerves of the intestine, or on the vaso-motor nerves, or directly on the tissue of the intestine; but I have attempted to produce a state which, in anatomical respects at any rate, resembles to a limited degree that obtaining in cholera.

Professor Horsley, of the Brown Institution, has been kind enough to make for me the following experiments. In a monkey that had received a dose of castor-oil the previous evening, the abdomen was opened under the spray, the lower ileum was drawn out, one ligature was tied just above the ileo-cæcal valve, another about 2 to 4 inches higher up; the large vessels of the mesenteric border were avoided as much as possible; into this loop a hypodermic syringe, full of a saturated solution of magnesium-sulphate, was injected; the ileum was replaced, the wound stitched up, a bandage was applied, and was covered with collodium. All instruments, threads, etc., had been previously well cleaned and disinfected. In this manner, six monkeys were operated upon; in one instance the animal, after the operation, received subcutaneously one grain of chloral-hydrate in 2 cubic centimètres of water. (See the Report of the Cholera Committee to the British Medical Association, 1874.) One of the animals was dying the same evening, one was dying before three days were over, the others were killed after 48 hours.

Of the mucous contents of the loop of the ileum that had been tied, and before the injection of the magnesium-sulphate, a quantity had been withdrawn by means of a hypodermic syringe, and carefully examined for comma-bacilli, but none could be found. In three of the animals killed after 48 hours, the tied loop was found, on *post mortem* examination, to be much injected; its cavity contained a quantity of a brownish fluid, in which were suspended numerous mucus-flakes; the epithelium of the mucous membrane was in many places loosened or detached. In the contents were present undoubted comma-bacilli; particularly in one of the animals (the one that received subcutaneously after the operation one grain of chloral-hydrate) the comma-bacilli were present in large numbers—more numerous than I have seen them in some typical acute cases of cholera. In some fields of the microscope, I estimate their number at over 50 per cent. of all the organisms present.

It is evident from this, that the pathological state of the intestine produced the condition favourable for the multiplication of the comma-bacilli, and that they are, therefore, the *result* and not the *cause* of the disease. These comma-bacilli appear as single commas, as double commas—either S-shaped or placed end to end, their curve in the same direction—and as short spirals. I am unable to distinguish them from the choleraic comma-bacilli, and they appear to be identical with the latter.

THE COMMA-BACILLI OF THE HUMAN MOUTH.

By Professor W. D. MILLER, Berlin.

The great interest which has of late been aroused by the comma-bacilli, and in particular by those of the mouth, appears to make desirable a more thorough discussion of the latter than has yet been published.

That curved bacilli, having an auger-like motion, are constantly present in the human mouth, has been known for years, some few even regarding them as the cause of caries dentium (Johnston's *Dental Miscellany*, 1879). The first attempt to account for them was made by W. D. Miller, in the *Berichte der bot. Gesellschaft*, 1883, page 224. Miller then was of the opinion that they were only segments of the common spirilla of the human mouth, as he had observed such spirilla, which showed a division into comma- and S-shaped segments (see Fig. 20 *der Berichte*); a view which was at that time received with little favour, but which now might suggest itself to every one, after it has been abundantly proved that comma- and S-forms, and spirilla, may be only different stages of development of one organism.

After the report of Dr. Koch on the comma-bacilli of cholera Asiatica, Professor Lewis pronounced the comma-bacillus of the mouth, which I shall call vibrio buccalis, to be identical with the former; and, since that time, hundreds have made repeated attempts to isolate this organism. Having been at work on the fungi of the human mouth for nearly five years, I at once turned my attention to the cultivation of comma-bacilli; and, after months of continual experimentation, with all possible culture-media, I had come to the conclusion, adopted by all others, except Dr. Klein, that the vibrio buccalis could not be cultivated on gelatine, or on any of the materials now commonly in use. Later, however, I took up the matter again, and, in two cases, succeeded in isolating comma-bacilli. The material was obtained in both cases from unhealthy mouths, showing chronic pyorrhœa alveolaris and hyperæmia of the gums. The material swarmed with comma-bacilli and spirilla. In the first case, the isolation was accomplished in a very novel manner. Examining a hastily made dry preparation in water, I observed that a few of the comma-bacilli had not been killed by the staining process, and were moving about rapidly; while the many other forms in the specimen were deeply stained, and no doubt dead. I, therefore, had before me a pure culture of living comma-bacilli. After removing the cover-glass, I transferred the material to tubes of coagulated blood-serum, and, in 24 hours, had ten large colonies of beautiful comma-bacilli and spirilla, in pure culture. This process was repeated in other cases without success. In the second case, a

small quantity of the material was placed in the centre of a flat drop of sterilised bouillon, and, in two or three minutes, tubes of blood-serum were inoculated from the edge of the drop. (The very active comma-bacilli soon distribute themselves throughout the drop, while most of the other forms remain in the middle.)

The bacillus or vibrio, obtained in these instances, grows very rapidly on culture-gelatine, whether neutral, slightly acid, or slightly alkaline. If a small quantity of a pure culture be taken into the mouth and allowed to become distributed through the fluids of the mouth, the bacillus may be isolated again with the greatest ease.

This fact seems to necessitate the conclusion that this is not the well known vibrio buccalis of the healthy mouth. It liquefies the culture-gelatine very rapidly, more so than the cholera-bacillus; and its colonies 24 hours old appear under the microscope perfectly round, greyish, and finely granular, with a sharp dark border. If cultivated on gelatine sufficiently acid to materially impede its growth, it forms a funnel-shaped depression in the culture-tube, through the evaporation of the slowly liquefying gelatine. The funnel also frequently appears in normal gelatine. The liquefied gelatine becomes equally cloudy throughout. In 36 hours, at 20° Cent., the gelatine in the second dilution is completely melted, and runs off the plate.

The form of the colonies, and the rapidity of growth, at once show that this organism is altogether different from the bacillus of cholera Asiatica.

In making plate-cultures from old pure cultures, I have often met with a comma-bacillus different from the above. Whether it be an altogether different and new comma, or only a modification of the other, resulting from the action of the products of putrefaction in the old cultures, I am unable as yet to say.

The colony 24 hours old has a tinge of yellow, is not round and even, but has a very rough, uneven border; it appears to the naked eye three to four hours later as a white speck half a millimètre in diameter, lying in the bottom of a depression; the gelatine remains perfectly transparent. Even when, after 48 hours, the whole plate becomes liquefied, the colonies, as large as a very small pin-head, float about in the otherwise but slightly clouded gelatine. Cultivated in gelatine, the bacillus has only a very slight curvature, but on agar-agar it cannot be distinguished from the other comma-bacilli.

I have on previous occasions referred to two other micro-organisms in the human mouth which produce comma-shaped forms; one is non-mobile, and does not liquefy gelatine; the other is mobile, liquefies the gelatine, and, in its manner of growth on the plate and in the tube, is very similar to that of the comma-bacilli; it also grows out into wavy threads of various lengths, which, however, could hardly be called spirilla. It is very commonly present in the human mouth, and is easily isolated; and in my many attempts to isolate the vibrio buccalis, I was, time and again, for a moment deceived, by the appearance of this organism, into thinking that I had really succeeded.

All these organisms, as well as the Finkler-Prior and the cheese-spirillum, are entirely different from Koch's bacillus, and the continual reference to them, even in medical journals, as an argument against Koch's theory, is astonishing. Even more so is the statement frequently made, that this or that organism is in its reaction upon gelatine "very similar" to the bacillus of cholera Asiatica. It is not a question of similarity but of identity, and arguments like the one cited are only calculated to deceive.

Whether the comma-bacillus of Koch be or be not the cause of cholera Asiatica is not to be discussed here; but, if we wish to establish the identity of any organism with Koch's bacillus, it can only be done by showing that the morphology, method of growth, and action upon all the media commonly in use, are the same in the case of both, and even then we should not be too hasty in pronouncing upon the identity. I have two micrococci from the mouth, which, in their morphology, their growth upon gelatine, potato, agar-agar, blood-serum, and in milk, are identical, but which still are not the same, since one produces a colouring matter, and the other not. Two organisms which grow exactly alike on gelatine may be the same, probably are; but to say that they certainly are the same is scarcely admissible, any more than it is to pronounce silver and mercury identical because the salts of both give a white precipitate with hydrochloric acid. It is only when a number of different reactions prove them to be the same, that we can begin to speak of identity. As for the statement of Dr. Klein, that it is an easy matter to isolate the vibrio buccalis, I am unable to reconcile it with the assertion of many others, that this organism cannot be cultivated on gelatine; and I am anxious to know exactly how the isolation was accomplished how often, and from how many different mouths.

LECTURES
ON
THE COMPRESSED AIR BATH AND ITS USES IN THE TREATMENT OF DISEASE.

By C. THEODORE WILLIAMS, M.A., M.D., F.R.C.P.,
Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

Lecture III.

Compressed air has been largely used in Sweden in the treatment of *whooping-cough*. Sandahl found that, in 102 cases among children, 88, or 86 per cent., were cured by a course of baths varying in number from nine to twenty, the only exceptions being cases complicated with phthisis; and Oertel confirms this experience, and assigns the beneficial effect to a reduction of the sensitiveness of the laryngeal nerves, and to the larger supply of oxygen to the lungs, enabling the sufferer to combat more successfully the suffocating cough.

Spasmodic asthma experiences great relief from this treatment; and some authors state that this is only the case in the catarrhal form, where the paroxysms are accompanied by swelling of the mucous membrane and congestion of the vessels; and that the benefit comes from the bronchi being dilated and the hyperæmia reduced. While admitting that the catarrhal form is greatly relieved, I strongly affirm that pure neurotic asthma often receives instant relief in a compressed air-bath, and that all cases of this malady benefit more or less largely. I annex a fair example, which was complicated with emphysema. The first effect of the air-bath is often transitory, and in some cases it is always so; but in most a series of sittings reduces the severity of the attacks, and lengthens the intervals of freedom. It is, however, from the diminution of the emphysema that the asthmatic patient obtains most relief, as it enables him to take more exercise, and to carry on the functions of digestion, assimilation, and respiration with greater ease and comfort, and thus to gain strength and colour. Out of six cases of spasmodic asthma submitted to this treatment, the number of baths varying from eight to twenty-four, four were greatly improved, two were improved, and in one—a case where the asthma was complicated with anterior sclerosis of the spinal cord—there was no improvement.

Case v.—John H., aged 23, footman, was admitted into my wards June 4th, 1884, with a history of acute bronchitis five years previously. He had had winter-cough ever since. Four years ago, asthmatic attacks began, and had continued once a month ever since. These commenced in the middle of the night, and lasted three or four days, in the intervals the patient remaining tolerably free, and his breath not being short on exertion; cough and expectoration moderate; loss of flesh to the extent of several pounds before admission. On admission, the chest was found to be over-resonant, and sonorous rhonchi were audible everywhere. Weight, 8 st. 12¾ lbs. The diagnosis was asthma and emphysema. He had an attack of asthma on June 16th, lasting three days.

June 23rd.—I carefully examined him, as he had been free from spasm for some days.

Physical Signs.—The chest was flattened on both sides to the level of the mamma. Below this point there was considerable collapse, and the lower parts moved more freely in respiration than the upper. Percussion-sound was over-resonant over the whole thorax. There was no hepatic dulness, and scarcely any cardiac. The heart was displaced downwards, cardiac impulse perceptible at the epigastrium, but also between the sixth and seventh ribs in the vertical mammary line. The heart-sounds were normal; breath-sounds feeble everywhere. Measurements on deep expiration

	Right Chest.	Left Chest.
At level of third rib	17¾ in.	17¾ in.
At level of ensiform cartilage	15½ in.	15½ in.

Pulse 84, respirations 28. He was ordered compressed air-baths three times a week.

July 1st.—He had had four baths, at a pressure of 8 lbs. During each, the pulse and respiration had fallen; there was more movement of the ribs.

	Pulse.	Respirations.
Before bath...	96	32
After bath	64	28

July 11th.—He had had another attack of wheezing, and the bath had been omitted for four days. To-day he took his seventh bath, with great relief to his breathing.

	Pulse.	Respirations.	Temperature.
Before seventh bath ...	84	32	98.2° F.
After ,, ...	60	12	98.2° F.

July 25th. The last attack of asthma lasted a shorter time than usual. The patient had now had twelve baths ; in each there had been reduction of pulse and of respiration. In one, the pulse fell from 72 to 56, and showed some irregularity ; the pressure was 9 lbs. On examination of the chest, some hepatic dulness was detected in the last interspace on the right side. The heart's impulse was less perceptible in the epigastrium ; chest still over-resonant, breath-sounds feeble everywhere. Measurements showed a diminution of girth at the level of the third rib of three-quarters of an inch, and, at the ensiform level, of a whole inch. After several baths, he complained of frontal headache, but this might be partly due to the temperature of the bath, which, owing to the hot weather, often rose to 76° Fahr.

The patient remained in the hospital till September 24th, and had altogether seventeen baths, with the same results. The influence on the respiration was to reduce its frequency, in one instance from 32 to 12 in a minute, and the patient stated that he always breathed deeper and more easily while in the bath, and for several hours afterwards. He has had no return of the attacks during the last six weeks, and says his breathing is greatly improved ; no cough or expectoration. The reduction of the pulse on several occasions has been most extraordinary, and once it fell to 40, with a fair volume. As a rule, it is about 70.

Measurements taken September 20th showed a further decrease at the level of the third rib of three-quarters of an inch, and an increase of three-quarters of an inch at the ensiform level, giving a total decrease at the upper level of an inch and a half, and, at the lower, of a quarter of an inch. There was now more costal breathing, and the chest appeared somewhat less flattened. The area of hepatic dulness was the same, but some cardiac dulness was now perceptible below the sixth rib. The chest was generally less resonant, and respiratory sounds were more audible than on admission. The patient had gained five pounds in weight.

We may conclude that, in this case, the compressed air exercised a sedative influence on the pulmonary plexuses and bronchial muscle, and thus the asthmatic attacks became fewer. This enabled the lung-tissue to recover some of its normal tone, and much of the emphysema, being of a temporary character, disappeared, giving rise to freer respiration, smaller girth of chest, and the return of dislocated organs to their proper position. The decrease of girth of the upper portions of the chest was very marked; but the decrease at first, and slight increase later, of the lower portion, seemed to point to a diminution at first, and afterwards a slight increase, of emphysema at that level.

The use of compressed air has been recommended to promote the absorption of *lung-consolidations and infiltration*, such as remain after pneumonia and pleuropneumonia. It is urged that these exudations may be partly resolved and absorbed under the combined mechanical and physiological influence of this agent, and that air may penetrate to the bases of lungs either consolidated or crippled by adhesions, and undergoing fibrosis. I have tried this treatment in several cases where pleuropneumonia, or pleurisy, have left such consolidations ; and although I carefully investigated the patients while undergoing the course, I never succeeded in discovering any signs of the disappearance of these lesions under the treatment. Again, Simonoff recommends its use in *acute pleurisy*, after the inflammatory processes have disappeared ; first, to expand the lung ; secondly, to overcome the thoracic deformity ; thirdly, to promote reabsorption. Oertel maintains that serous exudations are readily absorbed under the influence of compressed air, but purulent exudations more slowly. My experience is to the effect that it exercises no influence in expanding a lung compressed by fluid, and that, even during a course of air-baths, steadily persevered in, the fluid will reaccumulate, and will make its presence known both by physical signs, and by the diminishing amount of vital capacity, as tested by the spirometer ; and I find that Sandahl's experience at Stockholm entirely confirms mine. The next is a case to illustrate this.

Case vi.—John M., an engine-driver, aged 28, was admitted into Brompton Hospital, October 4th, with an obscure history of cough and shortness of breath of some weeks' standing. On examination, the right chest was found dull throughout, with entire absence of vocal fremitus and breath-sound. The dulness extended slightly across the median line to the left side, and the heart's impulse was felt beating about half an inch further to the left than normal. The chest-measurements were, at the level of the nipple, right, 18 inches ; left, 16½ inches. On October 14th, the patient was tapped in the sixth space (mid-axillary line) with a Southey's trocar and tube, and 66 ounces of clear serum removed, the tube being left in nine hours. Six days after the tapping, the measurements at the nipple were, right, 17 inches ; left, 16½ inches, showing a diminution of one inch. The heart returned to its normal position, and breath-sound was audible in portions of the right lung.

November 4th. The patient stated his breathing to be easier, and the measurements showed no reaccumulation of the fluid. The physical signs were, dulness diminished over the whole right front ; vocal vibration present ; and puerile breathing heard over the inner half of the same region. Posteriorly, dulness was somewhat decreased, and breath-sound was audible in the interscapular and suprascapular regions, vocal vibration being absent. Measurements as before. He was ordered the compressed air-bath. The spirometer indicated 107. The result of the first bath was as follows.

	Pulse.	Respirations.	Temperature.
Before bath...	140	28	100° F.
After bath	106	22	99° F.

After the eighth bath, on November 21st.

	Pulse.	Respirations.	Temp.	Spirometer
Before bath	110	28	98.4° F.	—
After bath	108	24	98.4° F.	99

November 24th. The dulness had again increased and the breathing diminished over the front and back of the chest ; vocal vibration was entirely absent ; œgophony was audible in the scapular region. The measurements were, right side, 17½ inches ; left side, 16½ inches ; an increase of half an inch.

On November 28th, he was again tapped with Southey's tube, and 49 ounces of serous fluid withdrawn, and the measurements then showed a reduction of half an inch.

November 29th. The patient was relieved by the operation, and the physical signs showed resonance from the clavicle to the nipple, with a fair amount of breath-sound. Posteriorly, the resonance reached as low as the eighth dorsal vertebra ; below there was dulness ; breathing was heard more or less to the base. Spirometer, 111.5.

On December 10th, the air-baths were resumed, and he had five, making thirteen in all. The result of the thirteenth bath is seen below.

	Pulse.	Respirations	Temperature
Before thirteenth bath	64	22	98.8° F.
After ,,	58	16	99.4° F

December 20th. Physical signs showed that the fluid had again accumulated, and the dulness reached up to the third rib. Measurements : right, 17 inches ; left, 16½ inches ; spirometer, 98.

January 2nd, 1885. He was again tapped, and 46 ounces were withdrawn ; and, on the 12th, the measurements were, right, 16¾ inches, left, 16 inches. There was some flattening on the right side, and the right nipple appeared lower than the left. Breathing was again more audible, and dulness diminished.

January 26th. Much improved. There was dulness now only below the nipple, and good breathing above.

The course of this case plainly shows that the steady perseverance with the compressed air-bath exercised the usual influence over the pulse and respirations, both being considerably lowered ; but that it had no effect whatever in preventing the reaccumulation of the fluid, which occurred twice while this treatment was going on, and showed itself, not only by the increase of the measurements, and the physical signs, but also in the diminution of the spirometric results. These gave an increased vital capacity after each tapping, but no increase during the baths.

Phthisis.—Some authors loudly extol the use of the compressed air-bath in phthisis. Oertel considers its proper use in this disease more important than climatic influence, and particularly advises its employment in the early stage. Simonoff states that absorption of the inflammatory exudations in the lungs of phthisical patients takes place in the baths, and has noted the distinct diminution of physical signs. He maintains that, where the maximum day-temperature does not exceed 100.5° Fahr., there is always considerable improvement, and complete recovery in about one-third of the cases. He admits that in cases where the maximum exceeds 102° Fahr., he has seen no instance of recovery ; but, in a quarter of the cases, improvement takes place. This experience is far more favourable than what I have seen of the use of the bath in phthisis would lead me to expect. Considering that phthisis is a disease characterised by malnutrition, imperfect power of digestion and assimilation, and by adiminished number of red corpuscles in the blood, we may fairly expect that the physiological or chemical

effects of compressed air will be beneficial, by stimulating these processes of sanguinification. The mechanical effects might act beneficially in reducing the amount of blood in the bronchial vessels, thus removing a certain amount of local congestion. Moreover, the pressure of the air may be the means of opening up portions of the lung not actually affected with tubercle, but simply collapsed, or with bronchi stopped by mucous accumulations; but we can hardly expect compressed air to have any specific influence on the tuberculous masses themselves, nor can it, by its increased pressure, open up alveoli already invaded by tuberculosis. I have as yet submitted only six consumptives to the air-bath, but intend to make a trial on a larger scale. All six were cases of first stage, except one, in which there was a cavity. All manifested reduction of pulse and respiration rates during the baths; all showed general improvement; and in five there was gain of weight—one gained more than a stone in two months; in one (the cavity-case) there was decrease of weight. In two, the phthisis was combined with emphysema; in two others, with pleuropneumonia. In the cases of phthisis and emphysema, the circumference of the chest diminished, as in the other cases of emphysema. In the cases of phthisis and pleuropneumonia, the circumference of the chest showed no increase, in the regions affected by pleuropneumonia, under the compressed air-treatment, but rather the reverse, the natural collapse of the side which is noticed in these cases apparently taking place unchecked by the mechanical effects of compressed air. In one case (George E.), there was a decided enlargement, and the physical signs gave evidence of hypertrophy of the healthy lung, with some diminution of dulness in the affected one. Cough is usually lessened, and expectoration reduced; and the patient invariably reports that he can breathe with greater ease and more deeply. As I have avoided this treatment in pyrexial phthisis, fearing the increased oxidation, I cannot speak as to results in any but those cases where the temperature was either normal or subnormal; in these, the effect has been a slight rise of half a degree or so. In three of the patients, hæmoptysis of considerable extent occurred, all having previously spat blood. In one case, the bleeding came on five weeks after the last bath, and therefore can hardly be attributed to it; in another, it occurred twice during the course, with intervals of only forty-eight and of twenty-four hours after a bath; in the third case, two days after. In the last two, the bath seems to have had a causal relation with it. Considering this danger, therefore, the use of the bath appears to be contraindicated in cases of hæmorrhagic phthisis, and in all cases where cavities are present, as we know that it is common to have aneurysms of the branches of the pulmonary artery lying exposed on the walls of these, and thus, under the influence of changes of barometric pressure, rupture of the said aneurysms may take place. The great good we may expect from compressed air in phthisis is from the physiological influence, showing itself in improved nutrition, increased oxygenation, leading to augmentation of colour and weight, and from the mechanical effect manifested in the reduction of local congestion, and, above all, in the opening out and inflation of those portions of the lungs which are commonly the first point of tubercular attack—namely, the apices. In this aspect, we may regard compressed air-baths as a valuable prophylactic agency.

CASE VII.—George E., a labourer, aged 46, was admitted September 29th, 1884. His father and two brothers died of consumption; one surviving brother was consumptive. Gout commenced nine years ago, affecting the right great toe, followed by six attacks progressing in severity. Cough commenced eighteen months ago, and had continued ever since. He had had hæmoptysis several times; the first attack, which was profuse, three months ago. He had lost flesh for seven months. The patient was thin, and sallow. Conjunctivæ slightly yellow. Weight, 8st. 12lbs.

The physical signs showed consolidation of the left apex, with some friction-sounds at the base.

November 8th. During the last month, he had suffered much pain in the lower left chest, where friction-sounds had been occasionally heard. The pain disappeared on the side being strapped.

Physical Signs.—Left chest: some dulness, with tubular sounds from the clavicle to the third rib; breathing and resonance good from the third to the fifth ribs, below which there was marked dulness and absence of breath-sounds. Posteriorly, there was some dulness, and tubular sounds were audible above the scapula; resonance and breath-sound were fair below. Measurements at the level of the third rib gave 6½ inches on both sides; at the ensiform level, 16 inches on each side. He was ordered the compressed air-bath.

November 12th. He had had two baths.

	Pulse.	Respns.	Temp.	Spirometer.
Before second bath ...	100	36	98.2° F.	142
After ,, ...	96	30	99.2° F.	136

After the third bath, the spirometer rose again to 142.

November 26th. He had had eight baths, and felt better; cough and expectoration were less, and he had gained 12 lbs. in weight.

	Pulse.	Respirations.	Temperature.
Before eighth bath ...	112	36	99.4° F.
After ,, ...	98	22	98.2° F.

At 7.30 to-day, about twenty-seven hours after the last bath, he had hæmoptysis to the amount of three ounces.

November 28th. The hæmoptysis had ceased, but he brought up altogether eleven and a half ounces. No more baths were allowed. Beyond the bleeding, the patient did not appear any worse. There was no increase of cough or expectoration, and both pulse and temperature were the same as before.

He remained in the hospital till December 29th, and steadily improved, gaining up to 10 st., so that there was an increase of 1 st. 2 lbs. since admission.

On December 22nd, the measurements were as follows: at the level of the third rib: right, 17 in.; left, 17¾ in.; giving an increase of three-fourths of an inch; the measurements at the lower level were the same as before.

The right chest was more resonant than before; breathing harsh throughout; slight crackle was audible at the front base, where hepatic dulness was very manifest. In the left chest, the dulness had greatly diminished between the first and third ribs; tubular sounds were audible over the same area; dulness at the base was unchanged.

This case is instructive as showing (1) the large increase of weight under the baths; and (2) the danger of inducing hæmoptysis in cases where it has previously occurred. The result of the chest-examination is of great interest; for we learn that expansion of the upper portions of the lungs took place, the lower parts remaining unchanged. The increase of resonance in the right chest, and the diminution of dulness at the left apex, point to the conclusion that some hypertrophy of the right lung took place, and possibly some localised emphysema in the upper lobe of the left, the consolidation at the left base remaining as before. The spirometric observations gave negative results; but the air-bath seems to have had an excellent effect in quieting the cough and reducing the expectoration.

Anæmia.—Compressed air has been much recommended in this disease, with the view of its physiological effects in supplying a larger percentage of oxygen in the same bulk, and thus increasing the number of red corpuscles. I have tried it in two cases of chlorotic girls. In one, aged 21, a well marked anæmic murmur disappeared after twelve baths. In the second, aged 22, the pallor, short breath, palpitation, and rapid pulse, were accompanied by a very loud anæmic murmur. After a course of fifteen baths, the murmur nearly disappeared; the hæmacytometer showed a considerable increase in the number of red corpuscles, the patient gaining colour very perceptibly, as well as flesh and strength. All palpitation ceased, and the pulse and respiration fell in frequency. At the same time the chest became wider, and the spirometer showed an increase of vital capacity. In both cases, the dietary was the ordinary one of the hospital, and no special additions were made.

Amenorrhœa.—Sandahl cites several cases of long standing cured after a short course of compressed air-baths, and in both recent and chronic instances strongly urges their use, the principle being that the blood is determined towards the protected female organs of generation, and gives rise to the menstrual discharge.

Chronic Catarrh of the Ear has been often successfully treated by this method at Johannisberg and Stockholm. In many cases, the deafness disappears during the bath, but returns on leaving it. The benefit consists in the dilatation of the Eustachian tube by the pressure of the condensed air, and the reduction in the congestion of the pharynx and nasal passages. For the same reason, all catarrhs of the air-passages, whether of the nares, anterior and posterior, larynx or bronchi, are greatly reduced, and sometimes cured, by a few sittings in the air-bath.

The use of the bath seems to be contra-indicated in the following conditions, either by reason of its intropulsive effect on the blood, or by its physiological influence on the system: pyrexia, hæmorrhage, diseases of the brain, spinal cord, heart (except dilatation of the right cavities), kidneys, spleen, liver, intestines, uterus, and ovaries (except amenorrhœa). In this list I would except those conditions of organs which are due to simple anæmia, where the intropulsion of the blood may do good.

The number of baths requisite to produce a decided result varies with the disease, and generally with the length of its duration; and, although in some of my cases even a few baths have given relief, to produce lasting effects a course of from thirty to sixty, and even to

one hundred, is often necessary. This is specially the case in asthma' emphysema, anæmia, and phthisis. It may be asked, Are the effect ever permanent, or are they only temporary? The short time th Brompton Hospital bath has been opened precludes my speaking with certainty; but the medical men at the large establishments of Stockholm, Reichenhalle, and Paris offer strong testimony to the beneficial influence lasting for years.

PERIOSTITIS FOLLOWING TYPHOID FEVER.

By HENRY W. KING, M.D.Edin., M.R.C.S.Eng., Chester.

In the JOURNAL of February 28th, Mr. Jackson mentions a case under the above heading; I have recently treated a similar case.

On November 29th, 1884, I was called to see W. M., aged 29, an artisan living in Chester. He stated that he had only a few days before left the fever hospital, where he had been for eight weeks, suffering from typhoid fever. The patient looked pale, and stated that about a week ago he began to feel his right leg heavy, stiff, and painful. He had not hurt it in any way. The whole of the right leg was œdematous from the knee to the ankle; there was a red inflamed patch over the inner surface of the tibia, at the junction of the middle and lower thirds. Much pain was felt at times, of a throbbing nature; there had been some involuntary starting. No fluctuation could be detected. The nature of the case was explained to the patient, who rather reluctantly allowed me to make the necessary incision. I made a straight incision over the painful spot about an inch and a half long, and nearly as deep, along the anterior border of the tibia. A little bleeding occurred, but no pus was seen; hot fomentations were at once used to allay the pain. The leg was then placed on a couple of pillows on the bed, and hot poultices applied, to be changed frequently. A mixture of acetate of iron and chlorate of potash was ordered every four hours. On November 30th, the patient had slept fairly well; the leg was much easier, and did not throb, the red blush around the wound was less, but considerable œdema was still present. I inserted a small drainage-tube, but it was removed with the first poultice, as the wound was small. A few days later, as there was still some uneasiness felt in the leg, and the red blush did not disappear, I enlarged the deeper part of the wound with a probe, and inserted a drainage-tube, which was left in the wound two days. This acted favourably; the pink œdema around the wound gradually subsided, and subsequent progress was quite satisfactory. On December 18th, the wound was reported by the patient to have nearly skinned over. He was then using iodoform-ointment, and was able to get out a little.

In the *Medical Digest*, reference is made to the *London Medical Record* for 1877. It contains an article extracted from the *Revue Mensuelle*, in which M. Mercier treats of the subject. He had only met with seven cases in which periostitis had occurred as a complication of typhoid fever. It comes on, he says, after about five or six weeks of illness; that is, during convalescence, when there is no fever, and the patient begins to get up. The most marked symptom of this periostitis is weakness, which increases, in spite of food, tonics, etc. The usual symptoms of periostitis are present, but with an excess of œdema, both of the cellular tissues and of the periosteum. After four to eight days, the pus is either reabsorbed or is evacuated. The pain then becomes less, and the patient recovers his strength; sometimes the periostitis ends in necrosis. He adds, the etiology of this complaint is as yet very obscure, as it appears to come on suddenly, unless some traumatic affection seems to determine the spot. So far as treatment is concerned, the author has found that a blister applied to the tumefied point from the very beginning has proved useful. When the pus has formed, no artificial opening must be made to evacuate it, as this might give rise to septicæmia; therefore, it is better to let the pus either be reabsorbed or spontaneously evacuated. Reference has already been made to Sir James Paget's views; as will be seen, he still considers the etiology an interesting question. Simple œdema, with or without phlebitis, is not uncommon after any exhausting affection. I had under my care, two years ago, a severe case of typhus fever. During convalescence, in the third month, the patient, a young man, aged 20, suffered from obstinate œdema of the whole of the right leg and thigh; it yielded, after much trouble, to iron and digitalis. With regard to treatment; why should we not treat such cases of periostitis on the usual lines? All the symptoms of inflammation are localised, the pain is especially prominent, thus assisting diagnosis, and calling aloud for treatment. The tension must be relieved. M. Mercier prefers a blister, the counterirritant lessening deep congestion, and therefore also the tension over the bone. It hence relieves the throbbing pain. I venture to think, however, that a free incision will act more certainly in most cases. The temporary pain, no doubt, is great; but relief is soon experienced, sleep obtained, and with it a return of appetite; and the after-consequences of delay in a tissue so easily devitalised as bone are prevented.

PERIOSTITIS IN TYPHOID FEVER.

By J. O. AFFLECK, M.D.,
Senior Assistant-Physician to the Royal Infirmary, Edinburgh.

THE communication of Dr. Hayward, of Liverpool, in the JOURNAL of January 3rd, and that of Mr. E. Jackson, of Manchester, in the JOURNAL of February 28th, have directed attention to the occasional occurrence of periostitis as a sequela of typhoid fever. As this morbid condition has not hitherto received much notice by writers on fever, it is desirable that cases of the kind which may have been observed should be put upon record, with the view of aiding in determining the place as regards frequency and importance of this lesion among the complications or results of typhoid. It is with this object that I venture to cite three instances of this affection which came under my observation during the past year in the typhoid wards of the Fever Hospital of the Edinburgh Royal Infirmary. These three cases of periostitis occurred in a total of 117 cases of typhoid fever which were under treatment in 1884. Two of them occurred in young men, aged 21, one of whom was admitted—in the third week of the fever—with periostitis commencing in the right tibia. This produced a recrudescence of the fever, and prolonged the case for about four weeks after his admission, but he made a good recovery. The other, who was admitted at the commencement of the fever, showed symptoms of marked periostitis in the right humerus in the third week, and this was followed by a similar condition of the right tibia. Convalescence in this patient was slow, and after the periostitis had apparently departed, it reappeared in the right humerus, and an abscess formed, which was subsequently opened in the surgical wards by Mr. Joseph Bell. The patient ultimately completely recovered.

The third case was that of a girl, aged 9, who was admitted with a very severe attack of typhoid fever, which reduced her to such a degree of exhaustion, that for a time it seemed scarcely possible she could survive. In the fifth week, and just as the temperature had begun to subside, she was attacked with periostitis of the right humerus, which set up fever again, and caused her intense suffering. Contrary to the expectation of everyone about her, she rallied and recovered. No abscess formed, but the painful swelling of the shaft of the humerus continued for full six weeks from its first appearance.

The local treatment in these cases consisted in hot opium-fomentations during the continuance of the acute pain, and subsequently the application of iodine.

Sir James Paget, in his interesting notice of "Some of the Sequels of Typhoid Fever" (*St. Bartholomew's Hospital Reports*, vol. xii, 1876), enumerates periostitis, with or without necrosis, among them, and appears to regard this condition as probably a sequela proper of the fever. He states that it occurs at an advanced stage of the convalescence, when the temperature has become normal, and the patient is regarded as free from his fever, is moving about, and becoming stouter and stronger. This is doubtless the case in the majority of instances (I have myself seen several); and the surgeon is better able, at least as regards hospital-patients, to furnish accurate information upon this point, seeing that the cases will naturally fall to him rather than to the physician who previously had them under his care. Sir James Paget further says: "I do not remember to have seen or heard of a case in which it has occurred during the continuity of the fever." Nevertheless, that periostitis may occur at the height of the fever, or at least when convalescence has no more than begun, is evident from such instances as those three above narrated; and in this view, it may be regarded as a complication, no less than a sequel, of typhoid fever.

As to causation, it is probable that this affection depends upon the lowered nutrition of the osseous tissues, as the result of a severe or prolonged attack of enteric fever, most of the cases in which it has been noticed appearing to have been of this character. In this fever pre-eminently, the nutritive changes are manifold and profound, and depend partly upon the pyrexia, but especially upon the great weakening of the assimilative function connected with the morbid alterations in the mucous membrane of the intestines, which may make itself felt, even after all febrile action has passed away.

It is not, however, to discuss the pathology of periostitis in typhoid fever, but simply to record the facts of its occurrence under the conditions now stated, that this brief notice is written. This lesion undoubtedly deserves a more prominent position among the results of typhoid fever than it has yet been accorded. In a not inconsiderable

experience of this fever, it has occurred to me to see periostitis far oftener than "swelled leg," about which much more has been written.

COLOTOMY WITH DELAYED OPENING OF THE BOWEL.

By G. H. HUME, M.D.,
Surgeon to the Newcastle-on-Tyne Infirmary.

At a recent meeting of the Clinical Society of London, (March 13th) Mr. Davies-Colley read notes of three cases of colotomy in which the operation was done in two stages. In the discussion which followed, opinions strongly favourable to this method were expressed by Mr. Bryant and Mr. Howse. Only one speaker seems to have considered that the operation was rendered more complicated by being divided into two stages, and that it was better in all cases to open the bowel at once. My experience in the two cases here recorded, induces me to add my testimony to that of Mr. Davies-Colley, and to join in recommending that the completion of the operation be postponed for a few days, in all instances in which this delay is practicable. Every surgeon who has experience of colotomy, knows how difficult or impossible it is to keep the wound in a satisfactory state when the operation is done in the usual way. The constant fouling of the wound by fæcal discharge is the source of endless trouble to the surgeon ; and to the patient it involves risk of peritonitis, and the certainty almost of deep suppuration and protracted healing. A modification of the operation, which secures union of at least the deep parts of the wound before it is exposed to this contamination, must be, in the truest sense, a simplification, as concerns both surgeon and patient.

The two cases in which I have adopted this method of delayed opening of the bowel were similar in character, and were identical as regards the details and results of the operation.

The first case was that of a man, aged 36, admitted into the Newcastle-on-Tyne Infirmary in the spring of 1884. He was suffering from an intrapelvic growth surrounding the upper part of the rectum, and producing almost complete obstruction. There were occasionally thin, bloody, offensive motions, but no solid fæces were passed ; and the recurring attacks of abdominal distension and pain were very distressing. The first stage of colotomy was done on March 17th; by the usual oblique incision the bowel was readily found, and was stitched to the skin by two or three silk-worm gut sutures. Except at the part where the bowel was attached, the wound was brought together by deep stitches of the same material. The operation was done under carbolic spray, and a gauze-dressing applied. The dressing was not removed until March 22nd, and then the wound was found to be entirely healed, except in the area to which the bowel was fixed. At this part there was a thick coating of lymph, which was scraped aside ; and the bowel, lifted up by means of a suture, which had been left long for the purpose, was freely opened. There had been no constitutional disturbance following the operation, and no further dressings were required after the opening of the intestine.

In the second case the patient was also a man, aged 36, the subject of malignant disease of the rectum. The first stage of colotomy was performed on January 29th of this year, and the bowel opened five days afterwards. No intermediate change of dressing was needed, and the wound was quite healed, when the first applied dressing was removed.

The relief to symptoms in both cases was great. In the first case an almost painless failure of strength ended in death on June 15th, when the pelvis was found filled with malignant growth, with secondary deposits in the liver. The second patient left the infirmary on March 19th, much relieved from pain, and irritating discharge from the rectum.

In both cases, the full advantage of the operation was experienced so soon as the bowel was opened, without the drawbacks of a wound healing slowly under unfavourable conditions. The postponed opening of the bowel permitted the use of antiseptic precautions and dressings ; and experience shows that, as a rule, deep wounds in the loins, such as are necessary in colotomy and in exploratory operations about the kidney, heal readily when kept aseptic, and when healing is aided by the pressure of careful bandaging. In neither case did the stitches, passed through the wall of the intestine, cause any irritation or show any tendency to ulcerate out. The skin and coat of the bowel, on the other hand, were found firmly attached when the cavity of the latter was opened ; and the sutures could evidently have been safely left for an indefinite time. So far, therefore, as the experience of these two cases goes, special devices for securing the protruding bowel, in place of stitches, such as the clamp used by Mr. Davies-Colley, or the protected torsion-forceps recommended by Mr. Howse, would appear to be unnecessary.

OBSTETRIC MEMORANDA.

LABOUR MISTAKEN FOR A "BILIOUS ATTACK."

I wish to bring under notice the following case. A few days ago I got an urgent message to go and visit Mrs. G., a young woman, married about eleven months. On arrival at the house, I was informed by the husband that his wife was suffering from a bilious attack, "Just exactly the same as the one you attended me for." On going upstairs, I found her mother and mother-in-law there, both confident that it was "only a bad bilious attack," and another woman who asserted that it was a case of labour. I was asked by the patient herself to "give her something to relieve her quickly of this awful pain."

On making inquiries, I was told that she had menstruated quite regularly. On placing my hand on the abdomen, I felt what appeared to me to be an enlarged uterus. Her mother asserted most positively that the young woman had menstruated only the week before. On making a vaginal examination, I found a fœtal head presenting low down, almost pressing on the perinæum. Her friends were greatly surprised when I told them what was the matter, and had to send to a married sister for some clothes to put on the child. In about half an hour after my arrival, she was delivered of a female infant, which appeared to me to be about a seven months' fœtus. The child is now alive and well. R. E. Burges, M.D., Kettering.

HOW TO PREVENT SEPTICÆMIA IN CASES OF MORBIDLY ADHERENT PLACENTA.

With reference to Dr. K. N. Macdonald's interesting case, I wish to say a few words. When the placenta is removed, its site in the uterus is thrown into an elevated surface, projecting into tho interior of that organ ; and, on examination with the finger, gives the feeling of adherent placenta. I am aware that on various occasions, when it was thought that the placenta was not entirely removed, on account of feeling the elevations, it was really removed. I would, therefore, say that the great likelihood is, that Dr. Macdonald did actually, at the various times he mentions, remove the whole placenta ; and this is still more likely, because there is every indication that the placenta itself was small, and when, after the lapse of some hours, the blood was expressed from it, it would appear still smaller.

J. Stuart Nairne, F.F.P.S.G.

SURGICAL MEMORANDA.

SURGICAL TREATMENT OF ANEURYSM OF THE AORTA BY THE INSERTION OF WIRE INTO THE SAC.

In the article descriptive of Professor Loreta's case of abdominal aneurysm cured by the introduction of wire into the sac, in the Journal of April 11th, reference is made to the late Mr. C. H. Moore's case, treated in the same bold manner in the Middlesex Hospital. By the kindness of that justly styled "excellent surgeon and excellent man," I had an opportunity of seeing not only the sac of the aneurysm with the wire coiled in it, but also most of the organs, immediately after the *post mortem* examination. The immediate cause of death was inflammation of the sac and pericardium. In case surgeons should be tempted to deal with aneurysm of the aorta after this fashion, I venture to invite their attention to the following fact. In the fresh preparation, as I saw it, innumerable clots of varying consistence were hanging from the wires, ready to drop into the blood ; and emboli, exactly like them, were visible in the arteries of the organs, carefully dissected to show them. Here is a danger with which, it strikes me, enterprising surgeons inclined to repeat Moore and Loreta's operation must have to reckon.

W. C. Maclean, M.D.

CLINICAL MEMORANDA.

VARICOSITY OF THE LINGUAL VEIN AS A DIAGNOSTIC SIGN.

The cases related by Dr. Dickson in the Journal of May 2nd are very similar to one under my care at the present time. A lady sent

for me to see her on account of repeated attacks of epistaxis. She gave a history of having suffered from the same hæmorrhage a year ago, which stopped after using ice, etc. Several years since she had a slight "stroke," having lost the use of her limbs for a short time; but, finally, she entirely recovered. The bleeding, on the present occasion, was very profuse, and she refused to have her nostrils plugged until syncope supervened. I then plugged the nose, and no blood of any consequence has appeared since. She called my attention one day to the under-surface of her tongue, and I was surprised to see the very varicose condition of the veins. She is 74 years of age, and the arcus senilis is well marked.

J. WHITEHOUSE, F.R.C.S.Eng., Sunderland.

THERAPEUTIC MEMORANDA.

CREASOTE A SOLVENT OF QUININE.

IT is not generally known what an excellent solvent of quinine we have in creasote. For many years I have had quinine-pills made up with this menstruum where it is not contraindicated; and, believing my plan to be original, I wish to recommend its adoption.

E. G. WAKE, M.D., Dartmouth Park Hill.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ST. BARTHOLOMEW'S HOSPITAL.

AMPUTATION FOR SENILE GANGRENE.

(Under the care of Mr. HARRISON CRIPPS.)

[FOR the following history, we are indebted to Mr. DAVIDSON.]

T. S., aged 65, was admitted in July 1884. All his life he had been in the habit of drinking a considerable quantity of beer, cider, and spirits, but, owing to attacks of gout, he had latterly drunk spirits only. With the exception of gout, he had enjoyed good health. Early in May 1884, after an attack of gout, he noticed great pain in all the toes of the right foot. They became red and inflamed, and a few days later a black spot appeared at the distal extremity of the big toe. This gradually extended to the remaining toes and part of the foot, and was accompanied by considerable pain.

On admission, the patient had a most unhealthy appearance, having a fiery red complexion, apparently the result of spirit-drinking and exposure. The chest-sounds were normal; but the urine contained both sugar and albumen. The toes and part of the right foot were gangrenous, the gangrene involving about half of the dorsum. The soft parts immediately bordering the gangrene were swollen, and of a dull red colour. The toes were black and shrivelled, but the rest of the gangrenous part partook rather of the moist than of the dry variety. The dead part was sprinkled with carbolated lime, and the whole limb wrapped in a thick layer of cotton-wool. A nourishing diet was ordered, and small doses of opium and quinine every four hours.

During the next ten days, the gangrene slowly extended, so that by July 31st the whole foot was involved. At this time, daily examination of the urine showed a considerable quantity of sugar. Rest at night was disturbed, the temperature generally running up to 101° Fahr.; but the patient continued to take nourishment fairly.

On August 1st, Mr. Cripps amputated through the lower third of the leg. There was scarcely any bleeding, neither of the tibial arteries spouting; indeed, both vessels appeared to be more or less obliterated. The amputation was performed under the strictest antiseptic precautions (spray and gauze). The stump remained perfectly sweet, and united, with the exception of a small portion at the lower angle. At the end of a fortnight, it was noticed that there was a circular patch of dead flap of the size of a florin. This eventually separated, and never at any time had the least smell. At the end of a month, the stump had healed, with the exception of a very small sinus leading down to a portion of bare bone. In November, a morsel of bone of the size of a pea was extracted, by enlarging the sinus; after which the sinus closed, and the stump firmly healed.

In the beginning of November, the patient, who was allowed to get about the ward, complained of dull aching pain in the sole of his remaining foot. A fortnight later, a black spot appeared in the centre of the heel. The patient was ordered to bed; the whole foot was thoroughly cleansed, and covered with an antiseptic dressing, and the entire limb wrapped in cotton-wool. The black spot, which was of the size of half-a-crown, remained unchanged for three weeks. The skin then gave way, and there was a considerable discharge of black grumous material free from odour. On paring away the dead skin, an ulcer was found corresponding in size to the black spot, with dark red base and edges. This ulcer, under antiseptic treatment, slowly healed.

After the amputation, the sugar entirely disappeared from the urine, and only reappeared again for a few days on two occasions. From time to time, the patient was much troubled with boils, and, on one occasion, with a carbuncle of a considerable size. The patient was discharged from the hospital in April 1885, in good health and with a sound stump.

REMARKS BY MR. HARRISON CRIPPS.—There may be some doubt as to whether the foregoing case should be regarded strictly as one of senile gangrene. The diabetes very probably played some part as a cause of the disease. Nevertheless, I think that it was but a slight one; for, taking into consideration the general appearance of the limb, the age of the patient, and the atheromatous and obliterated condition of the tibials, the case may fairly be considered as an average example of senile gangrene.

Senile gangrene almost invariably first attacks the foot, commonly commencing in one of the toes. Its rate of progress is very variable. Sometimes it is rapid, so that day by day its advance is apparent. In other instances, for many weeks a scarcely perceptible progress is made, or it may remain stationary for a while, and then suddenly extend.

The constitutional disturbance accompanying the gangrenous process also differs greatly in degree. If the gangrene be slow, and tend towards the dry variety, the constitution may be but slightly affected; while, on the other hand, if the gangrene be more rapid, and the advancing line be preceded by swelling and dusky inflammation of the contiguous tissues, the general disturbance is marked; a raised temperature, a quick pulse, and a dry tongue declaring the septic condition induced.

So long as the disease is confined to the toes, there is a fair probability of its being arrested by suitable treatment. This consists in encouraging the circulation as far as possible in the sound part of the limb. The dead part is sprinkled with carbolate of lime, or other dry deodoriser; while not only the foot, but the whole limb, slightly raised on a pillow, should be kept warm and dry by being thickly wrapped in cotton-wool. There is nothing so injurious in these cases as the application of charcoal-poultices, or of moisture in any form; for they not only promote decomposition, but diminish the vitality of the still living tissue by the alternations of temperature they involve. In addition to the simple local treatment, the practice of giving a stimulating diet, with small doses of opium, as recommended by Pott and Brodie, is beneficial. Notwithstanding careful palliative treatment, it unfortunately commonly happens that the gangrene steadily advances, and the sufferer will, sooner or later, succumb to the septic condition resulting.

Until recently, influenced by the practice of the older surgeons, amputation for senile gangrene was considered an useless and unjustifiable procedure, the disease being regarded as part of a general malady, and it being thought that, should the patient survive an amputation, the gangrene would surely attack the flaps, and spread upwards, to the ultimate destruction of the sufferer. Modern experience has proved these fears to be groundless, and shows that, when amputation is performed with strict antiseptic precautions, the patient has a good chance of recovery. In cases of senile gangrene, the circulation of the part is comparatively feeble, so that the low vitality of the flaps renders them peculiarly suitable soil for the development of putrefaction. Nevertheless, they have sufficient vitality to heal, provided all external infective agencies be excluded. Indeed, in studying cases of senile gangrene, it is impossible to overlook the fact that there are generally two causes at work, namely, low vitality of the part, and exposure to the germs of decomposition.

How often, for example, may it be observed that, notwithstanding that there has long been evidence of feeble circulation in the limb, actual gangrene only commences after some slight cut or excoriation forms a nucleus for starting the decomposition! When this process has once commenced, the nutrition of the limb is generally too feeble to allow a barrier to be formed to stop its progress.

Believing most thoroughly that the principle of amputation in these cases is sound, I would strongly urge its performance when the disease has spread to the foot. The point of selection for the opera-

tion is important. Mr. Jonathan Hutchinson, in his valuable paper read before the Royal Medical and Chirurgical Society in 1883, advised that the lower third of the thigh should be selected, on the ground that the nutrition of the flaps would be more active than if the amputation were performed lower down. I cannot but think that an amputation so high up is more severe than is necessary, and I would advocate that, whilst the gangrene is still confined to the foot, the less formidable operation through the thin part (lower third) of the leg is sufficient to arrest the disease.

In the only two cases in which I have had an opportunity of watching the effect of the operation in this situation, in both instances, by strictly observing antiseptic precautions, the patient's life was saved from imminent risk, and the stumps eventually soundly healed.

NEWCASTLE-ON-TYNE INFIRMARY.

TWO CASES OF POPLITEAL ANEURYSM: LIGATURE OF FEMORAL ARTERY: CURE.

(Under the care of Mr. PAGE.)

[Reported by Mr. WILLIAM BAIGENT, Acting House-Surgeon.]

CASE I.—John M., aged 40, single, a salesman, was admitted on December 24th, 1884, complaining of pain and swelling of the right leg and foot, of fourteen days' duration.

His work was not hard, but involved a great deal of walking. He had had gonorrhœa when young, syphilis when 22, rheumatic fever when 37, and was a habitual drunkard.

In August 1884, he sprained his leg while dancing; next day, he suffered from aching pains down the thigh and leg, and from that time there was always uneasiness, and occasionally pain, behind the knee. About the beginning of December, the ankle and leg began to swell; he experienced great pain in the calf of his leg, difficulty in walking, and pain on attempting to flex the knee. At the same time, he also noticed a fulness and stiffness about the joint. He was a tall, well developed man, but nervous, restless, and excitable. In the upper part of the right popliteal space, there was, at the time of admission, a pulsating tumour, rounded in form, and about the size of a hen's egg. It was movable, and the skin was freely movable over it. Pressure on the femoral artery completely stopped pulsation. The leg and ankle were œdematous, and there was effusion into the knee.

January 4th. The leg was flexed on the thigh, and the thigh on the abdomen, and kept in this position by means of bandages and straps for eleven and a half hours. The tumour was then smaller and more firm, and the pulsation slightly diminished.

January 6th.—Flexion was again tried for four hours.

January 8th. Pressure, partly digital and partly by means of a weight, was applied over the femoral artery in the upper part of Scarpa's triangle, and kept up for eight and a half hours, with the result of almost stopping the pulsation.

January 9th. Pulsation had returned, and was almost as marked as before pressure. A Martin's bandage was applied from the foot to the middle of the thigh, and allowed to remain for five hours; at the end of which time the pulsation had entirely ceased, but only to return in about fifteen minutes.

January 14th. Pressure by means of fingers and weight was kept up for ten hours, followed by instrumental pressure for two more hours. Pulsation then ceased, but returned during the night.

January 16th. Martin's bandage was again applied for five hours. The patient now complained of great pain in the leg and foot, and of soreness in the upper part of Scarpa's triangle where pressure had been applied.

January 21st. The patient was placed under chloroform, and Mr. Page ligatured the femoral artery at the apex of Scarpa's triangle with carbolised catgut. A small drainage-tube was inserted, and the wound closed with a continuous suture of catgut. An antiseptic dressing was applied, the leg was wrapped in a thick layer of cotton-wool, and the patient was placed in bed with hot bottles a short distance from the limb. A quarter of an hour after the operation, the temperature of the limb was 96.5° Fahr., while that of the body, taken in the axilla, was 98.5° Fahr. Three hours after the operation, slight pulsation had returned in the sac. The temperature of the leg had now risen to 98.5° Fahr., and that of the trunk to 99° Fahr.

January 22nd. The temperature of the limb was 100° Fahr., that of the body 102.5° Fahr. During the day, the temperature of the body fell to 101° Fahr., while that of the limb remained at 100° Fahr.

January 23rd. Pulsation could be felt in the posterior tibial artery; the temperature of the limb and body was 100.5° Fahr; pulsation in the sac had ceased.

January 27th. The wound was dressed for the first time; there was a large collection of pus in the dressing; the wound was not entirely healed, but there was no redness, or bagging of pus. The drainage-tube was shortened, and an antiseptic dressing reapplied. The temperature was 99.5° Fahr. A large collection of pus about the upper and outer side of the thigh subsequently formed, but the patient ultimately did well, and on February 13th the wound was superficial and almost healed.

CASE II. T. P., aged 28, a labourer, unmarried, was admitted on January 29th, 1885, complaining of a swelling behind the left knee, of two months' duration. He had been in the habit of getting drunk two or three times in the week. His work was heavy, and involved a greater strain on the left than on the right leg. He had always been strong and healthy, and there was no specific history. Six months before admission he sprained his ankle. Before many weeks had elapsed, he first noticed stiffness in the left knee, slight pain on walking quickly, and a swelling about the size of a walnut in the upper part of the popliteal space; six weeks later, it had increased to the size of an egg. During the last fortnight it increased rapidly, and became very prominent, and he noticed a pulsation in it.

On admission, there was a large rounded tumour, of the size of a small cocoa-nut, extending from the upper to the lower part of the popliteal space, and projecting laterally beyond the condyles of the femur. The expansile pulsation in the tumour was completely controlled by pressure on the femoral artery. The tumour was fixed to the floor of the space; its walls were thin, and the skin, which was slightly red, was fixed to the sac. On auscultation, a double *bruit* was heard. The leg was œdematous below the knee, the superficial veins were much enlarged and distended, and there was effusion into the knee-joint.

January 31st. The artery was ligatured under chloroform with carbolised catgut, the wound closed with a continuous suture, and an antiseptic dressing applied. Immediately the vessel was ligatured, all pulsation in the tumour ceased, and it diminished greatly in size. Fifteen minutes after the operation, the temperature of the limb was 95.4° Fahr., and that of the body, taken in the axilla, was 98° Fahr., Two hours later, the temperature of the limb had risen to 97.5° Fahr., while that of the body was still 98° Fahr. Four hours afterwards, the temperature of the limb was 99° Fahr., that of the body 100° Fahr. There was a slight return of pulsation in the sac, which was small and harder. On the following day the pulsation in the sac had ceased.

February 7th. The wound was dressed for the first time. There was no pus in the dressing or wound; the wound was healed, with the exception of the sinus containing the drainage-tube. The drainage-tube, which was removed, contained an organised blood-clot.

February 13th. The wound, on dressing for the second time, was perfectly healed, with the exception of a small superficial wound not larger than a pea: this was dressed with "red wash."

REMARKS BY MR. PAGE.—Popliteal aneurysm is a rare disease in this neighbourhood. During the five years I filled the post of senior house-surgeon at the Newcastle Infirmary, the femoral artery was never once tied in its continuity, and, to the best of my recollection, only one case of popliteal aneurysm was treated. According to Mr. J. Hutchinson, ligature of the femoral for the cure of popliteal aneurysm in the London Hospital has proved more fatal than amputation of the thigh. During the time his statistics were collected, Mr. Syme tied the vessel for the cure of popliteal aneurysm upwards of thirty times without a death. I have never been able to understand this variation.

COMPARATIVE LONGEVITY OF STATESMEN.—Dr. Charles K. Mills, in his Toner Lecture on Mental Overwork and Premature Disease, has published some curious comparative statistics bearing on the longevity of public and professional men. He found that the average age at death of the twenty-five most prominent American statesmen, during the last hundred years, was 69; and that the average age at death of twenty-five contemporary English statesmen was practically the same, 70 years. He thought, however, that there was a notably greater amount of work done by statesmen at an advanced age in England. The difference in favour of English parliamentary life, as compared with political life in the United States, was brought out by a comparison of the ages at death of members of the English Parliament and of the United States Legislature who died between 1860 and 1884. Fifty-nine United States senators gave an average of 61 years; one hundred and forty-six United States representatives an average of 55 years; the average for both being, therefore, 58 years. One hundred and twenty-one members of Parliament gave the remarkable average age at death of 68 years.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 5TH, 1885.

H. CHARLTON BASTIAN, M.D., F.R.S., Vice-President, in the Chair.

Cerebral Tumour.—Dr. F. CHARLEWOOD TURNER showed specimens from a case of tumour of the fourth ventricle. The patient was a girl, aged 15, who had suffered from symptoms of cerebral tumour for nine months, and had been amaurotic two months. She suffered from vomiting and headache, and pains in the left leg and side. She had double optic neuritis. The pupils were widely dilated, but active. There was slight paresis on the left side, but no loss of sensation. The deep reflexes were absent; the superficial reflexes active. The intelligence was unaffected. She died in a few hours after an epileptiform attack, preceded by left facial paralysis. A soft sarcomatous growth was found filling up the fourth ventricle, from the walls of which it appeared to have grown; it invaded the cerebellum and medulla oblongata. There were nodules of growth on the posterior surface of the cord. Microscopic examination showed much exudation in the posterior columns of the cord. The dissemination of the growth in this and in other reported cases, with other facts, was regarded as indicating the greater liability of the spinal membrane to become the seat of lesions on the posterior surface of the cord; and the limitation of the spinal lesion to the posterior column in this case, and in a card-specimen of early sclerosis of the same columns, was regarded as illustrating a special liability of these columns of the cord to be the seat of pathological lesions. In this was to be found the explanation of the frequency of locomotor ataxy as compared with symptoms referable to primary lesion of other tracts in the cord. The occurrence of cases where characteristic symptoms of locomotor ataxy were independent of spinal lesion was not inconsistent with the general conclusion, but showed that the symptoms were not essentially spinal.

Sarcoma of Bones and Viscera in an Infant.—Dr. NORMAN MOORE showed specimens from a case of sarcoma in a boy, aged 1½, who died in St. Bartholomew's Hospital, in one of Dr. Gee's wards. The whole anterior part, and the greater part of the base of the skull, was infiltrated with large masses of a tough reddish new growth, which was found, on microscopical examination, to be a round-celled sarcoma. Many other bones were infiltrated. The ten upper ribs on the left side, the nine lower ribs on the right, the whole pelvis, and both femora, were infiltrated, and presented numerous sarcomatous bosses. All the lumbar and cervical glands, the right lobe of the liver, and the right suprarenal bodies contained masses of new growth. The case began with pain in the right hip in October. In December, a swelling was noticed over the eye. This was rapidly succeeded by swellings on other parts of the skull. Both eyes were extremely depressed, and the corneæ sloughed. The growth increased very fast, and the child died on March 3rd.

Malignant Disease of Lung.—Dr. DYCE DUCKWORTH showed specimens from another case of visceral sarcoma. A man, aged 52, was admitted into St. Bartholomew's Hospital with incomplete left hemiplegia; he suffered also from cough and copious expectoration. In addition to some bronchitic signs on the left side, there was marked impairment of expansion on the right side of the chest, with absolute dulness below the fourth costal cartilage; below this level, there was also loss of vocal fremitus, resonance, and respiratory murmur. The heart's apex beat in the left nipple-line. He had suffered from weakness and pain in the chest for about one year. Three months before admission, he had hæmoptysis. Shortly before admission, he had a fit, was unconscious for some hours, and on recovery was found to be hemiplegic. He died eight days after admission, apparently from purulent pleurisy and bronchitis, the signs of pleural effusion on the right side having increased, and a puncture having afforded purulent fluid. The necropsy, which was made by Dr. Norman Moore, showed that, in the posterior part of the right corpus striatum and the anterior part of the optic thalamus, there was a mass of reddish new growth; there were smaller masses of a similar nature in the left lateral ventricle and in various other parts of the cerebrum, and in the cerebellum. The right lung was collapsed, and a new growth, starting from the root, penetrated the lung, but did not perforate the bronchi, along which it travelled. There was a small nodule in the liver, and another in the pancreas. The growth was found, on microscopical examination, to be a round-celled sarcoma.—In reply to Dr. BASTIAN, Dr. MOORE said that, in his case, there was a general rise in the evening to 101°, and on one occasion to 103°. In Dr. Duckworth's case, it seemed to him that the most remarkable fact was the peculiar course of the symptoms, which certainly had not in any way suggested the existence of new growth. Another point of interest was that, though the growth grew along, and even projected into, the bronchi, the mucous membrane was not involved.—Dr. ORMEROD asked whether any optic neuritis had been observed, as that would have greatly assisted diagnosis.—Dr. DUCKWORTH did not think the eyes had been examined. The diagnosis had not been made during life.

Primary Carcinoma of Liver.—Mr. PAUL showed a most interesting series of specimens, illustrating the types of the different varieties of epithelial new growth that might be found in the liver. In the first case the liver contained a single encapsuled mass, apparently an innocent adenoma. The rest of the liver was decidedly cirrhotic. In the second case, the liver was in a condition of red atrophy with fatty infiltration, and contained a number of small firm white nodules, consisting of liver-tissue; the cells in the nodules were larger, arranged in irregular trabeculæ, and had not undergone the pathological changes present in the rest of the liver. The third case was an example of primary carcinoma infiltrating the whole liver, which weighed 110 ounces. The symptoms in this case were malaise, jaundice, and rapid death without wasting. These were the symptoms which appeared to characterise these tumours; the early death was probably due to interference with the portal circulation. The growth was soft, diffluent, and of a bright green colour. The cells were large, with large nuclei, and irregularly arranged; in the older parts the cells were undergoing fatty degeneration. Green material was collected between the cells in the younger parts. The fourth specimen was an example of the combination of scirrhous growth with cirrhosis; it closely resembled cases already shown to the Society. In the fifth case, the liver weighed 143 ounces. It presented green bosses on the surface, and a remarkable infiltrating green-coloured new growth, which advanced along the portal vessels. The cells were rather more regular, and more decidedly hepatic than even in the third case. The sixth case was an example of cirrhosis associated with this soft form of carcinoma. The liver weighed 66 ounces; the growth infiltrated all the portal vessels. The growth had undergone rapid fatty degeneration. The seventh case was exceptional, as the patient died of emaciation; the portal vein was enormously distended with masses of the new growth which extended up the portal vessels; the growth, as in the other cases, closely resembled the hepatic structure, and had undergone rapid fatty degeneration. The specimens, he thought, illustrated two of the varieties of primary tumours of the liver; the first two cases were examples of innocent parenchymatous growths, while the others were examples of acinous or tubular growths. All the carcinomatous growths would be classed as acinous.—Dr. CHARLEWOOD TURNER asked whether the appearances in the second case could be distinguished from local hypertrophies, such as were found in the thyroid body, and as he had described at the last meeting, in the suprarenal capsules.—Mr. PAUL thought it difficult to draw the line between the two conditions, but was inclined to look upon the condition, in the two first cases, as examples of local hypertrophies.—Mr. SHATTOCK said that a case had occurred in St. Thomas's Hospital almost identical with the third case described by Mr. Paul. The bright green pigmentation was so remarkable, that Dr. Bernays was asked to examine the growth chemically, and reported that the pigment was due to biliary constituents. He asked Mr. Paul whether he thought that this might serve as a distinguishing mark between tumours starting from the hepatic cells and others starting from the mucous membrane of the biliary ducts.—Mr. PAUL said that he thought the presence of this biliary excretion was characteristic of tumours consisting of hepatic parenchymatous cells.

Hypertrophied Callus.—A specimen of hypertrophied callus of the tibia and fibula, removed by amputation from a female child, who was a patient in University College Hospital, under the care of Mr. Marcus Beck, was shown by Mr. BILTON POLLARD. The affected leg was injured by a fall at the age of one year. A year and a half later, a painless swelling was noticed at the middle of the leg. The swelling gradually increased. On admission the central portion of the tibia was found to be much enlarged, and another swelling was detected at the junction of the lower and middle thirds of the fibula. The leg was amputated. The tibia was found to be the seat of a new growth of fusiform shape. There was a layer of compact bone in the concavity of the bend which existed in the bone above and below the growth. The growth on the fibula was independent. Sections of the tumour could easily be cut by the knife; it consisted throughout of well formed bone undergoing a process of remodelling, as in the normal growth of bone. The soft tissues of the growth were made up mainly of spindle-cells, with a few round and stellate cells. The growth was indistinguishably blended with the osseous tissue of the shaft of the affected bones. The duration of the disease—two years and a half—the uniform consistence of the growth, the existence o

two separate growths, the history of an injury, which was possibly a fracture, pointed to the view that the growth was hypertrophied callus. Mr. Pollard had met with one somewhat similar instance in the bones of the forearm. The views that the tumour was of a sarcomatous or a simple inflammatory nature were discussed, but rejected, as not harmonising with the ascertained facts; though it was allowed that the differences between a hypertrophy of callus and some forms of sarcoma might be a mere question of degree.—Mr. SHATTOCK asked whether the possibility of a syphilitic process had been excluded.—Mr. BUTLIN said that he agreed with the last view expressed by Mr. Pollard. If it were a condition of callus, it was so far removed from ordinary callus that it would most properly be called sarcoma. He had seen a case in which both bones of a limb had been affected by sarcoma at the same time. The bending need not necessarily be attributed to fracture, as, while the soft sarcomatous material was forming, the child going about all the time, bending might easily be produced.—Mr. POLLARD said that there was no evidence of syphilis in the child, nor any history of it in the family.

Chronic Cerebro-spinal Meningitis.—Specimens from the case of a boy, aged 11, who was admitted into St. Thomas's Hospital under Mr. Mason, were shown by Dr. W. B. HADDEN. There was a history of phthisis in the mother's family. Fifteen months before admission the boy was hit on the head with a piece of iron. He complained of his head next day, and began to vomit, the vomiting continuing until his death. A year before admission he was seen by Mr. Wilmer Phillips at the Evelina Hospital, who suspected a cerebellar tumour. Two or three months later the legs became weak, and he lost control over the bladder. He had fits, evidently of an epileptic character. The sight had been failing for about two months. On admission, he complained of pain in the head, and, when moved, in the back. He was very drowsy, and nearly, if not quite, blind. The pupils were equal, dilated, and sluggish. The eyeballs were continually oscillating. There was occasional sickness whilst he was under observation, but he had no fits. He passed his evacuations into the bed. At the necropsy, there was no sign of injury to bone, and the dura mater was healthy. Both the upper and under surfaces of the cerebellum were covered by an opaque white material, one to four millimètres thick. It was beneath the arachnoid, which was, for the most part, free, but here and there it was adherent. The tips of the temporo-sphenoidal lobes were similarly affected, but to a less degree. There was much thickening and opacity about the optic tracts and chiasma, and the edges of the fissures of Sylvius were adherent. There was no tumour, and no naked-eye appearance of miliary tubercle. There was a thick white layer beneath the arachnoid, over the posterior surface of the entire lumbar and the lower dorsal regions of the spinal cord. The arachnoid was adherent to it over the greater part, but here and there it was free, the surface presenting numerous small blade-like elevations. There was a caseous nodule at the apex of the left lung, and a few miliary tubercles in the kidneys and liver. On microscopical examination, the thickening over the cerebellum and cord was found to be really organised lymph, but no tubercles were seen. The symptoms followed so quickly on the head-injury, that it was very probable there was a relation of cause and effect. Possibly the injury set up a meningitis of a tubercular nature, running a chronic course. The limitation of the disease to the base favoured this idea. But, on the other hand, the spinal cord was affected, an unusual accompaniment of tubercular meningitis. Pathologically, the disease was a chronic inflammation of the pia mater; but the relation of this to the head-injury and to the tubercular diathesis was less clear.—Dr. ANGEL MONEY related a case of chronic purulent cerebro-spinal meningitis, which occurred in a female child, aged 3 years. She had a fall on to her head down a flight of stairs, and the symptoms began soon afterwards. Headache, vomiting, and screaming-fits were first observed. Universal rigidity of the body, with occasional arching backward of the back, were the most prominent symptoms. The child gradually became unconscious, vomiting continued, and there was incessant fever. The child weighed, at death, only 17 lbs. The base of the brain was found to be the seat of much thickened lymph, and there was a large collection of pus between the under-surface of the cerebellum and the fourth ventricle. There was extreme hydrocephalus, the ventricles being distended with sero-purulent fluid. There was much thickening and congestion of the spinal piarachnoid, with sero-pus in the theca vertebralis. The second case had much the same clinical features as the first. The interest of the cases was as to the diagnosis of the nature of the pathological lesion. In the second case, there was most extensive syphilitic arteritis of the vessels of the brain, and sclerosis, with atrophy of the convolutions. There was a diffuse form of sclerosis in the spinal cord.—Dr. BASTIAN said that a child aged 8 or 9 had been under his care a few years ago, whose symptoms, dating from a fall eight or nine months before admission, pointed to cerebro-spinal meningitis. Examination after death, however, showed, instead, a sarcomatous growth infiltrating the lower part of the cerebellum, and extending beneath the membrane the whole way down the cord beneath the meninges. The growth thus had the distribution of chronic cerebro-spinal meningitis. A point of great interest was, whether the commencement of the new growth could be attributed to the fall.—Dr. GOODHART said that he had met with a case in which there was a considerable amount of thickening of the membrane about the base of the brain and upper part of the cord, with pus in the ventricles, associated with purulent otitis media interna. In a large number of cases of tubercular meningitis, the spinal cord was involved.—Dr. NORMAN MOORE referred to a paper by Dr. Gee and Dr. Barlow, describing cases of cervical opisthotonos due to a meningitis, with a distribution resembling, but not quite so extensive as, that seen in Dr. Hadden's case. He had frequently looked for tubercle in the spinal meninges, but without success.—Dr. ANGEL MONEY agreed with Dr. Goodhart that tubercle would be frequently found in the spinal meninges, if looked for. In the case he had narrated, the ear was not affected.—Dr. WILKS said that we were not yet able to diagnose these cases from the symptoms, which might be due to several causes. In many cases, they were certainly due to meningitis, and not to sclerosis; and they might be seen in Pott's disease. He thought that new growths and inflammatory products were so often undistinguishable, except on very minute examination, and frequently not even then, that an association between the two processes must be admitted to exist.

Typhoid Fever in Animals.—Mr. J. BLAND SUTTON said that the opinion held by Dr. Budd and Professor Axe that the acute infective fever of the pig, known as swine-fever, was typhoid fever, had been shown by Dr. Klein to be erroneous. Some examples of true typhoid fever had been observed in lemurs living in the gardens of the Zoological Society. He exhibited intestines which he considered to present all the lesions characteristic of this disease. Rayer stated that, in 1839, M. Serres had reported an outbreak of typhoid fever among the monkeys in the Ménagerie of the Musée d'Histoire Naturelle, in Paris, and had made careful preparations of the intestinal lesions. The symptoms were diarrhœa, increased frequency of the pulse, and fever, ending almost always in death. In January, 1885, the Zoological Society received six Canadian beavers, which had lived for a time in Liverpool. In the course of four or five weeks after their arrival, four out of the six beavers died; the remaining two were sent away, and completely recovered in a few weeks. In all the beavers that died, ulcerated Peyer's patches were found, both agminate and solitary; the ulcers were very typical of the disease. In the young specimens, the various stages could be seen, from the normal Peyerian patch, through the infiltration and sloughing stages, with the bile-stained *débris* still hanging to some of them. Small whitish specks could in two beavers be detected in the liver, due to disintegration of minute areas of the hepatic tissue. The leading clinical symptom was profuse diarrhœa. These cases possessed a certain amount of interest, for they went to show that animals might acquire the disease, though all the experiments on inoculation had had a negative result.

Actinomycosis.—Mr. SHATTOCK showed two specimens of actinomycosis affecting the liver, which he had found among old specimens at St. Thomas's Hospital. A clinical history was attached to only one of the cases. The patient was a girl, aged 25, who died of so-called "scrofulous disease," affecting especially the ovaries and Fallopian tubes.

Card-Specimens.—Dr. CHARLEWOOD TURNER: 1. Posterior Sclerosis of Cord. 2. Typhoid Infiltration of Ileum.—Mr. BATTLE (for Mr. CROFT): 1. Primary Sarcoma of Kidney. 2. Fistula between Small Intestine and Bladder.—Mr. DORAN: Pedunculated Fibroma on Outer Wall of an Ovarian Cyst.—Mr. D'ARCY POWER: three specimens of Encysted Hernia.—Dr. PERCY KIDD: 1. Tubercular Ulceration of Tongue. 2. Small Fibroma of Cæcum. 3. (For Mr. H. H. TAYLOR) Tubercular Ulceration of Tongue.—Mr. CHURCHILL: 1. Acute Ostitis of Tarsus following Excision. 2. Congenital Papillomata of Mouth and Neck.—Dr. GOODHART: Cirrhosis simulating Cancer.—Dr. BURNETT: Much Contracted Right Lung.—Dr. HALE WHITE: 1. Rupture of Aorta. 2. Fracture of Sternum with Disarticulation of Costal Cartilages.

BEQUESTS.—The late Mr. Henry Bell of Kinnoul has bequeathed to the Royal Infirmary, Edinburgh, and to the Perth Infirmary, £100 each.

MEDICAL MAGISTRATE.—Dr. H. C. Taylor, of Todmorden, has been placed on the commission of the peace for the West Riding of the county of York.

BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, APRIL 22ND, 1885.

ALFRED MEADOWS, M.D., F.R.C.P., President, in the Chair.

Cystic Kidney.—Mr. REEVES showed a kidney which had been converted into cysts by calculous pyelitis. The patient had died in the Hospital for Women, Soho. At the necropsy, Mr. Reeves found in the ureter a long narrow calculus, which projected into the pelvis of the kidney. This, with a large part of the renal substance, was converted into several cysts ; the other organs were normal.

Renal Calculus.—Mr. REEVES showed a renal calculus which he had successfully removed by nephrotomy.

Salivary Calculus.—Mr. REEVES showed a specimen of salivary calculus which had been mistaken for cancer in the floor of the mouth.

Medicated Vaginal Tampons—Dr. FANCOURT BARNES showed some medicated vaginal tampons made for him by Messrs. Burroughs and Wellcome. The tampons are composed of absorbent cotton-wool and elastic fibre enveloped in sublimated gauze. In the centre of the wool is a small hermetically closed glass capsule containing a drug in a concentrated form. Before applying the tampon to the vagina, the capsule is broken by pressing the tampon between the finger and thumb, and thus liberating the contents, which are diffused through the tampon. In this way iodoform, cucaine, eucalyptol, or any other drug may be preserved intact and ready for use when required.—Dr. Bantock and Dr. Aveling made remarks.

Ovum Expelled at Term.—Dr. FANCOURT BARNES showed, for Dr. Lundy, of Feltham, a nine months' fœtus which had been expelled by a multipara at term in the membranes, with placenta intact ; the liquor amnii only having escaped.

Sloughing of the Vagina.—Dr. CHALMERS read a case of a primipara who was delivered by forceps, with only a slight rupture of the perinæum. On the fourth day, there were signs of septicæmia ; the vulva and vagina became gangrenous ; there was broncho-pneumonia. Later, a rash, dusky red, closely resembling measles, appeared over the limbs and body. In spite of all these complications, the patient recovered. The points of interest were, first, the sloughing under so little pressure ; secondly, the absence of pain except on the second day ; thirdly, septic influence attacking three cavities of the body in turn ; fourthly, the eruption and its cause ; fifthly, the recovery of the patient under such grave and complicated conditions. In the sixth place, as evidence of the virulence of the septic products, he stated that the nurse had to go home with malaise and erysipelas of both legs. The medical man had an angry pustule on the wrist, and the second nurse suffered from a severe attack of diarrhœa ; and, from having had some of the patient's liquid fæces on her hand, the tender skin between the fingers was blistered, and an itching of the skin of nearly the whole hand was set up, which lasted for several weeks.—Mr. Lawson Tait, the President, Dr. Routh, Mr. Reeves, and Dr. Bantock made remarks.

On some Points in the Treatment of Uterine Fibro-myoma.—Dr. MORE MADDEN read a paper on some points in the treatment of uterine fibro-myomata. Dr. Madden had never hesitated to recommend oöphorectomy or hysterectomy, if required, in cases of subperitoneal and deep seated interstitial fibromata, in which the tumour was not accessible *per vaginam*, and in which the age and condition of the patient, the rapid rate of development of the neoplasm, or the urgency of the resulting symptoms, were such as to preclude the hope that, in the course of time, the disease might be arrested by the occurrence of the menopause. He deprecated the *cacoëthes operandi* among abdominal operators. Dr. More Madden said it was desirable to formulate more distinctly than had yet been done the cases of fibro-myomata in which oöphorectomy might be resorted to with a fair prospect of benefit, and to point out those in which no reasonable anticipation of success could be held out from its performance. He considered enucleation applicable to all fibro-myomata, whether submucous or more deeply imbedded in the uterine parenchyma, which, from the position and size of the neoplasm, were accessible, and capable of extraction through the vagina. Removal by traction might succeed in those cases recommended for this treatment by Dr. Emmet. The medical treatment of myomata was chiefly applicable to the cases of non-encapsuled myomatous growths. Rest was indicated during hæmorrhage. In the way of medicine, sulphuric acid with liquor ergotæ, or Dover's powder and gallic acid might be given, or hazeline may be tried. He had, during the past eight years, employed either liquor ergotæ or ergotine in nearly every case of hæmorrhage, however extensive, caused by uterine fibro-myoma. By continued hypodermic injections of ergotine, the tumours were often much reduced in size.—The PRESIDENT made some remarks, after which the discussion on Dr. More Madden's paper was fixed for May 23rd.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, APRIL 13TH, 1885.

C. SPENCE BATE, F.R.S., President, in the Chair.

Casual Communications.—Mr. NEWLAND PEDLEY mentioned a case in which surgical section of the lower jaw had been performed by Mr. Clement Lucas, at Guy's Hospital, to facilitate the removal of an epithelioma, the section being made by two oblique cuts of the saw, meeting at an angle, instead of by a straight vertical section. By this means, the fragments were much more easily kept in position.—Mr. HENRI WEISS exhibited an unerupted canine, showing evidence of considerable absorption, which he had removed from the mouth of a lady, aged 45.

Injuries and Diseases of the Jaws of Animals.—Mr. J. BLAND SUTTON read a paper on this subject. Speaking first of malformations, he pointed out that, if the jaws were not perfectly formed and symmetrical, the young animal was apt to find a difficulty in grasping the nipple of the mother, and perished in consequence. Cleft-palate was the malformation of the jaws most commonly met with in animals. Arrested development of the superior maxilla was not uncommon in carp ; fish thus deformed had been thought to belong to a distinct species, and called "pug-nosed carp." In the King Charles' spaniels, a somewhat similar malformation, consisting of a stunted growth of the premaxilla, had been perpetuated by descent. The deformity called "parrot-mouth" in horses was due to excessive development of the premaxilla. A curious deformity was occasionally met with in the jaws of the cachelot, or sperm whale ; it consisted in the symphysis and anterior part of the body of the bone being twisted nearly at right angles to the proper direction. Seven examples of this had been recorded. Veterinary literature contained many cases of fractures of the maxillæ in horses and dogs, which had been successfully treated. The favourite method of treatment seemed to be that of wiring. Alveolar abscess was a very fertile source of trouble to animals, causing not only extensive injury to the maxillæ, but even death. Pyorrhœa alveolaris was another local disease affecting the jaws to which animals were liable. Mr. Sutton showed the skull of a monkey, which had suffered from this disease, and which had died from septic pneumonia, caused by inspiration into the bronchi of the purulent discharge. Hyperostosis was occasionally met with both in man and animals ; in it the bones of the skull, including the jaws, were greatly thickened, becoming at the same time soft and porous. Mr. Sutton showed the skull of a sea-lion, which had been affected with this disease, and said he had also met with it in monkeys. Morbid growths in connection with the jaws of animals were exceedingly rare. Dentigerous cysts had been met with in the horse, sheep, pig, and goat, but they were very uncommon. Exostoses were occasionally met with. A good many cases were recorded in horses ; in one of these, the growth weighed twenty-one ounces. Cases of enchondroma and sarcoma of the jaws were also recorded as having occurred in horses. Most of the tumours which had been described as sarcomata and osteo-sarcomata were really due to actinomycosis, which was not uncommon in horses and cattle.—A long discussion followed.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, APRIL 17TH, 1885.

T. ORME DUDFIELD, M.D., President, in the Chair.

Disposal of Sewage.—Dr. THOMAS STEVENSON read a paper on this subject. The author traced the different methods of excrement-disposal, from the primitive privy to the introduction of the water-closet in 1810, since which time the latter had become the common, although by no means universal, method of removal. At the beginning of the present century, and for long afterwards, cesspools were universal in London. At that time, the river-water at London Bridge was drinkable ; and there were waterworks opposite Fishmonger's Hall, which were used for the supply of the city. The composition of sewage varied much less than might be expected, and the difference was one of degree, rather than of kind. Taking the average, the dry solid excrement was 1 ounce per head daily, which was distributed through 300 lbs. of water, about 15 grains per gallon, whilst the major portion of the urine of adult males never directly entered the sewers. Of $2\frac{1}{2}$ ounces of solids distributed through the water, $1\frac{3}{4}$ ounces only were organic, one half of which, urea, was speedily converted into innocent carbonate of ammonia. Solid excrement, though an important polluting agent, formed only a small fraction of the total pollu ting material. Speaking of the disposal of sewage, the author referred to the difficulties that had to be encountered in the metropolis, the sewage of which he regarded as typical. He thought that in no British town could the difficulties be greater than those

which existed in London. Much credit was due to those who had hitherto dealt with the disposal of the sewage of London. Sewage contained not only organic, but organised bodies, and these in such a state of unstable equilibrium, that their molecules readily rearranged themselves, under the agency of external influences, to form simpler bodies, the tendency being to revert to those simple chemical compounds which served as pabulum for the support of the higher forms of plant-life. When fresh and freely exposed to air, as in sewers only partially filled, sewage had little odour, and could scarcely be considered as offensive, but if it accumulated in large quantities, putrefaction set in, and it became full of minute organisms, which lived and grew and multiplied in a deoxygenated medium. To prevent this, sewage must be dealt with in one of three ways. 1. The sewage might be at once thrown into a river, or the sea, where it could be carried away by currents, diluted by diffusion, and oxygenated, without appreciable nuisance. 2. It might be applied directly to land, if sufficient area were obtained to dispose of the sewage without offence. 3. It might be treated with chemical agents, either to destroy the organic matter, or to destroy the agents of putrefaction. The author condemned the first method, as causing nuisance and danger to health. In speaking of the second method, he said that, while in principle this was no doubt the right one, the fertility of the land being dependent on the restoration to it of the mineral constituents of the food grown upon it, the method, from a pecuniary point of view, could rarely be profitable. There was, however, no agent which so efficiently deodorised sewage as the soil, which checked putrefaction, absorbed the gases of sewage, and was the nidus of the bacterial organisms by which ammonia and nitrogenous organic matter were converted into nitrates. A point of great practical importance in this connection was that the nitrifying action was limited to the superficial layers of the soil, decreasing until, at eighteen inches below the surface, the action entirely ceased. This pointed to the possibility of economy in the cost of carrying out the process of intermittent downward filtration, as, by keeping the superficial layers of the soil in good condition for nitrification, the great expense of deep excavation and preparation of the soil might be saved. While broad irrigation, where a sufficiency of land was available, offered a satisfactory mode of sewage-disposal, and was one which held out more likelihood of realising some portion of the value of sewage than any other, it was seldom applicable to the sewage of large towns. The notion that sewage could be effectually treated by means of chemical substances alone was erroneous. Any chemical which would effectually destroy the spores of bacteria would render the sewage a poisonous fluid. Chemical treatment, directed to the end of clarifying sewage, but not of rendering it non-putrescent, was a great advantage. If the sewage were to be used for broad irrigation, simple straining would suffice. When land-filtration was to be adopted, something more was advisable; and when the effluent was to be turned into a stream, efficient clarification was indispensable—such a clarification as left less than a grain of suspended solids in each gallon of effluent. For precipitating sewage, lime had been largely used. Skill was needed in its use. It should be dissolved, it being four times as efficient in this state as when used as milk of lime. Fifteen grains of lime to each gallon of sewage was an ordinary proper proportion, but it was better to accurately adjust the quantity to the degree of hardness of the water of the district, and it should not exceed this; that is, one grain of lime per gallon of sewage for each degree of hardness of the water-supply. An excess of lime was hurtful, for subsequent putrefaction was apt to occur; it might kill fish, and, according to Warington, might entirely prevent nitrification. The addition of a little sulphate of alumina was beneficial, as it carried down a flocculent precipitate, entangling the lower organisms and their spores. Moreover, the use of alum neutralised any excess of lime which might occur. Sulphate of iron might also be employed, but it was questionable whether it was useful when the sewage was subsequently applied to the land. In conclusion, the author expressed his belief that the sewage-disposal of the future for large towns would be one where application to land supplemented a preliminary precipitation-process; and the land-treatment would be a filtration-process by which the area of land requisite would be limited.—In the discussion which followed, Drs. Drysdale, Edmunds, Bernays, C. E. Saunders, and Messrs. Rogers Field, Corner, Edmunds, Jacob, and Wynter Blyth took part.

SUPERANNUATION. — Mr. Arthur Priest, late Medical Officer, Waltham Abbey District, Edmonton Union, has obtained a superannuation-allowance of £71 8s. *per annum*.

MEDICAL MAGISTRATE.—Dr. Alex. W. Macfarlane has been placed on the commission of the peace for the county of Ayr.

ACADEMY OF MEDICINE IN IRELAND: PATHOLOGICAL SECTION.

FRIDAY, MARCH 13TH, 1885.

A. W. FOOT, M.D., President, in the Chair.

Multiple Exostoses.—Professor THORNLEY STOKER read a paper on the pathology of multiple exostoses, and exhibited the bones of a skeleton affected by them to a remarkable degree. A great degree of symmetry existed between the outgrowths of opposite sides. The lower extremities were most deformed, and showed the two forms of exostoses, which Mr. Stoker stated to be more common than was generally supposed, and which he discovered in a great number of persons in whom no previous exciting cause could be traced: a growth projecting upwards from the lower part of the internal condyloid ridge of the femur, and one projecting downwards from the internal tuberosity of the tibia. Although these deformities, and kindred ones, were often begotten of some inflammatory process, the result of injury, syphilis, rheumatism, or the like, he expressed his view that they frequently arose as a result of excessive activity in the bone-forming tissues, without any inflammatory cause. He referred to the objection to any classification of bony growths which divided them into hyperplastic and heteroplastic, as they were always truly hyperplastic, originating in the connective tissues, even when found in situations and organs the most remote from normal bone. Attention was also drawn to the similarity which exostotic growths showed to some of the conditions found in the healthy bones of lower animals, and, when occurring in tendons, to the osseous tendons of birds; and a suggestion was thrown out that such conditions gave evidence that disease in many ways resembled a retrograde metamorphosis.—PROFESSOR BENNETT said that in the cases there was no evidence in favour of any inflammatory process having been the cause of the ossification. Again, the ossification was not in the muscles, but in their sheaths. On the other hand, ossifying myositis rather began by destroying the muscles, and then producing ossification of the sheaths. He therefore objected to the term myositis ossificans as descriptive of such a skeleton. The facts went to show that the disease was congenital, and started in early life, and that the ossification proceeded in a manner the reverse of that which prevailed in true ossifying myositis. In the present case, the disease began in the bone, and grew into the tendons afterwards.—After some remarks from Dr. FRAZER and Mr. ABRAHAM, Professor CUNNINGHAM observed that an interesting point was the connection between these pathological changes in bones and morphological changes. A change in the habits of an animal sometimes rendered a ligament necessary in the place of a muscle, and then the latter underwent changes which converted it into a ligament. Such changes were distinctly pathological.—Dr. FOY observed that morphological changes produced by pathological conditions could not always be considered as disadvantageous. The so-called degradation of tissue produced by pathological processes might serve an useful purpose, as was shown in some of the lower animals.—Professor STOKER replied.

Oil-Wart.—Mr. STORY read a paper on oil-wart.

Tar-Cancer.—Dr. BALL read a paper on cases of cutaneous epithelioma occurring amongst the operatives at a tar-distillery. The first case came under notice four years ago, when Dr. Ball removed the front of the scrotum for an epithelioma, which had been preceded by a hard horny wart. A recurrence took place at the side of the scrotum, not involving the operation-cicatrix; this was extirpated two years ago, and since then the patient had remained well. The second case was that of an old man, about 80 years of age, who had an extensive epitheliomatous ulcer on the back of the left hand, which had originated in a wart five or six years previously. On the back of the right hand, and for a distance of about two inches above the wrist, there were numerous hard horny warts; and similar growths were present on the forehead and nose, although none existed on the parts of the body covered by clothing, The forearm was amputated; but recurrence took place within a few months afterwards, the lymphatic vessels of the extremity being more obviously implicated than the glands. In addition to these two cases, Mr. Story had brought forward a case of epithelioma of the eyelid in a man who had been engaged at the same occupation. From inquiries made at the works, Dr. Ball learned that two others of the operatives had recently been somewhat similarly affected. One had an ulcerated wart on his nose, which had been destroyed by caustic, the cicatrix being still present; and another was stated to have had a large sore cut out of his face, but it was found impossible to trace this case. The close resemblance between these cases and the soot-cancer of Pott indicated that, like it, they owed their origin to long continued irritation; in fact, it was quite possible that the active chemical agent was identical in both in-

stances. As there were but seventeen men employed in this industry in Dublin, it would appear that the proportion of cases of epithelioma occurring amongst them was very considerable; the numbers were, however, much too small as a base for statistics. There were but three principal products manufactured at the works in question. First, a light liquid, which was called "naphtha-oil," came over from the stills; then a heavier fluid, called "creasote-oil," which contained, on an average, about 8 per cent. of phenol; and pitch was the residue of the process. The "creasote-oil" was the most irritating of these products; and although, as stated, it contained 8 per cent. of carbolic acid, the men washed their hands in it without hesitation. Dr. Ball had recently an opportunity of questioning a man who had been for a number of years engaged in one of the large carbolic acid manufactories in England. On this man's hands there were numerous warts, and he stated that such warts were not uncommon among the operatives, even those who only had to deal with the purest and most refined carbolic acid; but he had never known of any cases of cancer occurring amongst the workpeople.—On the motion of Mr. STORY, both specimens were sent to the Committee of Reference.

Dislocation of the Elbow.—Professor BENNETT read a paper on complete dislocation of the elbow.

MEDICAL SECTION.

FRIDAY, MARCH 27TH, 1885.

HENRY KENNEDY, M.D., in the Chair.

Hyperpyrexia in Rheumatic Fever.—Dr. FINNY illustrated the subject of very high temperature in rheumatic fever in its clinical aspects, by recording two cases which had occurred in his hospital-practice. The first was a young man who was admitted to Sir Patrick Dun's Hospital last November, with his first attack of acute rheumatism. The fever was moderate, but the arthritic pains and the sweating were most pronounced. The only two features in the case which were remarkable before the hyperpyrexia set in were—(1) the prominence of nervous restlessness, with early loss of command over the bladder; and (2) the total failure of salicin, in full doses, either to relieve the pains or to reduce the fever. Notwithstanding the application of cold by means of relays of towels wrung out of iced water from the head to the feet, fresh cold towels replacing the others as soon as they became warm, the temperature rose from 102° at 6 P.M. on the eleventh day of his fever to 105° at midnight, to 107° at 2 A.M., and it stood at 108.8° at 3 A.M., and he died at 3.30 A.M. A *post mortem* examination showed the absence of peri- or endo-carditis, or of any disease of the lungs or kidneys. The brain was not examined. The second case was that of a woman, aged 37, who, on the seventeenth day of a moderately severe attack of rheumatism, exhibited slight evidences of pericarditis, and the day following the temperature rose to 104.6° in the morning, and, at 5 P.M., to 107.2°. The hyperpyrexia was associated with a deeply flushed face, shallow, rapid, and noisy respiration, and semi-comatose delirium. Under the ice-pack, applied in exactly the same manner as in the other case, the temperature fell in forty minutes to 103.8°, and, after its removal, it sank to 100.6°, four hours subsequently. From that time the patient made a good recovery, without any return of the alarming symptoms, and with a rapid clearing of all pericardial complication. Dr. Finny said that the condition of hyperpyrexia was one of great danger to the patient, and in direct proportion to its height, as, in about half of the recorded cases, death had been, apparently, its direct result. The close connection between the occurrence of delirium, with excessively high temperature and pericarditis, was well recognised. Thus, Dr. Francis Sibson collected thirty-seven cases of hyperpyrexia in acute rheumatism, and in about half this number pericarditis existed. Nevertheless, from the fact that hyperpyrexia might occur without visceral complication, and that delirium might be absent with a temperature of 107°, it was more than a matter of doubt whether they bore to each other any direct relationship, or that the local visceral inflammation was in any way the cause of either the high temperature or the nervous symptoms. The treatment of hyperpyrexia was important, and no time should be lost in attempting to reduce it. Quinine and salicin had but little effect, and not much was to be looked for from kairin. The application of cold was at once the readiest and safest method to adopt in the high temperature of rheumatic fever. At the same time, the true value of cold as a therapeutic should be recognised. It would not cure the disease it combatted, but the immediate and dangerous results of the complication. The method of using towels wrung out of iced cold water was preferable, as it was easily done, required no skill or many attendants, the strength of the patient was not exhausted by frequent liftings and handlings, and the shock inseparable from bathing was avoided.—A discussion ensued, in which Drs. Quinlan, Foot, James Little, R. Montgomery, and the Chairman took part. Dr. Finny replied.

Senile Dementia.—Dr. HENRY KENNEDY read a paper on senile dementia, which occurred in an old lady, eighty-six weeks subsequently to fracture of the neck of the thigh-bone. After the usual remedies had been tried and failed, a course of the extract of hyoscyamus proved useful, and, on the addition of small doses of mercury, a complete cure was obtained, except that her sleep was not restored. This symptom, however, was at once conquered by placing the patient with her head to the north. The author entered at some length into the reasons for the treatment adopted.—Remarks were made by Dr. Finny, Mr. Moloney, and Mr. Foy, and Dr. Kennedy briefly replied.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, APRIL 23RD, 1885.

W. A. GARRARD, M.R.C.S., President, in the Chair.

Deformity of Chest.—Mr. E. BARBER introduced a youth with very marked deformity (rickety) of chest.

Sections of Eyes.—Mr. SNELL exhibited a series of sections of eyes mounted in gelatine according to Mr. Priestley Smith's plan.

Calcified Enchondroma of Cerebellum.—Mr. ATKIN showed microscopic specimens of a calcified enchondroma of the cerebellum, which was accidentally discovered during the *post mortem* examination of a boy who had died of meningitis following otorrhœa. Mr. Shaw, of Attercliffe, made the examination, and found no connection between the growth and the cause of death. The boy, aged 11, had always been delicate, and suffered from hydrocephalus as a child, but was always considered lively and intelligent. A hard body, measuring half an inch by three-eighths of an inch, weighing 17 grains, was found in the right lobe of the cerebellum. There was no cyst, undue vascularity, or softening in the neighbourhood. After decalcification, sections showed it to consist of a central granular stellate nucleus, surrounded by hyaline cartilage; the whole was enclosed in what at first was a calcified fibrous capsule.

Hysterectomy.—Mr. F. WOOLHOUSE related particulars of a case of hysterectomy in which a large uterine fibroid was removed with the body of the uterus and appendages. The patient, single, aged 43, had noticed, eight or nine years ago, in the lower part of her belly, on the left side, an enlargement, and this had gradually increased, and latterly had become very painful. In December, 1884, a rounded smooth movable tumour was found, about the size of the uterus at the seventh month of pregnancy. On February 19th, 1885, the removal of the tumour was effected by taking up the uterus, at the junction of the body with the cervix, in segments, and tying each with strong catgut ligatures, and cutting through about half an inch above. The edges of the stump were drawn together and dropped into the pelvis. The operation was performed without the spray. The after-progress was detailed. The chief difficulty experienced was the severe gastric disturbance, the patient being unable to take any food by stomach without pain. There was a history of dyspepsia of several years standing. On March 18th, she had an attack of hæmatemesis, vomiting a large quantity of blood, and sank the next day. At the *post mortem* examination, the external wound was found perfectly healed, and the surface of the stump (cervix uteri) was cicatrised over. The stomach was filled with blood, and a large perforating ulcer was found in the posterior wall, adherent to pancreas, which had evidently prevented extravasation into the abdominal cavity. The specimens were exhibited.

Pseudo-hypertrophic Paralysis.—Dr. BANHAM introduced a boy, aged 13, suffering from pseudo-hypertrophic paralysis, in whom there were marked hypertrophy of the muscles of the calf and buttock, and equally striking atrophy of the muscles of the chest and shoulder, especially the pectoralis major. The weakness of the legs was first noticed when he was six years old, and had been progressive. The arms had been similarly invaded, and now there was a complete paralytic condition. Contraction had taken place in the hamstring-muscles, and the knee-joints appeared to have undergone change.

Leucocythæmia.—Dr. DYSON showed the spleen and heart from the case of leucocythæmia which he had exhibited at the Society on March 12th. The patient died on April 17th, after diarrhœa, general anasarca, and great asthenia had supervened; coma suddenly came on half an hour before death. At the *post mortem* examination, the abdomen contained a large quantity of greenish turbid fluid; the spleen weighed 2¼ pounds, the capsule was thickened, and on the surface were three white, not raised, patches; and on section these were found to be white in colour and triangular in shape, the apex being inwards; the rest of the splenic tissue had the usual features of hyper-

trophy. The liver weighed 3¾ pounds; a small whitish leukæmic patch was seen in the left lobe.

REVIEWS AND NOTICES.

THE DIFFERENT ASPECTS OF FAMILY PHTHISIS, IN RELATION ESPECIALLY TO HEREDITY AND LIFE-INSURANCE. By REGINALD E. THOMPSON, M.D. London: Smith, Elder and Co. 1885.

THIS is a careful investigation of the influence of heredity in the production of phthisis, and on its earlier or later appearance. The discussion is illustrated by numerous statistical tables, and all the conclusions are directly deducible from the statistics given. Dr. THOMPSON commences by proving the following three propositions. 1. Individuals who give a history of family phthisis are more liable to phthisis than the community at large. 2. Consumptives who give a history of parental phthisis are disposed to be attacked by the disease at an earlier period of life than those who have no such history. 3. Consumptives who give a history of phthisis in both parents are disposed to be attacked at an earlier period of life than those who have a history of single heredity only.

From a comparison of the relative liability of males and females to develop inherited phthisis, Dr. Thompson concludes that the supposed greater liability of females is based on unsatisfactory evidence, and inclines to think that the actual extent of heredity is not very different for males and females. The period of greatest susceptibility to acquired phthisis begins and ends earlier in women than in men. It is more acute, and earlier fatal in women, but copious hæmoptysis is more frequent in men. The susceptibility for the period of life before 25 is greater in inherited than in acquired phthisis in both sexes, but the difference is most marked in males. Where the father is the phthisical parent, the liability extends over all periods of life to 65 in males, and 50 in females, acute cases predominate, and the subacute are as numerous (in males) or more numerous (in females) than the chronic. Where the mother is the phthisical parent, the liability in the male is shown during the whole period of life; in females it is slight after 45, and ceases after 50. Hæmoptysis is frequent in both sexes, but is more often copious in the male. In both sexes, the acute cases are more numerous than the subacute, the subacute more numerous than the chronic, and the mortality is high. When both parents are phthisical, liability is reduced to insignificant proportions after 45; susceptibility is most marked between 15 and 20 in males, and 15 and 25 in females; but the disease seems to be more acute in males, and their liability to hæmoptysis, especially copious hæmoptysis, is greater. The inheritance may be transmitted by a parent or by parents who remain free from the disease; this probably holds good for the mother especially. In these cases, the disease tends to appear at an early age, the liability after 30 being insignificant.

The hereditary influence in the production of phthisis, Dr. Thompson rightly compares to the hereditary influence in the production of insanity, and in both cases the acquired disease may be transmitted.

Coming to the application of his facts and statistics to the practice of medical examination for life-assurance, all cases are classified on two different principles, according to age and according to family-history, and the following conclusions are reached.

1. Reject all lives under 25 with a distinct family-history.

2. Between 25 and 35, reject all lives where father or mother, with other members of family, or grandparent and parent, or both parents, or a large number of members of the family, have died of phthisis. Where one relative only has suffered, a small premium (3 years) should be charged. Where the family-history is of intermediate gravity, the ordinary premium should be charged, but a large deduction from the sum assured should be made in case of death within a stipulated number of years.

3. Between 35 and 45, all lives, except the very worst, may be taken with an extra premium.

4. After 45, all lives may be taken without additional premium, except where the father was phthisical, when the addition should be slight, or where both the parents were phthisical, or there was family hæmoptysis, when rejection is the safest course.

It will have been gathered that Dr. Thompson's essay is one of very considerable interest and importance. It deals with a somewhat dry subject, and the difficulty of the reader has been enhanced by a very compressed style, and by the forced use of familiar terms in a technical sense. The chief criticism, however, that appears to be called for is on the treatment of the subject of acquired phthisis, and of atavism. The difficulty of separating the two series of cases is great, and we are not satisfied that Dr. Thompson has been sufficiently alive to this source of confusion. The application of the term atavism in the way Dr. Thompson uses it is doubtful. The disease dealt with, phthisical disease of the lungs, covers too narrow an area of the field of disease, and there are too many cognate diseases which do not come within the range of the essay to allow the term atavism to be used to describe the occurrence to which it has been applied. The question of contagion does not materially concern the argument of the book; it is, therefore, only incidentally referred to, but always in such terms as show that the author is not inclined to minimise its importance.

A PRACTICAL TREATISE ON FRACTURES AND DISLOCATIONS. By FRANK HASTINGS HAMILTON, A.B., A.M., M.D., LL.D., late Professor of Surgery in Bellevue Medical College, and Surgeon to Bellevue Hospital, New York. Seventh American Edition, Revised and Improved. Pp. 996. London: Smith, Elder, and Co. 1884.

IN this revised edition of his classical work on fractures and dislocations, Professor HAMILTON has included notices of most recent contributions to the literature of these subjects, and has especially utilised the valuable researches and suggestions of Dr. A. Poinsot, of Bordeaux, the translator and editor of the French edition. Much also has been added from the more recent additions to the author's extensive personal experience. In this, as in former editions, it will be found that the author has attempted not only to collect information from every available source, but also to render such information reliable by a constant effort to eliminate the numerous doubtful statements derived from these several sources. Experiments upon the cadaver do not, it is held, illustrate precisely what usually occurs in injuries inflicted upon the living body, while the muscles retain their normal activity. Again, clinical observation alone cannot always be relied upon; and nothing, the author insists, is more unreliable than the testimony furnished by cabinet-specimens of unknown clinical history.

This work, which, since its first appearance twenty-five years ago, has gone through many editions, and been much enlarged and revised, may now be fairly regarded as the authoritative book of reference on the subjects of fracture and dislocation. It is based to a certain extent, as every treatise of this kind must be, on the work of Dupuytren, Malgaigne, and Robert Smith; but each successive edition has been rendered of greater value through the addition of more recent work, and especially of the recorded researches and improvements made by the author himself, and by his countrymen.

Notwithstanding the increase in the size of the volume, and the author's endeavours to render his work complete, the section on the general treatment of compound fracture can hardly be considered a very satisfactory one. This subject occupies very little more than three pages, and no allusion is made to the great reduction in the mortality of such cases during the past twenty years, and to the improved results of conservative treatment. Professor Hamilton has no faith in the antiseptic treatment, and, with regard to Listerism, states that he is far from being convinced that, in the case of compound fractures or of other wounds, it is capable of doing all that is claimed for it. The chapter on compound dislocations of the long bones is a very full and instructive one.

On the subject of fracture of the patella, the author gives it as his conviction "that a fibrous union of less than one inch in length is quite as advantageous as a bony union, and probably much stronger." To the practice of exposing and wiring the bones, he is strongly opposed, regarding it as a very grave and dangerous substitute for other plans of treatment that are perfectly safe, and at the same time equally efficient.

LOUIS PASTEUR: HIS LIFE AND LABOURS. By his Son-in-Law. Translated from the French by LADY CLAUD HAMILTON. London: Longmans. 1885.

IN an introduction which he has written for this volume, Professor Tyndall states that it is a translation, made at the invitation of M. Pasteur himself, of a volume published last year in Paris, under the title, *M. Pasteur: Histoire d'un Savant par un Ignorant.* A literal translation of this happy title was obviously impossible, but the title adopted conveys more accurately the actual scope of the work. It will be a matter of regret to all readers of the English translation that the translator has not carried out this excellent principle in the body of the book, which is as crude an instance of literal translation of good French into bad English as it has ever been our misfortune to read.

The great interest of the volume is undeniable; the life-work o

Louis Pasteur, happily not yet ended, has distinctly and notably advanced biological science, and has afforded remarkable examples of the application of scientific principles to remove the stumbling-blocks which have hindered the development or endangered the permanance of important industries. The steps by which M. Pasteur, beginning with a study of the polarisation of light, was led to the investigation of fermentation, first of the lactic acetic and butyric fermentations, and then of the disease-ferments of wine, and from this to the study of the relation of micro-organisms to infective diseases, are well traced by the filial affection of M. Valery Radot. Beginning with the silk-worm disease, M. Pasteur next turned his attention to fowl-cholera, a disease exceedingly fatal in the poultry-yards of France; while working with the virus of this disease, he succeeded in finding indications that the virulence of the poison might be diminished. Following up these indications, for which he had carefully searched, he presently obtained a growth of the micro-organism with such a degree of virulence that, when inoculated, it produced the disease, but did not cause death. Subsequent investigation revealed a method by which a similar change could be produced in the virulence of the organism which caused charbon or anthrax, a disease very fatal to the flocks and herds of France and Germany. These two observations are the two most remarkable triumphs of M. Pasteur's genius; they have, to some extent, the same scientific basis as Jennerian vaccination, but they carry the principle involved in that process a step further, by showing that the alteration of virulence is due to an alteration in the virulence of a micro-organism. How far this may ultimately turn out to be the explanation of the connection between vaccinia and variola, it is impossible yet to say. In his study of the prevention of hydrophobia, M. Pasteur has been compelled to return to more empirical methods; the results of this study are not yet complete, but there is good reason to hope that all difficulties of detail will be overcome, and that, at some future time, a method may be found, capable of being practically applied on a large scale, not only to dogs, but possibly to human beings already infected.

The volume may be recommended as at once interesting from the information it contains, and instructive as affording an insight into the method of thought of one of the greatest living masters of the experimental method.

THE MEDICO-LEGAL JOURNAL, MARCH, 1885.

THIS *Journal*, which is published under the auspices of the Medico-Legal Society of New York, is not wanting in spirit, and much activity is manifested in its management. The good quality of the papers is not, however, always in a direct ratio to the energy displayed. The present number contains a short biography of Dr. Conolly by Dr. Maudsley, which is written in good taste, but it is accompanied by a portrait which is a caricature, and its execution is a disgrace to the engraver, who has wisely concealed his name. It is inexplicable that, in a country from which such admirable works proceed, in the way of illustrations, the *Medico-Legal Journal* should allow such an absurd woodcut to be perpetrated. It issues from the private collection of Dr. Maudsley. *Ex uno disce omnes* is a good and safe rule in general, but we hope it does not apply in the present instance. This number contains a paper by Dr. S. Tucker Clark on "Organic Disease of the Brain not a Constant Factor in Insanity," which is wanting in definition, and is flowery where it ought to be scientific. We fear that the expectation of the writer will be fulfilled, namely, that he has not succeeded in bringing new light to any of his readers.

The late President of the Society, Mr. Clark Bell, delivers his retiring address, and sketches the operations of the associations at home and abroad; and there is a summary of the inaugural address of the President-elect, Dr. Doremus, which favours a larger exercise of the privilege possessed by courts of justice and judges of excluding the public and reporters from some medical trials. The course recently followed in the Durham divorce trial has with us met with approval, as one much more likely to ensure careful evidence. Counsel have no longer the temptation to excite the laughter of the gaping crowd; and, in short, an examination of a medical expert *in camerâ* becomes a scientific inquiry, instead of an unseemly wrangle between counsel and witness.

DROWNED IN A SEWER.—A man named Paget, superintending the main drainage works in Amherst Road, Hackney, fell from the upper portion of the staging, and was precipitated into the sewer. The sewage-water, it was computed, was coursing along at the time at the rate of twelve or fourteen miles an hour, and the deceased was instantly carried out of sight. His body was subsequently recovered at the outfall.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 9th, 1885.

LUNACY LAW AMENDMENT BILL.

THIS important measure passed its second reading on April 28th, and will be considered in committee next Monday. Meanwhile its provisions, as they are considered to affect members of the medical profession, are being considered by the Parliamentary Committee of our Association. A committee of psychologists has also been appointed by the College of Physicians for the same purpose. In the debate which occurred at the second reading, Lord Milltown expressed "the hope that the Bill would eventually and speedily lead to the total suppression of the system of private asylums," a hope which the Lord Chancellor himself clearly does not entertain, since he quoted Lord Shaftesbury's desire to preserve the best licensed houses, and only to eliminate the inferior ones, and declare that the Bill before the House had been framed upon that principle. The task of effectual elimination would not seem to be an easy one; but, as the members of both Houses of the Legislature who have taken an interest in the matter appear to be inclined to accept it as a sufficient attempt to satisfy the public mind at the present time, it does not seem improbable that the Bill, of which this is the main feature, will become law.

On the supposition that the private asylum system is to be maintained, Lord Milltown objected that the Bill contained no provision that the medical officers of these institutions should be independent persons, a deficiency which, he thought, ought to be supplied. On this important question his lordship is in agreement with Dr. Gasquet, from whose able pen an article in defence of private asylums is published in the *Nineteenth Century* for this month. Dr. Gasquet, who is himself the medical officer of a large private asylum, says that he would "very gladly welcome a provision by which every patient should be placed at first in a public asylum, and only be allowed to be removed to a private one by his friends after a certain interval, sufficient at least to establish his insanity." He also strongly advocates small private asylums in preference to large ones, because, he says, patients are much happier even in old and unsuitable buildings, where there is a homelike air and an absence of drill, than they are in institutions where there is a large congregation of lunatics. With regard to providing guarantees against the improper reception, detention, or treatment of patients in asylums, Dr. Gasquet thinks that "the whole question is entirely one of adequate supervision from without;" and he suggests, as the best means for obtaining this end, the appointment of independent medical officers, like the medical visitors appointed

under the present law for the supervision of single cases. For these cases, he says, "the law has provided for their visitation, at least once a fortnight, by an independent medical man who derives no profit from the care of such patients. This is found to work perfectly well, and I venture to think the principle might be extended to private asylums with advantage. It seems feasible to provide that every such asylum should have a medical attendant, or superintendent, distinct from the proprietor, when the latter is a medical man. This medical attendant should be paid by salary, and the Commissioners in Lunacy, or some other authority, should have a veto upon his appointment and removal. The public would thus obtain the guarantee of a responsible person in immediate charge of the patients, and as independent and disinterested as are the officials of our lunatic hospitals." Perhaps the suggestion is not quite new. Lord Milltown appears to have been in possession of the idea, and, if we mistake not, the Commissioners in Lunacy have already put it in practice by refusing to license certain asylums unless they could appoint to them independent medical superintendents paid by salary. On all the points referred to, and in the supposition that the private asylum system is to be retained, we think Dr. Gasquet's views well deserve the attention of the legislature.

It will be found practically impossible to eliminate all good asylums and to suppress all bad ones in the manner which the Lord Chancellor anticipates; but it is possible to distinguish between a large and a small asylum, and between first and subsequent admissions; and if private asylums can be limited to small home-like places, where a few chronic patients can enjoy a family-life, "with an absence of drill," under the supervision of an independent medical man who derives no profit from their detention, both the opponents and the advocates for private asylums may perhaps feel grateful to Dr. Gasquet for the suggestion of a moderate and workable compromise.

The more important question to the medical profession at large is that of the proposed change in the certification of lunatics, and the alteration it would make in the responsibility of the certifiers. The degree of this would probably depend upon the amount of responsibility transferred to the shoulders of the magistrate. If his function is to be simply ministerial, if he is to be called upon merely to *visé* the certificates, it is difficult to understand how his interference can relieve the certifiers from any of their present responsibility. But if he is to act judicially by infusing his own opinion into the right or wrong of detention, it is clear that the responsibility of the certifiers must thereby be modified. The eleventh paragraph of the first section of the Bill leaves no room for doubt that the magistrate must act judicially, that is, that he must satisfy himself that the alleged lunatic is of unsound mind; although, very curiously, it appears that his satisfaction may terminate at this point, and that there is no need for him to form any judgment as to whether the alleged lunatic is also a proper person to be detained under care and treatment.

The extent to which the judicial action of the magistrate would alleviate the responsibility of the certifier, would appear to depend upon the degree to which the latter may be invested with the immunities of a witness, and opinion upon this important point seems still to be very unsettled. The Lord Chancellor, in striving for privacy and celerity in these proceedings, first proposed to give the new jurisdiction to any one justice of the peace; this arrangement, however, he has now announced his intention to amend, by giving power to justices in quarter-sessions to appoint special justices acting singly for this purpose. Lord Milltown, however, thought that the best plan would be to entrust the new jurisdiction to two justices; and we quite agree with him, for, both for convenience and celerity, the action of two justices would be much preferable to that of one special justice, selected at quarter-sessions, to exercise the new jurisdiction in each division of the county. The services of one special justice might not always be available when most wanted, while two justices are bound to be present whenever petty sessions are held, and the Queen's peace has to be maintained. Moreover, two average intelligences are acknowledged to be more trustworthy in the long run, when they concur, than one special one, unless it be an especial one. Therefore, if the intervention of the justice be enacted at all, it will be best, for many reasons, that it should be provided for in a thorough manner, and not in one which may defeat its purpose of concealment without gaining its end of securing efficient action and public confidence.

If two justices be substituted for the special product of the quarter sessions, and if two medical men be required to give evidence before them upon oath as to what they believe to be true in regard to the state of mind of an alleged lunatic, it is probable that the public conscience will be satisfied, and it is certain that the immunity of medical men acting as witnesses will be secured.

THE PATENT MEDICINES STAMP ACT.

THE announcement by the Chancellor of the Exchequer of his intention to deal with the question of the Medicines Stamp Tax in a liberal spirit will be received with general satisfaction. It is especially a subject of congratulation to members of the British Medical Association, by whose efforts the hardship to the poor and the iniquity and injustice of the tax were brought directly under the notice of the Government. It will be remembered that a very complete and exhaustive abstract of the legal aspects of the question was published in the BRITISH MEDICAL JOURNAL of July 19th, 1884. In the following August, the matter was fully discussed at Belfast, in the new section of Pharmacology and Therapeutics, and a series of resolutions were passed, which were subsequently adopted at a general meeting of the Association. Dr. Balthazar Foster, the President of the Council, wrote officially to the *Times*, pointing out the baleful effects of the tax in giving a quasi-government sanction to many worthless preparations, and thus bolstering up a nefarious traffic. His communication attracted much attention, and the subject was warmly discussed both in the London and provincial press. Dr. Cameron, at the request of the British Medical Association, brought the matter to the notice of the Chancellor of the Exchequer, who promised that it should receive his serious consideration. Many months have elapsed since then, but that the matter had not escaped his memory or been allowed to fall into abeyance is clearly evidenced by his Budget speech. The stamp is to be completely altered so as to make it perfectly clear that it is nothing but a stamp, and not a Government guarantee of the purity of the drug. The importance of this modification is incalculable. It cannot be disputed that many people think that a Government label bearing the name of the proprietor of the article would not be permitted to be affixed to it unless the contents of the bottle had been analysed and found free from deleterious ingredients. This view is deliberately encouraged by the proprietors of many quack medicines, and it is quite time that decided steps were taken in the matter. The resolution adopted by

Mr. Childers shows that he fully appreciates the importance of the subject, and the necessity for maintaining the health and promoting the physical wellbeing of the people.

The second change proposed is also one in the right direction. In future, medicines will be regarded as taxable only if held out to be "proprietary." This is quite right, although it must be confessed that there is some fear of including inadvertently in the term "proprietary" legitimate pharmaceutical preparations. A tincture or liquid extract, or an alkaloid made by a special firm of chemists, might be said legally or technically to be a "proprietary" article, although clearly it belongs to an entirely different category from most of the drugs included under that head. It would be better to substitute for the word "proprietary" the term "secret." There can be no doubt as to what is meant by a secret remedy, and it is equally clear that secret or "patent" medicines should be taxed.

We are glad to hear that the revenue will not be materially affected by the adoption of the changes proposed by the Chancellor of the Exchequer; but really no monetary consideration ought to be allowed to weigh for one moment when the health of the nation is weighed in the balance. On Monday last, Mr. Hibbert, in answer to Mr. Stuart-Wortley, stated that the provisions of the Stamp Act (44 George III, c. 98) were frequently evaded; and that, during the year 1883-4, the receipts from the three-halfpenny duty amounted to only £93,500. Taking into consideration the difficulty of collecting the tax, and the frequency with which prosecutions have to be resorted to, it seems strange that it should be thought necessary, for the sake of the revenue, to retain it in any form; but, pending its total repeal, we accept gladly the statement of the Chancellor of the Exchequer that he is prepared to modify its provisions. That the British Medical Association should have accomplished so much in so short a time is an indication, if such were needed, of the necessity which existed for prompt action in the matter.

DETENTION OF PAUPER LUNATICS.

RECENT litigation has directed public attention to the subject of the Lunacy Laws, and has shown that those laws are very defective, and that their administration is worse than the laws. Officials who were trusted to perform their duties correctly have been proved to have misconceived their powers, and to have been guilty of conduct which clearly was illegal. Following the actions brought by Mrs. Weldon and others against the proprietors of private lunatic asylums, came the case of Hicks *v.* Bedford and Others, in which the plaintiff recovered damages against the master of a workhouse for illegally detaining her as a pauper lunatic, when she was not a pauper at all and the certificate authorising her detention as a lunatic was irregular. The verdict in her case was generally approved, and most people thought the workhouse-master properly punished for having, perhaps innocently enough, been a party to what was undoubtedly an unjustifiable imprisonment of Mrs. Hicks. The scare which the verdict caused among workhouse-officials has produced an awkward result; for, judging from the reports of two cases in the metropolitan police-courts which have since occurred, workhouse-officials are now disposed to refuse admission to all cases of lunacy irrespective of their nature. Prior to the General Poor-law Act of 1834, 4 and 5 Wm. IV, c. 76, the practice of keeping insane persons in workhouses prevailed, and that Act, by prohibiting the detention of dangerous lunatics in workhouses, apparently recognised and sanctioned the detention there of lunatics who are not dangerous. The Lunacy Acts also recognise and apparently sanction the practice by providing for the removal to asylums of such lunatic-paupers as are not fit to be kept in workhouses, and from workhouses which have no proper accommodation for them.

In case of pauper-lunatics wandering at large or improperly cared for at home, it is in the interests of the public most desirable that some provision should be made for promptly attending to their cases. Such attention has hitherto been afforded in the workhouses. Lunatics have been provisionally admitted by the relieving officer or the master of the workhouse, and in due time the case has been considered by the guardians, who have either sent the patients on to an asylum or authorised their continuance in the workhouse. Under the Lunacy Act of 1853, 16 and 17 Vic., c. 97, s. 68, magistrates have power to order a lunatic wandering at large, or not under proper care and control, to be sent to an asylum, hospital, or licensed house; and may suspend the execution of the order for a period of fourteen days, giving directions for the proper care of the lunatic in the meantime. These directions have usually taken the form of sending the lunatic to the workhouse (which is obviously the most convenient place); and lunatics coming with an order from a magistrate have been admitted as a matter of course. Unless, however, the present scare among workhouse-officials should subside, some other place f pauper and wandering lunatics must be found. Relieving officers will now no longer order their admission into workhouses, and when magistrates order it the orders are disregarded. In refusing to obey such orders, the workhouse-officials are technically right, for admission to a workhouse is relief, and magistrates have no power, at any rate without hearing the guardians, to order relief to be given. The officials are, however, running a serious risk of rendering themselves liable to penalities when they disregard directions given by a magis, trate for the admission of a lunatic into a workhouse, or when without such directions they refuse to admit him; if a pauper-lunacy be a form of sickness, and one of the duties of a relieving officer prescribed by Article 215 of the Poor-law General Order be "in any case of sickness—to procure medical attendance by such means as the urgency of the case may require." The Poor-law Act imposes penalties on persons who wilfully neglect or disobey any of the rules of the Commissioners; and in the year 1873 the Court of Exchequer in the case of Clark *v.* Joslin, held that a relieving officer who in case of urgent necessity neglected to give relief, was properly convicted under the Act. We believe that the recent conduct of the workhouse-officials, in refusing to admit lunatics whose cases seem to have been fit for treatment in workhouses, is under the consideration of the Local Government Board, and it is to be hoped that that Board will be able to frame some order which will be satisfactory. At present workhouse-officials are in a dilemma, if they admit lunatics into workhouses and the proceedings should turn out to be irregular they may have to pay damages; if, in a proper case, they refuse admission, they may render themselves liable to a fine and perhaps to imprisonment. The public interests require that lunatics shall somewhere be placed under proper care and restraint so as to prevent their doing harm to themselves or others; but they also demand that proper safeguards should be provided for preventing sane persons from being incarcerated as lunatics. Where a patient has been duly certified by a magistrate to be insane, there seems to be little risk of his showing his detention to have been illegal, and in such cases workhouse-officials need not be afraid to admit the alleged lunatic. Both in the

interest of the public and in that of persons alleged to be lunatics, we think that the practice of taking insane paupers in the first instance to a workhouse, is one which cannot be abandoned without the risk of causing disastrous results.

In the clauses of the Lunacy Law Amendment Bill relating to pauper lunatics, it is proposed to find facilities for the temporary safe custody of lunatics found wandering at large, who can be sent, but only under a justice's order, to a workhouse. But what will be result of dealing with this class only? From a practical knowledge of the question, derived from a very lengthened experience, lunatics found wandering are generally picked up by the police late in the evening or the small hours of the morning. Under the provisions of this section, they must all be taken to the station-house and locked up in police-cells; for no master of a workhouse will honour the divisional surgeon's order for the admittance of a lunatic or supposed lunatic in the face of the proviso that if he do so he will be guilty of a misdemeanour. That this must be so is clear, for what stipendiary magistrate or justice of the peace will there be found who will leave his house or get out of bed to interview a lunatic or supposed lunatic, and then sign an order in the form prescribed for his or her admission to the workhouse? But there is another aspect of the question: there are in all large towns many cases constantly cropping up where husband or wife, son or daughter, becomes deranged; for obvious reasons it happens that action in such cases is delayed (probably in the hope of recovery) until at last a sudden outbreak of maniacal violence takes place. Here, again, from our experience, we state that these outbreaks occur pretty generally when all these officials to whom the control of the subject is in future to be remitted are not to be got at; and so the opportunity which was formerly existent and extensively used will no longer be available, as no relieving officer will intervene, no master of a workhouse will be found to take temporary charge of such lunatic in the wards built and maintained at the cost of the rate-payers for such purpose. In conclusion, we trust that some influence may be brought to bear, so as to make the Bill a more reasonable, and therefore more workable, measure.

Dr. Robert Koch has been officially gazetted as Professor in the Medical Faculty of the University of Berlin, and has been appointed "Geheimer Medicinalrath."

The report of the Royal Commission on the Housing of the Working Classes, so far as it relates to England, has been signed; but will not be presented until the reports on Scotland and Ireland are ready.

We regret to have to announce the death of Dr. P. A. Panum, the distinguished professor of physiology in the University of Copenhagen. Dr. Panum, who was well known for his practical attainments, presided over the International Medical Congress held last year.

We regret to see typhus fever appearing in the mortality-returns of several of our large towns. Last quarter, there were fifteen fresh cases of it at Salford, as compared with sixteen and eighteen respectively in the September and December quarters; and two persons died. All the fifteen cases were promptly removed to hospital; and, as far as at present known, the disease has not spread beyond the persons thus isolated.

Mr. George William Collins has been appointed an inspector, for a period of one year, in the Medical Department of the Local Government Board, under the sanction recently given by the Treasury for providing some temporary help in the department. There are now six temporary inspectors attached to the Medical Department, and we believe the limit set by the Treasury has been reached by this latest appointment.

We regret to hear, on good authority, that Professor Huxley, feeling the weight of long years of arduous intellectual labour, is, under the advice of his friends, about to withdraw from many of his most active employments, in order to recruit his strength by a prolonged period of rest.

Among the list of selected candidates, recommended by the Council of the Royal Society for election to the Fellowship, we observe the names of Sir Andrew Clark, M.D.; H. Hicks, M.D.; A. M. Marshall, M.D.; and Professor Sydney Ringer, M.D.

We understand that Professor Frankland, F.R.S., has intimated his intention to resign the post which he has held for many years at the head of the School of Chemistry in the Science Department at South Kensington. Professor Frankland retires in the fulness of his activity, and with the well earned fruits of a career which has been as advantageous to the public service, and to the great body of pupils whom he has inspired with a love of science, as it has been in every sense prosperous and successful.

This evening (Friday) a paper will be read at the Society of Arts, John Street, Adelphi, by Surgeon-Major Robert Pringle, M.D., late of the Sanitary Department of the Indian Army, on "The Ancient and Modern Methods of Treating Epidemics of Small-pox in India." The chair will be taken at 8 o'clock, by Sir Philip Cunliffe-Owen, K.C.M.G., etc.

DEATH OF AN ANTIVACCINATOR FROM SMALL-POX.

We hear from Truro that small-pox has just cut short the career of one of the most energetic opponents of vaccination in the West of England. Death is a heavy price to pay for consistency in one's opinions, and we cannot help recalling the wisdom shown by the brother of the deceased gentleman a few months ago, when the death by small-pox of his unvaccinated son converted him to a belief in the efficacy of vaccination, and induced him to have the prophylactic operation immediately performed on the remaining members of his family. The logic of facts is always more forcible than that of abstract argument.

SANITARY PROGRESS.

Mr. Edwin Chadwick, President of the Association of Public Sanitary Inspectors, delivered an address at a meeting of the members on Saturday (May 2nd). He regretted the continued delay of promised legislation for large measures of sanitation. He thought that hitherto sanitary progress in this country might be regarded as having been at the rate of three steps forward and two backward, through ignorant reaction against the provisions of science for economy as well as efficiency. There could be no doubt that one of the largest public needs was the collection of scattered and weak sanitary functions, and their consolidation distinct from the curative service, under a Cabinet Minister of Health.

COLLECTIVE INVESTIGATION IN AMERICA.

The Medical Society of Pennsylvania have issued, to the medical men in the State, reprints of the cards upon Pneumonia, Chorea, and Rheumatism, which were issued by the Collective Investigation Committee.

THE BRITISH PHARMACOPŒIA.

We have reason to believe that the new edition of the *British Pharmacopœia* will shortly be published; we understand that the proof-sheets are at the present time receiving a final revision, and that the whole work is making rapid progress towards completion.

PARSEE MEDICAL STUDENTS FOR SUAKIN.

THE *Jam-e-Jamshed* understands that six of the advanced Parsee students of the Grant Medical College have applied, through Surgeon-General Moore, to the Government of India, for permission to proceed to Suakin to tend the wounded. The paper, expecting a reply in the affirmative, advises the students not to care for any remuneration from Government beyond their boarding and lodging expenses, and thus show that they are actuated by nothing less than a benevolent spirit and loyalty towards the British Crown. It is true that the students will loose one year of their college course by being absent for two or three months, but, the paper says, their loss in time will be amply repaid by the experience they will gather of the treatment of the wounded on the field of battle.

A VOYAGE TO NEW ZEALAND.

THE following quotation from a letter, recently received by a correspondent, from a gentleman who sailed early last December to avoid an English winter, conveys a needed warning. "The weather was very pleasant for some days after we left Teneriffe; but, as we had a following wind, the north-east trade, it got gradually warmer until the thermometer touched 83° in the cabins at 10 degrees north, which at that season means 33 degrees north of the sun. Then began a process which astonished us very much. So far, we had not been any great distance from land; but, as soon as we passed into the Gulf of Guinea, and while still north of the equator, the temperature began to fall, 82, 80, 79, 77, 75, 71, 71, 69, 69, 68. This, with a strong south-east trade-wind in our teeth, made the ship very cool, if not cold; and, when under the vertical sun, greatcoats and rugs were required on deck after dinner. As we approached land again, towards the Cape, the thermometer rose a few degrees, touching 74°; but, as soon as the land was left behind, it went to 71, 63, 57, 55, 52, 50, 45. These are cabin readings, and, on deck, 37° and 36° were the midday temperatures. The regular steamer-route goes to 51 degrees south, and travels on that parallel for 65 degrees; and one soon begins to wonder whether doctors know what they are about when they recommend a voyage round the Cape. The weather, we are told, is quite normal, and a shower of sleet is just what may be looked for at midsummer here. The ships' officers consider it a very good voyage, and the captain, when he turns out of his cabin, after a week of congestion of the lungs, says the weather is beautiful. So it is, according to the log; for there is generally plenty of fair wind, and the runs are long, but it is not invalids' weather. I wear both summer and winter flannels, a chamois waistcoat, and, with a greatcoat turned up at the neck, and lined gloves on, I manage to walk for an hour once, or it may be twice, a day; but one day this week I did not get out at all, and I had to pay for one of my walks with a mustard-blister. I am not prepared to say that the cold weather has been bad for me; for I had a troublesome cough when the weather was warmer, which I have not got now; but it is risky, and, for a weaker man, would be dangerous. One poor fellow, sent off by eminent London doctors, will, I fear, never see New Zealand. He came almost from his bed to the ship, and, being over middle age, he had little rallying power, and a very poor idea of what to eat and drink. He was left to order just what he wanted, and, having no appetite, I do not think he has had enough of food. The ship has been healthy, on the whole; a sailor who came on board with a cold died, and there have been some cases of bronchitis and sore-throat; but, amongst five hundred, the patients have not been numerous."

ART AND MEDICINE.

THE observation made in a book recently reviewed in our columns as to the peculiarly artistic tastes of medical men, and the fact that many of the most distinguished practitioners have been, in their time, eminent collectors of objects of art, and have, by their taste and discrimination, largely aided to preserve and classify the most interesting objects of past times, is borne out, in an interesting manner, by recent sales of Wedgwood at Christie's. One of the finest collections of Wedgwood, perhaps the finest ever brought together at the time, was that of the late Dr. Sibson, which sold at Christie's, after his lamented death, for £8,000, and included a variety of examples of this exquisite ceramic ware, selected with remarkable judgment and taste. Last week a like and subsequent collection, made by Mr. Shadford Walker of Liverpool, was sold at Christie's, and proved to be of an equally remarkable character, perhaps even more so, and it also realised a very large sum. Another remarkably fine collection of Wedgwood is in possession of Dr. Braxton Hicks. On Monday night, at the *conversazione* of the Medical Society of London, a remarkable series of exquisite and rare pictures and coloured wood-engravings of Japanese art was kindly lent by Mr. Anderson, of St. Thomas's Hospital. Mr. Anderson, whose taste in art and unequalled knowledge of Japanese art and literature rival his skill and accomplishments as a surgeon and an anatomist, had brought together, during the time that he filled the post of Professor of Surgery and Anatomy in the University of Yeddo, a quite unique collection of the marvellous work of Japanese artists, dating from the tenth century. Those treasures are now the property of the nation, and a room will shortly be devoted to their display in the British Museum. Meantime, a learned and instructive catalogue is in preparation, and will shortly appear, as will also a monumental and instructive work on the Pictorial art of Japan, from the pen of Mr. Anderson, of which Messrs. Sampson and Low are the publishers, and of which they have just issued the prospectus. Sir Henry Thompson's unique collection of old blue and white Nankin china, and the catalogue of his collection, illustrated by himself and Mr. Whistler, must not be forgotten in any brief note on this subject. Other examples are numerous: the most notable, perhaps, of living collectors being Dr. Diamond, of Twickenham, whose choice collection of portraits is now at Oxford, and whose varied collection of old English china, of Bartolozzi engravings, etc., is well known as affording the most remarkable evidence of cultivated taste and unerring judgment. The cultivation of an artistic taste, flavoured with erudite researches, seems to afford favourite relaxation to no small proportion of our most successful and busiest practitioners.

PROFESSOR HUMPHRY DE SENECTUTE.

PROFESSOR HUMPHRY, in his eloquent oration before the Medica Society of London, on Monday last, May 4th, drew a picture of old age, produced by the action of physiological processes alone, which differed materially from the classical descriptions. He will not have it that "second childishness and mere oblivion—sans teeth, sans eyes sans taste, sans everything," is a true picture of the last stage of all the teeth he might admit under protest, but all the other items he would dispute. He would not even altogether agree with another most eminent quondam professor of anatomy, who has said that "there is no doubt when old age begins. The human body is a furnace, which keeps in blast threescore years and ten, more or less. When the fire slackens, life declines; when it goes out, we are dead." Professor Humphry would insist on fourscore years; but, for the rest, would probably be willing enough to accept Dr. Holmes's simile, for he anxiously contended that physiological death occasionally occurred. It is easy to see that the course of evolution in the individual tends this way, and that a mere cessation of function is the natural termination of the process—a termination but rarely reached, owing to the struggle for existence among wild animals and savage men, and to the interruption of pathological processes in civilised man. Professor Humphry dwelt long on the profoundly interesting fact that disease is, in a double way, the product of civilisation; the moral infirmities of civilisation beget disease, but civilisation, by reason of its partial success, also favours the development of pathological processes, by protecting the weakly or sickly from the natural consequences of their physical inferiority. How frequently Professor Humphry supposes pathological processes to intervene, will be evident from the fact that he does not place either hardening of the costal cartilages, or thick-

ening or hardening of the arteries, among the physiological changes of old age. Some of Professor Humphry's observations were founded on reports made to the Collective Investigation Committee, and he was able to state that the popular belief, that longevity "runs in families," is well founded, and also that there is some connection between this tendency and a tendency towards phthisis; in some of the cases, even both parents had died of phthisis. This is in accord with the fact, first, we believe, worked out by Dr. Reginald Thompson, in his recent work on *Family Phthisis*, that the hereditary tendency transmitted by phthisical parents ceases to influence the lives of the sons after the age of sixty-five, and the daughters at a still earlier age. One point of great interest was only lightly touched on: why is it that, with the increase of years, the susceptibility to contagious disease decreases? An answer to this question would probably throw much light on a very obscure pathological problem. Professor Humphry was very warmly applauded at several points during his address, and at its close. The vote of thanks, proposed by Sir Joseph Fayrer, and seconded by Mr. Durham, was carried by acclamation; and Dr. Ord's last duty for this session, in the chair which he has filled so well, was to convey the warm thanks of the Society to Professor Humphry, who, in replying, made a sympathetic reference to the untimely death of Dr. Mahomed. The large assembly then broke up, many lingering to examine the artistic treasures lent by the President, Mr. W. Anderson, and others, and to listen to the strains of Mr. Charles Saunders's band.

DRUNK OR DYING.

WE have so urgently called attention from time to time to the necessity of improvement in the rough diagnosis of the police-authorities, that we receive with satisfaction the announcement that "consequent upon the numerous representations which have been made with reference to the treatment of persons arrested for alleged offences, and especially to prevent a recurrence of the mistakes which have been made when prisoners suffering from illness have been treated as drunken persons, the Secretary of State has issued a circular to the police-authorities throughout the kingdom, directing that strict orders should be given to the police that, when any prisoner complains of illness, or shows symptoms of illness or of being in a feeble state of health, whether he makes complaint or not, the police-surgeon should be summoned, and the prisoner medically examined. If the prisoner be found to be suffering from serious disease, a full report as to his state of health is to be submitted to the magistrates before whom he is brought. Directions are also given as to the treatment of prisoners suffering from illness.'

GASTRO-ENTEROSTOMY.

THE first instance of this operation in this country has occurred recently in the practice of Mr. Reeves. The operation has been undertaken for cancer of the pylorus and pyloric end of the stomach, and its object is to open the stomach and a portion of the small intestine high up (lower part of duodenum, or upper portion of jejunum), and to join them. Mr. Reeves' patient was a woman aged 40, suffering from a tumour which could be felt at the right of the umbilicus. Her stomach was considerably dilated, forming a dullish tumour over the greater part of the left side of the abdomen. As there was constant vomiting, and as her strength was rapidly diminishing, an exploratory operation, with the view to pylorectomy, if found possible, dilatation of the pylorus if the obstruction were fibrous, or gastro-enterostomy, was, after consultation, decided on. An incision, two inches and a half long, commencing just below the umbilicus, was made, and the dilated stomach was at once exposed. Finding that the disease was extensive, the pylorus being fixed, and the lymphatic glands involved, pylorectomy was abandoned, and, on account of the risk of extravasation of the contents of the stomach, it was decided to do the operation in two stages. The stomach was fixed to the abdominal wall, and the wound closed. On the eighth day, the wound was opened the upper part of the jejunum was pulled into position, and, after the peritoneal cavity had been carefully protected, the stomach and jejunum were opened in corresponding directions and well stitched together. The patient succumbed on the night of the ninth day. Full details of the case, which presents several points of interest, will be published.

CONVOCATION OF THE UNIVERSITY OF LONDON.

THE annual meeting of the Convocation of the University of London will be held on Tuesday, May 12th, at 5 P.M. The first duty will be to elect a new Chairman, in the room of Dr. Storrar, who has resigned after twenty-one years' service. Dr. F. J. Wood, a member of the Senate and a Doctor of Laws, has been nominated by an influential list of members, and will doubtless be elected. The subcommittee of the Annual Committee will present an interim report on the matriculation examination, which appears to us to be most unsatisfactory, recommending little tinkering alterations that will do no good; as, however, the Committee asks to have the matter referred back, it appears to be aware that the report is very inadequate. The only other business of importance is a motion affirming the principle that candidates who have failed only in one subject should be re-examined in that subject only, a proposal distinctly inferior to that now before the Senate, which is that candidates failing in one or two subjects should, if they have passed a satisfactory examination in other subjects, be re-examined only in the subjects in which they have failed. A proposal to establish an "union" for graduates and undergraduates will also come up; and in this connection it will surprise a good many graduates to hear that there is a Graduates' Room at Burlington Gardens.

SHOP-HOURS.

THE movement for regulating, by the dictates of health and humanity, the working hours of shop-assistants, has always had all our sympathy. A public meeting was this week held at Exeter Hall in support of Sir John Lubbock's Bill, presided over by Lord Brabazon. Mr. T. Sutherst, barrister, the President of the Shop-Hours Labour League, read a letter from Lord Shaftesbury, apologising for his absence, and expressing "how truly he approved of the movement, especially as it was in harmony with all the labours and purposes of his early life." There was but a small attendance; but this, it was ingeniously argued, was the best argument for the necessity of the League. When these meetings had been held on a Sunday, they were attended by from 10,000 to 13,000 people; and the fact appears to be, that those who were deeply concerned in the success of the movement were unable to get to such a meeting at 9 o'clock on a work-day evening. It has been estimated that the average working week of shop-assistants is from seventy-five to ninety hours; and, generally speaking, the proprietors of places of business are forced into such long hours, not for love of them, but simply owing to excessive competition. In these circumstances, it is necessary that legislation should step in and put an arrest on what is held to be a national evil, deteriorating the health of a very numerous and important class of the community. The provision in Sir John Lubbock's Bill, "that a young person shall not be employed in a shop for a longer period than twelve hours in any one day," is only the extension to shop-assistants of a principle which has already received Parliamentary sanction in the Factory and Workshops Act of 1878. In supporting a resolution affirming that young persons whose employment in shops and warehouses is unduly and unnecessarily protracted, to the injury of their health and general welfare, are entitled to the same legal protection as those employed in factories and workshops, and approving of Sir John Lubbock's Bill, Sir John Lubbock, M.P., stated that he had never been able to ascertain any serious objections to the principle of the Bill. Nothing is gained by inordinately long hours; on the contrary, more work might be done in a shorter number of hours. It is not merely a question of overwork, but of positive waste of time.

There are no novel principles in the Bill. It does not even go so far as the Factory and Workshops Act; because, if Her Majesty's inspectors were to visit every shop in the same way as they go into factories, not only would an army of officials be required, but such inquisitorial visitations would make the Bill unpopular, whereas it is desired to produce an opposite effect. It is hoped to gain the same object by simply giving the means by which practically the wishes of the majority of the shopkeepers may avail against the wishes of the minority. The smaller shops are only to do that which the better establishments already carry out. The measure is in accordance with the wisest maxims of political economy, and would confer a great boon on the people of this country. The vast majority of shop-proprietors, indeed, are just as anxious for the provisions of this measure as the shop-assistants themselves. Representatives of Marshall and Snellgrove, and Debenham and Freebody, two of the largest retail establishments, warmly support this view; and that is a very hopeful sign.

MR. SHIRLEY MURPHY.

THE Executive Committee of the Shirley Murphy Testimonial Fund have, since Mr. Murphy's return to England, had the opportunity of ascertaining his wishes with regard to the movement which was inaugurated during his absence; and, in deference to those wishes, they have determined that, subject to the consent of the contributors to the fund, which will forthwith be applied for, the testimonial shall simply take the form of an address to Mr. Murphy, and the fund collected, which has already reached far larger proportions than was at first anticipated, shall be devoted to some public work having for its aim the reforms for which Mr. Murphy has worked for so many years. Under these altered circumstances, it is not proposed to ask for any further contributions to the fund.

OPERATION FOR THE CURE OF ABDOMINAL ANEURYSM.

WE have received from Professor Loreta, of Bologna, an account of the death of the patient operated on by him for aneurysm of the abdominal aorta, and whose case was detailed in this JOURNAL for April 11th, page 745. The man died ninety-two days after the operation, that is, about three weeks after Professor Loreta's account of the case was published. His death was quite sudden, for he had been in excellent health for several weeks, and the tumour had become almost imperceptible to the touch. The cause of death was rupture of the aorta, just at the angle of junction between the artery and the front wall of the tumour. The aneurysmal sac had shrunk to the size of a walnut, and was completely filled with coagula of organised fibrine. The copper-wire was found unaltered, and rolled up into a globular mass in the sac itself. Professor Loreta suggests that the compression and other changes produced in the artery by the coagula in the sac, may have caused a failure in the blood-supply to the portion of the arterial wall immediately below the tumour, and may thus have induced the rupture of a portion of the artery, which was no doubt already diseased. We may add that Professor Loreta immediately published the result of the case in the Italian medical journal *La Riforma*, and that he also sent a notice of it to ourselves. The notice, however, by some misdirection or postal inaccuracy, failed to reach us.

THE SANITARY CONDITION OF THE SUBURBS.

SOME day, when the Local Government Board can spare time from the investigation of obscure epidemics in the mountain-villages of Cumberland or Wales, it may possibly be able to give a little attention to the sanitary condition of our metropolitan suburbs, especially of those comprised within the "outer ring." There is no need to use refinements of language in speaking of the public health administration of many of these suburbs. It is disgracefully and scandalously inefficient. The late Mr. Netten Radcliffe made a start upon a survey of the suburbs in the year 1872, under the direction of Mr. Simon; but, for some reason or another, the work was never much more than begun. The fault of the present inefficiency does not rest altogether with the local boards. It needs an especially and unusually foresighted body to supervise and safeguard the sanitary interests of places with the mushroom-like rapidity of growth of the suburbs. There is a Bill now before Parliament, giving certain powers to the Metropolitan Board of Works over the area comprised in a six miles radius from Charing Cross, instead of four miles as at present. To give the Board of Works any more sanitary work to do would, of course, be out of the question; but some greater co-ordination and sympathy with suburban local boards ought, we think, to be at once established by the central authorities. An excellent example is West Ham, which is technically outside the metropolis, though actually quite as much a part of it as Islington or Battersea. The population of West Ham is now at least three times as great as it was in 1871. This rapidly growing community has been left absolutely to its own devices. No one has proffered any advice or suggestions to it. It goes its own way until a serious prevalence of infectious disease in its midst recalls the attention of the Local Government Board to the fact of its existence. Willesden is another suburb whose callow youth has been neglected, with consequences that are already revealing themselves. If there is to be a sanitary survey of the kingdom, let us begin at the centre instead of at the circumference, and set the feet of young, overgrown, and inexperienced communities in the right path, before we begin to teach new ways to the case-hardened and obstinate sanitary defaulters of past generations.

BROWNING AS A SCIENTIFIC POET.

AT a recent meeting of the Browning Society, Mr. Berdoe spared no trouble to establish Browning as "a scientific poet;" and really, among the almost inexhaustible variety of Browning's themes for poetry, it was not difficult to point to a good many of some scientific interest. Of these, perhaps, stands first that vivid drama of the life of the "ambulatory theosophist," Bombastus de Hohenheim, surnamed, by a kind of fantastic Latin translation of his family name, Paracelsus. There is much to interest the student of medical history in the life of one who, perhaps, half comprehended the uses of mercury, and stumbled on some secrets in drugs and diseases that were thought of magic value; but we confess that, to us, Mr. Browning's interest seems centred chiefly on the character of the man himself and the romance of his life, rather than on any scientific truths he dimly saw. So, too, throughout Mr. Browning's works; the touches of scientific language are only parts of the historical appurtenances of his characters. When he writes

> "A viscid choler is observable
> In tertians, I was nearly bold to say;
> And falling sickness hath a happier cure
> Than our school wots of;"

he is only developing the local colour in which to set the story of Lazarus as told by the Epistle of Karshish, the Arab physician. There is to be found little or none of that deeply felt interest in the greater advances of modern science which Tennyson has shown as embodied in his best poetry.

THE RISING IN CANADA.

HER Royal Highness the Princess Louise has made a proposal to Mr. Caron, the Canadian Minister of Militia, in view of the outbreak in Canada, to send out ambulance-appliances and a few surgeons. This proposal of the Princess has been accepted, and a numerous and influential committee is, we understand, being appointed to carry it it into effect.

WHAT IS THE BEST SITE FOR THE GORDON MEMORIAL HOSPITAL?

THE proposal to erect a Memorial Hospital to General Gordon at Port Said has not been received with approval by persons practically acquainted with the needs of Egypt. The reasons for this objection were stated in the BRITISH MEDICAL JOURNAL of April 4th, p. 709. We therefore learn with satisfaction, from a telegram in the *Standard*,

that Major Green, R.E., who was sent to report on the site at Port Said offered by the Suez Canal Company, has reported strongly against it, on the ground that it is unsuitable for the erection of a hospital.

THE CONFERENCE ON CHOLERA AT BERLIN.

THE Conference on Cholera, which met last August, reassembled in Berlin on Monday, May 4th, to hear the result of recent experiments with the cholera-bacilli which have been made by Dr. Koch since the last meeting. Professors Virchow, Bergmann, Leyden, Hirsch, Bardeleben; Drs. Skrzeczka, Kersandt, Pistor, Struck, Wolffhügel, Coler, Eulenberg, Fränkel, Gaffky, Neumann, and Schubert, who were present at the last meeting, again attended; and in addition, Professors Pettenkofer, of Munich, and Günther, of Dresden, took part in the present meeting. We learn by telegraph from our Berlin correspondent, that Dr. Koch began by discussing and refuting the views of Finkler and Prior, Klein, and Emmerich. He demonstrated pure cultivations of comma-bacilli from France, Italy, and Germany; all these resembled one another. Of 150 medical men who attended Dr. Koch's courses of practical instruction, one got "cholerine," and in his dejecta comma-bacilli were found. The pure cultivations from Germany, mentioned above, were obtained from this case. Dr. Koch considered that the cholera-bacilli belonged exclusively to cholera, that they were easily distinguishable from other bacteria, and hence were serviceable as a diagnostic. He then proceeded to describe the successful experiments on guinea-pigs made with pure cultivations. His method of procedure was as follows. Five cubic centimètres (about 85 minims) of a 5 per cent. solution of soda were first administered; twenty minutes later, 10 cubic centimètres (nearly 3 drachms) of meat-infusion containing a pure cultivation of the cholera-bacilli were injected into the stomach. Immediately afterwards, tincture of opium was injected into the abdominal cavity, and the animals were thus kept under the influence of the drug for about one hour; and then recovered, for the time, completely. Next day, they became ill, and in from one to three days after the operation died. On *post mortem* examination, the small intestine and cæcum were seen to be filled with a colourless alkaline flaky liquid, containing almost a pure cultivation of cholera-bacilli. These experiments were successfully performed on 85 guinea-pigs. In the discussion which followed, Professor Pettenkofer declared himself unconvinced; cholera, he held, produced conditions favourable to the development of the "comma-bacilli." Dr. Koch, in his reply, pointed out that his experiments had been attended by positive results. He added that the experiments would be continued. The discussion has not yet concluded.

A TEACHING UNIVERSITY FOR LONDON.

THE conference between the Subcommittee for Medicine of the Executive Committee of the Association for promoting a teaching University for London, and representatives of the Medical Schools in London, was commenced on Monday last, at the rooms of the Society of Arts. An outline of the proposed plan for the constitution of a teaching University was submitted; this plan, the substance of which has already been made public on more than one occasion, provided that the University should be founded on faculties as constituent bodies, with Boards of studies appointed by the Faculties, and that there should be a "single governing body." It was proposed that the Faculty of Medicine should consist of the teachers and examiners in London, and the persons present, being all teachers, naturally assented; further, it was thought that only the senior teachers should be admitted, and that the younger men, the assistant-professors, the demonstrators and teachers of practical subjects, together with the whole body of the graduates of the future University, should be excluded. This very select body, miscalled a Faculty of Medicine, would elect a Board of Studies which would regulate the curriculum, the examinations, and all other matters relating to degrees in medicine, subject to the final decision of the governing body. The Board of Studies would therefore only have a consultative voice, and the narrow constituency by which it would be elected would have merely an indirect elective influence. It is, we understand, proposed to provide this University with a staff of professors, laboratories for research, and all the paraphernalia of teaching. The question whether representatives of the medical profession should have seats on the governing body, and how they should be chosen, was not discussed, but will probably be considered when the conference meets again, on May 18th. We fear that this scheme will not solve the difficulty, or meet the wants of medical education in London; it is not sufficiently broad and liberal to command the hearty and general support which alone can obtain the endowments necessary to float the projected University. The idea of having a local University for London, consisting of colleges linked together for the purpose of granting degrees is, no doubt, one well worthy of consideration, and containing many elements of success; but the scheme of the Association appears to be exceedingly indefinite just where it ought to be precise. What are to be the duties of the professors—to teach, or to make researches? If to teach, who are to be taught? All the undergraduates at all the schools, or is this to be an additional central service school? Why is the Faculty of Medicine—which, after all, would only have to meet once a year, or less often, to fill up vacancies in a Board of Studies—to be so narrow a constituency? Have the Colleges of Physicians and Surgeons any place in this scheme? They are not teaching bodies in the ordinary acceptation of the term, and the Teaching University is to grant degrees to all London students, who, therefore, will not need the diplomas of the royal colleges. Or are these colleges to conduct the examinations, and to receive the fees? and, if so, what remains to the Board of Studies? Finally, who is to decide on the amount of preliminary knowledge of arts and science that is to be required—the Board of Studies in the Faculty of Medicine, or in the Faculty of Arts, or in the Faculty of Science, or the governing body? This is really the question of most vital importance. Owing to it, the University of London has got into its present difficulties, and there have been no indications as yet that the Association is inclined to profit by this lesson. It is to be hoped that, before the conference is over, this question may be thoroughly discussed. The Association and its proposals present a certain hazy nebulosity, which is, perhaps, not unwise. It can, according to the development of future events, either resolve itself into its original atoms, or condense and concentrate its, at present, dissociated molecules into an useful, light-giving body.

DR. GUSTAV NACHTIGAL.

THE name of Dr. Gustav Nachtigal, whose death is announced to have occurred on April 29th, on board the German gunboat *Moewe*, at the early age of 51, is known to us as that of a traveller and a diplomatist, rather than of a distinguished surgeon. It was indeed, we are told, due to the fact that he had a somewhat weakly constitution that he was prompted to enter upon a course of scientific and medical study, which he pursued successfully at Halle, Würzburg, and Greifswald, and which eminently fitted him for the special political services in which he was afterwards to be engaged. Finding his native climate insupportable, he retired to Algiers in 1862, and afterwards to Tunis, where he volunteered his services as surgeon to an expedition sent against some unruly mountain-tribes, and was subsequently made body-physician to the Bey. Here he established a firm professional footing, but not until he had passed through sore trials and tribulations. Six years later, in the year 1868, there came a turning point in his career, and, under a commission from the King of Prussia, he entered upon those eventful travels in South Africa with which his name will be long and honourably associated. Brave and strong-willed, he was yet wanting in those physical qualities so essential to a great traveller. Dr. Nachtigal, who was rather below the middle stature, of dark complexion, and a spare yet wiry frame, was, through his long silence, often thought to have shared the fate of Dr. Vogel,

who was murdered by the King of Wadai ; but Dr. Nachtigal emerged unscathed from manifold dangers, and was hailed by his countrymen and friends as one "who had returned from the regions of the dead." He was appointed by Prince Bismarck to the post of Consul-General at Tunis, and was afterwards made his chosen instrument in his policy of annexation on the West Coast of Africa. Dr. Nachtigal was on his homeward journey to make his personal report, and to reap the reward of his labours, when he met his untimely end. By a strange coincidence, the Emperor was just about to sign the paper nominating Dr. Nachtigal German Minister on the West Coast of Africa, when the news of his death arrived, which the Emperor noted on the document.

INOCULATING FOR CHOLERA.

It is difficult to determine the true value of the method by which Dr. Ferran, of Tortosa, in Catalonia, proposes to protect us from cholera by the inoculation of the comma-bacillus of Koch in an attenuated condition. About twenty or thirty minims of the cultivation are injected into the arm ; the patient experiences pain at the point of puncture, and, in a few hours, has a rigor and high temperature. After twenty-four hours, the symptoms abate, but headache, malaise, and nausea remain for another day or two. Subsequent inoculations of a larger quantity of virus produce no effect at all. Rabbits, when inoculated with a large quantity, died ; by a smaller quantity they were made ill for a time, and were subsequently unaffected by the larger dose. Dr. Ferran's statements have been favourably reported on by a committee of the Madrid Academy of Medicine, but they are unsupported by any facts previously observed, and appear indeed to be in opposition to some of the observations recorded by Dr. Koch.

THE ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

We publish, in the editorial columns of the Journal this week, a full account of the first annual meeting of this Association, held on May 5th at the Westminster Town Hall. The large attendance, and the great number of Members who have been induced to join the Association, are proofs that medical men who hold the junior diploma of the College take a real interest, both in increasing the value of the diploma, and in gaining power in the management of the College which has granted it. The arguments used by some of the speakers are substantially identical with those that we have repeatedly brought forward in the Journal, with a view to urge the just claims of Members. The Association of Members recognises the necessity for constant agitation. It is earnestly to be hoped that it will now come to an early agreement with the Association of Fellows, the latter recognising the number and the merits of the Members, the former making allowance for the extra time which the Fellows have devoted to professional study in order to obtain the higher diploma.

THE HOSPITAL SHIPS AT SUAKIN.

From a round of visits of the hospitals afloat and ashore, made by a correspondent of the *Times*, we learn that the sick on board the *Ganges* consist of eighteen cases of dysentery, and nineteen of diarrhœa among the men ; two from dysentery and four from diarrhœa among the officers, including ten of the medical staff. Surgeon-major Gribbon reports that, since the marked increase in the temperature, the types of disease are growing more severe and less amenable to treatment, The temperature on the upper deck, which was 81° on April 25, is now 89°. On board the *Bulimba*, Surgeon-major Bate reports that, although the heat is becoming very great, the sick are generally in a good condition, and the ship is in a satisfactory state. On board the *Czarevitch*, the accommodation for officers is small and bad, there being only room for four ; but for the men it is decidedly better than in the *Ganges* and *Bulimba*. There is a possibility that the medical officers will adopt the simple but effective plan of ventilation, consisting in the removal of a plank along the whole length of the vessel on each side. The 125 beds are all occupied by the sick, and a few badly wounded men from the battle of March 22nd. Fifty per cent. of the cases are those of dysentery, which Brigade-Surgeon Morice says is mainly caused by the rice diet—the rice being insufficiently cooked—and by the indifferent water drunk.

THE GENERAL MEDICAL COUNCIL.

We understand that the programme of the business to be done at the session of the General Medical Council, which opens on Tuesday, does not contain any subject of the first importance, and that it is expected, therefore, that the Council will be able to conclude its labours on Saturday. There are large surpluses, which continue to grow from year to year, invested in the names of the Branch Councils, and there is reason to believe that a proposal may be made within the Council to reduce the registration-fee, which is at present £5, to £3. This would be a popular alteration, and we would suggest that additional qualifications after the first should be registered without any extra fee. This would encourage the early registration of diplomas, which is much to be desired.

DR. PANTALEONI.

Our Rome correspondent writes :—There has just died, at his residence in Rome, a man well known to the English and American visitors to this city, and to the medical profession of both countries, as well as of his native Italy, the Commendatore Diomedes Pantaleoni. He had suffered, for some time, from cardiac disease, which finally cut him off at the ripe age of 77 years, on Sunday, May 3rd. Born at Macerata, he spent most of his life in Rome, where his practice lay very much amongst the better classes of foreigners who spent the winter here ; and his marriage with an Irish lady, and great command of the English language, made him a particular favourite of the English colony. Exiled from Rome on account of his liberal and national proclivities, he settled for many years at Nice, where his name, too, was very well known to the foreign population. A friend of Cavour and Massimo D'Azeglio, he represented his native city for many years in the Chamber of Deputies, and was always an ardent liberal and warm supporter of the national movement for the unification of his native land. Returning to Rome, he was promoted to the dignity of a Senator, not long after the entry of the Italians, and the proclamation of the city as the capital of an United Italy ; and since that date he has taken an active part in the labours of the Upper Chamber, and in all objects tending to advance the prosperity of the country. He resumed practice, too, in Rome, and continued his professional work, chiefly amongst the English-speaking visitors, up to last year. His genial character, pleasant manners, and great ability, secured him not only the esteem of his patients, but the friendship of many of the leading physicians of our own country, who made his acquaintance, and learned to appreciate Dr. Pantaleoni on his frequent visits to England. The last occasion on which he appeared and took a prominent position amongst his professional brethren was, indeed, at the International Medical Congress held in London.

THE GOVERNMENT "SANITARY SURVEY."

The Medical Department of the Local Government Board has not been slow to set in motion the special series of sanitary inspections which, after much persuasion, the Treasury lately gave them the means of undertaking. Dr. Buchanan could not afford to lose much time, for we believe the temporary strengthening of his busy department has only been sanctioned for one year. Roughly speaking, the work has been divided into two classes—visitation of all ports and sea-board districts, and inspection of such inland places as seem to have been most neglected, or likely to profit most by timely advice. Work already in hand by the permanent medical staff has, to save time, been made to fit in, as far as possible, with the new arrange-

ments. The inspection of ports has, for obvious reasons, been pressed forward with special energy; and there are now but few seaboard towns and districts that have not been visited by Dr. Blaxall, Professor de Chaumont, or Dr. Davies, and about which the Central Board have not full information. Sanitary administration at some of our ports is by no means as perfect and complete as it should be, nd thus the Government Inspectors have had opportunities of giving valuable advice at their conferences with the local authorities and officials, and of pointing out the directions in which the sanitary defences of the several districts can be strengthened. The purity and quantity of the water-supplies; the efficiency of the sewerage-systems and of the arrangements for removing and disposing of the refuse, etc.; whether adequate hospital-accommodation and arrangements for disinfecting clothing, etc., have been provided, or are available at a moment's notice; whether the arrangements for supervising and inspecting the shipping entering the port are sufficient; all these, and many other points, have, in a more or less general way, been investigated by the inspectors. As regards the inland districts, the inspectors, besides dealing with the larger questions of drainage, water-supply, and hospital-provision, note the condition of the dwellings of the poor, the state of slaughter-houses, of dairies, cowsheds, and milkshops, the prevalent method of feeding young infants, the influence on health of the ordinary industries in the district, and whether poverty prevails to any extent. The working and influence of the Canal Boats Acts are also specially looked into. The apprehension of cholera invading this country during the present year is an useful and legitimate lever, with which to move lethargic sanitary authorities and householders to appreciate the unwholesomeness of many of their ordinary surroundings; and the counsel of the inspectors will no doubt often stimulate wavering authorities to decide upon carrying out much needed sanitary improvements, that have been shelved under the false sense of security induced by the absence of epidemic disease. We feel sure that a very useful work, at present difficult of measurement, is in progress, and that when the report of the "sanitary survey" comes to be published, the Treasury and the public will be satisfied that the money spent on it has been well laid out.

MEDICAL SICKNESS, ANNUITY, AND LIFE-ASSURANCE SOCIETY.

THE ordinary monthly meeting of the Executive Committee of this Society will be held at No. 38, Wimpole Street, W., on Wednesday next, the 13th instant, at 4.30 P.M.

THE SECRETARIAT OF THE LOCAL GOVERNMENT BOARD.

AN assistant-secretaryship of the Local Government Board has beome vacant through the appointment of Mr. Walter Joseph Sendall to be Governor of the Windward Islands of Grenada, St. Vincent, Tobago, and St. Lucia. Mr. Sendall, it will be remembered, was nominated some years ago to be Lieutenant-Governor of Natal, at a time when South African affairs were in a state of great tension. His appointment was so loudly protested against by the Natalese, that the nomination was withdrawn, and ever since Mr. Sendall has been in the cold shade of neglect, although his claims have been more than once urged in the House of Commons upon the Government. The office left vacant by Mr. Sendall's promotion is by no means so easy or comfortable a berth as might be supposed. It involves not only a mass of detail and routine-work, but a considerable knowledge of men and things, and especially of the idiosyncrasies of local authorities. Such an office requires, on the part of its holder, physical as well as mental strength, and it is notorious that of late years Mr. Sendall's personal health has been far from equal to the constant strain of perpetual and harassing work. Mr. Sendall has been succeeded by another general inspector, Mr. Courtenay Boyle, formerly inspector of the East Anglian District, but lately acting as one of the private secretaries of the Lord Lieutenant of Ireland, in which capacity he took a prominent part in the arrangements for the recent Irish tour of the Prince and Princess of Wales. Mr. Boyle is a man of clear head, and of many extra-official attainments. We trust that he will not find the harrassing work of an assistant-secretary more onerous than that of a courtier.

SCOTLAND.

THE GARIOCH MEDICAL ASSOCIATION.

THE members of this Association met in Kintore on Saturday last. There was a large attendance of town and country members. Professor A. D. Davidson occupied the chair at the dinner, while Dr. Mackie, of Insch, the Secretary, was croupier.

EDINBURGH UNIVERSITY AND MEDICAL SCHOOL.

THE medical classes in Edinburgh University and in the Extra-Mural School began work on Monday and Tuesday, and on these days also the final examinations in clinical medicine and clinical surgery, for graduation, began; they will continue during the greater part of the next two months. The written and oral divisions of the final examination are held early next month.

EDINBURGH AND ITS DWELLINGS FOR THE POOR.

THE Commission on the Housing of the Poor cannot have ready for some time its report on the condition of things existing in Scotland as revealed by the evidence of the witnesses from the larger towns, but the citizens of Edinburgh have apparently decided not to wait for its appearance, and have resolved to take some immediate steps to improve a state of matters that they feel needs it. Under the presidency of the Lord Provost, they recently held a conference, at which it was admitted that the present condition of the dwellings of the poor in their city is unsatisfactory, and a provisional committee was appointed to carry out certain arrangements that the meeting deemed advisable. The chief point decided on was to form an association for providing better houses, furnished with all sanitary appliances, for the poorer classes of the community, and in such localities and at such rents that they would meet the requirements of those for whom they were built. As several of the speakers hinted, difficulties will have to be overcome, such as getting suitable building ground in the centre of the town at moderate rates; but if the enterprise be carried out on sound commercial principles, it ought to meet with the same success that has followed, in several instances, similar efforts in other large cities.

THE SPREAD OF DISEASE BY SCHOOLS.

IN our last issue, we directed attention to the spread of scarlatina by schools, as brought out by the facts detailed in Dr. Cameron's report on the health of Huddersfield. A very similar state of matters is furnished by the report recently issued by Dr. Wallace, of Greenock, on the outbreak of typhus fever that has lately occurred in that town. It is there stated that the investigations made into every case leave no doubt that the great majority of the cases were traceable to direct, or indirect, communication with children attending school, and coming from the houses first infected at a time when the disease was not suspected. It seems that no fewer than three schools in particular were decidedly contaminated in this way. Under the measures adopted by the authorities, the spread of the disease has been apparently checked for the present, but its prevalence at one time in Greenock may be gathered from the fact that as many as fifty-two cases occurred.

FIFESHIRE MEDICAL ASSOCIATION.

THE spring meeting of the Fifeshire Medical Association was held on May 1st, in Dunfermline, under the presidency of Dr. Dow. The members of the Association, before proceeding to business, visited the interesting historical buildings and ruins in which Dunfermline (at one time the principal residence of the Scottish Kings) is so rich. Thereafter the Association was entertained at luncheon by Dr. Dow.

At the meeting several papers of considerable interest were read and discussed. Before these, however, were entered upon, the Association resolved, on the motion of Dr. Constable, of Leuchars, "That the Association should record, in its minutes, the loss sustained by the death of Dr. Andrew Blair, of Tayport, one of the most zealous members." In moving the resolution, Dr. Constable spoke feelingly of Dr. Blair, who had been his nearest professional neighbour for many years. The following papers were read: "On the Management of Habitual Drunkards," by the President; in the discussion which followed, Dr. Turnbull, of the Fife and Kinross Asylum; Dr. Clouston, of Morningside Asylum; and Dr. Strachan, Dollar, took part. "On Some Points of Importance in Practical Sanitation," by Dr. Nasmyth, Cowdenheath, in which he specially considered dairies, and milk-supply and drainage. "On Legal Responsibility incurred in Signing Lunacy-Certificates," by Dr. Turnbull, Fife and Kinross Asylum. Dr. Nasmyth showed at the meeting his new stretcher for ambulance-work at collieries. It was highly approved by the meeting, and a desire expressed that it should be introduced into all the Fifeshire collieries. It was agreed, on the suggestion of Dr. Moir, St. Andrews, to arrange for a course of health-lectures in Dunfermline, Kirkcaldy, Cupar, and St. Andrews, to be delivered by members of the Association, also in as many villages as possible, next winter. The meeting, which was one of the most successful that has been held, was brought to a close by the vote of thanks to the chairman for his conduct in the chair, and for his hospitality to the Association.

GENERAL COUNCIL OF THE UNIVERSITY OF GLASGOW.

THE spring meeting of the General Council of Glasgow University took place on April 29th, and the first business that fell to be transacted was the formal installation of the Earl of Stair, as Chancellor of the University, in room of the late Duke of Buccleuch. After the formalities of this procedure had been gone through, the new Chancellor delivered a short address, in which he dwelt on the eminent qualities of his two immediate predecessors in office, and expressed, at the same time, the deep interest that he took in the University and all its affairs, and his determination to do all in his power to help on its usefulness. The general business before the meeting consisted chiefly in considering the report of the Business Committee on the Universities Bill. The tenor of the report was in favour of the main features of the present measure, but objection was raised to the financial provision made for Glasgow University, both absolutely and in relation to the other Scotch universities, and also to the retention of the finality clause. After considerable discussion, an amendment, moved by Dr. McVail, to the effect that the executive powers of the Senate be transferred to the University Court, was carried by a majority of eight votes, and, accordingly, the Committee's report was not adopted. Another motion, to the effect that the University Chancellor be elected for five years instead of for life, was lost.

GRADUATION CEREMONY AT THE UNIVERSITY OF GLASGOW.

THE formal close of the winter session of the University took place on April 30th, when the graduation ceremony was held in the Bute Hall, and the various degrees were conferred. Earl Stair, the Chancellor, presided. Owing to the fact that many of the classes had been already closed, and the class prizes previously distributed, the attendance of students was limited, and their conduct was marked by more decorum and regularity than usual. Honorary degrees were given to a number of distinguished gentlemen, who were introduced by Professors Dickson and Robertson, and "capped" in front of the rostrum by the Chancellor. The proceedings terminated with the delivery of the public University prizes to the successful students, and by an address from Principal Caird, on the advantages of general culture and system and discipline in education. The present graduation ceremony was made somewhat distinctive by the fact that the announcement of the degrees and the biographical summaries, previously to the "capping," were made in English for the first time, instead of in Latin, as in the past, and by the discontinuance of the distribution of the rewards in the different classes.

IRELAND.

THE death-rate for Dublin last month was very high, being equal to the annual rate of 39.8 per 1,000. This is the highest rate that has been registered since March, 1883, when it reached 40.92 per 1,000 It is not satisfactory to find that included in the zymotic mortality are five deaths from typhus fever. Thirty-five cases of this disease were admitted into the hospitals during the month.

QUEENSTOWN GENERAL HOSPITAL.

A BAZAAR will be held this week in aid of the funds of this institution. Already over £300 has been subscribed in order to construct an additional wing for fever-cases; but a further sum of £400 is still required.

DUBLIN HOSPITAL SUNDAY FUND.

IN addition to the munificent sum of 100 guineas given by His Roya Highness the Prince of Wales to the Dublin Hospital Sunday Fund, announced last week, Her Royal Highness the Princess of Wales has given a further sum of £30 to the fund.

HEALTH OF DUBLIN: QUARTERLY REPORT.

DURING the quarter ending April 4th, there were registered in the Dublin Registration District 2,695 births, or 30.5 per 1,000; and 2,991 deaths, or 33.9. Omitting the deaths (98) of persons not chargeable to the district, the rate was 32.8 per 1,000. Zymotic diseases caused 360 deaths, being equal to an annual rate of 4.1. Upwards of 30 per cent. of the mortality from these diseases occurred from measles, the deaths numbering 110, being 31 over the average for the corresponding quarter of the last ten years. Deaths from scarlalatina fell to 59, as compared with 125 the previous quarter; fever caused 60 deaths, against 90; whooping-cough, 36; and erysipelas, 14. Diseases of the respiratory system caused 733 deaths, which included 479 from bronchitis, 128 from pneumonia, and 20 from croup. Phthisis caused 376 deaths, or 60 over the average; mesenteric disease, 55; tubercular meningitis, 76; and cancer, 38.

BRITISH PREPARATIONS FOR WAR ON THE AFGHAN FRONTIER.

OUR correspondent at the Camp, Rawul Pindee, writes to us: The medical arrangements for the force of 20,000 troops assembled at this camp are most complete. Surgeon-Major Robert Anderson, in addition to the field-charge of the escort of Body-guard to His Excellency the Viceroy, composed of Royal Horse Artillery, 9th Lancers, and Seaforth Highlanders, is placed in medical charge also of the base-hospital, fitted for 100 beds. Nothing could exceed the completeness of the organisation of the hospital. Sir M. Biddulph, the General Commanding, expresses himself highly pleased, as does also the Acting Principal Medical Officer.

The first field-hospital is under the charge of Surgeon-Major Roche, who has completely recovered from the railway-accident which wrecked the train containing that medical officer and the 18th Royal Irish. The second field-hospital is under the charge of Surgeon-Major Hoysted, who is indefatigable in his efforts to assist in all duties. There is much excitement as to what the next move may be; and, should it be "to the front," there must be great calls made on England for medical officers; we are not prepared with a sufficiency out here.

PARLIAMENTARY BILLS COMMITTEE.

A MEETING of the Parliamentary Bills Committee of the British Medical Association was held at the offices of the Association, 161A, Strand, on Thursday, April 30th; Mr. ERNEST HART in the chair. There were present Mr. J. Wickham Barnes (London), Dr. J. C. Bucknill (Rugby), Dr. J. Langdon Down (London), Surgeon-Major M. J. Mac Cormack (London), Dr. A. Macmillan (Hull), Dr. Mickle (London), Dr. W. Orange (Broadmoor), Dr. C. Orton (Newcastle-under-Lyme), Mr. Septimus W. Sibley.

The minutes of the last meeting were read, and found correct.

Letters of apology for non-attendance were read from Mr. P. Maury Deas, Exeter; Mr. B. Goff, Bothwell; Mr. O. E. Owen, Anglesey; Dr. H. H. Phillips, Reading; Mr. J. Prankerd, Langport; Mr. H. Stear, Saffron Walden; Dr. A. Sheen, Cardiff; Dr. T. W. Thursfield, Leamington; Dr. H. Barnes, Carlisle.

The Lunacy Act Amendment Bill.—The CHAIRMAN called the attention of the meeting to the fact that, in addition to the Lunacy Act Amendment Bill, the Lord Chancellor had given notice of a second Bill—a consolidation Bill. This Bill had not yet been printed, and he was not aware what its contents were likely to be. In the meantime, therefore, their special business would be with the Lord Chancellor's Lunacy Act Amendment Bill, which had been read a second time in the House of Lords. He would mention that two bodies had taken some action in this matter. A subcommittee of the Metropolitan Counties Branch had considered the question, and, he believed, were prepared with a report on it, which might be very useful to them. He had, therefore, asked Dr. Mickle, the secretary of that committee, to favour them by attending and giving some information on the subject. The Chairman said he also wished to mention that he had also learned from a communication from Dr. Rayner, the Secretary of the Medico-Psychological Society, that that Society had come to certain conclusions, and had represented its conclusions by deputation to the Government; and he had applied to Dr. Rayner to know what those conclusions were, but up to the present he had received no information on that point.

Dr. BUCKNILL thought it was desirable that the different bodies should consider the Bill independently.

The CHAIRMAN reminded the Committee that the JOURNAL had pointed out what were the leading points in the Bill; and, to his (the Chairman's) great astonishment, no correspondence whatever had come to the JOURNAL on the subject. Never within his experience had it happened that any Bill of the like importance had come before the profession without those persons who were interested in the matter expressing some opinion upon it. A very minute analysis of the Bill had been published in the BRITISH MEDICAL JOURNAL, and the attention of the profession called to it.

Dr. BUCKNILL: I think I may say, with regard to the suggested amendments of the Medico-Psychological Society, that they do not deal at all with the principle of the Bill, but only suggest numerous amendments of detail. Dr. Bucknill, at the request of the Chairman, proceeded to give an expression of his views upon the Bill, taking first the question of the independent consultation of medical men; namely, Clause 2 of the Bill, referring to the "orders for reception of private patients to be made by county-court judge, magistrate or justice." The remarks made by the collateral association on that clause were that, while generally concurring with the Lord Chancellor's contention, they did not suggest any improvement in the principle of that clause. Since it had been discussed by that Society, the Bill had been again before the House of Lords, and Lord Shaftesbury's objection to that clause had been considered. The Lord Chancellor had stated that he had submitted the objection of Lord Shaftesbury to other members of the Government, and also to the judges, and they could not give way. They thought it essential that the orders for the reception of private patients should be made by a county-court judge, magistrate, or justice. He said he was prepared to introduce an amendment to the effect that the particular justice might be chosen, named, or nominated, at quarter sessions or at petty sessions, but he had not decided as to the form of the amendment.

Dr. GRIGG thought it might produce an injustice; and instanced a case, which had come under his own observation, of a woman suffering from puerperal mania, who was violent in early morning and late at night, but who, during mid-day, appeared perfectly sane. To the magistrate, who called and talked to her, she appeared perfectly rational, and he would give no order for her removal; the woman, therefore remained in the hospital, and could not be got rid of until her friends, at last, took her away. There ought, he contended, to be some rule to meet such a case.

Dr. ORANGE said the reply to that probably would be that the magistrate or justice might be satisfied, on the grounds of the certificate placed before him, without personally seeing the person. He was not obliged to see the person.

Dr. GRIGG said he would not certify in this case, nor would anyone else do so.

Dr. ORTON said a great many persons were afraid of certifying.

The CHAIRMAN thought the gist of the clause in question would be, that the approval of the justice would operate to protect the medical men.

Dr. ORANGE said he should question whether it went so far as that.

Dr. BUCKNILL pointed out that Lord Shaftesbury, in his letter, stated that the signature of the magistrate would, he thought, in law, and certainly in the estimation of a jury, cover the parties concerned in the certificate, and take from the patient his right of action after liberation for any misconduct on the part of the doctors.

Dr. MICKLE, in reply to a question from the Chairman, stated that the opinion of the Subcommittee of the Metropolitan Counties Branch was that it would be no protection at all, but in fact that the medical men were, under this Bill, more open to attack than they had been previously. The opinion of their Subcommittee was that the intervention of the magistrate was undesirable on several grounds; principally that it would lead to great delay in the treatment of cases, and that their friends would object very much to this intervention, and so put off notifying the case until the last moment, and thus many persons around lose their only hope of advantage. They thought also it would lead to a great deal of secret custody of lunatics, or of alleged lunatics, and that they would be put away in quite private places, where there would be no supervision, and in that way their malady would be confirmed rather than ameliorated.

Dr. GRIGG stated that that was exactly what had occurred at Queen Charlotte's Hospital.

Dr. MICKLE, in reply to the Chairman, said the opinion they formed was that, where the magistrate visited, there would be some slight protection, but they believed it would come to be a mere matter of form; and if the documents were in proper legal form, he would sign them.

Dr. BUCKNILL said it was quite clear that the Bill provided for emergency cases very fully. It enabled any patient to be taken to a licensed house or hospital upon the certificate of one medical man and the order of a relative, and to be kept there for fourteen days, without any other proceedings. A very large proportion of the patients in Scotland were sent to the asylums as cases of emergency.

Dr. MICKLE said he was not referring to urgency cases, but to the general delay occurring in the vast majority of cases. In reference to urgency cases, he considered the Bill laid the medical men particularly open to attack, that was to say, those who certified. The urgency-certificates held good for a week, and that could be postponed from time to time, so that a patient could, under that Act, be kept from week to week; and a patient sent in under an emergency-certificate would in that time, in many cases, recover. It would be considered to be a most dangerous proceeding for a medical man to sign a certificate under that Act.

Dr. ORANGE said he did not intend to say that the Bill did give that protection; he was merely referring incidentally to a remark in Lord Shaftesbury's letter, but the Committee appointed by the Medico-Psychological Society particularly asked that question. Whether a private application was supposed to make a medical certificate privileged in consequence, was a question they asked and wished to discuss, and whether such protection should not be given to medical men, as they became the agents of the petitioner.

The CHAIRMAN suggested that a subcommittee should be appointed and that the opinion of Counsel should be obtained.

The following resolution was proposed:

"That, in the consideration of this Bill, steps be taken, by the appointment of a subcommittee or otherwise, as may be presently determined, to have special attention directed to the question as to what extent the medical man will receive protection from the certificate of the magistrate in ordinary cases of lunacy, certified in the ordinary manner; and to what extent emergency-certificates will involve him in a special responsibility, or whether his responsibility will be covered by the fact of his acting on instructions from the practitioners."

Dr. BUCKNILL asked whether it would not be better to ask the opinion of counsel in more general terms, as to the effect of the Bill generally on the responsibility of certifying medical men.

The CHAIRMAN said they would ask it in specific terms first, and in general terms afterwards.

Dr. MICKLE said that their suggestion was that the medical men should be protected by the insertion of a clause before Subsection 1, Section 12.

Dr. GRIGG thought it would be a good thing if the Government were to appoint a considerable number of officers of its own, who should be certifiers of lunacy, one of whom should always countersign the order, in addition to the medical practitioner.

Dr. ORANGE was of opinion that it would be very undesirable to limit the action of medical men.

Dr. BUCKNILL called attention to the fact that one of the medical signatories was definitely indicated by the Act as the medical man in attendance. That should not be forgotten. With regard to the second medical signatory, he was of opinion that the plan which had been suggested might answer in populous districts; but what, he asked, would happen in remote districts; It might be impossible to get a man within sufficient time. Moreover, he did not see that it would be any great advantage. If the person employed by the petitioner were thought by the magistrate not to be a satisfactory person, he might call in someone else.

The CHAIRMAN said they ought certainly to endeavour to get more protection for the medical man.

Dr. ORANGE called attention to what he described as the humiliating position in which medical men were placed by being called upon to examine patients separately, a practice which did not prevail in any other form of illness. The present Bill went a little farther than the existing arrangement, and Form 6 in the schedule (page 39), which the two medical men had to sign, went to the extent of stipulating "I am not acquainted with the contents of any other medical certificate relating to the mental condition of the said C. D., made within the last seven days." That would imply that he had not been told anything by any person about the condition of the patient. The patient had to be seen by two medical men separately. If, as was sometimes the case, he was not well enough to be taken to the medical men, they had to be brought to him, and after having been examined by one, he sometimes strongly objected to go through the same ordeal again. It caused great inconvenience to the patient, and the medical men were placed in a false position. He was strongly of opinion that medical men should discuss together the mental condition of a patient, just as they did with regard to any other bodily disease.

Dr. DOWN thought there would be a great advantage in having a consultation.

Mr. SIBLEY asked "Is it not a fact that there is a consultation?"

Dr. MICKLE thought Dr. Orange's objection would be met by omitting the words "I am not acquainted with the contents of any other medical certificate," etc.

Dr. ORANGE recommended that on page 2, Section 8, line 33, the words "separately from the other" should be omitted, and that the medical practitioners might consult together, or examine together, and might give conjoint certificates, and that Form 6, in the schedule (page 39), and elsewhere, should be altered in the same way, to make the Bill conformable to those omissions.

This resolution was not carried.

Dr. MACMILLAN having expressed himself in favour of a separate examination,

Dr. BUCKNILL desired to call attention to Clause 26, dealing with the power to take boarders into licensed houses or hospitals. He was strongly of opinion that the voluntary action of patients or persons of unsound mind, desiring to put themselves under treatment, ought to be encouraged in every way. There were a great number of insane persons who wished to submit themselves to skilful treatment of their own free will, and were happy under it. The present state of the law bound them much too harshly and too securely; this should be relaxed to a certain extent. By a very strange omission or perversion, it said these people should be of sound mind. What persons of sane mind, he asked, would place themselves to be treated in a lunatic asylum? The commissioners had limited the number of boarders in England. They must have been lunatics before. In Scotland, anyone could place himself voluntarily.

It was proposed by Dr. Bucknill, and seconded by Dr. MICKLE, and carried, that the words "not being a person of unsound mind," be omitted.

The following gentlemen were appointed as a subcommittee to deal with this question in accordance with the resolution passed, and to present a report—Dr. Orange, Dr. Mickle, Mr. Sibley, Dr. Langdon Down, Mr. Wickham Barnes, and Dr. Grigg.

The Burgh Police and Health (Scotland) Bill.—The CHAIRMAN stated that the Burgh Police and Health (Scotland) Bill had already occupied a great deal of their attention. They would remember that, when it was last in the House of Commons, their committee made certain representations to the Select Committee of the House of Commons, and he (the Chairman) prepared a memorandum in detail on the Bill, which they had approved, and which had been submitted to the Government. Their committee had applied to be heard, and were informed that no evidence would be taken, but were asked to put in their statement, which they accordingly did. The Bill, as reintroduced, had undergone some slight modifications, which, however, had not removed the objections they had expressed to the Bill, especially in regard to placing the duty of notification of infectious disease upon the medical attendant. Within the last few days, therefore, he had addressed a number of letters to various persons interested in the measure, from several of whom he had received replies. A letter had been sent to the Earl of Dalhousie, by whom the Bill was introduced in the House of Lords, calling attention to the unsatisfactory nature of the clauses relating to the notification of infectious disease, and of their intention to apply to the Select Committee to be heard on that question. A reply had been received from Lord Dalhousie, in which he stated that he would take care to bring the letter before his colleagues. A letter had also been addressed to Lord Mount-Temple, enclosing him copies of the two memoranda on the subject, and expressing the hope that he would propose an amendment; and, to facilitate his doing so, an amendment, in accordance with their previous resolutions, was drafted and enclosed. No reply, as yet, had been received to this communication.

The CHAIRMAN stated he had also addressed letters to Dr. Carter (Liverpool), Dr. Littlejohn (Edinburgh), Dr. Russell (Glasgow), Dr. Anderson (Dundee), Dr. Simpson (Aberdeen), and Dr. Wallace (Greenock), enclosing copies of the memoranda, and asking to be favoured with their comments, and an expresion of the general feeling of those respective towns on the subject. An interesting reply had been received from Dr. Russell, of Glasgow, in which he stated not only that he was himself opposed to the Bill, but that he knew this feeling was shared by the medical officers of health of other Scotch towns. He added that their objection to the Bill as a health Bill was based upon the broad principle that the efficiency of sanitary legislation depended not upon elaboration and parade of clauses regarding the subject matter of the law, but in the constitution of the local authorities, the strength of their official executive, and the powers of the Board of Control, so that the administration of the law might be ensured. They were of opinion that the Bill multiplied peddling autonomies over insignificant areas which could not support the machinery of sanitation, either mental or material. Dr. Simpson endorsed Dr. Russell's view, and added "Glasgow has petitioned against the Bill, and Aberdeen is going to do likewise." Dr. Anderson endorsed the conclusions of his (the Chairman's) memorandum, and urged that the amendment of the Public Health Acts should be the subject of skilled inquiry. Dr. Carter replied that he had made one or two (mainly verbal, but still important) alterations in his memorandum on the subject, and expressed the hope that the Government might be induced to yield to the strong representations made to them, and modify the compulsory notification clauses.

The following resolution was proposed by Dr. GRIGG, seconded by Mr. WICKHAM BARNES, and carried unanimously:

"That the Chairman be authorised to appear on behalf of the Parliamentary Bills Committee, and give that evidence before the Select Committee of the House of Lords which it was decided upon last year to give before the Select Committee of the House of Commons, and to take such other steps as may be deemed advisable to get the Bill modified in the sense of the memoranda which have been drafted and approved by the Committee."

Brighton Local Bill.—The CHAIRMAN reported that he had received a very agreeable letter from Mr. E. Noble Edwards of Brighton, enclosing a copy of the following:

Resolution unanimously passed at a Meeting of the Medical Profession of Brighton, held March 11th, 1885.

"That the most cordial thanks of the medical profession here assembled be offered to Mr. Ernest Hart for the very valuable aid rendered by him to our late cause; firstly, by introducing us to Dr. Carter of Liverpool, from whom much important information was obtained; and secondly, by obtaining for our deputation that interview with the Chairman of the House of Commons Committee on the Bill which led to the final withdrawal from the Bill of the objectionable clauses relating to the compulsory notification of infectious diseases by medical men." "EDMUND J. FURNER, Chairman."

Notification Clause in Local Bills.—The CHAIRMAN stated that they had no additional information as to the progress of local Bills which had previously engaged their attention, since their last meeting, withthe ex-

ception of those on which he would report. The profession in those towns had been communicated with, but in only one case had the assistance of the Committee been sought. Their Committee had no *locus standi* unless they were specially asked by the local profession to move in the matter. The attention of the local profession had, in every case, been called by letter, and in the JOURNAL, to the clauses objected to in these Bills, with the result that, in some cases, the clauses had been struck out, and, in others, the local profession refused to interfere. Their Committee could not move in the matter unless they were put in motion by the local profession, as the Special Committee on Police and Sanitary Regulations which had been reappointed this year had written, in reply to a communication from himself, to say that they adhered to their determination previously expressed not to reopen the general principles of the clauses as to the notification of disease and other matters, which they regarded as settled by Mr. Sclater-Booth's Committee of 1882. In reply to various letters which he had addressed on the subject of those Bills, he had received communications, and among them one from the medical officer of Sunderland, who wrote that no change had been made with regard to the notification clauses but it was generally understood by the Committee having charge of the Bill, that they would have to accept the model clauses on the subject, and he thought they were prepared to accept them. Dr. Mordey Douglas, of Sunderland, in his reply, stated that he believed every medical man there objected to the clause requiring them to notify when asked to do so by "any adult living in the house or building" where a case existed. A large number of the profession were, he added, willing to accept notification as carried out at Newcastle. A letter in this sense had been entrusted to him (Dr. Douglas) to lay before the Select Committee ; and he now asked if the Chairman of the Parliamentary Bills Committee would undertake to do so.

It was decided to ask Dr. Douglas to ascertain from the local committee whether they were willing to request that the clause be modified to the Newcastle form, and the Chairman would, if requested to do so, attend before the Select Committee as their representative and present it; or they could tender it through one of their own medical men.

Poisons Bill.—The CHAIRMAN stated that this Bill had now been referred to a Select Committee of the House of Lords, and he thought, in view of the present state of legislation, that there was little chance of its passing. The druggists were all very much opposed to the measure, and had petitioned against it.

It was proposed by Mr. SIBLEY, seconded by Dr. ORTON, and carried:

"That Dr. Murrell be requested to attend before the Select Committee, on behalf of the Parliamentary Bills Committee, and put in the memorandum on this subject, drafted and approved at the last annual meeting, and get amendments moved in the sense of that evidence."

The SECRETARY reported that petitions on behalf of the recommendations of the Committee had been forwarded to the various Branches for signature, in accordance with a resolution passed at the last meeting.

The Midwives Bill.—Dr. GRIGG reported that a deputation from their Committee had waited upon Lord Carlingford, and the result, he was sorry to say, was not favourable. The general impression he gathered from the Lord President's remarks, was that the present Bill was too complicated, but that a shorter and less compulsory measure would receive the serious consideration and support of the Government.

Militia-Surgeons.—Surgeon-Major MCCORMACK reported that he had been in correspondence with the Chairman on this subject, with the result that Sir Eardley Wilmot had been asked, and had consented, to bring forward the subject once more in the House of Commons, and a notice stood on the notice papers for May 19th. Dr. Farquharson had consented to support Sir Eardley Wilmot's motion, and he (Surgeon-Major McCormack) had received many other promises of support.

The following resolution was proposed by Surgeon-Major MCCORMACK, seconded by Dr. ORTON, and carried *nem con.* :

"That this Committee will give its support to the resolution of Sir Eardley Wilmot, and will endeavour to obtain parliamentary support on the night of the division."

Disqualification by Medical Relief.—The CHAIRMAN called attention to the fact that during the passage of the Irish Registration Bill through Parliament, on April 25th, a clause (Clause 3) was passed providing that medical or surgical assistance, or the giving of medicines, under any Act relating to medical charities, shall not be deemed to constitute relief under the Acts, so as to disqualify Irish voters. He called attention, also, to a Bill introduced in a prior session by Sir Charles Dilke, Sir John Kennaway, and Mr. Rathbone, with a like object for England; and on the motion of Mr. Wickham Barnes, Honorary Secretary of the Poor Law Medical Officers' Association, the Chairman was requested to communicate with Sir Charles Dilke on the subject.

Constitution of the Committee.—The CHAIRMAN reported that he had received a communication from the Council of the British Medical Association, relating to the constitution of the Parliamentary Bills Committee not being provided for in the by-laws recently framed, and not being, therefore, within the recent constitution of the Association. The Chairman pointed out that that Committee had existed for a long series of years, and was constituted at the annual meeting, and in accordance with a long existing custom by members nominated at the annual meeting and by members nominated from each Branch. It included, therefore, a very complete representation of the whole Association. It was resolved:

"That it is desirable that we ascertain, in conjunction with the other committees, what would be the proper form for remedying this omission so as to recognize the existence of these committees, and to embody the regulations for their formation in the recent reconstitution of the association."

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

THE first annual meeting of this Association was held on Tuesday at the Westminster Town Hall, Dr. DANFORD THOMAS in the chair. There was a very considerable attendance.

The CHAIRMAN said that the object of the meeting was to consider the question of reform in the Council of the College of Surgeons, especially that Members of that College should have a representation upon the Council. The present practice, whereby the Council was self-elected, tended to estrange the Members of the College from their Alma Mater. He had hoped that the Council would have welcomed rather than have set aside the proposals which had been made by the profession. This Association had been formed for the purpose of urging this question, and of taking steps in order to prevent the College of Surgeons from obtaining another Charter, until they were willing to grant the principle of representation to the Members of the College.

The report, which was read by the Honorary Secretary, Mr. W. C. STEELE, referred to the proceedings of March 24th, 1884, when a meeting of the Fellows and Members of the Royal College of Surgeons of England was held to take into consideration certain proposed alterations in the Charters of the College. It stated that those alterations were chiefly of domestic interest, and related to the aggrandisement of the powers of the Council. They were for the greater part adopted; but, on the other hand, several important suggestions were proposed and carried by the meeting, but those had been subsequently, for the most part, ignored by the Council. They were: first, that in the opinion of the meeting it would materially conduce to the welfare of the College that the Fellows should be invested with a larger share of its management; secondly, that it was desirable that no alteration in the constitution or relations of the College should be effected without the consent of the Fellows and Members; and, thirdly, that there should be an annual meeting of the Fellows and Members, at which meeting the President for the ensuing year should be elected by a majority of the Fellows present. Being dissatisfied with the result of the meeting as far as the Members were concerned, steps were taken to form this Association "For the express purpose of obtaining certain rights and privileges in reference to the management of the College of Surgeons, which the Members did not at present possess. A committee was appointed, and circulars were sent out to Members of the College, inviting them to join. The Association at present numbered several hundred members, and before long it was expected that the list would amount to fully one thousand names. A petition to the Privy Council was considered in June last, and afterwards printed and sent to the local secretaries in order to obtain signatures, and about one thousand signatures had in that manner been obtained.

At a meeting on January 6th last, the following resolutions were formulated, and sent to the College:

"That there shall be a general election for the Council every three years. That members of the Council be eligible for re-election for the farther term of three years, but not again until they shall have been out of office for three years. That the Council shall consist of twenty-five members, including the President. That the Fellows shall elect thirteen, and the Members twelve, who shall be either Fellows or Members of the College, and that the President shall be

elected by the Council. That the election of Council shall be by personal voting at the College, and also by voting papers, which shall be sent to every Fellow or Member of the College on the *Register* who is resident in the United Kingdom." No answer had been received from the College beyond an acknowledgment of the receipt of the requisitions. A conference had been held between a subcommittee of that Association and a subcommittee of the Association of Fellows, when, as a possible basis of agreement between them, it was resolved that the Fellows and Members unitedly should elect the Council, to consist either of Fellows or Members of ten years' standing. No further understanding had been arrived at between the two Associations, but negotiations were still in progress, as it was felt that if, without giving up their just claims to representation, the Association of Members could for the present go hand in hand with the Association of Fellows, the effect of that union would have great weight with the Council of the College and the higher authorities.

The CHAIRMAN proposed that the report of the Secretaries should be received and adopted, together with the list of the Central Committee as proposed for the present year, namely: *President:* Dr. Robert Collum. *Vice-Presidents:* Mr. Joseph Smith, Dr. Danford Thomas, Mr. R. Hicks (Ramsgate), Dr. G. H. Batterbury (Wimborne), Deputy Surgeon-General E. Mackellar. *Honorary Secretaries and Treasurers:* Mr. Warwick C. Steele, Mr. J. Nield Cooke, Mr. W. Ashton Ellis. *Central Committee:* Dr. T. Stretch Dowse, Mr. Kenneth Cornish, Dr. C. Royston, Mr. George Brown, Dr. R. Paramore, Mr. M. G. Biggs, Dr. T. Robinson, Mr. J. Brindley James, Dr. J. W. Burrow Mason, Mr. T. H. Sawtell, Dr Joseph Rogers, Mr. F. J. Pearse, Mr. Horace Watts, Mr. W. G. Dickinson, Mr. John C. Smith, Dr. A. W. Orwin, Mr. W. Outhwaite, Mr. Maurice Clifford, Mr. A. H. Robinson; with power to add to their number.

The resolution was seconded, and unanimously agreed to.

Dr. COLLUM proposed the following resolution:

"That this meeting protests vigorously against the conduct of the Council of the Royal College of Surgeons in reference to all the demands of the Members."

He attended the meeting on March 24th, last year, and was certainly astounded to find it was proposed that the Members of the College should have no vote. There were now 16,500 Members, and not one of them had a vote in the election of a Member of Council. The revenue of the College, last year, was £17,000, which was received from the Members, and the greater part of that was spent by the Council amongst themselves, or distributed by them to others. Naturally they wished to keep it as long as they could. They elected each other for nine years, which was almost equivalent to a lifetime, and at the end of the nine years they were re-elected. Then, again, they made rules, and the rules were such that medical men were obliged to send their sons to Edinburgh, in order to get the degrees which they had acquired, and which were demanded by the public, but which the English College refused to grant them. The College was now seeking a Charter, and he hoped the Association would oppose it to the utmost of their power. They should bring all the Parliamentary influence that they could command to bear upon the matter, and he hoped that every Member would speak to his own Parliamentary representative, in order to take care that the Charter was not passed in the way that the Council of the College required, until they got all the Members demanded. He was sure that the representatives of the College in Australia, Melbourne, and elsewhere, would heartily join with them, so that their fellow-students and countrymen might not have to go to Edinburgh in order to be qualified, but might get their qualifications in London.

Mr. JOSEPH SMITH, in seconding the proposition, said that early this year a deputation of the Association waited on the Council, and they (the deputation) told them their object was simply that they wanted representation on the Council. They felt that the time had come when such a body as the College of Surgeons needed reform. On the occasion to which he referred, the President of the College said that they would receive a reply, and, after some months, they received a reply to the effect that they would have nothing; that the present state of things should continue; that, in the present days of enfranchisement, seventeen or eighteen thousand Members of the College, who contributed so many thousands a year, should remain in the same condition, that they should receive the diploma, and then be turned adrift. There was an enormous number of grievances that it would be unnecessary to go through. They felt that the time had come when the existing state of things should be done away with, and that the Members of the Royal College of Surgeons of England should surely have some little voice in the election of representatives on the Council. There was little doubt that the Association of Members would go hand-in-hand with the Association of Fellows. It was extraordinary that a body of educated men should be so blind as to think that Members of the College would remain much longer in their present condition, and he trusted that they would go in a strong body to the Home Office, and so, by united efforts, obtain what they sought for.

Mr. JABEZ HOGG observed that all the lecturers and men of mark in the profession were, or had been, Members of the College of Surgeons, and nothing else. There was a by-law which enabled the College to bestow the Fellowship upon so many Members of the College each year, if they chose to do so. But they so rarely put it into action, that there were very few men who had received the distinction.

The resolution was carried unanimously.

Dr. JOSEPH ROGERS moved:

"That this meeting urges that immediate steps be taken to prevent any alteration of the Charter, until it has reeeived the general sanction of the Members; for which purpose the Privy Council be requested to receive a deputation to explain the views of the Members, supported by a petition to the House of Commons."

In the course of his remarks, he said that it was of no use to go to the Council of the College. They would get nothing from them on the ground of justice, but only on the ground of fear, and the only way to arouse their fears was to enlist Parliamentary support.

Mr. W. OUTHWAITE seconded the resolution, which was carried unanimously.

Mr. HORACE WATTS moved:

"That this meeting considers that no alterations in the Charter of the Royal College of Surgeons should be allowed, without provision being made for the due representation of the Members upon the Council."

He pointed out that 17,000 Members had no representation, while 1,200 Fellows had.

Mr. H. J. SHAPLEY of Leamington seconded the resolution, which was also carried unanimously.

It was decided that copies of the resolutions should be forwarded to the Home Secretary and the Council of the College.

The CHAIRMAN pointed out that the petition to the House of Commons would take the form of a printed memorial, and would be sent to every member of the House.

The meeting closed with a vote of thanks to the Chairman.

THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE Council of the College is at present very much exercised upon the subject of the amended Charter, which is at present in the hands of the law officers of the Crown.

It will be remembered that, in 1884, the College, at the general meeting in June, decided on two changes of importance in the Charter. First—one permitting voting by papers, and thus allowing country Fellows who could not attend to exercise their franchise in the election of President, Vice-President, and Council. The second altered the mode of election of examiners and professors, making the whole Council elect instead of seven drawn by lot, as had been the rule. It so happened that when the Council proceeded to obtain the Charter, there was an election of a professor pending, and the clauses dealing with that were duly inserted. As, however, the formulating of the rules authorising paper voting was not in so forward a state, the powers relating thereto were, unfortunately, not obtained. This omission created much dissatisfaction, especially amongst the country Fellows, some of whom, at the general meeting in June, expressed their feelings most strongly.

The new Council set to work vigorously to have the Charter amended in the desired direction, but perceived that other changes were also advisable, especially one dealing with the disqualification of lecturers to sit on the examining board. This question has such an important bearing on the interests of medical teaching in Dublin, that a short sketch of the changes proposed, and of the reason for them, may not be out of place. In the original Charters of the College, there is no restriction as to the class from which examiners should be selected. In practice, however, it was found that if a number of lecturers, teaching in any particular school, were appointed examiners, that school, for the time being, obtained an undue and unfair advantage in the rivalry for pupils. It is obvious that students will flock to the lectures of those gentlemen who are to be their examiners. This is a mere truism, and does not necessarily imply the slightest unfairness on the part of the examiners so elected. It was found also that if a particular school had a large representation on the Council of the College, there was a tendency on the part of that Council to elect, as examiners, lecturers from that school. Nor does this imply unfairness on the part of the electors, as they would be necessarily better

acquainted with the merits of their own colleagues than with those of teachers in other schools.

The influence of the schools whose interests suffered was sufficient to get inserted into the supplemental Charter of 1843 a clause disqualifying all lecturers in medical schools from serving on the Court of Examiners. Although this arrangement allayed the jealousy of the rival schools, its effect on the status and dignity of the examining body was most injurious. If examiners are not to be school-teachers, the class of fairly competent men must, of course, be a small one; and the Council has consequently a very limited number to select from. Accordingly, any examiner who displayed, as such, more than average ability, was certain of retaining his seat for years. It was often felt that, in the purely scientific subjects, such as chemistry, physiology, histology, anatomy, no man was qualified to be an examiner, except one with such knowledge as a teacher should possess. As the members of the Court were elected to examine without specifying the subject, each one might be called on to test the candidates in anatomy, physiology, surgery, practice of medicine, chemistry, and materia medica. This anomalous condition led the present Council to determine on removing the disqualification of lecturers, even at the risk of awakening school-jealousies; and, to minimise these, they passed a resolution (to be converted into an ordinance) that not more than two lecturers from any school would be elected.

It was also resolved, but no formal arrangements were made, that the examiners should be elected, each to examine in a special subject, and, as a consequence, it would probably be necessary to increase the number of the courts.

These changes were embodied in the amended Charter laid before the Government, but at the date of the last meeting, the Charter had not been received. Some of the Council were strongly of opinion that, as the number of examiners to be elected was not yet fixed, or the division of subjects amongst them arranged, and as the election usually took place in the beginning of May, it would be advisable to proceed for the present year under the old rules.

However, in a small Council, it was decided to postpone the election till May 19th, in the hope that the Charter might have arrived by that time. This, under the circumstances detailed, seems to be a truly ridiculous proceeding, as the mode of election is altogether doubtful. At the same meeting, Dr. Mapother's resignation of member of Council was accepted with regret. It is understood that he intends to be a candidate for the Court of Examiners, and the names of Dr. W. Thornley Stoker, Mr. Swanzy, Mr. Alcock Nixon, and Mr. Robinson, are also mentioned in the same connection; whilst Dr. Samuel Mason is a candidate for an Examinership in Midwifery.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

ANY qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member *by the Council* or by any recognised *Branch Council.*

Meetings of the Council will be held on July 8th, and October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, June 17th, and September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HÆMOGLOBINURIA.
ALBUMINURIA IN THE APPARENTLY HEALTHY.
SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person, if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and is issued with the present number of the JOURNAL.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—*(a)* The influence of residence and occupation; (*b*) the previous state of the patients' thoracic organs and general health; (*c*) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161a, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

STAFFORDSHIRE BRANCH.—The third general meeting of the present session will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, May 28th, 1885. The President, Dr. E. T. Tylecote, will take the chair at three o'clock in the afternoon.—VINCENT JACKSON, General Secretary.—Wolverhampton.—April 25th, 1885.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Eastbourne, on Friday, May 29th. Dr. Habgood will preside. Gentlemen desirous of reading papers or showing cases should communicate with the Honorary Secretary, T. JENNER VERRALL, 95, Western Road, Brighton.—April 27th, 1885.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of the above District will be held at the Greyhound Hotel, Croydon, on Thursday, May 14th, at 4 P.M., H. Townsend Whitling, Esq., of Croydon, in the chair. A paper has been promised by Dr. William A. Duncan on "Chronic Metritis," and other communications are expected. Members desirous of reading papers or notes of cases are requested to inform the Honorary Secretary as soon as possible. All members of the South-Eastern Branch are entitled to attend this meeting, and to introduce professional friends. Dinner will be served at 6 P.M; charge, 7s., exclusive of wine.—J. HERBERT STOWERS, M.D., Honorary Secretary, 23, Finsbury Circus, E.C.

EAST ANGLIAN, SOUTH MIDLAND, AND CAMBRIDGE AND HUNTINGDONSHIRE BRANCHES.—A combined meeting of the above Branches will be held in Cambridge on the 12th of June next, under the presidency of Dr. P. W. Latham, Downing Professor of Medicine. Notice of intention of reading papers to be sent, without delay, to one of the Secretaries, W. A. ELLISTON, Ipswich; C. J. EVANS, Northampton; BUSHELL ANNINGSON, Cambridge.

NOMINATION OF REPRESENTATIVES IN COUNCIL OF ASSOCIATION: SPECIAL NOTICES.

LANCASHIRE AND CHESHIRE BEANCH.—Members of this Branch who are desirous of nominating members of the Council of the Branch, or Representative Members in the Council of the Association, are hereby reminded that such nominations, signed by five nominators, must be sent to the Secretary on or before the 31st instant.—CHARLES E. GLASCOTT, M.D., Honorary Secretary.—23, St. John Street, Manchester.

METROPOLITAN COUNTIES BRANCH.—Notice is hereby given, that the nomination of members to represent this Branch in the Council of the Association will shortly take place, in accordance with the following by-law: "The representatives of the Branch in the Council of the British Medical Association shall be annually nominated by the Council of the Branch in such manner as the said Council may from time to time determine. Any six members of the Branch shall be entitled to nominate any one or more members as representatives, on giving notice of such election to the Secretaries of the Branch at least three weeks before each annual meeting." Members desirous of nominating candidates are invited, in accordance with the above, to send in the names to Dr. Henry, 132, Highbury Hill, N., on or before June 1st. There will be two vacancies: one caused by the appointment of Mr. Macnamara as Treasurer of the Association; the other by the death of Dr. Mahomed. The remaining present representatives are Dr. Bridgwater, Mr. Sibley, and Dr. Grigg.—ALEXANDER HENRY, M.D., W. CHAPMAN GRIGG, M.D., Honorary Secretaries.—132, Highbury Hill, N., April 29th, 1885.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

THE Fifty-third Annual Meeting of the British Medical Association will be held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28th, 29th, 30th and 31st, 1885.

President: JAMES CUMING, M.D., F.K.Q.C.P., Professor of Medicine in Queen's College, and Physician to the Royal Hospital, Belfast.

President-elect: W. T. EDWARDS, M.D., F.R.C.S, Physician to the Glamorgan and Monmouth Infirmary, Cardiff.

An Address in Therapeutics will be delivered by W. Roberts, M.D., F.R.S., Consulting Physician to the Manchester Royal Infirmary.

An Address in Surgery will be delivered by John Marshall, F.R.C.S., F.R.S., Professor of Surgery in University College, and Senior Surgeon to University College Hospital.

An Address in Public Medicine will be delivered by Thos. Jones Dyke, F.R.C.S., Medical Officer of Health, Merthyr Tydvil.

SECTION A. MEDICINE.—*President:* S. Wilks, M.D., F.R.S., London. *Vice-Presidents:* T. D. Griffiths, M.D., Swansea; Byrom Bramwell, M.D., Edinburgh. *Secretaries:* W. Price, M.B., Park Place, Cardiff; E. Markham Skerritt, M.D., Richmond Hill, Clifton.

SECTION B. SURGERY.—*President:* E. H. Bennett, M.D., President of the Royal College of Surgeons in Ireland, Dublin. *Vice-Presidents:* P. R. Cresswell, F.R.C.S., Dowlais; Edmund Owen, F.R.C.S., London. *Secretaries:* G. A. Brown, M.R.C.S., Tredegar; Thomas Jones, F.R.C.S., 96, Mosley Street, Manchester.

SECTION C. OBSTETRIC MEDICINE.—*President:* Henry Gervis, M.D., London. *Vice-Presidents:* S. H. Steel, M.B., Abergavenny; W. C. Grigg, M.D., London. *Secretaries:* A. P. Fiddian, M.B., 6, Brighton Terrace, Cardiff; D. Berry Hart, M.D., 65, Frederick Street, Edinburgh.

SECTION D. PUBLIC MEDICINE.—*President:* D. Davies, M.R.C.S., M.O.H., Bristol. *Vice-Presidents:* E. Davies, M.R.C.S. M.O.H., Swansea; J. Lloyd-Roberts, M.B., Denbigh. *Secretaries:* Edward Rice Morgan, M.R.C.S., Morriston, Swansea; Herbert M. Page, M.D., 16, Prospect Hill, Redditch.

SECTION E. PSYCHOLOGY.—*President:* D. Yellowlees, M.D., Glasgow. *Vice-Presidents:* G. J. Hearder, M.D., Carmarthen; G. E. Shuttleworth, M.D., Lancaster. *Secretaries:* C. Pegge, M.R.C.S., Vernon House, Briton Ferry, Glamorgan; A. Strange, M.D., County Asylum, Bicton Heath, Shrewsbury.

SECTION F. OPHTHALMOLOGY AND OTOLOGY.—*President:* Henry Power, M.B., F.R.C.S., London. *Vice-Presidents:* E. Woakes, M.D., London; D. C. Lloyd Owen, F.R.C.S., Birmingham. *Secretaries:* J. Milward, M.D., 54, Charles Street, Cardiff; A. Emrys-Jones, M.D., 10, St. John Street, Manchester.

SECTION G. PHARMACOLOGY AND THERAPEUTICS.—*President:* T. R. Fraser, M.D., F.R.S., Edinburgh. *Vice-Presidents:* J. Talfourd Jones, M.B., Brecon; W. Murrell, M.D., 38, Weymouth Street, London. *Secretaries:* Evan Jones, M.R.C.S., Ty Mawr, Aberdare; J. H. Wathen, L.R.C.P., Coburg Villa, Richmond Hill, Clifton.

Local Secretaries: Alfred Sheen, M.D., Halswell House, Cardiff; Andrew Davies, M.D., Cadiz House, Cardiff.

TUESDAY, JULY 28TH, 1885.

2.30 P.M.—Meeting of 1884-85 Council.
3.30 P.M.—General Meeting. Report of Council and other business. Adjourn at 5 P.M.
8 P.M.—General Meeting. President's Address, and any business adjourned from meeting at 3.30 o'clock.

WEDNESDAY, JULY 29TH, 1885.

9.30 A.M.—Meeting of 1885-86 Council.
11.0 A.M.—Second General Meeting. Address in Therapeutics.
2 to 5 P.M.—Sectional Meetings.
8 P.M.—A *Conversazione* will be given by the President of the Association and the South Wales and Monmouthshire Branch.

THURSDAY, JULY 30TH, 1885.

9.30 A.M.—Meeting of Council.
11 A.M.—Third General Meeting. Address in Surgery.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner.

FRIDAY, JULY 31ST, 1885.

10 A.M.—Address in Public Medicine.
11 A.M.—Sectional Meetings.
2 P.M.—Concluding General Meeting.
8 P.M.—Reception by the Mayor of Cardiff.

SATURDAY, AUGUST 1ST, 1885

Excursions.

ANNUAL MUSEUM.

THE nineteenth annual exhibition of objects of interest in connection with medicine, surgery, and sanitary science, will take place in the Public Hall, Queen Street, Cardiff, during July 28th, 29th, 30th, and 31st, 1885. (Floor-space, 9,000 feet.)

The Museum will be divided into the following sections.

SECTION A.—Preparations, diagrams, casts, and models of anatomical and pathological objects, microscopes and microscopical preparations. (Secretary, W. M. Hier Evans, Esq.)

SECTION B.—Surgical and medical instruments and appliances; other instruments for scientific investigation; new medical works. (Secretary, A. Plain, M.B.)

SECTION C.—Foods, drugs, chemicals, and pharmaceutical preparations. (Secretary, Maurice G. Evans, M.D.)

SECTION D. SANITARY SECTION.—1. Books on sanitation. 2. Ambulances and appliances for carrying or moving sick and wounded. 3. Recent improvements in hospital furniture. 4. Personal hygiene, as clothing, beds, educational appliances, domestic appliances, filters, and arrangements for softening water; disinfectants and disinfecting apparatus. (Secretary (1, 2, 3, 4), E. Seward, A.R.I.B.A.) 5. Sanitary appliances, including drawings, models, and apparatus illustrative of the ventilation, lighting, draining, etc., of hospitals, public buildings, and private dwellings. (Illustrations of defects usually found would be of great interest.) (Secretary, E. M. B. Vaughan, A.R.I.B.A.)

In Sections A and D a printed name and description must be attached to each exhibit.

In Sections B and D, and with microscopes in Section A, exhibitors must send a printed list, with the name, number, and price of each article, and a corresponding number on each exhibit.

Unless these instructions are carried out, the exhibits will be declined.

The medical, surgical, and scientific instruments and sanitary appliances must be genuine novelties or improvements on those in common use.

EXHIBITION OF INSTRUMENTS AND APPARATUS.

It is intended to arrange for the exhibition of complete series of instruments, electro-therapeutic apparatus, instruments for physical diagnosis, and appliances relating to sanitary science and public health.

Facilities will also be afforded, when requested, for the display of instruments and apparatus in action.

CATALOGUE.—It is intended to print a catalogue of the exhibits in the Museum, and lithograph-plan. Descriptions should be sent in as early as possible, not later than June 20th, 1885.

TO ADVERTISERS.—The catalogue of the Museum will be one of the best advertising mediums of the day. The following will be the scale of charges for advertisements: One page, £1; half-page, 12s. 6d.; quarter-page, 7s. 6d.

TO EXHIBITORS.—All expenses of carriage to be prepaid, and all risks to be borne by the exhibitors; but the committee will exercise every care of the articles entrusted to them. A card bearing the name and address of the exhibitor, with the name of the instrument, etc., to be enclosed in each package, ready to be fixed on the outside of the exhibit.

All communications with reference to the museum and advertisements for the catalogue to be addressed (prepaid) to C. E. HARDYMAN, Esq., 42, Crockherbtown, Cardiff.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE fifth ordinary meeting of the session was held at the Museum and Library, Bristol, on Wednesday, April 22nd; R. S. Fowler, Esq., President, in the chair. There were also present forty-nine members and two visitors.

The Cholera-Bacillus.—The following resolution was proposed by Mr. MASON, seconded by Mr. BARTRUM, and carried unanimously, "That the best thanks of the Bath and Bristol Branch of the British Medical Association be given to Mr. Francis Fowke, for having, by reference to the medical periodicals and the public newspapers of the year 1849, so ably demonstrated to the Royal Microscopical Society, and subsequently to the profession, by the publication of his paper in the JOURNAL of March 21st last, that Drs. Brittan and Swayne, of Clifton, were the original discoverers, in the evacuations of cholera-patients and the drinking-water of infected districts, of the micro-organisms observed again during the cholera epidemic of last year, and then called 'cholera' or 'comma-bacilli,' without any reference to the earlier researches of Drs. Brittan and Swayne."

Communications.—The following communications were made.

1. Mr. W. P. Keall read a paper on four cases of Bone-wiring, and

exhibited the patients. Messrs. Cross, Greig Smith, Penny, Stephens, Lansdown, A. W. Prichard, and Pickering, and Dr. Logan joined in the discussion which followed.

2. Mr. R. W. Thomas read the notes of a case of Hydatidiform Mole, upon which Dr. Swayne, Mr. Prichard, and Mr. Waugh commented.

3. Dr. J. A. Norton reported a case of Intestinal Obstruction with unusual symptoms, and exhibited the specimen. This led to a discussion, in which Dr. Markham Skerritt, Mr. Collins, Mr. Scott, and Dr. Aust Lawrence took part.

4. Mr. M. F. Bush read a paper on two cases of Monstrosity, upon which Mr. Tuckett made some observations.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.

A SPECIAL meeting of the members of the West Surrey District of the South-Eastern Branch, to which all medical men residing in the district were invited, was held at the County Hospital, Guildford, on Thursday, April 23rd, for the purpose of a discussion upon the subjects of Acute Rheumatism and Puerperal Pyrexia. The chair was taken by J. WARD COUSINS, M.D.

Collective Investigation.—The SECRETARY asked "What points in relation to chorea and acute rheumatism the members of the Branch consider most suitable for further special questions, and in what form they would prefer the questions to be proposed?" No further inquiries besides those of the cards were suggested.

In response to the invitation of the local Honorary Secretary for proposals of subjects for future Collective Investigation, Mr. S. G. SLOMAN, Junr., of Farnham, suggested "The Duration of Infection after the Common Infectious Diseases." It was arranged that the subject should be brought before the standing subcommittee, and Mr. Sloman was asked to put, in the meantime, his suggestion in a definite form.

Acute Rheumatism.—A discussion was opened by Dr. CHEADLE, of London, with a paper upon acute rheumatism, in which he dwelt upon the points requiring further investigation, and especially Collective Investigation, and drew attention to the occurrence of rheumatic pericarditis, endocarditis, and tonsillitis, without arthritis, especially in children. He considered that inheritance played a greater part in the production of acute rheumatism than was generally supposed. The relation of chorea to acute rheumatism was considered at some length. Dr. Cheadle believed there was a strong connection between them. In the course of the debate, Dr. OWEN asked what proportion of families had a rheumatic tendency. He drew attention to the essential difference between the anatomical characters of the articular and the cardiac manifestations of rheumatism, and the different manner in which they were affected by treatment.—Dr. EDE mentioned the question once asked by a Continental physician, namely, whether "beef and beer" had not a powerful influence in causing the rheumatism prevalent in England.—Dr. PEARSE, in alluding to the relationship of chorea to acute rheumatism, drew attention to the equal prevalence of scarlatina and anæmia in the previous history of choreic patients, and expressed the opinion that, considering how common acute rheumatism was, in some form or another, the proportion of choreic patients who had had acute rheumatism, was little, if at all, larger than that occurring amongst the general population. Upon a general consideration of the two diseases, he concluded there was no causal connection between them.—Dr. CHEADLE, in reply, gave some statistics, apparently showing a very strong connection between the two diseases.

Puerperal Pyrexia.—A paper on this subject was contributed by Dr. Leachman, of Petersfield. In opening a discussion, he alluded to puerperal pyrexia as a term embracing a number of diseases having different causes, often different symptoms, and anatomical lesions. He pointed out three peculiarities in the condition of women after childbirth—the condition of the blood, the state of the genital tract, and the presence of nervous shock—as strongly predisposing, on very slight exciting causes, to feverish action. The cases in which this might occur were placed in four classes: the first, embracing the simple and generally mild fever arising from milk-secretion, excessive oxidation of waste products, and constipation; the second, that caused by simple inflammatory conditions, such as arose from injury; the third, those cases due to the contagion of the zymotic diseases, especially scarlatina. Patients after surgical operations, as after shock or injury, were more than usually liable to take scarlatina; and there was an analogous condition after childbirth. Special stress was laid on the observation that the mortality in cases of scarlatina and erysipelas which showed no rash was doubled. The fourth class was considered as that of puerperal fever proper. The condition of the genital tract was likened to the stump of an amputated limb. In both, the chief danger arose from septicæmia. It had been proved that the putrefaction of the secretions was due to organisms, and it was maintained that puerperal fever proper resulted from this, and not from any specific poison peculiar to lying-in women. If it were admitted that the majority of cases of puerperal fever were simply cases of surgical septicæmia, modified by the peculiar condition of the lying-in woman, there was a clue to prophylaxis and treatment. Under the first head, the indications were the observance of cleanliness in the widest sense of the word; purity of air by free ventilation; thorough cleansing of the patient; and lastly, avoidance of frequent examinations. As regarded treatment, Dr. Leachman placed great value on the use of intra-uterine, and not merely vaginal, injections.—In the course of the debate that followed, the Chairman made some interesting and suggestive remarks.

Etiology of Phthisis.—The Secretary-General of the Collective Investigation Committee, Dr. Isambard Owen, who had kindly come from London to attend the meeting, explained the new forms for an inquiry into the etiology of phthisis, and stated that they were now ready for distribution to those who are willing to take up this subject further.

The meeting closed with a very cordial vote of thanks to the Chairman for his kindness in coming to attend the meeting, and taking the chair.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Cysts of the Epididymis.—Dispensaries for Children.—The Danger of Impure Cucaine.—Tuberculosis Transmitted by the Respiratory Organs.—General News.

THE last number of the *Archives de Physiologie* contains articles by M. Charles Monod and M. Artaud on cysts of the epididymis. The facts it sets forth may be summarised as follows. At about the fiftieth or sixtieth year, sclerosis attacks the testicle, leading to senile atrophy. In most instances, the sclerosis attacks the connective tissue which limits and supports the ducts. Later on, it becomes diffused; the ducts are thus conglomerated. When this condition arrives, perfect obliteration in any one point provokes varicose dilatation behind the obstruction, and thus a cyst is formed. Sometimes these cystic dilatations are found throughout the substance of the head of the epididymis; at others, they are rare. The cysts of the head of the epididymis provoke a change in the neighbouring tissues, and furnish a stimulus to the sclerotic process going on in the epididymis.

Ten years ago, M. Gibert, of Havre, had the happy idea of founding a dispensary for children, and he furnished the necessary means to establish it. The dispensary is open daily at certain hours. A good meal is given to the patients who are hungry. In 1880, 1,600 children were treated. Since the dispensary has been founded, 11,000 children have been treated. The yearly expenses amount to 9,000 francs (£360), about 4s. 7d. for each child. By direction of the Minister of the Interior, M. Foville has inspected it, and, in consequence of his report, the Minister has issued a circular, recommending Dr. Gibert's dispensary as a model institution. Since then, two dispensaries have been organised at Rouen and three at Paris. M. Foville has inspected them, and recently made a communication to the Académie de Médecine on children's dispensaries. One of the dispensaries was opened in 1883. During the first year it succoured 5,000 sick children, and spent 1,648 francs (£65 18s.); another expends 6,193 francs (£247 17s.).

M. Panas has observed that the cucaine furnished by the hospitals produces dilatation of the pupil, as marked and as lasting as that resulting from the use of atropine. M. Calmeils explains the fact. Cucaine being excessively dear, the manufacturers use leaves which have been exhausted. These yield an alkaloid which has a very intense mydriatic influence. This substance has been found to be derived from hygrene, a known alkaloid and also a mydriatic.

M. Ollivier has related to the Académie de Médecine two interesting cases which had fallen under his notice, which supported the theory that tuberculosis is contagious. One was a hospital-patient, the other was a private patient. On May 1st, a little boy, 28 months old, was brought as an out-patient. His parents were strong and healthy. In November and December, 1884, the child, whose health had been good, spent much time with a child who was dying from chronic phthisis; and he is now in the second stage of pulmonary tuberculosis. The second instance was that of a little girl, aged

years, who was treated for infantile paralysis at the Hospital for Sick Children. There was no evidence of either hereditary or contracted scrofula. The child's bed in the hospital was by the side of a child dying from phthisis, after whose death, two other phthisical patients occupied the bed. The paralytic child was cured of the paralysis, but grew thin and pale, lost both strength and appetite; she coughed, and had night-sweats. The apices of the lungs are now dull on percussion; the expiration is sibilant and prolonged. M. Ollivier urges that tuberculous children should be isolated, and that healthy children should not live with them, nor even be much with them. The wards of phthisical patients should be especially well ventilated. Their bedding, also their linen, should be carefully cleaned.

The Chamber of Appeal has examined the appeal made by Dr. Watelets and the Director of the *Matin* against the verdict which condemned them to pay a fine of 100 francs (£4), and 16 francs for revealing professional secrets by publishing the cause of Bastien Lepage's death.

The pupils of the lycée Louis-le-Grand asked permission to devote the money usually expended on prizes to the benefit of the wounded soldiers in Tonquin. The Vice-Rector of the Académie de Paris forwarded the request to the Minister of Instruction, who replied that the intention was most praiseworthy, but that it was the duty of the State to succour those who gloriously fought and suffered in distant countries for the honour of the French flag, and therefore he could not authorise any addition to be made to the yearly subscriptions raised in the lycées for the benefit of the poor. Le Cercle Commercial du Louvre has given a donation of 800 francs (£32) to the Union des Femmes de France, to be expended for the benefit of the wounded at Tonquin, and the same sum for the same purpose to the Association des Dames Françaises and the Société Française de Secours aux Blessés Militaires. The Society for Wounded Soldiers has received from the Louvre 7,270 fr. 15 c. (£291); the hands employed raised a subscription of 5,270 fr. 15 c. (£211), and MM. Chauchard and Co., the principals, gave 2,000 francs (£80) to the same charity.

Dr. Prosper Lucas, formerly chief physician at the Bicêtre and the Saint Anne Asylum, died a few days ago, at the age of 67. Dr. Lucas is best known by his *Traité Philosophique et Physiologique de l'Hérédité Naturelle dans les Etats de Santé et de Maladie du Système Nerveux.*

M. Dujardin-Beaumetz is appointed to take charge of the service of health of the force sent to Tonquin. He is the brother of the hospital-physician of the same name.

A statue in honour of the memory of M. Bouillaud, the late celebrated clinical professor, will be erected at Angoulème on May 6th. M. Roger will represent the Institute, and M. Laboulbene the medical faculty.

News arrives from Oran that Sister Marthe has been publicly decorated with a cross of the Legion of Honour for her devoted services during the cholera-epidemic in Algiers.

MEDICO-LEGAL AND MEDICO-ETHICAL.

PURCHASE OF SHARES OF PRACTICE.

SIR,—In reply to "Member of British Medical Association," I have no doubt, (after considerable experience in purchase), that one year's purchase for the father's death vacancy would be the proper amount for the son to pay; and for these reasons. The son, after seven years' experience, paid two years' purchase for a further share. This was the value agreed upon at a time when the father was selling with the full weight of his proved long standing experience, and the son was entering as a novice.

The son is no novice now; he has a reputation of his own; he has worked the practice twelve years, and it is obvious that he ought not to have the deceased father's share for six months' purchase.

The son cannot retain the father's full share; the work would be too much; the older patients will, in some cases, leave him, opponents will come in; but he will return enough to satisfy himself that one year's purchase-money will be well invested.—Yours faithfully, M.B., M.A.

*** Although, in the JOURNAL of the 25th ultimo, we were reluctantly induced to give insertion to a letter on the subject of "Partners' Shares in the Goodwill of a Practice," and now alike admit the views of another member on the same, we deem it necessary to remark that questions as to the market-value of the sale of practices are, *de facto*, outside the beaten path of the Association, and of our usual functions; and, therefore, for the future, would advise our correspondents to refer such matters to a practised medical friend, or skilled professional expert. With reference to the point more immediately involved, we may state that, according to our experience, the value of a country doctor's practice varies considerably, and depends much on its nature and the locality, as to it being, for instance, in a rich residential and comparatively populous neighbourhood, or in a purely agricultural district, with a sparse, non-wealthy population. In the case under consideration, we think that "Member British Medical Association" may fairly accept the solution suggested in the forgoing letter, namely, "one year's purchase," minus, of course, the attendant expenses in working the practice, etc.

"BETA" has, we fear, acted unwisely in "signing the bond," even "under protest." In all such matters, it is, we believe, the customary rule and practice that a draft copy of the proposed deed of agreement be sent to the respective interested parties for perusal and remark, prior to its due legal execution, and such, in our opinion, should have been done in the case of our correspondent, whose suspicion, moreover, might not unreasonably have been excited by the rash and premature attendance of the attesting professional witness in the person of "Dr. A.'s lawyer": a somewhat unusual circumstance, that might well, indeed, have induced caution in "Beta," ere appending his signature to a document from which the stipulations previously and mutually agreed to were omitted.

Under the circumstances, we think that our correspondent will act judiciously in consulting his own solicitor, inasmuch as two out of the three questions submitted for our consideration are purely legal ones; and we need scarcely remark that "law" is not always in strict harmony with "reasonableness" and equity.

BULLETINS OF DISTINGUISHED PATIENTS.

SIR,—Is there any rule by which members of the profession should be guided in issuing daily bulletins referring to the illness of a distinguished patient? The enclosed form of advertisement has been going the rounds of the press during the past three weeks; and, although the individuals whose names are appended may gain a passing notoriety, yet I do not think the dignity of the profession at large is sustained by pandering to the public appetite for sensational news.—Faithfully yours, ONLOOKER.

[With the letter is forwarded a signed bulletin.]

*** There is not, so far as our personal knowledge extends, any rule, written or traditional, "by which members of the profession should be guided in issuing daily bulletins relative to the illness of a distinguished patient." It is a subject which we have, however, more than once indicated as calling for some utterance of the Colleges. That much difference of opinion exists on the subject may, we think, be taken for granted. Looking at it, however, from what, in the absence of a more expressive definition, we would venture to designate a common sense view, we are strongly inclined to the opinion that undue importance (stimulated, it may be, by a feeling, more or less acute, of jealousy) has been attached to the "passing notoriety gained" (or, rather, assumed to be) by the affix to professional bulletins of the signatures of the attendant practitioners; from which, nevertheless, we hold that, beyond the personal gratification possibly derived by a junior practitioner from the transient publicity accorded to his name, but little, if any, professional advantage is gained.

If, indeed, as our correspondent would seem to imply, the practice of issuing bulletins merely "pandered to the public appetite for sensational news," it could not, in our opinion, be too severely criticised and condemned. On the other hand, when it arises from a purely honest public anxiety for authenticated information in the dangerous illness of, for instance, an illustrious or popular statesman, a distinguished prelate, or esteemed dignitary, or some noble character beloved and respected by the nation, the practice of issuing signed bulletins has an evident meaning, and can plead precedents of weight.

It is (we apprehend) to the form rather than to the substance of bulletins that exception has been usually taken. The practice is one which it has not been found possible or expedient hitherto to prohibit; and the questions of its abuse, which are likely to arise from time to time, have to be judged according to the essential and collateral circumstances of the case. The multiplication of bulletins, the flourish of titles and degrees, the giving of unnecessary details, are always open to obvious objection. Personal modesty and good taste go for a great deal in guiding the course pursued; and these are not equally shared by all alike.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF LONDON.

EXAMINERS.—The following gentlemen have been elected Examiners for 1885-86:—*Chemistry*—Professor J. Emerson Reynolds, M.D., F.R.S.; and Professor T. E. Thorpe, Ph.D., F.R.S. *Botany and Vegetable Physiology*—Professor Bayley Balfour, M.D., D.Sc., F.R.S.; and Professor F. O. Bower, B.A. *Comparative Anatomy and Zoology*—Professor E. Ray Lankester, M.A., F.R.S.; and Professor A. Macalister, M.D., M.A., F.R.S. *Practice of Medicine*—W. H. Broadbent, M.D.; and W. Miller Ord, M.D. *Surgery*—W. M. Baker, Esq.; and Sir William Mac Cormac, M.Ch., M.A. *Anatomy*—Professor D. J. Cunningham, M.D., F.R.S.E.; and H. Greenway Howse, M.S., M.B. *Physiology*—Professor Arthur Gamgee, M.D., F.R.S.; and Professor Gerald Yeo, M.D. *Obstetric Medicine*—F. H. Champneys, M.A., M.B.; and John Williams, M.D. *Materia Medica and Pharmaceutical Chemistry*—J. Mitchell Bruce, M.D., M.A.; and T. Lauder Brunton, M.D., D.Sc., F.R.S. *Forensic Medicine*—Augustus J. Pepper, M.S., M.B.; and Professor George V. Poore, M.D., B.S.

The Earl of Dalhousie has been elected Chairman of the Select Committee of the House of Lords on the Burgh Police (Scotland) Bill.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Friday, May 1st.

Burgh Police and Health (Scotland) Bill.—The following were named to act on the Select Committee on this Bill:—The Earl of Mar and Kellie, the Earl of Minto, Lord Balfour of Burghley, the Duke of Argyll, the Marquis of Lothian, the Earl of Dalhousie, and the Marquis of Tweeddale.

Tuesday, May 5th.

Cremation.—The Earl of ONSLOW called attention to the erection of a public crematorium at Woking, and the cremation of a body there on March 26th last, and inquired whether Her Majesty's Government would carry out their expressed intention of using the powers which they possessed in the matter for the discouragement of the practice, and what those powers were.—The Earl of DALHOUSIE, in reply, said that in answer to the noble earl, he should have to repeat, in very much the same language, what he stated the other day, that Her Majesty's Government did not consider it any part of their duty to encourage or discourage the practice of cremation. As to the power the Government had for dealing with the matter, the noble earl had himself answered that question when he referred to the judgment given the other day by Mr. Justice Stephen. The Government had no power to interfere, and until the practice became more common, it was not their intention to deal with it.

HOUSE OF COMMONS.—Thursday, April 30th.

Medical Act (1858) Amendment Bill.—Dr. LYONS moved the second reading of this Bill.—Mr. T. O'Connor moved to adjourn the debate.—Mr. MUNDELLA hoped the hon. member would allow the Bill to pass. It had been carefully examined by the Privy Council Office, and was a very useful measure.—Mr. SEXTON and Mr. HEALY supported the adjournment. The debate was adjourned.

Friday, May 1st.

Small-Pox at West Ham.—Mr. GEORGE RUSSELL informed Mr. Hopwood that the Local Government were aware that there had been a severe epidemic of small-pox in the West Ham Subdistrict. The population of the district increased from 44,000 in 1871 to 101,000 in 1881, and was now very much larger. The number of deaths from small-pox in the district during the present year had been 318. There were, however, in the district two small-pox hospitals, one belonging to the guardians of the West Ham Union, and the other to the managers of the Metropolitan Asylums Districts. A considerable proportion of the persons who died in the district from small-pox were brought into the district from the outside. The returns for the last three years showed that the number of children unaccounted for as regarded vaccination had been greater than in other districts in the neighbourhood of the metropolis. It had been estimated that the rate of mortality from small-pox in the last century, during a period of thirty years, was at 3,000 per million; but it was obvious that no comparison could fairly be made between the average death-rate during a period of thirty years in the whole of England and Wales, and the number of deaths in four months during a severe epidemic in a particular locality.

Monday, May 4th.

Offensive Smells in the Houses of Parliament.—Sir C. DILKE, in reply to Sir L. Playfair, stated that, in consequence of the report of the Select Committee, Mr. Fletcher, the chief inspector of alkali-works, was requested to make inquiry as to how far chemical, gas, or other works, or deposits of ashes and refuse, in the neighbourhood of the river might account for the offensive smells complained of in the House of Commons. Mr. Fletcher made a report on his inquiry, and he had no objection whatever to that report being presented to the House.

Patent Medicine Stamps.—Mr. STUART-WORTLEY asked the Secretary to the Treasury whether he was aware that the provisions of the 44 George III., c. 98, requiring (under a penalty of £10) that packets or bottles of drugs, etc., offered for sale at less than 1s., should be sold with a three-halfpenny stamp affixed to them, were daily infringed but rarely enforced; with whom rested the power of deciding in what cases the penalty was to be enforced; whether the Government had any intention of remedying, by legislation or otherwise, the evils arising from the uncertainty of practice prevailing with regard to the enforcement of these penalties; and what amount was realised to the Exchequer in the last financial year, or in 1883-4, from the three-halfpenny duty imposed by the above enactment.—Mr. HIBBERT said that the Inland Revenue Board was well aware that the Act referred to was very frequently evaded. The management of the affairs relating to this and other stamp duties was in the hands of that Board, who had discretion to decide, in each case, whether the full penalty should be exacted or otherwise. The receipts from the three-half-penny duty amounted, in 1883-4, to £93,500.

Vaccination.—Mr. HOPWOOD asked the President of the Local Government Board whether he had yet received information respecting the contracting of small-pox at the Sheffield Hospital by a medical man and a nurse, and the results of the attack; and whether one or other had been revaccinated previously.—Mr. G. W. RUSSELL said that, at the Sheffield Hospital in 1882, the medical officer and a ward-servant, who had both been revaccinated, had attacks of small-pox so mild that scarcely any rash appeared. The cook, who had not been revaccinated, but who had previously had small-pox, had an attack in a modified form. The only severe case in the hospital at the time was that of a patient who had never been vaccinated. This patient died. A nurse who had not been revaccinated had an attack of a qualified nature; the only severe case was that in which the patient had not been vaccinated and died.—Mr. HOPWOOD asked the President of the Local Government Board whether he had communicated to the authors of the *Facts Concerning Vaccination* his view of the unguarded nature of the statement, that no hospital-nurse had been attacked with small-pox after revaccination.—Mr. G. W. RUSSELL: We have informed the National Health Society of the reply which I gave to the question of the hon. and learned member on March 31st last.

The Volunteer Medical Staff Corps.—Sir S. NORTHCOTE asked the Secretary of State for War whether he had received any communication from the officers of the Edinburgh University Volunteer Medical Staff Corps, asking that the corps might be included in the new Volunteer Medical Staff Corps, and whether there was any reason why their request should not be complied with.—The Marquis of HARTINGTON replied that such an application was received after the Army Estimates, which fix the establishments for the year, were issued, and no addition to the corps could then be made. The new Volunteer Medical Staff Corps was an experiment in a sense, and although it was hoped to extend the scheme, it was thought that at present there should only be one corps; but no additions would be made except in connection with the next Army Estimates, and when the establishments for the whole force were under consideration.

MILITARY AND NAVAL MEDICAL SERVICES.

THE ARMY MEDICAL STAFF.

OUR contemporary the *Broad Arrow*, in referring to the intention of the War Office to accept a larger number of candidates for medical commissions in the army than was contemplated when the number of vacancies was announced prior to the competitive examination in February last, describes it as a decision "to confer commissions upon the unsuccessful candidates at the examination;" and adds, further, that, "as far as the last examination is concerned, competition has, for no sufficient reason that we can discover, been discarded." This is hardly fair to the gentlemen concerned, nor is the statement correct. None of the competitors who were unsuccessful in qualifying for commissions have received notice of there being an intention to confer commissions upon them, but only those who were successful in the examination, and who were declared by the examiners to be qualified for commissions. It has frequently happened, at former examinations, that a larger number of candidates have been accepted for commissions than the number originally announced, but in no case unless the examiners had declared that the candidates had proved themselves qualified to fulfil the responsibilities to be committed to them. On the present occasion, this has been applied to a greater number of candidates than at previous competitions; and there is hardly any need to explain why it has been done, seeing that every one is aware of the large and unusual demands which have been made on the Medical Staff to meet the wants of the numerous field-hospitals, and other medical establishments, with the expeditionary forces operating in Egypt, not to mention the further demands which would have pressed on the medical service in case Great Britain had become involved in war with Russia. Nor has the principle of competition been in any way trenched upon, much less has competition itself been discarded. The forty-five surgeons on probation who have already, as we have previously announced, joined at Netley, hold and will retain the positions which they gained, according to their respective merits in the competitive struggle in London; and those who, since the competition, have been employed at various military stations, but who will in due course succeed the surgeons on probation now at Netley, will equally retain the respective positions which they took

at the competitive examination in London. The names of all the surgeons concerned will appear on the roll of the Medical Staff in the Army List, in the same order as that in which their names were furnished by the examiners after the competition. In fact, it simply amounts to the same thing as if eighty vacant commissions had been originally announced for competition, instead of forty-five vacant commissions. Had circumstances at that time caused such an announcement to be made, there is no reason for believing the results would have been in any way different from what they are now, either as regards the competitors themselves, or the positions which those who were successful in qualifying for commissions will hereafter occupy in the Army Medical Service. It is consequently no more correct to say that the principle of competition has been discarded in the arrangements for filling vacancies in the Army Medical Staff, than it is to put forth a statement that the additional commissions announced for distribution are intended to be conferred on the unsuccessful candidates at the recent competitive examination in London.

ARMY MEDICAL SERVICE.

Surgeon-Major G. Andrew, M.B., is directed to hold civil medical charge of Ramkhet, North-West Provinces of India, in addition to his military duties.

We last week recorded the retirement of Surgeon-Major T. Barnwell. In addition to the services then recorded, we are requested to say that he sailed with the expedition to China in 1859-61 (medal), in the campaign of the North-West Frontier of India in 1863 (medal), at the base-hospital at Peshawur during the recent Afghan war, and throughout the cholera-epidemic in Egypt in 1883.

Surgeon A. Dodd has been brought on the strength of Her Majesty's British Forces in the Bombay command.

Surgeon C. Seymour, M.B., arrived at Suakin on the 2nd instant, in the suite of Lord Wolseley.

A telegram received at the War Office, dated Cairo, April 30th, records that Surgeon-Major J. Kinahan, M.D., and Surgeon C. E. Faunce have arrived from up the Nile on April 28th.

The gentleman who left Assouan on the 25th ultimo, invalided, was Surgeon R. H. Clement, not Surgeon W. G. Clements, as stated by us last week.

Mr. J. S. Chapman, Deputy Inspector-General of Army Hospitals, died at Chiswick on the 3rd instant, in the 86th year of his age. He entered the service as Hospital Assistant, December 15th, 1825; became Assistant-Surgeon, September 28th, 1826; Surgeon, October 5th, 1841; Surgeon-Major, November 7th, 1851; and Deputy Inspector-General, May 5th, 1854: he retired on half-pay October 6th, 1854. Mr. Chapman served in the war in Afghanista. in 1839-40, under Lord Keane, and was at the storming and capture of Ghuznee he received the medal for the campaign.

INDIAN MEDICAL SERVICE.

Surgeon J. L. Poynder, Madras Establishment, Civil Surgeon of Sumbulpore, is appointed to the executive charge of the jail of that district.

Surgeon G. S. Robertson, Bengal Establishment, Civil Surgeon of Baraitch, is directed to take medical charge of the Gonda district, in addition to his own duties, during the absence of Dr. E. Cameron on privilege-leave.

The services of Surgeon W. B. Browning, M.B., Madras Establishment, officiating zillah-surgeon and superintendent of the jail at Tellicherry, are replaced at the disposal of the Military Department at his own request.

Surgeon H. Allison, M.D., Madras Establishment, has been appointed Professor of Hygiene in the Madras Medical College, in the place of Dr. Dymott, who has been transferred to other duty.

Surgeon-General W. R. Cornish, C.I.E., Madras Establishment, is permitted to reside and draw pay in Europe.

Surgeon G. A. Cones, Bengal Establishment, has been transferred to the half-pay list. He entered the service March 30th, 1878.

Surgeon S. T. Avetoom, Bombay Establishment, has been detailed for duty with the Indian Contingent at Suakin.

Surgeons H. W. Stevenson and K. H. Mistri, of the Bombay Establishment, have been transferred from general duty, Sind, to general duty Presidency Circle.

The undermentioned have received leave of absence for the periods specified: Surgeon-Major C. Sibthorpe, Madras Establishment, Fort-Surgeon and Professor of Anatomy at the Medical College, privilege-leave for three months; Surgeon J. Maitland, M.B., Madras Establishment, Second Surgeon at the General Hospital, and Professor of Pharmacy and Materia Medica at the Medical College, privilege-leave for three months; Surgeon-Major T. Beaumont, M.D., Residency Surgeon at Hyderabad, for 244 days on medical certificate; Surgeon J. McCloghry, Bombay Establishment, in medical charge of the 2nd Sind Horse, and officiating Staff-Surgeon at Poona, for one year on medical certificate.

THE NAVAL MEDICAL SERVICE.

Staff-Surgeon M. U. Greany, M.D., has been placed on the retired list of his rank. Dr. Greany entered the service May 7th, 1868, and became Staff-Surgeon December 24th, 1879. He was appointed to the *Nankin*, 2,540 tons, stationed at Pembroke Dock, on the 9th of May last year.

The following appointments have been made at the Admiralty during the past week: Robert Grant, Staff-Surgeon, to the *Pembroke;* R. W. Biddulph, Staff-Surgeon, to the *Orontes;* R. V. McCarthy, Staff-Surgeon, to the *Rupert;* Cecil Drake, Staff-Surgeon, to the *Duncan;* George Curtis, Staff-Surgeon, to the *Devastation;* N. T. Connolly, Staff-Surgeon, to the *Ajax;* M. A. Harte, Staff-Surgeon, to the *Hotspur;* W. B. Fletcher, Staff-Surgeon, to the *Repulse;* F. J. Lilly, Surgeon, to the *Devastation;* G. F. Dean, Surgeon, to the *Hotspur;* George Welch, Surgeon, to the *Ajax.*

Small-pox in Battersea.—Small-pox is reported to be spreading in the neighbourhood of Battersea. About a dozen cases have been removed to the Small-pox Hospital within the last ten days. The authorities are taking all necessary precautions, and the public vaccinators are being kept busy.

OBITUARY.

PAUL BENNETT CONOLLY, M.R.C.S.Eng., L.S.A.

Paul Bennett Conolly, Surgeon, Army Medical Staff, died near Korti, on the Nile, of enteric fever, at the age of 30. The news will cause great grief to a wide circle of friends; and at Charing Cross Hospital, his old school, his untimely death caused a universal feeling of dismay and sadness.

All who knew him predicted a brilliant future for him, and some account of what he has done is here appended. His first war-service was in the Russo-Turkish war at Bucharest, and he was present at the final attack upon Plevna. He was decorated by the King of Roumania with the "gold cross" of Roumania. He next volunteered for the Cape during the Zulu campaign, and was with Sir E. Wood during the many engagements preceding Kambula, taking part in the attacks on the Ilobane Hill, and the battles of Kambula and Ulundi. He was mentioned in despatches for his gallantry at the Ilobane Hill, and at the end of the war received the medal and clasp. Returning to England, he determined to enter the army, and, after finishing at Netley, was shortly in South Africa again in the Boer war, where he commanded a bearer-company. Once more he returned to England, but, as surgeon to the 2nd Bearer-Company, he went with Lord Wolseley to Egypt in 1882, and was present at Kassassin and Tel-el-Kebir, receiving the medal, clasp, and Khedive's star. After his return, he came back to his old school, to read for his first Fellowship examination, which he passed in May, 1884. Whilst reading for this examination, he held the appointment of Assistant-Instructor to the Army Hospital Corps at Aldershot.

When the relief of Gordon was determined on, he volunteered to go, and was appointed to the Light Division of the Camel Corps, and has during the campaign been mentioned more than once in flattering terms by those who saw his arduous work between Korti and Gakdul.

He was a typical specimen of the soldier-surgeon, pleasant, light-hearted; though sensitive to a degree, he combined a brave heart with a steadv hand, and a winning way with the highest qualities of a surgeon

EDWARD T. TIBBITS, M.D., Bradford.

Dr. Tibbits, of Bradford, whose death at the age of forty-six it becomes our duty to record, has left behind him a more than local reputation, and a name which will be long associated in Bradford with much public and private work. He studied at University College, London, and the Rotunda Hospital, Dublin, qualifying as M.R.C.S. in 1861. In 1860, he passed the first M.B. examination in the University of London, taking the exhibition and gold medal in chemistry; in 1862, he took the degree of M.B.; and, in 1869, that of M.D. He was for twelve months physician's assistant at University College Hospital to Sir William Jenner, and for a short period was clinical assistant at the Brompton Hospital for Consumption. He commenced practice at Rugeley, in Staffordshire, but in 1875 removed to Bradford, and was appointed physician to the Infirmary there. He subsequently received the appointments of physician to the Bradford Fever Hospital, and of physician to the Bradford Institution for the Blind. During the ten years of his residence in Bradford, he succeeded in establishing a high reputation among his professional brethren and in the town generally.

As physician to the Infirmary, Dr. Tibbits was ever active in promoting its interests, and early noted and pointed out to the local authorities the deficiency of the accommodation it afforded for medical cases, and to his exertions must be largely attributed the addition of the new wing now being erected. Dr. Tibbits was equally energetic in promoting the interests of the Fever Hospital. In private practice his abilities as consulting physician were becoming yearly more recognised; and although his position had, even at the time of his decease, become assured, a greater future was before him had he been spared. In addition to his high professional attainments, Dr. Tibbits was an able contributor to medical literature, and was the author of a work entitled *The Medical Fashions of the Nineteenth Century*, and also of a volume entitled *Muscles, Mind, and Morals.* During the years 1879-80, he was President of the Bradford Medico-Chirurgical Society, and took an active part in the deliberations of that society at all times. He has been described as being in disposition modest and unobtrusive, yet possessing the faculty of attracting and retaining the friendship of the circle in which he moved, by whom his loss will be keenly felt.

Superannuation.—Mr. Edward N. Sison, late medical officer for the St. Luke's district of the Holborn Union, has obtained a superannuation-allowance of £70 *per annum.*

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

LUNATICS IN WORKHOUSES.

At a meeting of the Council of the Poor Law Medical Officers' Association, held at 3, Bolt Court, Fleet Street, on Tuesday, May 5th, certain of the clauses of the Lunacy Law Amendment Bill, now under consideration in the House of Lords, were considered, in their bearing on the duties and interests of workhouse medical officers, especially clause 10, and the sections 1, 2, 3, 4, 5, 6, and 7.

Sections 1, 2, 3, provide that a lunatic may be kept in a workhouse for fourteen days from its date, by a certificate from the medical officer, containing the usnal provisos, and drawn according to Form 8 in the schedule. Section 4 provides that no person shall be detained in a workhouse, as a lunatic, for more than fourteen days, without an order under the hand of a justice of the peace, having jurisdiction in the union where the workhouse is placed, which shall be drawn according to Form 9 in the schedule. The Council feel that this section will be found to be cumbersome and unworkable.

Section 5 provides that the order is to be made on the application of the relieving officer, supported by a medical certificate, according to Form 6 in the schedule, under the hand of a duly qualified medical practitioner, *not being an officer of the workhouse*, and by the certificate under the hand of the medical officer of the workhouse, drawn on Form 8 in the schedule.

The Council holds that this is a gratuitous affront to, and reflection on, the medical officer, as he is to have the care and custody of the lunatic for fourteen days or more, and then, some medical man from outside is to step in, fill up the certificate, and be paid the fee, to the entire exclusion of the workhouse medical officer, who will thereby sustain a considerable diminution of the income he may have derived from his appointment.

Section 6 provides that when an alleged lunatic is in a workhouse, and the medical officer thereof has not signed such certificate, as in this section is mentioned, or if at, as before, the expiration of fourteen days from the date of the certificate, an order is not made, under the hand of the justice, for the detention of the lunatic in the workhouse, the medical officer shall give notice, in writing, to the relieving officer, to take the requisite measures for the removal of the lunatic to an asylum; and by Section 7 it is decreed that, if he omits to give such notice, then for every day or part of a day he is in default, he shall forfeit the sum of £10.

It will be noticed that under the provisions of this clause, all cases, whether lunatic, idiot, or imbecile, now kept in the workhouse, must be notified by the medical officer, taken before a justice of the peace, and decided upon, not by the official who knows all about them from daily observation, but by an absolute outsider, to the prejudice of the workhouse medical officer, and at an unneccessary cost to the guardians, who will be called upon to pay a fee on each case; and as in many workhouses there are from 50 to 100 of such cases, the expense will be very considerable.

The Council feel that this Bill is framed in the harshest, most unjust, and most ungenerous spirit towards workhouse medical officers, and therefore earnestly call on all such officers to use what influence they possess to prevent this clause and sections of this Bill from becoming law.

Signed on the part of the Council,

Joseph Rogers, Chairman,

May 6, 1885. J. W. Barnes, Honorary Secretary.

Health of English Towns.—During the week ending April 18th, 6,195 births and 3,966 deaths were registered in the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,762,354 persons. The annual rate of mortality per 1,000 persons living in these towns, which had been 23.1 and 25.0 per 1,000 in the two preceding weeks, declined during the week to 23.2. The rates in the several towns, ranged in order from the lowest, were as follow:—Hull, 16.2; Derby, 16.3; Nottingham, 17.8; Birkenhead, 17.9; Portsmouth, 19.0; Huddersfield, 20.3; Salford, 20.7; Halifax, 20.9; Norwich, 21.2; London, 21.8; Bolton, 21.8; Leicester, 22.2; Blackburn, 22.7; Wolverhampton, 23.1; Liverpool, 23.2; Brighton, 23.2; Leeds, 23.8; Oldham, 23.9; Birmingham, 24.2; Bradford, 24.3; Sheffield, 25.1; Bristol, 26.8; Preston, 28.1; Newcastle-upon-Tyne, 32.4; Sunderland, 32.9; Cardiff, 33.3; Plymouth, 35.7; and Manchester, 35.9. The average death-rate for the week in the twenty-seven principal towns was 24.4 per 1,000, and exceeded by 2.6 the rate recorded in London. The 3,966 deaths registered during the week in the twenty-eight towns included 484 which were referred to the principal zymotic diseases, against numbers steadily increasing from 377 to 478 in the seven preceding weeks; of these, 190 resulted from measles, 109 from whooping-cough, 46 from small-pox, 42 from "fever" (principally enteric), 38 from scarlet fever, 30 from diphtheria, and 29 from diarrhœa. These 484 deaths were equal to an annual rate of 2.8 per 1,000. The zymotic death-rate in London was equal to 3.0 per 1,000; while in the twenty-seven provincial towns it averaged 2.7 per 1,000, and ranged from 0.0 in Wolverhampton, and 0.9 in Brighton and in Bolton, to 7.0 in Cardiff, 7.5 in Newcastle-upon-Tyne, and 10.4 in Sunderland. The deaths referred to measles, which had been 173 and 164 in the two preceding weeks, rose again to 190, and showed the largest proportional fatality in Newcastle-upon-Tyne, Cardiff, and Sunderland. The 109 fatal cases of whooping-cough showed a further decline from the numbers returned in the two previous weeks; this disease caused the highest death-rates in Preston and Plymouth. The deaths referred to "fever," which had been 44 and 35 in the two preceding weeks, rose again to 42, and caused the largest proportional fatality in Newcastle-upon-Tyne. The 38 fatal cases of scarlet fever showed a slight further increase upon recent weekly numbers; this disease caused the highest death-rates in Halifax and Sunderland. The 30 deaths from diphtheria during the week in the twenty-eight towns included 21 in London, and 2 in Portsmouth. Of the 46 fatal cases of small-pox, 41 occurred in London (exclusive, however, of 9 deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside registration London), 2 in Liverpool, 2 in Manchester, and 1 in Sunderland. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had increased from 830 to 910 in the three preceding weeks, had further increased to 1,062 on April 18th last. The admissions, which had been 141 and 185 in the two previous weeks, further rose to 307, a higher number than in any week since June last. The death-rate from diseases of the respiratory organs in London was equal to 5.7 per 1,000, and was slightly below the average. The causes of 101, or 2.5 per cent., of the 3,966 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

Health of Scotch Towns.—In the eight principal Scotch towns, having an estimated population of 1,254,607 persons, 879 births and 569 deaths were registered during the week ending April 18th. The annual rate of mortality, which had been 25.0 and 23.4 per 1,000 in the two preceding weeks, further declined in the week ending April 18th to 23.3, and almost corresponded with the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns the rate was equal to 14.8 in Greenock, 18.3 in Perth, 18.5 in Edinburgh, 20.5 in Leith, 22.1 in Dundee, 23.9 in Aberdeen, 27.1 in Glasgow, and 29.0 in Paisley. The 569 deaths registered in these towns included 76 which were referred to the principal zymotic diseases, against 84 and 69 in the two preceding weeks; of these, 24 resulted from measles, 23 from whooping-cough, 12 from diarrhœa, 7 from scarlet fever, 7 from "fever" (principally enteric), 3 from diphtheria, and not one from small-pox. These 76 deaths were equal to an annual rate of 3.1 per 1,000, which slightly exceeded the average zymotic death-rate in the large English towns. The lowest zymotic rates in the Scotch towns, in the week ending April 18th, were recorded in Perth and Aberdeen, and the highest in Greenock, Paisley, and Glasgow. The deaths from measles, which had been 23 and 24 in the two preceding weeks, were again 24 in the week ending April 18th, and included 22 in Glasgow. The 23 fatal cases of whooping-cough exceeded by 6 the number in the previous week; 8 occurred in Edinburgh, and 6 in Glasgow. Of the 7 deaths from scarlet fever, 5 were returned in Glasgow. The 7 fatal cases of "fever" showed a decline of 3 from the number in the preceding week, and included 3 in Glasgow and 2 in Dundee. Of the 3 deaths from diphtheria 2 occurred in Dundee. The death-rate from diseases of the respiratory organs in these Scotch towns was equal to 5.4 per 1,000, against 5.7 in London. As many as 73, or 12.8 per cent. of the 569 deaths during the week in these Scotch towns were uncertified.—In the eight principal Scotch towns, having an estimated population of 1,254,607 persons, 938 births and 555 deaths were registered during the week ending April 25th. The annual rate of mortality, which had declined from 25.0 to 23.3 per 1,000 in the three preceding weeks, further fell, in the week ending April 25th, to 22.7, and was slightly below the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns the rate was equal to 12.9 in Leith, 18.3 in Greenock, 18.9 in Edinburgh, 19.3 in Aberdeen, 22.8 in Dundee, 23.2 in Perth, 23.7 in Paisley, and 27.1 in Glasgow. The 555 deaths registered in these towns included 81 which were referred to the principal zymotic diseases, against 69 and 76 in the two preceding weeks; of these, 30 resulted from whooping-cough, 20 from measles, 14 from diarrhœa, 9 from "fever," 4 from scarlet fever, 4 from diphtheria, and not one from small-pox. These 81 deaths were equal to an annual rate of 3.3 per 1,000, which slightly exceeded the average zymotic death-rate in the large English towns. The highest zymotic rates in the Scotch towns, for the week ending April 25th, were recorded in Greenock, Paisley, and Glasgow. The 30 deaths from whooping-cough showed a further increase upon the numbers in the two previous weeks, and included 19 in Glasgow, 4 in Edinburgh, and 3 in Greenock. The fatal cases of measles, which had been 24 in each of the two previous weeks, declined to 20, of which no less than 19 occurred in Glasgow. The 9 deaths from "fever" exceeded by 2 the number in the preceding week; 3 were returned in Glasgow, 2 in Edinburgh, and 2 in Dundee. The 4 fatal cases of scarlet fever were fewer than those recorded in any recent week, and included 2 in Glasgow and 2 in Paisley. Of the 4 deaths from diphtheria, 3 occurred in Glasgow. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 4.9 per 1,000, and corresponded with the rate recorded in London. The causes of 72, or 13.0 per cent., of the 555 deaths in these Scotch towns, in the week ending April 25th, were uncertified.

Health of Irish Towns.—During the week ending April 4th, the deaths in sixteen of the principal urban sanitary districts in Ireland, including Dublin, were 488. The average annual death-rate represented by the deaths registered, was 29.5 per 1,000. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000. Armagh, 25.8; Belfast, 30.4; Cork, 30.5; Drogheda, 21.1; Dublin, 31.6; Dundalk, 26.2; Galway, 16.8; Kilkenny, 42.3; Limerick, 16.2; Lisburn, 29.0; Londonderry, 19.6; Lurgan, 10.3; Newry, 21.1; Sligo, 14.4; Waterford, 46.3; Wexford, 34.2. The deaths from the principal zymotic diseases were equal to an annual rate of 3.6 per 1,000, the rates varying from 0.0 in Galway, Kilkenny, Drogheda, Wexford, Sligo, and Lurgan, to 11.6 in Waterford; the 20 deaths from all causes registered in the last-named district comprising 5 more from measles. Among the 12 deaths registered in Belfast were 14 from measles. In the Dublin Registration district the deaths registered during the week amounted to 227. Thirty-one deaths from zymotic diseases were registered in Dublin. Forty-nine deaths from diseases of the respiratory system were registered; they comprised 27 from bronchitis, 14 from pneumonia, and 2 from croup. The deaths o

16 children under 5 years of age (including 13 infants under one year old) were ascribed to convulsions. Phthisis caused 29 deaths, mesenteric disease 7, and cancer 3. —In the week ending April 11th, the number of deaths registered was 524, giving an average annual death-rate of 31.6 per 1,000. The deaths registered in the several towns corresponded to the following annual rates per 1,000: Armagh, 15.5; Belfast, 34.5; Cork, 39.6; Drogheda, 25.4; Dublin, 31.0; Dundalk, 26.2; Galway, 23.5; Kilkenny, 33.8; Limerick, 29.7; Lisburn, 19.3; Londonderry, 26.7; Lurgan, 35.9; Newry, 21.1; Sligo, 4.8; Waterford, 41.7; Wexford, 21.4. The deaths from the principal zymotic diseases in the 16 districts were equal to an annual rate of 4.2 per 1,000, the rates varying from 0.0 in Londonderry, Galway, Newry, Kilkenny, Wexford, Dundalk, Sligo, Lisburn, and Armagh, to 16.2 in Waterford; the 18 deaths from all causes registered in the last-named district, comprising 5 more from measles. Among the 145 deaths registered in Belfast, were 20 from measles. In the Dublin registration district, the deaths registered during the week amounted to 218. Twenty-nine deaths from zymotic diseases were registered, including 19 from measles. Fifty-eight deaths from diseases of the respiratory system were registered; they comprised 38 from bronchitis, 12 from pneumonia, and 5 from croup. The deaths of 16 children under 5 years of age (including 12 infants under one year old) were ascribed to convulsions. Phthisis caused 24 deaths, mesenteric disease 6, and cancer 5.

HEALTH OF FOREIGN CITIES.—It appears from statistics published in the Registrar-General's return for the week ending April 18th, that the annual death-rate recently averaged 34.9 per 1,000 in the three principal Indian cities. It was 26.9 in Calcutta, 33.0 in Bombay, and 40.2 in Madras. Cholera caused 49 deaths in Bombay, and 29 in Calcutta; small-pox 7 in Bombay and in Calcutta, and fever mortality showed the largest excess in Madras. According to the most recently received weekly returns, the annual death-rate averaged 28.6 per 1,000 persons estimated to be living in twenty-one of the largest European cities, and was no less than 5.4 above the mean rate during the week in the twenty-eight English towns. The death-rate in St. Petersburg was 31.4, and showed a decline from the still higher rates in previous weeks; the 558 deaths included 13 from "fever," 12 from measles, and 8 from diphtheria. In three other northern cities—Copenhagen, Christiania, and Stockholm—the death-rate averaged 29.6, ranging from 23.6 in Christiania to 37.5 in Stockholm; measles caused 30 deaths in Stockholm, and diphtheria and croup 7 in Christiania and 4 in Stockholm. In Paris the death-rate was 30.6, and showed a further increase upon the rates in recent weeks. The deaths included 62 from measles, 41 from diphtheria and croup, and 15 from typhoid fever. The 192 deaths in Brussels included 5 from scarlet fever, and 3 from diphtheria, and were equal to a rate of 21.7. The rate in Geneva was 24.1. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 25.0, the highest rate being 25.2 in Amsterdam; scarlet fever caused 5 deaths in Rotterdam, and whooping-cough 5 in Amsterdam. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 28.1, and ranged from 23.3 in Berlin, and 24.4 in Dresden, to 32.7 in Vienna, and 36.4 in Prague. Small-pox caused 19 and measles 17 deaths in Vienna; diphtheria showed the greatest mortality in Berlin and Dresden. The death-rate averaged 26.1 in three of the principal Italian cities, being equal to 24.1 in Rome, 26.9 in Turin, and 28.8 in Venice. Small-pox caused 5 deaths both in Turin and Venice, and 3 in Rome: typhoid fever 5 in Turin and 4 in Rome: and diphtheria 6 in Turin. The 169 deaths in Alexandria, including 2 from small-pox and 3 from typhoid fever, were equal to a rate of 38.0. In four of the largest American cities the rate averaged 24.7, and ranged from 21.6 in Baltimore to 26.9 in New York; scarlet fever and diphtheria caused considerable mortality in New York, Brooklyn, and Philadelphia; 9 deaths from typhoid fever occurred in Philadelphia, and 3 in Baltimore.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—Admitted Members, April 30th, 1885.

Ball, J. B., M.D.Lond., 29, Belgrave Road, S.W.
Batten, R. W., M.D.Lond., Gloucester.
Davies, A. T., M.B.Camb., 23, Finsbury Square, E.C.
Gamgee, A., M.D.Edin., Manchester.
Griffiths, H. T., M.D.Camb., 57, Brook Street, W.
Martin, S. H. C., M.D.Lond., 135, Gower Street, W.C.
Phillips, J., M.B.Camb., 125, Harley Street, W.
Rockwood, W. G., M.D.Madras, Colombo, Ceylon.
Stewart, E., M.D.Brussels, 16, Harley Street, W.

Admitted Licentiates.

Anderson, J., M.D.Toronto, 22, Portland Road, Dublin.
Armstrong, H., 34, Chalcot Crescent, N.W.
Barber, H. V., 108, Sandmere Road, S.W.
Barendt, F. H., 11, Hampstead Road, Elm Park, Liverpool.
Basset, W., Knowle Road, Bristol.
Berkley, E. J. G., 105, Camberwell Road, S.E.
Bird, H., 15, Vicarage Villas, Neasdon, N.W.
Blight, J. H., 53, Chobham Road, E.
Booth, W. H., Plymouth.
Bown, J. Q., St. Mary's Hospital, W.
Browne, H. E., 28, University Street, W.C.
Caley, G. N., 5, Clarence Villas, Windsor.
Childe, C. P., Bexhill, Hastings.
Clarke, F. G. B., 7, Fordwych Road, N.W.
Clift, S. L., 7, Tressilian Crescent, S.E.
Coleman, W. E., 56, Albert Street, N.W.
Cooper, C. B., 18, Gambier Terrace, Liverpool.
Creasy, R., Guy's Hospital, S.E.
Emmett, R., St. George's Hospital, S.W.
Fowler, C. O., London Fever Hospital, N.
Freeland, E. H., Middlesex Hospital, W.
Gentles, T. L., Derby.
Green, C. R. M., 89, Rotherhithe New Road, S.E.
Growse, W., Bethlem Hospital, S.E.
Harcourt, V. X., 21, Duncan Terrace, N.
Howard, H., 17, Trinity Square, S.E.
Hugill, G. F., Rosedale, Chislehurst.
Jackson, H. F., 6, Talbot Road, W.
Jackson, P. V., 13, Portsdown Road, W.
Jessop, E., St. Bartholomew's Hospital, E.C.
Kershaw, J. E., 54, Brompton Square, S.W.
Kidd, H. C., 48, Leamington Road Villas, W.
Lamb, H., 9, St. Thomas Terrace, S.E.
Lee, W. J., 15, Harcourt Road, Brockley, S.E.
Lipscomb, E. R. S., 92, Southwark Park Road, S.E.
Lysaght, W. C., 13, Frederic Place, Clifton, Bristol.
Mathew, C. P., 31, Milman Street, W.C.
Mathews, F. E., 1, Lansdowne Terrace, Richmond, Surrey.
Maynard, F. P., Barnes, S.W.
Meeson, A., 47, High Park Street, Liverpool.
Morris, H. M., 17, Henrietta Street, Covent Garden, W.C.
Norris, E. J., 36, Barndale Road, W.
Nutting, P. H., 72, Lady Margaret Road, N.W.
Page, H. M., 27, Westbourne Park, W.
Phillips, L. W. K., Hove Dispensary, Brighton.
Pietersen, J., 61, Lambeth Palace Road, S.E.
Pinhorn, R., 65, Warwick Gardens, W.
Plowman, S., St. Thomas's Hospital, S.E.
Rhys, W. L., 16, Crofton Road, S.E.
Roberts, H., 56, Colebrook Row, N.
Smith, F. J., 145, Bishopsgate Street Without, E.C.
Southern, F. G., Ludlow.
Soutter, J., Hull.
Steer, A. W. T., St. Bartholomew's Hospital, E.C.
Tanner, H., St. Mary's Hospital, W.
Underwood, J. C., Ashford.
Walsh, C. L., St. Bartholomew's Hospital, E.C.
Whishaw, R. R., 6, Cornwall Street, S.W.
Williams, J. F., Infirmary, Westmoreland Road, S.E.
Willis, A. K., West End Lane, N.W.
Willoughby, A. H., 2, Aberdeen Place, N.W.
Wunderlich, O. F., St. Luke's Hospital, E.C.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 30th ultimo.

Messrs. F. O. Stedman, L.S.A., Leatherhead; H. Fooks, L.S.A., Kennington; L. J. Willan, L.S.A., Stoke Newington; J. Lewis, L.S.A., Llanon, Cardiganshire; C. K. Ackland, L.S.A., Bideford, Devon; E. E. Gould, L.S.A., Exeter; G. W. Richards, M.B.Durham, Stourbridge; J. S. Curgenven, L.S.A., Craven Hill Gardens, W.; and E. D. Ritchie, L.S.A., Wimbledon Park.

Three gentlemen were approved in Surgery, and, when qualified in Medicine, will be admitted Members of the College; three candidates were referred for three months, seven for six months, one for nine months, and one for twelve months.

The following gentlemen passed on the 1st instant.

Messrs. W. H. F. Farmer, Anerley, S.E.; A. W. T. Steer, L.R.C.P.Lond., Jamaica; C. W. de Gruchy, L.R.C.P.Lond., Ludlow; H. J. W. Martin, L.S.A., St. Alban's; P. Hehir, L.R.C.P.Ed., Calcutta; W. J. Tronson, L.S.A., Oxford Gardens, W.; G. A. E. Roberts, L.S.A., Twyford; R. Pinhorn, L.R.C.P.Lond., Warwick Gardens, W.; J. Pietersen, L.R.C.P.Lond., Lambeth Palace Road; H. Howard, L.R.C.P.Lond., New Buckingham, Norfolk; A. Sutton, L.S.A., Brockley; W. J. Lee, L.R.C.P.Lond., Stoke, Devonport; J. T. Smith, L.S.A., Manchester; and S. L. Clift, L.R.C.P.L., St. John's, S.E.

Seven candidates were approved in Surgery, nine were referred for six months, and one for nine months.

The following gentlemen were admitted Members on the 4th instant.

Messrs. H. W. Godfrey, M.B.Aberdeen, Hornchurch, Essex; F. J. Wethered, L.S.A., Clifton, Bristol; H. P. G. Elkington, Gillingham Street, S.W.; J. R. G. C. Lucas, Portsea; F. Postlethwaite, Oxford Road, N.W.; C. J. Lewis, Liverpool; J. Q. Bown, L.R.C.P.Lond., Nottingham; F. Lever, Epsom; H. C. Parsons, Hampton Wick; G. C. Henderson, Natal; F. Woods, Warrington; W. F. Moore, Preston; C. M. Fegen, Bedford; F. H. Pott, Cornwall Gardens, S.W.; D. M. Ellis, Chudleigh; H. D. Harthan, Sandbach, Cheshire: and A. E. A. Pearson, Horsforth, near Leeds.

Nine gentlemen were approved in Surgery, two candidates were referred for three months, and six for six months.

The following gentlemen were admitted Members on the 5th instant.

Messrs. G. H. Scott, Ossett; F. Beard, B.A.Cantab., Trinity Square, S.E.; A. E. Price, Clapham; T. Calrow, Bury, Lancashire; H. M. Ramsay, Redhill; H. W. Austin, Devonport; J. J. G. Pritchard, Blackheath; T. S. Tuke, Albemarle Street; G. A. Pratt, Wolverhampton; H. Jabboor, Beyrout; A. Jervis, Connaught Square, W.; R. R. Whishaw, Liscard, Cheshire; G. Y. Eales, Yealmpton; E. Apthorp, Hornsey; and R. Podmore, Eastbourne.

Three gentlemen were approved in Surgery; nine candidates were referred for six months, and one for twelve months.

The following gentlemen passed on the 6th instant.

Messrs. E. F. Bindloss, Leighton Road, N.W.; J. Calvert, Grenville Street, W.C.; P. O. W. Hailey, Newport Pagnell; A. Green, Forest Hill; G. F. Smith, St. Anne's Terrace, N.W.; P. M. Scatliff, Macaulay Road, S.W.; R. C. G. Dill, B.A.Cantab., Burgess Hill; F. H. Knaggs, Putney; G. Bent, Gladstone Street, S.E.; C. T. Dornford, Wantage; G. C. Helps, Weston, near Bath; W. S. Richmond, Stanwick Road, W; H. F. Wylde, Manchester; and J. S. F. Clark, Saltash, Cornwall.

Eight candidates passed in Surgery; three were referred for three months, six for six months, and one for twelve months.

UNIVERSITY OF CAMBRIDGE.—The following degrees were conferred on April 30th.

Doctors of Medicine.—J. O. Lane, St. John's College; T. G. Lyon, Emmanuel College.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Court of Examiners, held on April 7th and following days, the undermentioned gentlemen, having passed their final examination for the Letters Testimonial, and having taken the declaration, were admitted Licentiates of the College.

A. G. Beale, J. Behan, L. A. Byrne, R. G. Christy, T. Codd, J. Corcoran, E. G. Cotton, P. J. Curtin, J. Cuthbert, W. Danne, J. J. Davoren, J. Dawson, J. Empson, F. Hall, M. St. L. Harford, P. Heelan, A. Joseph, P. Hogan, G. E. Hughes, J. Keany, H. T. Knaggs, D. Humphreys, R. Levinge, D. M'Cann, J. D. M'Donagh, F. S. Elrington, W. A. Mahon, M. J. Marmion, J. O'Callaghan, J. Rogers, W. J. Russell, E. A. Ryan, J. B. Ryan, J. J. Savage, J. A. F. Sawyer, R. D. A. Stone, E. H. Tweedy, T. F. Wade J. White, and H. Whelan.

Fifteen were stopped.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The following candidates passed the final examination at the April sittings of the Examiners, and were admitted Licentiates.

S. P. Clark, Glasgow Royal Infirmary; E. Modder, Ceylon Medical College; J. F. Malcolmson, Dublin and Glasgow; E. Plummer, King's College and Glasgow; J. F. Rugg, L.R.C.P.Ed., St. Thomas's Hospital; W. Somerville, Anderson's College.

UNIVERSITY OF ST. ANDREW'S.—The following registered medical practitioners, having passed the required examinations, had the degree of Doctor of Medicine conferred upon them on April 24th.

J. Anderson, M.R.C.S.Eng., L.S.A.Lond., Brigade-Surgeon, Half-pay, London; C. Davidson, M.R.C.S.Eng., F.R.C.S.Ed., L.K.Q.C.P.I., London; E. Fenn, M.R.C.S.Eng., L.S.A.Lond., Dover; S. J. Knott, M.R.C.S.Eng., L.S.A.L., London; C. W. Marriott, F.R.C.S.Ed., M.R.C.S.Eng., L.S.A.Lond., Surgeon-Major, I.M.D., Leamington; G. Morgan, M.R.C.S.Eng., L.R.C.P.Ed., L.S.A.Lond., Pontypool; H. Skelton, M.R.C.P.Ed., M.R.C.S.Eng., Downend, near Bristol; W. J. Stott, M.R.C.S.Eng., L.R.C.P.Ed., Haslingden; R. H. B. Wickham, F.R.C.S.Ed., L.R.C.P.Ed., Newcastle-on-Tyne.

G. Lowe, M.B., C.M., St. And., Wymondham, also proceeded to the degree of M.D.

SOCIETY OF APOTHECARIES, LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 30th, 1885.

Curgenwell, Jno. Sadler, St. Bartholomew's Hospital.
Gandevia, Merwanjee Mowrojee, Bombay.
Graham, Chas. Nicol, Guy's Hospital.
Pinhorn, Richard, St. George's Hospital.
Roberts, Arthur, London Hospital.
Smith, Jno. Turville, Manchester School of Medicine.
Sutton, Alfred, Guy's Hospital.

The following candidates passed the Preliminary Examination in Arts on April 30th, and May 1st and 2nd, 1885.

First Division.—*H. R. S. Stradling, *H. S. Lindsay.

Second Division.—W. C. Aylward, H. G. Biddle, C. S. Blakeman, F. E. Bromley, *R. A. Burditt, E. R. Cory, L. W. Dryland, W. Elgee, W. T. Farncombe, B. Goddard, C. A. Harrison, *F. W. Jones, W. O. Kirby, *E. W. Livesey, N. Marder, A. E. Mole, W. Montagu, N. E. C. McTaggart, *O. Osborne, B. F. Parish, C. R. Pearce, J. B. O. Richards, G. H. Steele, P. Templeton, A. H. Warde, E. Yonge.

Those marked * passed also in Elementary Mechanics.

The following candidates passed in Elementary Mechanics alone.

F. W. Andrew, E. P. S. Gane, A. J. Greene, E. F. Linstead, R. G. W. St. Cedd, A. Smith, F. H. Spilsbury, F. Webb.

The following candidates passed in Greek alone.

F. Fraser, E. Fraser.

The following candidate passed in German alone.

J. S. Newington.

The following candidate passed in Chemistry alone.

F. W. Andrew.

MEDICAL VACANCIES.

The following vacancies are announced.

BALLINASLOE LUNATIC ASYLUM.—Consulting and Visiting Physician. Salary, £100 per annum. Application to Resident Medical Superintendent. Election on May 11th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon. Applications by May 11th.

ESSEX AND COLCHESTER HOSPITAL.—House-Surgeon and Apothecary. Salary, £100 per annum. Applications by May 21st.

FRIENDLY SOCIETIES' MEDICAL ALLIANCE.—Resident Medical Officer for the Walsall Friendly Societies' Medical Association. Salary, £180 per annum. Applications to Mr. Geo. Abbott, 9, St. James Row, Sheffield.

FULHAM UNION INFIRMARY.—Assistant Medical Superintendent and Dispenser. Salary, £100 per annum. Applications by May 25th.

KIDDERMINSTER FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Salary, £220 per annum. Applications to W. Holloway, 5, Plimsoll Street.

LONDON HOSPITAL, Whitechapel, E.—Assistant Obstetric Physician. Applications by May 18th.

PAROCHIAL BOARD OF STRONSAY.—Medical Officer and Public Vaccinator. Salary, £70 per annum. Applications to Mr. Learmonth, Inspector of Poor, Stronsay, Orkney, by June 4th.

PLYMOUTH PUBLIC DISPENSARY.—Second Honorary Physician. Applications by June 8th.

ROYAL BERKS HOSPITAL, Reading.—Senior Physician. Applications by May 23rd.

STAFFORDSHIRE GENERAL INFIRMARY.—House-Surgeon and Secretary. Salary, £100 per annum. Applications by May 19th.

ST. BARTHOLOMEW'S HOSPITAL.—Two Casualty Physicians. Applications by June 5th.

ST. MARY, ISLINGTON.—Medical Officer for the Upper Holloway West District. Salary, £100 per annum. Applications by May 13th.

MEDICAL APPOINTMENTS.

BAILEY, C. F., M.B.Lond., M.R.C.S.Eng., appointed House-Physician to the West London Hospital.

GODFREY, Frank, L.R.C.P., L.R.C.S.Ed., appointed Honorary Consulting Surgeon to the Islington Dispensary.

HARPER, Alexander, M.B.Durham, M.R.C.S.Eng., appointed House-Surgeon to the West London Hospital, *vice* Maitland Thompson L.R.C.P.Edin. and L.M., M.R.C.S.Eng., resigned.

MARSHALL, William L. W., M.R.C.S.Eng., L.S.A.Lond. appointed Junior House-Surgeon to the Huddersfield Infirmary.

SHORT, T. S., M.R.C.S., L.S.A., appointed Medical Censor to King's College, London.

WARNER, Frederick A., M.R.C.S.Eng., L.S.A. appointed House-Surgeon to the West London Hospital, *vice* James Herbert Menzies, M.R.C.S.Eng., L.S.A., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

MARRIAGE.

UNDERHILL—MURIEL.—On the 29th April, at St. Giles' Church, Norwich, by the Rev. W. C. Muriel, Rector of Debden, Essex (assisted by the Rev. H. J. Underhill, and the Rev. W. N. Ripley, vicar of the parish), Frederick Theodore Underhill, of Tipton, Staffordshire, son of W. Lees Underhill, Esq., of Tipton, to Beatrice Alice, second daughter of Charles Evans Muriel, Esq., of Norwich.

DEATH.

WHITE.—On April 28th, at 30, Broad Street, Pendleton, Manchester, James Atkin White, M.R.C.S.E., L.S.A., aged 42 years. No cards.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society. Dr. A. Hughes Bennett and Mr. R. J. Godlee: Case of Cerebral Tumour.

WEDNESDAY.—Epidemiological Society of London, 8 P.M. Mr. E. F. Willoughby: Variola and the Varioloid Diseases of Animals. Council Meeting at 7.30 P.M.—Royal Microscopical Society, 8 P.M. Mr. E. Wethered: Structure and Formation of Coal. Mr. A. W. Waters: Use of the Avicularian Appendage in the Classification of the Bryozoa.—British Gynæcological Society. Specimens as usual. Dr. Berrington: Tetanus in the Puerperium. Mr. Lawson Tait: Double Uterus, etc. Dr. Biglow: Gynæcological Surgery.

THURSDAY.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Living specimens at 8 P.M. Mr. W. A. Brailey: On the Condition of the Ciliary Nerves in Certain Diseases of the Eye. Mr. E. Nettleship: Note on the Spontaneous Disappearance of Diabetic Cataract. Mr. J. B. Lawford: Case of Nævus of Choroid (with microscopic specimens). Mr. Jonathan Hutchinson, F.R.S.: On Reflex Ophthalmitis. Mr. W. Spencer Watson: Intra-ocular Gumma in a Child the Subject of Inherited Syphilis. Mr. Simeon Snell: Case of Periodic Paralysis of Third Nerve. Mr. W. H. Jessop: Living Specimens.—1. Choroiditis Disseminata; 2. Rupture of Eyeball.

FRIDAY.—Society of Medical Officers of Health, 7.30 P.M. Dr. W. N. Thursfield: On the Etiology of Goitre. Mr. F. E. Atkinson: On an Outbreak of Diarrhœa traced to Polluted Water.

BEQUESTS.—The late Miss Margaret Watt, of 19, Collins Place, Edinburgh, has left the following legacies (free of legacy-duty and the expense of discharging her estate) to medical charities in Edinburgh:—Edinburgh Royal Infirmary, £300; Eye Dispensary, £100; Hospital for Incurables, £100; Sick Children's Hospital £100.—By the will of Mr. William Belford, Barossa Place, Perth, the following bequests have been made:—Perth Infirmary, £300; Home for Incurable, £100; Destitute Sick Society, £50.—To the Greenock Eye Infirmary, £250 has been bequeathed by the late Mr. Kenneth McCaskhill, and to the Greenock Infirmary, £1,000.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.— Samaritan Free Hospital for Women and Children, 2.30 P.M.— Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.— Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.— Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M. —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S. 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2 o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S, 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

TRUSSES.

MEDICUS recommends a truss made by Mr. Haywood, surgical instrument-maker, of Castle Gate, Nottingham, which he has found of service when the ordinary circular truss has proved quite inadequate. The special features of this truss are that the ordinary pad of the circular truss is elongated by padding at the lower part, having a strap attached to it, which, when applied, keeps the lower edge in contact with the hernia, thereby most effectually preventing its descent. The strap is passed between the scrotum and thigh, and fastened behind over the spring, which goes round the upper portion of the pelvis.

MR. T. L. WALFORD states that he has used Coles and Co.'s truss for more than forty years, and thinks highly of it.

RESIDENT MEDICAL OFFICERS AND ELECTORAL PRIVILEGES.

SIR,—I am an assistant medical officer in a county asylum, having a fixed salary, with board, servants, etc., and also two rooms, furnished wholly for my own use. Am I entitled to a vote under the Representation of the People Act, 1884? Your reply will much oblige,

A. M. O.

*** We consider that our correspondent could not establish a claim to vote. He is neither a freeholder, a ratepayer, nor a lodger; his individuality is merged in the office he holds, and, in our judgment, he has no more right to electoral privileges than any other employee, whatever his station in life may be. If our correspondent desire to be a free and independent elector, it is open to him to qualify in several ways, which any registration-agent, on application, would speedily point out to him.

THE MEDICAL SICKNESS, ANNUITY, AND LIFE-ASSURANCE SOCIETY.

SIR,—I have been looking for some report of the financial and general condition of the "Medical Sickness and Annuity Society," which met on April 8th. Seeing none in your JOURNAL, I am induced to hope you will not object to give your opinion of the said Society; whether its financial condition would lead one to expect that it would be a permanent institution, before becoming a subscriber.—I am, sir, yours faithfully,

MEDICO-CHIRURGICUS.

*** The report of the meeting on the 8th ultimo has already been published in the JOURNAL for April 18th (p. 803). For the information of our correspondent, we may state that the main points of the quarterly report of the Society (to March 31st) were as follow: Total entrants to date, 654; income for the quarter, £1,654 19s. 2d.; expenditure, £348 15s. 6d.; leaving a gain on the three months of £1,306 3s. 8d. Total available net balance in favour of the Society (one year after starting), £5,314 18s. This result is extremely satisfactory, and, as stated in the report, affords the highest evidence of the permanent prospects of the institution, so prosperously launched, and now so successfully working. The address of the Secretary, Mr. Radley, is 26, Wynne Road, Brixton, London, S.E.

REMOVAL OF SUPERFLUOUS HAIRS BY ELECTROLYSIS.

SIR,—All that is required for the removal of superfluous hairs is a battery containing from six to twelve elements, a fine needle, and a lens from one and a half to two inches focus. I shall be pleased to show Mr. Allinson the apparatus I have in use.—I am, etc.,

GILBERT SMITH, F.R.C.S.E.
43, Newhall Street, Birmingham.

*** Information on the subject can also be found in an article read by Mr. Arthur Benson at the meeting of the British Medical Association in Bath, and published in the BRITISH MEDICAL JOURNAL of December 16th, 1882.

PRACTICE IN SPANISH TERRITORY.

H. S. will find the information he desires in Dr. H. J. Hardwicke's *Medical Education and Practice in all Parts of the World*, published by Messrs. J. and A. Churchill.

ANTIVACCINATION AND ITS RESULTS.

A CORRESPONDENT has sent us a newspaper paragraph, containing the following sad and instructive narrative. Some years ago, a gentleman resident near Glasgow became convinced that the first child born to him had received most serious injury through the communication of disease by the matter used in its vaccination. He resolved that no other child of his should be vaccinated, and five times in succession he was summoned before the sheriff, and subjected to fines for his determined resistance to the law. Some time ago, he removed with his family to a town in the West of England, and, some weeks since, small-pox entered his dwelling. The disease seized every member of the family, except the one child who had been vaccinated. Two of the children, the mother, and, finally, the father himself were cut off.

JUVENILE SICK SOCIETY.

SIR,—I should feel obliged if some of your readers would inform me at what rate per head they are paid for members of a juvenile sick society, the radius being three miles.—Yours,

CLUB-DOCTOR.

MRS. LONGSHORE POTTS.

DR. HEYWOOD SMITH writes to say, with respect to the lectures which Mrs. Potts has widely advertised as given on behalf of the Hospital for Women, that her offer to lecture was accepted by the General Committee without any consultation with the medical staff, who are in no way responsible for the arrangement, and were wholly ignorant of the fact until afterwards.

THE TRUE DEATH-RATES OF LONDON, NEWLY ANALYSED.

DR. ERNEST SANSOM writes: A map showing the thirty-nine sanitary districts of the metropolis would have been a great aid to the analysis of the vital and mortal statistics in the BRITISH MEDICAL JOURNAL of April 18th. He asks where such a map can be procured.

*** Stanford and Co., of Charing Cross, published, in 1878, a map of London, for 6s., which shows the boundaries of the various sanitary districts.

F.R.C.S. (Exam.).—The annual election of Fellows into the Council of the College of Surgeons always takes place the first Thursday in July. The Secretary will send timely notice of the meeting. There are now 1,166 Fellows. You should write to Mr. F. Woodhouse Braine, Honorary Secretary of the Fellows' Festival.

Skin-Diseases in Paris.

Dr. John Martin.—At the St. Louis Hospital, the physicians visit daily between 8 and 10 in the morning. Any qualified medical man is admitted on presenting his card.

The Conjoint Examining Board in England.

The Examining Board in England of the Royal Colleges of Physicians and Surgeons met on April 28th, when 366 candidates presented themselves, to whom the following questions in Elementary Physiology were submitted, of which they were required to answer four, namely: 1. Name the tissues shown under microscopes A, B, C. By what characteristics do you recognise them? 2. Mention the circumstances retarding the coagulation of blood, and the appearances peculiar to a clot which has formed slowly. 3. Enumerate the chief constituents of urine. 4. State the differences in the blood in the right and left sides of the heart. 5. What are the changes undergone by the food in the stomach. 6. What is understood by the term cerebro-spinal nervous system?

Royal Medical Benevolent College.

The thirty-first annual election of pensioners and foundation-scholars in this excellent institution will take place this month. A correspondent, in drawing attention to the improvidence of the members of our profession, states that, for the three vacancies for pensionerships, there are twenty-three candidates, namely, eighteen ladies and five gentlemen, only four of whom have been subscribers. For the foundation-scholarships, there are eight vacancies and fifty-three candidates, the parents of eight only having been subscribers to the College.

Permanganate of Potash Pills.

Sir,—Dr. F. Simms seems not to have grasped all the facts about the above. Made according to the *Extra Pharmacopœia*, I assert that it is impossible for the pills to "become hard and insoluble." With your permission, I will add a few more "facts." First, about kaolin, or porcelain-earth (derived from the Chinese *kao-ling*), Dr. Simms daily carries in the material of his hat as much kaolin as would make some grosses of permanganate of potash pills. There are various kinds of kaolin, but the commonest is found, in large deposits, in Cornwall and Devonshire, and immense quantities of it are sent to Manchester, for the purpose of adulterating the calicoes and long-cloths, not for the Eastern markets only, but for the London market as well; the calico used by hatters as a basis for silk hats, more especially, contains a large quantity of it as a "dressing." It is very cheap. Twenty years ago it was employed by photographers to clear their silver bath; but even in pharmacy it is quite sixteen years ago when Mr. John Marshall, F.R.S., frequently ordered it as dusting powder for hospital use. It is, therefore, no new thing, and there is no mystery about it.

As I first suggested it as a pill-excipient, it is perhaps well that I should explain why I did so. I had previously used for these permanganate pills, as the most unoxidisable adhesive excipient, a mixture of paraffins, that is, vaseline and paraffin-wax, but, so combined, the pill-mass wanted firmness; this, the addition of the inert unoxidisable powder kaolin gave to it, and enabled the mass to be readily rolled into pills. These may be coated with sandarach varnish. This mode of making the pills I first published in the *Lancet*, and also in the *Pharmaceutical Journal*, of January 13th, 1883; and, as I have said, so made, the pills neither become hard nor insoluble; a child might squeeze them flat between the fingers, and they are perfectly but slowly soluble—this is a great advantage. In solution, permanganate of potash is a nauseous and, if in large doses, a dangerous drug, by the suddenness of its action on the stomach. The tablets, too, appear to be not safe, if swallowed whole; their quick solution and local action may occasionally cause ulceration of the stomach; whereas, a pill with an unctuous basis, such as I have suggested, cannot dissolve quickly. Thus made, too, the pills are fairly stable; volumetrically estimated, I found that, after two months' keeping, 92.8 per cent. of the permanganate still existed in the pills as permanganate.

The demand for these pills still continues great. In my own experience it may not, during the last two months, have been as great as previously to that time, but I think this is because they are more generally made by other chemists.—Your obedient servant,

Wm. Martindale.

Treatment of Piles by Crushing.

Sir,—I neither accept Mr. Downes's explanation, nor do I expect to receive an apology, for reasons mentioned in my letter to you of April 4th. I confess I am the more annoyed, because that which your correspondent claims to be an improvement of my clamp has just the contrary effect, which I found to be the case even before any publication on the subject; and of course, therefore, before Mr. Downes knew of the existence of my instrument.—I am, sir, yours truly,

R. Fitzroy Benham.

Baron's Court, S.W.

Ambulance Instruction.

J. E.—If the ambulance instruction be of a strictly military character, the proper book would be the *Manual for the Medical Staff Corps*. This is now out of print, but will doubtless soon reappear. Unless it be strictly military, the book chiefly used is Surgeon-Major Shepherd's *Handbook*, written for and supplied by the St. John Ambulance Association, St. John's Gate, Clerkenwell, E.C.

Surgeon (Leeds) asks: Is there any place for the treatment by massage of patients who are unable to pay full fees for treatment, besides board and lodging?

Dr. Strethill H. Wright (Southport) is thanked for his communication. The pamphlet has been received; the whole question to which it refers is receiving careful attention.

Stammering.

Sir,—Will you kindly inform me of the name of any medical man who makes the treatment of stammering a speciality, or refer me to any work upon the subject?—Faithfully yours,

D. Meadows.

Great Yarmouth.

*** *The Impediments of Speech and their Cure*, by A. E. Gerats; see also British Medical Journal, December 22nd, 1883, page 1,269; September 27th, 1884, page 644.

Errata.

In the Journal of April 18th, page 779, column 2, in heading of paper, after "Keith Norman Macdonald," insert "M.D." On page 780, column 1, line 23 from bottom, *for* "more rigors," *read* "no more rigors;" and at line 6 from bottom, *for* "influence," *read* "inference."—In Dr. Semon's letter on the Treatment of Goitre by the Injection of Iodine, at page 917 of the Journal for May 2nd, column 1, in line 3 of the letter, *for* "dangerous," *read* "disastrous."

Dr. Cook (Cheltenham) asks in what year it was proposed to tax the income of hospitals.

Dr. Lewis is thanked for his communication. Our attention has already been directed to the subject.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. W. Ashton Ellis, London; Mr. T. Aplin Marsh, Hammersmith; Dr. Sinclair, Dundee; Mr. Simon Baruch, New York; Mr. T. C. Montague, London; Mr. George Smith, Axbridge; Mr. W. C. Steele, Ealing; Mr. J. Brindley James, London; Our Aberdeen Correspondent; Mr. H. H. Tomkins, Gloucester; Mr. Alfred Putney, London; Mr. J. Cornelius Garman, Brewood; Dr. Glascott, Manchester; Mr. J. Heaton, London; Dr. Myers, London; Dr. Harvey, St. Leonard's-on-Sea; Dr. J. Herbert Stowers, London; Dr. Drysdale, London; Mr. Sibley, London; Dr. Ormsby, Dublin; Mr. J. Ingleby Mackenzie, Rugby; Dr. John Martin, Manchester; Mr. F. C. Batchelor, Brockley; Mr. W. H. Pullin, Leamington; Mr. D. Biddle, Kingston-on-Thames; Mr. F. Werner, Dublin; Mr. J. Whitehouse, Sunderland; Mr. Mark H. Judge, London; Mr. H. Trueman Wood, London; Mr. J. Stuart Nairne, Glasgow; Mr. Newton H. Nixon, London; Mr. Frank Smith, Plumstead; Mr. J. Vesey Fitzgerald, London; Mr. T. L. Walford, Reading; Dr. Witham, Bethesdon; Mr. William Donovan, Birmingham; Dr. W. W. Stainthorpe, Redcar; The Secretary of the Board of Trade; Mr. A. Hodges, Ryde, Isle of Wight; Mr. C. T. Kingzett, London; Dr. W. B. Hadden, London; Dr. M. Thomas, Glasgow; Mr. George Harrison, Chester; Brigade-Surgeon Barnwell, York; Messrs. Burroughs and Wellcome, London; Dr. Newman, Glasgow; Mr. G. A. McCallum, Dunnville, Ontario; Our Berlin Correspondent; Dr. Heywood Smith, London; Mr. T. F. Raven, Broadstairs; Mr. George Eastes, London; Messrs. Walter, Barker, and Son, London; Our Dublin Correspondent; Messrs. J. Defries and Sons, London, Mr. G. F. Browne, Cambridge; Mr. F. W. S. Culhone, Hastings; Our Edinburgh Correspondent; Our Paris Correspondent; Dr. Klein, London; Mr. E. Bellamy, London; Mr. A. M. Anderton, Dundee; Mr. W. Ronaldson Clark, Dundee; Mr. W. Gardiner, London; Mr. F. Godfrey, London; Sir Lyon Playfair, London; The Secretary of the Royal College of Physicians, London; Mr. F. R. Cross, Bristol; The Secretary of the University of London; Mr. W. J. Simpson, Aberdeen; Dr. B. Foster, Birmingham; J. J. B.; Mr. Hugh Norris, South Petherton; The Secretary of the Royal Medical and Chirurgical Society, London; Mr. Shirley Murphy, London; Mr. C. E. Paget, Kendal; Dr. J. Rogers, London; Mr. L. Warner, Dublin; Dr. Langdon Down, London; Mr. Henry Shapley, Leamington; Dr. E. H. Jacob, Leeds; Mr. R. Robb, Glasgow; Our Rome Correspondent; Mr. E. J. Griffiths, Birmingham; Mr. W. P. Mumford, Malvern; Mr. R. E. Power, Portsea; Dr. Kerr, London; B.; Mr. R. J. Gilbert, London; Dr. Hack Tuke, London; Dr. W. G. Lowe, Burton-on-Trent; Messrs. Woollams and Co., London; Dr. W. Bruce, Dingwall; Our Birmingham Correspondent, etc.

BOOKS, etc., RECEIVED.

Proceedings of the West London Medico-Chirurgical Society. Vol. I. Edited by C. B. Keetley. London. 1884.

Lectures on Diseases and Injuries of the Ear. By W. B. Dalby, F.R.C.S. Third Edition. London: J. and A. Churchill. 1885.

The Student's Guide to Medical Jurisprudence. By John Abercrombie, M.D. London: J. and A. Churchill. 1885.

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REPORTS
TO THE
SCIENTIFIC GRANTS COMMITTEE
OF THE
BRITISH MEDICAL ASSOCIATION.

REPORT ON
THE CHOLERA-BACILLUS.

By W. WATSON CHEYNE, M.B., F.R.C.S.,
Assistant-Surgeon to King's College Hospital, etc.; Research Scholar of the British Medical Association.

(Continued from page 934.)

I HAVE also injected a syringeful of a pure cultivation of these organisms in nutrient jelly into each of four mice. On one occasion, for two of the mice, a cultivation nine days old was employed, and both mice died in about six hours. In about an hour, they seemed sleepy and less lively than usual, sitting crouched up in a corner, and breathing rapidly. For at least an hour before death, however, they lay on their sides breathing very slowly, and apparently with great difficulty; in fact, rather gasping than breathing.

On another occasion, the other two mice were injected with a cultivation three weeks old. One of these remained unaffected, the other died in thirty-six hours. On *post mortem* examination, the blood was dark and fluid, and the intestines contained very liquid fæces. Cultivations were made from the blood of the heart, and from the contents of the small intestine. In both instances, large numbers of cholera-bacilli developed. The result in the first two cases was, I think, clearly due to a chemical poison; that in the last, to growth of the organisms in the blood. It is interesting, with regard to the last case, that the organisms had found their way into the intestine, and grown there in large numbers. I have not yet examined the wall of the intestine microscopically.

It is held by many that the virus of cholera produces a chemical poison which is absorbed from the intestine into the blood, and gives rise to the symptoms of the disease. This is a very probable view. Dr. Vincent Richards (*Indian Medical Gazette*, April 1884) found that the administration of large quantities of the contents of the intestines of cholera-cases to pigs was, in some instances, followed by rapid death of the animal, apparently from a chemical poison. He mentions five experiments, in three of which the result was negative (in only two, however, was choleraic material from man employed); in the other two, the result was positive, one animal dying in 2 hours, 50 minutes, and the other in 1 hour, 38 minutes. From these experiments, he draws various sweeping conclusions, but there is a complete absence of control-experiments, and, as I have just mentioned, the result in three instances was quite negative. Hence no conclusion can be come to as to whether or not it was the cholera-virus which produced the poison that killed the two animals. Before I knew that the experiments were so incomplete, having only seen a notice of them in one of the English medical papers, I performed the following two experiments. My idea was that, if the poison in Dr. Richards' experiments were produced by the virus of cholera, and if the cholera-bacilli were that virus, the same results ought to be obtained by the administration of a fluid in which cholera-bacilli had grown, as by the administration of cholera-stools. Therefore, having, through the kindness of Mr. Horsley, obtained a young pig, I on two occasions made it swallow a large quantity of meat-infusion, containing peptone, in which cholera-bacilli were actively growing. On the first occasion, I used three and a half ounces of a cultivation five days old, in meat-infusion containing 1 per cent. of peptone; a week later, I used about twelve ounces of a cultivation three days old, in meat-infusion containing 4 per cent. of peptone. In neither case were any symptoms produced. Having by that time made myself acquainted with Dr. Richards' paper, I saw how incomplete his experiments were, and I did not, therefore, continue the investigation; for it was quite clear that, by working with these cultivations in the first instance, I was beginning at the wrong end, as the investigations must first be thoroughly carried out with cholera-evacuations and other materials for control, before one had any basis to go upon; and this I could not do. Nevertheless, I have thought it right to mention the facts, though I do not think that any conclusions can be drawn from them.

Nicati and Rietsch (*Comptes Rendus*, vol. xcix, pp. 928-9) found that, by filtering fluids in which cholera-bacilli had been growing, and then injecting the filtered liquid into the veins of animals, serious symptoms were produced. In a first series of experiments, they found that the results were diarrhœa, vomiting, general depression, and recovery in an hour. In a second series, there were respiratory trouble, vomiting, paralysis of legs, and death. In a dog, there was found, after death, extensive ecchymosis in the duodenum; the bladder was empty; the cortical part of the kidney was much injected; the blood was dark, no clots, etc. They state that this result will not be obtained unless the cultivations be at least eight days old; recent cultivations are quite inactive; subcutaneous injection of the material produced no result. The age of my cultivations may be a possible source of fallacy in the experiments on the pig mentioned above; for, in the case of the two mice previously referred to, in which the cultivations were nine days old, death obviously resulted from a chemical poison.

The result of my experiments on animals is, then, the following. In two instances, guinea-pigs died undoubtedly as the result of the growth of the cholera-bacilli in their intestines; they certainly did not die of septicæmia. I have, in Figure 6, given a drawing of bodies which were found in the large intestines of these animals, along with other bacteria, straight and curved. The woodcut shows them thicker than natural. I think it most probable that these bodies are the cholera-bacilli, which were found, on cultivation, to be present in enormous numbers, because there were no other markedly curved organisms present, and because they seemed to show all gradations between small slightly curved rods, and the large coiled bodies shown in the drawing. It is, however, only right to say that the gentleman who made the drawings for me thought that these bodies were minute entozoa, but this view did not seem to me probable. The microscopic appearance is, however, of no consequence; the essential fact being that, on cultivation, I found that almost all the colonies which developed on the plates, were colonies of cholera-bacilli, showing that they were present in the intestine in enormous numbers. I should also state that I have made cultivations from the intestinal contents, and from the dejecta, of healthy guinea-pigs, and have never found cholera-bacilli. Why the other animals escaped after the injection, I cannot explain, but somewhat similar facts have been obtained by other observers. As remarked in regard to case No. 17, the fluid was seen to pass upwards into the stomach, as well as downwards into the duodenum; and it is quite possible that this acid material, passing immediately afterwards from the stomach into the duodenum, killed the bacilli which had not entered the stomach. As regards mice, in two instances death occurred in a few hours after subcutaneous injection of a cultivation, as the result, apparently, of absorption of a chemical poison from the material injected; and, in one instance, the cholera-bacilli grew in the blood of the animal, passed into the intestine, and killed the animal.

Conclusions: Diagnostic Value.—If, now, we consider carefully the meaning of the foregoing facts, it will be evident that the discovery of the cholera-bacillus is a most valuable addition to our knowledge, quite apart from the conclusions which may be come to as regards its causal connection with Asiatic cholera. For, in the first place, it seems to be constantly present in Asiatic cholera. I do not mean to assert that the cases I have examined are sufficient to prove this, but they are, nevertheless, very striking, for I had not selected the cases in any way. I did not say, "This seems a typical case of the disease, I will examine it," or "This does not seem a good case, I will not have material from it;" I was glad to take all the material offered me, without reference to whether it came from a typical case or not, the only stipulation being that it should come from a recent case. Therefore the foregoing cases, though few in number, afford very strong confirmatory evidence of the statement that these organisms are always present in Asiatic cholera. This is a fact which is, I think, hardly disputed. In the second place, this organism has never yet been found anywhere else than in Asiatic cholera. I have mentioned a large amount of evidence in support of this statement, and, for my own part, I am now thoroughly convinced that it is correct. As I have pointed out, various organisms with somewhat similar morphological characters have lately been described, but accurate examination has shown that these are different from the cholera-bacillus, and can be readily distinguished from it. Hence the converse of these propositions necessarily follows, namely, that, if the cholera-bacillus be found in dejecta, these dejecta must have come from a patient suffering from Asiatic cholera; in other words, the presence of this bacillus may be used as a means of diagnosing Asiatic cholera. The only fact [1] which could be brought forward against this view is that

[1] I do not here take into account the statements made by Dr. Klein in last week's JOURNAL, for these require confirmation before they can be accepted. The experiments are unfinished and uncontrolled, and have, therefore, been too hastily published.

Dr. Klein states that, by acclimatisation, he is able after a time to cultivate the comma-shaped bacillus found in saliva in the same material as is employed for the cultivation of the cholera-bacillus, and that these cultivations are identical with those of the cholera-bacillus in many respects. I shall refer in detail in the appendix to Dr. Klein's statements with regard to the salivary bacillus. Let us, however, suppose for a moment that they are correct, and let us further suppose that the cultivations obtained by acclimatisation are identical with those of the cholera-bacillus, not merely in many respects, but in all respects: how would that affect the diagnostic value of the cholera-bacillus? It would not interfere with its value as a diagnostic sign at all; for Dr. Klein states that, *in the first instance*, the salivary comma-bacillus will *not* grow in the alkaline nutrient jelly used for the cultivation of the cholera-bacillus; it must be acclimatised. If, therefore, the comma-shaped bacillus constantly present in Asiatic cholera be the same organism as the salivary bacillus, it must have been "acclimatised," as the result of the choleraic process, for it will grow in the first instance in the alkaline nutrient jelly. But the absence of the cholera-bacillus in diarrhœa from other causes, and under other circumstances, proves that this "acclimatisation" does not occur in other diseases than in Asiatic cholera. Hence, if, *in the first instance*, cultivations of cholera-bacilli be obtained in the alkaline nutrient jelly from dejecta, these dejecta must have come from a case of Asiatic cholera; this conclusion being necessary, as I have just pointed out, whether one holds that the cholera-bacillus is causally related to cholera, or that it is merely the salivary comma-bacillus "acclimatised" by the choleraic process. I feel certain, therefore, that I am not in any way misleading the members of the Association when I state that the presence of the cholera-bacillus in dejecta may he held to be a diagnostic sign of Asiatic cholera.

The importance of this discovery cannot, I think, be overrated; for it is probably only at the commencement of an epidemic that much can be done to arrest the spread of the disease; and if we can with certainty diagnose the first case as true Asiatic cholera, an immense point is gained. In any suspicious case, the patient can be isolated, his dejecta thoroughly disinfected, and all the necessary precautionary measures adopted; while, in the meantime, it is being ascertained whether or not it is a case of true Asiatic cholera. Thirty-six to forty-eight hours would suffice for this purpose; because, in thirty-six hours, the colonies on the glass plates are visible under a low power of the microscope, and their characteristics can be studied. I venture to think that, if Koch's work on cholera lead to nothing more than this, it is an achievement for which he deserves the very highest praise. The great importance of this matter has been insisted on by Dr. Koch, and has been realised by the German Government. During the past few months, over 100 medical men from various parts of Germany, and from other countries, have received instruction from Dr. Koch in the methods of cultivating and distinguishing the cholera-bacillus, and there are now in almost every town in Germany men able at once to ascertain, with regard to any suspicious case, whether or not it is a case of Asiatic cholera. Surely some steps ought to be taken in this country to enable our medical officers of health to acquire like information.

Causal Connection.—But if we look more closely at the facts, it will be evident that there is fair ground for thinking that the cholera-bacillus is, in some way or other, causally connected with the disease. Let us take the two main points which have been discussed in detail in the foregoing paper. In the first place, we have seen that the cholera-bacilli are always present in Asiatic cholera in the early period of the disease. Wherever cases of Asiatic cholera have been thoroughly examined, whether in India, in Egypt, in France, in Italy, or in Spain, these bacilli have been found. Wherever the virus of this disease goes, the bacillus goes; when the virus disappears, the bacillus disappears. The virus has never been found to produce Asiatic cholera without the cholera-bacillus appearing at the same time; the two evidently go hand in hand. In the second place, this bacillus has never yet been found in other diseases, or in places where any connection with Asiatic cholera is out of the question. And yet, if it be only accidentally present in cholera, it follows, from the fact that it is constantly present in that disease, that it ought to be very widely distributed throughout the world; and ought, therefore, to be readily found quite apart from Asiatic cholera. This, however, is not the case, as I have shown at length in this report. And it must be remembered that it is not one investigator alone who has failed to find these organisms apart from Asiatic cholera; but it is, I might almost say hundreds, at any rate not much under two hundred, and probably more, who have been searching for it diligently for months without success. When one considers the immense amount and variety of material which must, therefore, have been carefully examined with negative results, the statement, that this bacillus is limited to Asiatic cholera, must, I think, be taken as sufficiently proved. The only investigator of note whose results seem, at first sight, to lead to an opposite conclusion is Dr. Klein; but, in the appendix, I shall point out facts in relation to his research which diminish very materially the importance to be attached to it.

Now, let us ask what can be the meaning of these two facts; and, in doing so, we may leave out of consideration for the present the minor points, such as the distribution of the bacilli in the intestinal canal, their relation to the wall of the intestine, etc. Though these may act as additional arguments for or against the view of the causal connection of these bacilli with Asiatic cholera, yet, in the main, have reference rather to the mode of action of the organism, supposing it to be the cause of the disease. Dr. Koch has given in his report the only three possible hypotheses which may be formed from these facts.

In the first place, one might say that the choleraic process favours the growth of these bacilli, by providing a medium in which they can grow more rapidly than other forms of bacteria. But this hypothesis would imply that these organisms are normally very widely distributed throughout the world, which, as we have seen, is not the case. It is absurd, and, indeed, it is against the facts, to suppose that cholera-bacilli are constantly present in every individual, and yet are in such small numbers that they cannot be detected, for we know that cholera-dejecta are not the only soil on which these organisms can grow luxuriantly; they grow readily in all sorts of putrescible materials, and if they are constantly present in every individual, they must of necessity often meet with soil, either inside or outside the body, in which they can grow well. It is difficult, also, to see how they can prolong their existence if they can only grow with difficulty, and in small numbers, except when the patient is suffering from Asiatic cholera. Nor is it possible to imagine what their function in the economy of Nature could be under these circumstances, for every one of these bacteria has its proper function. Besides, considering the enormous amount of material that has now been examined for them, they would certainly have been found by this time. This hypothesis may, therefore, be dismissed, and the other two considered.

In the first place, it might be said that, as the result of the choleraic process, some common and well known form of organism changes its characters, and becomes converted into the cholera-bacillus; or, in the second place, it must be concluded that the cholera-bacillus is, in some way or other, causally connected with the disease.

The first conception is quite inadmissible in the present state of our knowledge. We are here brought face to face with the question of the conversion of one form of micro-organism into another. This, though possible on the evolution-theory, is contrary to all carefully observed facts with regard to bacteria, and, for this reason, it must be proved beyond a doubt before it can be accepted in any case. The evolution-theory is all very well, but it is still only a theory, however probable, and it must not be put in opposition to facts. But, even on the evolution-theory, it is hardly possible to admit this view; for change on the evolution-theory—such change as involves complete loss of original characters and acquisition of new ones—requires a long time, a great number of generations.

Now what is a generation? In the case of the higher plants, it would be reckoned from seed to seed. The formation of each new cell does not imply a new generation. And so, in the case of the spore-bearing bacteria, I should be inclined to reckon the generation from spore to spore, and not the mere division of the rods, which seems to me more comparable to the formation of new cells in the same generation. But if one reckon the whole cycle of changes from the sprouting of one spore to the formation of new spores as a generation, then the idea that one spore-bearing bacterium can be converted into another in a few hours or days, is quite untenable.

In the case of the cholera-bacillus, I doubt whether the complete cycle is yet known; but, so far as our information goes, it probably extends from the early stage, when the bacillus is almost straight, to the curved stage, and thence to the spirillar stage. But this cycle takes a considerable time; and the idea that a sufficient number of these cycles occur in a single case of cholera to convert one organism into another is quite out of the question. But, even granting that the formation of each new cell is a generation, there is still not time for conversion of one organism into another. Take case No. 2 as an example. Here, in twenty-four hours from the first symptoms of the disease, there were already innumerable myriads of cholera-bacilli in the dejecta; hence, on the view we are considering, this change must have occurred a considerable time previously; in fact, within a very few hours of the commencement of the choleraic process, in a period

of time too short, so far as we can judge, for the occurrence of change. And then, again, the cholera-bacillus can be grown through a large number of generations extending over months, and it does not show the slightest evidence of change. My own cultivations retain precisely the same characters as when they were first obtained five months ago. And yet, if this organism be so very unstable, that a few hours in a cholera-patient suffice to change its characters, one would expect that it would again revert to its original characters, more especially as it has been grown under a great variety of different conditions. The attenuation of anthrax-bacilli is not a case in point, as there there is no alteration in form and other characters, but only loss of pathogenic properties. The only instance which could be adduced is Buchner's experiments, in which he thought that he had converted the innocent hay-bacillus into the virulent bacillus-anthracis, and *vice versâ;* but these experiments have been repeated by various observers, amongst others by Dr. Klein, and the conclusion come to was that Buchner's results were due to accidental contamination of his cultivations, and not to conversion of one organism into another; and Dr. Klein has published a number of other observations on other bacteria to show that a change of this kind does not occur. But I need not refer further to this view, against which all experimental evidence is unanimous, and in support of which no reliable facts are known.

We are then left with the other alternative, namely, that, so far as our present knowledge goes, there is no other probable explanation of these two leading facts than that the cholera-bacillus is, in some way or other, causally connected with Asiatic cholera. There are, moreover, various other facts which favour this view, in addition to the difficulty of finding any other probable explanation of the exclusive association of this organism with Asiatic cholera.

According to Dr. Koch, these organisms are present in greatest numbers in the most acute cases of the disease, and at an early stage. In the cases previously mentioned, it will be seen that they were most numerous in the dejecta from a case only ill twenty-four hours, and least numerous where the patient had been ill for four days and was recovering. Again, the experiments on animals show that, when this organism can grow in the intestine, it sets up a morbid process similar to cholera. In my own experiments, two definite cases of this kind occurred, and I have previously hinted that we will shortly have very striking evidence from Dr. Koch on this point. In fact, it seems as if he had found out why it is that the injections performed in the way I have previously described are so uncertain; and apparently, as I understand, he can now infect the animals with certainty with pure cultivations of the cholera-bacillus. I need not, therefore, enter into this matter of experiments on animals, for Dr. Koch's further report will be published very soon. Again, this organism is remarkable for the rapidity with which it is killed by drying; and Mr. Macnamara mentions, in his work on *Asiatic Cholera*, that, during the epidemic spread of the disease, districts suffering from drought were entirely passed over, although small-pox and other epidemics were raging freely in them. Again, Mr. Macnamara states, as the result of his very precise observations, that dilute acids—the gastric juice, for example—kills the virus of cholera; gastric juice, as we have seen, kills the cholera-bacillus very rapidly. He also came to the conclusion that decomposition destroys the virus of cholera, and Dr. Koch came to the same conclusion with regard to the cholera-bacillus. Then the way in which epidemics disappear from Europe would imply that the virus cannot be very tenacious of vitality; the cholera-bacillus has no spore or resting-stage, and soon dies when it has insufficient nutriment.

But, while there appears to be every reason for believing that without this bacillus Asiatic cholera could not occur, it is evident that this disease is one in which other factors play a most important part. It remains to be ascertained whether this bacillus stands on the same footing as other pathogenic bacteria—say, the bacillus anthracis. Inject anthrax-bacilli into an animal, and they will practically, with certainty, cause anthrax. Is the cholera-bacillus equally potent? May there not be some truth in Pettenkofer's views, and may not this bacillus only acquire its virulence in suitable soil outside the body? What is the meaning of the epidemic outbreaks of this disease, and why is it at times endemic without being epidemic? In fact, what other conditions come into play, and what is the importance of the share they take in the causation of the disease? That other conditions do play a very important part, is evident from the whole history of cholera, and I can only explain the great, and apparently hopeless, diversity of opinion among Indian observers, as to the contagiousness of the disease, by supposing that one observer has paid special attention to one set of conditions, and that another must have been specially struck by other conditions. These are the points which, it seems to me, now urgently require investigation; for, till some conclusion is come to as to all the necessary conditions concerned in the process, we can hardly expect to be able to decide on the best and most practicable means of prevention and cure, although, no doubt, the knowledge gained by Dr. Koch's work must greatly advance matters.

(To be continued.)

A CLINICAL LECTURE
ON
SPINAL ABSCESS, AND ITS TREATMENT.

By GEORGE COWELL, F.R.C.S.,
Senior Surgeon to, and Lecturer on Surgery and Ophthalmic Surgery at, Westminster Hospital.

GENTLEMEN,—There is a class of cases that very frequently comes before us in hospital-practice, in which there is still room for improvement in our methods of treatment. Spinal caries is a very common disease. It is not so common amongst the very poor as it is amongst the class just above them. The gutter-children are almost constantly out in the open air, and are as hardy as town-children can be. But amongst the children of parents who are too respectable to allow their children to play in the open streets, and who therefore keep them shut up in more or less unwholesome rooms, the diseases of a tubercular type are fearfully common, and amongst these cases are many of caries of some part of the spinal column. The spine is very liable to injury from falls and blows; and injuries of this kind, unless they be so severe that the patient is at once carried to a hospital, are not very likely to receive the care and rest which are in most cases essential to recovery, and disease is therefore a frequent result. Spinal caries soon results in deformity, from the destruction and absorption of the carious bone; and sooner or later that deformity, and the irritation which must be associated with it, promote the formation of an abscess. These abscesses in their early stages are often overlooked. Sometimes, very little treatment is adopted until the patients, not necessarily all children, are brought or come to the hospital with an abscess of considerable size. Several cases of this kind have been under treatment in the surgical wards from time to time. One was brought in almost moribund, from extensive caries and long continued suppuration, but the rest have gone to convalescent homes, with good promise of recovery. The last of these is the boy who leaves St. Matthew Ward to-day, a most satisfactory example of what may be done for this class of cases, and affording us a suitable text for our lecture to-day.

Now there is some difficulty in recognising the beginnings of these abscesses. They are naturally chronic and insidious. They may commence, as you know, in almost any position around the carious bone, and sometimes at a little distance from it. When once they begin, the pus may travel in a good many different directions, and finally point in some part remote from the source of irritation. When the abscesses travel backwards, they will soon become evident in the back by swelling and fluctuation on one side, or sometimes on both sides, of the spinal column. There is no excuse for not recognising these early. In the majority of cases, however, the abscesses commence in the neighbourhood of the bodies of the vertebræ, and will not be recognised either until they have attained a large size, or until they have extended downwards, and have approached the surface in the loin, in the groin above Poupart's ligament, in the perinæum, in the upper part of the thigh, and even, occasionally, in some other part of the thigh or leg. These abscesses sometimes burst into the rectum, or may burrow through the obturator foramen to the back of the thigh, and point behind the great trochanter. The abscess will usually receive a different name in each position, but the disease is the same in all, and the treatment must be on the same principles.

In two of the cases that have been under treatment the abscesses had travelled backwards, and were found as dorsal abscesses on one side of the spine. In three, the collections of pus were psoas abscesses, and presented in the upper part of the thigh, in front of the insertion of the psoas muscle. And in the case before us there were the remains of a psoas abscess on one side, with a large similar abscess on the other side, but presenting above Poupart's ligament.

Before speaking to you of the treatment of these abscesses, let me impress upon you the importance of preventing their formation by the

early recognition and proper treatment of the spinal caries which may cause them. Of course this can only be done when the cases come to you for treatment in the early stages of the disease. I would advise you never to look lightly upon dorsal or lumbar pain (I shall say nothing of cervical cases to-day), and especially after any history of an injury to the back, without a most careful examination as to the existence of any diminution of mobility, and of any tenderness in any part of the spinal column. These two symptoms are present from the very beginning of spinal disease. You will never find spinal disease without them, although you may get both symptoms with the mere hysterical simulation of the disease. I have, before, told you how you may diagnose these latter cases, and will not stop to do so now. I will only say that it will be better, if you are in doubt, to apply extension to a case where no disease exists, than to overlook and neglect the treatment of a case in which there is any spinal disease. By proper extension by means of a plaster-jacket—and you are all of you familiar with my colleague Mr. Richard Davy's admirable plan of applying them—taking thereby all weight from the spinal column, and ensuring perfect rest to the bones affected, the formation of an abscess may generally be prevented. The same treatment will often arrest the extension of an abscess already beginning, and lead to the contraction of the abscess-cavity, and absorption of the pus which has been formed. The lower in the spinal column the disease is situated, the more effective this treatment will be. To ensure complete rest to the part, it is necessary that the jacket should be so applied that it grasps the upper part of the pelvis below, and the ribs with the lower portions of the scapulæ above. When these jackets fail, it is generally because they do not get sufficient purchase to thoroughly bear the weight of the upper part of the body, and remove it entirely from the spinal column. It is important to remember that, in cases where the spinal disease has resulted in any paralysis of the lower extremities, these jackets are unsuitable; but in all other cases the sooner the jacket is applied the better your result will be, and hence the importance of making your diagnosis at the earliest possible moment. Another great advantage of this plan of treatment is, you can often avoid that pernicious treatment of these cases, the keeping your patient in bed. Confinement to bed does harm to your patient in three ways. It diminishes his vital powers. It debars him from air and exercise, and thus tends to wasting of his muscles. And it favours the gravitation of the contents of his abscess to dangerous quarters. On the other hand, if the patient be able to rise, and can seek light and air, and take some moderate exercise in the erect position, nutrition is maintained, and suppuration, if it be not arrested, will be encouraged to extend downwards along the muscles, in a direction most favourable to recovery.

Support and rest by means of a jacket, and the due maintenance of the health, are, then, the first of the objects of the surgeon in all cases of spinal abscess. Do not be in a hurry to open them, unless they be large, or attended by pain and tension. Under these conditions, the sooner they are relieved the better. But I want you always to remember the possibility of spinal abscesses diminishing and drying up, under a treatment which permits the healing of the bone-lesions. Even if the abscess do not disappear, it is very important to give the active bone-mischief time to subside before opening and emptying it. In three, if not four, of the cases above mentioned, the abscesses, which were not opened until a few weeks after the subsidence of all active mischief, contracted and healed very rapidly, the patients continuing to wear a plaster-jacket for a few months after leaving the hospital, as a precaution against relapse, and also as a support.

When it is necessary to open large or pointing abscesses, let me advise you always to open them very freely. Of course, be most careful in your antiseptic precautions. My early recollection of these cases is that nearly every patient with spinal caries, attended with large psoas or iliac abscess, died. Now, with proper treatment, a large proportion of them ought to get well, and strict antiseptic dressing will help us much. There is, however, always a difficulty in keeping these cases, when the wound is near the fold of the thigh, perfectly aseptic. The gauze-dressings were almost useless for this purpose, but in the treatment of these cases you have seen large absorbent pads used, as they may more easily be kept closely applied to the skin around the wound.

But strongly as I would advise you to be most careful in the use of antiseptics, I wish, at the same time, to accentuate the fact that thorough drainage is as important as, if not more important than, antiseptics. You cannot possibly keep a long discharging canal clean and free with all the antiseptics in the world, if you have only a small opening. There are other advantages in a free opening. All degenerating contents can be effectually scraped out. The condition of the diseased bone can often be ascertained, and sometimes dead portions of bone and sequestra can be removed, as was shown some years ago by Mr. Furneaux Jordan of Birmingham. You have seen several of the recent cases successfully treated by free incision, and the boy who leaves the hospital to-day is a remarkable instance. His was a most unpromising case. He was admitted into the hospital, nearly eight months ago, in a state of extreme emaciation. He had a considerable angular curvature in the lower dorsal region, with a discharging sinus, evidently the remains of a psoas abscess, on the right side, the old wound in the right thigh being about two inches below Poupart's ligament. On the left side, there was a large abscess, not very prominent when the boy was lying down; but when he sat up in bed, it presented above Poupart's ligament in considerable bulk. The boy was in great pain, and could hardly bear to be touched. Under these circumstances, the immediate application of a jacket was out of the question. The abscess, from its volume and pain, was a source of danger, and must be first relieved. Ether was administered, and, under carbolic spray, an incision, four inches long and somewhat curved, was made above, and parallel to, the outer half of Poupart's ligament and the margin of the ilium. A large quantity of pus welled out whilst two fingers were immediately passed along the track of the abscess to the sides of the bodies of the vertebræ. No loose bone could be felt. A quantity of cheesy material was removed, and some broken down granulation-tissue. The wound was thoroughly washed out with weak carbolic lotion, a tube was inserted, some lint dipped in carbolised oil was applied to the wound, and the whole was covered over by a large absorbent pad, kept in position by an evenly applied bandage. The relief was complete. Pain disappeared, the boy's face brightened, and, a few days later, a jacket was applied, and the patient was transferred from the bed to the sofa. The boy had, for a long time, been unable to walk; and it was, of course, many weeks before he was strong enough to venture on crutches; but the size of the wound enabled the cavity to be kept clean and empty, and recovery, though slow, was uninterrupted. He is now able to walk well with his crutches, and by the kindness of a governor of the hospital, has had many airings in St. James's Park. His bones are now well covered with fat, and his muscles can be recognised as such. I trust that the change to the convalescent home to which he goes will complete his cure, and that he will soon do without his crutches. He will always, of course, have the deformity of his angular curvature, but his spine is fairly consolidated, and will be strong enough, in time, to admit of his doing useful work.

In the patient in Holland Ward with dorsal abscess, the incisions were made at right angles to the spine. In the abscesses that pointed in the thigh, a free vertical incision was made, and you have seen with what favourable results. In some of the cases, in spite of all our care, the caries goes on, and the patients die of prolonged suppuration; but I believe that the number of these may be more and more diminished by early recognition, and treatment by effective spinal support, and, in the cases where large abscesses occur, by the complete drainage and cleanliness which will be promoted by free incision and careful antiseptic precautions.

THE JENNER OF AMERICA.—In his valedictory address, Dr. Welch, President of the Philadelphia County Medical Society, gave an interesting sketch of the life of Dr. Benjamin Waterhouse, to whom the Medical Society of London once applied the title of "the Jenner of America." After serving as apprentice to Dr. Halliburton, of Newport, R.I., he attended the lectures at the University of Edinburgh for one session, and, in 1776, went to reside in London with his great-uncle, the illustrious Dr. Fothergill. He subsequently graduated at the University of Leyden, returned to America, and, in 1783, when only in his thirtieth year, was appointed the first professor of Theory and Practice of Medicine in Harvard University. In 1799, he first became acquainted with Jenner's discovery by receiving from Dr. Lettsom a copy of the *Inquiry into the Causes and Effects of the Variolæ Vaccinæ, or Cowpox*, which had been published in the previous years. Waterhouse was at once struck by the importance of the discovery, and, after several failures, obtained an active virus from Bath. The first person vaccinated in America was his own son, on July 8th, 1800. Waterhouse, in his effort to popularise vaccination, at first enjoyed the powerful encouragement and support of Jefferson, then President of the United States, but the history of his later years is very sad reading. He had to struggle against jealousy and misrepresentation; and, in 1812, was compelled, by the rancour of his opponents, to resign his chair. He, however, subsequently received a government appointment, which he held for several years, and which raised him above the pressure of actual poverty. He died in 1846, in his ninety-third year.

CASE OF PROGRESSIVE PARALYSIS OF THE ULNAR NERVE, CONSEQUENT UPON INJURY: OPERATION: SUCCESSFUL RESULT.[1]

By CHAUNCY PUZEY, M.R.C.S.Eng., etc.,
Surgeon to the Liverpool Northern Hospital.

WALTER P., aged 15, a miller's assistant, was admitted into the Northern Hospital, under my care, on the 8th October, 1883. His right arm had been caught between a broad leather "travelling-band," and the wheel over which it passed; so that he was dragged off his feet, and suspended by his arm, the result being a compound fracture of the bones of the forearm. There was a small transverse wound on the outer side of the forearm, through which about an inch of the upper fragment of the radius protruded, being tightly embraced by the skin; the fracture of the ulna was not absolutely compound, but the sharp end of the obliquely fractured upper fragment was sticking in the skin so as to dimple and displace it. Forcible extension was required to reduce the fragments into their proper position. The case was treated on Listerian principles, and, so far as the fractures were concerned, no further trouble was experienced; except that there was considerable delay about the union of the ulna, and for many weeks grating could be felt at the site of this fracture, which gave rise to the suspicion that a spiculum of detached bone must be lying between the fragments; especially as there was an abundance of so-called provisional callus surrounding the fracture, showing that non-union was not due to want of action in the part. However, no fragment ever came away, and I am now disposed to think that a piece of fascia must have been dragged down between the fragments, and so, for a time, prevented union. Be the cause whatever it might, union ultimately became complete.

But the interesting feature of the case appears later on. The lad had ceased to be an inmate of the hospital after a month's treatment, and was attending as an out-patient, on account of the non-union of the ulna, when it was noticed that there was a tendency to obstinate flexion of the fingers, more especially of the little and ring fingers. A hinged splint, by which elastic extension can be used for the purpose of straightening contracted fingers or hands, was therefore applied; and in a day or two the patient presented himself, with the ring and little fingers blistered and discoloured by the pressure of the splint and bandage. This, of course, at once led to inquiries as to the state of the ulnar nerve; the rest of the hand appearing quite healthy. Then it was ascertained that the lad (who had always been most patient and uncomplaining) had experienced curious sensations, partly of pain, partly of numbness, ever since the accident; and now it was found that the affected fingers were deficient in sensibility. The natural conclusion was that the nerve had been pinched or bruised by the sharp edge of the bone at the time of the accident. There was reason to believe that the nerve had not been divided, and we hoped that the effects of the injury would pass off.

But they did not; and gradually the numbness increased, and the fingers wasted at the tips; the circulation was very sluggish, the fingers purple and cold, the skin moist and clammy. Then the interossei and the lumbricales wasted, and the adductor pollicis and the muscles of the little finger followed suit. Combined with the numbness, there was evidently a considerable amount of pain felt on any attempt being made to straighten the flexed fingers; and a dragging sensation was complained of at the seat of the fracture, just above which, pain was felt on pressure. The symptoms, therefore, pointed to gradually increasing compression, or constriction, with adhesions of the nerve at this point.

For the sake of brevity, I have hurried through the account of the case up to the middle of April (six months after the accident), at which time the hand was rapidly assuming the "bird's-claw" appearance characteristic of the later results of paralysis of the ulnar nerve, and thus tersely described in Dr. Vivian Poore's Bradshawe Lecture, delivered on August 18th, 1881: "When the ulnar nerve is paralysed, sewing, writing, and all delicate manipulations become impossible. The patient cannot move the fingers to and fro in the same plane. The mid and far phalanges cannot be extended, nor the near phalanges flexed. After a time, the hand, by the unopposed action of the flexors and extensors of the fingers, becomes 'clawed;' that is, the near phalanges are extended, while the mid and far phalanges are flexed." As before mentioned, the interosseous spaces, both on the dorsal and on the palmar aspects, were hollowed out; the muscles of the ball of the thumb, and those of the little finger, were much wasted. With regard to the cutaneous sensibility, there was complete anæsthesia of all the surface usually supplied by the ulnar nerve, and also incomplete anæsthesia of the adjacent sides of the middle and ring fingers (due, no doubt, to this being one of that minority of instances where the ulnar nerve supplies two and a half, instead of one and a half, fingers).

On April 28th, I proceeded to explore the site of the fracture of the ulna, which was now firmly united, but was marked by a slight thickening of the bone. An incision was made as for exposing the ulnar artery, the centre of the incision being over this thickened portion. Neither artery nor nerve was to be seen, though carefully searched for; the bone was reached; the fracture was found satisfactorily united, the upper fragment projecting very slightly above the lower; there was some thickening from callus, and, moreover, what seemed to be a band of thickened periosteum, tightly stretched over the callus. The question arose, Was this the sought-for nerve? The wound was enlarged upwards, and the nerve was then found unmistakably, and traced into this band; then the wound was extended downwards towards the wrist, and what appeared to be nerve was found, and proved to be continuous with the band; but, whereas the nerve above the adhesion was pink and fleshy-looking, the part below was colourless and wasted. Partly by the knife, and partly by gentle elevation with a raspatory, the nerve was freed from the bone. We then had between two and three inches of ulnar nerve completely free, so that it could be lifted above the level of the wound, and thoroughly examined. The upper part was, as before mentioned, pink and fleshy-looking, evidently swollen; the part which had been fixed down was thinned and flattened, ragged from small tags of fibrous tissue attached to it; and the lower end of the nerve was round, but pale, and apparently wasted. To prevent the lately adherent portion from dropping down into its old situation, and probably again becoming attached to the bone, I connected a few fibres of the flexor carpi ulnaris with the adjacent flexor profundus digitorum by one catgut suture, thus interposing a fleshy bed between nerve and bone. The wound was then closed, and dressed in the usual Listerian method.

On May 1st (three days after), Mr. Horrocks, the senior house-surgeon, notes that "the patient was able to tell when the skin on the proximal phalanges of the little and ring fingers was pinched, and appeared to have perfect sensation along the adjacent sides of the middle and ring fingers."

On May 7th (ten days after the operation), he notes "sensibility of fingers increasing, and extending downwards towards the tips, which are, however, at present insensible. The patient made the remark that, for the last two or three days, he has had a sensation as of blood rushing along towards the finger-ends."

On May 20th, the wound was quite healed, and tactile sensibility was rapidly increasing, being more acute in the ring-finger than in the little, in the proximal than in the second phalanges, almost absent in the last phalanges. The improvement since that date has been slow, but steady and persistent, until now (eight months after the operation), there is hardly any appreciable difference between the two hands. Tactile sensibility appears to be perfectly restored; the hand is now natural in shape, the interosseal spaces having become perfectly filled by their proper muscles; and the muscles of the thumb and little finger are restored to their normal state. The colour of the skin and of the nails is natural. The lad has returned to his work in the mill.

It should have been mentioned that until quite recently he has had some pain in, and tendency to flexion of, the index-finger, with disordered nervous sensations therein; and forcible extension of the finger has always, until recently, given rise to a dragging sensation at the site of the old fracture. Probably, a small portion of the median nerve, or rather of its anterior interosseous branch, sustained injury through the compound fracture of the radius, and some adhesions took place in that locality; and these, as he has began to use his arm, have become stretched or broken down.

It does not appear quite certain how this peculiar injury of the ulnar nerve occurred, but to me it seems most probable that the sharp lower end of the upper fragment of the ulna caught and became fixed in a portion of the neurilemma, and, on reduction of the fracture, dragged it down, so that it lay in contact with, or was nipped between, the fragments. It was previously observed that union of this fracture was long delayed; and this could be readily explained by supposing that not only neurilemma, but also a piece of muscular fascia, had been entangled between the fragments. The paralysis certainly did not show itself until weeks after the accident, and then was for a time but slowly progressive; later on, when the nerve was not only caught

[1] This paper was read, and the patient shown, at the Liverpool Medical Institution, December 18th, 1884.

and bent, but also suffered from pressure and constriction, the progress of the disorder and of its symptoms was much more marked. The rapid return of sensation in the fingers was remarkable, and far beyond my expectations; the adherent portion of nerve being so thinned and flattened, that I doubted if it could ever resume its functions, and thought it most likely that I should be obliged to operate again, remove the damaged portion, and stitch together the divided ends.

I alluded to the fact of our not being able to find the ulnar artery in the wound. The probability is that it was so crushed by the sharp bone, that it was either divided, or so damaged that it became impervious immediately after the injury.

It may occur to some that an exploratory operation should have been performed earlier. Possessed of the wisdom which comes after the event, it certainly does appear that an earlier operation would have been at all events justifiable; and, with the knowledge gained in this instance, I should feel disposed, should I meet with a similar case, to operate before such a condition of paralysis was reached.

ON THE PRECISE RELATIONS OF MICRO-ORGANISMS TO DISEASE AND THE SCIENCE OF DISINFECTION.

By CHARLES T. KINGZETT, F.I.C., F.C.S.,
Vice-President of the Society of Public Analysts, etc.

While the connection of micro-organisms with the chief contagious fevers is, as yet, a matter of pure inference, it is impossible, in the face of the results of modern investigations, to deny the intimate relations of micro-organisms to certain other diseases, including puerperal fever, pyæmia, septicæmia, and anthrax of cattle; but of the nature of the precise relations, next to nothing is known. The physiological effects produced by inoculation-experiments can be readily observed, but the physiologist cannot lay his hands upon the active principles which cause them. In this connection, I am convinced he can ascertain nothing of a final character without the aid of the chemist; and, because this fact seems to me to have been entirely neglected in all recent investigations, I now beg to direct special attention to this matter, and to indicate how far reliance is to be placed upon the germ-theory of disease, and the use of disinfectants as controlled by that theory. In the first place, then, I shall endeavour to show that the effects which are witnessed in certain diseases are not caused by micro-organisms, but by chemical substances which are elaborated in or by them by way of secretion, excretion, or otherwise; and, secondly, I shall show that the methods now commonly employed by many microscopists and physiologists for testing the action of disinfectants are entirely and radically erroneous.

To demonstrate my views upon the first of these subjects, I will take three well known facts, and consider each very briefly.

In the Report of the Medical Officer of the Privy Council for 1876, there is a description of some carefully conducted and important experiments made by Dr. Burdon Sanderson, in confirmation of the earlier investigations of Panum. In these experiments, a septic solution was prepared by precipitating putrilage with alcohol, redissolving the precipitate in water, evaporating the extract to dryness, and redissolving the dried residue in water. From a series of physiological experiments made with this solution, Panum arrived at the conclusion that "there exists in putrid fluid a specific chemical body which is soluble in water, and is endowed with the property, when introduced into the circulating blood, of calling into existence that peculiar group of symptoms which are recognised as those of septic infection;" and, to use the words of Mr. Simon in reviewing these results, "Dr. Sanderson, though apparently still supposing that the septic ferment is particulate, seems to regard, as proven by Professor Panum's experiments, as well as approximately by his own, that it 'does not consist of living organisms.'" It has been proved then that micro-organisms, in course of putrefactive fermentation, initiated by them, produce one or more chemical products, which act as specific poisons and as infectants in pyæmia, septicæmia, etc.

The attenuation of the virus of chicken-cholera, which has been described by Pasteur, admits only of a chemical explanation. How can it be explained that micro-organisms, freshly cultivated in clear *bouillon de poule*, exhibit a murderous fatality when inoculated under the skin of previously healthy fowl, while the same micro-organisms, in equal number and activity, taken from a cultivation-mixture which has been freely exposed to the air for a long time, are devoid of this property? To suppose that a morphological change can account for the observed difference in effects is, if not actually absurd, at least entirely unwarranted; and the only explanation is that the micro-organisms in question have nothing to do directly with the poisoning effects we are considering, but that they are due to a specific chemical product which is present in the freshly cultivated mixture, but which is absent in the stale mixture. Possibly it is destroyed by oxidation carried on by atmospheric oxygen.

Again, in the thirteenth annual report of the Local Government Board, Dr. Klein has described experiments which seem at first blush to indicate a variability in the degree of virulence of the *bacillus anthracis*; but further experiments proved that the observed facts were "irreconcilable with the assumptions (1) that the bacillus is in reality capable of undergoing a diminution of its physiological activity, that is, suffering a real attenuation, and (2) that there exist anthrax-bacilli having an intrinsic virulence of various degrees." He then adds, "The facts seem, however, capable of another explanation. Owing to different conditions of growth, for example, high temperature, or other artificial conditions, or owing to different soil on which they grow, for example, the body of a mouse or of a guinea-pig, the bacilli, although themselves the same, embody or appropriate, chemically or otherwise, some new or different substance, which produces the alteration for a particular species of animals. Whether this substance is comparable to a ferment or not, I am not in a position to say; possibly, it is some ferment produced by the new conditions."

It will be at once seen that Dr. Klein almost embraces the chemical theory of disease, which for some years I have persistently advocated; at least, he has himself furnished evidence which gives immense support to my views.

Professor Virchow also, while hesitating to allege the inadmissibility of a mechanical hypothesis of disease caused by micro-organisms, yet clearly thinks the assumption of chemical action remains as the only real explanation, as will be evident to all who are conversant with his writings, and notably with his article on "Infectious Diseases in the Army," which has been translated from the German by Dr. John James.

The chemical theory places us at once upon ground with which we are familiar, and gives us an assurance of security. Just as the yeast-cell decomposes a solution of sugar by the agency of a soluble zymase which it is supposed to produce, and as the *mycoderma aceti* oxidises (by the assistance of the air) alcohol into acetic acid, and as the *bacterium lactis* sours milk and produces lactic acid, so also do the micro-organisms which initiate putrefaction produce definite chemical products, which act as blood-poisons; and the micro-organisms which are known to be intimately associated with certain specific diseases act as the excitants, not in a primary or mere mechanical sense, but in a secondary sense, viz., by the agency of chemical substances elaborated by them under suitable conditions.

These reflections necessarily take us a step further. If there be no sugar present in its soil, the yeast-plant cannot produce alcohol; but it is not to be assumed (at least, in the absence of sufficient evidence) that this micro-organism can live only upon sugar. It is highly probable, indeed, that any one micro-organism can live and thrive under a variety of conditions, and upon a great number of soils; and so the products of fermentative change must necessarily vary accordingly. Many of them may be poisonous in character, while many others may be innocuous. So also it must be with the micro-organisms which are associated with disease; in consequence of which it follows that so-called zymogenic organisms may become pathogenic in character, simultaneously with a change of soil or other conditions, and *vice versâ*.

Reviewing all these possibilities and facts, is the science of disinfection to throw overboard all accumulated knowledge, experience, and faith in the action of all disinfectant substances which are not under all conditions germicidal in property? Is the object of mankind henceforth to be the destruction of micro-organisms? If such an object could possibly be regarded as well founded, even then it were idle to attempt its consummation; for micro-organisms are ubiquitous, and constitute a necessary order in creation. By acts of hydrolysis, and oxidation carried on upon all dead organic matter by their agency, such substances are resolved into final innocuous products of change, which are essential to the well-being of the higher orders of creation (plants and animals).

The fact is, that men always outstep the natural limits of a discovery, and jump at conclusions which are not warranted by the results of further investigation. The somewhat sudden discovery of the intimate association of micro-organisms with disease led many to think that, in order to prevent the spread of disease, the micro-organisms must be killed wherever met with; but, now that scientific

investigation has proceeded to a further stage, it is being found that it is not the micro-organisms themselves that are poisonous to man, but the products to which they give rise under certain conditions. Those, therefore, who have the charge of the public health must now trim their sails anew, and henceforth the study of this matter enters upon a new phase, which is chemical in its character. We must now seek to discover under what conditions and from what substances various micro-organisms elaborate poisonous substances, and also to determine the chemical composition of these products.

In the meantime, physiologists and microscopists must abandon their old methods of testing disinfectants. It will no longer serve, in order to ascertain the value of a disinfectant, to take a particular colony of micro-organisms and expose them to the presence of the disinfectant, with the view of ascertaining if they are killed thereby, by means of subsequent attempted isolation and culture; nor will it suffice to expose a colony of micro-organisms to the presence of disinfectants, and, after isolation, to inoculate animals therewith. On the other hand, the infectants must be introduced into the bodies of animals simultaneously with, and in the presence of, the disinfectant; and if the specific disease do not follow upon the inoculation, the disinfectant is a reliable one for that particular set of circumstances.

After all then, we fall back upon old lines of policy, and must have recourse to chemical substances which act on the one hand as antiseptics, thereby preventing micro-organisms from multiplying and producing poisonous substances (real infectants), and substances which by chemical changes, such as oxidation and chlorination, act in a destructive sense to the same chemical poisons if they happen to be already in existence. Indeed, the idea of employing some active chemical poisons, such as carbolic acid, sulphurous anhydride, absolute alcohol, creasote, chlorine, and corrosive sublimate, for the treatment of diseases like cholera, typhoid fever, and dysentery, is, of course, absolutely out of the question; and the only hope is that a non-poisonous antiseptic, such as "sanitas" fluid, which may be administered internally, may be found to supply the means, that is urgently called for, of combatting such fearful diseases.

Of the nature of the chemical poisons referred to in the preceding paragraphs as constituting infectants related to specific diseases, I can only suggest that they are derivates of albumin produced by a series of chemical changes involving hydrolysis; and in connection with this subject, the investigations of O. Nasse and P. Schützenberger have already paved the way for the comprehension of results which may be expected to speedily attend new researches into the chemistry of diseases. I particularly refer to such investigations as those conducted by Selmi with reference to pathological bases formed in the tissues, and to the experiments of the same investigator, Paterno, and others, concerning the formation of ptomaines, and the alkaloids produced in putrefaction. It may be remembered that Selmi, suspecting that in various diseases, poisonous substances are formed in the tissues, and that these determine the death of the patient, analysed the urine of patients affected with progressive paralysis, miliary fever, and rheumatic tetanus, and found in all cases that poisonous bases were present. One of these bases resembled nicotine in its properties, while another had the odour of conine, and a third substance (amongst others) was obtained which was white and crystalline, and was capable of determining the conversion of starch into glucose.

These facts, and the well ascertained formation of poisonous alkaloids amongst the products of putrefied albumin, not to speak of what is known regarding the physiological action of alkaloids generally, including abrin (from jequirity-seeds), may all be regarded as preparatory evidence of the production both in and out of the human body of highly poisonous substances, or infectants, by the agency of micro-organisms.

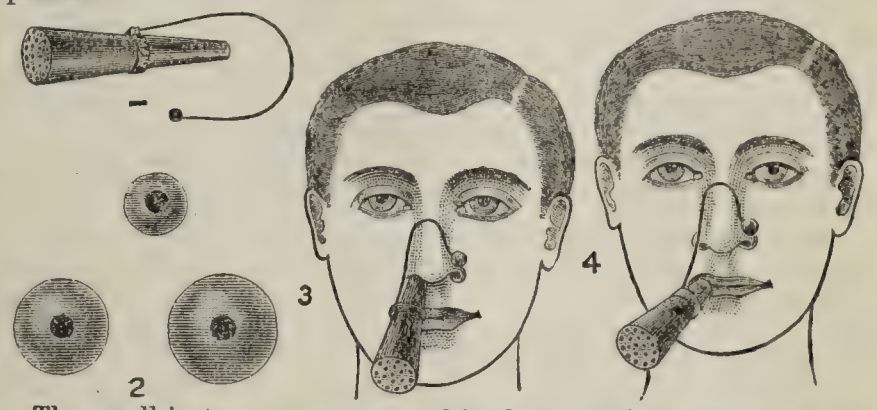
In conclusion, I wish to add that I am now carrying on a series of investigations concerning the chemical history of some micro-organisms; and I am confident, from the results already obtained, that they will lend strong confirmation to the views I have herein expressed concerning the relations of micro-organisms to disease, and the qualifications of disinfectants.

THE LATE DR. TIBBITS.—The Board of Management of the Bradford Infirmary, at their meeting on the 1st instant, passed the following resolution: "That the Board of Management desires to place upon record its deep regret at the loss it has sustained in the death of the late Dr. Tibbits, who, to his varied professional acquirements, conjoined a deep sympathy with human suffering, and rendered invaluable service to this institution and the community at large. The Board, at the same time, tenders its sincere condolence with Mrs. Tibbits and her family in the irreparable bereavement they have sustained."

A NEW INHALER, WITH REMARKS ON OPEN ANTISEPTIC INHALATION.

By JOHN WARD COUSINS, M.D.Lond., F.R.C.S.,
Surgeon to the Royal Portsmouth Hospital.

THE advocates of antiseptic inhalation are quite unanimous as to the necessity of employing it with great regularity and perseverance over a long period; but there is much diversity of opinion as to the method of application, and the contrivance best adapted for the treatment. The experience of most practitioners is, however, clearly in favour of the direct inhalation of dry vapours, and a great variety of instruments have been constructed for the purpose, for the most part modifications of the original respirator-inhaler suggested by Dr. Sinclair Coghill in 1876. The simplest forms of apparatus are now almost universally preferred, as they are more comfortable to the patient and more readily tolerated during prolonged application. Some inhalers are too heavy, and cause a feeling of oppression, and, sometimes, even difficulty of breathing. Others are objectionable by pressing on the face, and causing irritation of the skin. It is my opinion that all close oro-nasal respirators and complex instruments present no real advantages, and that they must soon fall into disuse, as their employment is seriously irksome to many patients. An inhaler ought to be a very light mechanical contrivance, especially designed to permit the voluntary introduction of medicated vapour by full inspiration; at the same time securing the freest possible access of air, so that the continuous and daily practice may be rendered both endurable and pleasant.



The small instrument represented in the engraving, appears to me to possess all these essential qualifications. It consists of a vulcanite receptacle (Fig. 1) for holding the little pledget of cotton-wool upon which the inhalant is dropped. The wire suspends the inhaler, and serves also as a compressor of the nose. When used for nasal inhalation, one of the balls (Fig. 2) must be selected, and half only of its circumference ought to enter the nostril. During oral inhalation, another ball is used, or the neck of the inhaler can rest against the upper teeth. The Figures 3 and 4 explain the methods of adjusting the instrument. By merely opening and closing the mouth, the patient can regulate the entrance of the antiseptic vapour into the lungs. It is extremely light, and causes no fatigue or oppression, and it does not require to be taken off during coughing and expulsion of the sputa. I am much indebted to Messrs. S. Maw, Son, and Thompson for the care they have bestowed upon the manufacture of my inhaler, and I am glad to add that it can be obtained from that firm at a very moderate price.

The following table exhibits the respective weights of some of the best known inhalers now in general use.

	Drachms.	Grains.
Coghill's metal inhaler...	8	45
,, nickelled inhaler	7	19
,, celluloid ,, ...	3	27
Mackenzie's metal ,, ...	15	40
,, nickelled ,, ...	18	52
,, celluloid ,, ...	8	29
Roberts's nickelled ,, ...	9	3
,, metal ,, ...	7	2
Burney Yeo's perforated zinc inhaler ...	3	40
Ward Cousins's new antiseptic ,, ...	1	12

The inhaler which I have now described is a very convenient little instrument for the treatment of chest-disorders by inhalation. It is my opinion that the cumbrous instruments which are employed by many, with the intention of filtering the inspired air, are practically useless, and that their persistent use exercises a baneful influence on

the surroundings of many who are daily striving to protect their lungs with antiseptic inhalations. The constant application of a close inhaler fosters the common prejudice against fresh air and sufficient ventilation; and the treatment degenerates into a struggle between germs within, and germs without—hopefully carried on by breathing through an uncomely mask, and by confinement in a close and stuffy atmosphere. Depend upon it, every remedial agent employed in the management of chest-disorders must be positively injurious to the patient whenever it distracts the attention from the common and hygienic measures which are so essential to the general improvement of the system, and the increase of the vital resistance of the whole organisation.

Now, in whatever light the speculations are regarded concerning the action of inhalations as destroyers of bacilli or as protectors against floating germs, it must be admitted that this treatment has made remarkable progress, and has also been practised with very great success. What, then, is the *modus operandi* of antiseptic inhalations in pulmonary affections? Surely the action of these remedies admits a very simple explanation. They are valuable not only in the treatment of phthisis in all its forms, but they are fortunately equally applicable for many other chronic disorders of the chest, and their judicious administration is certainly followed by very considerable relief. The vapours are carried with the inspired air deeply into the passages, and are there absorbed by the moisture of the respiratory surface; thus, by direct application, they purify the air in the remote portions of the lungs, and cleanse the mucous membrane generally by preventing decomposition in the fluids, and stimulating more healthy secretion. In chronic bronchitis, in bronchorrhœa with dilated bronchi, and in emphysematous affections, the efficacy of the treatment is beyond dispute; for, by assisting the discharge of the expectoration, and by delaying the septic changes which occur within it, they remarkably modify the disorder at the very seat of its activity.

In phthisis, these topical remedies have proved also powerful auxiliaries to general treatment. They check decomposition in the secretions, and aid in the evacuation of the infectious materials, which are the direct products of the disintegration of the pulmonary tissues, and which, by the processes of absorption and diffusion, often establish new centres of disease.

But apart altogether from any specific effect of the antiseptic vapours, it must be admitted that the act of continuous inhalation exerts a very salutary influence by stimulating full and repeated expansion of the lungs; and the forced activity of these organs is in itself an important factor of the treatment.

The value of free inspiration, and the part it plays in the successful application of antiseptic inhalation, has scarcely received the general recognition to which it is justly entitled. Many years ago, the late Dr. Ramadge warmly advocated the use of an inflating-tube for the simple purpose of expanding the lungs, and stimulating their functional activity by voluntarye ffort.

In phthisis, these organs are very imperfectly expanded. The sputa collecting in the passages obstructs the aerial movements, and some portion of the air, only partially changed, becomes imprisoned in the remote parts of the pulmonary tissue, and thus the healthy balance between inspiration and expiration is disturbed, the breathing becomes shallow; at the same time, the gradual contraction and emaciation of the thoracic parietes are seriously accelerated. Now, it appears to me, that much of the success which has followed the introduction of antiseptic inhalation is due to per sstent expansion of the lungs by forced inspiration; and certainly this novel and fashionable system corroborates the value of the mechanical method practised by Dr. Ramadge. His notions respecting the antagonism between emphysema and phthisis have now almost passed into oblivion; but his special treatment of utilising functional activity as an instrument for arresting the progress of tubercular disease, is surely now receiving a remarkable acknowledgment in the revival of respirators and local medication. The new treatment is, in fact, a close repetition of the old mode of inflation, with the addition of an antiseptic vapour to the inspired air; and the beneficial effect produced by its persistent employment can, in a great part at least, be fairly attributed to the expansion of the chest in full and forced inspiration; for this not only assists in maintaining the volume of the lungs, and in stimulating the activity of those portions of their structure still free from the elements of tubercle, but it also favours the circulation itself, and helps on the processes of local and general nutrition by which a vital resistance is developed, restraining the progress of the disorder, and powerfully contributing towards its final arrest through the contraction and limitation of the local disease.

In conclusion, open antiseptic inhalation has been considered in this paper only with reference to the treatment of diseases of the chest; at the same time, it admits of a far wider application, and is a very convenient method of employing the inspired air as a medium for the introduction of deodorising vapours in many other diseases. It has been used with advantage in chronic laryngeal affections, and also by patients labouring under habitual fœtor of the breath. In ozæna and other nasal and naso-pharangeal disorders, I have found it of great utility, in conjunction with the frequent application of astringent and disinfecting solutions, for cleansing the unhealthy surfaces.

SACCULAR DILATATION OF THE URETHRA.

By LAWSON TAIT, F.R.C.S.,
Chairman of the Clinical Section of the Birmingham and Midland Counties Branch.

In October 1875, I published the following case in the *Lancet*.

Mrs. B., mother of a large family, had suffered for many years from a protrusion, about the size of an egg, from the vulva, which was excessively painful. She passed large quantities of fœtid pus from the bladder. The protrusion looked like an ordinary cystocele save that it was quite irreducible, was very hard, and, when it was firmly pressed, a large quantity of fœtid ammoniacal pus escaped from the orifice of the urethra. If this pus got on the fingers, it made them smart. The sound readily passed into the cavity of the protrusion from the urethra. It was clearly, therefore, not an ordinary cystocele, but probably a sacculation of the urethra, and the only benefit likely to be obtained was by its removal. She was placed under ether, and the lower half of the protrusion was removed by a cut of the scissors; and this opened into a large cavity lined with thickened corrugated mucous membrane. It had an opening into the urethra large enough to admit a No. 9 or 10 catheter; the opening being situated in the lower wall of the urethra, and about halfway between its orifice and the entrance to the bladder. The whole of the mucous lining of the sac was removed, and the vaginal mucous membrane was closed over the cavity by deep sutures. The wound healed rapidly, and the cure is now complete.

In May 1876, M. Gillette of Paris published, in the same journal, a case very similar in external appearance, and probably in its relations to the urethra; but he did not define accurately, in his description of the operation, the relations which were discovered in the entrance to the sac from the urethra. Although I opened correspondence in the journal, I did not elicit the information which was necessary in order to determine whether M. Gillette's case was precisely like my own.

Until the case that I described in 1875, I had never seen anything of this kind, nor had I met with any description of it, and, until the beginning of this year, I had never seen another case like it, nor have I come across, in my readings, any allusion to further experiences of this peculiar condition save that of M. Gillette. But, as a curious illustration of the strange series of coincidences which are constantly occurring in surgical practice, since the beginning of this year I have had no fewer than three cases precisely similar to that which I previously narrated. The symptoms in all three cases were precisely alike. The patients were constantly troubled with an escape of fœtid ammoniacal purulent urine, causing much irritation, discomfort, and annoyance from the smell. The escape did not occur during micturition—that is to say, the urine passed voluntarily was usually perfectly clear and sweet; but, either with the least strain of micturition, or pressure, or on a sudden change of position, and at other times inexplicably, this objectionable fœtid urine escaped without the patient knowing anything about it, until she found herself wet and uncomfortable. When examined, a tumour, apparently continuous with the neck of the bladder, was found to present itself between the lips of the vestibule, closely resembling an ordinary cystic vaginocele, save that it was tender on pressure. When it was pressed, the characteristic fœtid and purulent urine escaped by the meatus. When a catheter was passed into the bladder, keeping the point well up on the roof of the urethra, it passed easily into the cavity of the bladder, and perfectly clear urine was withdrawn. When, on the contrary, the point of the catheter was passed, with slight pressure, along the floor of the urethra, it entered the cavity of the tumour, and the putrid contents of the latter escaped. The patients were respectively of the ages 23, 55, 32; and were operated upon the dates February 10th, February 13th, and March 27th. The details of their operations and all the conditions found are practically identical, save that, in the second case, the tumour was quite as large as an egg, whilst in the first and third it was not much more than half that size. The proceedings that I adopted were precisely those described in the *Lancet* for my first case. I put a catheter in the urethra, in order to display the aperture and

to prevent injury of the canal. An elliptic piece of the protrusion was cut away, so as to completely open its cavity, and perhaps about half its substance removed. The thick and velvety mucous lining was then carefully dissected off as far as the aperture leading into the urethra, which in none of the cases was larger than just to admit the catheter. Five silver wire stitches in the second case, and three in the other two, were then introduced, by a handled needle, right across from one side to the other, and deep enough to embrace the whole of the structure except the urethra, the central stitch always reaching across the aperture into the canal. The proceedings were, in all three cases, accompanied by a very remarkable amount of hæmorrhage, altogether disproportionate to the importance of the operation. The catheter was retained in the bladder five or six days, and the stitches were removed on the eighth and ninth, and all three patients went home in twenty days perfectly well.

I have had the curiosity to hunt up the patient whose case is recorded in the *Lancet*, October 1875, and am gratified to find that there has been no return whatever of the trouble, and that she has remained perfectly cured by the operation.

In M. Gillette's paper, he alludes to several cases in which general, or what may be called ampullary, dilatation of the urethra has been met with, requiring operation. But, so far as I know, nothing of the kind has ever occurred in my own practice. The only dilatations of the urethra that I have seen are the four now placed on record ; and the fact that in every one the feature of an extremely small aperture communicating between the sac and the urethra was established, makes it clear that, in these four cases, and probably, I may also say, in M. Gillette's as a fifth, we have a distinct form of disease, the origin of which is open to one of two explanations. The first, and I think the most likely, of these is that there is, as the origin of this condition, an error of development by which a small offshoot of the urethra, like a diverticulum of intestine, is the result of faulty union of the primal folds, and that this becomes of pathological importance when women become accustomed to those errors of urination to which they are all more or less addicted. The second explanation is that this urethrocele is formed by the union between the urethra and a cyst of pathological origin in the roof of the vagina. But I am disposed to regard the former as the more likely of the two, from the extraordinary similitude which all my four cases have presented, and from the fact that I have never seen any cysts at all like them in a position that such a communication with the urethra might take place.

FIVE CASES OF PELVIC HÆMATOCELE, TREATED BY ABDOMINAL SECTION.

By FRANCIS IMLACH, M.D.,
Honorary Surgeon to the Liverpool Hospital for Women.

Five cases of pelvic hæmatocele having chanced to come under my care in rapid succession for surgical treatment, I have narrated them in brief from my notes, while the incidents of each case are still vivid in my recollection. All the operations were performed in the Hospital for Women, with the assistance of my colleagues. That what is popularly termed "removal of the uterine appendages" implies removal of healthy ovaries and tubes, has been suggested in such fashion that I venture to think the narration of a few illustrative cases, though perhaps tedious, will show the contrary more clearly than would any long argument.

Case I.—N. C., aged 33, married twelve years, had no children, but a miscarriage four months after marriage, since which she had been almost a constant invalid. Menstruation was sometimes scanty, sometimes profuse, but always painful ; the period previous to operation lasted fifteen days. During the last eight or ten years, she had occasionally been brought by rail from Sutton, and carried on a stretcher to various practitioners in Liverpool for consultation ; and, five years ago, the cervix was slit bilaterally, with considerable temporary relief. But, for the last twelve months, she had suffered great agony, and has sometimes felt a painful lump in the right hypogastrium. The abdomen was found to be tumefied, the uterus fixed and enlarged to four inches, and behind it, in Douglas's space, was an indistinct painful mass, not blocking the pelvic cavity, but rising, as was made evident by bimanual examination, into the abdomen.

On October 28th, 1884, abdominal section was performed. When the peritoneum was opened, the omentum had not its usual clean appearance, but was stained dark red, and a somewhat thick brown fluid oozed out of the cavity. This having been mopped out, a quantity of free dense old clot was removed from the pelvic cavity. The Fallopian tubes, which were considerably distended and packed deeply in the pelvis, were next drawn up, previously to ligature. But they were of such soft structure, and so fixed, that the right one was torn away from all its attachments except its narrow insertion into the uterus, and the left one came away in my hand. Not much difficulty, however, was found in securing the bleeding points. The right atrophied and cystic ovary was also removed, but the left one could not be distinguished. Dense round masses of old black blood-clot, about the size of the cork of a beer-bottle, were found within the tubes. A glass drainage-tube was employed for three days ; she made a very satisfactory recovery, and left hospital strong and well upon November 25th.

Case II.—E. G., aged 38, married eleven years, had three children, the youngest being 3½ years old. She had been unable to attend to household work for the last twelve months ; was pale and obviously in ill-health ; walking was impossible without aid ; menstruation was profuse, recurrent every three weeks, and was always painful. The cavity of the uterus measured three inches, and the organ was pushed forward to the pubes, and its mobility restricted by two fluctuant masses bulging posteriorly into Douglas's space.

On November 4th, abdominal section was performed, in the presence of Drs. Grimsdale, T. B. Grimsdale, Craddock, and the staff. When the peritoneum was opened, the abdomen was found to be partly filled with thick dark bloody fluid, which was mopped out with numerous sponges. Then half a pint or more of dark firm old blood-clot was removed from the pelvic cavity by the fingers, and both ovaries and Fallopian tubes were ligatured and removed. The ovaries were slightly enlarged. Both Fallopian tubes were dilated, and contained dark fluid blood. Their mucous and muscular walls were thickened, and their fimbriated extremities were expanded, thickened, and filled and surrounded with old blood-clot. The fimbriated extremity of the right tube was deeply excavated, and embraced and partially contained a large dense old clot. There was a recent rupture of the left tube near its middle. The patient left hospital on November 28th, completely cured.

Case III.—S. T., aged 26, married when 17 years old. Her first husband, by whom she had two children, died when she was 21. She married again at the age of 24, but had since had neither child nor miscarriage. For the last eighteen months, menstruation had been both profuse and painful, and the discharge had continued without intermission during the last five weeks. Double hydrosalpinx, moderate in extent, owing to monthly rupture, was diagnosed ; but abdominal section, on November 8th, showed the exact condition of affairs. There was dark fluid blood, like menstrual discharge, and clot free in the abdominal cavity. There was double hæmatosalpinx, and both fimbriated extremities were dilated, and formed abscesses. The left one contained a large recent corpus luteum—a fact only discovered after ligature and removal of both uterine appendages; and both ovaries contained cysts, with thin grey pus, though neither was wholly disorganised. That an entire corpus luteum may escape from an ovary, may be clutched by the fimbriæ of the Fallopian tube, and become the core or cap of an abscess of the dilated extremity of the tube, is a link in the chain of events in diseases of the uterine appendages which has not hitherto, I believe, been recognised. The first instance in which it came under my observation was in the case of a young woman, aged 27, on whom I performed abdominal section on September 2nd. But as there was no effusion of blood into the abdominal cavity, it is not included in this series, and its full description will appear elsewhere. S. T. went home on November 26th, fully satisfied with the result of her treatment, for she was able to enter immediately into the active cares of her household and shop, and remains well to this day.

Case IV.—S. C., aged 31, married seven years, had one child three years old; no miscarriage. Though she had an easy labour, menstruation had since then been very painful, and she had gradually become unfit for work, sleepless, and broken down in health. The last menstruation ceased October 31st. The uterus measured three and a half inches, and had a large, soft, fluid tumour behind it. Abdominal section being performed on November 14th, after a quantity of dark fluid blood had been mopped out with sponges, the right Fallopian tube was felt above and behind the uterus, greatly distended. Five ounces of serum, which almost entirely coagulated on cooling, were aspirated from the tube, and then its fimbriated extremity, expanded and thickened with chronic inflammation, and the right ovary, two inches in diameter, and containing two large purulent cysts, were drawn up with difficulty, owing to the density of the adhesions from Douglas's space. As in the other cases, the free extremity of the tube was blocked with blood-clot. The venous oozing was checked by packing the pelvis with sponges, and the use of a glass drainage-tube prevented further anxiety. The left ovary and

tube, being healthy, were not removed. The patient made an uninterrupted recovery.

CASE V.—T. L., aged 25, married seven years, had three children, the last born three years ago; all the labours were difficult; she had prolapse of the womb after the second. Since the last confinement, the uterus had not been prolapsed, but she had suffered from violent "bearing-down" pains, had had painful menstruation, and had been unfit for active employment. The uterus measured three and a half inches, and behind it was a tumour doubtfully fluctuant. On November 27th, abdominal section was performed. The omentum was adherent over the pelvic brim. When pierced by the fingers, dark fluid blood welled up, and was mopped with sponges. Both tubes were greatly hypertrophied, and filled with old dense blood-clot; both fimbriated extremities were expanded and inflamed, the right one being partly spread over a dense clot of the size of a goose's egg. The ovaries were atrophied. The cæcum and appendix were drawn down into the pelvic cavity, and their adhesions to the right tube proved somewhat embarrassing. The left tube appeared to have insinuated itself behind the rectum, and was with difficulty detached. After removal of both uterine appendages, a small rupture of uterine tissue, near the cervical junction, was discovered, and there was considerable bleeding in Douglas's space. The abdominal incision was enlarged from one inch and a half (its ordinary length) to three inches, so as to enable me to stitch the uterine tear, and to ligature several bleeding points deep in the pelvic cavity. The peritoneum was raised from the posterior portion of the left broad ligament, like the epidermis of a blister, but it did not bleed. A long glass drainage-tube was used for two days, and then a short one for twenty-four hours. During the operation, a quantity of blood flowed into the vagina, which was probably due to the squeezing of the tubes during their withdrawal. The patient has made an excellent recovery. She relished her soup on the second day, and, though she has not yet (December 5th) been allowed to rise, the pulse and temperature have been normal for many days, the incision has practically healed, and she has lost all pain.

REMARKS.—In none of these cases was there evidence of tubal pregnancy. The extreme collapse, which is, perhaps, the most significant symptom of rupture in this condition, was never noticed. It is, of course, possible that a small disintegrated fœtus, or a corpus luteum, may have been a pathological factor in all of them. There was also no history of illness commencing with an abrupt cessation of the menses, a symptom so often alluded to in text-books. In all except the fourth case, there had been long enduring menorrhagia. Bernutz and Goupil (*Diseases of Women*, Sydenham Society, vol. i, pp. 180-188) have narrated, from their personal experience, five cases remarkably similar to mine, occurring in women between the ages of twenty-one and twenty-eight. In all of them, "death took place either suddenly or after a short illness;" but the symptoms and the *post mortem* examinations showed that peritonitis, and not internal hæmorrhage, was the immediate cause of death. The subsequent history of my five cases, I may say of my six cases, shall be faithfully reported.

A CASE OF ACUTE MENINGITIS.

Read before the Aberdeen, Banff, and Kincardine Branch.

BY FRANK OGSTON, M.D.,
Medical Examiner in Criminal Cases for the City and County of Aberdeen.

A CHILD nearly 9 years of age, who had been dull and listless for a few days, and who, in consequence, had been kept from school, when roused one morning, complained bitterly of pain in the head and sickness. She was accordingly left in bed, and, falling asleep, slept till two o'clock in the afternoon. On awaking, she felt better, and took some food. The next day, she seemed well, and got out of bed; after which, she passed a good night. On the third day, however, she again complained of her head, and said that her eyes were sore. She took tea, but no food, and remained in bed. At three in the afternoon, she had some difficulty in breathing; "her throat was closed," as her mother said. A poultice was applied to it, and her mother took her out of bed, and sat with her upon her knee till half-past five o'clock, when she died. No medical man was called in.

I made a *post mortem* examination of the child two and a half days after death, finding the following appearances.

Externally.—There were no noticeable signs of neglect or appearance of want of food. The joints were rigid. The pupils of the eyes were slightly dilated, the left more so than the right. The lips were dry. The finger-nails were white. The front of the body was pale, the back parts purplish. There was nothing else unusual observable on the exterior of the body.

Internally.—The scalp was pale, and the bones of the vault of the skull were normal. On removing the skull-cap, the dura mater appeared healthy. When the brain was exposed to view, the whole of its upper surface was of a pale yellow colour, with blood-vessels partly distended with, partly empty of, blood, ramifying across its surface; and, when the arachnoid was cut into, a gelatinous semifluid substance oozed from underneath it. This substance was found to occupy the subarachnoid space alone; for, when the pia mater was also cut through, it stripped readily from the brain, and showed its surface healthy, to the naked eye at least; the only thing that was remarked being that the convolutions appeared a little crowded together, but this was doubtful. This morbid appearance was confined to the meninges of the superior surface of the brain, with the exception of a little tongue-like extension on that part which lay to the inner side of the orbital plate of the ethmoid bone. Otherwise, the basal meninges were quite healthy. The brain was now removed from the skull, and the dura mater carefully examined; but it was found healthy, except a small patch which covered the orbit, which was thickened, roughened on the side next the bone, and covered with a layer of lymph on the side next the brain, by which it was glued to the arachnoid; and also at the parts overlying the middle ears, where it was roughened and thickened on its outer side. The orbital plate of the right side presented a canary-yellow appearance, and a congested and roughened state of the bone. On cutting this through, the nasal cavity was found to be filled with thick creamy pus, which welled out into the brain-cavity. The middle ears were then opened from above, and were found to be filled with dirty-reddish fluid. The mouth, throat, gullet, and air-passages were natural. The heart and its valves were healthy; its central cavities contained blood partly fluid, partly as dark clots, and a large fibrinous clot was found in the right ventricle. The lungs contained a moderate quantity of blood, mostly in their posterior parts, and were attached in a few places to the chest-walls by old pleuritic adhesions. The liver, spleen, and kidneys were congested; the liver and kidneys having the appearance of slight amyloid degeneration, and the spleen being considerably enlarged and very soft. The stomach contained merely a little dirty grey fluid. The sigmoid flexure of the large intestine was distended with gas, the rest of the bowels, in contrast to it, being flat and collapsed. Nothing else unusual was observable in the interior of the body.

Here we have a case of simple acute meningitis, a disease rare enough in itself to be interesting; but this particular case is noteworthy from the fact that the cause of it could be easily traced.

This exciting cause was, it is evident, inflammation of a chronic nature probably, of the nasal mucous membrane, which had spread through the orbital plate of the ethmoid bone and the dura mater to the arachnoid membrane, which it had attacked, and the inflammation had spread along the subarachnoid space.

The history of the illness, imperfect though it be, is typical of this disease, namely, pain in the head and sickness, followed by intolerance of light (complaint of sore eyes), and the short duration of the illness.

But what makes this case still more interesting is, that another child of the same family was attacked by, and died a few days afterwards from, a disease which the medical man who was called in at once diagnosed as meningitis, and that the father fell ill with something of the same nature.

NASAL ASTHMA: ITS CAUSES AND TREATMENT.

BY G. HUNTER MACKENZIE, M.D.,
Surgeon for Throat-Diseases, to the Eye, Ear, and Throat Infirmary, and to the Western Dispensary, Edinburgh.

THE causal relationship between nasal disease and asthma was first pointed out by Voltolini, in 1872 (referred to by Morell Mackenzie, *Manual of Diseases of the Throat and Nose*, vol. ii, p. 360), and since that time numerous cases have been recorded which have established the accuracy of this observation. In all these instances, with one exception recorded by myself (*Edinburgh Medical Journal*, February, 1883), polypi, or marked swellings of the nasal mucous membrane, have been the varieties of disease present. This has given rise to the theory held by some, that the asthma is owing to mechanical obstruction to the passage of air; and additional confirmation of this view is supposed to be afforded by the disease disappearing on the removal of the obstructing mass.

Against this theory two arguments can be advanced; the frequency of polypus or tumefaction of the nasal mucous membrane without asthma, and the presence of nasal asthma without the occurrence of either. The first is a matter of every-day experience, and the second has received illustration by the case above referred to, in which violent

paroxysms of asthma were associated with a condition of chronic (atrophic) inflammation of the nasal mucous membrane, and ceased on the application of nasal remedies ; and by the following case that has recently came under my notice.

A boy, aged 13, was brought to me on January 23rd, 1885, on account of a copious watery discharge from the nose, and asthma. He had suffered from these for about ten years, with slight periods of remission. The asthmatic attacks were often very severe, and generally occurred about 4 or 5 A.M. The condition of his nose necessitated the use of from twenty to thirty handkerchiefs daily. Anterior and posterior rhinoscopy showed chronic catarrh of the nasal mucous membrane, with a slight amount of muco-purulent secretion. There was no polypus or thickening of the membrane. Though not robust, he presented no indications of disease elsewhere. (This patient has, apparently, quite recovered, under the after-mentioned treatment.)

What is the explanation of such cases? I believe the asthma to be owing, not to any mechanical obstruction of the nasal passages, but to a condition of abnormal irritability of the nasal mucous membrane, due to, or aggravated by, chronic inflammation. Polypi may, or may not, co-exist ; when present, they doubtless assist in maintaining the augmented irritability of the mucous lining. The high degree of normal sensitiveness of the mucous membrane of the nose is well known; and when this membrane has been the subject of long-continued inflammation, its irritability appears to become highly augmented, and more easily excited. Reflex acts are then readily induced, of which sneezing, cough, and asthma are the principal indications.

The peripheral irritation may be caused by dust or pollen, and hence the attacks are usually worse in midsummer and autumn ; by cold, therefore their frequency in the early morning hours ; or by the irritation of a polypus. Dr. John Mackenzie has recently stated (*Transactions of the Medical and Chirurgical Faculty of Maryland*, 1884) that asthmatic attacks in cases of nasal polypus only occur when the growth is, by force of gravity, brought against the posterior part of the nostril, corresponding with the most excitable spot in the sensitive area. On the other hand, Hack, quoted by Morell Mackenzie (*Manual of Diseases of the Throat and Nose*, vol. ii, p. 361), considers that reflex phenomena may be produced by irritation of any part of the lining membrane of the nose.

Associated with the asthma are, usually, excessive sneezing, and profuse discharge of mucus from the nose, occasionally cough. There is more or less impairment of the general health, with languor, and depression of spirits.

The treatment of these cases must obviously, in the first place, be directed to the removal of the exciting cause. The patient ought to be directed to reside in an atmosphere as free as possible from dust and other atmospheric impurities. Above all, active medication should be directed to the nose; and, after a fair trial of various remedies, I have found none so efficacious as belladonna, applied in the form of buginaria (nasal bougies). From one-twefth to one-sixth of a grain of the extract ought to be incorporated in each bougie, one of these being introduced into each nostril night and morning, and allowed to thoroughly dissolve there. I have found their employment most beneficial, alike in regard to the sneezing, the secretion, and the asthma. Their use is usually followed by a burning sensation in the nose, but this is never severe, and soon disappears. I have also experimented with the sulphate of atropia in the same way, but have found it less efficacious, and probably more irritating than the extract. Previously to the introduction of the bougie, the nasal mucous membrane may be cleaned by the anterior nasal spray. The use of the bougies may be gradually made less frequent, according to the amount of success achieved.

The cases which I have hitherto watched, have rather belonged to the atrophic than the hypertrophic form of rhinitis, but where vascular engorgement is present, it seems probable that the use of cucaine bougies would be beneficial. According to Bosworth (*Internationales Centralblatt für Laryngologie und Rhinologie*, No. 8), this drug has a remarkable effect in diminishing the vascularity of the lining membrane of the nose. In acute nasal catarrh, its local application has only a temporary effect.

The treatment may be combined with the administration of tonics, and such other general remedies as may be deemed suitable by the physician. By themselves, these are, however, singularly inefficacious. I venture, therefore, to commend to the profession the use of nasal bougies, containing belladonna, as an effectual method of treating the troublesome and obstinate complaints dependent upon chronic nasal catarrh and irritability, of which asthma is alike the most important and most intractable.

NOTE ON THE USE OF HARROGATE WATERS.

By JAMES A. MYRTLE, M.B., C.M., Harrogate.

In December, Dr. Eddowes, of Shrewsbury, wrote, saying he had a most obstinate case of eczema, and asked how soon the patient might be sent to Harrogate for the baths and waters. I answered, any time, as the action of the waters in such cases was quite as beneficial in the winter as in the summer.

On January 5th, Mrs. J., the patient, arrived. I have only seen one worse case of impetiginous eczema, which was in the skin-wards of the Allgemeine Krankenhaus in Vienna. Mrs. J.'s head, face, neck, breast, arms from the elbow-joints, and hands, were a mass of yellow crusts, with a putrid, but not favus-like, smell. No favus-microbe was discovered. The patient's liver and organs of digestion were completely clogged ; the urine was high-coloured, and very small in quantity. A calomel purge was given, and oil and lime-water poultices were applied to soften and remove the crusts. Two days after her arrival, the patient was put upon purgative doses of the strong sulphur-water before breakfast, and diuretic doses of the mild sulphur-water during the day. As she was too weak for baths, I ordered warm mild sulphur-water to be used as a lotion morning and evening. In four days she was strong enough to go to the baths, and continued for a fortnight taking a mild sulphur-bath every alternate day, and the sulphur-waters.

At the end of the third week all signs of the impetiginoid tendency had disappeared, and the skin was rapidly becoming healthy. I then ordered her Kissingen-water as an aperient before breakfast, and small doses of the same water as a tonic during the day, also needle-baths on the alternate days. In a week her strength had increased so much, that I ordered her to have a sulphur-bath every day, to continue the Kissingen water as an aperient, but to change to the chloride of iron spa as a tonic. A fortnight later, the patient went home entirely recovered.

Mrs. J. had had slight attacks of eczema before, but never of the impetiginous form. The attack had lasted for ten weeks previously to her arrival in Harrogate, and had thoroughly resisted the ordinary methods of treatment.

On January 10th, my father received a letter from the Rev. E. G. T., stating that his skin was very troublesome, and asking how soon he might venture to visit Harrogate. Before he could receive a reply, Mr. T. arrived, and reported himself at once. His age was 37. He had had four previous attacks, and when seen had eczema from head to foot, partly squamous and partly weeping. From the knees downwards, we found, superadded to the eczema, a crop of purpuric spots, very numerous, with a distinct pustule filled with yellow pus in the centre of each. On the arms, from the elbows, and on the balls of the thumbs, were numerous scattered subcutaneous nodules, very hard, neither painful nor irritable, about the size of a millet-seed. There was no fever ; the pulse and temperature were normal ; the tongue coated. The patient slept badly, owing to the violent irritation of the eczema. The combination of the pustules with the purpura on the legs, and the hard millet-seed nodules with the eczema on the arms, was so unique, that the patient's history was very fully gone into. We learned that he had been living in a house adjoining an old brewery, built before the drainage-system of the town was completed, and never connected ; it had been occupied by a care-taker for some years previously to his taking possession. Soon after he went into it, he and his friends perceived a smell in the kitchen and bath-room ; the sinks and closets were trapped, but the smell remained very bad at times. Mr. T. had three servants, and three friends living with him. The health-record of the six was as follows. The cook, aged 22, often had fainting fits, and contracted a troublesome cough, which lasted for months, and is not yet entirely shaken off. The housemaid, aged 19, was obliged to leave, and go into the infirmary for some female disorder, but had been well ever since leaving. The housekeeper had slight attacks of low fever. Friend No. 1 had bad health all the time he lived in the house ; on going home, he had an attack of diphtheria. Friends No. 2 and 3 did not suffer. As regards Mr. T. himself, he had a bad attack of eczema, constantly woke with headache, and felt languid and tired. We put Mr. T. upon purgative doses of the sulphur-water in the morning, and the magnesia-water at midday; he was ordered a sulphur-bath every day. After very few baths, the purpuric pustules were gone, and the millet-seed nodules were less. In ten days the water was changed from sulphur to Kissingen, and from magnesia to chloride of iron ; the purpura and remains of the millet-seed bodies rapidly disappeared, and, at the end of five weeks, the eczema was also cured. In a letter to us, three weeks after leaving, the patient says he is perfectly well.

I publish these cases, because they show clearly that the Harrogate waters and baths can be had recourse to with quite as much success in the depth of winter as in the more genial periods of the year; and I think it as well to remark that, unlike the Continental spas, where the kursaals, hotels, etc., are closed out of the season, Harrogate affords the same opportunities for treatment and accommodation all the year round.

A NEW METHOD OF ADMINISTERING PEPSIN.

By PROSSER JAMES, M.D.,
Lecturer on Materia Medica and Therapeutics at the London Hospital; Physician to the Hospital for Diseases of the Throat and Chest.

In adding another to the numerous preparations of pepsin, it is unnecessary to enter upon its physiological or therapeutical action. Pepsin has conquered for itself an important position in modern practice, and the new preparation is simply designed to render its administration more easy, as well as more satisfactory. The importance of administering it within a short time of taking the food on which it is expected to act, has been generally appreciated, so far as giving directions for the dose to be taken a little before or a little after a meal; but too often these directions are not implicitly followed, partly, perhaps, from the prejudice many patients have to take physic with their food; moreover, this plan is ineffectual. In natural digestion, the pepsin is not all poured on the food at once. By the movements of the stomach, its contents are successively exposed to the action of the gastric juice as they come in contact with the walls. To imitate this, we might take pepsin in successive portions; but patients, who mostly think it hard to swallow a single dose of medicine with a meal, will not be easily persuaded to sip it, and they usually object to the taste of the liquids. There are other reasons why some of the preparations in common use are ineffectual. Thus, when taken with strong wines, the pepsin is precipitated, and the vinum is perhaps the worst preparation we can employ.

To secure pepsin being taken at the time it is required, that is, with the food on which it is to act, I have endeavoured to convert it into a condiment. At first I tried a sauce, but with less success than I had hoped. Considering that pepsin is so associated in digestion with hydrochloric acid that some have held that a definite compound—pepto-hydrochloric acid—is formed, it occurred to me that, as chloride of sodium is the universal condiment, a combination with that salt offered the most likely solution of the problem I had set myself.

A simple mixture of pepsin with salt may be successfully employed as a digestive condiment, provided it be freshly prepared each time; for such a mixture, if kept, is apt to decompose, and the patient who has once observed this will take no more of the putrefying powder. How to overcome this difficulty was the next problem; and this has been also solved. The pepsin and the chloride must be brought together in such a way that possibly a compound, or pepto-chloride, may be formed. Whether such union occur or not, a powder thus prepared is quite stable. I have before me now a sample made many months ago, which has been used at intervals at the table, in place of common salt. It has a faint colour, which is not objectionable, and used as table-salt is nearly indistinguishable from that condiment. Here, then, is a digestive condiment, a peptic salt, which many may be glad to try, and which has already given me satisfaction.

Messrs. Savory and Moore, who manufacture digestive preparations on so large a scale, are now prepared to supply my preparation. I propose to call it "peptic salt," or "digestive salt," or it may be ordered in prescriptions, if preferred, as sal-pepticus, or as pepto-chloride of sodium. Ten grains of my peptic salt will dissolve nearly 200 grains of hard boiled albumen, or 2 ounces of lean cooked meat. It may take the place of table-salt in the dyspeptic's dietary. The special modes of using it in different cases and with different foods, would unduly lengthen this communication.

Bequests and Donations.—Miss Shand, of Cardiff, has bequeathed the "residue" of her estate, which, it is expected, will amount to nearly £5,000, to the Glamorganshire and Monmouthshire Infirmary and Dispensary, for the maintenance of a ward for children in the new infirmary buildings, to be called "The Shand Memorial Ward," in memory of her late brother.—Mr. George Sturge has given £1,000 to the Samaritan fund of University College Hospital, the income from which is to be applied in assisting necessitous in-patients to procure proper nourishment, clothing, or change of air, for the first three months after their discharge.—The annual report of the Queen's Hospital, Birmingham, acknowledges the receipt of £600, from the "William Dudley" Trust.

PATHOLOGICAL MEMORANDA.

NOTE ON THE SO-CALLED CHOLERA-BACILLI.

In an article on the so-called cholera-bacilli, published in the British Medical Journal for May 2nd, 1885, Mr. Watson Cheyne says, on page 878: "One of the most peculiar forms which I have seen was found in the contents of the large intestine of the guinea-pigs, which died after injection of cholera-bacilli" (killed by the injection of cholera-bacilli into the duodenum). "I tested the fluid by cultivation at the time very carefully, and found that it contained almost a pure cultivation of cholera-bacilli; there was certainly not more than one other kind of bacterium for every 100 cholera-bacilli. The appearance of this material, on microscopic examination, after staining, is shown in the accompanying figure (see Fig. 6). Large fat, coiled, almost worm-like organisms, will be seen, which, as I know by cultivation, are cholera-bacilli....."

Upon these statements of Mr. Watson Cheyne, I wish to make the following comment. Anyone desirous to see and examine these comma-bacilli ("cholera-bacilli") need not wait for "guinea-pigs, which died after injection of cholera-bacilli." If he have a perfectly normal half grown or adult guinea-pig killed, that has not been the subject of any experiment whatever; and if he will take the trouble of examining the contents of its cæcum, he will there find crowds of the very identical "cholera-bacilli," accurately represented by Mr. Cheyne in his Fig. 6, as well as the typical comma-bacilli of Koch.

In some places, in the stained cover-glass specimens, the material thus obtained appears to be "almost a pure cultivation" of them.

E. Klein, M.D., F.R.S.

TOXICOLOGICAL MEMORANDA.

POISONING BY SNOWBERRIES.

Some time ago I was called to attend four children of one family, who were all suffering from vomiting, purging, and delirium, after which they became semi-comatose. They all recovered, but one of them had a narrow escape from death, and I was anything but easy about the other three. Their vomit left no doubt of their having eaten largely of snowberries, the fruit of *Lymphoricarpos racemosus*, and they did not appear to have taken anything else of an injurious nature. I can find no similar accidents recorded, and shall be thankful for any information on the subject.

There is another berry, of very bright and attractive aspect, now becoming plentiful in many gardens, but unknown till the last few years, on account of the absence of the male plant—I mean the fruit of *Aucuba Japonica*. I suspect it to be innocent, and Burnett (who evidently had not seen it) says that it "is said to have a sweetish, eatable pulp, and a bitter kernel." As children are sure to eat these berries, it would be well to know more about them.

Thomas Edward Amyot, Diss, Norfolk.

OBSTETRIC MEMORANDA.

BREECH-PRESENTATION: DELIVERY OBSTRUCTED BY HYDROCEPHALIC HEAD.

A few days ago, I was sent for to a case of labour (second child) by the midwife in attendance. On my arrival, I learnt that the breech had presented. The legs and body of the child were born, but the midwife had been unable to effect the delivery of the head. There was no pulsation in the umbilical cord, and the child, to all appearances, was dead. I easily liberated one arm, which had not descended, but could make no progress with the head, although the chin and mouth had passed the brim of the pelvis, in spite of using considerable force. I now noticed a spina bifida in the lumbo-sacral region of the child. There was no tumour, but a raw surface, two inches and a half in diameter, exposing the spinal sheath, and evidently communicating at its upper part with the spinal canal. Whilst endeavouring to bring away the head, I saw some brain-like looking substance slowly exude from the raw surface; and directly afterwards, upon making forcible traction on the body of the child, a stream of watery fluid spouted out from the same place, and, so long as I kept up pressure on the head by pulling upon the trunk, the flow continued. The head now rapidly descended into the pelvis, and was born without difficulty. It presented the appearance of a hydrocephalic head without the fluid. In short, it looked very like a bag of loose bones. The

placenta came away naturally, and there was no hæmorrhage. In order to ascertain how free the connection was between the aperture in the spinal canal and the brain, I passed a knitting-needle up the canal to the top of the scalp with the greatest ease. Should I ever again meet with a case of spina bifida in a breech-presentation, where the birth of the child was prevented by a hydrocephalic head, I think I should endeavour to tap the brain and evacuate the fluid by passing an instrument like a knitting-needle up the spinal canal at its connection with the spina bifida, rather than attempt to perforate at the brim.

The woman made an uninterrupted recovery.

W. G. Lowe, M.D.Lond., Burton-on-Trent.

CLINICAL MEMORANDA.

SPINA BIFIDA TREATED SUCCESSFULLY BY MORTON'S METHOD.

To-day (May 4th) I received a letter from Dr. Morton, of Glasgow, asking me, if I have not lost trace of the patient whose case is reported in the Journal of May 2nd, to state her present condition if alive, or, if not alive, the cause of death. The child belonged to the class who are somewhat nomadic in their habits, and from whom one never expects a fee. I therefore had no hope of being able to find the whereabouts of the child or its parents. Otherwise, I would have rendered my record of the case complete. But to-day, after some difficulty, I found the parents of the child, who told me that the tumour remained as it was when I saw it last on June 1st, 1878. The child grew well, had good health, and had no further trouble from the spina bifida. When three years old, she had a severe attack of measles, which proved fatal.

Robert Sinclair, M.D., Dundee.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

SALOP INFIRMARY, SHREWSBURY.

COMPOUND FRACTURE OF THE CLAVICLE.

(Under the care of Mr. Humphreys.)

[Reported by Mr. R. Hamilton Russell, House-Surgeon.]

S. D., aged 18, was admitted on November 13th, 1884. He had received a violent blow on the left chest from a heavy iron bar, causing a compound fracture of the clavicle on that side, at the junction of the inner with the middle third. Hæmorrhage being very profuse, the wound was temporarily plugged with lint by a medical practitioner. On admission to the hospital, these plugs were withdrawn; bleeding had practically ceased. There was a wound in the skin large enough to admit three fingers, the deep fascia of the neck being widely opened, so that the finger could be passed back to the trapezius muscle, and freely in all directions. The fragments of the clavicle were exposed to view, the outer lying below and in front of the inner; the clavicular portion of the pectoralis major was also laid bare, and in part torn asunder. The wound and adjacent parts were thoroughly washed with carbolic solution, 1 in 20, and the wound dressed antiseptically with carbolic gauze. The patient was made to lie on his back in bed, the bandages being arranged so as to form a sling for the hand and elbow, no other retentive apparatus being employed.

November 14th. The temperature in the morning and evening was 99.4° Fahr. The wound no longer gaped as on the previous day, but was filled with coagulum up to the level of the skin.

November 15th. The temperature in the morning and evening was 99.6° Fahr.

For the next four days, there was a slight elevation of temperature, the highest record being 100.6° Fahr. in the evening.

On November 17th, a drainage-tube was passed through the clot (a distance of 4 inches) on the supposition that there might be a collection of fluid pent up at the back, causing the elevation of temperature; this, however, was removed at the next dressing, three days later, when the wound presented much the same aspect, there being no trace of pus or odour.

The further progress of the case was uninterrupted, and the temperature was always normal after the first week. The extensive wound healed by organisation of blood-clot, and presented all the phenomena of that process. In five weeks from the injury, a small superficial granulating surface alone remained; and two weeks more saw the healing process complete, with a firmly united clavicle. The boy left the hospital well in two months, and returned to his work a fortnight afterwards.

The rarity and severe degree of the accident, the interesting course, and the successful result secured by strict antiseptic management, would appear sufficient plea for recording the case.

NEWCASTLE-ON-TYNE INFIRMARY.

MALIGNANT STRICTURE OF GULLET: GASTROSTOMY: DEATH SEVENTY-SIX DAYS AFTER OPERATION.

(Under the care of Mr. Frederick Page.)

T. J., a mason, 46 years of age, was admitted on June 5th, 1884, suffering from stricture of the gullet of six months' duration. He was very thin and weak; he was unable to swallow anything but a little milk, with great and daily increasing difficulty.

On June 8th, gastrostomy was performed. The belly was opened by an incision, three inches in length, made in the course of the fibres of the left rectus muscle, a little to the inner side of the semilunar line. The stomach was fixed by means of two silver sutures, passed through the abdominal walls one inch to the right and left of the incision, the mucous membrane not being transfixed. The ends of the upper and lower sutures were twisted together on each side of the wound. By this means, the entire peritoneal incision was completely plugged, and, no muscular fibres being cut across, there was no tendency on coughing or vomiting to disturb union, as Mr. Page considers to be undoubtedly the case when the ordinary incision is made. On the fourth day, a small opening was made into the stomach, and a piece of India-rubber tubing was inserted.

For some weeks the patient improved; he gained weight and strength, and often expressed himself as being much more comfortable than he had been for months. At times he swallowed milk, beef-tea, and bread in considerable quantity. On July 28th he vomited about a pint of blood, and commenced to sink, dying August 27th, seventy-six days after the operation.

The necropsy revealed extensive cancerous disease of the lower part of the œsophagus, extending into the stomach.

Remarks by Mr. Page.—In reporting this case, my object is more particularly to direct attention to the advantage of opening the belly, for the purpose of establishing a gastric fistula, by means of an incision in the course of the fibres of the rectus. It seems to me that the usual custom of opening the belly, without cutting across muscular fibres, when it can conveniently be done, has been departed from in performing gastrostomy without sufficient reason. In this case there was never any escape of fluid from the stomach, except occasionally through the tube. The tube was continually worn in the fistula, and kept closed by means of a safety-pin, which also prevented it from passing into the stomach.

Viburnum Prunifolium as a Uterine Sedative.—Attention was first called to this drug in 1866, by Dr. Phares, who regarded it as a "nervous antispasmodic, tonic, astringent, and diuretic," and as "particularly valuable in preventing abortion or miscarriage, whether habitual or otherwise." Further trial has been made, by Dr. J. H. Wilson, of Liverpool, of its influence in cases of threatened abortion, and several are detailed in a paper in the *Liverpool Medico-Chirurgical Journal* in which its administration was uniformly successful. In the cases cited, abortion threatened at periods varying from the earlier weeks of pregnancy to the seventh month, and Dr. Wilson found it act as a "sedative and tonic to the uterine nervous system." He believes that, if given early, and before the ovum is thrown off, most cases of abortion may be prevented. The drug may be given as a liquid extract in drachm-doses, but in this form is apt to induce nausea. An extract in doses of 2 to 4 grains in pill is more palatable. Only in one case was "throbbing of the temples" complained of as due to its administration. Dr. Wilson admits that several of his cases might have done well under ordinary treatment, but is disposed to believe that "convalescence would not have been so speedy or satisfactory."

The work of the late Dr. E. T. Tibbits, entitled *Medical Fashions in the Nineteenth Century*, has been translated into Russian by Dr. V. Idelson, of Berne. The translation is published at St. Petersburg by A. E. Riabtchenko.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 12TH, 1885.

GEORGE JOHNSON, M.D., F.R.S., President, in the Chair.

Case of Cerebral Tumour. By A. HUGHES BENNETT, M.D. *The Surgical Treatment.* By RICKMAN J. GODLEE, F.R.C.S.—The chief features of interest in this case were that, during life, the existence of a tumour in the brain was diagnosed, its situation localised, and its size and shape approximated, entirely by the signs and symptoms exhibited, without any manifestations of the growth on the external surface. The growth was removed by a surgical operation, without any immediate injurious results on the intelligence or general condition of the patient, who lived, relieved of his former symptoms, for four weeks, and at the expiration of that time died, not from any special failure of the nervous centres, but from the effects of a secondary surgical complication. The facts were briefly as follows. A farmer, aged 25, consulted Dr. Bennett in the autumn of 1884, complaining of some paralysis of the left arm. He gave a history of very good health until 1881, when he was struck on the left side of the head by a piece of timber; the effects were not serious; he thought he was unconscious for a few minutes, but was very soon able to go on with his work. There were occasional headaches, and a year later he first noticed twitchings in the left side of his face and tongue; these grew worse, and were followed by "a fit," preceded by an aura running down from the left side of the face and neck to the left arm and leg. For two years and a half, the twitchings in the face continued, and there were slight convulsions; then twitching of the left hand and arm appeared, and generally alternated with the affection of the face. After the twitching of the arm was established, there was a very slow onset of paresis in it; and whilst this was in progress, a similar twitching, followed by very slowly increasing paresis, appeared in the left leg. In October, 1884, there was frequent acute pain in the vertex. There was no external abnormality in the scalp, or in the movements of the eyes. Vision was normal, but there was double optic neuritis. The tongue was protruded a little to the left. The left hand and wrist were completely paralysed; the elbow could be moved but little, and the shoulder not much more readily. The left leg was weak, and the knee-jerk, ankle-clonus, and mechanical irritability of the muscles were most marked on the left side. Besides the acute headache, there was occasional uncontrollable vomiting, lasting for several days. The twitchings were sometimes in the face alone, sometimes in the arm alone, but never in the leg alone. These symptoms led to the diagnosis of a cerebral tumour, involving the cortex, or probably limited to the neighbourhood of the middle third of the fissure of Rolando. Considering the probable position of the tumour, and the almost intolerable sufferings of the patient, Dr. Bennett suggested excision, and the patient gladly accepted the risks of the operation, which were explained to him. On November 25th, Mr. Godlee trephined, and, with subsequent use of the chisel, removed a part of the bone over the upper part of the fissure of Rolando; and an incision of the dura mater exposed a convolution, subsequently ascertained to be the ascending parietal convolution. A glioma was found below the surface, and was completely and carefully removed by a Volkmann's spoon. There was very abundant hæmorrhage, which was arrested by the galvano-cautery, and the edges of the wound were brought together with sutures. For four days after the operation, the condition of the patient was in every way satisfactory. There was complete cessation of pain, vomiting, and convulsions. The general health and intelligence remained intact, and the pulse and temperature normal. After this, the wound was found to have a slightly putrid smell, and, coincident with this, a hernia cerebri began to appear. This slowly continued to increase till it reached the size of half an orange. In the meanwhile, the general condition of the patient continued satisfactory. He was cheerful and hopeful, without pain or inconvenience of any kind. His temperature and pulse continued normal, his appetite good, and his nervous system as before. This condition continued for twenty-one days after operation, when the patient was suddenly seized with a rigor, and symptoms of cerebral inflammation. From this, after a week's illness, he died. A detailed and scientific account was given of all the phenomena connected with the symptomatology and treatment of the case, as well as of the results of the *post mortem* examination. The latter may be summed up by saying that the immediate cause of death was local meningitis, which was evidently the result of septic matter from the wound in the brain having infiltrated the neighbouring tissues, and gravitated downwards towards the base of the skull. The loss of cortical substance, as a result of the operation, and subsequent softening, was found to consist of the middle three-fourths of the ascending parietal convolution, a portion of the upper third of the ascending frontal, and the anterior third of the supra-marginal convolution. Otherwise, the brain was healthy, as were also the other organs of the body. A commentary was added, reviewing all the chief facts of the case, and all the important clinical, physiological, and pathological points of interest were discussed. The general conclusion arrived at was that, although in this instance life was not permanently preserved, the fact remained that the operation at once removed all the painful and distressing symptoms, without causing any injurious effects on the general health or nervous system of the patient. From the experience gained by this case, as well as from observations in other directions, the authors expressed the opinion that there was a hopeful future for cerebral surgery; and that there was every prospect, in other cases of a similar nature, of permanent relief being afforded, and life prolonged, in a class of disease at the present very distressing, and uniformly fatal.

Dr. HUGHLINGS JACKSON congratulated Dr. Hughes Bennett on the accuracy of his diagnosis. The operation Mr. Godlee performed showed that Dr. Bennett was right in saying that a cerebral tumour might, so far as the operation itself went, be safely removed. The patient, most unfortunately, died, but he died of a secondary surgical complication. Dr. Hughlings Jackson also warmly congratulated Dr. Ferrier, from whose researches the tumour was localised. Speaking more generally of localisation of cerebral tumour, with regard to trephining, Dr. Hughlings Jackson said that there was a kind of monoplegia, often passing into hemiplegia, which was almost decisive evidence of tumour; a paralysis beginning very locally, for example, in the thumb and index-finger, and spreading very slowly, week by week. In such a case he should not advise trephining, since there would be a great probability of a large tumour in the centrum ovale; not certainly, for he had seen such hemiplegia in a case of tumour growing from the dura mater, pressing down on the cortex. The convulsive seizures of localising value were not cases of epilepsy proper, but epileptiform seizures—convulsions beginning one-sidedly and very locally, in the hand, or cheek, or foot. Whilst the seizures pointed with certainty to disease of the opposite cerebral hemisphere, they did not always occur from such gross disease as tumour. In some, there was local softening. When, however, there was also double optic neuritis, such gross disease as tumour might be confidently predicted. Even yet there was not evidence of exact position. Dr. Hughlings Jackson had not yet seen a case of epileptiform seizure caused by disease outside Ferrier's region; but such cases had been recorded by great authorities. Hence, repeating in effect what Charcot and Pitres had urged, we required also some local persisting paralysis of the part convulsed—persisting, since temporary paralysis after a seizure was no further help towards localisation. So far, then, three things were required; local persisting paralysis, epileptiform convulsions, and double optic neuritis. Dr. Hughlings Jackson mentioned the case of a man who had had convulsions and paralysis of one arm; a tumour, a cubic inch in bulk, was found involving the hindermost part of the uppermost frontal convolution. This was before Hitzig and Ferrier's researches; the exact position of the tumour was not diagnosed. That tumour might probably have been removed with safety; yet there was considerable softening. Moreover, there was a tumour in each lateral lobe of the cerebellum, although there had been no cerebellar symptoms. Another case, in which a woman had very many convulsive attacks of one arm (and later wider seizure), was mentioned. In this case Dr. Hughlings Jackson correctly predicted tumour of the hindermost part of the uppermost frontal and adjacent ascending frontal convolutions, but not with the confidence he should have done had Ferrier's researches then been made. The tumour was about an inch in diameter, and had it been removed, very likely the woman's life would have been saved. She had not double optic neuritis, but, making an exception to a former statement, were he to observe a case of repeated convulsions nearly always limited to one arm, exactly alike at each recurrence, he should, even without double optic neuritis, consider them to be, in all probability, tumours in the region mentioned. In another case he had correctly diagnosed tumour of the same region, but there were also other tumours in that half of the brain. Admitting difficulties—that the tumour might be very large; that there might be softening about it, that besides the tumour localised there might be others—yet, in a case where the tumour was evidently going to kill the patient, when there was intense pain in the head, and when, as sometimes happened, the patient had twenty or thirty fits a day, the patient would consent to risk something, and a surgeon might justifiably operate. Dr. Hughlings Jackson remarked that, after operation in such cases as he had mentioned, there would,

he thought, be some permanent paralysis, but this was little in comparison with the misery of pain, the torment of repeated fits, and great danger of death. In conclusion, Dr. Hughlings Jackson said that in a case of convulsion limited to one arm, or beginning in one leg, with some persisting paralysis of the part first convulsed in the seizure, and double optic neuritis, he should diagnose tumour or other such gross disease of the upper part of the Rolandic region, and should seek surgical advice as to the propriety of trephining, not forgetting to state prominently the three difficulties mentioned.

Professor FERRIER had seen the case in question before, during, and after, the operation, and congratulated Dr. Bennett and Mr. Godlee on the large measure of their success. The operation, as an operation, was wonderfully successful, and was borne without any serious depression. He had always maintained that as possible; for he thought the operations on man not more or less serious than on animals, and his own experiments on animals had included many in which, with careful precautions, inflammation had not resulted. As bearing on treatment by trephining, he cited a case from his patients in King's College Hospital this year. The man had grave symptoms, gradually increasing to complete paralysis of the left side, pain in the right frontal region, double optic neuritis, and almost complete coma; the right eyeball was rather fuller than the left. The symptoms were attributed to some growth pressing on the sphenoidal fissure, whether from above or below could not be determined. Sir Joseph Lister agreed to make an exploratory operation. As soon as the dura mater was incised, the brain bulged out, and, as soon as he put in his finger, there was a rush of fluid out of what seemed to be a cyst, but was really a very greatly dilated anterior horn of the ventricle. There were great reduction of pressure and relief of paralysis, but no further operation could be attempted. The left arm gained some power, and for a time the coma lessened; but in a week death ensued, not from surgical complications, but from the tumour, which was found to press upwards on the sphenoidal fissure. It would have been reached if the finger had penetrated half an inch deeper, but was too large to be removed. The case, however, showed the safety from surgical complications.

Dr. WILLIAM MACEWEN called attention to some cases which had been referred to by the papers in connection with the case of Dr. Bennett and Mr. Godlee. In 1876, he had seen a case of wound of the frontal region, resulting in symptoms of abscess in the third frontal convolution. He failed to get leave to operate, but after death found that the operation he had planned would have reached the abscess. Since then, he had had a series of cases, in which the researches of Dr. Hughlings Jackson and Professor Ferrier, and of MM. Charcot and Pitres had greatly assisted him. He read a detailed description of two cases. The first was of a woman aged 25, who had left hemiplegia from syphilis contracted about four years previously. There was first tingling of the left arm and then of the left leg, and afterwards a peculiar sensation of the parts, which the patient called numbness. Lastly, there was gradual loss of power of left arm and left leg; langour and dulness of intelligence. From these he inferred cortical lesions, probably gummata, in the parts controlling arm and leg, namely, the upper half of the ascending frontal convolution and paracentral lobule. After three weeks, he trephined over this region, and found the internal table of the bone removed to be rough, and the dura mater thickened in consequence. Over the surface of the ascending frontal convolution was a yellowish opaque effusion, very friable; this also bridged the fissure of Rolando. Towards the paracentral lobule was a resistant portion, into which incision was made, and followed by a gush of grumous fluid. On the internal table of the bone, osteophytic growths were found, and a second crown of the trephine taken out to remove them. The excised bone was broken up into small pieces, and reimplanted in the brain-tissue; the wound was supplied with a chicken-bone drainage-tube, and the whole carefully dried and dressed with iodoform. In forty-eight hours there was much relief; in a week she could move her toes and fingers, and, in a fortnight, could flex her leg a little. The temperature remained normal, and the dressings were not touched for three weeks; when they were changed, the wound was found to be almost healed, but fresh dressings were kept on for three weeks longer. After two months, she could walk easily, though with a slight dragging of the leg, and since then had grown strong enough for her ordinary household duties. The second case he had not time to describe in detail, but its essential points were the same as in the other. It was after an injury, round which arose an encephalitis and lepto-meningitis. The left arm was paralysed. The skull was trephined, and many minute clots were found in the left ascending frontal convolutions. The recovery was complete. Professor Ferrier had asked how many times he had had hernia cerebri in his cases; he had never had it as the result of an operation, but once it occurred immediately on opening the dura mater, under which there was encephalitis in the motor area. He had operated on seventeen cases for the relief of intracranial pressure; in fourteen by trephining, in three by elevation of the bone; fourteen had recovered. In eleven, he had divided and reimplanted the portions of the excised bone. He should hesitate to use a galvano-cautery to the brain-tissue.

Dr. HUGHES BENNETT thanked the Society for the kind reception they had given to his paper. He had been much interested with Dr. Macewen's cases, but felt obliged to say, with all due deference, that they did not appear to him completely analogous. The chief lesson to be learnt from his own case was that a small lesion could be diagnosed and cut down upon; in Dr. Macewen's cases, the injuries were much more extensive; they were, however, very encouraging to cerebral surgery. He wished to call the attention of the Society to a brain exhibited on the table, taken from a case treated by his colleague Mr. Richard Davy. The skull had been trephined, and eight pieces of bone were extracted from the cortical tissues that had been jammed into them by a severe accident. A cavity resulted, that was big enough to hold a pigeon's egg. The recovery was absolute, but no antiseptics at all had been used; the patient's head lay on a water-pillow, without any dressings; yet there was no encephalitis or meningitis, or softening, only a dense cicatrix. The subsequent death of the patient was in no way due to this injury or operation, but was brought about by an attack of pleuropneumonia.

Mr. VICTOR HORSLEY remarked that the last case Dr. Hughes Bennett had mentioned was not strictly analogous to those cases where the head had not been injured before; for, after injury, adhesion might take place, which would guard the brain against further inflammation. His experience in experiments on animals led him to agree with Professor Ferrier in thinking that animals were as liable to complications of cerebral operations as man. The subcutaneous use of morphia, however, in animals diminished the hæmorrhage by about one-half, by inducing contraction of the arterioles, which generally bled freely; and that, he thought, was a hint for the management of cerebral operations in man.

Mr. GODLEE congratulated Dr. Macewen on his interesting and successful cases. His operations led to less hæmorrhage, as involving incisions into abscesses, rather than into healthy tissue. He felt a doubt himself whether the use of the galvano-coutery did not lead to inflammation and hernia cerebri, though Dr. Ferrier's case showed that there might be hernia without inflammation. As to the deeper parts of the tumour, they had been lucky in finding a glioma so accurately limited. A salt-spoon would have been a more convenient instrument for removing it than a small and sharp edged Volkmann's spoon. Professor Ferrier's and Mr. Horsley's experience furnished an *argumentum ad simiam*, but he could not feel justified in admitting that it applied exactly to man. He thought Dr. Macewen's system of drainage deserved consideration, and also his careful attention to the condition of the scalp before the operation. In his own case, he considered putrefaction to have occurred owing to a certain want of care in cleansing the head before the operation; and, if he had to do the same operation again, he should soak the scalp for twenty-four hours in a solution of corrosive sublimate, and afterwards of carbolic acid; and, under such conditions, should not hesitate to undertake a second similar operation.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 8TH, 1885.

ARTHUR E. DURHAM, F.R.C.S., Vice-President, in the Chair.

A Case of Obstruction of Arteries and Veins extending over Many Years. — Dr. B. HADDEN gave particulars of this case. The patient was a healthy looking man, aged 51. His paternal grandparents had gout. The patient denied syphilis, but there were strong grounds for suspecting past infection. His present disease began suddenly in 1868, when he was seized with a sharp pain in the left foot, said to be gout. Phlebitis of the same leg, with swelling and tenderness of the limb, followed, the attacks lasting five months. In 1880, he came under the care of Dr. Mitchell Bruce for sudden obstruction of the right brachial artery. The radial artery was small, and the heart was irregular. Very soon the radial and ulnar veins became painful and thrombosed. In 1881, he had sudden loss of power in the left arm, but not in the leg. The face was thought to be drawn. There was some mental confusion, but no actual loss of consciousness at the time of the attack. Between 1881 and 1884 he is said to have had several attacks of arteritis and phlebitis. He was admitted into St. Thomas's Hospital, under Dr. Stone, on February 2nd, 1885. He had pain and tenderness in the right groin, with

feeble pulsation of the femoral artery. No beat could be felt in the posterior tibial artery, but the dorsalis pedis was pulsating strongly. The right internal saphena vein was thickened and thrombosed. There was slight œdema of the foot, with some enlargement of the superficial veins. Pulsation was absent in the right brachial, and feeble in the radial. There was a large collateral branch strongly pulsating, just above and behind the external condyle of the humerus. There was no enlargement of the superficial veins. There was slight varicosity of the veins of the left leg, but, otherwise, the vessels were unaffected, as were also those of the left upper limb. On the front of both legs there were pigmented scars, very suggestive of syphilitic disease. The cardiac sounds were irregular, but there was no *bruit* and no hypertrophy. The urine was free from albumen. The pain in the right groin persisted for six weeks without any fresh obstruction occurring. He had two attacks of severe headache localised to the right frontal and parietal regions, but they both passed off without further mischief. The treatment consisted of mercury and iodide of potassium, with hot soda-baths and complete rest. He was now free from pain, and was better than he had been for two years. In discussing the case, the author believed that there was no evidence that the affection was gout. Possibly it was syphilitic. Two explanations might be offered with regard to the pathological nature of the disease. First, there might be embolism affecting the arteries, and phlebitis. Secondly, there might be an inflammatory condition affecting the coats of both arteries and veins. The latter hypothesis seemed the more probable, and it was supported by the fact that, although there was great tenderness in the right femoral vessels for six weeks, no fresh obstruction occurred.—Mr. PEARCE GOULD said that in a case that had come under his notice, and in this case of Dr. Hadden's, there was no evidence of any affection of the veins. In one recorded case the affection of the artery first appeared in the digital, then in the plantar, and lastly, in the tibial. That case somewhat bore upon one of obliterative arteritis, but presented a striking difference in the wide extent of the vessels involved. In his case, the affection had been limited. The lower extremity was chiefly affected, the disease being limited to the vessels of the legs or to the popliteal trunks. He did not know of any case so wide in its extent as this of Dr. Hadden. The progress of these cases was generally somewhat steady up to a certain point, accompanied by pain and feverishness, then the affection subsided; but it was rare to find so many recurrent symptoms as in Dr. Hadden's case, and in that case the symptoms had been sudden and acute—far more so than in other cases. He would like to ask Dr. Hadden if the pain was limited or extended over wide areas, as in other cases. Did the disease spread from the smaller to the larger arteries? Could he detect the course of the disease? Were the vessels much hardened, the pulse being obliterated, and did the vessels shrink? The temperature was an important point; in an acute period of his case it was raised, but during the rest of the case it was normal. He would ask Dr. Hadden, was there much swelling? In his case there had been a moderate amount of swelling. He thought he heard Dr. Hadden say that the swelling had been considerable. He should hesitate before grouping this case with those usually classed as obliterative arteritis.—Dr. ANGEL MONEY said that chronic irritation of the nerve-trunks in animals led to a condition which might fairly be described as one of obliterative arteritis. He would ask whether there were any symptoms of disturbance in the vaso-motor nerves, such as blushing, sweating, or pallor of the limbs with shrinking of the muscles. Was there any pain or disturbance of the sensory functions, or any special characteristics, as anæsthesia or hyperæsthesia? It was very rare to find so wide an extent of arteritis as this case presented. Some explanation of the nervous aspects might possibly throw light upon the matter.—Mr. GOULD asked if the patient suffered much from coldness.—Dr. HADDEN, in reply, said that the pain was severe, but was limited to the course of the vessels. It extended from the large vessels to the smaller. The degree of obliteration varied. The patient, who appeared to know a great deal about his own case, had said he felt no pulse at all in the right radial. The temperature was usually normal, and the headache localised. There was no marked swelling, with the exception of some œdema of the leg. Coldness had been much complained of. The theory of nervous origin had never suggested itself to him, but he had always regarded the lesion as being of an inflammatory nature.

Cases of Osteitis Deformans.—Mr. J. R. LUNN stated that, in *St. Thomas's Hospital Reports* for 1883, vol. xiii, he had given a full account of a case of osteitis deformans. Having four other cases under his care (which were shown at this Society's last meeting), he had thought they would illustrate very well the chief changes which took place during life. Since 1876, when Sir James Paget drew attention to the disease, numerous other cases had been recorded. The chief symptoms noticed by the patient were pains of a rheumatic character in the affected limb, loss of height, and in male patients increased size of the head, rendering their hats too small. If one looked at the lower extremities to see how to account for the weakness and curvature, one found a definite change in their structure, sufficient, he thought, to explain their yielding; in fact, a great part of the natural firm bone had disappeared, and in its place was a large quantity of porous and spongy bone. In his fatal case, the morbid process was nearly universal, but the chief stress seemed to have fallen upon the bones about the main axis of the body. The absorption and disappearance of the original bone seemed to have been the primary event in the course of the disease, and must have taken place, not by a coarse process, but by a very delicate interstitial change. As to the nature of the morbid process which produced the anatomical alteration, the view advanced by Sir James Paget that it was a kind of chronic ostitis, had, he believed, been generally accepted. But, while fully admitting that chronic inflammation might have some share in the process, he did not think that it altogether accounted for the changes found. The conclusion to which he had come was that osteitis deformans consisted of: 1, a constitutional disease producing atrophy and absorption of a large part of the osseous system; 2, consequent weakening of the bones, so that they yielded when exposed to strain; 3, compensatory strengthening of the growth of what might be looked upon as a variety of callus; 4, the occasional formation of definite tumours; 5, fatal cachexia.—Mr. DURHAM said that the cases exhibited at the last meeting were exceedingly interesting, and that he was much indebted to Mr. Lunn for showing them. His paper was not very long, but afforded abundant scope for discussion.—Mr. MACNAMARA was of opinion that one point was of importance, and one to which Sir James Paget had alluded; namely, these cases commenced with much pain in the limbs of a rheumatic character. This fact might, perhaps, give some insight into the character of the disease. The nature of the insertion of the tendon into the bone was much more intimate than would appear at first sight. The tendon was prolonged into the bone. It was certain that the tendon was really a portion of the bone. Bone became affected through the tendon with the production of a rheumatic osteitis, changes taking place in the cancellous structure, not perhaps proceeding to an actual inflammation or suppuration, but a slow process of change occurring. Softening of the bone took place, leading to the peculiar deformity in question. This was very clear in the bones of the skull, and these changes were very peculiar and remarkable. It was easy to understand that an inflammation of the tendon extending into the bone might account for the changes produced.—Dr. BENHAM thought that the weakness was due to atrophy of the bone. In spite of the enlargement of the bone observed after *post mortem* examination, this structure had been found, after maceration, to be wasted, and its solid portions gone. Atrophy of bone accounted for the deformity which took place. This deformity was chiefly observed where the parts were more especially exposed to pressure. The lower limbs would naturally suffer first, but the arms would be affected when the legs could no longer support the body, and the former members would have, as it were, to undertake the duty of the latter. Bone became deposited outside as a sort of compensation for the loss or wasting of the inner structure. In some specimens, the vertebræ had presented exostoses at the insertions of the tendons. He thought there was a strong analogy between osteitis deformans and osteomalacia. In the latter, there was a tendency to the formation of new bone. He believed the difference between the two affections to be simply one of degree. In fact, he regarded osteo-malacia as a sort of acute osteitis deformans, and osteitis deformans as a kind of chronic osteo-malacia. As a matter which bore upon the treatment of these cases, he would point out that experiments which had been made upon animals with certain drugs, such as arsenic and phosphorus, had been found to influence the bones considerably, and he thought these remedies would be found very serviceable in the treatment of the affection under discussion.—Dr. THOROWGOOD remembered some cases in the West London Hospital, Hammersmith, in which he had tried bromide of potassium without effect, but in which the administration of Fowler's solution had produced striking results. He should like to know something of the very early symptoms of this disease. He had met with cases complaining of pain, and in which he had been able to produce a distinct crack in the knee-joint. He had not been able to follow up these cases, and to see if they proceeded to osteitis deformans, but he thought it was a question whether such phenomena were not the early indications of the disease.—Mr. HAWARD said that at no time was there any particular pain. The deformity advanced considerably without marked pain. The urine here was alkaline, and there was a singular absence of rheumatic symptoms.—Mr. PAGET thought the de-

formity was not immediately connected with the tendons. He had seen great deformity, but not near the tendon. One case was that of a lady, who for the last years of her life remained seated in a chair. The curves were not influenced by the position of the limbs. Was there a distinct cachexia in the disease? This lady died partly from weakness of the heart, and partly from interference with the respiration. There was no wasting. She was fairly healthy, and presented no more loss of flesh and figure than was usual in persons of her age.—Mr. LUNN, in reply, referred to the pathology of the disease, and read Dr. Sharkey's report as follows. "Dr. Sharkey examined microscopically the occipital bone and the tumour from the ilium, and the following was his report. The most striking points in sections of the occipital bone were, 1, the irregularity in the anatomical structure of the bone; 2, absorption or rarefying ostitis appeared to be the predominant process, producing very large and very irregular Haversian canals, which presented Howship's lacunæ as well as much larger indentations in their walls; they were lined by a thin layer of tissue, which stained with logwood, as was usually the case in rarefying ostitis; 3, the bone-corpuscles were distributed with great irregularity, presenting, for the most part, no arrangement in parallel lines; 4, the bone-lacunæ were mostly small, shrunken, and supplied with but few processes; 5, there was but little appearance of the natural lamellar arrangement in the walls of the Haversian canals, and where lamellæ were seen they were ill defined, and many having different directions met together in the walls of one Haversian canal; 6, there was also clear evidence of a formative ostitis, seen in the reduction of some Haversian canals to the smallest calibre, and, in some parts, the parallel lamellæ of new bone which had produced this change could be clearly made out; 7, besides the lines in the walls of the Haversian canals, which were due to their lamellar arrangement, there were others quite irregular in appearance, and consisting of series of curves, which crossed each other, or else followed more or less the direction of the lamellæ. The nature of these lines was not evident. The portion of the tumour from the ilium, which was sent to be examined, presented the microscopical characters of cartilage throughout. Nowhere was any sarcomatous tissue seen." In answer to Dr. Thorowgood's question, Mr. Lunn said he could not give any definite history concerning the onset of the disease. He thought this was very unreliable. The affection was so chronic and slow, that it was very difficult to find the starting point. In reply to Mr. Haward, he would say the case was sent in as one of rheumatism. There was an attack of *bonâ fide* gout. In answer to Mr. Paget, he said there was no definite cachexia, and the patient died from complications.

A Case of Hæmoptysis treated by the Induction of Pneumothorax so as to collapse the Lung.—Dr. CAYLEY read notes of the case. Frederick W., aged 21, a porter, was admitted into the Middlesex Hospital on February 9th. For some time past he had suffered from a slight cough, but otherwise his health was very good. On February 7th, he was at work as usual. In the evening, he had a sudden attack of hæmoptysis, which recurred the next morning, and again the following morning; and immediately after his admission he brought up 4 ounces of florid blood. He considered that he had, in all, brought up about a pint. He was rather pale, but well nourished, and of good muscular development. The left side of the chest was flattened in front, and the expansion was much diminished. There was dulness on percussion over the scapular region, and here there was feeble bronchial breathing. The breath-sounds all over this lung were very faint, and accompanied by moist *râles*. These signs were attributed to the lung being clogged with blood. On the right side, the physical signs were normal. He was quite free from any feelings of malaise, and his appetite and digestion were good. From February 10th to February 18th, he had one or two attacks of hæmoptysis every day. On February 18th, he brought up 24 ounces, and was now reduced to an extreme state of anæmia and debility. There was no return of the hæmorrhage till February 26th, when he brought up 12 ounces. On March 1st, he brought up 32 ounces, the blood coming up in gushes; and he was evidently in great danger of suffocation, in his feeble condition, by the rapid flow of blood into the bronchial tubes; on March 4th, 12 ounces; on March 8th, 10 ounces; on March 10th, 4 ounces. He had, in all, brought up upwards of a gallon of florid liquid blood, besides a large quantity of blood-stained sputa. The physical signs over the left front were much as on admission—namely, greatly diminished expansion, with very feeble breathing and moist *râles*. On the right side, rather fine moist *râles* were now audible in front, and in the axillary region. For some time it had not been considered safe to move him so as to auscultate the back. The temperature was usually normal, or subnormal, in the morning, and varied from 101° to 101.8° at night. The breathing was but little accelerated, and tranquil. It was now pretty evident that much repetition of the hæmorrhage, which was, in all probability, due to a pulmonary aneurysm, or to the ulceration of a large vessel, must prove fatal. It was, therefore, determined to induce pneumothorax, with the expectation that the great diminution of the circulation through the collapsed lung, together with the pressure exercised by the air, would arrest the hæmorrhage; and supposing there was active development of tubercle in progress in the lung, this would probably for a time be checked. It was considered that the extreme anæmia of the patient would diminish the embarrassment to the breathing likely to be caused by collapsing one lung. Accordingly, at 6 P.M. on March 10th, Mr. Hulke make an incision in the sixth intercostal space, an inch behind the anterior fold of the axilla, and introduced into the pleural cavity a double tube, made by uniting together by a shield two pieces of elastic catheter about three inches long. The opening was protected by a small case, lined with carbolic gauze, and the whole covered by a carbolised gauze bandage. The air passed freely in and out at the time of the operation, and the apex of the heart moved to the mid-sternal region; the respirations became much accelerated. In the night following the operation, he twice coughed up blood, namely, 4 ounces and 2 ounces. On March 12th, it was observed that the breath-sounds over the left front had become more audible, and the percussion-resonance less tympanitic than after the operation, and the tube was found to be completely blocked; it was accordingly removed, and a silver tube, resembling a flattened tracheotomy-tube, was introduced in its place. The air now passed in and out freely, the resonance became tympanitic, and the phenomena of the bell-sound could be elicited. The apex of the heart could be felt beyond the right border of the sternum. He afterwards complained of severe pain in the side; the temperature rose to 104.6°, and much serous fluid began to flow through the tube. The following day, the tube was removed. On March 14th, though extremely prostate, he felt better. The pain had ceased; the temperature was 99°, respirations 32. He continued to spit frothy glairy mucus, with pellets of altered blood, but there was no return of the hæmorrhage. On March 15th, he was in much the same state. At 2 P.M., he died quite suddenly, apparently from syncope. On *post mortem* examination, both lungs were found studded with recent grey miliary granules. The right lung was free from any old tubercular disease. In the apex of the lung was a very small old vomica with small walls, and some puckering round it. The lower lobe and the lower part of the upper lobe were collapsed, and the pleural surfaces smeared with recent lymph. The pleural sac contained about two drachms of non-purulent fluid. In the lower part of the upper lobe, close to the interlobular septum, which was bulged downwards by it, was a cavity of the size of a walnut, filled, except at its centre, by a light coloured laminated clot, so as to closely resemble an aneurysm. In the centre of this laminated clot was a small round cavity, containing a little loose black coagulum, and this cavity communicated with a considerable branch of the pulmonary artery. A large bronchial tube opened into the periphery of the pulmonary cavity, but was shut off by the laminated clot from the central space. At the upper part, this clot was softer and more recent than elsewhere, and had, no doubt, recently allowed a communication to take place. The cavity in the lung containing the clot was smooth-walled, but showed no signs of any aneurysmal sac. There was no old tubercular disease round it. As the case turned out to be one of acute miliary tuberculosis, it was evident that no treatment could have been of any avail in preventing a fatal termination. The patient did not live long enough to enable any positive conclusions to be drawn as to the effect of the operation in arresting the hæmorrhage. He had two slight attacks in the following night, but there was no subsequent recurrence. The *post mortem* examination showed that the communication between the false aneurysm and the bronchus was closed; and, possibly, if the patient had lived, complete solidification of the aneurysm would have been effected. When one considered how largely the pulmonary circulation was influenced by the respiratory process, and the small amount of blood which flowed through a collapsed lung, such a mode of procedure seemed to afford a means of arresting an otherwise uncontrollable pulmonary hæmorrhage. Any extensive consolidation of the lung would, no doubt, by preventing collapse, be a contraindication, and would thus restrict the applicability of the operation to a few cases. The probability of exciting pleurisy was, of course, another objection. In this case, notwithstanding careful antiseptic precautions, pleurisy was set up, but it was of a simple, non-suppurative form, and, but for the tuberculosis, would not, Dr. Cayley thought, have added much to the patient's danger.—Dr. THEODORE WILLIAMS said there were three points in this case. The first was its great interest; the second, Dr. Cayley's courage in

resorting to the operation, and the third its utility. It must be borne in mind that these hæmorrhages sometimes stopped of their own accord, even when enormous quantities of blood had been brought up. When the patient was very low, there was more likelihood of the hæmorrhage stopping. He thought one ought to try everything before resorting to such a proceeding as that adopted by Dr. Cayley. Hæmoptysis had been arrested for a time by the hot bath, dry or wet cupping. About ten years ago, he had tried another procedure; the patient had brought up blood for three days; there was a cavity of large size. He thought it a pulmonary aneurysm. He injected tannic acid at the second intercostal space. The clots in the expectoration and the saliva showed the effects of the tannic acid. In another case with profuse hæmoptysis, he had the syringe ready, but the bleeding stopped of itself, although the patient died. When there was so much exhaustion, it was probable the hæmorrhage was stopped. As regarded the utility of the operation, what would become of the patient? Was it desirable to go about with a pneumothorax? He could not feel inclined to adopt Dr. Cayley's operation, unless he had more satisfactory data to go upon. He should exhaust every method before taking to it.—Dr. DUFFIN said that, by the operation in question, one at once arrested physiological action in the lung, which returned as it were to the fœtal state. Of course, a remedy of such magnitude would not be tried until every other measure had been exhausted. No doubt Dr. Cayley had tried every other means. There were strong physiological grounds for advocating this measure. There was no harm in admitting air under these circumstances. In cases of drowning, Dr. Sylvester had advised the blowing up of the cellular tissue with air. In Germany and France, during the dissecting of animals, the operation had been performed. If the pleura were sound, no harm would result, but it became difficult when the pleura were unsound. He thought one might expect valuable results from Dr. Cayley's treatment. It would be a great point gained if one could ascertain when he was justified in adopting such a method.—Mr. R. W. PARKER said that the cavity of the chest had been opened deliberately with a scalpel in certain kinds of emphysema. The hypodermic needle might be employed for injecting filtered or carbolised air. Dr. Cayley would perhaps find this instrument valuable in future cases. By means of an hypodermic syringe, an elastic ball, and some cotton-wool, the filtered air might be injected with perfect ease, and little or no distress to the patient.—Dr. SIDNEY COUPLAND said Dr. Cayley would not have advised the operation unless he had carefully considered the condition. There were few signs of tuberculosis. The fact of the lungs being apparently healthy induced Dr. Cayley to resort to this mode of treatment. The disease of the vessel must have been of considerable standing.—Dr. WILLIAM EWART said the Society was to be congratulated upon listening to an account of an operation which might prove an important departure in the treatment of this disease. What helped in one lung set up danger in the other lung. If the circulation were arrested suddenly in the one lung, the other lung might be in a condition to start hæmorrhage. When curator at the Brompton Hospital, he had seen a body in which Dr. Douglas Powell had induced pneumothorax for such a condition. The upper lobe of the lung appeared to be almost destroyed by long-standing disease. The cavity had been practically obliterated, being reduced to a mere fissure in the lung, which was to all intents and purposes collapsed and invaded by fibrous tissue. At the lower lobe the lung was carnified. There had been emphysema from rupture into the pleura. It occurred to Dr. Powell that the injection of antiseptic air might be useful in the treatment. He was of opinion that Dr. Cayley's operation might prove of benefit in the treatment of lung-disease.—Dr. CAYLEY, in reply, said the patient was in the hospital for three weeks, had hæmoptysis almost every day, and probably brought up more than a gallon of blood. There were no signs of old pulmonary disease, and on *post mortem* examination no old disease was discovered. As to the effect of air, even at the apex air would have a strong effect. Pneumothorax was not a condition of much danger. The profuse hæmoptysis was accompanied by only slight fever, and the other indications were but slight, and this combination of circumstances had contributed to put them off their guard.

Removal of a Calculus from the Vermiform Appendix for the Relief of Recurrent Typhlitis.—Mr. CHARTERS SYMONDS, in reading notes of this case, first explained that whatever credit might be attached to the operation must be wholly given to his late lamented colleague Dr. Mahomed, who not only suggested the operation, but planned all the initial steps. He also expressed the regret that he felt in having lost the co-operation of Dr. Mahomed, who had made many observations upon the normal site of the appendix, and upon the morbid anatomy of typhlitis, observations which, not having been recorded, were lost to the Society. The following were the chief particulars of the case. Charles S., aged 23, a basket-maker, was admitted into Guy's Hospital, under the care of Dr. Mahomed, July 16th, 1883. The patient had had typhoid fever a year before. In January 1883, he had been seized during the night with pain in the right iliac region; this increased in severity, and he became ill generally, and at the end of a week was unconscious, remaining in this state four days. The illness lasted seven weeks. During the first week, he vomited everything, and his bowels were not opened for ten days. During the whole time, there was great tenderness in the right iliac fossa. For the last two weeks of his illness, he was in the Camberwell Infirmary, where he was told he had typhlitis. Soon after this, on getting about, he noticed a hard lump in the right groin about the size of a walnut; sometimes this swelling was painless, at other times it was very tender. Since this illness, he had had repeated attacks of pain in the right iliac fossa, which came on suddenly, and lasted one or two days. The pain was relieved by poultices. At first these attacks recurred about once a month, but during the last five weeks he had had six attacks, and they had been increasing in severity. Three days before admission, he was seized while at work with severe pain in the right iliac region, which "doubled him up." He felt sick, but did not vomit, and was obliged to leave his work. He applied poultices, obtained some relief, and remained in bed till his admission on the 16th. On admission, there was to be felt in the right groin, on deep palpation, a small hard lump, about three-quarters of an inch by two inches, running parallel with Poupart's ligament. There was slight tenderness on pressure. There was nothing else unusual in the abdomen to be noticed; the bowels acted regularly, and all the other organs and functions appeared normal. The man was placed on a fluid diet, and was soon relieved of all his pain, so that on July 20th he got up. On July 26th, he had pain in the groin, and from this date to the 30th, he had pain more or less all the time, and the swelling enlarged. He was placed again on a purely milk diet, with opium, and had hot fomentations applied to the abdomen. On the 30th, he was much better; the lump could again be felt, and by August 4th it had decreased to the size observed on admission. Dr. Mahomed now considered fully the question of operation, as he was strongly of opinion that there existed an abscess-cavity containing probably a calculus or concretion. On account of urgent business, the man was obliged to leave the hospital on the 10th. On August 11th, the day after his return home, he resumed work, and after two hours was seized with severe pain in the right groin, and obliged to go to bed and apply fomentations. The next day (August 12th) he was readmitted with extreme tenderness in the right iliac region, and shooting pains across the abdomen, and a temperature of 102.1° Fahr. He was placed on opium and milk. On the 13th, the pain was less, but the tenderness remained, and there was a visible swelling above Poupart's ligament, too tender for manipulation. On August 14th, the swelling was hard, the upper edge distinct, and about 2¼ inches above Poupart's ligament, with which structure the enlargement ran parallel for about three inches. On August 16th, the patient was easy again, and on the 18th the lump had gone down to its smallest size. As everything now seemed quiescent, it was decided to explore the right iliac fossa. Dr. Mahomed planned the operation. The lump was oval in shape, could be distinctly felt, but could not be taken hold of. The most probable explanation seemed that this lump was a concretion, or a small abscess, or a concretion surrounded by pus. It was therefore decided to cut down upon the lump to remove a calculus present, or to drain a cavity, should pus be found. On August 24th, chloroform was administered, and, under the carbolic spray, an incision was made, commencing two inches above and one inch internal to the anterior superior iliac spine, and curving downwards and forwards for about four inches, and so arranged that its centre corresponded with the position of the lump. The structures in front were now raised out of the iliac fossa, when the lump could be plainly felt from behind, and as yet the peritoneal cavity had not been opened. A vertical incision was now made over the hard lump, and a small calculus exposed. Before removing it, a fine silk suture was passed through the tissues just above, so that the orifice might not be lost. The opening was then enlarged, and the calculus removed. The soft and purple mucous membrane of the appendix was seen, and its tortuous course from the aperture could be traced upwards towards the cæcum, so that there seemed no doubt of the canal having been opened. Exploration of the cavity with a probe failed to detect a channel leading towards the cæcum. No pus or other fluid was found round the calculus, nor was there any fæcal or unpleasant odour. The opening into the appendix was closed by Lembert's, and the wound by deep silk sutures. The peritoneum was not opened so far as could be determined, and this was attri-

buted to the adhesions that had probably taken place at the time of the first attack, and to the method adopted in reaching the appendix. The usual gauze dressings were used. The calculus, which was now exhibited, was oval in shape, smooth on the surface, and measured three-quarters of an inch long, and rather more than half an inch wide. On section, it showed a laminated calcareous capsule enclosing hardened fæcal matter. On August 26th the tube was removed and freed from clot, and reintroduced, and the sutures were loosened. On August 28th, the drainage-tube was removed, as there was every sign of primary union. There was no fæcal odour from the lower end of the tube. August 29th, he had for two days been complaining of aching pain in the wound, which became severe on this day. The respiration was hurried, and the abdomen hard, but there was no sickness and no fever; the opium he had been taking having been omitted was renewed. On September 1st some pus escaped from the wound, and he was relieved. A fresh tube was introduced, and two of the sutures removed. There was no fæcal odour to the pus. On September 5th, the wound was healing, the tube was now an inch and a half long, and he was nearly free from pain. On September 11th, he had pain again, probably due to the retention of a little pus. On September 14th, he was free from pain, and was on full diet. On September 20th, he got up. A small scab only remained over the centre of the incision. On September 25th, after walking up and down the ward, he felt something oozing from the wound, and had pain all night. About two drachms of pus exuded. The carbolic dressings, which had been omitted, were renewed. On September 26th, the pain was still severe; the wound was therefore reopened by a probe, and a piece of small drainage-tube introduced. On October 7th, he was discharged at his own request. There remained some induration to be felt on deep pressure, but the wound had apparently healed. During the whole of his stay, the temperature never rose above 99.4°. It being feared that some further trouble might arise while any lump remained in the iliac fossa, and there being a possibility that the real cause of all his pain might still exist, he was directed to return at the first sign of a recurrence of his former symptoms. The man resumed work in a fortnight, and suffered no inconvenience till November 3rd, when he felt pain in the right iliac fossa, which gradually spread over his abdomen, and became so acute that he was obliged to take to his bed. This occurred on a Saturday, and on Monday he observed a yellowish fluid escaping from the wound. He came up and was admitted on November 5th. There was a sinus, three inches long, discharging a thin yellowish fluid, and the hard swelling noticed when he was discharged. On November 11th, he had improved, and there was to be noted induration beneath the scar, and from here the appendix could be traced upwards. The rounded swelling that had been observed before November 3rd, and which varied in size, had now entirely disappeared. On November 22nd, he was discharged, the sinus having closed, and the man being in good health. He was again seen some weeks later, and remained well, and was able to do his work. When last heard of, April 1885, though an inmate in the Barming Heath Lunatic Asylum, he was well as regarded his old disease, and had never had any trouble since November 1883.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 8TH.

NORMAN CHEVERS, M.D., C.I.E., President, in the Chair.

The Seasonal Prevalence of Continued Fevers in London.—Dr. G. B. LONGSTAFF read a paper on this subject. He referred to the well known decrease in the mortality from "fever" in recent years. This decrease was mainly under the heads of typhus and simple continued fever; the mortality from enteric fever in London had remained comparatively stationary for the last ten years. Dr. Murchison, in his work on *Continued Fevers*, stated that, during twenty-three years, 2,232 cases of simple continued fever had been treated in the London Fever Hospital, without one death; and he further gave it as his opinion that the fatal cases of so-called simple continued fever were really cases of enteric fever in which the enteric symptoms were masked. Since 1869, 4,374 deaths had been attributed to simple continued fever in London. The author had constructed a diagram showing the seasonal prevalence of the three forms of fever in London. The data used were the admissions to the London Fever Hospital, and to the hospitals of the Metropolitan Asylums Board, and the weekly deaths in London since 1869. The results obtained were, in the main, concordant. Enteric fever was least prevalent in late spring and early summer, most prevalent in the autumn. The minimum, according to the London Fever Hospital figures, was in April, whence the curve rose gradually to the October maximum; and in this case the August figure was excessive. The other statistics gave a June or July minimum, with a more rapid rise to a maximum about the end of October or the beginning of November, and a moderate mortality in August. In all cases, the mean was reached about the end of the year; and the fall to the minimum was gradual, with now and then a slight outbreak in January or February. The curve of scarlatina was very similar to that of enteric fever; but the minimum was in March, and the rise to the maximum in the first week in November was more gradual. The small numbers available in the case of typhus did not give such well marked curves. The mortality and the admissions to hospitals from typhus were at a minimum in July, August, or September; from this minimum, they increased to a maximum in October, or more usually November; they usually continued excessive throughout the winter, and another maximum, commonly higher than that in the autumn, occurred in January or February. The fall might be sudden in March, or more gradual, and as late as May. Simple continued fever appeared to be even less influenced by season than typhus. Like typhus, simple continued fever showed a maximum in January or February, and a minimum in August or September. Dr. Longstaff considered that the deaths still frequently assigned to simple continued fever were really due to some other cause; but he considered that but a very small proportion of such deaths could be explained as obscure cases of enteric fever. Amongst other possible causes, he suggested general tuberculosis, septicæmia, and pneumonia. The figures brought forward showed that the hospitals of the Metropolitan Asylums Board dealt with an increasing proportion of the cases of infectious disease in London; but this increase was steadiest and most marked in the case of scarlatina. In 1884, the proportion of deaths in the hospitals of the Board to the total deaths of the metropolis was 11 per cent. for enteric fever, 19 per cent. for typhus, and 16 per cent. for scarlatina.

Isolation-Hospitals.—Dr. THORNE THORNE exhibited some plans of isolation-hospitals which had been issued by the authority of the Local Government Board. One of the plans showed how, under one roof, four beds might be placed so as to secure this end; the separation of diseases being effected by requiring the several ward and nurses' rooms to open under verandahs in the outer air, and by so arranging the doors that two sets opened under a verandah to the front, and two under another at the back, of the building. Special arrangements were also made by which nurses could be provided with bedrooms in the same building, without any chance of their apartments becoming infected with ward-air. This plan was eminently adapted for securing to small towns of 4,000 inhabitants or less, or to public institutions, the maximum accommodation at the smallest cost. The larger plan was based much on the same principle; but it provided twelve beds instead of four, all under the same roof, but having no aërial communication with each other. The pavilion was not only adapted to towns of 10,000 inhabitants, but it should always be provided as one of the pavilions when two or more were to be erected; its advantages being considerable where only one or two cases of a disease were under treatment, and also for the purposes of isolating doubtful or special cases.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, MARCH 18TH, 1885.

WALTER WHITEHEAD, F.R.S.E., President, in the Chair.

Defective Cerebellum.—Dr. SHUTTLEWORTH (Lancaster) exhibited a cast and photographs (by Dr. Ferrier) illustrating a case of defective cerebellum. The specimen was taken from a girl, aged 15, who died of phthisis in the Royal Albert Asylum. No motor disorder or peculiarity had been noticed during life, beyond general muscular weakness and slight tremor of the hands and arms. At the necropsy, the following abnormalities in the cerebellum were discovered. From a small central nodule projected to the right a triangular process under an inch in length, representing the right hemisphere; and, to the left, an excrescence, measuring about one-third of an inch, alone represented the left hemisphere. The site of the pons Varolii was marked merely by some transverse fibres. Mental deficiency had existed at least from five years of age, if not congenital.

Porencephaly.—Dr. SHUTTLEWORTH also showed the porencephalous brain of a male imbecile. in whom congenital left hemiplegia, partial in character, had existed. A gap, four inches long, extended from the anterior part of the right frontal lobe nearly to the occipital, leaving the orbital plate uncovered, and disclosing part of the cavity of the lateral sinus. Internally, a narrow ridge, marked by convolutions, separated the gap from the longitudinal fissure; and between it and the temporo-sphenoidal lobe was seen standing out, quite uncovered by convolutions, part of the caudal nucleus. The brain weighed 32½ ounces. The defect was probably in the nature of an

arrest of development. There was no appearance of cicatricial tissue, and no descending sclerosis to be made out in sections of the spinal cord. The mother gave an account of fright and injury, in consequence of being knocked down by a cow about the sixth month of pregnancy.

Microcephalic Idiot.—Dr. SHUTTLEWORTH further showed the brain of a microcephalic idiot, weighing, in its fresh state, 16¾ ounces. It measured only five inches from front to back along the central convexity of the cerebral hemispheres; and the cerebellum, relatively large, was left partially uncovered. The angle of the two limbs of the fissure of Sylvius was unusually narrow, and the fissure of Rolando unusually vertical; but representatives of the normal convolutions could be traced out in all the lobes. In this case, no defect of the special senses had been observed; and there existed, though in rudimentary form, powers of observation, attention, memory, and speech, with much muscular activity.—Remarks were made upon these specimens by Dr. Ross and other members.

Uterine Fibroid.—Dr. BUCKLEY showed a pediculated uterine fibroid tumour, weighing five pounds and a half, removed from a woman, aged 44, by abdominal section. The abdominal incision extended from two inches and a half above the umbilicus down to the pubis in the median line, but skirting the umbilicus. The tumour was attached to the fundus of the uterus by a short, thick, and very vascular pedicle, being about an inch and a half long, and of the thickness of two fingers, consisting of fibroid tissue similar to that of the tumour, traversed by large sinuous vessels. It was transfixed with double silk, ligatured, and dropped into the abdomen. The wound was secured by silver wire and catgut sutures. The physical signs were such as to point to a fairly certain diagnosis. The wound was found to be completely united upon dressing it on the ninth day, the patient making a rapid recovery. Antiseptic precautions were used. The microscope showed the tumour to consist of white fibrous tissue, and non-striated muscular fibres.

Cholesterine Cyst.—Dr. BUCKLEY also showed an omental cholesterine cyst removed from a woman, aged 34, by abdominal section. The cyst was thick-walled and globular, and, with its contents, weighed thirty-two ounces; the contents weighed twenty-five ounces, being a thick, grumous, greyish-yellow, odourless semifluid, which, on microscopic examination, was found to consist of cholesterine in large quantity, molecular fat, and compound granular corpuscles, the whole being soluble in ether. It was connected with the great omentum by almost non-vascular attachments.

Renal and Biliary Calculi.—Mr. WRIGHT showed specimens from a case of co-existent renal and biliary calculi, and related a case of nephrectomy.

Chest-Measuring Tape.—Dr. RANSOME exhibited a differential tape-measure for the chest, showing the relative size and degree of movement on both sides at once.

Exenteratio Bulbi.—Dr. MULES showed two patients, in both of whom the globes had been eviscerated, and an artificial vitreous body introduced. The operative and cosmetic results, so far as they were at present seen, were very good. With a well moulded glass eye, the movements were perfect. There was no sinking, and detection was impossible. Time alone would show whether the foreign body could be tolerated permanently. [For a full description of the operation, see BRITISH MEDICAL JOURNAL, 1885, vol. i, p. 600.]

Dermatitis Herpetiformis.—Dr. BROOKE showed a well marked case of dermatitis herpetiformis (Duhring), or impetigo herpetiformis (Hebra). The patient, an intelligent woman, aged 36, presented herself in the sixth month of pregnancy, with the eruption typically marked on the arms, and already commencing on the thighs. This was the fourth time that she had suffered from it during pregnancy. The first attack was during her third pregnancy twelve years ago, the second at her sixth, the third at her ninth, and the present was her tenth pregnancy. She had had several miscarriages, but none had been accompanied by any herpetic eruption. The children were all healthy, and the labours easy; the husband was a healthy man, and the patient herself was not subject to any other than her present ailment, and had never had any other affection of the skin. The primary outbreak, which was always preceded by a characteristic feverish attack, accompanied with shivering, commenced at the end of the fourth month, after the quickening of the fœtus, on the outer surface of the thumbs, as a red itching spot, on which a vesicle soon formed. This became sero-purulent, dried up, and others sprang up around it, extending in a circinate outline, and leaving in their wake a raw excoriated surface, partially covered by the layers of epidermis which they had torn up. At the sixth month, the eruption began on the inner surface of the thighs, but, as at present observed there, it had partly an erythemato-papular appearance, on which discrete patches of herpetiform vesicles appeared; it extended, however, in the same circinate manner. The patient stated that it sometimes extended to the abdomen. It was markedly symmetrical. The patient was much reduced during the prolonged attack, and suffered from incessant shiverings, from the intense itching, and from the pain caused by the excoriation of the affected surfaces. She was relieved at once after the birth of the child, and the skin quickly resumed its normal condition. All the treatment which had been tried hitherto had been of little avail, although much relief had been given by sedative and antipruritic lotions and salves.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, MAY 1ST, 1885.

J. H. BELL, M.D., President, in the Chair.

Compound Dislocation of Astragalus.—Mr. EDWARD ATKINSON showed a patient, aged 21, who had suffered compound dislocation of the astragalus forwards and outwards, in November, 1884. The astragalus was felt to be firmly fixed to the os calcis. Reduction was effected under ether, without division of the tendo Achillis. When the patient was shown to the Society the ankle was somewhat swollen and stiff, but the wound (originally four inches long) was healed, and the man could walk with only a slight limp.

Cuca and its Alkaloid.—Mr. NEVITT read a paper on this subject. After giving an account of the botanical and geographical relations of the plant, and its use by the native Indians as a stimulant and narcotic, he referred to its use as a local anæsthetic, and gave a list of the surgical and other operations in which it had been used, including cases of hæmorrhoids, fistula, opening abscesses, applying caustics to epithelioma, circumcision, irritable condition of that bladder, lithotrity, vaginismus, toothache, pruritus ani, lichen, eczema, and in numerous operations on the eye, throat, and nose. He had used it in the removal of a vascular growth from the female urethra; a 20 per cent. solution being applied. In a case of vaginismus in a newly married woman, the same solution was applied on a pledget of wool, and in five minutes the patient could bear the introduction of a speculum and the application of carbolic acid to two small fissures. The case was completed in a short time, by the use of a vaginal dilator. He had also used it in applying carbolic acid to a fissure of the rectum, and in treating a chancroid sore with nitric acid.

Clinical Study of the Liver, viewed through the Urine.—Dr. OLIVER read a second paper on this subject, taking into consideration the physiological and clinical aspects of the urinary discharge of bile-salts. Observation with the peptone-test, on the urine of healthy persons, indicated an hourly variation of the amount converse to that of the bile-flow, being greater during fasting and before meals, and considerably lessened while digestion was going on; and he pointed out that exercise intensified the waves of increase and decrease. After giving the results of experimentation on animals, he remarked that a disturbance between the production and the elimination of the bile-salts was apt to lead to disease on the lines of artificially induced cholæmia; the toxæmia being acute or chronic, mild or severe, or individualised by idiosyncrasy of tissue, or by special concomitant conditions, such as fever, and the like; and his clinical experience suggested the importance of detecting an excess of these biliary elements in the urine, or of a check to the renal elimination of them. He had detected a considerable increase in jaundice (in all forms and stages; acute biliousness; chronic biliousness, depending mainly on hepatic congestion (as from alcohol, too good living, heart-disease, malaria); diseases of the liver (carcinoma, amyloid disease, enlargement of the liver generally, cirrhosis and contracted liver, and hepatic tumours); splenic disease (leucocythæmic, malarial, etc.); fever and hæmolytic diseases (some forms of anæmia, leucocythæmia, hæmoglobinuria, scurvy). He pointed out that bile-salts, in excess, greatly reduced the force of the heart's action, and related the case of a cholæmic girl, who narrowly escaped death from nitrous oxide, though she had repeatedly taken the gas before without any untoward result. He believed that the study of the insufficient urinary elimination, or of a check to the renal discharge of these elements in cholæmia, was of practical value in cases in which the production was increased (as in fevers, inflammations, jaundice, certain forms of anæmia)—the retention exciting either biliary symptoms (nausea, vomiting, diarrhœa), or hæmorrhages (into the retina, brain, epistaxis, etc.), or convulsions followed by recovery, or by coma and death—and when the generation of biliary salts was not excessive, but the kidneys failed to keep pace with it (as in the elderly especially), giving rise to various milder forms of cholæmia, or now and then to the more severe, such as the

convulsive and apoplectic. He remarked on the diminished urinary discharge in chronic renal disease (the cirrhotic form especially), and in skin-disease (eczema), suggested the connection between chronic cholæmia and degeneration of the kidneys, and perhaps other degenerative diseases, such as Addison's disease, etc., and pointed out the probable share of cholæmia in uræmia.

REVIEWS AND NOTICES.

THE STUDENT'S GUIDE TO DISEASES OF CHILDREN. By JAMES FREDERICK GOODHART, M.D., F.R.C.P.; Assistant-Physician to Guy's Hospital, and Physician to the Evelina Hospital for Children. London: J. and A. Churchill. 1885.

THE publication of Dr. GOODHART'S handbook on Diseases of Children was anticipated with pleasure; and it may at once be said that it does not fall short of the high expectations formed. As a contribution to practical medicine, in the department with which it deals, it will be found to present points which render it far more useful than most other manuals of diseases of children. In the first place, it is short; in the second place, it confines itself to the subject, and does not contain wearisome paraphrases from systematic works on diseases of adults; and, in the third place, there is a tone of practical common sense wisdom about the description of symptoms and the recommendations as to treatment, which is sure to make the book very popular with practical men.

The volume opens with some remarks on the method of examining children, valuable advice as to what not to do being succeeded by short notes on the form of the head, the colour and expression of the face, the form and movements of the chest and abdomen, and on general questions of treatment. In dealing with dentition, Dr. Goodhart is inclined to minimise its importance as a starter of pathological processes, without, however, going to the lengths which some writers and speakers are inclined to go in their rebound from the too easy acceptance of an hypothesis sometimes convenient as a cloak for ignorance. He allows that, where a tooth seems to be worrying the gum close beneath the surface, there can be no harm in using the gum-lancet to relieve the upward pressure. It is a little surprising to find Dr. Goodhart recommending bromide of potassium "as a nocturnal draught, or twice or three times a day;" as a nocturnal draught, bromide cannot be of much use, and it would have been better to have distinctly laid down that the night-restlessness of children must be treated by bromide during the day, just as epileptic convulsions occurring at night must be combatted by the same drug taken by day.

The chapter on diet in health will well repay perusal, old saws and modern instances being judiciously compared and made to throw light the one upon the other. Diet-diseases are dealt with under the heads of atrophy, flatulence, colic, constipation, and diarrhœa; in speaking of wasting from insufficient food, a timely warning against overlooking organic disease of the lungs and pleura, which may be present either as a complication, or as perhaps the determining cause of the wasting, is given. It may be questioned whether, in his desire to simplify the discussion of diarrhœa, Dr. Goodhart has adopted the best classification, for it may be said that under the head of acute diarrhœa he has included several conditions of different etiology; many, for instance, would be inclined to look upon the epidemic summer-diarrhœa as a disease altogether by itself, with a distinct etiology, and, to some extent, with a distinct clinical history. Dr. Goodhart frankly states this objection, and it is therefore the part of the critic to admit, with equal frankness, that the treatment of acute diarrhœa, from whatever cause, must be mainly dietetic, and that upon this head it would be difficult to improve on Dr. Goodhart's recommendations, which conclude with the axiomatic epigram, "a teaspoonful is a small quantity, but a teaspoonful retained is better than a tablespoonful vomited." In speaking of chronic diarrhœa, it is laid down that but few cases are tubercular under eighteen months, but that after two years the possibility of tubercle requires the most careful consideration; the most important symptoms he considers to be pain after food, associated with persistently brown watery offensive motions, unusual excess of borborygmi, due to the matting together of intestinal coils, and wasting; these symptoms, taken together with the indications supplied by a careful record of temperature, will, he thinks, generally suffice for diagnosis.

In his chapter on diseases of the mouth, Dr. Goodhart takes occasion, with characteristic boldness, to draw a parallel between noma and anthrax, and suggests that, to obviate the risk of broncho-pneumonia, which is commonly the immediate cause of death, tracheotomy ought to be performed. Whether the operation would contribute to the desired end, is at least doubtful, as the commonest cause of death after tracheotomy is probably broncho-pneumonia. We may pass over intervening chapters on diseases of the digestive tract, with an excellent classification and description of vomiting in childhood, on measles, on scarlatina, and on rötheln, in order to call special attention to the article on diphtheria. The discussion of the "pros and cons" of tracheotomy is very thorough, and will supply food for thought. Like most practical physicians, Dr. Goodhart is opposed to the performance of the operation, except as a last resource, and would then dispense with the tube as early as possible; the only ground upon which he thinks early operation can be justified is that it allows more thorough application of local remedies to the larynx; but, we may ask, how often, as a matter of fact, are such remedies applied? Dr. Goodhart concludes that at present early operation is not justified; no doubt an earlier performance of tracheotomy in diphtheria would show a smaller mortality after the operation, but it has never yet been shown that the death-rate from diphtheria would be reduced.

It is quite refreshing to find a writer who says that the acute lobar pneumonia of children is more often catarrhal than fibrinous, and who frankly admits that he is not familiar with the red and grey hepatisation described as occurring in childhood as in adults. Dr. Goodhart, however, believes that clinical facts show that acute fibrinous pneumonia has a real existence, and he is therefore driven to assume that it is very rarely fatal; certain it is that, in this country at least, the lesion found after death, in cases of acute lobar pneumonia in young children, is catarrhal and not croupous. The only evidence on this point which is of any value is microscopic examination of the consolidated lung after death; it is not possible to argue, from the clinical symptoms, that they resemble those of acute croupous pneumonia in the adult, and must therefore accompany the same lesion. This is certainly not invariably the case; on the contrary, as a rule, microscopic examination in the most typical cases in childhood shows the alveoli crammed with catarrhal cells, with little or no fibrine.

On diseases of the glands, Dr. Goodhart also has the courage to speak honestly, and to admit the futility of much of the classification and subdivision now in vogue. Whether the pathologists will be pleased with this removal of landmarks must be doubted, but the physician and the student, who have been so often puzzled to make the clinical facts fit the pathological theories, will welcome the frank admissions of so distinguished a pathologist. Another subject treated with a happy combination of pathological and clinical research is bronchial phthisis, and its relations to bronchial asthma and "cheesy consolidation" of the lung.

In treating of diseases of the nervous system, Dr. Goodhart appears rather less inclined to rely on his own experience, but upon the pathology and symptoms of the more common and serious diseases what he has written is most instructive. He has excluded the term acute hydrocephalus as misleading, and is thus able to give a complete picture of hydrocephalus which will remain clear and distinct in the reader's mind. A long chapter on Chorea forms a connecting link between nervous diseases and rheumatism, and following close upon rheumatism is another longer chapter devoted to the discussion of rickets and bone-softening. The views held on this subject by Dr. Goodhart do not differ materially from those generally taught. He considers that rickets is mainly a dietetic disease, and does not accept the late M. Parrot's extreme views with regard to the importance of syphilis as a factor in the etiology. The chapter on Infantile Syphilis suffers somewhat from compression, but it contains references to all the best modern work. A short chapter on Diseases of the Skin, followed by an appendix of formulæ, brings this very excellent handbook to a conclusion. The index is far from good; this is a defect which ought to be made good in later editions.

Dr. Goodhart's book comes opportunely to fill a very real want; the student will study it with advantage, but only the working practitioner will be able to appreciate fully its many excellencies.

THE LATE PETER SQUIRE.—Friends of the late Mr. Peter Squire will be interested to know that the unveiling of a medallion portrait of him will take place at the Pharmaceutical Society's house, 17, Bloomsbury Square, W.C., on Wednesday, May 20th, at 4 P.M., by Sir Spencer Wells, Bart. Cards of admission may be obtained from the Secretary, 17, Bloomsbury Square. Any medical practitioner will be admitted, with a lady, on presentation of his address-card.

OPERATIVE SURGERY IN THE CALCUTTA MEDICAL COLLEGE HOSPITAL; STATISTICS, CASES, AND COMMENTS. By KENNETH McLEOD, A.M., M.D., F.R.C.S.E., Fellow of the University of Calcutta; Surgeon-Major Indian Medical Service; Professor of Surgury, Calcutta Medical College. London: J. and A. Churchill. 1885.

THIS is an interesting and useful record of surgical work in Calcutta. It presents, tabulated in an orderly manner, all the cases of surgical operations which came under the author's treatment during five years' service as First Surgeon to the Medical College Hospital, and, for the sake of comparison and contrast, some statistics are appended of other provinces and hospitals of the Bengal Presidency. Dr. McLEOD has endeavoured to render his reports thoroughly reliable, and has succeeded in bringing out a book which may be read with much profit, as giving not only a series of interesting cases, but also the results of late improvements in surgical treatment when applied in Indian practice.

In a chapter on Elephantiasis, it is shown that the danger of hæmorrhage in removal of large scrotal tumours has been very much reduced by the use of Esmarch's bloodless method. Short reports are given of 129 cases in which this operation was performed. The mortality in this series of cases was 17.7 per cent., which compares favourably with that of other tables of equal or greater extent. The table of the causes of mortality in the twenty-three fatal cases indicates, according to Dr. McLeod, a reduction of septic disease, shock, and exhaustion as causes of death.

In a report of operations for hernia, the results are given of the application to the simple forms of the treatment for radical cure in 46 cases, in 17 of which Wood's operation was performed. To this operation Dr. McLeod, whilst acknowledging its well proved safety, objects that it does not ensure complete occlusion of the sac, and that it is partly an invaginating operation. The operation which was performed in the other 29 cases, and to which special attention is directed in this very instructive chapter, is a form of the direct method. Dr. McLeod, working on the same lines as Annandale, Banks, and Czerny, has elaborated an operation which consists, like the procedure of the first named surgeon, in exposure and isolation of the sac under antiseptic conditions, in the application of a ligature to its neck, in removal of its fundus, and in apposition of the sides of the canal.

The mortality of this operation in a series of several cases, including some of strangulated hernia and of scrotal tumour, is about 24 per cent., and, in simple uses of irreducible hernia, about 12 per cent.

Dr. McLeod, whilst anticipating that, with better selection of cases and stringent antiseptic precautions, the rate of mortality is undoubtedly capable of great reduction, still thinks it doubtful whether the operation will ever become perfectly safe in India. Among the many interesting sections of this work, special notice may be directed also on the operative treatment of anæsthetic leprosy.

THE PRINCIPLES AND PRACTICE OF GYNÆCOLOGY. By THOMAS ADDIS EMMET, M.D., LL.D. Third Edition. London: J. and A. Churchill. 1885.

WE are in doubt whether to congratulate the author more than the profession upon the appearance of the third edition of this well known work. Embodying, as it does, the life-long experience of one who has so conspicuously distinguished himself as a bold and successful operator, and who has devoted so much attention to the speciality of which he treats, we feel sure the profession will not fail to appreciate the privilege thus offered them of perusing the views and practice of the author. We cannot do better, in commending this third edition to the favourable consideration of the profession, than by quoting some of the remarks occurring in the preface. "Every portion has been thoroughly revised, a great deal left out, and much new matter added.

"The chapters on the relation of education and social condition to development, those on pelvic cellulitis, on the diseases of the ovary, on ovariotomy, and on stone in the bladder, have been nearly rewritten.

"The chapters on prolapse of the vaginal walls; on laceration at the vaginal outlet, and through the sphincter ani and perinæum; on the methods of partial and complete removal of the uterus for malignant disease; on the surgical treatment of fibrous tumours; on diseases of the Fallopian tubes; and on the diseases of the urethra, are essentially new, containing the views and experience of the author in a form which has not been presented to the profession before."

It is not our purpose to criticise in detail the author's views, which, with the added experience of the last few years, have become somewhat modified and less radically different in character from those universally accepted. The surgical aspect of gynæcology is unquestionably the prominent feature of the work; and as the author gives us not only his conclusions, but his reasons for arriving at such conclusions, we can readily forgive him if now and again he is somewhat dogmatic in his statements. His earnestness of purpose and conscientiousness are manifest. He gives not only his own individual experience, but endeavours to represent the actual state of gynæcological science and art; and "so great have been the advance and change of views during the past four years in gynæcology, that the preparation of this edition has necessitated almost as much labour as re-writing the volume."

MANUAL OF THE ANTISEPTIC TREATMENT OF WOUNDS FOR STUDENTS AND PRACTITIONERS. By W. WATSON CHEYNE, M.B., F.R.C.S., Assistant-Surgeon to King's College Hospital, etc. With Illustrations. London: Smith, Elder, and Co. 1885.

IN this manual of the details of antiseptic surgery, we have, in an abridged and very convenient form, the substance of the voluminous work on this subject previously brought out by Mr. CHEYNE. It supplies a want that has long been felt, and cannot fail to impart, both to practitioner and student, a full knowledge of the practical application of the Listerian and other methods of antiseptic treatment. We hope to see soon a still smaller and more suitable manual for the use of nurses, as there can be no doubt that the success of a strictly antiseptic treatment of wounds must depend in great measure on a thorough understanding, on the part of all about the patient, not only of the many details of such treatment, but of the scientific principles on which it is based.

In introductory chapters on Bacteria and Disease and on the Destruction of Bacteria, Mr. Cheyne has treated of some matters which were not ripe for discussion when the larger work on antiseptic surgery was written.

NOTES ON BOOKS.

Lessons in Domestic Science. By F. M. GALLAHER. (Dublin: Brown and Nolan.)—This is one of an already numerous class of books. It is intended, we are told, for the great mass of girls, and not exclusively for those who enter domestic service, or who adopt factory-work or the profession of teaching as a means of livelihood. It does not, indeed, appear suitable for uneducated readers, since the author's aim seems to be to concentrate as much information as possible into a small space, rather than to stoop to the level of those who know nothing of domestic science. The law of landlord and tenant, and the investment of money, find a place between hints upon window-gardening, disinfection after fever, elementary physiology, and cookery-recipes. However, it may fairly be said that all these subjects, and a good many more that are treated in the forty short lessons into which the book is divided, form a part of the medley of practical science understood by the term domestic economy. The practical part of the work is more to the point than the purely theoretical chapters; but as these text-books are usually read for the sake of practical information, that will be considered a fault on the right side by the public, for whom the book was written.

Pocket-Memoranda relating to Infectious Zymotic Diseases. Arranged by MATTHEW ALGERNON ADAMS, F.R.C.S. (London: J. and A. Churchill.)—The intention with which this convenient card has been drawn up is expressed in the title. The investigation of the source of contagion is facilitated by a series of notes arranged in natural order, each note containing a suggestion as to the mode in which infection may have been communicated. This is followed by a list of "precautions," arranged under the heads of isolation, ventilation, and disinfection. Under the latter heading, directions are given as to the strength and kind of disinfectant to use for the various purposes, for linen, excreta, sinks, and the house in general. It is doubtful, however, whether many people will care to impregnate the whole house with sulphurous acid. The card carries on the reverse a table showing the period of incubation of the commoner zymotic diseases; the maximum and minimum being specified in each case, as well as the period from the first symptom to the beginning of the eruption, and from the beginning of the eruption to the cessation of fever, and to the end of infection. These facts are also graphically expressed in a coloured chart. The card will be found very convenient in practice, for use in an emergency.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SESSION 1885.

Tuesday, May 12th.

SIR HENRY W. ACLAND, President, took the chair at 2 P.M.

President's Address.—The President opened the proceedings with the following address.

The session brings the Council together once more with the same constitution and the same functions to discharge that were assigned to it by Parliament in 1858. It has often been remarked that so long as this is the case we cannot intend, nor even wish, to abandon the post of duty so assigned and undertaken. On this head, therefore, no more now need be said. At a later period, I shall have to make a single observation on an important question arising from the situation in which we are placed.

It was lately my happiness to see the Marquis of Ripon, since he returned from his distinguished administration in India. I reminded his lordship that in the fifteen years that had elapsed since he had endeavoured in vain to consolidate the medical examination arrangements of this country, no action taken in that direction by Parliament had been successful, notwithstanding the sincere labours of successive Governments, labours appreciated and often acknowledged by you. But I was able to add with satisfaction that, nevertheless, education had continuously advanced; that many anomalies had comparatively ceased; and that I sincerely believed that there was, upon the whole, an honest rivalry among teachers, and between institutions, to carry out, by voluntary exertion, the principles by which he had sought to secure the public good.

It had been my wish this year to have taken a brief survey of the education and examination changes which, as I understand them, have taken place in these last fifteen years. But, since they are still in transition, I shall confine myself to-day to a short account of the present position of the Council's work, reserving a more complete statement for another occasion. My reasons for adopting this course are these. At the last meeting of the Council, instructions were given in three directions, which had separately much significance; and were, when taken together, calculated to produce a great effect on the course of medical education. The three were: 1, The revision by the Branch Councils of England, Scotland, and Ireland, severally and separately, of the Recommendations hitherto issued by the General Council; 2, No person should be granted a degree, diploma, or licence to practise, registrable under the Medical Act, unless he has proved his competency in medicine, surgery, and midwifery, by passing examinations in those subjects at one or more of the licensing bodies; 3, The inspection of the final medical examinations in all the universities of the United Kingdom. Before we proceed to-day to consider, in detail, the result of the Council's instructions, it may be well, generally, to note the effect of these instructions taken collectively, and in their complementary relation to a report which as yet has hardly been fully considered, that, namely, on the examinations by the corporations in England, Scotland, and Ireland, by Mr. Teale, Professor Gairdner, and Mr. Stokes.

1. The reports on the Recommendations having been circulated among the members of the Council, they will have already observed that the several suggestions of each Branch Council have been printed in parallel columns along with the original Recommendations of the Council. The General Council can now compare at a glance these Branch Council suggestions with those of the General Council, and can readily draw in each case their conclusions. The General Council requested each Branch Council to confer as far as it might deem desirable with the several licensing bodies of its division. They all did so, and the several replies of these authorities are appended to each Branch Report. The English Branch decided that it was desirable to give to some of the teachers in the English schools an opportunity of recording their opinions on the several points raised in the Recommendations. There are no fewer than twelve separate medical schools in London only, with about 350 accredited teachers; and in the provinces there are as many as nine schools, with about 250 teachers. The English Branch Council decided not to address officially each school as a whole, but only to write to a few individual teachers. Accordingly, a small selection was made, comprising representatives of every subject taught, whether in the larger or in the smaller schools.

Seeing the great change that has taken place in the last twenty-five years, not only in the ideas but in the apparatus of teaching, some of the younger as well as the older teachers were applied to. It is not without interest to compare some of these replies with those received by the Committee on Professional Education presided over by Mr. Syme in 1869, together with the report of the London Teachers' Association, presented by their Chairman, Mr. John Simon. In the last twenty years, opinions concerning the administration and teaching in the London and provincial schools have greatly changed.

The Council, in thus revising and reissuing its Recommendations, has, for two reasons, a delicate task to perform. The Council's Recommendations have been often assailed from two opposite quarters. First, by those who believe that great institutions—such, for instance, as the Universities of London, Edinburgh, and Dublin—that have worked honourably, and faithfully, and independently in the past, and have with justice acquired a great name, should be seldom interfered with by this Council, and then only in cases of importance, and not in matters of detail. It has often been said, and with truth, that these Recommendations are sometimes framed by narrow majorities, and that they touch on points which had better be left to the experience—the progressive experience—of individual institutions. It is therefore alleged that the Recommendations should properly be considered as suggestions, and not as orders; that they should, in fact, be regarded in the light of "moral suasion," as it was called by Mr. Syme, with just a touch of the "moral influence," as it is described, of an ironclad in a neutral harbour. It is urged that it is right that freedom should be left to institutions to produce, as they think well, the result desired by the Legislature in the Act of 1858, namely, the adequate qualification for practice of everyone whom the law certifies to be qualified; that the test of this should be by the inspection of the examinations; and that, as soon as any body is shown to be untrustworthy therein, a representation to this effect should at once be made to the Privy Council. But, on the other hand, it is said that the Recommendations have no value because they cannot be enforced; and that, for this reason, the Council is in a false, and it is even said in a humiliating, position.

I venture to make a brief reply to both these criticisms, a reply based on observation, and as simple as it is true. The Legislature did not intend this Council to be mandatory in its action. It did intend the Council to be consultatory and hortatory. It was constituted of persons who were entitled to be consulted and capable of advising. It did not intend to relieve the great institutions for the higher education from the responsibility of their trust, or deprive them of freedom to advance on their own lines. It did direct the Council to ascertain whether these did so act, and to report them if they did not. It did call on the representatives of all these institutions to combine in this Council for national consultative and directing purposes, laying aside here, for the common end, their local aims and prejudices, if they had any, which were out of harmony with the general interest. It is easy enough to ascertain whether, and how far, these several intentions have been fulfilled. At no time in history has it been more difficult to fix a standard of education, general, scientific, or practical. Since the Council has existed, the extent of biological knowledge has increased in an unprecedented way; the foundations of therapeutics, the very conceptions concerning prevention of disease, have been enlarged by observation and experiment, and the course of study and examination has been necessarily widened and has become more complicated. It became, therefore, judicious, if not necessary, to seek separately the matured opinions of the independent authorities in England, Scotland, and Ireland, for the purpose of learning their most recent educational views. It has often been stated that there are real differences in the three divisions of the kingdom, which should be taken into account in framing a general scheme. If so, we might hope thus to learn their nature, and how to allow for them, and we may expect now more completely to harmonise the matter as well as the manner of study and examination. That these observations are not connected with an imaginary difficulty, and that it is dangerous for the Council to issue Recommendations, which cannot be made orders, will appear when letters from the Universities of Oxford, Cambridge, and Dublin are laid before you and discussed. The Council will, I feel sure, pardon the clearness with which I venture, for a practical purpose, to remark on stumbling-blocks which are in our way.

2. The next instruction of the Council to which attention may be drawn is "That, in the opinion of this Council, no person should be granted a degree, diploma, or licence to practise, registrable under the Medical Act, unless he has proved his competency in medicine, surgery, and midwifery, by passing examinations in those subjects at one or more of the licensing bodies." An observation was lately made on an official occasion, to the effect that the issuing of this Recommenda-

tion showed the need for the reconstruction of the Medical Council, because the Council could not enforce it. The premisses and the conclusion both appear to me equally at fault. It is not certain that practically the Council cannot enforce the Recommendations; but if a legal authority desire to do its assigned legal duty, and if it be not enabled by the law to do it, then the law should give the powers requisite for carrying out its intentions. In this case, a clause of a few lines would give it. But the Council, if it think fit, is able to represent to the Privy Council that, having long since agreed with each Government that has affirmed the principle of its Recommendation, and having waited for many years for accomplished legislation on this and on other points, it has advised the licensing bodies to carry out the principle of all the amending Bills in this direction. By combination, they assuredly can do so. Indeed, to a partial extent, this has been done by the corporations of Scotland and of England, and there is hope that it will be done also in Ireland.

In order to ascertain what is the actual condition at present in regard to the registration of single qualifications, the entries made in the *Register* for a period of six months have been examined by the Registrar. Between October 1st, 1884, and April 1st, 1885, there were registered 175 persons with a single qualification, and of these 175 only 11 have subsequently registered a second. This constitutes about 37 per cent. of the whole number of registrations, 50 per cent. of those in England, 10 per cent. of those in Scotland, 32 per cent. of those in Ireland. Of those in England, 62 had a surgical qualification only, and 113 only a medical. Some of the statistics concerning students also are noteworthy. One of the most remarkable is recorded in a table by Mr. Miller, in the *Students' Register* of last year—namely, that the number has increased between 1870 and 1884 from 1,160 to 1,957. The subject of the statistics of the profession will be brought before you by Mr. Marshall.

3. The inspectors whom you directed to be appointed to visit the final examinations of the universities have begun their labours. A calendar has been prepared of all the examinations to be held during the present year, and whatever further information or assistance the visitors may require in each branch of the kingdom will be from time to time furnished from your office. Each division of the kingdom is to be visited by visitors from the other two divisions. The Council is already indebted to the able persons who have undertaken this task, it must be said, wholly or mainly on public grounds. It would not become me to anticipate the result of their inspections. Yet it should be now borne in mind that when these reports are examined, in conjunction with the report of 1881-2 on the corporations, and when both are compared with your conclusions which will appear in your revised Recommendations, and with your resolutions as to excluding single qualifications from the *Register*, there will be a complete body of statement as to the present condition of the pass-examinations, their efficiency, or their shortcomings.

At least two important questions will remain—the first, how far the Council can or should inquire, not necessarily for criticism, but for information and suggestion, into the means and appliances for education in the several schools, a question so keenly discussed of late in relation to the teaching in this metropolis and the universities; the second, what shall be the relation of the pass-examinations and the registration-titles to the higher examination and the so-called higher titles. It is an open secret that these higher titles differ greatly in their actual value, and that some are of no value at all. Yet they are eagerly sought after. It will be generally admitted that the aspiration of students after a title supposed to be of higher social worth, to some extent affects the educational arrangements of this country. It is possible that a committee might elicit information which would show this kind of disturbance to be an evil either more or less than is supposed. But the agitation to obtain the title of doctor by new channels, or on easier terms by old ones, shows that the students have sometimes a motive other than that of obtaining more knowledge, or proving the possession of higher acquirements. It is a motive quite different from that which makes students in Dublin enter not as perpetual, but as yearly pupils; namely, that, as in Germany, they may pass from one to another school for instruction and opportunities, and thus enter the one that is best in special departments of study.

I cannot wholly pass by, without notice, a Bill introduced into Parliament by Dr. Lyons, Mr. Gibson, and Mr. Plunkett, to enable the College of Physicians of Ireland to register a title not included in Schedule A of the Medical Act, 1858, and to enable universities to register the title of Master in Midwifery, and Master of Obstetrics, or Master in Obstetric Science. Nor can I omit to notice the action taken lately by the University of Oxford in the way of utilising the Diplomas of Surgery of the Royal College of Surgeons, rather than institute at present a new surgical title in England. Both actions are useful as calling attention to the vexed question of the real or imaginary evil of numerous qualifications—an evil which would be almost imaginary, supposing that all education and all examinations could be exactly equal.

I pass to another topic—that, namely, of the questions which arise under the penal clauses of the Act. Sooner or later these clauses will demand revision.

The Council, in its early days, declared that it had not the duty of a prosecuting body; but, on May 24th, 1877, it came to the conclusion that, after mature deliberation, it saw no cause for the determination previously arrived at. Its legal functions, in regard to prosecutions, are administrative and judicial. Inasmuch as illustrations of this fact will appear during this session, the subject need not be here considered in detail. It is now sufficient to note that there is a tendency to exercise pressure on the Council to undertake criminal inquiries. There is, perhaps, no great willingness on the part of the Public Prosecutor in England to take this work off our hands. On this matter the Council's solicitor has full information at your disposal.

Thirteen cases of alleged misconduct by registered practitioners have been referred, in the past year, to the solicitor. Almost all these cases have been complaints against men professing to be qualified, who are not qualified, or men who are qualified, but act with unqualified persons either as partners or as assistants. They are usually cases which would, *primâ facie*, justify investigation. The complainants generally desire the Council to take up the inquiry, or to pay their solicitor to do so. Their view is, that it is the duty of the Council to undertake prosecutions even against persons who are not on the *Register*, as well as to punish proved offenders who are on it. Mr. Farrer has observed to me that, though there may be cases in which the Council might properly undertake prosecution, it should not be the rule on every charge brought before it. The Council are judges with a formidable power of severe punishment without appeal, but they cannot compel sworn testimony; the machinery for hearing cases and sifting evidence is cumbrous, expensive, and involves serious loss of time; and their only sentence, removal from the *Register* (for they cannot suspend), may be much the same as ruin. It is Mr. Farrer's opinion that offenders should be summoned, when the cases against registered practitioners are so far complete as to be without doubt, in the absence of satisfactory explanation. Some of the cases are certainly such as should be brought before the ordinary tribunals. It is much simpler to judge of the professional misconduct in a case that has been tried for some offence according to law, and legally convicted. Several years ago, the President of the Board of Trade brought two cases of drunkenness before the Council, and the Council declined to interfere. The Council then thought it could not undertake to investigate charges of drunkenness. Yet such charges might involve cases of the gravest dereliction of duty; and, in this instance, did so. But the Council then thought it was a case with which the Government should deal. Perhaps, too, it felt that, grave as the offence of drunkenness is, the only punishment the Council can inflict—namely, removal from the *Register*, and, in that way, the loss of the civil rights of a profession—is an excessive punishment. I must not pursue the question whether the several corporations have to exercise the same caution, or are under a greater obligation to strike the names of persons so offending from off the roll of their members. This subject will appear again in the case of a Scottish practitioner, charged at the last meeting with issuing certain newspaper-advertisements. Further correspondence on this matter will be laid before you.

In one of the draft Bills brought in by the Duke of Richmond, an attempt was made by the Government draughtsman to frame a clause to regulate these obligations of the Council.

I have to congratulate you on the approaching completion of the new edition of the *British Pharmacopœia*, to which Dr. Quain has given so much zealous attention. It would not become me to attempt to describe the value of this work, and the might of Dr. Quain's labour upon it. I may here say that I have received letters from Australia complaining of the dangerous want of pharmaceutical knowledge and the art of prescribing, not seldom shown by licensed practitioners. I am inquiring into the justice of the charge.

In conclusion, I wish to express my conviction that the zeal and energy of the rising generation of teachers in our medical institutions are grappling with the advancing mass of biological knowledge in a manner which, if ever equalled, has never been surpassed; and that the chief fear for the ordinary medical student of the end of this nineteenth century is, that he will be oppressed by details in many departments of science, which, though important to the expert, the

specialist, and the discoverer, and attainable by exceptional men, are an actual source of distraction to the ordinary clinical student in the precious and too brief years of his student-life.

Whether Parliament will alter the constitution of the Council, whether it will extend its powers, or whether it will leave it still, with enlarged experience and single intention, but without more power to do its work, are questions which I leave to others to discuss. In both political parties of the State, there are men of energy too great, perseverance too steady, and public spirit too strong, to be daunted by past difficulties, or to be wanting in the will to give us whatever is needed, as soon as our institutions have agreed among themselves to work unitedly with the same zeal that they have ever shown for their individual progress and development; for no political party is able to destroy the independence of institutions while they fulfil their function according to the true idea of a State. But if they do not, or if they are victims of internal dissensions, neither party will refrain from seeking to substitute for their old independence the growing force of rigid State control.

Mr. MARSHALL, in moving that the address be entered on the minutes, said he had never heard an address from the chair which contained more important matter. He thought they would all agree that it was a paper full of weighty matter, which might be studied with advantage by the members of the Council.

Dr. HUMPHRY seconded the motion. He concurred in the remarks of Mr. Marshall. He had had the pleasure of hearing all the extremely good and valuable addresses of the President, but he had never heard an address conveying more information respecting the real action of the Council.

The motion was agreed to.

Finance Committee.—The following were appointed members of this Committee: Dr. Quain (Chairman), Sir Henry Pitman, Dr. Aquilla Smith, and Dr. Scott Orr.

Executive Committee.—The following members of the Council were elected by ballot on the Executive Committee: Sir H. Pitman, Mr. Simon, Dr. Haldane, Dr. Humphry, Dr. Quain, and Dr. Aquilla Smith.

Results of Examinations.—A table showing the results of professional examinations for qualifications, held in 1884, by the bodies named in Schedule A of the Medical Act, was presented, and was ordered to be entered on the minutes. The following is a summary of the table. [I = First Examination; II = Second Examination; III = Third Examination; IV = Fourth Examination; P = passed; R = rejected. The figures after the designation of the degree or diploma denote the number of examinations to be passed.]

Royal College of Physicians of London.—Licence (3): I, R 278, P 504; II, R 73, P 38; III, R 88, P 202. Membership (1): R 8, P 21.

Royal College of Surgeons of England.—Membership (2): I, R 457, P 711; II, R 338, P 562.

Apothecaries' Society of London.—Licence (2): I, R 24, P 40; II, R 119, P 323.

University of Oxford.—M.B. (2): I, Physics, R 4, P 11; Chemistry, R 7, P 11; Biology, R 11, P 11; II, R 6, P 7.

University of Cambridge.—M.B. (3): I, Part 1, R 47, P 91; Part 2, R 50, P 82; II, Part 1, R 21, P 97; Part 2, R 32, P 51; III, Part 1, R 11, P 25; Part 2, R 8, P 27; B.S. (1): R 2, P 4.

University of Durham.—M.B. (2): I, R 50, P 62; II, R 15, P 28. M.D. (Essay): R 1, P 5. M.C. (1): R 4, P 7. M.D. for Practitioners of fifteen years' standing: R 3, P 7.

University of London.—M.B. (3): I, R 122, P 147; II, R 63, P 77; III, R 20, P 44. M.D. (1), R 12, P 16. B.Sc. (1), R 5, P 15. M.S. (1): R 1, P 0.

Royal College of Physicians of Edinburgh.—Licence (2): I, R 25, P 35; II, R 81, P 174.

Royal College of Surgeons of Edinburgh.—Licence (2): I, R 7, P 10; II, R 16, P 36.

Faculty of Physicians and Surgeons of Glasgow.—Licence (2): I, R 46, P 31; II, R 44, P 24.

Royal Colleges of Physicians and Surgeons of Edinburgh.—Licence in Medicine and Surgery (2): I, R 146, P 140; II, R 192, P 196.

Royal College of Surgeons of Edinburgh and Faculty of Physicians and Surgeons of Glasgow.—Licence in Medicine and Surgery (2): I, R 9, P 5; II, R 26, P 31.

Royal Colleges of Physicians and Surgeons of Edinburgh and Faculty of Physicians and Surgeons of Glasgow.—Licence in Medicine and Surgery (3): I, R 14, P 36; II, R 2, P 8; III, R 9, P 10.

University of Edinburgh.—M.B. and M.C. (3): I, R 130, P 332; II, R 162, P 300; III, R 45, P 177. M.D. (Thesis): R 7, P 38.

University of Aberdeen.—M.B. and M.C. (3): I, R 35, P 70; II, R 38, P 52; III, R 20, P 53. M.D. (Thesis): P 20.

University of Glasgow.—M.B. and M.C., old (3): II, R 4, P 2; III, R 10, P 3. M.B. and M.C., new (4): I, R 75, P 134; II, R 23, P 114; III, R 22, P 101; IV, R 18, P 86. M.D. (Thesis) R 1, P 23.

University of St. Andrews.—M.D. (1): P 10.

King and Queen's College of Physicians in Ireland.—Licence in Medicine (2): I, R 2, P 6; II, R 44, P 99.

Royal College of Surgeons in Ireland.—Licence (2): I, R 100, P 116; II, R 45, P 113. Licence, new scheme (4): I, R 42, P 104; II, R 49, P 67; III, R 2. Licence in Midwifery (1): P 10. Fellowship (2): I, R 4, P 10; II, R 4, P 10.

Apothecaries' Hall of Ireland.—Licence (2): I, R 13, P 40; II, R 8, P 43.

University of Dublin.—M.B.: Half M.B. Examination, Anatomy, and Institutes of Medicine: R 30, P 49. Botany and Materia Medica: R 13, P 77. Physics and Chemistry: R 13, P 53. Final: R 14, P 43. M.C. (Thesis): P 1. M.D. (Thesis): P 18. B.C. (5): Final, R 6, P 29. L.C. (5): Final, R 1, P 0. L.M. (4): Final, R 0, P 1.

Royal University of Ireland.—M.B. (3): I, R 26, P 96; II, R 71, P 84; III, R 46, P 64. M.C. (1): R. 16, P 88.

A table, showing the number of exceptional cases that occurred during the year 1884, under Clause 20 of the Council's "Recommendations on Education and Examination," together with a statement taken thereon by the several licensing bodies, was received.

Preliminary Examinations.—A table showing the result of preliminary examination in 1884, compiled by the Registrar's returns, was ordered to be entered on the minutes. The following are the numerical results.

	Passed.	Did not Pass.
University of Oxford: Junior Local Examination ..	913	421
,, ,, Senior ,, ,, ..	416	230
University of Cambridge: Previous Examination ..	827	348
University of Durham: Certificate of Proficiency ..	15	20
,, ,, Examination at end of First Year	27	25
,, ,, Examination for Degrees ..	23	15
University of London: Matriculation Examination ..	993	801
,, ,, Preliminary Scientific Examination	147	122
Victoria University: Preliminary Examination	19	31
,, ,, Entrance Examinations in Arts ..	12	11
University of Glasgow: Junior Local Examination ..	130	21
,, ,, Senior ,, ,, ..	93	14
,, ,, Examination for Degrees ..	371	197
University of St. Andrew's: Junior Local Examination ..	226	98
,, ,, Senior ,, ,, ..	107	51
,, ,, Examination for Degree ..	19	—
University of Dublin: Public Entrance Examination ..	132	7
,, ,, Examination at end of Senior Freshmen's year	311	28
University of Dublin: Examination for Degree	165	21
Royal University of Ireland: Matriculation Examination	525	127
Oxford and Cambridge Schools' Examination Board: Certificate	578	446
Apothecaries' Society of London: Examination in Arts ..	93	163
Royal College of Physicians and Surgeons of Edinburgh: Preliminary Examination	332	71
Faculty of Physicians and Surgeons of Glasgow: Preliminary Examination	56	332
Royal College of Surgeons in Ireland: Preliminary Examination	229	79
College of Preceptors: Ordinary Certificate Examination	530	1,346
,, ,, Medical Students' Examination ..	165	295
Queen's College, Cork: Matriculation Examination ..	28	22
Intermediate Education Board of Ireland: Junior Grade	2,841	1,391
,, ,, ,, Middle ,,	567	163
,, ,, ,, Senior ,,	307	78

The Rev. Dr. HAUGHTON moved that the table be received and entered on the minutes, and referred to a Committee consisting of the Rev. Dr. Haughton, Dr. Storrar, and Dr. Haldane. He called attention to the fact that several bodies had sent no information to the Council on the subject. He advised that the returns should be sifted in committee before being considered by the Council.

The motion was seconded, and agreed to.

The Army and Navy Medical Departments.—The usual returns from the Army and Navy Medical Departments were received and ordered to be entered on the minutes.

The Dentists Act.—A table was received showing the results of professional examinations held in 1884 for qualifications granted under the Dentists Act. The summary is as follows. (R, rejected; P, passed.)

Royal College of Surgeons of England.—With curriculum, R 8, P 18; without curriculum, 0.

Royal College of Surgeons of Edinburgh.—With curriculum, R 0, P 3; without curriculum, R 2, P 2.

Faculty of Physicians and Surgeons of Glasgow.—With curriculum, R 0, P 2 without curriculum, R 3, P 1

Royal College of Surgeons in Ireland.—With curriculum, 0; without curriculum, R 5, P 20.

Harvard University (D. D. M).—With curriculum, R 4, P 10.

Examinations of the College of Preceptors.—A communication was received from the College of Preceptors giving a statement of the results of the preliminary examination held by the College on March 10th, 11th, and 12th. It showed that, of 317 candidates examined, 121 (about 40 per cent.) obtained certificates qualifying for registration as medical students, while 12 passed in Mechanics as a separate subject. Of the 184 failures, the great majority were in the subjects of French, Latin, Algebra, and Euclid.

Dr. PITMAN, in moving that this return be entered on the minutes, said it showed that almost every year there was an increasing percentage of rejections.

Dr. HAUGHTON said that out of 317 students, only 12 had passed in mechanics. That, he thought, indicated that there was something wrong in the case of mechanics which the Council's regulations had not reached.

Dr. STORRAR seconded the motion, which was carried.

Complaint against a Registered Practitioner.—A communication was received with reference to the case of a registered practitioner, against whom a complaint had been sent by the Branch Council for Scotland to the General Registrar. It was urged by the Branch Council that it was very important to have the case ready to be dealt with at the present meeting of the Council. Strangers were requested to withdraw while the Council deliberated on the subject. It was decided that the accused person should be summoned to appear before the Council on Tuesday next.

Removal of a Name from the Register.—A communication was received from the Faculty of Physicians and Surgeons of Glasgow stating that George Washington Evans has been deprived of the Fellowship on account of infamous conduct in a professional respect. Mr. Evans's qualification as a Fellow of the Faculty was ordered to be erased from the *Register*, and, by a subsequent motion, his name was removed altogether.

Wednesday, May 13th.

The President, Sir HENRY ACLAND, took the chair at two o'clock.

Removal of Names and Qualifications from Register.—A communication was read from the Royal College of Surgeons of England, stating that, it having been proved that Mr. Ebenezer Bryceson, a student of the London Hospital, before his admission to the Final Examination for the diploma of Member of the College, produced forged certificates of professional study, the Council of the College had cancelled Mr. Bryceson's diploma of membership.

On the motion of Mr. MARSHALL, seconded by Mr. SIMON, it was agreed that the qualification of Mr. Ebenezer Bryceson as member of the Royal College of Surgeons of England be erased from the *Register*.

Dr. HUMPHRY said that the same person was on the *Register* as M.B. of Cambridge University, 1884, but, as far as he (Dr. Humphry) knew, he had never taken that degree.

The REGISTRAR said that Mr. Bryceson, when he came to the office, produced what purported to be a document evidencing his qualification for registration, and filled up the usual form with his name and address as an M.B. of the University of Cambridge.

Dr. PITMAN asked Dr. Humphry to ascertain from Cambridge whether or not the degree had been obtained, and give notice of motion accordingly.

Dr. HUMPHRY said he would bring the matter before the Council to-morrow.

A communication was also read from the Royal College of Physicians of Edinburgh, stating that Bentham Paynter Morison, late of Glenelg, in the Province of South Australia, a licentiate of this College, had been convicted in the Supreme Court of Adelaide, on May 8th, 1882, of conspiring to cheat and defraud the Australian Alliance Assurance Company, and sentenced thereon to one year's imprisonment with hard labour; and had consequently been deprived of all his rights and privileges as a licentiate of the College. A similar course was reported by the College to have been followed in the case of Thomas Robert Horton, a licentiate of the College, who had been convicted in the Supreme Court of Adelaide, on April 28th, 1882, of conspiring to cheat and defraud the Australian Mutual Provident Society, and sentenced thereon to two years' imprisonment with hard labour.

On the motion of Dr. HALDANE, seconded by Dr. HERON WATSON, the qualification of Bentham Paynter Morison, as Licentiate of the College of Physicians of Edinburgh, was ordered to be erased from the *Register*. As it appeared that he was also registered as having a qualification from the Society of Apothecaries, Mr. BRADFORD said he would procure information with regard to the matter, and lay it before the Council.

A similar motion was agreed to with regard to Thomas Robert Horton.

Dr. HERON WATSON said that on October 10th, 1884, it was decided that Mr. Horton's qualification as Licentiate of the Royal College of Surgeons, Edinburgh, should be removed from the *Register*; but it still appeared.

The REGISTRAR explained that the qualification had been erased from the manuscript *Register*, and it was simply a printer's error that it still appeared in the printed book.

It was resolved, on the motion of Dr. HERON WATSON, seconded by Dr. HALDANE, to erase Mr. Horton's name from the *Register*.

A communication was next read from the Registrar-General of New Zealand, reporting the erasure from the New Zealand *Medical Register* of the names of Francis Goold, a Member of the Royal College of Surgeons of England, in consequence of a conviction for felony on December 2nd, 1876; and Lloyd Davenport Parry, a Licentiate of the Royal College of Surgeons of Edinburgh, whose name was erased in consequence of a conviction for manslaughter.

These cases were referred to the Royal Colleges of Surgeons of England and Edinburgh respectively.

The Case of D. M. O'Hara.—A letter from the legal adviser to the Council was read.

May 4th, 1885.

DEAR SIR,—Daniel Murray O'Hara, *alias* Owen Patrick O'Hare, has received the sentence of ten years' penal servitude for levying black mail. Mr. Holden, to whose hands we had committed the prosecution of this man, has very wisely kept back his summons, because the police had informed him, under a promise of strict secrecy, of the greater crime with which the man was about to be charged, and Mr. Holden justly thought that if he proceeded with his summons on behalf of the Medical Council, it would be giving the man an opportunity to escape. I send you the *Liverpool Evening Express*, of Saturday, May 2nd, which contains a report of the case.—Yours faithfully, F. W. FARRER.

W. J. C. MILLER, Esq.

The REGISTRAR stated that it appeared from an extract from the *Liverpool Mercury*, of May 9th, that Mr. O'Hara had committed suicide in Walton Gaol, by hanging himself with a towel.

It was decided to postpone further action on this case until a letter was received from Mr. Farrer, announcing Mr. O'Hara's death.

The Irish Branch Council and the Finances of the Council.—Correspondence with the Irish Branch Council was read. It showed that, on January 13th, 1885, the Irish Branch Council passed the following resolution.

"That the treasurers be authorised to pay the percentage rate of the Branch Council for Ireland for the year 1884, when the audited accounts for the year have been received and adopted by the Executive Committee."

On January 23rd the Executive Committee passed the following resolution.

"That, in the opinion of the Executive Committee, it is desirable that the several Branch Councils should contribute the funds required for carrying on the business of the General Council at such times as they may be required to do so by resolution of the Executive Committee."

To this the Irish Branch Council replied that, "This Branch Council are not prepared to forward funds 'at such times as they may be required to do so by resolution of the Executive Committee.'"

Sir H. PITMAN said the correspondence opened up a question which could scarcely be properly considered by the Council. He would therefore move:

"That the communications with the Irish Branch Council be referred to the Finance Committee, and that the Finance Committee be requested to submit to the General Medical Council a scheme which will render it unnecessary in future that the Branch Council for England should advance the money required to meet the current expenses of the General Medical Council." In his opinion it was time that some better arrangement than at present existed should be made with regard to the funds which were provided for the payment of the expenses of the Council. When he was appointed one of the treasurers, he found that they had no money whatever to deal with. There was no account in the bank standing in their names, and very little money was received during the year on behalf of the Council. It was therefore somewhat of an anomaly for the Council to have two treasurers. In the returns to both Houses of Parliament of Receipts and Expenditure of the General Medical Council, for the year ending January 1st, 1884, appeared the items Contributions by the English Branch Council, £1,682, by the Scotch Branch Council, £636, and by the Irish Branch Council, £473, but those contributions were never furnished. They were returned every year as facts, but they were not so. It was manifestly an irregularity. He would not say it

was an inaccuracy, because it really was a debt due; and no doubt the Irish and Scotch Branch Councils were to be trusted to pay the amounts at their convenience, but they did not pay it during the year. On the other side of the account the cash balance in the bank in favour of the Scotch Branch Council was £900, less due to the English Branch Council, £636, which was credited as having been paid during the year before. The General Council's expenditure amounted to £3,014 5s. 7d., and the receipts out of which the treasurers had to pay the amount were only £221 14s. 8d. That £220 was not in the treasurer's hands at the beginning of the year. Some of it came from the sale of Registers, the sale of the Pharmacopœia, &c., so that they started on the liability of the rent and expenses of the office. It would be in the recollection of some of the members of the Council that it had happened that after a session there had been no money to pay their fees, the Branch Council not having sufficient funds in hand, and the members had had to wait for their cheques. The Executive Committee, finding that they wanted money to meet expenses, called upon the two Branch Councils of Scotland and Ireland, and the latter had passed a resolution to the effect that they would not pay it.

Dr. HAUGHTON: No, we did not.

Sir H. PITMAN said the English Branch Council were not bound to advance £3,000 during the year for the General Council's expenditure. They had no funds in hand for that purpose, and the Council must find money for its own expenses. This was too delicate a matter to be dealt with in the Council, and he therefore proposed his motion. The Chancellor of the Exchequer, in dealing with the national funds, provided at the beginning of the year for the means of paying all his accounts. Why could not the Council do something of the kind? Why could not the Finance Committee make a forecast, and say: "During the year we shall want so much?" Each Branch Council could then pay according to the percentage, and the General Council might open an account at the Bank of England, and so have its money with which to pay expenses.

Dr. HAUGHTON seconded the motion, and said he heartily concurred with every word that had been uttered by Sir H. Pitman. The present relations with the Branch Councils were most unsatisfactory. The only fault he found with the Executive Committee was that they had not enough knowledge of the English language to use the right verb. If they had said "requested," instead of "required," it might have been settled at once. He allowed no man to "require" him to do anything. It was quite reasonable and proper that the Irish Branch Council should advance the money, and they were quite willing to do so.

Mr. MACNAMARA said that, some years ago, he brought this matter before the Council, and a committee, consisting of himself, Dr. Haldane, and Mr. Teale, were appointed to report with regard to it. The view which they took was, that all the money of all the Branch Councils should be given to the General Council. There were, however, great objections to that on the part of the English members, because at that time the English Branch Council had a large sum of money. He, however, went through the *Medical Register*, and he found that one-half the money lawfully belonged to the Irish and Scotch Branch Councils, because it was derived from registering in London degrees conferred in Ireland and Scotland. The grievance was ventilated even before he was a member of the Council, and, in some cases, the English Branch Council was called upon to refund money to the other Branch Councils.

The resolution was agreed to.

Rights of Foreign Graduates in England.—A letter was read from the Secretary of State, enclosing one from the Foreign Office, to the effect that a note had been received from the Danish Minister at this Court stating "that the Danish Government is desirous of knowing upon what condition doctors of foreign nationality are allowed to practise in England." On the motion of Mr. SIMON, seconded by Dr. HAUGHTON, the Registrar was directed to forward to the Secretary of State the clauses of the Medical Act bearing upon the subject.

The Army, Navy, and Indian Medical Departments.—The Council proceeded to consider several communications from the India Office, the Army Medical Department, and the Navy Medical Department, with reference to returns asked for by the Council.

Dr. STRUTHERS moved "That with reference to the letters received from the India Office of October 29th and November 17th, 1884, the Registrar be requested to thank the Secretary of State for India, and to state that a return applying to the examinations for the Indian Medical Service held in London, similar to that furnished to the Council by the Army Medical Department, would be satisfactory to the Council."

The resolution was seconded by Dr. HAUGHTON and agreed to.

Statistics of the Medical Profession.—Mr. MARSHALL moved:

"That a Committee be appointed to superintend the preparation of statistical returns relating to the medical profession of the United Kingdom. That the Committee be empowered to expend on these investigations such sums as may be sanctioned by the President and Treasurer."

Statistics, he said, were very important, and especially in regard to the medical profession. There were several subjects that might be considered with advantage by the Committee which he proposed, with regard to which complete information was in the possession of the Council. Complete statistical returns, such as could be afforded by the registers of the Council, would be extremely valuable. There was, first, the question of waste and supply in the profession. Opposite statements had been made with regard to the question, which could be set at rest by the statistical returns that might be prepared by the Committee. Sir James Paget had made an interesting return as to the career of a thousand students at St. Bartholomew's Hospital, showing how many had passed, where they had gone, what had become of them, how many had left the profession, and the like; and a similar return of that character, on a more extended scale, would be of great value. So, also, would be a return with reference to the question of the duration of study. It had been considered that fresh legislation was necessary on the subject, but the return to which he alluded might possibly show that such was not the case. The question of single qualifications, and the number of persons taking them, would be another useful subject for inquiry. The number of single qualifications had been gradually reduced from 26 per cent. to about 14 per cent. Within the last six months, it appeared that only 11 men out of 150 stopped at the single qualification. There might be certain delicate questions proposed to be dealt with; but, of course, there would be no return made on any subject to which any member of the Council might take exception. The expense of inquiry would be slight, and the Registrar and the office staff could render valuable assistance in obtaining and tabulating the returns.

Mr. SIMON seconded the motion.

Dr. STRUTHERS felt there might be some controversial subject in view in Mr. Marshall's proposal. He thought it would be better to postpone the subject, until the Council had a more definite statement as to the precise question into which it was proposed to inquire. A committee of three would be, in his opinion, too small for so large an inquiry.

Dr. HAUGHTON, in supporting the motion, said it would be very interesting to have the information in the registers duly classified. It might possibly be shown that Scotland had done more in the way of medical education than Ireland, or even England; and an interesting fact of that kind ought to be made known.

Dr. DUNCAN supported the motion, but expressed a doubt as to whether the expenditure it would involve would be a legitimate one. He appealed to the treasurers for an opinion on that point.

Sir H. PITMAN said that the expenditure would be perfectly legitimate, if it were for the purpose of carrying out the provisions of the Medical Act.

Mr. MACNAMARA, in supporting the motion, suggested that the Committee should endeavour to ascertain where persons had been educated, with reference to where they had been registered. Some surprising results, he said, would follow from such an inquiry, and it would probably show the reason why the English Branch Council was so rich, and why the Scotch and Irish Branch Councils were so poor.

The PRESIDENT called attention to the useful statistical work already inaugurated by the Registrar, and expressed his opinion that the labours of the proposed Committee would be of great value in extending that work.

The motion was agreed to, and the names proposed for the Committee were Mr. Marshall, Dr. Haldane, and Dr. Struthers. Some discussion followed as to whether it would not be desirable to have a larger Committee, but Dr. STRUTHERS, who had suggested that the Committee was too small, withdrew his objection, and the Committee was appointed as proposed.

Preliminary Examinations.—Communications were read from the University of Dublin, the University of Oxford, the University of Cambridge, and Queen's College, Cork, in regard to the General Medical Council's amended regulations for the preliminary examinations of medical students.

Dr. HAUGHTON, referring to the communication from the Dublin University, said it had been very carefully considered. It was drawn up by himself, and revised by the Provost of Trinity College. It contained a peremptory rejection of the mode of teaching and examining mechanics proposed by the Medical Council; the University being unwilling to alter their own method in favour of one which they regarded as decidedly inferior. Nobody had from the first given a

more cordial support to the Council than the University of Dublin, when any improved methods were proposed, especially in regard to professional examination; and it was still willing to recognise the Council's paramount authority in such matters; but the Council ought not to expect the University to abandon its well considered methods of teaching and examining in subjects of general education, like mechanics and physics. If the resolutions passed last year by the Medical Council were maintained in force, the students of the University would no longer appear on the *Students' Register;* and the unfortunate result would be, that the students would be able to say that they did not appear there because they aimed at a higher education. That would lead to the supposition that the *Register* contained only the names of students who had received a minimum education. If the example were followed elsewhere, the result might be disastrous.

Dr. HUMPHRY proposed:

"That the examinations in education conducted by universities be accepted as heretofore; but that if, in any of these examinations, the subjects of elementary mechanics of solids and fluids are not included, a knowledge of these subjects should be required at a subsequent examination."

The President, in his opening address, had stated that the Legislature had never intended the Medical Council to be mandatory, but hortatory; and, if it were true in regard to medical studies *a fortiori*, it was true in regard to the subjects of general education. The Legislature could never have intended the Council to be hortatory with reference to general studies, and still less with reference to the particular mode in which an examination, say in English, should be conducted. In the universities, the great work of general education was carried on by men who had given their lives to it; and the Council had almost always desired that the general education of students should be left in their hands, and had from time to time passed resolutions to that effect. The university examinations were of a very high order; the requisites for admission to the *Students' Register* were considerably beyond the requirements of the Council; and it was scarcely credible that the Council should refuse to sanction the examinations simply because they were not in accordance with its own inferior methods. Every student at the universities was examined in Greek (not required by the Council), as well as in Latin; and his knowledge of English was shown in the best possible way, by the manner in which he wrote it. He had, on a former occasion, proposed a similar resolution to that which he had now submitted; and it was then suggested that the universities should be invited to express their views on the subject. That course was adopted, and the universities had given the only answers that could be expected from them.

Dr. CHAMBERS supported the motion. Referring to the communication from the University of Oxford, he reminded the Council that at that University, grammar (with logic), was regarded as essential, and was taught by Latin grammar. He maintained that it was extremely improbable that the University would consent to change its method at the request of the Medical Council.

Mr. SIMON said that, after the Council had given up the large portion of its last session to the consideration of the subject, it was disappointing that it should now be returning to it. He suggested, however, that it would be better discussed after the debate on professional education. He strongly sympathised with the view taken by the Oxford University as to the inexpediency of instituting a special examination in English, and concurred in the remark made in its communication to the Council, "We do not think that the literary character of medical students will be lowered by your not insisting on a special English examination in the case of Oxford students." The Council had on several occasions expressed its opinion that elementary mechanics should form a part of preliminary education, and be passed before registration, but it was ridiculous to press such a regulation in the case of the Universities. The great point on which the Council had insisted was, that the purely medical curriculum should be relieved from the subject of physics. If five or six years were given to medical education, time could no doubt be spared for a full course of physics; but it was not the case when the medical course only extended over forty-five months.

Sir H. PITMAN was surprised that the subject should now be discussed in the Council, seeing that, as far back as 1859, it had decided that examination on general education should be eventually left entirely to the examining boards of the national educational bodies recognised by the Council, and had passed several resolutions to that effect at subsequent periods. He could not understand why, if that was the Council's opinion, it should now be discussing the question whether the University examinations should be recognised. He doubted whether the universities would accept any such arrangement as the Council was seeking to impose.

Mr. TEALE was of opinion that the Council would be placed in an absurd position, if it made the declaration that the University examinations were not sufficient for its purpose.

Dr. WATSON said the subject had been formerly thrashed out, and the Council had expressed its confidence in the universities in regard to their examinations for preliminary education; and it was hard that those bodies still insisted on acting in opposition to the wishes of the Council. There was no reason why a student, who had passed a higher examination, should not have a separate examination for mechanics. All medical students, wherever taught, should be placed on the same footing; otherwise, there would be great confusion and uncertainty among the licensing bodies as to whether their students were to be subjected to an examination in elementary mechanics before going in for a professional examination. There ought to be one rule for all students; and if the Universities would not conduct their examinations as required, other bodies would do so. If the Universities carried out their threat of not insisting upon the registration of their students, all he could say was that, if the students obtained University degrees, they would not be able to obtain licences to practise from the corporate bodies. He maintained that the Council ought to adhere to its definitely expressed resolution, until it had a better reason for reversing it than that the Universities refused to accept it.

Dr. STRUTHERS said it was absurd to ask the Council to rescind a resolution passed six months ago by a large majority. What, he asked, would have been said if one of the Scotch universities had tried to defy the Council as the other Universities had done? There would be no difficulty in instituting examinations in the required subjects; and if the Universities declined, there was the College of Preceptors, whose examinations met all the requirements of the Council. He concluded by moving

"That, in reference to the letters now received from the University of Dublin, the University of Oxford, the University of Cambridge, and the Queen's College, Cork, the Council sees no reason to depart from the resolutions adopted at the last meeting, in regard to preliminary examination for the registration of medical students."

Dr. WATSON seconded the amendment.

Dr. PETTIGREW supported the amendment, and suggested that the original motion should be withdrawn.

Dr. BANKS, in supporting the motion, maintained that it was idle to expect the Universities to alter their regulations at the request of the Council.

Dr. DUNCAN said it would be preposterous for the Council to say that they would not be satisfied, in regard to English, with what satisfied the Oxford University. The difficulty as to elementary mechanics could be easily met by allowing the subject to be taken at a subsequent or separate examination.

Dr. HAUGHTON urged that the subject of elementary mechanics should be taught in the same way to all students, the subject being "one and indivisible." At present it was certainly taught efficiently in the schools.

The debate was not concluded when the Council adjourned.

Thursday, May 14th.

The adjourned debate on Dr. Humphry's motion relating to examinations in general education by Universities was resumed. By permission of the Council, the motion was withdrawn, and the following was substituted.

"That the examinations in general education conducted by the Universities be accepted as heretofore, but that if, in any of these examinations, the subject of elementary mechanics is not included, a knowledge of the subject should be required at a separate preliminary examination."

Dr. Struthers's amendment was thereupon withdrawn, and ultimately the motion was carried. The report of the *Pharmacopœia* Committee was read and adopted. A revised copy of the new edition was laid on the table, and the cordial thanks of the Council was voted to Dr. Quain, the chairman of the committee, for his great services in the preparation of the *Pharmacopœia.* Dr. Lyons brought up the report of the Offices Committee, which recommended the acquisition of a site on the Savoy Estate for a new building, provided the Council were satisfied as to the necessity of removal, and were prepared to incur the expense. A long discussion took place upon this subject, and it was finally settled to refer it to the Executive Committee to take such steps, under professional advice, as they might judge desirable, to further improve the present building. The Council was discussing a motion, by Sir H. Pitman, for the appointment of a committee to consider in what way the accumulated funds can be applied in promoting scientific research, when the hour for adjournment arrived.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 16th, 1885.

A GRAIN OF WHEAT IN A BUSHEL OF CHAFF: THE ROYAL COMMISSION ON THE HOUSING OF THE POOR.

COMMENTING, a few weeks ago, upon the elaborate restraint which some of the Commissioners were imposing upon themselves as to the contents of the report of the Royal Commission on the Housing of the Working Classes, we ventured to prophesy that, when the necessity for their painful secrecy had departed, it would probably be found that the most important of the Commissioners' recommendations would be the proper carrying out of the law that already exists, rather than the heaping up of fresh Acts of Parliament, to be, like their predecessors, more honoured in the breach than in the observance. And so it has proved. The outcome of the Commissioners' suggestions may be briefly comprehended in this saying of their own: "There has been failure of administration rather than in legislation: what at the present time is specially required is some motive power."

Motive power is, indeed, wanted; but how and by whom is it to be created? The Commissioners sententiously observe that "probably there can be no stronger motive power than public opinion." But public opinion needs to be instructed in the dynamics of sanitation; and how is this to be achieved? The Commissioners are ready with a plausible reply. They "recommend that the Secretary of State should be empowered to appoint one or more competent persons for the purpose of inquiring as to the immediate sanitary requirements of each district; that the local authority should be empowered to nominate members of their own body to act with the officers so appointed; and that the reports of such inquiries by the officers appointed should be transmitted to the local authorities, and should also be laid before Parliament." Is it possible to conceive anything more feeble than this? We know enough, and more than enough, of the "immediate sanitary requirements of each district." There is, in the annual reports of the metropolitan medical officers of health, sufficient to convict vestries and district boards of culpable indifference and apathy with regard to this grave social and sanitary question of the proper housing of the poor. The odd conjunction of Imperial and local delegates are not to report to a central authority, prepared to take prompt action, and to insist upon action. Their reports are to be "transmitted to the local authorities," who will forthwith pigeon-hole them; and are to be "also laid before Parliament," to meet the inglorious fate of other Blue-books. This is not the way to create motive power; it is the way to strangle with red tape what little energy does now exist.

No doubt it was difficult, in a Commission constituted such as this, to obtain an unanimous voice with regard to energetic measures of reform. It was probably in the minds of some at least of the signatories to the report, that the storm of popular anger which swept over the country when national attention was first directed to this festering social canker has by this time exhausted itself. Disabilities, punishments, inspections, subordination to higher powers and obedience to their directions, which would have been greeted with universal acclaim in the winter of 1883, would seem a little harsh and be a little unpopular now. And the Commissioners content themselves, therefore, with their notable device for the manufacture of public opinion, of perambulatory mixed commissions to discover what we already know, and to report to the very people whose defaults they have to condemn. There is the most extraordinary timidity on the part of the Government towards London. Great municipalities like Liverpool and Manchester are content to work with the Local Government Board, and to be subject to a possible exercise of central authority. Yet the thirty-nine sanitary authorities of the metropolis are allowed to be exempt from exterior admonition, and have even been successful in postponing indefinitely the much needed consolidation of the public health law of London. It would be too shocking to their feelings to be brought into the same relation as other great towns with the Local Government Board, which looks after the public health of the rest of the country; and the Commissioners deliberately propose, therefore, throughout their report, that the Home Secretary (not the Local Government Board) shall appoint Commissioners, and approve schemes, and do other things which it is perfectly certain he will not do except under pressure, as it will be outside his ordinary sphere of work, and he will not regard himself as responsible for keeping the metropolitan sanitary authorities up to their work. It is literally the truth that Her Majesty's Government departments know less of the sanitary condition and administration of the centre of the kingdom, than they do of the remotest and most insignificant mountain-village in Wales.

It has now been brought, formally, home to the nation and to the Government, that the conditions of existence of a very large proportion of the artisan class constitute a national disgrace and a national danger. We have been told this before, but it has been found convenient to discredit our accusers as extremists and exaggerators. We have soothed our consciences by the thought that we pay people to look after these troublesome matters, and that, if anything go wrong, it is their fault and not ours. We can lay this flattering unction to our soul no longer. A formal official report, signed by men of the highest rank and most conspicuous abilities, sets deliberately on record the existence of social and sanitary evils that, in a generation less callous and case-hardened than the present, would excite a whirlwind of public indignation. The gentle tinkering of the Commissioners' recommendations ought not to be allowed to blind our eyes to the fact that much more than the amendment of this Act and that section, the repression of house-knackers, and the removal of prison-sites, is needed if we want to sweep away this reproach from our midst. It is the personal duty of each one of us to use his strength and his influence in bringing about a more wholesome (and let it not be forgotten, a politically safer) state of things,

as regards the houses of the poor; and we endorse therefore, with all our heart, Sir Richard Cross's admirable suggestion in Monday's *Times*, that the forthcoming municipal elections should be used as a weapon for securing a more healthy and active attitude towards this question on the part of our municipal rulers.

When the Commissioners have so signally failed to grasp the real significance of the great problem submitted for their solution, it does not appear to us necessary to discuss at any length their very excellent but very commonplace suggestions for the amendment of the law. There is only one recommendation—that relating to the municipal provision of dwellings—which at all touches the root of the matter; and this is so carefully wrapped up as to be practically indistinguishable by the unlearned. Commenting on the draft report of the Commission, which slipped into the possession of the *Standard* (and which, despite the customary official denial at the time, has proved to be singularly accurate), we asked whether we, as a nation, were to blind ourselves, by quibbles about a fraction of interest, to our grave responsibility for helping to more wholesome surroundings the miserable, the degraded, and the shiftless of the community. "To think or hope that the nation can do its duty by its weakest brethren, and turn an honest penny into the bargain, is absolutely childish. If we would remove from our midst the standing menace to the public health and the public safety implied in the neglected aggregation of thousands of human beings in foul and pestiferous surroundings, then we must be prepared to pay, and pretty smartly, for it." The Commissioners so far recognise the significance of this argument as to recommend the resurrection of an old Act of 1851 (remarkable as having been guided through both Houses by the personal ministrations of Lord Shaftesbury), and the support of its paralytic limbs with crutches of modern manufacture. The measure in question, known to the elect as the Labouring Classes' Lodging Houses Act, gives power to local commissioners, if called into being (though not one has actually ever been called) by a somewhat elaborate process, to borrow money on mortgage of the rates, for the erection, purchase, or lease of lodging-houses for the working classes, to be managed under by-laws made and enforced by the commissioners. These by-laws may, amongst other things, fix the rent; and we are nowhere told that the rent must be such as to pay the orthodox amount of interest on the municipal outlay. This is the grain of wheat in a bushel of chaff.

The Royal Commissioners make some suggestions for the amendment of this Act—practically they use it as a peg on which to hang an otherwise risky recommendation—and they so far sanction its principle as to advise that "a trial should be given to it." No doubt, the provision of dwellings for the poor by the municipality at unremunerative rates is a somewhat staggering proposal for the political economist of a certain school, though it is difficult to see in what respect it differs in its supposed "communistic" tendencies from the primary education which the School Board provides at a cost phenomenally small to the parents of scholars (and grumbling householders may add, phenomenally large to the ordinary ratepayer). These, however, are not matters which it is our province to discuss. We have simply to deal with the possible remedies for an admitted disease; a disease affecting the whole body politic, and deep-seated in all its tissues. The soothing poultices, the gentle purgatives of the Royal Commission, will not avail us; we must use the scalpel and the cautery. Those who have personally studied this question in its many bearings, with the most anxious efforts to make the financial balance come out on the right side of the sheet, have most reluctantly but decidedly come to the conclusion that you cannot house the poor artisan, at a rent that he can afford to pay, so as to yield a reasonable interest on your outlay. There is nothing for it, therefore, but that the municipality should take up the matter at the point (but not before) that all other agencies have failed, and help the poorest members of society to decent shelter out of the rates.

We cannot now pursue this subject further; but our disappointment at the outcome of the Commissioners' labours is so great that we have felt bound to emphasise the problems which they appear to have imperfectly appreciated, and on which they have given forth so uncertain a sound. It would hardly be respectful, however, to the eminent men who have so patiently and regularly met, week after week, to hear the evidence poured in upon them from all sides by witnesses representing every phase of opinion (eighteen thousand questions have been asked and answered already in the English evidence), that we should absolutely ignore their recommendations for the abatement of the evil. The medical profession, of all classes, does not want to be convinced of the reality of the overcrowding, squalor, vice, sickness, and mortality that make the first section of the report such painful reading. What we are mostly concerned with is the treatment—curative and preventive—of the malady. And the medicaments approved by the Royal Commission are, first of all, as a stimulant, "motive power," *quantum sufficit;* as a tonic, the general adoption of by-laws as to houses let in lodgings; as a diaphoretic, the consolidation of the sanitary laws, and the strengthening of the building by-laws; as a purgative, the reform of London government; as an antispasmodic, arbitration between the Metropolitan Board of works and local vestries; as an astringent, the municipal provision of artisans' dwellings; and as a sedative, the reduction of the rate of interest on loans from the Treasury. Perhaps it would be as well to try a good strong dose of the purgative first.

MILITIA SURGEONS.

THE motion which Sir Eardley Wilmot, at the request of the Parliamentary Bills Committee, proposes to put in the House of Commons on Tuesday next on behalf of the militia-surgeons, namely, "That the case of the militia-surgeons in respect to their just claims to compensation for being deprived compulsorily of their appointments from the exigencies of the service, and not from any fault of their own, be referred to a committee of the House," is deserving of all the support which the influence of the profession with their parliamentary representatives can secure. The grievance of which the militia-surgeons complain, that of being compelled to resign their appointments at the age of 65 without recompense, is one to which the Parliamentary Bills Committee has, from the first, lent a willing ear, and which it has taken most active, and not altogether unsuccessful, measures to redress. To recapitulate briefly the action which has been taken with a view to remedy this crying evil affecting a most deserving branch of the Army Medical Service, may be not altogether inopportune at the present moment; and we would point out that, soon after the order was issued in 1881, questions were asked in the House of Commons as to compensation for those losses which were brought about by the action of Mr. Cardwell's Bill, and the reply made was that every case would be dealt with on its own merits.

The hollowness of such a promise soon became apparent when Mr. Childers, on being pressed, decided that nothing was to be done. The aid was at this time sought of the Chairman of the Parliamentary Bills Committee, whose great interest in all that concerns the Army Medical Service was well known, and he prepared a statement of their case, which, with a petition from that committee, numerously signed, was presented to the House of Commons early in 1882. These were supported by other petitions from several of the licensing bodies in the United Kingdom, and from Branches of the British Medical Association. The Secretary of War, in consequence of the strong representations made to him, agreed to receive further communications, and the Chairman of the Parliamentary Bills Committee submitted the question for the opinion of an eminent lawyer, whose arguments and opinions were brought before the Secretary of War. The Government, on their part, laid the question before the law-officers of the Crown, who expressed it as their opinion that militia-surgeons were not entitled, by law or equity, to any compensation. The question has been much discussed in these columns, both from legal and other points of view, and it has been particularly pointed out that "great weight must be given to the statements in the petition of the militia-surgeons, and the various observations which have been published respecting their claims that, in cases where offices held by individuals under, and taken over by, the Crown, have been abolished, adequate compensation has been made to those whose services were not further required. In support of this statement, it was held, in 1877, in the case of Wells *v.* the London, Tilbury, and Southend Railway Company, in the Court of Appeal, by Lord Bramwell, that as a general rule the 'legislature never takes away the slightest private right, without providing compensation for it.'" Lord Westbury gave it as his opinion, on one occasion, that Acts of Parliament should be so interpreted as in no respect to interfere with or prejudice a clear private right or title, unless the private right or title is taken away *per directum*. Seldom has a question of this kind been so fully threshed out, and such ample reasons given for the opinion expressed, that militia-surgeons are entitled to retiring allowances and pensions, both according to law and equity.

The efforts of the Parliamentary Bills Committee, acting always under the advice and with the assistance of Surgeon-Major MacCormack and Surgeon-Major Smith, of Yarmouth, have been unabated; and the result of the many representations made, and the questions put in the House of Commons, has been to wring from successive Secretaries of War promises which have been broken in practice.

Sir Eardley Wilmot, supported by Dr. Farquharson, M.P., and other members, have ably and energetically brought the question before the House of Commons; and on a previous occasion (in June, 1883), when it was asked that a committee might be appointed to take the matter into consideration, the motion was lost by so small a majority (thirteen), and in spite of so many obstacles, many members who had promised to support the motion having voted against it, that great hopes are entertained as to the successful result of the motion which Sir Eardley Wilmot is announced to bring forward on Tuesday next. At the annual meeting of the British Medical Association, held at Liverpool in August 1883, this subject was again discussed, and the following resolution was passed:

"That this Association views with regret the long delay in the redressal of the grievances of the militia-surgeons of the United Kingdom, and expresses the hope that, in view of the recent strong expression of opinion in the House of Commons in support of a favourable consideration of their case by the Government, the Minister of State for War will grant the request of the militia-surgeons recently submitted to him by motion."

The fact remains that, in January 1881, for the first time, and contrary to all precedent, the order was issued that no medical officer was to be allowed to remain in the militia-service after he had attained the age of 65. The effect of such an order—so harsh, so unjust, so opposed to all sense of equity or justice on the militia-surgeons (issued years after their appointment), at an age when the question of falling back upon private practice can no longer be entertained—is to visit them with suffering and hardship, and, in some instances, to deprive them of their only means of support. Equity, law, and precedent would alike lead them to expect that a pension would follow upon their retirement, and to deny them this is to deprive them of privileges which are accorded to nearly every branch of the public service. We note that, during three years, the Government have saved £10,000 by the compulsory retirement and deaths of militia-surgeons, at the same time that they withhold the small pittance of six shillings a day (about £4,000) which would result from an allowance of retiring pension.

The question is one which is deserving of the support and advocacy of the whole profession, and we trust that members of the profession who have personal acquaintance with members of the House of Commons, will at once communicate with their parliamentary friends, and urge them to support Sir Eardley Wilmot's motion, forwarding the present statement of the case at the same time. We shall be glad to receive the names of the members who have been so communicated with, in order that the Chairman of the Parliamentary Bills Committee may forthwith further address them on this subject.

We much regret that an erroneous announcement of the death, from small-pox, of a prominent opponent of vaccination in the West of England should have appeared in our columns last week. The gentleman in question writes to us to say that he has not even been unwell, and never had small-pox in his house.

Dr. John Lowe, of Lynn, has been gazetted as Honorary Physician to His Royal Highness the Prince of Wales.

The President of the Royal College of Surgeons of England and Mrs. Cooper Forster have issued invitations to a *conversazione*, to be held in the College on the evening of Tuesday, June 9th.

Sir T. Spencer Wells's standard work has just been issued in a cheap form, under the title of *Diagnosis and Surgical Treatment of Abdominal Tumours*. The author has followed the plan adopted in previous editions, the present edition being not only brought up to the present date, but also much extended in scope.

For the vacancy on the Senate of the University of London, caused by the resignation of Lord Cardwell, two candidates—Professor Carey Foster, F.R.S., and Mr. Phillip Magnus—are already in the field. Professor Carey Foster's views with regard to the high standard to be required of candidates at preliminary examinations in science are known, and this will not increase his popularity with the medical graduates, who, however, stand pledged to elect some candidate from the faculties of Arts or of Laws.

We understand that Dr. Lyttelton Forbes Winslow has resigned all connection and interest with the asylums at Hammersmith after June 3rd, and has refused to act as consulting physician, at a salary of £500 per annum, or to allow his name to be in any way connected with the establishment.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

The first *conversazione* of the British Gynæcological Society was given by the President, Dr. Meadows, at the Marlborough Rooms, on Tuesday evening. A very large and influential company assembled, including eminent representatives of every branch of the profession, and a number of provincial practitioners, among whom were Dr. Sinclair Coghill, Mr. Lawson Tait, and Mr. Vincent Jackson. It was stated that upwards of 300 members had already joined this young and prosperous society, and mutual congratulations were exchanged on the rapid and remarkable success which had attended its formation. Among those present were Dr. Barnes, Dr. Ord, Sir William Mac Cormac, Dr. Quain, Dr. Godson, Dr. Crichton Browne, Professor Bell Pettigrew, Dr. Aveling, Dr. Graily Hewitt, Dr. Broadbent, Dr. Protheroe Smith, Mr. Reeves, Mr. Malcolm Morris, Mr. Cowell, and Mr. T. Nunn. The room was filled with works of art, and objects of special scientific interest, including an interesting display of instruments and special drugs, pathological drawings by Mr. Reeves, works of art and various inventions by Dr. Routh, Dr. Propert, Dr. Aveling, Dr. Bantock, Dr. Heywood Smith, and others; and a collection of ancient Japanese arms and metal-work, and of captured arms from Suakin, lent by Mr. Ernest Hart.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

A general meeting of the Association is summoned for Wednesday, May 20th, at the Medical Society's Rooms, at 5.30 P.M., to consider the action of the Association as to the proposed new charter, and to submit the following propositions. 1. That it is inexpedient for the Association of Fellows to unite with the Association of Members in its demand for representation. 2. That if, however, the Members should succeed in obtaining the right to elect members of Council, it is desirable that the existing rights of the Fellows should be adequately protected in the new charter.

A CHAIR OF CLINICAL THERAPEUTICS.

The Council of King's College have this week taken a new departure of considerable interest by creating a new Chair of Clinical Therapeutics, to which Dr. Burney Yeo, physician to the hospital, was elected professor. We think the College is to be congratulated upon taking a step which is of considerable practical interest to scientific teaching. The new chair is calculated to meet a want which, undoubtedly, is often felt in our medical schools, by affording opportunities for the examination and discussion with the pupils of important questions of a practical kind, bearing upon the treatment of disease. Such a chair will open out a large field for practical teaching, by which the students will greatly benefit, and of which Dr. Burney Yeo, with his considerable clinical experience and attainments in scientific therapeutics, will be able, better than most other men, to avail himself.

DANGER FROM PHTHISICAL FARM-LABOURERS.

Our Paris correspondent writes: A farm at Charenton has furnished somewhat startling evidence of the transmissibility of tuberculosis from man to domestic animals. One of the farm-servants, who was phthisical and too weak to undertake fatiguing duties, was placed in charge of the poultry-yard. He grew steadily weaker, and coughed incessantly, expelling a quantity of sputa, which the fowls were observed to swallow with avidity. In a few weeks, the fowls began to die off. The owner of the farm sent one of the fowls to the veterinary school at Alfort. M. Nocard found that the lungs and liver were infested with tubercles about the size of a pea, and of a greyish-yellow colour. In a microscopic preparation, there were numbers of bacilli. The fowls were killed, and the poultry-yard disinfected. A less honest farmer might have sent the tuberculous fowls to market, a probability which doubtless has been, and will yet be, a certainty not always easy to discover. The danger attending the consumption of diseased poultry or milk from tuberculous cows, indicates that a rigorous system of inspection ought to be organised for markets, farms, and poultry-yards.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

The quarterly meeting of the Medico-Psychological Association was held on Friday, May 8th, at Bethlem Hospital; Dr. Rayner, president, in the chair. There was a numerous attendance of members. The provisions of the new Lunacy Bill were discussed at some length, a very strong expression of opinion being elicited that the intervention of the magisterial authority (as provided in Clause 2), prior to the granting of an order for the treatment of a person of unsound mind, was undesirable; and would lead, if adopted, to delay in treatment, to attempts at evasion of the law, and other untoward results. It was, however, considered difficult to suggest any officials for carrying out the proposed provision other than those indicated in the Bill; but it was urged that the power of those authorities should be purely "ministerial," and that, when any doubt arose on medical questions, they should only have power to direct a further medical examination. It was reported that these and other points, including the desirability of protection to medical persons signing certificates of insanity, and more extensive provision for secrecy in examination, had been already brought under the notice of the Lord Chancellor by a deputation to his office. A committee was appointed to draw up a suitable resolution, to be presented to the annual meeting, in the event of Lord Shaftesbury's resignation of the Chairmanship of the Lunacy Commission being confirmed.

EXCISION OF TUMOUR OF THE BRAIN.

The discussion, last Tuesday, at the Royal Medical and Chirurgical Society, of a case in which Dr. Hughes Bennett diagnosed or most correctly localised a small cerebral glioma, which was giving almost intolerable pain, and advised its excision by Mr. Godlee, which was accomplished successfully so far as the operation was concerned, showed the rapid advance of cerebral surgery, and gave some glimpses into the benefits that may be derived from it. The operation was commented on at the time in many public papers, as recklessly hazardous and almost criminally unjustifiable; and in that connection it was very important to notice the carefully considered but emphatic approval given to the operation by Dr. Hughlings Jackson, the most prudent and learned master of the functions and capabilities of the brain, trained by the bedside, and not in the experimental laboratory. He contributed what is perhaps the most important element to the discussion of a new operation, namely, a sketch of the cases where it should not be attempted. Dr. Ferrier was able to contribute a case in which he had accurately diagnosed cerebral tumour. Sir Joseph Lister had exposed the brain, and had made an exploratory incision, which showed that the tumour was where it was expected to be, but, unfortunately, was too large for removal; relief, however, was given during the brief remainder of the patient's life, and no harm came of the wound. Dr. Macewen, too, came from Glasgow to detail two out of the seventeen cases in which he had operated on the brain, and fourteen of which had been successful. The first was of a degenerating gumma, which did not need such accurate localisation as Dr. Bennett's case, and only incision, instead of careful and complete excision; but it was very remarkable as a case of nearly perfect cure. In the second case, and presumably in many of the remainder, the localisation was determined by an external wound, and the adhesions formed by the primary injury rendered the surgery less hazardous. He gave, however, very useful practical hints on the advantages of strict antiseptic treatment

and drainage by chicken-bones, and, what was more novel, the possibility of reimplanting successfully portions of the excised bone. Mr. Godlee's singularly clear and candid criticism of his own operative procedure showed how much can be learnt from a single operation, and the sense of the meeting was certainly with him when he said that, if a second similar case presented itself, he should feel justified in an essentially similar procedure, with the additional precautions which experience had taught him.

EVIL SMELLS IN THE HOUSE OF COMMONS.

THE report of the Inspector deputed to make the inquiry into this subject has not been published, but we have reason to believe he has found the smells to be due to scavengers' yards, where the refuse is burnt at night in smouldering heaps.

LONDON FEVER HOSPITAL.

THE Right Honorable the Lord Mayor has consented to preside at the second festival dinner in aid of the funds of the London Fever Hospital, and which is to be held at Willis's Rooms, on Tuesday, June 23rd.

HEPATOTOMY AND LAPAROTOMY ABROAD.

ON May 6th, Mr. Lawson Tait performed laparotomy and hepatotomy at Nice, on Professor Budin, of the Faculty of Paris. Professor Budin has been ill for two years past. His symptoms pointed from the first to some abnormal condition of the liver. The exact state of things, however, remained obscure. About a fortnight ago, a consultation between Professors Tarnier, Brouardel, Bouchardat, and Drs. Bar and Thaon, took place, when it was decided that laparotomy should be resorted to. Mr. Lawson Tait was asked to go to Nice to do this. On cutting into the liver, he found a tumour containing a great mass of hydatids, which he successfully removed, A drainage-tube was left in the wound. Dr. Taylor, of Birmingham, remained in charge of Dr. Budin. Since the operation, Professor Budin has made an uninterrupted recovery, and there is every prospect that he will soon return to his work in Paris.

DISQUALIFICATION BY MEDICAL RELIEF.

MR. DAVEY was successful on the 12th instant, in obtaining the insertion, on the report of the English Registration of Voters Bill, of a clause, which had been previously rejected in Committee, providing that medical or surgical relief, or the giving of medicine, shall not be deemed to constitute parochial relief, so as to disqualify the recipient from exercising the franchise. We have no intention, at the present moment, of going into the ethics of this question; but clearly what was considered by the Government right in Ireland can hardly be wrong in England. Much of the debate on the several occasions when this question has been recently under discussion has been, as might be anticipated, beside the point. There can be no doubt, however, that such "relief" as isolation in a rate-supported infectious hospital, for the benefit and protection of the community at large quite as much as of the patient himself, ought not to deprive a man of any electoral privileges. And if a dweller in a town can get, without legal branding as a pauper, the benefits of free hospital-advice, it is hardly fair that the rural artisan, who has no hospital to fly to, should be deprived, with one hand, of the vote which has just been given to him with the other, because he gets from the parish a black draught or a pot of ointment.

A DEPUTY COUNTY CORONER ON INFANTILE MORTALITY.

MR. HARDY, the deputy county coroner for one of the divisions of Lancashire, last week held an inquest on the body of a child aged four months, the daughter of a single woman. In summing up the evidence, he made the following observations. "He thought that this was a proper case for inquiry, but it was only one case out of hundreds where children had been left while their mothers were at the mill. There was no criminal neglect, and he thought these inquiries were not altogether lost if they were the only means of instructing the people. There were, no doubt, hundreds, and he might say thousands, of infant lives needlessly sacrificed every year. He knew perfectly well, from his experience of the last few years he had acted as coroner, that children had been dosed with soothing syrups, they had been fed with improper food, and the result had been an early death, through convulsions or something else, but directly traceable to what had been given. This was an important question. He was one who held that, if a strong healthy child were brought into the world, it was an acquisition to society, it would be a creator of wealth, and ultimately become useful to the country at large. In his opinion, there ought to be some institution where children, whose mothers were compelled to go out working, could be sent. The present case was an instance where a child had been sacrificed." We trust that Mr. Hardy's remarks will receive serious attention. The case of the unfortunate infants who are deprived of their mothers' care by mill-work is very deplorable. There are, however, of course, very complicated economic and legislative questions connected with this difficult problem, and its solution is by no means easy. Social arrangements may be more effective in such cases than legislative effort; but the question is one for inquiry and discussion.

THE VISIT OF THE ROYAL COMMISSION ON THE HOMES OF THE POOR.

SIR CHARLES DILKE is certainly not sparing himself in his duties as Chairman of the Royal Commission on the Homes of the Poor. He, and some of his colleagues, spent their Easter holidays in holding sittings in Edinburgh with reference to the state of affairs in Scotland; and the Whitsuntide vacation is to be spent in the same fashion by holding an inquiry at Dublin for the reception of the Irish evidence. This does not need to be very voluminous, for, in addition to the Select Committee of the House of Commons, which took full evidence last year upon the condition of agricultural labourers in Ireland, a Royal Commission, appointed specially *ad hoc*, made an exhaustive inquiry into the sanitary condition of Dublin in the year 1881. Four long days' sittings were found quite sufficient for the evidence from the whole of Scotland, rural as well as urban, and it is considered that a week will be enough for the urban evidence alone which it is proposed to take in Ireland. The preliminary arrangements are being carried out according to the plan which was followed with successful results in England and in Scotland, and the Secretary of the Commission is now in communication with the corporations of Dublin and of the principal provincial cities. Local inquiries will not be made, however, at any of the latter, as it is proposed to follow the precedent of the Scotch inquiry.

UNIVERSITY COLLEGE HOSPITAL.

THE Prince of Wales presided, on May 13th, at the annual festival dinner in aid of the funds of University College Hospital; a very large company assembled, and the large dining hall of the Langham Hotel was quite filled. In responding to the toast of the Army, given by the Prince of Wales, Lord Napier of Magdala referred in a few appreciative words to the important services rendered by the medical officers of the army, who brave all the dangers, but too often do not receive the rewards, of the fight. The Prince of Wales made a very earnest and business-like appeal for increased support for the hospital, which he spoke of as an institution essential to the wants not only of the metropolis, but of the whole kingdom. During the fifty years of its existence, the hospital has relieved over a million patients, and has supplied a necessary part of the education of 5,000 students. The financial position of the hospital is somewhat precarious, as it depends largely on annual subscriptions and donations. Old students are asked to contribute to its support by subscribing to the old students' jubilee fund, recently established; and we may express the hope that

they will not show themselves less grateful than the class who supply the patients of the hospital; these have contributed during the past year £3,000 to the people's contribution fund. The Prince of Wales said that the reason why hospitals were so constantly in debt was twofold—the increase of the population, and the advance of medical science, calling for more complicated and expensive, if more effectual, methods. The medical profession ought to do something to meet this latter source of pecuniary embarrassment.

GUY'S HOSPITAL ON THE STAGE.

In *The Last Chance*, a drama by G. R. Sims, now being played at the Adelphi Theatre, one scene represents the part of Guy's Hospital where the convalescent patients delight to breathe the fresh air under the plane-trees. The view, by Mr. Bruce Smith, represents the clinical ward and the old fountain on the left, and the sun-dial on the right, whilst the new building, or Hunt's House, forms the background. This the artist has treated with some licence, making the upper stories of red instead of yellow brick, in order to give a warmer background to the scene. Sisters in the Guy's uniform, blue with white aprons and caps, and nurses in pale prints, come among the patients, who appear very contented and happy. One convalescent declares it to be "the noblest institution in the whole world," and a little girl begs to be always allowed to remain there instead of being sent back home, a request one has often from children in hospitals. Some students are also present, apparently very intent upon reading the newspaper. They might with greater truth have been represented carrying down on stretchers patients too ill to walk, a service they are never tired of rendering during the summer months. The only sign of discontent in this pretty scene is that of the gossiping old chronic rheumatic, who pursues a doctor out of the grounds with the request that she may have stewed eels instead of fried sole. Mr. Sims has done good service in representing a hospital in its true light, as the greatest of boons to the poor, where they are sure to meet with kindness and skilled assistance when injured or ill. He has, moreover, produced a most interesting play, which is filled with thrilling incidents, yet never reaches the overclimax of a murder or suicide, but ends with a touching scene and a true dramatic situation.

THE BIRTH-RATE IN FRANCE.

The decline and fall of the Roman Empire is one of the few colossal changes in long past history with which the world has had a fair chance of becoming duly impressed, thanks in part to the genius of Gibbon. But it is since the days of Gibbon that any deep or accurate analysis of the causes at work has been entered into. One result of the attempts at such an analysis has been the growing conviction that the decline in the Roman Empire was due, in part, to the declining birth-rate of the Romans; the Roman power dwindled with their dwindling numbers. The facts have been put nowhere more strikingly than by Professor Seeley, in England, but their lesson and warning is felt most keenly in France. The French increase in numbers, it is true, but more slowly than any other European people. During the present century, the population of England has been increasing at a rate such as to double itself in 53 years, but it would require 160 years to bring about such a result in France at the present rate of progress; and if the French emigrated at the rate that the English do, the population of France would not increase at all. Such facts call forth, every now and then, such eloquent and earnest remonstrances as M. Gueneau de Mussy has just published in his pamphlet, *Sur la Diminution de la Natalité en France*. He points to the Jews as showing, on Mr. Ernest Hart's demonstration, the close connection of early marriages, and a high code of matrimonial morality, with a prosperous and long-lived race. The average length of Jewish life, both in England and in France, he puts at 49 years, of both English and French at about 37, with a slight advantage in favour of England. But what is more important is, that the French have not only a smaller proportion of married couples than their neighbours, but also a very much smaller average number of children to their marriages—about one child *per annum*, if we recollect the last census rightly, to twenty married people. That he traces, in part to sterility and in part to deliberate purpose. The distaste for physical exercise in the boy, the reckless habits of many of the young men, the common lateness of the marriage, he brings under severe reproof. As helping to form, or to maintain the deliberate purpose, he condemns the laws of inheritance, which break up the father's property into equal parts for all his children. But, underlying all, he admits a want of vitality, energy, and moral soundness, which forms a matter for very serious consideration, coming as it does from the pen of so true a friend of his country, who is neither a visionary nor a Puritan.

SCOTLAND.

UNIVERSITY OF EDINBURGH.

At the second professional examination held last month in Edinburgh University, 129 candidates passed successfully, the four subjects being anatomy, physiology, materia medica, and pathology. Seven of the candidates passed with distinction.

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS, EDINBURGH.

For the double qualification of the Royal Colleges of Physicians and Surgeons, Edinburgh, eight candidates passed the first professional examination last month, and twenty-four passed the final examination, and were admitted L.R.C.P. and S.E. For the single diploma of the Royal College of Surgeons, five candidates obtained the L.R.C.S.E. Three passed the first professional examination for the diploma in dental surgery, and six passed the final, and received the L.D.S. For the triple diploma of the Edinburgh Colleges and the Glasgow Faculty of Physicians and Surgeons, forty-five passed the first professional examination, eighteen passed the second, and fourteen the final, and were admitted L.R.C.P. and S.E., and L.F.P. and S.Glas.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.

At a meeting of the directors of the Royal Edinburgh Hospital for Sick Children, held last week, Mr. R. Dundas Helm, M.B., C.M., was elected resident physician, and Mr. W. J. Smith assistant to the extra physicians. The number of patients treated in the hospital during the month of April was 119; of these, 62 were in the hospital on March 31st, and 57 were admitted during April; 48 had been discharged cured, and 8 relieved; the average daily number of sick was 58. At the dispensary, 712 patients were treated and 10 vaccinated; of these, 281 of the cases were from Edinburgh, 80 from Leith, and 17 from the country. Thus the number of patients treated at the hospital during the month was 831.

LECTURES ON DISEASES OF CHILDREN.

The University of Edinburgh has taken an important step with regard to instruction in the diseases of children, by instituting a course of lectures, and of clinical instruction, in diseases of children. The lecturers are the physicians to the Royal Hospital for Sick Children, Edinburgh, Dr. James Andrew and Dr. James Carmichael, and the clinical instruction is given in the wards of the Sick Children's Hospital. The opening lecture of the course was delivered on Saturday, by Dr. Andrew. The fee for the course has been fixed for the present at one guinea. Considering the wide distribution and importance of the diseases of children, the new arrangement cannot but be beneficial to the students, who are already availing themselves of it. It should be remembered that the staff of the Sick Children's Hospital have, at all times, encouraged students of medicine to avail themselves of the wards under their care, for the purpose of acquiring a practical knowledge of infantile diseases.

UNIVERSITY OF ABERDEEN.

THE statutory period for joining the medical classes for the session having now elapsed, it is found that there is the largest number of beginners that has, perhaps, been recorded in the history of this school.

EXTENSION OF THE UNIVERSITY OF ABERDEEN.

THIS movement seems to be taking root, wherever the alumni of this University are gathered together. On Wednesday, last week, a representative meeting was held in Inverurie, when a local committee for the Garioch and Alford districts was formed to promote this object. On the same day, a meeting for a similar, as well as another purpose, was held in Manchester, where there is a large number of Aberdeen graduates. The meeting welcomed Professor Ogston on his return from Suakin. Professor Ogston explained the requirements as to the extension of the buildings in Marischal College, and a committee was appointed to arrange a scheme for assisting to carry out the object of extension. The Town Council of Aberdeen and other local bodies are shortly to be invited to co-operate in the matter. A public meeting was held in Inverness on Saturday last to consider the proposed extension of this medical and arts school. It was agreed to support the request to be made to the Government for a grant from the public funds to enable this extension to be carried out.

BRITISH ASSOCIATION IN ABERDEEN.

IT is satisfactory to learn that everything promises well for a good meeting. The guarantee-fund now exceeds £2,500, and several interesting excursions have been arranged. Ample arrangements have been made for the meetings of the various sections, and everything goes on satisfactorily. The small difficulties have been overcome, and everyone seems bent on doing his best to make the meeting worthy of the Granite City. Visitors may look for a warm and cordial welcome in September. The first day of the meeting is September 9th.

RETURN OF PROFESSOR OGSTON FROM SUAKIN.

PROFESSOR OGSTON returned from Suakin on an early day in May, and reached Aberdeen on the 8th. A considerable number of medical students met the gallant surgeon at the railway-station in Aberdeen, and gave him a hearty welcome on his return. Dr. Ogston resumed his university duties on Monday, after his return from the Soudan. He gave an account of stretcher and bearer work in connection with the warfare, and contrasted the medical arrangements during an actual engagement as at present carried out with those that obtained in wars at the beginning of the century. He strongly advocated the introduction of instruction in bearer-company drill amongst volunteers.

A TEACHING DISPENSARY.

PROFESSOR HAY has undertaken the charge of the medical work of the North Lodge Medical Mission in Aberdeen. Formerly, this was a very popular dispensary under Dr. Wolfe, now of Glasgow; but, after his departure for the West, and for other reasons, chiefly pecuniary, it could not be carried on. It has again been opened, under very favourable auspices, and it offers a large field for outdoor dispensary work for the advanced medical students. Such an additional adjunct is valuable in connection with the growth of the medical school.

THE SCOTTISH REPORT ON THE HOUSING OF THE POOR.

As the Royal Commission appointed to inquire into the housing of the working classes has decided to present separate reports for the three countries, the one that has just been issued dealing with England contains no reference at all to Scotland. It is understood, however, that the Scotch report has been drawn up and signed, and will be at an early date presented to Parliament. The two portions into which t is divided treat re spectively of the towns and rural districts; in connection with these latter, special reference being made to the Crofter question. The general tenour of the evidence furnished to the Commissioners is that there is not the same deplorable poverty and misery in the large towns of Scotland as was shown to exist in London and other English centres. Naturally, the Scotch report considers at some length that prominent feature of town-life in Scotland, the single room system; and figures are given to show its prevalence in Edinburgh, Glasgow, and Dundee. When the report has been formally issued, we may on another occasion consider more in detail its leading features, and remark on some of the important suggestions it has to offer upon matters which are very closely bound up with the health and welfare of our urban and rural populations.

AMBULANCE-WORK AMONG THE DEAF AND DUMB.

DURING the past winter, the St. Andrews Ambulance Association has been instrumental in establishing several courses of lectures, at which instruction was given as to the proper aid to be rendered in cases of accident and sudden illness. One of these classes had a certain element of novelty in it, inasmuch as an effort was made to instruct pupils, all of whom were deaf and dumb. The task of lecturing to them was undertaken by Dr. J. Stuart Nairne, and by the aid of the Secretary of the Glasgow Mission to the Deaf and Dumb, who acted as interpreter, all the difficulties connected with the undertaking were successfully overcome, so that, at the examination of the class held last week, all of the pupils made a most favourable appearance. At the close of the proceedings, Dr. Johnston, the examiner, expressed himself as most satisfied, and said that what he had seen that night showed him that the members of this class were quite equal in dexterity and manipulation to those of other classes that had not to contend with such disadvantages as they had; and he was pleased to see that the St. Andrews Ambulance Association had taken the initiative in providing suitable instruction for those who were so much shut out from communion with their fellow-creatures.

AMBULANCE EQUIPMENT FOR DUNDEE.

A MOVEMENT was some time ago originated in Dundee for the purpose of thoroughly equipping the town with ambulance-appliances, in order to turn to practical account the instruction imparted to the classes connected with the local centre of the St. John Ambulance Association. A warm interest has been taken by some of the citizens in the matter, and they have freely subscribed sums for appliances, which have been placed in suitable situations. To these have now been added an ambulance-carriage, of which Mr. Armitstead has borne the entire cost.

THE GLASGOW ASYLUM FOR THE BLIND.

THIS charity, which is one of the oldest in Glasgow, and was established for the industrial and educational training of the blind, held its annual public examination of pupils on the 8th instant. There was a large attendance of those interested in the work, and the results obtained could not but be gratifying to those who witnessed them. The educational performances of the children were excellent, the usual reading and writing exercises being supplemented by examinations in geography, arithmetic, and English history, in all of which great proficiency was shown. A visit to the asylum itself shows that its labours are not confined to the school, but that in the workshops such trades are taught as enable the blind to earn their own livelihood; and, in this way, admirable provision is made for a very large and deserving class in the community. It is to be hoped that the increased monetary support which such a deserving institution at present needs will be forthcoming at the hands of the public.

WORK IN THE BEN NEVIS OBSERVATORY.

FROM time to time, we have noted the different steps in the movement that eventually led to the erection and equipment of an observatory on the summit of Ben Nevis, and we have also now and

again briefly alluded to the excellent work being carried on there, the data from which have already led to several important deductions in meteorology. For those interested in the subject, we may say that, in a paper prepared at the request of the Council, and read at the last meeting of the Royal Society in Edinburgh, Mr. Omond has given a very interesting narrative of his two years' residence at the Ben Nevis Observatory, and of the work done by his assistants and himself. His communication brings vividly before us some of the many physical difficulties that had to be overcome in carrying out the scheme mapped out for them, especially in the first year of residence, before the recent additions made to the observatory; and it says a great deal for their energy and perseverance that the observers accomplished what they did. In the first winter, the observations were of necessity incomplete, it being sometimes impossible to take them, and at other times they were lost through stress of weather; but, during last summer and this winter, a complete set of readings of the various instruments has been taken at every hour by night as well as by day. To show the varied character and range of the work in hand, it may be mentioned that, amongst the points approximately established, were the normal or average temperature and barometric pressure for each month, and the normal differences between these averages and those at sea-level; the daily variation of temperature and pressure during each month; the daily variation in the average velocity of the wind, which was found to be greater at night than during the day —exactly the reverse of what holds good at sea-levels; the variations in the directions of the wind, as compared with those prevalent over Scotland, at any given time, this point being of great importance in forecasting the weather. Some attention was also paid to the important question of atmospheric circulation; and, in connection with this, some very interesting phenomena were noted. Contrary to what is the general idea, the winter temperatures on Ben Nevis were not so very low, the ordinary range being from 15° to 25° Fahr.; the lowest temperature recorded was 10° Fahr. In the coming summer, Professor Ewing, of Dundee, whose investigations on earthquakes in Japan are well known, intends to fit up apparatus for recording any tremors that may be going on on Ben Nevis. Mr. Omond concluded his paper by a strong opinion in favour of high-level observations as furnishing the most reliable data, especially when taken in conjunction with the work done at low-level stations, for advancing the science of meteorology; and it is to be hoped that the scope and extent of the work he is now carrying on may not be curtailed by any want of public support.

IRELAND.

It is stated that, in consequence of small-pox having occurred in Enniskillin, most of the troops stationed there have been placed under canvas.

We regret to notice the death of Mr. John Neill, Resident Surgeon of Steevens' Hospital, from pyæmia, the result of a dissection-wound. Mr. Neill was only 25 years of age. He distinguished himself as a student; and, as a demonstrator of anatomy in the Ledwich School of Medicine, and as a private teacher, exhibited abilities which indicated a successful career in the profession from which he has been so unexpectedly removed.

CERTIFICATE-SCHEDULES.

Under new regulations lately issued by the Royal College of Surgeons in Ireland, it has been directed that, in future, students presenting themselves for any of the professional examinations under the new educational scheme laid down by the College, will be required to submit the proofs of the required courses of study in schedule form, and that the production of the certificates heretofore in use will no longer be necessary. Four separate forms of schedules have been provided, one for each of the four examinations, and books containing a supply of each form have been issued to registrars of Irish medical schools, to whom students must apply for them. The entries required on the schedules are to be attested by the lecturers of the school, and by the registrar of the hospital which the student attends. And the student himself, in presenting the schedule with the receipt for lodgment of the required fees, and any other necessary documents, to the registrar of the College, must then, in his presence, sign a declaration that the statements made in the schedule are in every respect correct and true. Each schedule so lodged will be preserved by the College as evidence that its Licentiate has fulfilled the course of study enjoined by the regulations.

ANOTHER CONJOINT SCHEME.

The King and Queen's College of Physicians have, by a small majority, resolved to accede to a request sent them by the Council of the Royal College of Surgeons in Ireland, to appoint delegates to consider with delegates from that College another scheme for a conjoint examination of the two Colleges. The outline of the scheme, as now proposed by the Royal College of Surgeons, follows closely the lines of the *ad interim* report of the combined committee of the two Colleges, which was wrecked last January twelve months, when that report was being considered by the College of Surgeons, by the introduction into it, at the last moment, of a clause stating that it was "desirable that the Apothecaries' Society be requested to co-operate in the conjoint scheme of examinations." However desirable such an alliance might seem to the Council of the Royal College of Surgeons in Ireland, the King and Queen's College of Physicians were, fortunately, unwilling to enter into a combination, such as proposed, with a trading association, and peremptorily refused even to discuss the report as "amended" and approved by the College of Surgeons when it came before them. As was stated at the time in the Journal (March 1st, 1884, p. 429), such a procedure on the part of the Council of the Royal College of Surgeons was clearly calculated to entail the collapse of the scheme, and as such was supported by its opponents. It is unlikely a similar proposal will be made by the same College this year if a conjoint scheme be approved by it. One of the avowed objects in desiring a combination between the Colleges, is that, if such were effected, it would put a stay to medical legislation, and the consequent disestablishment and disendowment of these corporations. We cannot see the force of this argument ourselves. It was not put forward in 1872 by the Conjoint Examining Board for Ireland then proposed.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An ordinary meeting of the Council was held at the College on Thursday, May 14th.

The usual resolution was passed for the election of Members of Council on the first Thursday in July.

A report was received and adopted from the Committee in reference to the required Certificate of Instruction and Proficiency in the practice of Vaccination. Recommendations from the Committee of Management of the Examining Board in England of the Colleges of Physicians and Surgeons, regarding the admission of Students from Universities other than those in England to the examinations of the board, were received and adopted.

The report of a committee appointed some months ago to consider what form the memorial to Sir Erasmus Wilson should take, recommending that it should be a bust, executed in marble by Mr. Brock, A.R.A., was received and adopted.

Mr. Durham moved the following motion, which was seconded by Mr. Savory, and carried *nem. con.*:

"That seven delegates from this College be appointed, with authority to invite an equal number of delegates from the Royal College of Physicians, to meet and confer upon what steps, if any, can be taken to enable the two Colleges to obtain the legal right of giving the title of 'Doctor' to persons who shall have obtained the License of the Royal College of Physicians of London and the Diploma of the Royal College of Surgeons of England."

The President, Vice-Presidents, Mr. Marshall, Sir Joseph Lister, and Messrs. Durham and Hulke were appointed the delegates from the College.

CONFERENCES IN BERLIN FOR THE DISCUSSION OF CHOLERA.

THE second series of the Conferences, which were adjourned last July, began on May 4th in the Imperial German Board of Health at Berlin. The reports of the sittings hitherto published are only brief and provisional. The following abstract is taken from the *Deutsche Medicinische Wochenschrift.*

Professor VIRCHOW, the Chairman, opened the meeting. The first subject of the order of the day was:—"Demonstration and discussion of the latest experiences on cholera bacteria obtained since the last meeting, with special reference to their qualities of duration." Dr. Koch began by discussing the views published since the last meeting. Those of his opponents—Finkler and Prior, Klein, Emmerich—he criticised, and concluded that the comma-bacillus was nowhere to be found except in cholera, in which disease it was never absent. Dr. Koch cited as confirmatory of his views the examination of covered glass-plates that he had received from Calcutta, smeared with the contents of the intestine of 79 cases of cholera. He demonstrated a series of pure cultivations from France, Italy, and Germany, all resembling one another in every respect. He considered it proved that the comma-bacillus belonged exclusively to cholera, and was easily distinguished from all other bacteria, and that it is therefore serviceable from a diagnostic point of view. He described the successful experiments he had made with pure cultivations on animals. These were made on guinea-pigs. They received 5 cubic centimètres of a 5 per cent. solution of soda, and 20 minutes afterwards 10 cubic centimètres (nearly 3 drachms) of meat-infusion containing comma-bacilli were injected into the stomach; immediately afterwards tincture of opium (1 cubic centimètre to every 200 grammes of the animal's weight) was injected into the abdominal cavity. The next day the animals showed symptoms of being ill, the hair became scrubby, the hinder extremities and the muscles of the back became strikingly weak, and they died in from 1 to 3 days after the operation. On *post mortem* examination the small intestines was found to be swollen, it and the stomach and cæcum being filled with a colourless alkaline flaky liquid containing an almost pure cultivation of comma-bacilli. Similar experiments succeeded in 85 guinea-pigs. This mode of proceeding with the solution of soda and opium rendered animals more easily susceptible to the pathogenic qualities of other bacteria also. Finkler's and Denecke's bacilli had a pathogenic effect but in a less degree. Other phenomena were observed also, different from those observed when comma-bacilli were injected. In the case of Finkler's bacillus real putrefaction set in. The comma-bacillus was speedily destroyed by dryness and other disinfectants, for instance, by a half per cent. solution of carbolic acid. Dr. Koch stated that, of the 150 medical men who attended the courses on cholera in the Imperial Board of Health, one of them got "cholerine;" comma-bacilli were found in his dejecta. The pure cultivations from Germany mentioned above came from this case. Concerning the durability of the comma-bacillus, experiments showed that it could be kept alive in spring-water for 30 days, in sewage-water for 7 days, in the contents of a cess-pool for 24 hours, on damp linen for 3 or 4 days, in the harbour waters of Marseilles (according to Nicati and Rietsch), for 81 days, on Agar-Agar for more than 144 days. But a real permanent form corresponding to the spores of other bacilli could not be proved.

Dr. VON PETTENKOFER stated he was by no means convinced. The experiments on animals especially seemed to him to have had poor success. Those with Emmerich's small bacilli succeeded much better. Emmerich went to Naples in order to bring pure cultivations of comma-bacilli to Munich, and he did bring them. But, besides these comma-bacilli, he brought short bacilli that he reared from the organs of nine cholera-corpses that he had at his disposal. The manner in which Professor Koch infected guinea-pigs did not explain how human beings got cholera. He himself (Pettenkofer), could not regard the comma-bacillus as the cause of cholera, but rather believed, that conditions favourable to the development of the comma-bacillus were produced by cholera. In this manner its regular appearance in cholera was to be explained. It was said that it was destroyed by dryness, whilst in Lower Bengal, the dry season was just the favourable season for cholera. Comma-bacilli were also said to be present only in the intestine and not in the other organs. One would have to assume in this case that they produced a very powerful poison in the cholera intestine, which absorbed with difficulty. Such a poison was not found in the pure cultivations in Munich. Cholera did not seem to be a combination of infection and internal poisoning, but a purely infectious disease. The future must decide whether Emmerich's bacilli were the cause of it. Animals infected with them died from vomiting and diarrhœa, with symptoms similar to those of cholera. Whatever decision be made about bacilli, it must first be made to correspond with epidemiological laws. A direct transmission of cholera was impossible; this was dependent on locality and time.

Dr. FRÄNKEL mentioned that the sole bacterium of the intestine, having a morphological resemblance to comma-bacilli, was a vibrio, to be found in the mouth, similar in shape to a comma. Professor Koch, in answer to Dr. Pettenkofer's statements, said that Emmerich's bacilli were obtained in accordance with a method which was exposed to the influence of chance. There was absolutely no other case of a bacillus originating from a secondary cause through a disease, while found in that disease alone. The dry season by no means made Calcutta dry, but only diminished the abundance of water in this town. In presence of the Munich negative experiments to obtain a poison with the pure cultivations of the comma-bacillus, those made by him in the Imperial Board of Health, but which were not yet concluded, had given a positive result. No case was known, as in anthrax and small-pox, of cholera being spread by dry objects. This experience did not speak in favour of a permanent form of the bacillus.

At the fourth meeting, the discussion on the first point was continued.

Professor VON PETTENKOFER said that, by the assumption that the comma-bacillus, or Emmerich's bacillus, was the cause of cholera, many facts proved by experience remained unexplained, as the latency of the epidemic in winter, and its re-outbreak and its dependency on time and locality. A distinction must be made between artificial and natural infection. It could not be concluded, because infection had been successfully produced by experiment, that an epidemic broke out in the same manner.

Professor VIRCHOW said that not all human diseases could be transmitted to animals. Animals infected by Emmerich's fungi showed symptoms which easily led anybody to suppose they had cholera. But there were several substances that produced analogous phenomena. In 1847, by injecting putrid matter into the blood, he had produced in dogs not only similar anatomical modifications, but also vomiting, diarrhœa, and other symptoms of cholera. In Koch's experiments, it was perhaps the opium that prevented diarrhœa and vomiting; hence they were in a certain sense defective. Emmerich, who had taken blood from the vein of a living person with the necessary precautions, and had reared his bacilli therefrom, had perhaps obtained an accidental bacillus. What spoke in favour of Koch's bacillus was the circumstance that it was found, and always found, in the intestine, the real seat of cholera.

Further remarks were made by Professors Virchow, Hirsch, Koch, Pistor, and von Pettenkofer, after which the discussion on the first point was closed.

The second point of discussion was: "The spread of cholera by ordinary traffic, by means of human beings, pilgrims, and vessels."

Professor KOCH delivered a long speech, in which he laid stress on the spread of cholera by pilgrims in India, and cited examples of epidemics of long duration on board ships, observing that the statements of the crews of ships were not to be relied upon.

Dr. VON PETTENKOFER, in reply, remarked that little weight was to be attached to pilgrimages and railway traffic, and recommended precaution against assuming that cholera was spread by travellers.

After the close of the meeting, Professor Koch exhibited living and dead guinea-pigs that had been infected with comma-bacilli.

The fifth meeting took place on May 6th. The discussion on the second point was continued, in conjunction with the following third point: "Influence of the soil, air, and water."

Professor KOCH first gave some explanations in connection with the demonstrations of the previous day. Of the fourteen guinea-pigs then infected, only two survived, and these exhibited the symptoms of disease already described. He said that perhaps it was the same with cholera organisms as with plants, namely, that they sometimes found favourable conditions for their existence, and afterwards perished. Professor Koch cited other examples to show that an immunity against cholera can be acquired, and that cholera is introduced by pilgrims, travellers, and troops, when moving in large numbers. It cannot be expected that this can in all cases be directly proved; but one must be content if one can establish the fact beyond a doubt on a certain number of cases. The fact itself is of the greatest importance for the prophylactic measures that can be taken by the authorities. The long duration of cholera on vessels cannot be explained, if the soil be regarded as the sole condition of its origin. It can only be explained on the theory of its direct transmissibility from man to man; for the incubation-period of cholera is short.

Professor VON PETTENKOFER said he did not deny personal immunity acquired by the fact of a person once having had an attack of

cholera; but local immunity was the decisive point for the origin of epidemics. The disposition of a place for epidemics is composed of partly locally constant and partly locally transient (temporal) conditions. He did not by any means deny the influence of traffic on the spread of cholera; but this alone was not sufficient to produce an epidemic. A local and temporal disposition must also exist. He did not know how the infectious germ was taken from the shore to ships. The simple fact of a patient being taken on board was not enough, however, to cause the spread of the plague on ships.

Professor VIRCHOW said the adherents of the doctrine of contagion did not hold that transmission must take place directly from man to man. The infections through cholera-linen, and still more through pure cultivations, showed this. But these pure cultivations also showed that the soil was not the necessary place where the germs could thrive. No single case had yet been shown of the existence of cholera-germs in the soil. But he did not deny the possibility of their being there, only the exclusiveness of the soil-theory. He saw no difficulty in coming to an understanding with Professor von Pettenkofer, if he would abandon the exclusiveness of his point of view.

Professor VON PETTENKOFER replied he had also originally assumed transmission as the essential condition. The observation of the different behaviour of cholera, according to time and place, forced him, however, to lay special stress on the temporal and local conditions.

In the sixth meeting, Professor KOCH explained demonstrations which had taken place before the meeting. They had to do with guinea-pigs infected with the bacillus discovered by Brieger, and with pure cultivations of comma-bacilli that had been reared from the guinea-pigs infected and demonstrated the day before.

Professor KOCH then added that the verbal discussion had considerably facilitated their coming to an understanding. As Professor von Pettenkofer had admitted personal immunity and the influence of traffic, the differences between them were rendered much smaller. But he by no means denied the influence of the moistening of the soil on the origin of an epidemic, especially in the upper layers of the soil where putrefaction of organic substances took place; only this was one of the many conditions, not the sole condition to be taken into account. Koch then referred to the third subject of discussion. No fact, he said, was known to support the idea of transmission of cholera by the air. The only influence the air as a rule had, was that in damp air the infective matter remained longer effective, while it died quickly in dry air. The soil could have an influence on cholera, not through its geological, but through its physical properties. The putrefactions that took place in the upper layers of the soil, were of importance for the disease. Professor von Pettenkofer had declared that there were three things, x, y, and z, necessary to produce an epidemic. Was the bacillus, never mind which bacillus, the x or z of this theory? Drinking water, he added, was of importance. A certain percentage of people were protected from cholera by good drinking water. In support of this he showed maps and tables from Calcutta, Fort William, Bombay, Madras, Nagpoor, Pondicherry, Alexandria, and Cairo.

THE UNIVERSITY OF LONDON.

THE annual meeting of Convocation was held on Tuesday last. Dr. STORRAR, on taking the chair, said the first business was to elect a new Chairman of Convocation, in succession to himself, and the only candidate was Mr. F. J. Wood, LL.D., and he moved that Mr. Wood take the chair. The motion passed unanimously, and Mr. Wood took the chair accordingly.

Mr. H. E. Allen was re-appointed Clerk of Convocation, and a resolution was subsequently carried, requesting the Senate to increase his salary to £300 *per annum*.

Mr. R. H. BELCHER presented the report of the annual committee, and moved its reception, which was agreed to.

Mr. BELCHER then moved: "That Convocation refers back to the annual committee the question of the matriculation examination, in order that the valuable mass of information acquired by the subcommittee may be utilised." Practically, the examination had undergone no change for twenty-five years.

Mr. P. MAGNUS seconded the motion.

Mr. E. S. WEYMOUTH moved, as a rider, "and recommend that the committee, in consulting the opinion of those interested in this examination, shall not confine their inquiries to members of the teaching profession." This was seconded by Dr. O'REILLY.

Sir JULIAN GOLDSMID suggested that both the resolution and the amendment should be modified, and that they should merely refer back to the annual committee the question of matriculation examination. This suggestion was adopted.

Dr. BAINES, in the absence of Mr. A. W. Bennett, who had given notice of the resolution, moved—"That, on the retirement of Dr. Storrar, as Chairman of Convocation, after twenty-one years' service, Convocation desires to record its grateful sense of the eminent services which he has rendered to the University during his tenure of office, and on the ability and unvarying courtesy with which he has presided over its deliberations." He said Dr. Storrar had served in the capacity of Chairman of Convocation for twenty-one years, and during the whole of that time he had given undivided attention to the duties of that office, and those who had been on the annual committee knew that those duties had been of a very comprehensive and difficult nature.

Sir JULIAN GOLDSMID seconded the resolution. He said, if they had succeeded in making Convocation respected, and its opinion of some weight in the counsels of the Senate, it was, he believed, in the main owing to the wise and sensible guidance which they had always found in their chairman, Dr. Storrar.

The CHAIRMAN said the resolution spoke of Dr. Storrar's twenty-one years' service as Chairman of Convocation, but during thirty-seven years Dr. Storrar had devoted himself to the interests of the University.

On the resolution being put, all the members of Convocation stood up, and it was carried with applause.

Dr. STORRAR briefly returned thanks. He said he had resigned, because he felt the time had come when he was physically incapable of fulfilling the duties.

Mr. H. A. NESBITT moved: "That this House rescinds the resolution of February 3rd, 1885, to the effect 'That it is desirable that Convocation should meet three times at least in every year.'"

The motion was opposed by Mr. W. T. Lynn, and, on a show of hands, was declared to be lost.

Some discussion followed on a resolution moved by Mr. M. P. CHRISTIE, and seconded by Mr. W. J. SPRATLING, "That the principle of allowing candidates who have failed only in one subject to come up for examination again in that subject only, is worthy of acceptance by Convocation and the Senate." Eventually the matter was referred to the annual committee to consider and report.

A discussion on another resolution, declaring that the great attention at present concentrated on technical training rendered it desirable that a degree in engineering or technicology be instituted, was commenced, when the CHAIRMAN said his attention was called to the fact that there was not a quorum, and he therefore declared the meeting adjourned.

In the course of the evening, the Chairman stated that the Home Secretary's formal approval of the new regulations for the Preliminary Scientific Examination had been that day received by the University authorities, not in time for insertion in the Calendar recently issued.

Wednesday last was Presentation Day, when, in the unavoidable absence of Earl Granville, Sir James Paget, the Vice-Chancellor, presided. The theatre was crowded with visitors, and there was much enthusiasm at the proceedings. After the presentation to students who had gained exhibitions, medals, certificates, and diplomas, the Vice-Chancellor and Sir John Lubbock addressed the assembly.

Sir JAMES PAGET said it had been decided that, before the examination for the Doctor of Science and Doctor of Literature, the candidate should have choice of determining what should be the special subject of his study. The proposal for a teaching university in London had engaged attention. All would admit that the means of teaching sciences in London were defective, taking into account the great number of persons who came to the metropolis for all purposes of education, and also the fact that science now associated itself with every pursuit, trade, and industry. Of course, the Senate could not take the initiative, but they would, no doubt, do all in their power to forward the movement when the learned committee in charge of the question had completed their arrangements. With reference to the degrees in medicine, the Senate withheld their consent from any scheme which might diminish either the value of the degree of Bachelor or of Doctor of Medicine, or the influence it had upon the public mind. The number of candidates, and also of degrees in connection with the University, was steadily increasing, and it was in the best position for expecting greater prosperity in the future than it had achieved in the past.

BELFAST ROYAL HOSPITAL.—The Malcolm Exhibition, open to students who have completed their third year of medical study, has been awarded as follows. Mr. George Thomson, first prize of £10; Mr. S. Collier, second prize of £6.

THE ARMY MEDICAL STAFF IN EGYPT.

THE numerous reports which have been forwarded to us from our correspondents with the army in Egypt throughout the campaign, cannot fail to have attracted the interest and admiration of our readers to the way in which the gallant medical officers have performed their duty. The Army Medical Staff has met every call made upon it during the past year; there have been no difficulties which have not been surmounted; the machinery has never for a moment been out of gear; medical assistance has always been at hand when the soldier needed it; and no hitch of any kind has marred the general excellence, or detracted from the loud praises which have come alike from the General in command, and the ubiquitous newspaper correspondent, who is generally the first to hear all grumbles. Such a success reflects great credit on Deputy Surgeon-General J. O'Nial, the Principal Medical Officer in Egypt, and on all the officers under his orders; and not less on Dr. Crawford, Director-General of the Army Medical Staff, who, with the able assistance of Surgeon-General Mackinnon, C.B., and Dr. Marston, has laid the plans and dictated the general arrangements so admirably worked out in detail by the medical officers in Egypt.

When the advance up the Nile commenced, each corps was supplied with equipment for a hospital of 80 beds. Subsequently, station-hospitals were established at Assiout, Assouan, and Wadi Halfa; a light hospital-equipment, in two specially fitted boats, was sent up with the Sussex Regiment to Dongola, and smaller hospitals were established at convenient places near the several cataracts between that place and Wadi Halfa. The sick and wounded have been brought down to Assiout by river, a steamer being stationed at Assouan for this purpose. From Assiout to Cairo, they were transported by rail in ambulance-carriages. The field-hospital provision allowed for 5,000 combatants was 110 beds; they were placed, four beds to each, in Indian mountain-service tents, which were selected as the lightest; a bearer-company, capable of carrying 200 men, was also provided. As camels had to be used for transport instead of mules, the ordinary litters and cacolets were altered so as to fit a specially constructed saddle, and the men of the bearer-companies were trained to load and unload while the camel was standing, so as to avoid the jolting the patient would receive when the animal got up or knelt down; the camel, however, is an animal ill suited to the transport of wounded men. Each regimental unit had a pair of medical panniers.

The basis of each hospital was a pair of regulation panniers; special boxes, weighing 20 lbs., containing about 60 lbs. of material, and easily carried by two men, were constructed; one was used as a "medical comfort box," and in the other medicines were packed in sets of five. When stationary, a set of "division boxes" was added, and in the larger hospitals the necessary provision was made by adding extra sets of medicine-boxes. For the stationary hospitals along the line of communication, Indian double sepoy pâlls, each accommodating sixteen patients, were chosen, the small light Indian mountain-service tents being used only for the field-hospital with the column.

The arrangements have worked very well, and have earned the hearty and unqualified praise of Lord Wolseley, who, we understand, has expressed his warmest approbation of both plans and execution.

At Suakin, the Principal Medical Officer is Deputy-Surgeon General Oliver Barnett, C.I.E. The arrangements made at this base have also been very complete. The base hospital is at H Redoubt; it contains accommodation for 200 patients in Indian marquees; it is under the charge of Brigade-Surgeon Tanner, and in addition to the ordinary medical staff, three nursing sisters have been attached to this hospital. The huts sent out from England were not set up at H Redoubt, as the General commanding desired the permanent base hospital, in the event of further operations being undertaken, to be established at a more advanced post, probably at El Tibel. On Quarantine Island, the auxiliary hospital, which contained 20 beds in a wooden shed, has been extended so as to accommodate 100 patients in addition to the medical staff. Two nursing sisters of the National Aid Society were attached to this hospital. The two hospital ships, the *Ganges* and the *Bulimba* afford accommodation for 151, and 120 patients respectively. Cases are sent on to the Suez Hospital as opportunity occurs, and up to April 22nd, 140 cases had been thus dealt with. Since then many invalids have been sent straight home in troopships. The *Geelong* left on May 7th, with 11 officers, 112 men, and a nursing sister. The *Tyne* was to sail on May 14th, with 8 officers, 145 men, and a nursing sister.

Attached to the Cavalry Brigade in the Eastern Soudan is No. 3 Field Hospital, while the sick from other corps are received by No. 2 Field Hospital, established in the Head Quarter Camp. The sick are transported from the front at Suakin by the Bearer Company No. 1, with three ambulance wagons, and by the Camel Ambulance in cacolets and litters, in addition to the railway. No. 1 Field Hospital is attached to General McNeill's brigade, which is guarding the railway line. At Handoub a section of a stationary field hospital, with accommodation for 50 beds, under the charge of Surgeon-Major J. J. Crean, has been established, and a reserve of medical stores has also been accumulated. At the front is No. 4 Field Hospital, in two sections, one with each of the Guards' battalions. The sick are brought into Handoub by Bearer Company No. 2, which has mule transport, and by a section of Bearer Company No. 1, which has ambulance wagons and dandies. From Handoub the sick are brought into Suakin by the railway wagons, serious cases being put in covered vans.

INTERNATIONAL SANITARY CONFERENCE.

WE have to announce, contrary to telegraphic and other statements which have appeared on this subject, that the meeting of the International Sanitary Conference in Rome has been postponed, and that the English delegates have not yet left this country; the date now mentioned is May 20th, but a further postponement may not impossibly take place. We understand that some opposition was made in certain quarters to the delegates of the Indian Government being allowed to vote; this objection has now been waived, but Turkey has since raised a similar objection with regard to the Egyptian delegates; this no doubt will be overcome, but the process may take some time. One of the representatives of Germany will be Dr. Koch. Servia, Montenegro, and Brazil will not be represented.

The Italian Government propose that the Conference shall first discuss the resolutions passed by previous conferences, and re-affirm, modify, or rescind them, and in second place, shall recommend such preventive measures as are compatible with the necessary regard for commercial interests, and as can form a basis for an international agreement for the uniform administration of some preventive system. The scheme of sanitary information, by which at suitable spots official agencies should be established for transmitting sanitary reports to those Governments which should join an International Health Union, will also be discussed. The Conference will be attended not only by the scientific delegates but also by diplomatic plenipotentiaries. The British plenipotentiary will be Sir J. Savile Lumley, our Ambassador in Rome.

The rock a-head in the Maritime and Quarantine Board of Alexandria is to be kept out of the discussion. Yet the subject of cholera will certainly be uppermost in the mind of most of the delegates. The abstract question of quarantine is to be discussed in the light of recent experience, including that gained during the recent outbreak in Egypt, and it is admitted that the discussion must have an important bearing on Egyptian sanitary questions, yet the British Government object to the Congress entering into any discussion of the constitution and powers of the "Maritime Sanitary and Quarantine Board" of Alexandria, which is the only body by which Egypt comes into relation on sanitary matters with foreign countries. It is acknowledged that the Board requires reorganisation, but the British Government proposes that the Conference should first arrive at some conclusion on the abstract question. With regard to that Board, it is held that it has no power to delay or put into quarantine vessels bound to foreign countries, without the consent of the foreign governments concerned; the Board owes all its authority to the Khedive, who has no power to interfere with foreign ships; the Suez Canal, it is claimed, ought to be regarded as an arm of the sea, and British ships, therefore, ought to be allowed to pass through it without any restriction other than those necessary to afford Egypt all reasonable security against infection from passing vessels. For this purpose, the British Government are of opinion that Egypt might be expected to provide the necessary money; and it holds that Egypt should provide at Suez, or elsewhere on the canal, facilities for transhipment in quarantine of passengers and goods, the expenses incurred being defrayed by the ships. But with regard to nations that impose quarantine, while there can be no reason why they should not make arrangements for this to be carried out in Egypt, with the Egyptian Government, it is held that expenses thus incurred are not fairly chargeable on Egyptian revenues, and that the proposal to establish foreign lazarettes on its territory is one which has never previously been made to a government, and is one which no government is under obligation to accept. In fact, Lord Granville appears to hope that the Confer

ence in Rome, when it meets—for it is quite possible that it may not really get to business before the autumn—will not impossibly decide against quarantine, and that that decision would smooth the way for the reform of the Alexandria Board. Unfortunately, the decisions of the Conference, if we may judge by the utter want of result from the resolutions of the Vienna Conference, will really settle nothing. At the first panic about cholera, the votes of delegates, the resolutions of conferences, and the convictions of sanitary administrators, will again be instantly set aside and repudiated, in response to unreasoning popular clamour.

ROYAL COLLEGE OF SURGEONS OF IRELAND.

A VIGOROUS attempt has been made by the Council to grapple with and settle the difficulties to which we alluded in last week's JOURNAL. The new Charter, having received the Royal assent, is in the hands of the Irish Executive, and, with the view of making certain its reception in time by the College, the election of examiners, fixed for the 19th, was postponed till the 27th instant. A meeting was directed to be held on the 12th instant, to consider, amongst other matters, the method of voting by papers, and to receive from the Education Committee a report on the method of election and number of examiners, rendered necessary by the terms of the new Charter, as well as by recent resolutions of the Council. The main objects to be borne in mind were, that candidates for the Board of Examiners should be elected to examine in special subjects; that the principle of assessing of one examiner on each subject by another, as carried out by the College of Surgeons, England, should be affirmed; and that the principle, recognised by the same corporation, of minimising school influences and jealousies, by preventing candidates from being examined by their own school-teachers, should also be adopted. This, it need scarcely be said, was requisite as a corollary to that alteration in the new Charter, removing the disqualifications of lecturers to sit on the Court of Examiners. Dr. Kidd, who has taken a strong interest in the adaptation of the College means for the ends in view, prepared a scheme for the Education Committee, which, with slight amendments, was unanimously adopted. To secure all the objects sought for, it was considered necessary to increase the number of examiners from nine to twenty, divided, so that there should be at least two experts examining in each subject.

Thus, it was recommended that four examiners should be appointed in anatomy and comparative anatomy, four in surgery and surgical pathology, two in physiology and histology, two in practice of medicine and therapeutics, two in physics, chemistry, and medical jurisprudence, two in materia medica, pharmacy, and botany, two in ophthalmic surgery, and two in midwifery. As it was arranged that only those examiners shall be summoned whose services are required at the several examinations, the total expense to the College of the twenty examiners need not exceed that of the present Court. This scheme, recommended by the Education Committee, was adopted by the Council; and an effective method of managing the paper-voting, in the interest of the country Fellows, was also arranged.

ROYAL COLLEGE OF PHYSICIANS.

THE ordinary meeting of the College was held on April 30th, under the presidency of Dr. Farre, Vice-President. Nine gentlemen were admitted Members. Licence to practise was conferred on sixty-two gentlemen who had passed the required examinations. (The names were published at p. 971 of last week's JOURNAL.)

An honorarium of one hundred guineas was voted unanimously to Dr. Ord, in recognition of his services as Secretary of the Committee and editor of the revised edition of the *Nomenclature of Diseases*.

Twenty Members of the College were duly elected to the Fellowship. The list of names has already appeared, in the JOURNAL of May 2nd, p. 914. It was resolved to hold a *conversazione* during the present season.

On the motion of Dr. Wilson Fox, a committee was appointed to consider and report on the subject of the Lunacy Bill.

The College adopted the following recommendations of the Committee of Management of the Examining Board for England. 1. That the regulation applicable to the conditions of admission of members of the English universities to the third or final examination of the Examining Board in England be extended to such of the Scotch and Irish universities as require that not less than two of the four years' curriculum of professional study shall have been spent in residence at the university. 2. That the regulation exempting candidates, members of Universities, from any part of the examinations of the Examining Board in England do continue in force so long only as the examinations of the universities shall be satisfactory to the Committee of Management. 3. That the diploma of the Trinity Medical School, Toronto, having been recognised by the Royal College of Surgeons on the terms mentioned, a similar recognition shall be extended to it by this College.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

ANY qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member *by the Council* or by any recognised *Branch Council*.

Meetings of the Council will be held on July 8th, and October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, June 17th, and September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary*.

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HÆMOGLOBINURIA.
ALBUMINURIA IN THE APPARENTLY HEALTHY.
SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person, if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—*(a)* The influence of residence and occupation; (*b*) the previous state of the patients' thoracic organs and general health; (*c*) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161a, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Eastbourne, on Friday, May 29th. Dr. Habgood will preside. Meeting at 3.30 P.M. Dinner at 5.30 P.M.; charge 6s., exclusive of wine. The following papers are promised: 1. The Chairman: Notes on Lateral Dislocation of the Patella; 2. Dr. Crighton, The Therapeutic Value of Chloride of Calcium. Gentlemen desirous of reading papers or showing cases should communicate with the Honorary Secretary, T. JENNER VERRALL, 9, Western Road, Brighton.—April 27th, 1885.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting (annual) of this District will be held at the Kent and Canterbury Hospital, on Thursday, May 28th, at 3 P.M.; Mr. Rigden in the chair. Dr. Gogarty will bring forward cases of Chorea. The dinner will take place at the Royal Fountain Hotel at 5 P.M. Members wishing to bring forward cases or specimens are requested to communicate with me at once.—T. WHITEHEAD REID, Honorary District Secretary, 34, St. George's Place, Canterbury.—May 13th, 1885.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at the Royal Sea-bathing Infirmary, Margate, on Thursday, June 4th, at 2 o'clock; Dr. T. S. Rowe, of Margate, President-elect, in the chair.—CHARLES PARSONS, M.D., Honorary Secretary and Treasurer, 2, St. James Street, Dover.—May 13th, 1885.

STAFFORDSHIRE BRANCH.—The third general meeting of the present session will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, May 28th, 1885. The President, Dr. E. T. Tylecote, will take the chair at three o'clock in the afternoon.—VINCENT JACKSON, General Secretary.—Wolverhampton.—April 25th, 1885.

EAST ANGLIAN, SOUTH MIDLAND, AND CAMBRIDGE AND HUNTINGDONSHIRE BRANCHES.—A combined meeting of the above Branches will be held in Cambridge on the 12th of June next, under the presidency of Dr. P. W. Latham, Downing Professor of Medicine. Notice of intention of reading papers to be sent, without delay, to one of the Secretaries, W. A. ELLISTON, Ipswich; C. J. EVANS, Northampton; BUSHELL ANNINGSON, Cambridge.

GLOUCESTERSHIRE AND WORCESTERSHIRE AND HEREFORDSHIRE BRANCHES.—The united meeting of the above Branches will be held under the presidency of Dr. Needham, of Gloucester, on Tuesday, May 19th, at 3 P.M., in the Board Room of the County Infirmary, Gloucester. Dinner at the Bell Hotel, 6 P.M.; tickets, including wine, 6s. Agenda for the Gloucestershire Branch: Election of the Representatives on the Council of the Association. Papers for United Meeting: Remarks on the Proposed Changes in the Lunacy Law, by Dr. Needham, M.D. Gouty Affections of the Heart, by Dr. Milner Fothergill, M.D.—G. W. W. CROWE, G. ARTHUR CARDEW, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting will be held at Southport early in the month of June. Members desirous of reading papers, making communications, or showing cases, are requested to communicate with the Honorary Secretary without delay.—CHARLES ED. GLASCOTT, M.D., 23, Saint John Street, Manchester.

NORTH OF IRELAND BRANCH.—A meeting of the Branch will be held in the Belfast Royal Hospital, on Thursday, May 21st, at 12 o'clock.—ALEX. DEMPSEY, M.D., Honorary Secretary.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting will be held at the Infirmary, Hull, on Wednesday, May 27th. Gentlemen who intend to make any communication, or to propose any resolution, are requested to inform the Secretary not later than the 18th inst.—E. P. HARDEY, Honorary Secretary, 17, Brunswick Terrace, Hull.—May 7th, 1885.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at Leicester, on Thursday, June 25th. Notice of papers, etc., to be sent to the undersigned.—LEWIS W. MARSHALL, M.D., Honorary Secretary and Treasurer, 2, East Circus Street, Nottingham.

METROPOLITAN COUNTIES BRANCH.—The Annual Meeting of this Branch will be held at the Holborn Restaurant, on Tuesday, June 23rd, at 5.30 P.M. President: Charles Macnamara, Esq.; President-elect: Walter Dickson, M.D. Dinner at 7 P.M.; tickets 7s. 6d. each, exclusive of wine.—ALEXANDER HENRY, M.D.; W. CHAPMAN GRIGG, M.D., Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held at the Royal Forest Hotel, Chingford, on Thursday, May 28th, at 5.30 P.M.; the President in the chair. Business: Election of Secretary. At 6 o'clock, the members and their friends will dine together. Tickets 7s. 6d. each. Members intending to be present at the dinner are requested to communicate with the Honorary Secretary not later than Monday, May 25th.—JOSEPH W. HUNT, Honorary Secretary, 101, Queen's Road, Dalston.

SOUTH-WESTERN BRANCH.—*Preliminary Notice.*—The annual meeting will be held on Tuesday, June 9th, at Truro, under the presidency of Edward Sharp, Esq. By invitation of the President, a steamboat-trip, with luncheon on board, will be made on the Fal. The dinner will be held at an hour to permit members to leave by the 8 P.M. up and down trains. Members intending to be present, or to make communications, or who may have new members to propose, are requested to communicate as soon as possible with the Honorary Secretary, Wonford House, Exeter.—By Order, P. MAURY DEAS, Honorary Secretary.

NOMINATION OF REPRESENTATIVES IN COUNCIL OF ASSOCIATION: SPECIAL NOTICES.

METROPOLITAN COUNTIES BRANCH.—Notice is hereby given, that the nomination of members to represent this Branch in the Council of the Association will shortly take place, in accordance with the following by-law: "The representatives of the Branch in the Council of the British Medical Association shall be annually nominated by the Council of the Branch in such manner as the said Council may from time to time determine. Any six members of the Branch shall be entitled to nominate any one or more members as representatives, on giving notice of such election to the Secretaries of the Branch at least three weeks before each annual meeting." Members desirous of nominating candidates are invited, in accordance with the above, to send in the names to Dr. Henry, 132, Highbury Hill, N., on or before June 1st. There will be two vacancies: one caused by the appointment of Mr. Macnamara as Treasurer of the Association; the other by the death of Dr. Mahomed. The remaining present representatives are Dr. Bridgwater, Mr. Sibley, and Dr. Grigg.—ALEXANDER HENRY, M.D., W. CHAPMAN GRIGG, M.D., Honorary Secretaries.—132, Highbury Hill, N., April 29th, 1885.

LANCASHIRE AND CHESHIRE BEANCH.—Members of this Branch who are desirous of nominating members of the Council of the Branch, or Representative Members in the Council of the Association, are hereby reminded that such nominations, signed by five nominators, must be sent to the Secretary on or before the 31st instant.—CHARLES E. GLASCOTT, M.D., Honorary Secretary.—23, St. John Street, Manchester.

SOUTH INDIAN BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Medical College, Madras, on January 8th; Surgeon-Major W. H. ROBERTS, M.D., in the chair.

Report.—The Honorary Secretary read a statement, showing that the number of members was sixty-eight, being an increase of ten as compared with last year. During the course of the year, eleven meetings had been held.

Officers and Council.—The following were elected. *President:* the Hon. Surgeon-General W. R. Cornish, C.I.E. *Vice-President:* Surgeon-Major E. F. Drake Brockman. *Committee:* Brigade-Surgeon J. H. Hunt; Surgeon-Major W. Mawal, M.B.; Surgeon-Major C. J. McNally, M.D.; Surgeon-Major A. M. Branfoot, M.B.; Surgeon A. J. Sturmer. Provisional members: Surgeons G. T. Thomas and D. F. Dymott, M.B. *Treasurer:* Surgeon-Major C. Sibthorpe, F.K.Q.C.P. *Secretary:* Surgeon J. Maitland, M.B.

Communications.—The following communications have been made at recent meetings of the Branch.

1. Mr. A. M. Branfoot showed at the annual meeting an Infant without Limbs. Each upper limb was represented by a portion of an arm, and each lower limb by what appeared to be three rudimentary toes. The deformity in the upper limbs was evidently the result of intra-uterine amputation at about the middle of the humerus; that in the lower limb was apparently the result of original malformation. The child was quite healthy.
2. Mr. Maitland: a Case of Cardiac Thrombosis.
3. Mr. Branfoot: Two Cases of Sudden Death after Delivery.
4. Mr. Branfoot: a Case of Extra-uterine Gestation.
5. Mr. D. F. Dymott: Notes on some Cases of Hepatic Abscess.
6. Mr. D. F. Dymott: Case of Tumour of the Head.

COLLECTIVE INVESTIGATION.

LIST OF RETURNS RECEIVED DURING APRIL, 1885.

THE Committee desires to acknowledge the following list of returns received during the month of April.

Bath and Bristol Branch: XIII, Nelson C. Dobson, F.R.C.S.; W. G. Grace.
Border Counties Branch: III, T. B. Green; VII, T. B. Green; XIII, W. I'Anson, M.B., C.M.; Cottenham Farmer.
East Anglian Branch: IV, C. A. Owens, M.D.; S. H. Burton, M.B.; XIII, Alfred Back, M.A.; Donald D. Day, F.R.C.S.; IV (4), IVa (3), III (2), John T. Skrimshire, M.D.
Lancashire and Cheshire Branch: Liverpool District: VII, W. M. Campbell, M.D. Manchester District: XIII, A. H. Young, M.B., F.R.C.S.
Metropolitan Counties Branch: I, Maurice Davies, M.D.; V, VI, Maurice Davies, M.D.; VII, W. C. Hugman, F.R.C.S.; X, John King; XIII, Chas. Lathbury (3); E. J. Lequesne.
Midland Counties Branch: Lincoln District: III, C. Harrison, M.D. (2); XIII, W. Newman, M.D. (3).
North of Ireland Branch: I (4), VI, James Martin.
North Wales Branch: X, O. Trefor Williams.
Shropshire and Mid Wales Branch: X (2), XII, Alfred Eddowes; XIII, Arthur Jackson, F.R.C.S.
South-Eastern Branch: East Kent District: I, T. Whitehead Reid, F.R.C.P.; Thos. F. Raven; Robert Bowles, M.D. (2); VI, Robert Bowles, M.D.; X, Robert Bowles, M.D. (3); W. J. Tyson, M.D. East Sussex District: II, E. Mackey, M.D.
South Midland Branch: XIII, Lewis B. Colcott.
South Wales Branch: X, T. Hall Redwood, M.D.
South-Western Branch: XIII, J. Wallis Gill.
Southern Branch: Isle of Wight District: X, James M. Williamson, M.D. Wilts District: XII, H. T. Manning.
Staffordshire Branch: III, R. M. Ralph, M.D.; XIII, Herbert J. Cronk, M.B.; John T. Hartill (3).
West Somerset Branch: XII, G. C.
Yorkshire Branch: XIII, Hinton Bateman (3).

THE ASYLUMS BOARD AND CONTRACTORS.—The Asylums Board has agreed that it will terminate the contracts with those contractors who have been associated with the scandals in connection with the Eastern Fever Asylum, and the Board has also decided that in future the work to be done in the asylums shall be contracted for, and not left, as in some cases has been the mode, in the stewards' hands to execute.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

On the Osseous Bodies Found in Joints.—The Sick Poor Treated at Home.—The Curved Bacillus, the Comma-Bacillus, and the Presence of these Germs in the Air.—Experimental Septicæmia.—Spontaneous Pyæmia.—Rag-Bottles.

M. POULET and M. Vaillard, of the Val du Grâce Military Hospital, contribute a paper to the *Archives* on the osseous bodies found in joints. According to their observations, these osseous, or osteo-cartilaginous, bodies observed in joints belong to one of the four following varieties. They are either traumatic, or result from peri-diarthrodial cartilage, and develop in its substance, or from the sequestrum of an articular portion. Dry arthritis, or arthritis deformans, is the most favourable to the production of foreign bodies. There is also another variety peculiar to young people, which affects a limited area in one joint. There is also another ill defined affection which slowly steals on, and destroys the articulating heads of bones. In this affection, the foreign bodies are symmetrically deposited. Pediculated foreign bodies have a tendency to become fibrous. The trabeculæ and marrow of free osseous bodies may undergo cartilaginous retrogression; the freshly formed cartilage can proliferate.

Every three years, the Director of the Assistance Publique publishes a report concerning home medical treatment for the sick poor. His report for 1881, 1882, and 1883 has just appeared. On an average, 71,000 sick poor have yearly received medical treatment at their own homes. The mortality among these home-treated poor has decreased from 9.69 per cent. to 6.81 per cent. These 71,000 poor patients were on an average treated during ten days each. One hundred and eighty medical officers are spread over the twenty arrondissements of Paris; they pay yearly 170,000 visits. When patients are well enough to go out, they consult the medical man at his own house; these consultations have reached, these last three years, 430,000. The expenses of this organisation amount to a million francs (£40,000). The medical officers receive individually from 1,200 to 2,000 francs (from £48 to £83), in all 276,703 francs. The expenditure on medicine is 394,541 francs (£36,640). It has been estimated that the medicine of each patient costs 5 francs 50 centimes (4s.), and 6 francs for extra help. The daily expense of each patient is estimated at 1 fr. 25 centimes. Fifteen thousand women are delivered in a year; there are 124 midwives to attend them. There are very few deaths among the women in child-bed. The expense of each birth is estimated at 23 francs; the midwife is paid 15 francs. In 1883, 300,000 francs more were spent than in 1880. The administration of the Assistance Publique welcome this increase of expenditure, and propose completing their charitable work by organising a system of charity which will provide relief representing the material advantages gained by patients being treated at a hospital; they reserve hospital-relief for the poor without homes or the means of support.

M. Richet, at a recent meeting of the Académie des Sciences, presented a memoir from M. d'Hericourt, Professor at the Military Hospital at Lille, on the distinction between the curved bacillus and the comma-bacillus, and the presence of these germs in the air. The author had made a number of researches on the comma-bacillus which he found in the stools of cholera and dysentery patients. He states that he has also ascertained the presence of these bacilli in the secretions proceeding from different pulmonary affections, from simple bronchitis to phthisis. M. d'Hericourt affirmed that the comma-bacillus was present in normal saliva of children, and sometimes in spring-water. This general diffusion of a micro-organism, which hitherto had been regarded as the one specific of cholera, suggested that these germs or spores were present in the atmosphere. M. d'Hericourt submitted these germs to a series of artificial cultivations, according to Pasteur's method, and a bacillus similar to that of cholera was produced.

Dr. Charrin has given, in an interesting doctoral thesis, the results of his researches in the study of septicæmia. He observed that a special micro-organism was developed in rabbits dead from charbon. It could be isolated by successive artificial cultivations. When even the bacterium had completely disappeared, the inoculated animals died manifesting the symptoms of an infectious disease. Their viscera contained round organisms, either isolated or in groups, varying in number. The clinical symptoms were loss of appetite, general lassitude, disordered respiration, albuminuria, convulsions, etc. Arrested respiration was the direct cause of death. At the necropsy the liver was found to be congested, the spleen hypertrophied and of a bluish tint. The cells of the liver and kidneys were granular. Different staining processes proved that this organism was present in all organs which had an active circulation, such as the spleen, muscles, lungs, liver, medulla oblongata, kidneys, etc. It was always found in the blood-vessels; it was carried along with the blood; it penetrated the renal epithelium and was eliminated with the urine, a vehicle of contagion, as also was fæcal matter. In bile and saliva the pathogenic agent was absent. Inoculation was the most rapidly effected by venous injections. The morbid element had less effect on guinea-pigs than on rabbits; dogs altogether resisted it. This micro-organism was easily cultivated on beef or rabbit broth. A sixth cultivation was found to be virulent. Dr. Charrin said that it would be an interesting fact to determine the relations which existed between this micro-organism and the charbon-bacterium, the clinical symptoms of the experimental disease resembled those of charbon. The cause of death in both affections appeared to be identical.

Dr. Cayla and Dr. Charrin have made a communication to the Société Clinique de Paris on spontaneous pyæmia and pseudo-rheumatism. A female patient, at the Hôtel Dieu, had recently lost her husband. Her health began to decline, she lost her appetite, and became excessively nervous. Her face was congested, and there was vertigo and excitement bordering on delirium, with frequent sickness and pain in the shoulder, which disappeared and was replaced by severe pains in the head. The lungs and heart appeared to be healthy; the liver was small and painful on pressure; and the spleen was enlarged. The right knee was red and swollen, causing great pain. The patient passed daily a few grammes of slightly albuminous urine. Salicylate of soda was prescribed for three days, but the patient's condition grew worse. She constantly vomited bile without the slightest retching, and the other symptoms became aggravated. She then lost the sight of the left eye; the pupil was contracted and insensible to the influence of light. On the right forearm, there appeared an œdematous patch, the right knee continued painful, the right leg was œdematous, and the abdomen distended with flatus. The patient died in a few days. The body could not be opened. Some fluid from the knee-joint and the eye was collected in sterilised tubes, and a series of inoculations were made with it. In the pus withdrawn from the joint a considerable number of bacteria were found, presenting the aspect of a chain of seeds, either round or oval. The animals inoculated died in a few days. There were a considerable number of miliary abscesses in the liver; the spleen was enlarged, and the urine contained albumen. The pus of the miliary abscesses contained microbes presenting the same form as those in the pus inoculated. A drop of the pus taken from the knee-joint, and cultivated on sterilised broth, developed a quantity of bacteria in a few days.

Not only wheels, tramway-cars, doors, and pipes, are made from compressed paper, but bottles and decanters are now added to the list. The following are the component articles necessary: ten parts of rags, forty of straw, fifty of wood-paste. Each sheet of paper is impregnated on both its surfaces with a mixture composed of sixty parts of defibrinated fresh blood, thirty-five parts of pulverised lime, and five parts of aluminium-sulphate. When the first coat is dry, a second is laid on. Ten sheets of paper thus prepared are pressed into heated moulds, representing one-half of the bottle or decanter. These two halves are joined by the influence of heat and compression. Neither wine, spirits, nor beer, have any influence on the composition that is used for varnishing the bottle. Articles thus manufactured are unbreakable, and not indented when they fall. Although the idea of rag-bottles is unsavoury, in reality there is nothing in it to condemn from a sanitary point of view. The rags used are inevitably disinfected during the process of manufacture by the best known system, that of heat.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

Venereal Disease in the Prussian Army.—Medicine, Gynæcology, and Pathology at the University of Giessen.—Health-Precautions in Schools.—Verein für innere Medicin.—Medical Hygienic Congress at Buda-Pesth.

FROM an order issued by the Military Medical Section of the War Ministry of Prussia, I extract the following. In the Prussian army and the 13th Army Corps (Würtemberg) for the year 1881-82, the number of cases of venereal complaints amounted to 41 per 1,000. In the two next years, 1882-83 and 1883-84, the numbers decreased to 36.4 and 32.8 respectively. But it is thought advisable to consider what measures can be taken, not only to prevent an increase from occurring again, but also to confine within as small limits as possible disease

which are seriously detrimental to the state of health of the army and the welfare of the nation in general. From the reports received, it is concluded that the spread of venereal diseases is less to be attributed to the want of proper military measures, than to the insufficiency of the measures at the disposal of the "public morals' police," to enable them to exercise an effective control over registered and non-registered prostitutes; in other words, they have not the means of finding out the source of the infection. In order to remedy this evil, further measures are to be considered, which are to be taken on the one hand by the civil, and on the other hand by the military, authorities.

A Bill has been brought before the Chamber of Hesse-Darmstadt asking for leave to raise a loan of 1,441,800 marks (about £72,000), bearing interest at the rate of 4 per cent., for the purpose of building a medical and gynæcological clinic and a pathological and anatomical institute at Giessen.

In order to prevent the spread of diseases usually communicated in schoolrooms, owing to the formation of fungi and their spores on the walls, it has been decided that at least once a year the walls and ceilings of all schoolrooms are to be thoroughly cleansed, and immediately repainted or whitewashed. It is also recommended that the floors should be provided with a double coating of hot varnish, so that the air of the schoolrooms may be kept freer from dust. The Government order lays special stress on the importance of regular ventilation, so that facilities may not be given for the breaking out or spread of infectious diseases in schools. The ventilation is to be effected by the opening of doors and windows, without creating a draught, and by the use of valve-ventilators.

At the general meeting of the Verein für innere Medicin, on April 20th, the new election of the committee took place. The society now numbers 221 members, against 207 at the commencement of last year. During last year, nineteen meetings were held. The society lost, during the same period, through death, Professor von Frerichs and Dr. Lessing.

A Medical Hygienic Congress is to take place at Buda-Pesth from September 3rd to the 5th, inclusive. The following subjects are to be discussed: Mortality amongst children; sanitary administration; co-operation of societies for the furtherance of hygiene; parochial sanitary matters.

ROME.

[FROM OUR OWN CORRESPONDENT.]

Professor Baccelli and the Sanitary Council. — The Sanitary Conference.

IT is officially announced that Professor Guido Baccelli has been appointed President of the Upper Sanitary Council of the Kingdom in place of the late Professor Mazzoni. The significance of such an appointment will not escape your readers if they recollect that it was owing to the pressure directly brought to bear on the Government in the beginning of last July by Professor Baccelli, in the Chamber of Deputies, that measures were at once taken to impose long quarantine on the Italian refugees, and on travellers generally from the South of France, just after the breaking out of the cholera at Toulon.

Although Signor Mancini, the Minister for Foreign Affairs will, in all probability preside at the opening meeting of the Sanitary Conference on the 15th instant, it is almost certain that subsequent meetings, and the deliberations of technical committees, will take place under the chairmanship of Professor Baccelli, who is not likely to stultify himself by an open repudiation of his last year's ideas as to the steps required at that time to prevent Italy being invaded by the pestilence.

It is also officially intimated that all the leading States of Europe and America, with the exception of Turkey, have accepted the Italian invitation to send delegates to the Conference, though the names of the representatives are not yet known, except in a few cases.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Infectious Hospital-Question in Liverpool.—Extension of the Birkenhead Fever Hospital.—Serious Allegation against Hospital Officials.—University College.

THE question of providing hospital-accommodation for cases of infectious disease occurring here, has recently advanced a stage or two. Some time ago, a deputation was appointed to visit London and Glasgow, and report upon the means of dealing with infectious cases in those cities. The reports were laid before the special committee of the City Council appointed to deal with the question. After much discussion, it was resolved to acquire land upon which to erect a suitable hospital. At a meeting of this committee, held on March 22nd, reports from the city surveyor upon two corporation sites, one twenty-five acres in extent, the other thirty-seven acres, were submitted. It was decided to ask the Local Government Board to determine which site should be adopted, and also to seek powers to borrow £100,000 for hospital purposes. Dr. Hamilton is the chairman of this Special Hospitals Committee; and much praise is due to him for the energy and interest he has all along taken in this matter.

The Birkenhead Fever Hospital, which is admirably situated outside the town, has, for some time past, proved too small for the requirements of the borough. So recently as 1883, a ward with ten beds was added; but last year, at the time that there was a good deal of small-pox in Birkenhead, the accommodation was found to be quite inadequate. On March 31st last, another new ward was opened containing ten beds. The hospital can now receive thirty-eight patients. At the opening ceremony, a statement was made by the chairman of the Birkenhead Health Committee, to the effect that compulsory notification, and the action taken by the Health Department as a result of notification had, during the last three years, saved forty-four lives yearly.

At an inquest held lately on the body of a boy, aged ten years, who had died in consequence of severe burns, a charge of neglect was made against the authorities of the Stanley Hospital. It was stated that the mother had taken the injured boy to the hospital shortly after the accident, which occurred at 7.40 a.m.; that they were kept waiting for twenty minutes in a corridor, and then told to go to the workhouse. The patient was then taken to the Royal Infirmary, where he died the following day. Mr. Clarke Aspinall, the Coroner, said he had never heard anything alleged as to want of attention at the Stanley Hospital. Ultimately he adopted the somewhat unusual course of promising the jury to inquire into the matter himself. The result of this inquiry has not yet transpired.

University College re-opened on April 20th, but work in the Medical Faculty was not re-commenced until May 4th. At the Spring meeting of the Court of Governors it was stated that a sum of £4,000 would be required to complete the new chemical laboratories. The Vice-Chancellor of the Victoria University (Dr. Greenwood) extended a cordial welcome to the representatives of the newly affiliated Liverpool University College at the last meeting of the University Court. He said that provision had been made for the speedy matriculation of Liverpool students, adding that sixty had already matriculated.

CORRESPONDENCE.

THE ROYAL COMMISSION ON THE HOUSING OF THE POOR.

SIR,—It would surely have been better if the Royal Commission on the "Housing of the Poor" had included amongst its number some member of our profession well acquainted with the working of the Sanitary Acts, both in London and in the provincial towns. The Commission would then probably have refrained from making a recommendation which shows that its members were most imperfectly acquainted with the duties and requirements of a medical officer of health.

The Commission recognises the importance of strengthening the executive of the sanitary authorities, and to that end it recommends that this officer should be required to live within the boundaries of the district he serves, and not to engage in private work. If this recommendation were acted on by the local authorities of London, as at present constituted, the effect would be to considerably lower the class of men who at present occupy these posts, to impair their independence, and to weaken the executive by depriving it of the services of well qualified medical men of good professional position. At the salaries which the vestries of London pay (and in the existing state of public opinion they cannot reasonably be expected to pay much more) their choice would, if the recommendation of the Commission were adopted, be confined to two classes. They would, in many cases, have to be content with the services of young men, such as those who now seek resident posts at dispensaries, or old men who, for various reasons, had proved failures in their profession. Such officers would have no influence with their authorities, or those with whom they had to deal; and with reference especially to this question of improving the dwellings of the poor, in which an influential and comparatively independent position on the part of the medical officer is so important, they would hardly be of so much use as experienced inspectors of nuisances.

Now, there is a class of medical men who have furnished, in the

past, some of the most distinguished sanitarians that this country can boast. I refer to those who are engaged in consulting practice. They are, practically, obliged to reside in the central parts of London, but they can always easily reach their districts. Their public and private interests are not conflicting; indeed, their official and private work is sometimes of a cognate kind. It only needs to mention the names of Simon, Burdon Sanderson, Bristowe, Stevenson, Buchanan, Hillier, Conway Evans, Druitt, Barclay, Corfield, Blyth and others, to indicate the prominent share taken by this class of medical men in promoting the interests of public health. I think your readers will all agree that it would be a great misfortune if in future men of the same class were virtually excluded from the public service, which result would inevitably follow an adoption of the recommendation of the Royal Commission, and by sanitary authorities as at present constituted.

If the Commission desired to see medical officers in London appointed exclusively for public work, it should have recognised that this could only be brought about in one of two ways, either by making the duties, salaries, and tenure of office determinable only by a central government department, or by creating a proper municipal government for the metropolis. The first recommendation would have been entirely in opposition to the principle of local self-government, which is growing more and more popular. It would have been far better if the commission had gone straight to the point, and plainly said that in order to secure an improvement of the dwellings of the poor in London, there must be a better executive, and that the only way, in their opinion, of obtaining a better executive, is to insist upon the urgent need for municipal reform. In any case, before making a recommendation to sanitary authorities to exclude their medical officers from private work, it should have taken the trouble to learn something of the duties and requirements of a medical officer of health, and its members might, with advantage, have read a pamphlet lately issued by Mr. Armstrong, the medical officer of health for Newcastle-on-Tyne, where he gives some description of the status of a medical officer who is debarred from private work. They would then have found that the position of such an official is most highly unsatisfactory, and that so far from being a position of influence and usefulness, it is too frequently one of abject dependence.—Your obedient servant,

M. O. H.

DRUNK OR DYING.

SIR,—With reference to an article, with the above heading, in your JOURNAL of May 9th, will you allow me to state that the recent circular of the Home Secretary (so far, at least, as it relates to medical matters) has no application to the Metropolitan Police, in which force similar, only more stringent, rules have been in force for a very great length of time. The circular is no doubt intended for the guidance of other police authorities, in rural districts or country towns. You appear to share the common belief that the police make some sort of "rough diagnosis" in cases such as those about which you write. Again, speaking only for the Metropolitan Police, I beg to say that this is entirely incorrect. Ever since I have been chief surgeon (now nearly twenty years), and I have no doubt long before my time, the rule has been that all prisoners are to be visited at least once an hour, and if drunk, once every half-hour; and in the latter case, are to be spoken to and aroused at each visit; and "if prisoners are insensible, or appear to be ill or injured in any way, although they do not complain, the divisional surgeon is to be sent for immediately;" and if he be absent, the nearest medical aid is to be procured. These regulations are specially enforced on the police by a warning from the Commissioner as to the heavy responsibilities which they would incur by neglecting them, and the severe punishment which would follow. I believe that they are in every case most punctually observed, and it is obvious that it saves the police themselves much trouble and risk to observe them. The diagnosis, therefore, in every such case, is the diagnosis of a qualified medical men, acting strictly on his own responsibility; and he alone, not any police authority, is responsible for the opinion given. All that the police have to do is to carry out the instructions which the medical man gives. That mistakes occur, even after these precautions, is true enough; but that is due not, as I submit, to any failure of the regulations, but to the inherent difficulties of the case. Writers in the papers talk in an offhand manner about "drunk or dying," as if the distinction were an easy one, which only ignorant policemen could overlook. In reality, the cases so described are often of the most complicated and difficult nature. Drunkenness unluckily does not exclude brain-disease, or injury, or the effects of exposure and want of food; nay, it is peculiarly liable to be mixed up with all or several of these in various degrees; and it taxes severely the knowledge of the most experienced medical man to unravel such cases; and even the most experienced will occasionally be wrong. I say this not, of course, to excuse error, still less carelessness, but to show how absurd it would be to entrust the "police authorities" with any power of diagnosis. In the service with which I am connected, that error at least has been avoided.—I am, sir, yours, etc.,

T. HOLMES, Chief Surgeon to the Metropolitan Police.

SHORTENING THE ROUND LIGAMENTS.

SIR,—I am sorry I did not notice Mr. Rivington's reply to my letter on the above subject until late this week. The lateness of my reply is in no way an intentional "disparagement" on my part. Neither was my letter in any way intended to disparage either Mr. Rivington or any of the distinguished men whose names are now associated with the operation of shortening the round ligaments. I thought when I wrote my letter, and still think, that, although several original minds hit upon the plan of shortening the round ligaments for certain forms of displacement of the uterus, the greatest credit was due to the one who worked out the subject so thoroughly, and in such a practical form, that it at once commanded the attention of gynæcologists generally. If the expression of such a thought in public is a disparagement of any number of the group of original thinkers who hit upon the operation under discussion, I have nothing further to do than to plead guilty to the charge.—I am, sir, yours obediently,

64, Rodney Street, Liverpool. J. E. BURTON.

PAYMENT FOR DEATH-CERTIFICATES.

SIR,—As there has been a good deal of correspondence in your JOURNAL as to payment for death-certificates, I should like to draw attention to one matter in connection with this.

Among the poorer classes (often paupers), it is a very common practice to effect an assurance which will provide sufficient means for their burial, etc., at death—an amount usually varying from three to seven or eight pounds. When death occurs, we have to provide a death-certificate for nothing; and the friends, in order to obtain their money, seek a copy of this certificate of ours from the registrar, at a cost of two shillings and sevenpence. In some cases, we are applied to for a copy of our certificate; but I have known companies refuse this, and prefer a copy made by the registrar.

Surely there is a double injustice: first, that Government should allow a certificate, which we *give* solely for statistical information, to be copied for any other purpose, especially when such a purpose is damaging to our interests; secondly, that assurance-companies should accept these copies from the registrar, to the disadvantage of medical men, upon whose honourable treatment they are so much dependent. I feel that some strong representation should be made upon this subject. I trust you will aid in the matter, and allow a prominent space for this letter.—Yours faithfully, J. LIONEL STRETTON.

Kidderminster.

*** Our correspondent loses sight of the fact that each entry in the death-register contains ten items of information concerning the deceased person, all of which, except the cause of death, are supplied by the legal informant (almost invariably a relative of the deceased), who signs the entry. The medical certificate of the cause of death does not contain all the information required for the death-register; in fact, it is only the cause of death that is copied into the register, the other particulars being added to the certificate for identification-purposes only. Therefore the medical certificate is not legal evidence of a death. Industrial insurance-offices doing burial club business are prohibited by the Friendly Societies Act of 1875 to pay money except on the production of a certificate of the entry in the death-register. This enactment is intended to check over-insurance, especially of children. The legal fee for a certificate of a death-entry, on an approved form under the Friendly Societies Act of 1875, is one shilling, and not two shillings and sevenpence, as is the case with other death-certificates.

DEATHS FROM ANÆSTHETICS.

SIR,—I have read with very great interest the statistics published in the JOURNAL of May 2nd, by Dr. Ernest Jacob, of Leeds, respecting the fatal effects alleged to have followed the use of anæsthetics during the year 1884. With respect to the last tables given, I doubt that the deaths ascribed to ether were due to the administration of this agent. Chloroform, I admit, produces fatal syncope, which frequently can neither be anticipated nor prevented; but it is entirely different with ether, which certainly produces asphyxia if pushed too far, or administered by inexperienced hands, when there are pulmonary compli-

cations present; but symptoms of asphyxia can be at once anticipated when coming on, and, in all cases, with proper care, can be successfully treated and prevented. It is most erroneous to blame ether for the fatal result in a case of ovariotomy reported seventeen hours after the operation, when it is known that the patient was much exhausted before the operation, but took ether well. In this case, ether had, in my opinion, nothing whatever to do with the fatal result.

Fatal results may be, and are very frequently, due to the shock to the nervous system consequent on the anticipation and the performance of a surgical operation of any magnitude. A case proving this was related to me, some years ago, by the late Mr. Spence, of Edinburgh, when death occurred on the operating-table from simple shock. Chloroform was the anæsthetic intended to be used; but, before one drop of the agent had been inhaled, the patient died, who was about to undergo the operation of lithotomy. If the anæsthetic in question had been administered, the case would assuredly have been put down as "death from chloroform."

The administration of an anæsthetic like chloroform, which has been proved over and over again, by undeniable statistics, to be dangerous, is a very serious business, involving as it does the issue of life and death. The responsibility of placing a fellow-creature in the mysterious sleep of insensibility is, and ought to be, very great; and the seriousness of the matter is brought home to those who have seen one or more fatal cases, particularly when called to witness a human being lying dead before them who, but a few minutes before, was in the possession of all his faculties. So long as painful surgical operations have to be performed, so long will anæsthetics be used. In justice, therefore, to our patients and ourselves, we are bound to select the safest anæsthetic. I, therefore, feel it my duty to declare my continued confidence in favour of ether, as I can hardly conceive that anything further is required to prove its superiority over other agents.
—I am, sir, yours, LAMBERT HEPENSTAL ORMSBY, M.D., F.R.C.S.,
Surgeon to the Meath Hospital and
co. Dublin Infirmary.

4, Merrion Square West, Dublin.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, May 8th.

Inoculation for Cholera.—Dr. CAMERON asked the Under-Secretary of State for Foreign Affairs whether his attention had been called to the remarkable discovery reported to have been made by Dr. Jaime Ferran, of Valencia, in connection with inoculation for cholera; and whether he would instruct the British Minister at Madrid to forward, for submission to Parliament, translations of any papers of Dr. Ferran's, and reports of the Madrid Academy of Medicine on the subject.—Lord E. FITZMAURICE replied that Her Majesty's Minister at Madrid would be instructed to send home translations of them.

Medical Relief and the Redistribution Bill.—Mr. Alderman COTTON asked the Attorney-General, re Parliamentary Elections (Redistribution) Bill, whether a voter who was upon the register and received medical relief was to be disqualified for one year, for the remainder of the session of the then Parliament, or for life.—The ATTORNEY-GENERAL replied that the Redistribution Bill did not touch the question of medical relief at all, nor did any Bill of the Government touch the question. The last statute that dealt with it was passed in the year 1878, and, under it, if any person received medical relief within twelve months before July 15th, such person was incapable of being included in the register that would come in force in the next year.—Mr. Alderman COTTON: If he be actually upon the register, will he be prohibited from voting?—The ATTORNEY-GENERAL said the hon. gentleman had got hold of a moot point which had given the judges some trouble. It came within what was known as the Petersfield case. The Ballot Act said that the register should be conclusive; but the question was whether it was a disqualification or a prohibition to vote. There was great doubt upon the subject. His own opinion was that it was a disqualification merely, and that the person would be entitled to vote, but he did not give that opinion with any confidence.

Monday, May 11th.

Revaccination.—In answer to Sir L. PLAYFAIR, Mr. G. RUSSELL said, that in the cases of the North-Western, South-Eastern, and South-Western Hospitals an interval was allowed to elapse between the revaccination of the officers and servants and their entering on their duties. In the first mentioned hospital the interval was stated to be 48 or 72 hours. As regards the Eastern Hospital it had been the custom to revaccinate the officers and servants on the day of arrival at the hospital or the day following. At the hospital ships no interval elapsed between the revaccination and exposure to small-pox infection. At the Western or Fulham Hospital the officers and servants were usually revaccinated on the day of their entering on their duties. There had, however, since May, 1884, been two instances in which the revaccination was not performed until some days after the assistants had commenced discharging their duties, and that was in consequence of an omission to report the cases to the medical superintendent.

Tuesday, May 12th.

Small-pox.—Mr. HOPWOOD asked the President of the Local Government Board to inform the House on what authority his department stated the mortality from small-pox to have been 3,000 per 1,000,000 for England and Wales at the latter end of the last century; and whether the department possessed any return, record, or authority, showing the number of population in England and Wales, or the number of deaths from small-pox there, between the years 1770 and 1779.—Mr. G. RUSSELL replied that until the present century there was no census of the population of England and Wales, nor was the system of civil registration introduced, and consequently nothing more than an estimate could be given. As regarded London itself, the bills of mortality afforded material for a more precise calculation, and two tables as to the mortality from small-pox, which were compiled respectively by Dr. Greenhow and Dr. Farr, will be found in the Appendix to the Report of the Select Committee in 1871 on the Vaccination Acts. According to those tables, the small-pox death-rate in London was 3,044 per 1,000,000 in 1746-55; and 5,020 per 1,000,000 in 1771-80. In 1871-80 the mortality, according to the returns of the Registrar-General, was 460 per 1,000,000.

English Registration Bill.—In the consideration of this, Mr. H. DAVEY moved the following clause:—"Medical or surgical assistance, or the giving of medicine, shall not be deemed to constitute parochial relief within the meaning of the Representation of the People Acts."—After discussion, the House divided with a majority of 37 in favour of the clause.

MEDICO-LEGAL AND MEDICO-ETHICAL.

SURGICAL QUALIFICATIONS AND MEDICAL EVIDENCE.

SIR,—A Member of the College of Surgeons, having no legal qualification in medicine, nevertheless in practice as a general practitioner, attends a case purely medical; no complaint is made of incompetence, nor does any appear, but a collateral circumstance making an inquest necessary, this gentleman's evidence is required. Is he thereby entitled to the usual fee of a guinea, or only to the fee of an ordinary witness, for attendance and occupation of time? If the character of the qualification of a Member of the College of Surgeons gives legal authority to take charge of a purely medical case, unquestionably such a witness is entitled to the fee of a guinea. On the other hand, if no such authority be given by that qualification, can he, who to the extent referred to is breaking the law, be legally paid other than as a non-medical witness?—Your obedient servant,

PROBE.

*** A Member of the College of Surgeons is legally entitled to be paid one guinea for his evidence in a coroner's court, whether it relates to a surgical or purely medical case. The Medical Witnesses Act of 1836 describes the medical witnesses who are to attend at coroners' inquests, and to be paid for their evidence, as "any legally qualified medical practitioner," and this description, and no other, is repeated over and over again throughout the Act. In addition to that, in the schedule to the Act, a form of summons is given, wherein it is stated that the summons is to be directed "To ——, Surgeon (or M.D., as the case may be)." And the 34th section of the Medical Act of 1858 explains that when the words "legally qualified medical practitioner" are used in any Act of Parliament, they "shall be construed to mean a person registered under this Act." So that the Act of 1858 in no way interferes with the Medical Witnesses Act, but, on the contrary, it carries out the spirit of that Act by virtually declaring that simple registration of any single qualification shall constitute a person as a "legally qualified medical practitioner."

MEDICAL ETIQUETTE BETWEEN CONSULTANTS.

SIR,—Would you kindly give me your opinion as to what course of action should be followed by B. under the circumstances to be narrated below?

A. and B. are practitioners in neighbouring villages. A. asks B. to meet him in consultation, and subsequently to assist him in an operation. B. does both. In the district in which these men practise, it is the custom for the practitioner called in to receive his fee from the one who calls him in; who in turn receives it from the patient. A. does not hand over the fee, as is usual, on this occasion. Six months after the operation, B. writes to A., asking him whether he (B.) should send in a memorandum to the patient, or wait upon A.'s attending to the matter. B. receives no answer to this letter, nor was it returned through the Dead Letter Office.

Six months after this, again, B. writes to A., reminding him of the first letter, and again putting the same questions. Three months have passed without an answer to this second letter having reached B.

To sum up, B. has written two letters to A., and received no answer to either.

He feels that to write again would be *infra dig.* What must he do in the even of being again asked to meet A. professionally? How must he treat A. when he meets him socially?—I am, sir, yours truly,
B.

*** "The custom for the practitioner called in to receive his fee from the one who calls him in, who in turn receives it from the patient," which B. represents as the conventional practice in his district, presents to our mind an erroneous view of the relative pecuniary obligation which should subsist between the consultant and the ordinary medical attendant; the simple duty of the latter being, according to our experience, to intimate, where necessary, to the patient or family the consultant's usual or expected fee, and, as far as possible, to see that it be paid at the time, unless, for financial or other valid reasons, deferred payment be deemed expedient. As far as our personal knowledge extends, there is no professional obligation on the family medical adviser to pay the fee out of his own pocket.

In reference to A.'s omission to reply to either of B.'s special notes of professional inquiry, we would hope that such a lack of courtesy is as exceptional as, according to this statement, it would appear inexcusable. Under the peculiar circumstances, we would recommend him to send a statement of his professional charges to the patient direct, with such explanatory note as he may deem necessary and judicious; and, "in the event of being again asked to meet A. professionally," we would, as regards the fee, advise him to act in accordance with the general rule above indicated rather than "the district custom;" and further, "when he meets him socially," to courteously acknowledge any recognition on the part of A., and, at the same time, without in any way officiously seeking an explanation of his discourteous epistolatory neglect, to afford him a fitting opportunity to offer one.

MEDICAL ETIQUETTE.

SIR,—I deny the accuracy of several of the statements by Dr. J. G., which appear in your issue of April 25th.—I am, etc.,
A. T.

MILITARY AND NAVAL MEDICAL SERVICES.

THE MEDICAL CARE OF OUR SOLDIERS.

WE learn that the large number of medical officers employed on active service has seriously taxed the resources of the Department in this respect; but we understand that it would still be possible to supply the medical staff for another Army Corps without difficulty. Should this become necessary, the home-stations would be denuded of officers on the active list; but their place could easily be supplied by officers on half-pay, who might, not improbably, receive some assistance from civil surgeons specially engaged for home-service. By this arrangement, the danger of causing a block in promotion in the future, by taking on a large number of surgeons, will be avoided; and there can be no doubt that a practically unlimited supply of competent civil surgeons can be obtained in this country, if fair remuneration be offered.

APPOINTMENTS IN THE ARMY MEDICAL SERVICE.

OUR attention has been called to an omission which occurred in the remarks on the new Schedule of Qualifications necessary for candidates desirous of obtaining commissions in the Army Medical Staff which appeared in the JOURNAL of the 2nd instant. The Schedule of Qualifications was printed *in extenso* at page 918 of the JOURNAL of that date, but the conditions of service, which are appended to the Schedule, were not reprinted, as they appeared on first perusal to be precisely the same as the Conditions of Service laid down in the last Royal Warrant of November, 1879. There is, however, an alteration in one of the paragraphs which has an important bearing, although it only consists in the addition of half a dozen words. In the Warrant of 1879 it is laid down that, "after passing through such course at the Army Medical School as our Secretary of State shall decide, the Surgeon on Probation, after passing a qualifying examination in the military medical subjects taught there and satisfying the Director-General that he is a person of proper skill, knowledge, and character for permanent appointment in the Army Medical Department, shall be commissioned as surgeon." These terms are repeated in the Conditions of Service attached to the Schedule, but while the Warrant goes on to state that the surgeons on probation appointed on competition shall take precedence "according to the last day of the competitive examination, and in the order of merit at such examination," the conditions of service issued with the new schedule lay down that those appointed by competition shall take precedence "according to the last day of the competitive examination, and in order of merit as determined by the combined results of the competitive and qualifying examinations." By the Conditions of Service in the Warrant of 1879, the order of precedence in which the surgeons were commissioned was decided by the positions they took in the competitive examination for entry into the service alone, while it follows from the Conditions added to the new Schedule that in future the surgeons will receive commissions in accordance with the positions they gain in both the competitive examination, and in the qualifying examination at the Army Medical School, taken together. This is simply a restoration of the system by which the order of the appointments in the Army Medical Department was formerly determined. The system was only abrogated a few years ago, and at the time of its discontinuance we pointed out what an ill-advised measure the alteration seemed to be. Many comments on the subject to the effect referred to will be found in former pages of the JOURNAL, and these comments are now all the more weighty from possessing the confirmation of experience. We regard then the fresh departure which has just been made as beneficial from all points of view; not only as calculated to direct greater attention to the military medical subjects taught at the Army Medical School, since they will count for more in the position gained at first starting in the service, but also because it seems only a matter of plain justice to the probationers themselves that the qualifying examination, which they have to undergo at the end of this term of probation, should have its value accounted for in arranging the final order of their commissions in the army as surgeons, no less than the results of the examination by which their first entry as probationers was obtained.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:—

		From	To
Surgeon-General	Sir A. D. Home, K.C.B. V.C.	—	Portsmouth.
Brigade-Surgeon	N. Norris	Egypt	—
,,	H. C. Herbert, M.D.	Nova Scotia	—
,,	J. Davis	—	Dublin.
,,	J. H. Jeffcoat	Gibraltar	—
,,	St. J. Killery, M.D.	Nova Scotia	—
Surgeon-Major	E. Hopkins	Egypt	—
,,	J. Kinahan, M.D.	Egypt	—
,,	T. Ramsay	Bengal	—
,,	C. W. Watling	Egypt	—
,,	E. H. Lloyd, M.B.	Egypt	—
,,	W. C. Robinson	West Indies	Barbadoes.
,,	J. Ferguson	Hilsea	Winchester.
,,	J. S. McAdam	West Indies	Demerara.
,,	T. W. Orwin	Nova Scotia	—
,,	T. M. Kirkwood	Newbridge	Curragh.
,,	W. S. Hedley, M.D.	Egypt	—
,,	J. W. Purefoy	Barbadoes	Trinidad.
,,	J. J. O'Reilly	Dover	Shorncliffe.
,,	H. T. Brown, M.D.	West Indies	Barbadoes.
,,	W. H. Steele, M.D.	Exeter	London.
,,	T. S. Cogan	Sheffield	Birmingham.
,,	T. J. P. Holmes, M.B.	Bombay	—
,,	F. Lyons, M.D.	Brighton	Canterbury.
,,	A. H. Stokes, M.B.	Suakin	—
,,	L. A. Irving	Gibraltar	Bombay.
,,	W. J. Charlton	—	Dublin.
,,	P. Conolly	Bengal	—
Surgeon	C. H. Swayne	Dublin	Egypt.
,,	H. A. Fogarty, M.D.	Honduras	Aldershot.
,,	W. A. May	—	Honduras.
,,	P. B. Tuthill, M.D.	Gibraltar	Egypt.
,,	P. H. Johnston, M.D.	Cork	Queenstown.
,,	J. Armstrong	Belfast	Dundalk.
,,	J. Mulrenan, M.D.	Waterford	Cork.
,,	W. O. Feltham	West Indies	Barbadoes.
,,	J. G. Mac Neece	—	Belfast.
,,	H. J. Michael	Fort Staddon	Bermuda.
,,	J. L. Hall	Bengal	London.
,,	W. O. Wolseley	Salford	York.
,,	W. Dugdale	C. of Good Hope	—
,,	S. A. Crick, M.B.	Birmingham	Fleetwood.
,,	H. J. Barnes	Gravesend	Chatham.
,,	J. H. A. Rhodes	—	Newcastle.
,,	T. E. Noding	West Indies	Barbadoes.
,,	C. R. Thiele, M.B.	Bermuda	—
,,	F. W. Reid, M.B.	West Indies	Demerara.
,,	B. W. C. Deeble	Canada	Nova Scotia.
,,	D. V. O'Connell, M.D.	Templemore	Bombay.
,,	T. B. Winter	West Indies	Barbadoes.
,,	G. E. Moffet, M.B.	Devonport	Gibraltar.
,,	R. Crofts	York	Lichfield.
,,	M. Kelly, M.D.	Sierra Leone	CapeCoastCastle
,,	H. Saunders	—	Sierra Leone.
Quarter-Master	S. Warren	—	Southern Dist.
,,	J. Hime	Shorncliffe	Woolwich Dist.
Captain of Orderlies	W. A. Moss	South District	Portsmouth.

ARMY MEDICAL SERVICE.

SURGEON W. A. WILSON, M.D., of the 1st Renfrew and Dumbarton Artillery Volunteers, has been granted the honorary rank of Surgeon-Major. Acting-Surgeon

James Finlay, M.D., has resigned his appointment in the same corps, and Mr W. R. Sewell, M.D., has been made Acting-Surgeon in his stead.

Mr. Thomas Tinley has been appointed Acting-Surgeon to the 1st East Riding of Yorkshire Artillery Volunteers.

Mr. G. I. Fraser, M.D., has resigned his appointment as Acting-Surgeon to the 3rd (Buchan) Volunteer Battalion of the Gordon Highlanders (late the 1st Aberdeen Volunteers).

Mr. William Coates has been appointed Acting-Surgeon to the 20th Lancashire (2nd Manchester) Volunteers.

Mr. William Haldane, M.D., has been made Acting-Surgeon to the 1st Perthshire Volunteers.

Surgeons D. V. O'Connell, M.D., and R. J. A. Durant have been brought on the strength of Her Majesty's British Forces in the Bombay command from April 8th, the date of their arrival at Bombay.

It is stated that the Royal Military Asylum at Chelsea will shortly be "disestablished," and that, meantime, the appointment of medical officer there, which is vacant by the death of Deputy Surgeon-General J. Crerar, will be filled up only as a temporary measure.

According to a telegram received at the War Office, dated Suakin, May 8th, Surgeon-Major E. F. Boult left that place for England in the *Geelong* on the 7th instant.

The undermentioned gentlemen have been appointed Acting-Surgeons in the regiments specified: David Macneilage, to the 1st Argyll and Bute Artillery Volunteers; Adam Blackhall, M.D., to the 3rd (the Buchan) Volunteer Battalion of the Gordon Highlanders (late the 3rd Aberdeen Volunteers); G. H. Mackay, M.B., to the 1st Elgin Volunteers; A. L. Evans, to the 2nd Volunteer Battalion of the Welsh Fusiliers (late the 1st Flint and Carnarvon Volunteers); George Ogilvie, M.B., to the 7th Middlesex (London Scottish) Volunteers; and A. F. A. Fairweather, M.A., M.D., to the 2nd Volunteer Battalion of the East Yorkshire Regiment (late the 2nd East Riding of Yorkshire Volunteers).

Surgeon C. C. Hicks, M.D., has resigned his commission in the 1st Bedfordshire Volunteers, which corps he joined on October 1st, 1877, his commission of Surgeon, however, dating from November 19th, 1873.

Mr. Charles Harris, M.D., has resigned his commission as Honorary Assistant-Surgeon to the 1st Cinque Ports Volunteers, which he accepted February 6th, 1865; he is permitted to retain his rank and uniform.

Acting-Surgeon H. U. Walker has also resigned his commission in the 5th (Deeside Highland) Volunteer Battalion of the Gordon Highlanders (late the 1st Kincardine and Aberdeen Volunteers). Mr. Walker joined the corps on the 8th of March last year.

Surgeon J. G. Brayton likewise has resigned his appointment in the 2nd Volunteer Battalion of the Loyal North Lancashire Regiment (late the 14th Lancashire Volunteers).

INDIAN MEDICAL SERVICE.

Surgeon-Major R. Temple-Wright, M.D., Bengal Establishment, Superintendent of the Central Jail at Nagpore, is appointed to officiate as civil surgeon at Jubbulpore during the absence on leave of Brigade-Surgeon W. R. Rice, M.D.

Surgeon-Major J. F. Barter, Madras Establishment, civil surgeon at Nagpore, is appointed Officiating Superintendent of the Central Jail at Nagpore, in addition to his own duties.

The services of Surgeon C. M. Thompson, M.B., are temporarily placed at the disposal of the Surgeon-General with the Government of Madras.

Surgeon-Major S. L. Dobie, Madras Establishment, is posted to the permanent medical charge of the 4th Prince of Wales's Own Cavalry, *vice* Deputy Surgeon-General J. M. Donnelly, M.D., who has been promoted.

Surgeon G. H. Bull, M.D., Bombay Establishment, has been permitted by the Secretary of State for India to return to duty.

Surgeon-Major J. H. Condon, M.D., Bengal Establishment, has been granted leave of absence for six months on medical certificate.

Deputy Surgeon-General B. Simpson, M.D., Bengal Establishment, has been gazetted Surgeon-General. He entered the service October 20th, 1853, and attained the rank of Deputy Surgeon-General March 31st, 1882. Dr. Simpson is not credited in the Army Lists with any war-service.

Brigade-Surgeon John Brake, Bengal Establishment, has been appointed Deputy Surgeon-General. His commission as Assistant-Surgeon dates from January 24th, 1855, and he became Brigade-Surgeon November 27th, 1879. He served in the Indian Mutiny campaign in 1857-59, and was present in several engagements with the enemy; for his services he was honourably mentioned in despatches, and received the thanks of Government and the medal granted for the campaign.

Surgeon-Major G. S. Sutherland, M.D., Bengal Establishment, has been promoted to be Brigade-Surgeon. He entered the service August 4th, 1857, and became Surgeon-Major August 4th, 1869. He also was in the Indian Mutiny campaign in 1858-59, and has the medal with a clasp for the capture of Lucknow.

Surgeon-Major Emanuel Bonavia, M.B., Bengal Establishment, has also been promoted to be Brigade-Surgeon. His commissions are contemporaneous with those of Dr. Sutherland. He does not appear to have seen war-service.

Deputy Surgeon-General M. C. Furnell, M.D., Madras Establishment, has been gazetted Surgeon-General. He entered the service as Assistant-Surgeon February 7th, 1855, and became Deputy Surgeon-General February 7th, 1881. Dr. Furnell served during the Indian Mutiny in 1858, and was at the battle of Dowdepore.

Brigade-Surgeon J. M. Donnelly, M.D., Madras Establishment, has been promoted to be Deputy Surgeon-General. He joined the service July 3rd, 1856, and attained to Brigade-Surgeon December 20th, 1883. Dr. Donnelly has no war-record.

Surgeon-Major W. F. De Fabeck, M.D., Madras Establishment, has been made Brigade-Surgeon. His commission as Assistant-Surgeon dates from January 29th, 1857, and as Surgeon-Major from July 1st, 1873. Dr. Fabeck was at the siege and fall of Sebastopol (medal and clasp), and in the Indian Mutiny campaign in 1859.

Deputy Surgeon-General W. J. Moore, C.I.E., Bombay Establishment, has been gazetted Surgeon-General. He entered as Assistant-Surgeon November 20th, 1852, and became Deputy Surgeon-General September 15th, 1877. He was engaged in the war with Persia in 1856-57, and was at the landing at Hallilah Bay and the capture of Bushire (medal with clasp).

Surgeon-Major E. H. R. Langley has been promoted to be Brigade-Surgeon. He entered the service July 23rd, 1858, and attained the rank of Surgeon-Major July 23rd, 1870. He served in the war in China in 1862, and was in several engagements with the Taiping rebels (medal).

THE NAVAL MEDICAL SERVICE.

The following appointments have been made at the Admiralty during the past week: J. T. Comerford, Fleet-Surgeon, to the *President*, additional; G. W. Low, Surgeon, to the *Ganges*; T. R. Pickthorne, Surgeon, to the *Excellent*; J. C. Dow, Surgeon, to the *Pembroke*; J. S. Dobbyn, M.D., Fleet-Surgeon, to the *Repulse*; J. W. Fisher, M.D., Fleet-Surgeon, to the *Hercules*; Solomon Kellett, Staff-Surgeon, to the *Rupert*.

Varicocele.

Sir,—Would you, or one of your readers, be kind enough to let me know what the exact regulations of the services are with regard to candidates affected with varicocele.—Yours, etc.,

M.B.

*** A candidate for a commission in the Medical Department of the Army is required to declare upon honour that he "does not labour under any imperfection likely to interfere with the efficient discharge of the duties of a medical officer in any climate;" and a Board of Medical Officers has also to certify that he is "free from disability of any kind likely to unfit him for military service in any climate." There is no special regulation with regard to candidates affected with varicocele. In practice, slight varicocele does not disqualify for military service; but a strongly marked varicocele is regarded as a disability unfitting the subject of it for military service, especially in hot climates. Marked varicocele, particularly if it be associated with an abnormally pendent testicle, is, by regulation, a cause of rejection of a recruit.

RELATIVE RANK.

Sir,—Surgeon-Major Evatt has very properly, in his "Notes on the Medical Corps of the Swiss Army," animadverted upon the folly of not defining the different grades of a medical department in accordance with terms which show to the army and outside public what rank an officer really holds. It is all very fine talking of raising the service by examinations and professional merit, and so forth, but to call an officer a major who may have five years' standing as a relative lieutenant-colonel is nothing less than ridiculous, and we all think so. Who, may I ask, outside the service, understands the meaning of the words "brigade-surgeon?" or what earthly advantage does this honorary rank on retirement confer on any one? What claim have Commissaries of Stores and Provisions, Paymasters of Accounts, Quartermasters of Barracks, and even Riding-masters, to well defined rank in their own corps over the officers of the Medical Staff, who retire, often disgusted, as plain "Misters," with nothing to show their friends that they have worn the Queen's uniform for thirty years or more? The feeling is becoming every day more universal that this should not be. Relative rank in itself is a degrading term. Let it be abolished, and give us in our respective ranks well defined military medical grades.

Why, again, should our present uniform be so sombre? Black and gold leather belts are unsuitable with dark blue and black facings. Our dress-belt should be plain gold lace, with a dark line and a handsome pouch; and in undress we should wear the same belts as the men we command, namely, white. Our present uniform is the ugliest worn in the army, and has not assimilated us to our men. We are military surgeons, not quasi-civilians. Some of our number would give us no uniform at all. Why do such gentlemen continue to belong to a service with which they are not in accord? We go through the hardships of war, and may be proud of a harmless swagger with the rest of the army without being bad surgeons. What has been done in the Swiss army has evidently not lowered the professional *esprit*, nor has it done so in America, where military surgeons with definite titles have published most able works on their *specialité*.—I am, etc.,

Medical Staff.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

CERTIFICATES OF LUNACY.

Sir,—I was much interested in reading Mr. Hartill's letter in the Journal of January 3rd, 1885, and agree with his remarks. The sooner the English law in relation to the incarceration of private insane patients is altered, the better for the patients, the (that is, non-pauper) public and the profession.

Possibly it may be interesting to know what has been done in the matter of the Lunatics Act here in New Zealand. The following extracts will explain.

Report of W. E. Hacon, Medical Superintendent of the Hospital for the Insane, Christchurch. February 28th, 1882.—"Medical practitioners should not be asked to give a hurried opinion at the police-court, and should be allowed every opportunity of having the supposed lunatic remanded for observation. I cannot but express the opinion that some of the committal medical certificates are exceedingly carelessly written, and I hope that the Lunacy Act will soon be altered, so that it be made impossible to incarcerate a person without an order from a magistrate, and that the evidence of medical men be taken on oath, as also the evidence of any witness supplying information to the certifying medical practitioner of 'facts observed by others as evidence of insanity.' All committal-papers should be carefully examined by an expert physician and a legal expert, appointed with powers to insist on alterations or release of patient from illegal detention. In consideration of recent events in Australia, I would advise all medical practitioners to refuse to sign committal-papers for private patients, and then all friends and relations of supposed lunatics would be compelled to have them examined before a magistrate; and I am assured that relations will derive more satisfaction in the end from this course, although painful to their feelings at the time. The incarceration of an individual in an asylum should be made as public as his birth or death."

Extract from the Australasian Medical Gazette. February 15th, 188[illegible].—"The

Commissioners appointed to reconstruct and arrange the Lunacy Act of New Zealand, 1882, are to be congratulated on their labours, which, no doubt, have been arduous. They have very properly acknowledged their obligations to the late Inspector of the New Zealand asylums (Dr. Skae). From him, they received many valuable suggestions.....Private patients cannot be admitted on the order of a relation or friend and two medical certificates. That such a step was necessary, the *Dunedin Morning Herald* pointed out in a leading article, July 29th, 1882, thus: 'As the law now stands, any person may procure the detention of any other person as a lunatic—a provision which, say the Commissioners, appears capable of being used in an oppressive manner. Remembering the recent reports of Mr. Bradshaw (local inspector of the Dunedin Asylum) respecting the sanity of some patients in our own asylum, we think they might have said that it has been used in an oppressive manner. The loose way in which alleged lunatics have been dealt with, and sent into confinement, is a matter of public notoriety. As we have seen, the new Bill does in a part carry out Dr. Hacon's recommendation, by insisting on a magisterial investigation in all cases.' This is a most important alteration, preventing any undue or precipitate action, and will tend to stop any charges being brought against the medical men who sign the certificates or accusations brought against each other by angry relations."

Extract from Lunatics Act, 1882. "*Proceedings by Friend, etc., of Lunatic.*—Section 25. Any relative or friend, or any householder, may give information on oath to a resident magistrate. Two medical practitioners to examine separately and jointly. Two justices of the peace may act if resident magistrate is absent. Certificate of one medical man sufficient in case of emergency. Two other medical men to visit and examine the patient after admission, and within three clear days."

Dr. Grabham, formerly of the Earlswood Asylum, has succeeded the late Dr. Skae. The following is an extract from his report for 1883. "Although the Lunatics Act of 1882 is a very great improvement on that of 1868, and, in many respects, a good deal in advance of home-legislation on the subject of insanity, yet it contains provisions which are, in my opinion, of doubtful value, and some defects which require amendment."

In depriving a subject of his liberty, which may be lifelong, there is no doubt that magisterial authority and publicity are necessary.

It is an open question whether certifying medical men should be allowed to consult together. I am most positively of opinion that it is unfair to the patient.

The result of the new Act here is that "fit and proper" cases are sent to the asylum. Indecent haste is prevented, and, in cases of emergency, every precaution is taken to have the case properly examined after admission. I feel confident that our example will shortly be followed in England; and I appeal to medical practitioners to assist in forwarding the matter by refusing to sign certificates for private patients, and insisting on magisterial inquiry by justices of the peace, who can, if necessary, visit the patient at his own house.—I am, sir, yours obediently,

W. E. HACON, Resident Medical Superintendent,
Hospital for the Insane, Sunnyside, Christchurch, New Zealand,
formerly Assistant Medical Officer Warwick County Lunatic Asylum.

*** Mr. Hacon's letter will be read with interest, as indicating that the same questions relating to the confinement of the insane, which are giving us trouble, have recently engaged the attention of the legislature in New Zealand. The introduction of the magistrate, to which our Lunacy Commissioners are hostile, appears to have been felt to be indispensable in this thoroughly English colony. The action of the certifying medical men is, however, not so clearly pointed out. Mr. Hacon thinks that they ought to give their evidence upon oath, and that consultations between them would be unfair to the patient The Lord Chancellor's Lunacy Law Amendment Bill provides for the examination of witnesses, including the medical men who certify, upon oath if the judge think fit; but, in simple and obvious cases of lunacy, it does not appear that it will be needful for the judge even to see the medical men with whose certificates his mind has been satisfied. The new Bill follows the old laws with regard to separate examination; but, for all that can be urged in favour of this jealous system, there is a good deal to be said for medical examinations in consultation. In the Lord Chancellor's own department of lunacy, medical examinations of alleged lunatics are usually held in consultation, and sometimes they are ordered by the Lord Chancellor and by his colleagues under the seal manual to be so held. We advocated the consultative examination in 1879, and we are still of opinion that it is more safe for both patient and physician than the separate one. A recent author, writing with the authority of large experience, says of the examination, separately from any other medical practitioner, "We, as a profession, never sanctioned that proviso, which it would be far more rational and better for the patient to reverse. I do not know any sort of case where a talk with a professional brother is more useful, than before coming to the conclusion that a patient should be sent to an asylum. There is every reason that exists for an ordinary consultation, *plus* special risks to the patient and to both doctors." If the Lord Chancellor's Bill should not only become law, but working law, the confidence of the public may eventually be so far restored, that the conduct of medical men in the treatment of lunatics may be as fully trusted by the public as it already is in the treatment of all other kinds of diseases, and all jealous and needless restraints upon it may be removed.

HEALTH OF ENGLISH TOWNS.

DURING the week ending April 25th, 5,799 births and 3,994 deaths were registered in the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,762,354 persons. The annual rate of mortality per 1,000 persons living in these towns, which had been 25.0 and 23.2 in the two preceding weeks, was 23.4 in the week ending April 25th. The rates in the several towns, ranged in order from the lowest, were as follow:—Derby, 15.7; Portsmouth, 17.4; Brighton, 18.2; Leicester, 18.4; Birmingham, 18.8; Nottingham, 19.2; Bradford, 20.2; Halifax, 20.2; Huddersfield, 20.9; Leeds, 21.3; Norwich, 21.7; Birkenhead 21.9; Hull, 22.1; Salford, 22.2; London, 22.3; Bolton, 22.7; Wolverhampton, 23.1; Sheffield, 23.9; Oldham, 23.9; Plymouth, 24.7; Bristol, 26.5; Liverpool, 29.9; Blackburn, 30.6; Manchester, 30.9; Sunderland, 31.2; Preston, 32.2; Cardiff, 34.9; and Newcastle-upon-Tyne, 35.4. The average death-rate for the week in the twenty-seven provincial towns was 24.4 per 1,000, and exceeded by 2.1 the rate recorded in London. The 3,994 deaths registered during the week in the twenty-eight towns included 529 which were referred to the principal zymotic diseases, against numbers steadily increasing from 377 to 484 in the eight preceding weeks; of these, 218 resulted from measles, 127 from whooping-cough, 45 from diarrhœa, 42 from small-pox, 40 from "fever" (principally enteric), 32 from scarlet fever, and 25 from diphtheria. These 529 deaths were equal to an annual rate of 3.1 per 1,000. The zymotic death-rate in London was equal to 3.3 per 1,000; while in the twenty-seven provincial towns it averaged 3.0, and ranged from 0.0 in Derby, and 0.5 in Brighton, to 6.5 in Cardiff, 7.1 in Sunderland, and 10.2 in Newcastle-upon-Tyne. The deaths referred to measles, which had been 164 and 190 in the two preceding weeks, further increased to 218, and showed the largest proportional fatality in Manchester, Sunderland, and Newcastle-upon-Tyne. The 127 fatal cases of whooping-cough exceeded by 18 the number in the previous week; this disease caused the highest rates in Cardiff and Blackburn. The deaths referred to "fever" were within 2 of the number in the preceding week, and caused the highest proportional fatality in Portsmouth, Salford, and Norwich. The fatal cases of scarlet fever, which had risen in the four previous weeks from 31 to 38, declined last week to 32, and caused the highest rates in Leicester and Sunderland. The 25 deaths from diphtheria in the twenty-eight towns included 10 in London, 7 in Liverpool, 2 in Preston, and 2 in Newcastle-upon-Tyne. Of the 42 fatal cases of small-pox, 39 occurred in London (exclusive, however, of 12 deaths of London residents from this disease which were registered in the Metropolitan Asylum Hospitals situated outside registration London), 1 in Bristol, 1 in Liverpool, and 1 in Manchester. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had increased in the four preceding weeks from 830 to 1,062, were 1,032 on April 25th; the admissions, which had been 141, 185, and 307 in the three previous weeks, declined again to 246. The death-rate from diseases of the respiratory organs in London was equal to 4.9 per 1,000, and was below the average. The causes of 82, or 2.1 per cent., of the 3,994 deaths registered during the week in these twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

During the week ending May 2nd, 5,792 births and 3,601 deaths were registered in the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,762,354 persons. The annual rate of mortality per 1,000 persons living in these towns, which had been 23.2 and 23.4 per 1,000 in the two preceding weeks, declined during the week to 21.1. The rates in the several towns, ranged in order from the lowest, were as follow:—Hull, 15.1; Derby, 15.1; Bolton, 15.2; Brighton, 15.9; Cardiff, 16.1; Portsmouth, 16.7; Nottingham, 17.5; Salford, 18.7; Norwich, 18.9; Plymouth, 19.2; London, 19.8; Birkenhead, 20.2; Leicester, 20.3; Wolverhampton, 20.4; Liverpool, 21.3; Birmingham, 21.8; Sheffield, 22.0; Bristol, 22.5; Bradford, 23.1; Leeds, 23.0; Sunderland, 23.7; Huddersfield, 24.5; Oldham, 25.6; Halifax, 26.3; Blackburn, 30.1; Manchester, 30.6; Preston, 32.7; and Newcastle-upon-Tyne, 34.4. The average death-rate for the week in the twenty-seven provincial towns was 22.2 per 1,000, and exceeded by 2.4 the rate recorded in London. The 3,601 deaths registered during the week in the twenty-eight towns included 449 which were referred to the principal zymotic diseases, against numbers steadily increasing from 377 to 529 in the nine preceding weeks; of these, 176 resulted from measles, 127 from whooping-cough, 36 from small-pox, 33 from scarlet fever, 30 from diarrhœa, 25 from diphtheria, and 22 from "fever" (principally enteric). These 449 deaths were equal to an annual rate of 2.6 per 1,000. The zymotic death-rate in London was equal to 2.9 per 1,000; while it averaged 2.4 in the twenty-seven provincial towns, and ranged from 0.5 and 0.6 in Brighton and Derby, to 3.7 in Sunderland, 4.3 in Cardiff, and 8.5 in Newcastle-upon-Tyne. The deaths referred to measles, which had been 164, 190, and 218 in the three preceding weeks, declined during the week to 176, and showed the largest proportional fatality in Liverpool, Manchester, and Newcastle-upon-Tyne. The 127 fatal cases of whooping-cough corresponded with the number in the previous week; this disease caused the highest death-rates in Blackburn, Cardiff, and Preston. The deaths referred to scarlet fever, which had been 38 and 32 in the two preceding weeks, were 33 during the week, and showed the largest proportional fatality in Preston, Newcastle-upon-Tyne, and Sunderland. The 22 fatal cases of "fever" were fewer than those returned in any week on record; this disease was, however, somewhat fatally prevalent in Norwich and in Leicester. The 25 deaths from diphtheria in the twenty-eight towns during the week included 15 in London, 3 in Bristol, 2 in Portsmouth, and 2 in Liverpool. Of the 36 fatal cases of small-pox, 32 occurred in London (exclusive, however, of 16 deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside registration London), 2 in Manchester, 1 in Liverpool, and 1 in Halifax. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 1,062 and 1,034 on the two preceding Saturdays, rose to 1,282 at the end of the week; the admissions, which had been 307 and 246 in the two previous weeks, rose during the week to 354, and exceeded the number in any week since June 1884. The death-rate from diseases of the respiratory organs in London was equal to 4.8 per 1,000, and was considerably below the average. The causes of 91, or 2.5 per cent., of the 3,601 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

IN the eight principal Scotch towns, having an estimated population of 1,254,607 persons, 903 births and 546 deaths were registered during the week ending May 2nd. The annual rate of mortality, which had steadily declined in the four preceding weeks from 25.0 to 22.7 per 1,000, further fell during the week to 22.4, but exceeded by 1.2 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 11.4 in Leith, 15.2 in Aberdeen, 17.7 in Dundee, 18.3 in Perth, 19.3 in Edinburgh, 22.6 in Greenock, 27.5 in Glasgow, and 30.8 in Paisley. The 546 deaths registered during the week in these towns included 64 which were referred to the principal zymotic diseases, against 76 and 81 in the two previous weeks; of these, 27 resulted from whooping-cough, 14 from measles, 9 from diarrhœa, 7 from scarlet fever, 4 from "fever," 3 from diphtheria, and not one from small-pox. These 64 deaths were equal to an annual rate of 2.6 per 1,000, which corresponded with the average zymotic death-rate for the same period in the large English towns. The highest zymotic rates in the Scotch towns during the week were recorded in Glasgow, Paisley, and Perth. The deaths from whooping-cough, which had risen from 17 to 30 in the three preceding weeks, declined to 27, and included 15 in

Glasgow, 3 in Edinburgh, 3 in Paisley, and 3 in Perth. The 14 fatal cases of measles showed a further decline from recent weekly numbers, and were all recorded in Glasgow. The 7 deaths from scarlet fever exceeded by 3 the number in the preceding week; 3 occurred in Edinburgh, 2 in Glasgow, and 2 in Paisley. The 4 fatal cases of "fever" were fewer than those returned in any recent week, and included 2 in Edinburgh. Of the 3 deaths from diphtheria 2 were recorded in Glasgow. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 5.1 per 1,000, against 4.8 in London. As many as 78, or 14.3 per cent., of the 546 deaths in these Scotch towns during the week were uncertified.

HEALTH OF FOREIGN CITIES.

It appears from statistics published in the Registrar-General's return for the week ending April 25th, that the annual death-rate recently averaged 33.0 per 1,000 in the three principal Indian cities: it was equal to 27.5 in Bombay, 29.6 in Calcutta, and 42.2 in Madras. Cholera caused 32 deaths in Calcutta, 29 in Bombay, and 4 in Madras; 7 deaths from small-pox occurred in Calcutta, and "fever" showed the greatest mortality in Madras. According to the most recently received weekly returns, the annual rate per 1,000 in twenty-one of the largest European cities averaged 29.0, and was 5.6 above the mean rate during the week in the twenty-eight large English towns. The death-rate in St. Petersburg was 39.2, and showed a considerable increase upon the rates in recent weeks; the 698 deaths included 22 from "fever" and 5 from small-pox. In three other northern cities—Copenhagen, Christiania, and Stockholm—the death-rate averaged 23.9, and ranged from 17.1 in Christiania, to 28.4 in Stockholm, where 23 deaths from measles, and 7 from diphtheria and croup, were recorded; diphtheria and croup also caused 7 deaths in Christiania, and measles 5 in Copenhagen. In Paris the death-rate was 28.4, and although showing a decline from the higher rate in the previous week, exceeded the rate in London by 6.1; the deaths included 59 from measles, 48 from diphtheria and croup, and 22 from typhoid fever. The 211 deaths in Brussels, of which 11 resulted from diphtheria and croup, and 6 from measles, were equal to a rate of 25.4. The rate in Geneva was 31.4, and one fatal case of typhus was reported. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 25.4, the highest rate being 26.7 in the Hague; in Amsterdam the deaths included 4 from diphtheria and 3 from scarlet fever. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 29.2, and ranged from 21.5 in Berlin, and 23.9 in Dresden, to 35.7 and 35.9 in Breslau and Vienna. Small-pox caused 14, and measles 14 deaths in Vienna; diphtheria showed the greatest mortality in Berlin and Dresden. In three of the principal Italian cities, the death-rate averaged 26.3, being 23.3 in Rome, 27.4 in Venice, and 28.3 in Turin. Small-pox caused 8 deaths in Rome, 5 in Venice, and 4 in Turin; 5 deaths from typhoid fever occurred in Turin, and 4 from diphtheria in Rome. No returns were received either from Madrid or Lisbon. The 141 deaths in Alexandria were equal to a rate of 34.7, and included 3 from diphtheria and croup and 1 from small-pox. In four of the largest American cities the recorded death-rate averaged 25.8, and ranged from 22.1 in Brooklyn to 30.1 in New York. Diphtheria and scarlet fever showed more or less fatal prevalence in each of these American cities, and typhoid fever caused 13 deaths in Philadelphia, and 5 in Baltimore.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 11th instant, and, when eligible, will be admitted to the pass examination.

Messrs. G. A. Sutherland, E. H. Ezard, A. Primroses, J. McLachlan, F. M. Johnson, F. W. Thomson, C. W. Hayward, R. Jardine, E. W. W. Carlier, P. Wardle, and A. Mann, of the Edinburgh School; S. M. Whitaker, W. Thompson, W. Summerskill, and G. Handcock, of the Leeds School; B. R. T. Trevelyan, of the Bristol School; C. L. Williams, and R. A. Beaver, of the Liverpool School; E. C. Masser, of the Birmingham School; C. J. Whitby, of Guy's Hospital; and N. C. Ridley, of St. Mary's Hospital.

Three candidates were referred.

The following gentlemen passed in Anatomy only.

Messrs. A. W. Gray, of the Birmingham School; J. B. Jameson, and E. N. Darwent, of the Edinburgh School; and H. Hamilton, of the Bristol School.

Eight were referred.

The following gentlemen passed in Physiology only.

Messrs. R. F. Shepherd, and A. Borradaile, of the Edinburgh School; B. P. Johnson, E. Capper, and W. C. Costine, of the Liverpool School; J. Fullard, of the Birmingham School: L. Macdona, of the Manchester School; and S. E. Duncan, of King's College.

Four were referred.

The following gentlemen passed on the 12th instant.

Messrs. W. A. Turner, M. L. Trechmann, A. E. Barlow, J. F. Haswell, C. P. Kennard, F. A. Juckes, J. H. Acheson, R. H. Maddox, F. R. B. Hinde, J. H. Conyers, J. Musgrove, H. L. Roberts, J. C. Dunlop, E. C. S. Daniel, and W. S. Colman, of the Edinburgh School; E. Molyneux, of the Liverpool School; C. P. Tanner, and H. N. Cappe, of University College; G. A. Heberden, of St. George's Hospital; H. T. D. Ryder, of King's College; A. Bronner, Heidelberg, F. R. W. Brown, of the London Hospital; E. Marsh, of the Birmingham School; and W. H. Hillyer, of St. Thomas's Hospital.

The following gentlemen passed in Anatomy only.

Messrs. T. Walcot, of the Edinburgh School; D. W. Liebstein, A. L. Fuller, and A. C. Gomez, of University College; H. C. Addison, B. J. E. Wright, of King's College; E. O. Kingdon, of St. Mary's Hospital; and S. H. Badcock, of St. Bartholomew's Hospital.

Four candidates were referred in both subjects, and eight in Physiology.

The following gentlemen passed on the 13th instant in both subjects.

Messrs. A. D. P. Hodges, of the London Hospital; F. H. Roberts, H. N. Baron, G. L. Cheatle, and H. Smith, of King's College; A. M. Sully, F. B. Wells, H. Dane, C. T. Holland, S. Bullivant, and J. E. Dyer, of University College; J. R. Anderson, and E. L. Puddicombe, of St. George's Hos Robinson, and J. A. Francis, of St. Bartholomew's Hospital; W. L. Symes, and W. H. Dolamore, of St. Mary's Hospital; W. M. Helsham, of St. Thomas's Hospital; and A. G. W. Bowen, of Guy's Hospital.

The following gentlemen passed in Anatomy only.

Messrs. H. J. Tizard, of St. George's Hospital; A. W. Waller, of St. Thomas's Hospital; and A. R. Sieveking, of St. Mary's Hospital.

The following passed in Physiology only

Messrs. A. H. Vassie, of the Edinburgh School; C. M. Leakey, and E. D. Chabot, of the London Hospital; C. H. Clayton, of University College; and H. A. Bray, of King's College.

At the last professional examination for the diploma of membership, which has just been brought to a close, there were 251 candidates, of which number 93 were rejected—namely, 14 for three months, 68 for six months, 6 for nine months, and 5 for twelve months.

UNIVERSITY OF DURHAM.—At the recent examinations for degrees in Medicine and Surgery, and for certificate of proficiency in Sanitary Science, the following candidates satisfied the Examiners.

Certificate of Proficiency in Sanitary Science.—J. R. Roberts, M.R.C.S., L.R.C.P.; C. P. Walker, M.R.C.S.

First Examination for the Degree of Bachelor in Medicine.—First-Class Honours in Order of Merit.—C. J. Evers, M.R.C.S., L.S.A., Queen's College, Birmingham; F. W. Edridge-Green, St. Bartholomew's Hospital. *Second-Class Honours in Order of Merit.*—M. M. Bird, St. Mary's Hospital; J. T. James, Middlesex Hospital; J. H. White, of St. Bartholomew's Hospital.

Pass-List in Alphabetical Order.—A. B. Blacker, M.R.C.S., L.S.A., St. Thomas's Hospital; E. J. Booth, College of Medicine, Newcastle; J. S. Bootiman, College of Medicine, Newcastle; R. T. Bowden, M.R.C.S., L.S.A., St. Bartholomew's Hospital; E. T. Carlyon, M.R.C.S., L.R.C.P., St. Bartholomew's Hospital; J. B. Close, St. Bartholomew's Hospital; C. Gayford, M.R.C.S., St. Bartholomew's Hospital; T. W. Gibbard, King's College; T. H. Godfrey, St. Thomas's Hospital; A. H. Hart, M.R.C.S., L.R.C.P., Queen's College, Birmingham; T. E. Honey, St. Mary's Hospital; F. Jeffree, M.R.C.S., King's College; A. J. Macnab, King's College; F. J. J. Orton, Queen's College, Birmingham; S. J. Palmer, St. Bartholomew's Hospital; W. G. Pridmore, Middlesex Hospital; T. Pye, St. Bartholomew's Hospital; L. Raby, London Hospital; A. Y. Reily, M.R.C.S., L.S.A., Middlesex Hospital; W. G. Reily, Middlesex Hospital; H. G. Shore, M.R.C.S., St. Bartholomew's Hospital; F. W. Turtle, Guy's Hospital; B. Walker, London Hospital; A. G. Ward, M.R.C.S., St. Bartholomew's Hospital; J. Watson, Westminster Hospital; H. J. Wheeler, St. George's Hospital; L. Wilde, College of Medicine, Newcastle.

The following passed in Chemistry.

A. S. Brewis, College of Medicine, Newcastle; T. Morton, College of Medicine, Newcastle; F. W. Ramsay, College of Medicine, Newcastle.

The following passed in Botany.

W. D. Arnison, College of Medicine, Newcastle; T. Clifford, College of Medicine, Newcastle; A. J. Hubbard, M.R.C.S., L.R.C.P., L.S.A., St. Thomas's Hospital.

The following passed in Anatomy, Physiology, and Chemistry.

J. F. Blurton, Queen's College, Birmingham.

The following passed in Anatomy, Physiology, and Botany.

G. T. Giddings, London Hospital.

Two candidates for the certificate of proficiency in Sanitary Science presented themselves, and both passed. Of 60 candidates for the First M.B. Examination, 32 satisfied the Examiners. One candidate passed in Anatomy, Physiology, and Botany, and one in Anatomy, Physiology, and Chemistry.

MEDICAL VACANCIES.

The following vacancies are announced.

ESSEX AND COLCHESTER HOSPITAL.—House-Surgeon and Apothecary. Salary, £100 per annum. Applications by May 21st.

FRIENDLY SOCIETIES' MEDICAL ALLIANCE.—Resident Medical Officer for the Walsall Friendly Societies' Medical Association. Salary, £180 per annum. Applications to Mr. Geo. Abbott, 9, St. James Row, Sheffield.

FULHAM UNION INFIRMARY.—Assistant Medical Superintendent and Dispenser. Salary, £100 per annum. Applications by May 25th.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Resident Medical Officer. Salary, £50 per annum. Applications by June 1st.

KENDAL UNION.—Medical Officer and Public Vaccinator. Salary, £110 per annum. Applications by May 21st.

KIDDERMINSTER FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Salary, £220 per annum. Applications to W. Holloway, 5, Plimsoll Street.

LONDON HOSPITAL, Whitechapel, E.—Assistant Obstetric Physician. Applications by May 18th.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.—Honorary Assistant Physician. Applications by May 30th.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.—Resident Medical Officer. Salary, £40 per annum. Applications by May 30th.

PAROCHIAL BOARD OF STRONSAY.—Medical Officer and Public Vaccinator. Salary, £70 per annum. Applications to Mr. Learmonth, Inspector of Poor, Stronsay, Orkney, by June 4th.

PLYMOUTH PUBLIC DISPENSARY.—Second Honorary Physician. Applications by June 8th.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer. Applications by May 23rd.

ROYAL BERKS HOSPITAL, Reading.—Senior Physician. Applications by May 23rd.

RURAL SANITARY DISTRICT OF THE MUTFORD AND LOTHINGLAND INCORPORATION AND THE URBAN SANITARY DISTRICT OF LOWESTOFT.—Medical Officer of Health. Salary, £130 per annum. Applications to J. E. Cook, 140, High Street, Lowestoft, by May 18th.

STAFFORDSHIRE GENERAL INFIRMARY.—House-Surgeon and Secretary. Salary, £100 per annum. Applications by May 19th.

ST. BARTHOLOMEW'S HOSPITAL.—Two Casualty Physicians. Applications by June 5th.

SURREY COUNTY LUNATIC ASYLUM, near Wandsworth Railway Station.—Junior Assistant Medical Officer. Salary, £150 per annum. Applications to Dr. Biggs by May 29th.

WEST RIDING LUNATIC ASYLUM, Wakefield.—Resident Clinical Assistant. Applications to the Medical Superintendent.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTHS.

COOPER.—On the 11th inst., at 9, Henrietta Street, Cavendish Square, the Lady Agnes Cooper, of a daughter.

RAKE.—On April 11th, at Mucurapo, the wife of Beaven Neave Rake, M.D.Lond., Government Medical Officer, Trinidad, of a son.

MARRIAGES.

MYLES—WATTS.—On the 14th of April, at Holy Trinity Church, Sialkol, India, Edmond Henry Myles, M.B., Surgeon M.S., third son of Thomas Myles, Esq., Limerick, to Alice Caroline Watts, younger daughter of the late Edward Henry Watts, of Weymouth.

NICHOLAS—GLUBB.—On May 5th, at the Parish Church, St. Neot's, by the Vicar, the Rev. Edward Steele, brother-in-law, and the Rev. Edward Polwhele, Rector of Pillaton, uncle of the bride, James Hamilton Nicholas, Army Medical Staff, to Louise Lyne Stephens, third daughter of Albert Charles Lyne Glubb, Esq., of Pen Dean, Liskeard.

DEATHS.

DAVIES.—On the 3rd inst., Henry Davies, L.R.C.P.Lond., M.R.C.S.Eng., at Westfield House, Swansea, late of Morriston, aged 50 years.

FIELD.—On the 12th of May, at 31, Lower Seymour Street, Portman Square, Honor, the infant daughter of George and Pauline Field, aged 16 months.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. Payne: Varicella Gangrenosa. Mr. Pollard: A Case of Pyæmia. Dr. Heneage Gibbes: The Tubercle-Bacillus in Animals. Dr. Saundby: Atrophy of the Adrenals. Dr. Seymour Taylor: A Case of Addison's Disease. Dr. Hadden: Atrophy of the Adrenals, with Addison's Disease. Dr. Wickham Legg: A Case of Phosphorus-Poisoning. Dr. Thin: Sequel to a Case of Rodent Ulcer previously reported. Mr. Cullingworth: Impaction of a Large Calculus in each Ureter. Dr. Burnet: Primary Melanotic Sarcoma of the Liver (card). Dr. Goodhart: 1. A Case of Phosphorus-Poisoning (card); 2. Specimen of Leprosy, for Dr. Baven Rake of Trinidad (card). Mr. Makins: Primary Carcinoma of the Tibia (card). Dr. Sharkey: 1. Impaction of a Coin in the Œsophagus for Twenty Months (card); 2. Aneurysm of Heart (card); 3. Multiple Epithelial Growths in the Œsophagus (card). Mr. Poland: Sections of Epithelial Growths in Viscera after Epithelioma of the Tongue (card). Dr. Chaffey: 1. Multiple Sarcoma in a Child (card); 2. Lymphosarcoma of Bladder (card). Mr. Hutchinson, jun.: Two Cases of Epithelioma of the Hand (card). Mr. Lane: 1. Bony Process from the Humerus (card); 2. Cases of Displacement of the Foot (card); 3. Fracture of Pelvis (card). Mr. George Lawson: Extensive Secondary Glioma after Removal of both Eyes (card). Dr. Barling: 1. Round-celled Sarcoma of Peroneus Longus (card); 2. Alveolar Sarcoma of Triceps (card). Dr. Hale White: 1. Perforating Tubercular Ulceration of Intestine (card); 2. Grain of Corn causing Typhlitis and Intestinal Strangulation (card). Dr. Turner: Aneurysm of Aorta communicating with Superior Vena Cava (card). Mr. Shattock: Hernia into the Fossa Duodeno-jejunalis in a Child (card). Dr. Hebb: Melanotic Sarcoma (card). Dr. Dawtrey Drewitt: Persistent Branchial Fissure in a Child (living).

THURSDAY.—Harveian Society of London, 8.30 P.M. Mr. H. E. Juler: On the Use of the Ophthalmoscope in the Practice of Medicine. Dr. Champneys: Some Points in the Diagnosis of Cervical Stenosis.

FRIDAY.—Clinical Society of London. Report of Spina Bifida Committee. Mr. George Lawson: A Case of Successful Œsophagotomy for the Removal of Plate with Artificial Teeth accidentally Swallowed. Dr. Colcott Fox: Two Cases of Raynaud's Disease. Mr. William Anderson: A Case of Villous Tumour of the Bladder. Mr. Bernard Pitts: A Case of Tumour of the Bladder: Removal: Cure. Mr. Jessett: A Case of Plastic Operation for Epithelioma of the Lower Lip (living specimen).—Society of Medical Officers of Health, 30 P.M. Report of the Council. Dr. W. N. Thursfield: On the Etiology of Goitre. Mr. F. E. Atkinson: On an Outbreak of Diarrhœa traced to Polluted Water.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th.,; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 1.

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ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

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IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

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CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

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The Examination for the Brussels M.D.

Sir,—Will you do me the favour of publishing a few facts and suggestions, from personal experience, for the benefit of many of our professional brethren who are going over to Brussels to submit to the prescribed tests for their M.D. diploma, the majority of them possessing the most vague ideas of the requirements of this examination, and their very limited conceptions being, in many cases (probably in the majority), quite inaccurate? Their sources of information at home are often directly misleading; sometimes, no doubt, from ignorance, but also, it may be, from other motives. It is important also, for the credit of our home-schools of medicine and surgery, that the nature of the examination should be better known, as the answering of candidates possessing good British qualifications, with the practical experience of years, is often discreditable to our home-teaching, and most markedly so in pathology, pharmaco-dynamics, and general therapeutics. This fact is, in many cases, the result of inadequate preparation. It presents to us another important aspect, in that a large proportion of candidates are men in active practice, to whom failure is not only very mortifying, but often very detrimental, not only in the repeated necessity for trusting their practices to strangers, with consequent risks, but in the expenses entailed, and the injury to health from anxiety and study, with which may be associated diminished attention to the duties of their practices.

The first test (first doctorate) consists in a *vivâ voce* examination in general and special pathology, general therapeutics, including pharmaco-dynamics, symptoms and treatment of diseases. Each of the above three headings is taken by a different examiner; the fourth examiner takes a wide range through the "practice of medicine," any branch of which may apparently be selected by him, such as diseases of children, of old age, mental diseases, etc. Each candidate is taken by each examiner consecutively, every one of whom possesses the power of rejection in this, as also in the second and third doctorates. The examination by each is most thorough; and, when I was present, this first doctorate examination sufficed for the rejection of five out of a total of fifteen candidates; of this total, several had been unsuccessful on former occasions, but now proved successful, their former experience having taught them the necessity of careful preparation. The rejection of five seemed to be a "mortality" of about 50 per cent. among primary candidates. The second doctorate embraces theoretical surgery and surgical pathology, theory of midwifery, public and private hygiene, and medical jurisprudence. These different subjects are taken by four additional examiners, and the examination is conducted in a manner similar to the first. I have enumerated the subjects in the order of their relative importance. The tests for the third doctorate consist in clinical examinations in medical and surgical cases, examination in midwifery, including obstetrical operations on the mannikin, operative surgery, and regional dissections. These four examinations are conducted by four examiners, one of whom is an examiner for the first doctorate; the other three are additional to those already enumerated, making a total ef eleven examiners conducting the three tests. I may say that they require a high standard of dissection, with good anatomical knowledge; but anyone who has made up his other subjects well, and has previously had a fair knowledge of anatomy, can refresh himself sufficiently, by arrangement, at the University dissecting-room. This is, to some extent, desirable, owing to the slightly different relative importance attached there to certain structures from that to which we are accustomed. I would suggest to candidates to post themselves up in the anatomical position of the lymphatic glands and the sources from which they derive their lymph, and be careful not to destroy them in dissection.

The total rejections in the three tests when I was there were nine out of sixteen candidates, the fifteen entered for the first doctorate being augmented by one in the second doctorate, who had previously passed the first, but had been unsuccessful in the second. I am informed that the rejections are now never less than 40 per cent.

While earnestly cautioning my medical brethren against very hastily making any arrangement for tuition, by correspondence or otherwise—and especially would I caution them against any agreement with regard to which a personal interview does not give them confidence—yet I do not condemn tuition, which is most valuable when conducted under suitable auspices; for without it, though secondary to an injudicious arrangement and consequent loss of time, I should most likely have been unsuccessful on my first and only visit to Brussels.

It is only right to add that I believe no examination can be more fairly conducted, and any one who is well up in the subjects enumerated need have no fear of the result, and will secure a diploma the value of which is sufficiently proved by the percentage of rejections.

To the precautions already suggested, I would like to add, that a great safeguard against a bad arrangement would be to get a reference to some successful candidate of the year 1885.—I am, sir, your obedient servant,

M.D. Brux.

Royal College of Surgeons of England.

At the primary examinations for the diploma of membership of the College, which commenced on Tuesday, April 7th, 397 candidates presented themselves, to whom the following questions on anatomy and physiology were submitted. *Anatomy* (at least four questions to be answered): 1. Enumerate in their relative positions the bones entering into the formation of the roof, floor, and lateral walls of the orbit. 2. Describe the various ligaments connecting the radius and ulna. 3. Give the origin, insertion, and nerve-supply of the following muscles: *a*, deltoid; *b*, temporal; *c*, adductor magnus; *d*, latissimus dorsi. 4. Describe the course and relations of the external iliac artery. What are its branches? 5. Give the relations of the right and of the left kidney. 6. Describe a dissection to expose the posterior surface of the soleus.—*Physiology* (four questions to be answered): 1. Define the term "cell." Describe its structure. Classify cells according to (*a*) their shape, (*b*) their function. 2. How are fatty matters digested? How are they absorbed? What is their use? 3. Explain the production of the sounds and impulse of the heart. 4. Explain how air is admitted to and expelled from the thorax. State the differences between inspired and expired air. 5. What is the effect of cutting both vagi on a level with the cricoid cartilage (*a*) on respiration, (*b*) on cardiac movement, and (*c*) on blood-pressure? 6. Into what layers does the blastoderm or germinal membrane divide? Enumerate the principal tissues and organs developed from each.

At the recent pass-examination for the diploma of member of the College, the following questions were submitted to the candidates. *Surgical Anatomy and the Principles and Practice of Surgery* (at least four questions, including one of the first two, to be answered): 1. Give the anatomical relations of the common femoral artery. What are the alleged objections to its being ligatured, and under what circumstances may it be necessary to disregard them? 2. Mention in order the several tendons in relation with the knee-joint, and state what bursæ are usually found in connection with them. 3. Under what conditions may spontaneous cure of aneurysm occur? What are the changes which take place in the sac and its contents? 4. Describe the symptoms and course of intussusception of the bowel. What are its causes, and what treatment would you adopt in different cases? 5. Mention the various conditions which may require trephining of the skull. How is the operation performed? 6. What are the causes of retention of urine in a child? Give the treatment appropriate to different cases.—*Principles and Practice of Medicine* (three questions to be answered, including No. 4): 1. Discuss the consequences of obstruction of the portal vein or of its ramifications, and the causes of such obstruction. 2. What are the symptoms, consequences, and treatment of diabetes mellitus? and how do you detect the presence of sugar in the urine? 3. Enumerate and explain the symptoms which may attend aneurysm of the transverse arch of the aorta; and state how you would treat the disease. 4. What are the effects of overdoses, and what the medicinal effects and uses, of the following medicinal agents: belladonna, digitalis, lead, zinc, and hydrocyanic acid? Enumerate, and state the doses of, those preparations of these drugs which are intended for internal administration.—*Midwifery and Diseases of Women* (three questions to be answered): 1. What are the possible terminations of labour with the shoulder presenting? What would be your treatment (*a*) before, (*b*) after, the shoulder was impacted? 2. You are called to a patient near the full term of pregnancy, who is extremely pale, with small pulse, normal temperature; abdomen very large, uniformly hard and tense; os uteri small, no discharge; the patient complains of continuous severe pain in the belly. What condition is indicated by these signs and symptoms? and how would you treat it? 3. Describe the course of a case of puerperal peritonitis, and how you would treat it. 4. What are the symptoms which uterine submucous fibroids commonly cause, and how would you treat them?

Medical Titles.

Sir,—As it often happens that a protracted difficulty is suddenly solved by a happy inspiration unthought of through its very simplicity, I venture to submit that the much vexed question of medical titles can be disposed of on the good old simple plan of "calling a spade a spade." For generations, custom has assigned the designation of "doctor" to the medical man. The rustic invariably speaks of "Doctor So-and-so" as he does of "Lawyer So-and-so," while the more educated classes speak of "calling the doctor in" even where the highest consultant-surgeon is in request. All are likewise universally agreed that doctors are, and ought to be, not only duly qualified in the interest of the public safety, but also gentlemen by education and position, their profession being an honoured and respected corporation, akin to the bar, the church, and the army or navy. Why not, therefore, treat all doctors as doctors, as gentlemen of learning and skill, proud of their useful and venerable calling, and as well entitled to a professional designatory courtesy, as the clergy to that of "reverend," now extended to ministers of all sects? I am fully aware this proposal will raise a host of objections. I, therefore, hasten to anticipate them by most earnestly deprecating any wish to "democratise" the profession by annulling all special distinctions, or to lower in the least the value of the highly prized distinction of "M.D." An academical degree is and should be the Victoria Cross of good sound professional study. But in the army, for instance, do we not see quartermasters, paymasters, etc., designated as such, just as combatants have "General," "Major," etc., prefixed to their names, and, what is more to our purpose, are not the medical officers styled Surgeon-Major A. Assistant-Surgeon B., etc? Why not extend this simple method to the medical officers of civil hospitals? Take the cases of (1) a consulting physician who is a Cambridge M.D.; (2) a consulting surgeon F.R.C.S.; (3) a modest duly registered general practitioner, as yet only a M.R.C.P., perhaps with a medical licentiateship as well. Let the first be styled physician—M.D.; the second, surgeon—F.R.C.S. (as he would be in Her Majesty's services); and by all means let the more modest, but no less able and hard-working third, be simply styled "doctor." He surely deserves some little professional recognition as well as his fellow-worker in the field of humanity, the clergyman; and, moreover, a good hard and fast line will thus be drawn between the *bonâ fide* qualified practitioner and the piratical interloper. As matters now stand, when you hear, say, Jones of such a hospital spoken of, you have not the least idea whether he is one of the students, or the dispenser's assistant, or the chief porter, when perhaps, after all, he is the leading consulting-surgeon and operator there. Call him Surgeon Jones; you will then know what he truly is; the same for all the hospital officers. I admit that "Assistant House-Physician So-and-So" is rather a large mouthful for ordinary civil designation, but so is, officially, "Deputy Inspector-General So-and-so"; and, in common parlance, the simpler courtesy of "doctor" might be used.

Setting all susceptibility and punctilio aside, I venture to point out also another advantage to public security in drawing a hard and fast line between doctors and outsiders by a special exclusively professional designation. Simple and ignorant people, too, often confound the druggist with the medical man, and perhaps, in a serious case, consult some ignorant druggist's shopman, and receive his glib advice as though tendered by Esculapius himself. "A doctor's shop" is the popular designation for any druggist's or herbalist's establishment, the owner of which, perhaps, is not even a pharmaceutical chemist, and the lower classes often are ignorant of any professional difference between him and the President of the College of Physicians. As the labourer is worthy of his hire, it might be suggested that the duly certified pharmaceutical man might have "chemist" prefixed to his name in recognition of his more modest but useful labours. But at all events, in the case of medical practitioners, I feel confident the above-named considerations will score in favour of the system I venture warmly to advocate.

In modest but earnest confidence that my views on the subject will eventually obtain a very numerous body of supporters,—I remain, sir, yours truly,

J. Brindley James, M.R.C.S. Eng.,
Associate of King's College, London.

Erratum.—In the Journal of May 9th, page 873, column 2, line 10 from bottom, for "Dr. Ernest Sansom," read "Mr. Ernest Samson."

Dr. J. Macfie (Glasgow).—There is no English translation of the late Gabriele Buccola's work on "The Electrical Reaction of the Sense of Hearing" that we are aware of.

Jewish Circumcision.

Sir,—Could any Jewish or other members give information, or their opinions, on the following points. 1. To give a brief description of the operation of circumcision in the case of children of upper class Jews, and as to any bad after-effects. 2. On medical and health grounds, should the practice of circumcision have been retained by Christians? 3. Might not the observances by the majority of the Jewish women of to-day in regard to menstruation and childbirth be beneficial for the women of our lower classes, so far as consistent with their daily occupations? I do not at present enter into the question of Jewish distinctions as to animal food.—I am, sir, yours, etc., A. J. B.

*** 1. There is no difference in the circumcision of the children, to whatever class they may belong The operation is performed by slipping the prepuce into the slit of a broad shield, for the protection of the glans penis; removing the prepuce with a bistoury; tearing backwards the mucous lamella of the foreskin so as to thoroughly and entirely expose the glans; and securing the wound by a strip of lint, which is removed the next morning. The whole operation, including dressing, does not occupy more time than one minute and a half to two minutes. As, doubtless, there are members of the Jewish community where our correspondent resides, he can have no difficulty in seeing how they perform the operation. Experience has shown that the operation is very rarely attended with bad effects. Hæmorrhage may sometimes occur, but is easily stopped. Where the wound takes a sloughy intractable character, it has been found to give way to black wash, liquor carbonis detergens, etc. As a rule, the vast majority of cases are well within four or five days.

2. In the opinion of many surgeons, the practice of circumcision has very many beneficial aspects, and, after the wound is healed, no drawbacks. The question whether Christians should have retained it, is not one on which we can enter.

3. The practice of Jewish women with regard to menstruation is founded on the Mosaic law, and is consonant with the principles of the utmost cleanliness, physical and moral; its adoption, therefore, would be beneficial, not only "for the women of our lower classes," but for the women of all classes.

4. Our correspondent will find the subject of Jewish distinctions as to animal food ably and exhaustively worked out by Dr. Behrend, whose pamphlet is published at the office of the *Jewish Chronicle*, 2, Finsbury Square.

A Catena of Queries.

Sir,—I would feel obliged if you would insert the following queries in your next or an early edition of the British Medical Journal.

1. What is the best and most easily applied test for water to be used for drinking purposes? Many of the tests recommended in text-books are not easy of application to the busy practitioner.
2. What practical test do you recommend for milk?
3. Is common vaseline beneficial or injurious to the human hair?
4. What is the easiest way of obtaining the degree of M.D. without "residence," etc., to one holding a licence of the College of Physicians (three years' standing) and a licence of the Apothecaries' Hall?
5. Can the title "Doctor" be legally in point of custom used by medical men not M.D.'s on door-plate, etc.?—I am, etc., Vera.

The Surgeon to his Sweetheart.

A correspondent forwards us the following, which is, we believe, of ancient date.

Organisation's loveliest flower,
My own that system let me call!
The heart of this is in thy power,
Chordæ tendineæ, valves, and all.

The corneæ of those globes of sight,
Diaphanous as morning dew,
Give passage to the rays of light
Reflected from each iris blue.

Above those orbits mind is there,
Anterior lobe, os frontis full;
Beneath that scalp of raven hair,
Mine eyes discern a perfect skull.

With smiles those muscles wreath that face,
Matched with the lily, where the rose,
Just planted in its proper place,
Right o'er the buccinator glows.

Within the white and slender hand
Which that fair female subject owns,
How lax each ligamentous band
That binds the metacarpal bones!

Those bones compressed, that hand, in sport
Will let her slip that bracelet through:
Just as the brothers Davenport
Long since the rope-trick used to do.

Oh, may that hand's palmaris be
Stretched close as possible to mine!
And may our sentiments agree
Whilst our phalanges intertwine.

Let then, to bind me to my bride,
With union ne'er to be undone,
The nuptial ligature be tied,
And Hymen's suture make us one.

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BOOKS, etc., RECEIVED.

Why not Eat Insects? By W. M. Holt. London: Field and Tuer.

The Science of Change of Air. By S. Skinner, M.D. London: Tinsley Brothers.

Surgical Delusions and Follies. By J. B. Roberts, A.M., M.D. Philadelphia: P. Blackeston and Co. 1884.

Common Injuries to the Limbs. By E. Cotterell, M.R.C.S. London: H. K. Lewis. 1885.

Text-book of General Botany. By Dr. W. J. Behrens. Translated and Edited b Patrick Geddes, F.R.S.E. Edinburgh: Y. J. Pentland. 1885.

The Principles and Practice of Medicine. By R. M. Khory, M.D. In tw volumes. Vol. i and ii. London: H. K. Lewis. 1885.

Transactions of the New York State Medical Association for the Year 1884. Vol. Edited for the Association by Dr. Austin Flint, jun., M.D. New York: I Appleton and Co. 1885.

An Introduction to Practical Organic Analysis. By G. E. R. Ellis. London Longmans and Co. 1885.

Johnston's Student's Atlas of Bones and Ligaments. By C. W. Cathcart, M.A M.B., and F. M. Caird, M.B. London and Edinburgh: W. and A. K Johnston. 1885.

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REPORTS
TO THE
SCIENTIFIC GRANTS COMMITTEE
OF THE
BRITISH MEDICAL ASSOCIATION.

REPORT ON
THE CHOLERA-BACILLUS.

By W. WATSON CHEYNE, M.B., F.R.C.S.,
Assistant-Surgeon to King's College Hospital, etc.; Research Scholar of the British Medical Association.

(Continued from page 977.)

APPENDIX.

It is not necessary for me to enter at length into Dr. Koch's paper, as his complete report was published in this JOURNAL last year; but I may sum up his statements as follows.

1. The cholera-bacillus is a distinct species of micro-organism, having marked characteristics which distinguish it from all other known organisms. In this connection, I may mention that not only does Dr. Koch lay particular stress on the description of the cultivation-characters of these organisms, but he states distinctly, in more than one place, that the microscope alone will not suffice for their detection in most cases, but that the culture-test must be employed as well.

2. This bacillus is always present in Asiatic cholera.

3. It is the only form which is constantly present there and nowhere else.

4. It is present in greatest numbers in acute and uncomplicated cases.

5. It is present in the parts most affected.

6. It is never present in other diseases, or in healthy persons; nor has it been found outside the body when there was no cholera in the neighbourhood.

7. No other conclusion can be arrived at than that these bacilli are the cause of cholera. (The other hypotheses have been already discussed.)

8. Although, by experiments on animals, direct evidence that the cholera-bacillus is the cause of cholera has not yet been obtained, there are various observations which are almost as good as experiments on man, and which go to support the idea of their causal connection.

9. The natural history of the disease corresponds with the various characteristics of this organism.

In a later paper, Koch states that he has again taken up the experiments on animals, and that he has succeeded in causing the death of the animals, with *post mortem* appearances like those of cholera, by injection of pure cultivations of the cholera-bacilli. His forthcoming report will be awaited with much interest.

Van Ermengem was able to confirm Dr. Koch's statements in regard to the constant presence of these organisms in Asiatic cholera. He found them in thirty-four specimens of dejecta from cholera-patients, and in eight *post mortem* cases. He found that the number present corresponded with the stage of the disease. In two extremely acute cases, they were present almost in pure cultivations. In one case in the algide stage (cholera algida), only very few were seen on microscopical examination; but, on cultivation, enormous numbers were found. He was also able to infect animals with the cholera-bacilli.[1]

Dr. Victor Babes (Virchow's *Archiv*, vol. xcix, 1885) investigated ten recent and five older cases in Paris. He found the same striking difference between the results of the microscopical examination and the results of cultivation to which I have previously alluded; and, as his experience very strikingly illustrates the untrustworthiness of microscopic examination alone, I shall quote his words. He says: "In all of these cases, I examined the intestinal contents, in the first instance, with the microscope. Only once did I find a completely characteristic appearance; in this instance, there were in every field of the microscope countless comma-bacilli, here and there united so as to form wavy lines. In five cases, there were almost no other forms of bacteria, except comma-bacilli in considerable numbers, in the flakes in the intestinal contents. In the other cases, on the contrary, the comma-bacilli were mixed with the ordinary intestinal bacilli, or with a peculiar bacterium composed of two almost lancet-shaped members. The comma-bacilli were often in such small numbers, and their form so little characteristic, that I should not like to conclude from such an appearance that I had to do with cholera. In two of the older cases, I found absolutely nothing which I could recognise as comma-bacilli. The state of matters is, however, quite different when one employs portions of the dejecta, or the whitish masses lying close to the mucous membrane, especially over Peyer's patches, for the preparation of cultivations. By this procedure, I obtained, in nine of the ten recent cases, the characteristic cultivations of the comma-bacillus; and the possibility is not excluded that the negative result in one case was due to an error in the experiment. In two of the five older cases (six to ten days old), I was, however, unable to discover any colonies of comma-bacilli, even although in one case I prepared a number of plates."

He agrees with Koch and Ermengem in regarding Finkler's comma-bacillus and the comma-bacillus of the saliva as quite different organisms from the cholera-bacillus. He finds that the cholera-bacilli are difficult to stain in sections.

Nicati and Rietsch also found the cholera-bacilli in cases of cholera, and succeeded in infecting animals with them. In the case of dogs, they first ligatured the bile-duct, and then injected pure cultivations of these bacilli into the intestine. In the case of guinea-pigs, they also succeeded, even without ligaturing the duct. I have already referred to their experiments, and, therefore, I need not mention them further.

Schottelius (*Deutsche Medicinische Wochenschrift*, April 2nd, 1885) states, as his opinion, that, for the exact demonstration of cholera-bacilli, the culture-test cannot be dispensed with. He says: "This method, according to my experience, gives positive results, without exception, even in cases in which no comma-bacilli could with certainty be detected by the microscope in dejecta, of which numerous specimens had been microscopically examined." He proposes, however, a more rapid way of arriving at a diagnosis than by the plate-cultivation test, which requires about thirty-six hours. He mixes a considerable quantity—100 to 200 cubic centimètres—of the suspected dejecta with 250 to 500 cubic centimètres of faintly alkaline meat-infusion. This mixture is well shaken, and placed in a tall vessel, which is put in a warm place—if possible, about the temperature of the human body, and is allowed to stand for about twelve hours. The main mass of the dejecta falls to the bottom of the glass, but the cholera-bacilli, which require oxygen, collect at the surface, and multiply with great rapidity. Microscopic specimens can then be made of the upper layer of fluid, and, if the case be one of cholera, almost a pure cultivation of cholera-bacilli will be obtained. Of course, this method alone is not sufficient, because other comma-bacilli, such as Finkler's, might be present, which might also accumulate and grow at the surface, and it would require a large amount of experience to be able to distinguish these from the cholera-organism by the microscopic appearance alone. Schottelius himself does not propose to supersede the glass-plate culture-test by the above method.

I need not mention further the confirmatory evidence in favour of Koch's statement that the cholera-bacilli are always present in cases of cholera, nor need I refer to the other evidence in favour of the second point, namely, that they are never present elsewhere; but I shall now mention shortly the chief researches which are supposed to tell against Dr. Koch's views. It will be seen that no unanimity exists among these investigators as to the facts; they only agree on the one point, that they think Dr. Koch's views are wrong.

The French Commission were unable to discover any micro-organisms peculiar to cholera in the dejecta. They saw bodies in the blood which they thought were micro-organisms, but they were unable to cultivate them. It turns out, however, that the bodies which they saw in the blood were not micro-organisms.[2]

Finkler and Prior cultivated comma-shaped bacilli from the dejecta obtained from cases of cholera nostras at Bonn, which they thought to be the same as the cholera-bacilli described by Dr. Koch. It has now been satisfactorily demonstrated that these organisms are not the same as the cholera-bacilli, though somewhat resembling them in

[1] Since the above was written, I have received Dr. Van Ermengem's work, entitled *Recherches sur le Microbe du Choléra Asiatique*, a work which deserves careful study by anyone interested in this subject. He undertook the investigation on behalf of the Belgian Government, without being prejudiced in any way, and the result of his work is complete confirmation of Dr. Koch's facts and views.

[2] In the *Bulletin de l'Académie de Méd. de Paris*, August, 1884, will be found a communication from M. Strauss on the cholera-bacillus. He does not express a definite opinion one way or the other, but seems rather to incline to the view that Dr. Koch has not proved his point.

microscopic appearance. As I have already described the characteristics of Finkler's organism, I need not again refer to them here.

Dr. Timothy Lewis drew attention to the presence in the saliva of comma-shaped bacilli resembling the cholera-bacilli, but he did not apply the culture-test to them. It has since been shown that these organisms are not the same as Dr. Koch's cholera-bacilli.

Dr. Emmerich (see *Deutsche Medicinische Wochenschrift*, No. 50, 1884) found, by cultivation, a short thick bacterium in the blood and internal organs in cases of Asiatic cholera, which, he thinks, has a better right to be looked upon as causally connected with the disease than have Koch's cholera-bacilli. This research has been criticised at length by Professor Flügge in the *Deutsche Medicinische Wochenschrift* for January 8th, 1885; and I need only repeat one or two of the points in Professor Flügge's criticism, which seem to me to be justified. Emmerich considers that the reason why other observers have failed to find micro-organisms in the blood and tissues is, that too few cultivations have been made in each instance. If, however, only a certain proportion of the tubes show growth, it would imply, in Flügge's opinion, the presence of relatively very few organisms in the whole circulating blood, while on Emmerich's view the blood is the seat of the disease, and, therefore, ought to contain large numbers of organisms. Then Emmerich leaves out of sight the possible accidental contamination of some of these tubes during the process of inoculation, and also the possibility that the organisms may have penetrated into the blood and organs after death. Flügge further points out that Emmerich did not employ the glass plate cultivations in Naples, but merely inoculated tubes, and took them back to Munich, where the plate-cultivations were first made. This was, of course, a totally inadequate method. Dr. Emmerich apparently saw the weakness of this method, but considers the objection invalid, because it was the same organism which developed in each tube. But Professor Flügge points out that the form and mode of growth of these organisms on nutrient jelly is by no means characteristic, and that many of the commonest accidental impurities of cultivations are alike, or very similar, in their form and mode of growth. Emmerich found that, when he injected cultivations of these organisms into guinea-pigs—into their intestine, lungs, or subcutaneously—an affection of the small intestine ensued, corresponding in severity to the quantity of material injected. There was either simple catarrh, or exudation with swelling of Peyer's patches, or extensive ecchymoses and formation of ulcers, which in some cases led to perforation. In the cæcum and large intestine, there were also, at times, extensive ecchymoses. The peritoneum was injected, mesenteric glands swollen, spleen small and soft. Flügge points out, in connection with this, that these are not the *post mortem* appearances of Asiatic cholera in man; that Emmerich evidently only obtained it with a certain proportion of the cultivations which he brought from Naples; and that similar results follow the injection of a bacillus which has nothing to do with cholera, and which Dr. Kreibohm obtained in Flügge's laboratory from human sputum and saliva. I need not pursue the criticism of Emmerich's investigations further, more especially as most other observers who have worked out the matter are agreed that no micro-organisms are present in the blood or internal organs in Asiatic cholera; but I may end by quoting one sentence from Flügge's criticism. He says: "As a matter of fact, the state of matters is this, that Emmerich could have obtained all his results—his cultivations, the characteristics of the organisms cultivated, and the infection of animals—if he had investigated any dead body, not too long dead, which had nothing whatever to do with Asiatic cholera."

I must now pass on to Dr. Klein's statements, based on the result of the researches of the English Commission, and also of his own work since the return of the Commission. This is by far the most complete of the researches which are opposed to Dr. Koch's views, and both on account of Dr. Klein's high reputation and of the immense importance of the subject, it requires careful and thorough criticism. This research is stated by Dr. J. M. Cuningham, Sanitary Commissioner with the Government of India, to be "entirely subversive of the statements advanced by Professor Koch, as to the so-called 'comma-bacillus being the cause of cholera.'" This is a most serious conclusion, and being the view taken by a high authority in India and being, nevertheless, opposed to the weight of evidence, it is the more necessary to analyse Dr. Klein's statements very carefully, so as to be certain that there has been no possibility of error.

In the preliminary report of the English Commission, dated November 27th, 1884 (BRITISH MEDICAL JOURNAL, January 3rd, 1885), the first statement runs as follows. "The statement of Koch that 'comma-bacilli' are present only in the intestines of persons suffering from, or dead of cholera, is not in accordance with the facts, since 'comma-bacilli' occur also in other diseases of the intestines, for example, epidemic diarrhœa, dysentery, and in intestinal catarrh associated with phthisis." Now, if by the expression "comma-bacilli" is meant cholera-bacilli, and it ought to mean this, otherwise it is not an argument, this statement, if correct, is, as Dr. Cuningham puts it, "entirely subversive of the statements advanced by Professor Koch as to the so-called 'comma-bacillus' being the cause of cholera." And this statement is not only subversive of the view that the cholera-bacillus is the cause of cholera, but also renders it impossible to consider the presence of this bacillus as diagnostic of Asiatic cholera; hence, doubtless, the reason why no mention is made of this most important fact in the reports of the English Commission. This statement, if correct, would further imply great carelessness on Dr. Koch's part, in not having ascertained this fact during the months which he spent on his investigation, a fact apparently readily made out in a few weeks by the English Commission.

At the meeting at the Royal Society, on February 5th (BRITISH MEDICAL JOURNAL, February 7th, 1885) Dr. Klein repeated and extended this statement. He there said "Koch overlooked the fact that 'comma-bacilli' occur in other intestinal diseases, in the mouths of healthy persons, and, as shown recently, even in some common articles of food (by Dr. Deneke in stale cheese)." And at the meeting of the Royal Medical and Chirurgical Society, on March 24th, the same statements were repeated without any qualification whatever. When, however, we call to mind that similar materials were thoroughly examined by Dr. Koch in India, with an entirely negative result, and when the negative results obtained by other observers, as described in the preceding pages, are taken into consideration, the question naturally arises whether this statement may not be really founded on a misapprehension of what Dr. Koch meant by cholera-bacilli. If by "comma-bacilli" Dr. Klein meant "comma-shaped bacilli," and therefore not necessarily cholera-bacilli; if, in other words, he relied on microscopic appearance alone, and not on the cultivation-characters for the determination of cholera-bacilli, the whole discrepancy is explained. It turns out now that this was really the case; for, in the BRITISH MEDICAL JOURNAL of April 4th, 1885, Dr. Klein publishes "some remarks on the present state of our knowledge of the comma-bacilli of Koch," in which he devotes a considerable amount of space to the attempt to show that the discovery of the comma-bacilli, "their description and their specific relation to cholera, were asserted by microscopic examination only," and in which he tells us that "there is nowhere (in Dr. Koch's reports) a word of a culture-test."

I was able, in a letter in the JOURNAL on April 11th, to show that, in this supposition, Dr. Klein was entirely wrong, and to this I must refer the reader. I only quote Dr. Klein's statements here, to show the view which he held as to the methods used by Dr. Koch in distinguishing the cholera-bacillus. Thinking that Koch discovered, described, and asserted the specific relation between cholera and these bacilli by the microscopic appearance alone, the English commission naturally proceeded to examine other materials by the microscope alone, and, finding comma-shaped bacilli, looked on this result as entirely subversive of Dr. Koch's statements. Had Dr. Klein not considered that the microscopic examination was sufficient, he could hardly have referred to Deneke's cheese-spirilla in the passage I have quoted from the meeting at the Royal Society, for Dr. Deneke's paper is entitled "On a New Form of Bacterium resembling the Cholera-Spirilla," and in it Deneke points out how this new bacterium may be distinguished from the cholera-bacillus. Regarding this as the only explanation of Dr. Klein's statements, I suggested it at the meeting at the Royal Medical and Chirurgical Society, and further suggested that Dr. Klein should tell us in what cases the results were obtained by microscopical examination alone, and in what cases the statement rested on culture-tests as well. The result of this was that, in the abstract of his remarks, published three days later (BRITISH MEDICAL JOURNAL, March 28th, 1885), he says "comma-bacilli of various species have been discovered in other diseases of the alimentary canal, in the fluid of the mouth of normal persons (Lewis), and in old cheese (Deneke). The comma-bacilli found by Finkler and Prior in cholera nostras, differ in mode of growth from Koch's comma-bacilli of cholera; so do those found in diarrhœa due to other causes; but those of the fluid of the mouth are identical with Koch's comma-bacilli in many respects." And, in the later paper, to which I have already referred (BRITISH MEDICAL JOURNAL, April 4th, 1885), in which Dr. Klein gives his views as to "the precise position with regard to the comma-bacilli of Koch," no mention whatever is made of the comma-bacilli found in other diseases of the intestine. In reality, the facts stated as result No. 1 of the preliminary report, instead of being "entirely subversive" of Dr. Koch's statements, do not affect the question at all, for the simple reason that the bacilli found in these cases were not cholera-bacilli.

The only matter which Dr. Klein now brings forward against the cardinal point of Koch's research (that the cholera-bacilli are found only in Asiatic cholera), is the case of the salivary bacillus.[3] This was not mentioned in the preliminary report at all, but was first spoken of before the Royal Society. At the meeting at the Royal Medical and Chirurgical Society, I referred to the failure, on the part of numerous observers, to cultivate the comma-shaped bacilli of the saliva, although the same material and methods were used as were being successfully employed for the cultivation of the cholera-bacilli; and I also said that Dr. Klein was the only observer who thought that he had succeeded in cultivating them. Dr. Klein then stated that the salivary comma-bacilli would not grow on the same soil as was used for the cultivation of the cholera-bacilli, on which I naturally suggested that that proved that they were not the same organisms. To this view Dr. Klein assented.

In the BRITISH MEDICAL JOURNAL of March 28th, 1885, Dr. Klein tells us that he obtains his cultivations of the salivary bacilli in neutral jelly; and that, after one or two generations, they will grow in the alkaline gelatine; and he says that the comma-bacilli of the mouth are identical with Koch's comma-bacilli in mode of growth "in many respects." In the later paper of April 4th, however, he tells us that, after acclimatisation in neutral media, the salivary bacilli "present the same appearances of growth as the choleraic comma-bacilli." He says also that the cholera-bacilli, under varying conditions, show similar variations, and instances the following: "When the choleraic comma-bacilli are mixed with hydrochloric acid (1 to 1,000), from ten to fifteen minutes, and when, after this, they are sown in alkaline nutritive gelatine, they do not grow at all, or only with great difficulty; but, on sowing them, after the treatment with hydrochloric acid, in alkaline broth, they grow well, and then, transferred to alkaline nutritive gelatine, they show copious and typical growth." This result is, however, not a case of acclimatisation at all, as will be seen by reference to my experiments with acids; had glass-plate instead of test-tube cultivations been made in the first instance, it would have been found that the bacilli grow as readily in the alkaline gelatine as in the meat-infusion, the result in the test-tube cultivations simply depending on the acid being carried along the needle-track along with the bacilli, and impeding or preventing their growth. I may here say that, as the result of his experiments with 1 to 1,000 hydrochloric acid, Dr. Klein states that these bacilli are not killed by acids. This, however, entirely depends on the strength of the acid employed, acid of the strength of the gastric juice killing them, as I have previously shown, very rapidly. It would be interesting to know whether Dr. Klein's dilute acid (1 to 1,000) was one part of the commercial acid to one thousand parts of water, or whether it was made up on Dr. Brunton's formula. If it were the former, then his results entirely correspond with mine; but, in any case, they do not bear in any way on this question of acclimatisation of the salivary bacillus.

Returning now to the salivary bacillus, is it a fact that it will grow in neutral jelly containing five or ten per cent. of gelatine? I have stated in my report that I have failed to cultivate it in this material, and, as I have said, other observers have had like bad success. In fact, I have delayed the publication of this report for several weeks in order to go into this matter thoroughly, and, after numerous experiments, I am satisfied that the salivary comma-bacilli will not grow in this material. Of course, before Dr. Klein's views on the acclimatisation of the salivary bacillus can be accepted, or even discussed, he must give us a method by which anyone with sufficient skill and experience in these matters can repeat his observations. Dr. Koch told us how to cultivate the cholera-bacillus, and his observations can be readily verified by anyone. Dr. Klein has told us how he thinks he has succeeded in cultivating the salivary bacillus, but his experiments cannot be repeated. He has not told us on how many different occasions, and on how many different individuals, he has repeated his observations. Is he perfectly certain that there could not have been accidental contamination of his materials with cholera-bacilli? If Dr. Klein will go to some other laboratory, such as at Oxford or Cambridge, leaving behind him all cholera-cultivations, instruments, etc., so as to avoid the chance of accidental contamination, and if he will there prepare fresh material, and obtain cultivations of salivary bacilli, identical in all respects with Koch's bacilli after acclimatisation in whatever medium he chooses, and will further describe a method by which his results can be repeated, then the matter can be further discussed. But unless that be done, my conviction is that the explanation of his experiments is the same as that which he gave of Buchner's similar experiments with anthrax and hay-bacilli, and the same as the explanation of the old experiments on the artificial production of tuberculosis, namely, accidental contamination.

That I am not making any improbable suggestion is evident from Mr. Dowdeswell's research, published in the BRITISH MEDICAL JOURNAL, March 21st, 1885. Mr. Dowdeswell there tells us that, "in separating some other microbes by fractional cultivation in gelatine," he found that he "had accidentally got a growth of typical comma-bacilli, as far as shown by the characters of the colonies on the surface of the gelatine." Mr. Dowdeswell thinks that the contamination in this case came from the air. Although I think that there are very grave reasons against the view that the contamination in this case came from the air—in fact, I do not feel inclined to accept this explanation without further proof—nevertheless, the observation is extremely interesting and important, as showing that an observer working in the Brown Institution, and with Dr. Klein's methods, is not safe from accidental contamination of his cultivations with comma-bacilli, if cultivations of cholera-bacilli are being carried on at the same time, and in the same place.

I may now pass on to the second statement in the preliminary report, which is the following. "The 'comma-bacilli,' in acute typical cases of cholera, are by no means present in such numbers, and with such frequency, as to justify Koch's statement, that 'the ileum contains almost a pure cultivation of comma-bacilli.'" This statement is reiterated in the several communications to which I have referred. The amount of importance to be attached to this observation entirely depends on the manner in which it was made; and there is no statement that it was an observation as the result of cultivation, but rather as the result of microscopic investigation. The same error of dependence on microscopic characters is evidently at the foundation of this statement as was at the root of the first proposition. I have in my report sufficiently pointed out the fallacy of microscopic observation alone, and I need not go over the ground again. Dr. Gibbes, it is true, referred, at the meeting of the Royal Medical and Chirurgical Society, to cultivations in these cases; but he only referred to test-tube cultivations; there was no mention of estimation by glass-plate cultivations. Dr. Gibbes told us that, when a number of tubes were inoculated from the contents of the intestine in an acute case, the resulting growth, in the majority of instances, contained only a few cholera-bacilli. But, from the results of test-tube cultivations, one cannot gain any idea of the relative numbers of organisms present in the original material. For the organism which finds the nutritive material the most suitable soil for its growth will grow most rapidly, other conditions being favourable, and will very soon be present in greatest numbers, even though it may not have been the most numerous form in the material originally introduced. In fact, the cholera-bacilli seem very readily to disappear from many mixtures of different bacteria. This observation with regard to the numbers of bacilli in acute cases is entirely opposed to my own experience, as narrated before, and to the experience of others who have worked with the glass-plate method. In any case, it is by no means the most important point, the necessary questions being the constant presence of this bacillus in cholera, and its absence in other instances.

In connection with this matter, I may also refer to Dr. Klein's observation on the tank in which he found "comma-bacilli," although a number of persons were drinking this water without becoming affected with cholera. The question again naturally arises: Was it the cholera-bacillus which was present in this water? Was the microscopic appearance alone trusted to, or was cultivation used as a test? If this statement rests solely on microscopic observation, then we cannot consider the matter further, because we do not know that we have here to do with the cholera-bacillus. The same error vitiates this question as vitiated the former two. But even if we suppose that in this instance it was the cholera-bacillus that was present in the tank, the observation does not prove that these bacilli are not the cause of cholera. As I have pointed out already, many conditions come into play in connection with an attack of cholera. For instance, whatever be the virus of the disease, why does it apparently at times lie more or less quiescent, and then suddenly lead to epidemic outbursts of the disease? Why does one epidemic differ from another in virulence, etc.? But, apart from conditions affecting the virus probably outside the body, there are conditions in the body which may or may not predispose to an attack. Take tuberculosis, for example. There is every

[3] In the BRITISH MEDICAL JOURNAL for May 16th, Dr. Klein states that, in the cecum of normal guinea-pigs, one will find "the typical comma-bacilli of Koch." I have already investigated this matter, and I can only say that, in my experience, this is not the case. I see that here again Dr. Klein speaks of the appearances under the microscope, so that I presume he has fallen into the same error as that which will be referred to towards the end of this appendix. His other remarks the note to which I allude would not have been necessary, had he had patience wait till my report was finished.
Dr. Klein's other statement about finding cholera-bacilli in ligatured portions of testine in monkeys, after injections of sulphate of magnesia, is not founded on efficiently precise facts, and is so improbable, that judgment on this matter must delayed for the present.

reason to believe that the inhalation of tubercle-bacilli will, in man, as in animals, under suitable circumstances, set up a tubercular process. And yet we probably all have inhaled tubercle-bacilli at some time or other without becoming tubercular. Two conditions at least evidently influence this. Thus, for one thing, the tubercle-bacilli may never reach, or be able for mechanical reasons to settle in, a suitable part; or, in the second place, reaching such a part—say, the air-vesicles of the lung—they may not find a suitable soil on which to grow. Or, to take a case about which there can be no dispute—anthrax—we know that, probably according to the state of the individual, one man may escape after inoculation with anthrax-bacilli, another may have a mild pustule, another a severe one, and a fourth an acute fatal disease. So in this case, apart from the degree of virulence of the organism, the bacilli in the water may never have reached the necessary seat—the intestine—or, reaching it, may not have found it a fit soil. For these various reasons, I do not think that much importance can be attached to this observation; and I see that Dr. Klein omits it altogether in his last statement on the "precise position with regard to the comma-bacilli of Koch."

The third statement in the preliminary report is that "the 'comma-bacilli' are not present in the tissues of the intestine or elsewhere." What is meant by "elsewhere" is not clear, but I presume it refers to the blood and various organs. This same statement is reiterated in the various other places to which I have referred. I have previously mentioned the fact that Koch and others have found considerable numbers of these organisms in the tissues of the lower part of the ileum, more especially in the neighbourhood of Peyer's patches, in acute cases in which the *post mortem* examination was made very soon after death. I have also narrated my own failure to find these organisms in the tissue, and given a possible explanation of it. The same explanation is probably applicable to Dr. Klein's results. In any case, it does not seem to me that this matter touches the question of the causal relation of these bacilli to Asiatic cholera. Dr. Klein seems to make a very strong point of this, and to think that his failure to find the bacilli in the intestinal wall, is sufficient to fatally affect Dr. Koch's view of the causal relation of these bacilli to Asiatic cholera. It seems to be thought that the choleraic virus acts by producing a poison, and that, unless the organisms be present in the intestinal wall, any poison formed by them could not be absorbed. Dr. Klein himself said, at the meeting at the Royal Society (BRITISH MEDICAL JOURNAL, February 7th, 1885), that "Koch's theory as to the comma-bacilli, present in the mucous membrane, secreting a chemical poison inducing the disease, cannot, therefore, be correct." Here two views are confused together; in fact, a third view is being tacked on, to which Dr. Koch never gave expression. Dr. Koch says that the cholera-bacilli are the cause of cholera, because they are always present in the contents of the intestine, and are never found in other circumstances than in association with Asiatic cholera. Then he says, accepting the view that they are the cause of the disease, I think that they probably act by producing a poison which is absorbed, and which gives rise to the symptoms. And then the view is tacked on to this, that it is while growing in the wall of the intestine that they produce this poison, a view to which Dr. Koch never gave utterance. All that is essential for Koch's view that the cholera-bacilli are the cause of cholera is their constant presence; and it does not matter for this view whether the cholera-bacilli are present in the walls of the intestine or only in its contents, so long as they are constantly present somewhere or other in the affected part. The idea that they act by producing a poison which is absorbed, and gives rise to the symptoms, though probable, is a mere working hypothesis, and may have to be modified according as fresh facts are made out, without in any way invalidating the main position that the cholera-bacilli are causally related to cholera. Nor, even if it were necessary for this view that a poison should be formed, does it follow that it could only be absorbed if formed in the wall of the intestine, and not in the intestinal canal.

In the BRITISH MEDICAL JOURNAL for April 4th, 1885, Dr. Klein states that, in several typical rapidly fatal cases, the whole of the small intestine "presented an uniform appearance; the alterations extended equally to the whole small intestine. But in these cases there were no comma-bacilli present except in the lower part of the ileum, and here they were present in very small numbers indeed, the *post mortem* examination having been made very soon after death." This statement is entirely opposed to the results which I obtained in case No. 8, in which I examined the contents of the middle part of the jejunum as well as of the lower part of the ileum, and did not find any marked difference in the number of cholera-bacilli present in the two places. Nor does Dr. Koch, in his reports, state that cholera-bacilli are only present in the contents of the intestine at the lower part of the ileum, though he has found them in the mucous membrane only in that situation. The same error of dependence on microscopic appearances alone renders it impossible for us to accept Dr. Klein's observation.

We now come to the fourth statement in the preliminary report. "The 'comma-bacilli' in artificial cultivations carried out by one of us (E. K.), do not behave in any way differently from other putrefactive organisms." The exact meaning of this statement was for a long time quite unintelligible to me. There are, I think, at least two distinct views implied here; 1, that the cholera-bacillus is a putrefactive organism—the word "other" implies that; and 2, that there is some common mode of behaviour of putrefactive organisms in artificial cultivations. As regards the first point, it is, of course, very difficult to define what is meant by a putrefactive organism, but I should define it as one that produces or aids in producing putrefaction. In this sense I deny that the cholera-bacillus is a putrefactive organism; it produces at most a slightly fæcal odour, and is never found in putrefying materials. In connection with the second view, Dr. Klein says, in a letter to the BRITISH MEDICAL JOURNAL, on January 24th, 1885, "that anyone sufficiently familiar with cultivations of the various species of putrefactive bacteria in solid media, knows that almost every species—and even one and the same species cultivated in different media—exhibit peculiarities of its own, which in many instances are so marked, that an expert is able to distinguish them even with the unaided eye." There is no mention here of any character in cultivation peculiar to all putrefactive organisms which is also possessed by the comma-bacillus; on the contrary, he says, "anybody who has the opportunity and skill to make pure cultivations of these" (the cholera) "organisms in gelatine, cannot fail to find that Koch's description of the peculiar behaviour of the comma-bacilli under these conditions is, in all its details, absolutely correct." The first light which I got on this matter was from the sentence which followed the above; "but to conclude from this peculiar behaviour of Koch's comma-bacilli in gelatine, and from the manifest differences existing in this respect between them and Finkler's comma-bacilli, that the comma-bacilli of Koch are not putrefactive, but specific organisms, is a proposition which is as unsound in logic as it is incorrect in fact." At the meeting at the Royal Medical and Chirurgical Society, Dr. Klein made his meaning quite clear, by telling us that Dr. Koch considered that these organisms were pathogenic because, among other reasons, they grew in a particular manner on nutrient jelly. Indeed, at the Royal Society the same view had been stated (see BRITISH MEDICAL JOURNAL, February 7th, 1885). There Dr. Klein says, "on account of their constant occurrence in the intestines of patients suffering from Asiatic cholera, on account of their absence in all other diseases of the intestine, and *on account of their peculiar mode of growth in nourishing gelatine*, Koch claims for these comma-bacilli not only an important diagnostic value, but also considers them as the true cause of cholera." How such an idea could have arisen it is difficult to imagine, for Dr. Koch never said, nor even supposed, that they were pathogenic because they grew in a special manner on nutrient jelly. I am not aware that in the case of any organism, however virulent, it would be possible to say, from the appearance of the cultivation, that the organism would prove, on trial, to be or not to be pathogenic. Certainly such an idea has never been entertained by Dr. Koch, nor, so far as I know, by any of his followers. Dr. Koch lays stress on the cultivation-characters of this organism as furnishing a means of distinguishing it from other organisms, and not as affording an argument in favour of its pathogenic nature. I pointed this out at the meeting at the Royal Medical and Chirurgical Society, and I see that Dr. Klein does not bring this forward as an argument against Dr. Koch, in either of the two papers which he has published since.

The two errors, then, which, in my opinion, lie at the root of the work of the English Commission are, first, that, acting on the idea that Koch diagnosed the cholera-bacilli by the microscope alone, they proceeded to investigate the matter by microscopic examination; and secondly, that, seeing the stress which Dr. Koch laid on the cultivation-appearances, they concluded that he meant to say that the organism was pathogenic, because it grows in a particular manner; and therefore, they naturally proceeded to inquire whether the appearances of the cultivations, as compared with cultivations of other bacteria, could warrant this conclusion, and, of course, they found that it could not.

I need not go into detail on the other matters in Dr. Klein's research, because they are of very secondary importance; but it may be well if I briefly refer to two points. The fifth statement in the preliminary report is this: "Mucus-flakes of the ileum, taken out soon after death from typical acute cholera, contain numerous mucus-c

puscles, many of them filled with peculiar minute straight bacilli. The same bacilli occur also outside the mucus-corpuscles. They are never missed, even where the 'comma-bacilli' are." After thinking over this matter in connection with my own experience, and after seeing Dr. Klein's specimens at the meeting at the Royal Medical and Chirurgical Society, I ventured to suggest at that meeting that it was possible that these bacilli are only young cholera-bacilli, and I thought so for two reasons. In the first place, it is precisely in these mucus-flakes that one finds, on cultivation, that the largest numbers of the cholera-bacilli are present; while, on microscopic examination, there may, as Dr. Klein says, appear to be very few of these organisms: hence some of the forms in which the curve is not very marked must also be cholera-bacilli. And, in the second place, the specimen which I saw at the meeting looked very like a specimen of young cholera-bacilli (see Fig. 1). Of course, I know that the reply to this is, that Dr. Klein has cultivated these bacilli, and has found that they are not cholera-bacilli. My answer to that is that, without doubt, Dr. Klein has cultivated small straight bacilli from the contents of the intestine, but that is no proof that the small cultivated bacilli were derived from the bacilli seen in the mucus-corpuscles; it is impossible to make a cultivation from a single mucus-corpuscle, without getting at the same time the other bacteria which are present in the contents of the intestine. Small straight bacilli, similar in growth to those exhibited by Dr. Klein, can be cultivated from the contents of normal intestines, and would naturally be present in the contents of a choleraic intestine. After all, it seems to me that these straight bacilli do not deserve the attention they have received; for Dr. Klein has never said that they only occur in the intestine in Asiatic cholera; and, unless that can be demonstrated, they evidently have no real connection with the disease.

Dr. Klein also attributes the results in the successful cases of inoculation of cholera-bacilli to septicæmia, or to the effects of the operation. The former idea is incorrect, because the operations, both in Dr. Koch's cases and in mine, were performed strictly antiseptically; and in the guinea-pigs, in my case, there were no bacteria in the blood and tissues. Dr. Klein refers, as a similar example, to fatal epidemics of diarrhœa in rabbits, in which there are no bacteria in the blood or internal organs. Of this I am quite aware, and it was to an epidemic of this kind that I referred in Series I and II in my report on micrococci in relation to wounds, etc. (BRITISH MEDICAL JOURNAL, September 20th, 1884). But the animals on which I experimented with cholera-bacilli in the way described were guinea-pigs, and they are not, so far as I know, subject to similar epidemics. I have never operated on rabbits, because I understood that they were quite refractory to the cholera-bacillus.

From what has been said, it will be evident that no facts have been brought forward in opposition to Dr. Koch's research which can bear criticism. Dr. Koch's facts remain now as correct as when he first published them. He said that this organism was constantly present in Asiatic cholera, and that it was present nowhere else. These statements have now been amply confirmed; and it is perhaps the most striking evidence in favour of the precision of Dr. Koch's methods, and of the care which he has devoted to the subject, that, though other bacilli, of somewhat similar appearance, have since been discovered, yet, by the use of his methods, it has been found easy to distinguish them one from another, and from the cholera-organism.

MEDICAL SALARIES.—The Farnham Guardians have increased the salary of Dr. William Haig Brodie, as medical officer for the Seal district, from £21 to £30 *per annum*, and fees.—The Lurgan Guardians have increased the salary of Dr. Samuel Agnew, medical officer for the Lurgan No. 1 Dispensary district, £20 *per annum*.—The Middlesbrough Guardians have increased the salary of Dr. Pearson, medical officer for the South Stockton district, from £40 to £70 *per annum*.

MEDICAL OFFICERS OF SCHOOLS ASSOCIATION.—The annual meeting was held in the Medical Society's rooms on Wednesday, April 15th, Dr. Thomas Fuller, President, in the chair. Dr. Alder Smith reported that nearly six hundred copies of the "Code of Rules for the Prevention of Infectious Diseases in Schools," had been sold and distributed since the last meeting in January, and that the following gentlemen had joined the Association:—Dr. Richards of Winchester, Dr. Newsholme of Clapham, and Mr. Brudenell Carter. The following members were elected on the Council in the place of four retiring:—Dr. Briggs, Harrow; Brigade-Surgeon Clarke, Sandhurst; Dr. Fletcher, Highgate; and O'Brien Jones, Esq., Epsom College. Mr. Brudenell Carter read a paper on "Eyesight in Schools."

A LECTURE
ON
THE TREATMENT OF RINGWORM.

Delivered at St. Thomas's Hospital.

BY J. F. PAYNE, M.D., F.R.C.P.,
Assistant-Physician to St. Thomas's Hospital, and to the Hospital for Diseases of the Skin, Blackfriars.

HAVING, in the last lecture of this course, spoken of the origin of this disease, of its being caused by the growth, in the skin, of the head of a vegetable fungus, and of its symptoms, I have now to speak of its treatment. The principle of this treatment is perfectly simple; it consists in applying some substance which kills the fungus, the inflammation and other incidental changes in the skin being of minor importance. This method is, in principle, identical with that employed by gardeners to destroy parasitic fungi infesting plants, and even with that which is used in curing fungus-growth in dead materials, as, for instance, the dry rot of timber. Nevertheless, such are the difficulties of bringing parasiticide substances into actual contact with the ringworm-fungus, especially when it is situated in the hair-follicles, that the cure of this fungus-disease is, in some cases, one of the most difficult problems of practical therapeutics. It might be thought that the same result would be attained by rendering the soil unsuitable for the growth of the fungus, but this method is applicable only in a very limited degree. It is difficult to render the soil unfit for the parasite without destroying its vitality altogether. We can only, in certain cases, set up a special kind of inflammation the products of which are fatal to the fungous growth.

Before speaking of the actual methods of cure, we must for a moment consider a point which should always be thought of in the therapeutics of every disease; namely, what is the natural course of the disease? What happens if it be not treated at all? Is ringworm, for instance, an acute disease, like a specific fever, with a natural progress, acme, and termination? Or is it a disease, such as syphilis, chorea, or chlorosis, which has a long natural period of evolution, but still finally comes to an end of itself? Or is it strictly a chronic disease which has no natural tendency to terminate? Ringworm is certainly not an acute disease; but the question whether it has any natural or spontaneous termination is not so easily answered. The allied disease, favus, may certainly last a lifetime. We had at this hospital, some years ago, a family with favus of the scalp. The mother had acquired the disease when a child, had grown up and married, but was still, in middle life, uncured. Her husband never caught the complaint, but her children, as they grew up, successively had it at various ages. Everyone is not liable to take this disease; but, when once established, it has no natural tendency to get well, at least, when it affects the head.

With ringworm, the case is somewhat different. This is never a lifelong disease, the reason being that the susceptibility to it at different ages is very different. Ringworm of the body may, indeed, occur at any time of life, but ringworm of the head is rarely found except in children. Infants, that is to say, up to three years old, do not very often acquire the disease, and when they do so, are easily cured, and the disease may even, perhaps, in them, die out spontaneously; but the period from four years up to the age of puberty, is that of the greatest susceptibility.[1] During this time of life, if once acquired, it easily passes into a chronic condition, and may remain for weeks, months, and even years. The influence of idiosyncrasy is as marked here as in any other of the specific diseases, and consequently some children are more liable to this disease than others, and have it more severely. There may be cases in which the susceptibility may be very slight, and in which, therefore, the disease may die out spontaneously; but this, if it occur, is a very rare event. Generally, the child who is liable to the disease is not liable readily to lose it.

The only process which can be regarded as a natural method of cure, is one which I will now describe. Among many of the cases of ringworm, there are always some in which the accompanying inflammation is severe, and this inflammation may go on to suppuration.

[1] Lately, however, two children, aged 5 and 6, were brought to the hospital, each of whom had had the disease since six months old.

Each hair-follicle may be converted into a separate pustule, and there may be also diffuse infiltration of pus through the skin. The affected portion of the skin is swollen, intensely injected, and looks as if it were about to form an abscess; though, if an incision be made, there is found to be no single collection of pus, but rather a general infiltration. The hairs become loose, and either fall out or are easily removed. This condition is called "kerion," and was formerly thought to be a distinct disease, though now known to be only a form of ringworm. It is generally supposed to be the effect of too severe treatment, but it may occur when even the mildest applications are being used, and may, I believe, arise in cases which have not been treated at all. This is, at all events, true of ringworm of the beard, or parasitic sycosis, in which deep and extensive suppuration is sometimes observed when no remedies whatever have been used. Now the remarkable fact is that, when the condition of kerion subsides, as it will do spontaneously, the disease at that particular part is cured, and a bald patch left, even though it may be making progress in other parts. Kerion, then, is a spontaneous method of cure, or, in the words of Sydenham, "an effort of nature to get rid of the morbific matter." Independently of this occurrence, the disease may spontaneously exhaust itself as children get older. It is said that at the age of puberty it always dies out. This, I dare say, is true; though, fortunately, I cannot say that I have ever observed a single case through a sufficient number of years to arrive at this conclusion from my own experience. It is, however, quite certain that, at or after fourteen or fifteen, children become less liable to the disease, and it is more easily cured.

Let me give you an instance in a family that came under my care more than ten years ago; there were six children, all in good health, when ringworm was introduced into the family. The eldest, a girl aged 17, caught the disease, but was easily cured in less than one month. The second girl, a year or two younger, did not take it. The third child, a boy of 13, took it, but was cured as easily as his elder sister. Next in the family came two girls—twins—at that time ten years old. In them the disease caused copious suppuration, in fact a condition of kerion, and both recovered after a few months. The youngest, a girl of 7, perhaps the healthiest of a very healthy family, took the disease at the same time, and, in spite of identical treatment, suffered from it for two years. All these children were treated, in the first instance, by a very experienced and careful medical man, and all in the same way.

Only last week I came across a similar instance. A boy, aged 9, was brought to me with ringworm, which he had had for five years. Five other children in the family had caught the complaint. One was cured in a fortnight; the others, after longer but variable periods. One brother had had it, in a public school, for more than a year. Some of those who recovered were said to have had abscesses in the head, that is, kerion. The inveterate case brought to me was a perfectly healthy and robust boy, and the youngest of the family.

I believe you will often meet with the same experience in families. The elder children, if treated, soon recover; the younger have the disease more severely, but also recover, especially if there be suppuration. One case may, on the other hand, be far more obstinate than the rest, and this will generally be the youngest. There must be some special predisposition in these very obstinate cases, but it is extremely difficult to say on what this depends. It does not, I think, as is sometimes said, depend on a bad state of health. One of the children above mentioned was as healthy and robust a child as I have ever seen; and if anyone were to put forward the proposition that healthy children offer a more suitable soil for the fungus than those who are delicate, it would be very difficult to refute it.

Complexion and thickness of the hair seem to have some slight influence. Coarse strong hair is less liable to be affected than that which is fine; black hair less than blond. Lately I had two sisters under my care, one fair haired, the other dark. They have been treated in the same way, and the black haired child is nearly well, whilst the other makes but little progress. But you will find many exceptions to this rule, if it be a rule; and in general no important predisposing influence can be traced, except that of age. Even this does not always hold, and it is quite impossible to account for the obstinacy of some inveterate cases. The practical conclusion which should be drawn is this, that the recovery of a considerable number of slight cases under any particular treatment, is no proof that this method has any special efficacy beyond all others. On the other hand, we must not attribute the long duration of certain cases to any special fault in the treatment. These views, I may say, whatever their value, have been formed after more than thirteen years' experience in the charge of a hospital-department, offering a large number of cases every year.

I will now speak of the treatment which we have to employ, and shall confine my remarks chiefly to ringworm of the head—tinea tonsurans—because ringworm of the body is far more easily cured; and, with regard to favus, this disease is so rare that it has little practical interest for us. Whatever remedy be employed, there are certain practical measures which should always be adopted.

1. Either shave or cut the hair off. In summer, and if the disease be at all extensive, shaving is better. The operation itself drags out many of the loose hairs, cleans the skin, and accelerates the cure. In winter, and in slight cases, cutting may be sufficient. Throughout the whole period of treatment, keep the hair cut quite short; at least, over the affected parts.

2. Let the head be washed thoroughly with soft soap. This rule has been sometimes objected to, and it has even been said that washing may spread the disease. Of this, however, there is no direct evidence, and it is in itself improbable. It will depend on the special mode of treatment adopted how often this washing has to be repeated.

3. Epilation, or pulling out the diseased hairs with forceps, is a valuable aid to all curative methods. This process was first introduced in Paris for the cure of favus, and is very systematically carried out at the St. Louis Hospital, where I carefully studied the cure of parasitic diseases in 1865. The method there used is, or was, to pull out all the hairs, sound or diseased, so as to render a small part of the scalp temporarily quite bald. The treatment is carried out for about half an hour at a time every two or three days. In the early stages of cure, either of favus or of tinea tonsurans, the hairs come out easily, and the operation gives little pain; but, as the disease progresses towards recovery, and the hairs become more firmly rooted, it is extremely painful. During the operation (and this is a most essential part of the treatment), the surface is kept wet with a solution of corrosive sublimate in water (about one grain to the ounce). In Paris, this operation is carried out by trained male hospital-attendants, a class to which we have nothing corresponding; and the difficulty in English practice is to know by whom it shall be done. It is obvious that the medical man cannot generally do it himself; and he must, therefore, instruct the mother or the nurse in the art of epilation. The process is much less painful, and nearly equally efficacious (in ringworm, though not in favus), if it be confined to pulling out those hairs which, being diseased, offer little resistance. This may be called the German method, as practised at Vienna.

With regard to the remedial substances employed, these are nearly all what we call parasiticide; but, in fact, most of them have been employed empirically for centuries. Before the existence of parasitic fungi was dreamt of, Bateman tells us that the ancients used sulphur, *atramentum sutorium* or blacking (that is, sulphate of iron), tar, soap, resin, vinegar, and other substances still in use. In the last century, tar and sulphur were generally used. The St. Thomas's Hospital *Pharmacopœia* in 1741 contained an ointment used for "scald-head," composed of tar-ointment and train-oil in equal parts. The St. Bartholomew's *Pharmacopœia* in 1739 has an ointment specially intended for tinea, and composed of tar, sulphur, and wax, "to be anointed once a day, the head being covered with a hog's bladder." In fact, the remedies of ancient and modern times are very similar, and may, for the most part, be arranged in the following classes: 1, metallic salts, especially those of mercury, but also of iron and copper; 2, sulphur, with which may be placed the more modern sulphurous acid; 3, aromatic and resinous substances, such as tar, oil of cade, creasote, and carbolic acid, and the compound produced by the action of iodine on tar, called Coster's paint; with these may be placed the modern remedy, chrysophanic acid or chrysarobin; 4, strong irritants, vesicants, or stimulants, such as strong acetic acid, cantharides, and croton-oil. The chief novelties in modern times are the introduction of certain chemical remedies, as borax and boracic acid, carbolic acid, and others, and also the use of mercury and copper salts in new forms. These remedies are dissolved in, or mixed with, certain materials which may be called "vehicles." These are water, glycerine, alcohol, chloroform or ether, fatty substances, and vaseline.

1. *Watery solutions* have only a limited application. We use solutions of borax, of the strength of from ten to thirty grains to the ounce, or of corrosive sublimate, one grain, or less, to the ounce. Sulphurous and acetic acids are also used in watery solution. All these lotions may conveniently have glycerine mixed with them to prevent their drying up. The disadvantage of water as a vehicle is that it scarcely penetrates the skin at all, and these lotions are therefore useful chiefly for destroying free spores, or portions of fungus which may be scattered about on the surface. A watery solution of iron salt, in the form of ink, is a well tried domestic remedy, and no doubt cures slight cases; so with the copper-solution obtained by

keeping a copper coin constantly wetted with vinegar. The list of metallic remedies might doubtless be enlarged.

2. *Glycerine* has been largely used in cases of ringworm, but has scarcely more penetrating power than water, and appears to me to be the least useful medium for applying local remedies. It has, however, one advantage; namely, that, in consequence, perhaps, of not being absorbed, it checks the absorption by the skin of poisonous substances, and hence we may use matters, which would be injurious if absorbed, with greater freedom when dissolved in glycerine than in any other medium. At one time I used glycerine of carbolic acid a great deal, but have lately almost given it up.

3. *Alcohol.*—The advantage of alcoholic applications (which they share with chloroform and ether solutions) is that they remove much of the greasy matter which covers the skin, and which is always very abundant in ringworm. By so doing, they are thought to render the skin more permeable to the remedial agent; but, considering the hardening effect which alcohol has on all animal tissues, it is difficult to believe that it can favour absorption. Tincture of iodine is an useful alcoholic preparation, and more efficacious than liniment of iodine made with water. It destroys the fungus so far as it can reach, and also, by causing desquamation of the epidermis, assists the penetration of other remedies. An alcoholic solution of boracic acid has been strongly recommended by my friend, Dr. Cavafy, and no doubt it is useful, though I generally employ boracic acid in another form. Alcoholic solutions of tars are largely used by the Germans.

4. *Chloroform* and ether remove fatty matters from the skin much more completely than alcohol, and, since they quickly evaporate, can have little effect in hardening the epidermis. They have, therefore, chloroform especially, been much recommended of late years, and, no doubt, with good reason. I have used a mixture of chloroform and oil of eucalyptus in equal parts, with great advantage. A chloroform-solution of chrysophanic acid is also highly spoken of; but I cannot think that chloroform, as a vehicle, will permanently supersede that of which I shall next speak.

5. *Fats*, or especially lard, form the main constituent of all the ointments most generally used in the cure of ringworm. Of late years, objections have been brought against the use of any fatty substance for this purpose, on the ground that the skin is already loaded with natural fat, even to excess; but I cannot think that these objections outweigh the universal testimony to the usefulness of ointments in most affections of the skin. There is no doubt that fat, especially animal fat, penetrates the skin more thoroughly than any other medium that we can use. In so doing, it carries with it the parasiticide remedy, and brings it into contact with the fungus at considerable depths below the surface. No fact is more clearly proved than that remedial substances are thus carried by fat into the skin, and diffuse into the body generally. If, for instance, we want to get mercury absorbed for the sake of its constitutional effects, we rub it into the skin along with fat; and the only objection to using mercurial ointments for their local effects, is that absorption takes place even too readily. I, therefore, believe that, notwithstanding all theoretical objections, we shall go on using ointments in the treatment of ringworm, at least for a long time to come. Of late years, a preparation of mercury has been brought into use which acts in the same way as an ointment, and has a great penetrating power, namely, oleate of mercury. This substance was first used by Mr. John Marshall, to produce constitutional effects, and is useful, locally, for the very reason that it is easily absorbed. Oleate of copper has been strongly recommended by Dr. Shoemaker. I have given it a trial at the Blackfriars Hospital for Skin-Diseases, but find it less powerful than oleate of mercury.

6. Vaseline, paraffin, and similar heavy hydrocarbons, have been much used lately as a substitute for lard in making ointments; they have the advantage of being unalterable, but have little penetrating power. Generally speaking, they possess no advantage over lard in the treatment of ringworm.

I will now give the formulæ for the ointments I am most in the habit of using in the treatment of ringworm, but do not claim for these any special efficacy. The same result may be attained by the use of a vast variety of similar mixtures containing the parasiticide substances above mentioned, if properly applied. In fact, we may say of all systems of treatment, that the success depends more upon who applies the remedies than upon who prescribes them. Among mercurial substances, we use an ointment containing nitrate of mercury and creasote: ℞ Ung. hyd. nit. ʒi; creasoti ♏x; adipem ad ʒi. M. Another, containing white precipitate and sulphur—℞ Ung. hyd. amm. ʒii; sulphuris gr. xv; adipem ad ʒi. M. We also use oleate of mercury. This substance is sold in two strengths, one called five per cent. and the other ten per cent. These names correspond to the proportions—not of the salt, but of the oxide used in preparing it. The five per cent. oleate is an oily semi-fluid substance, the ten per cent. a rather firm ointment. Carbolic acid may be used in an ointment containing thirty or sixty grains to the ounce of either lard or vaseline. Boracic acid I use in the formula given by Mr. Martindale—paraffin (melting at 135° or 140°) 5, vaseline 15, boracic acid 4 parts.

I have lately employed a remedy which, I believe, has not bee used before, namely, eucalyptus-oil, in an ointment made according to Martindale's formula, paraffin two ounces, vaseline two ounces, oil of eucalyptus one ounce.

I have also employed it in an ointment made of lard, in the strength of one drachm to the ounce, and mixed with chloroform, as mentioned above. It is very useful in early cases, and I have seen already several cases cured by it; but it is not among the most powerful remedies.

I will now give you an outline of the course of treatment pursued first, in a slight or early case, and then in more severe cases. In an early case, after removing the hair, and washing with soft soap (the latter operation should at first be repeated every day), we keep the surface of the head moistened, during the day, from time to time with a lotion; for example, boracis gr. xv, glycerini ʒi, aquæ ʒvij, M.; or hydrargyri perchloridi gr. i, glycerini ʒi, aquæ destillatæ ʒvij, M.; or else with glycerine of carbolic acid. At night, have one of the ointments above mentioned thoroughly rubbed in, and the head covered with a cap. This treatment, with lotion and ointment alternately, should be continued for two or three weeks, or longer, till the disease has definitely localised itself in particular patches on the scalp. After this, instead of lotions, paint the patches every three or four days with either a tincture of iodine or the remedy called "Coster's paint,"[2] continuing the ointment in the interval as before. By these means, a certain proportion of cases, perhaps one-half, or even two-thirds, will generally be cured in a few weeks, or at most a month or two. Should the case prove more obstinate, or should we have to treat a case where the disease has already existed for some time, we slightly modify the above treatment. In place of the painting with iodine, apply blistering-fluid occasionally, or use "Coster's paint" more frequently. Blisters are dangerous in infants, and should not generally be used in children under five years of age. In such a case, epilation should be very carefully and systematically carried out (taking care to warn the parents of the temporary baldness produced). If these means do not suffice, it will be well to change the ointment, and use either a strong preparation of carbolic acid or oleate of mercury. In the circumstances here considered, washing should only be carried out about twice a week.

Should all these measures fail, and the case of ringworm be protracted more than six months, or should we be called upon to treat an inveterate case, an entirely different method is to be recommended. The best plan here will be to apply oleate of mercury, in the five per cent. strength, by means of a sponge—mop over the whole of the head once a day, without removing that previously applied. The head should be covered with a flannel or linen cap, night and day, and should be washed once a fortnight only, or once a week at most. The result of this treatment usually is, that the skin becomes somewhat inflamed; and there is, at all events, considerable seborrhœa, and the scalp becomes covered with scales. It is, in consequence, difficult to tell what progress the cure is making. Accordingly, after fourteen days of such treatment, omit the oleate, wash the head thoroughly, and use a milder application, such as boracic acid ointment, till the skin is clean. We are then in a position to judge how far the disease is eradicated. If broken hairs and stumps still remain, we revert to the oleate treatment, and continue it for another fortnightly period; then clean off the scales as before. A certain amount of suppuration is no reason for stopping the oleate application; but the least soreness of the gums will make us, of course, discontinue it. I must, however, say that I have generally found some constitutional effect produced in those instances in which the oleate has effected a radical cure of the local disease. Cases which have lasted for years may often, by this means, be cured in as many months. I have spoken of some such in the last volume of the hospital reports (*St. Thomas's Hospital Reports*, vol. xiii, p. 325).

If even this treatment fail, there is one yet more severe, namely, the production of artificial suppuration, or kerion. I will not describe this at length, but refer to Dr. Alder Smith's valuable little book on *Ringworm*. It is, I think, efficacious; but is very painful, and somewhat dangerous. Hence it is, I think, less used than it was a few years

[2] Coster's paint, made according to the original formula (one part of iodine with four parts distilled oil of tar), is a chemical compound, not a mere solution; and contains little free iodine. It is not irritating, and appears to me to be the best of occasional applications; but it need not be used frequently, as it forms a crust.

ago. With regard to the constitutional treatment of ringworm, I have already said that I think the state of health has little to do with the persistence of the disease. Nevertheless, a change of air, removing the patient from the influences surrounding him at home, often appears to be of great benefit. I should always recommend that, in a very tedious case, the room in which the child sleeps, and the bedding, should be disinfected as carefully as in the case of any other infectious disease. These precautions have in some cases appeared to arrest the disease, which was being treated in vain by local remedies.

With regard to ringworm of the skin (tinea circinata), its cure is conducted on the same principles as that of tinea tonsurans, but is much easier. The patches should be well painted with tincture of iodine, which is sometimes sufficient. If it should not be, wash thoroughly with soft-soap, and apply one of the parasiticide ointments above mentioned. Most cases will be cured in a fortnight.

Ringworm of the beard (parasitic sycosis) has become rather more common in London of late years than it used to be. It is treated in the same way as other forms of ringworm; but the amount of inflammation is sometimes so great, that cooling remedies, especially lead-lotion, have to be used at first. Poultices are better avoided. In the next place, painting with iodine (if the patient do not object) is very useful, both to counteract the deep-lying inflammation and to kill the fungus. In order to effect a cure, carefully eradicate the diseased hairs, and rub in one of the parasiticide ointments. The cure is sometimes tedious, but less so than in a really bad case of ringworm of the scalp.[3]

CASES OF HYSTERECTOMY, WITH REMARKS ON THE VALUE OF THE CARBOLIC ACID SPRAY IN THIS OPERATION.

By J. KNOWSLEY THORNTON, M.B., C.M.,
Surgeon to the Samaritan Free Hospital.

In September, 1882, I read a paper before the Boston meeting of the American Gynæcological Society, "On the Relative Value of Hysterectomy and of the Complete Removal of the Uterine Appendages, for the cure of Uterine Fibroids."[1] In dealing with the statistics of the two operations, I had to record, as my contribution to them, 25 cases of removal of uterine tumour, with 9 deaths, and 8 cases of the removal of the uterine appendages with no death. From the results obtained by others, and from my own, I came to the conclusion that the removal of the appendages should, in all suitable cases, be preferred to the more formidable hysterectomy.

At the Liverpool meeting of the British Medical Association in August, 1883, I read another paper on this subject[2]; the year's interval having added to my personal experience six operations for the removal of uterine tumours, with one death, and seven successful removals of the appendages. I was then strongly in favour of the latter operation, and I am so still; but increasing experience and increasing boldness in dealing with uterine tumours by operation, have convinced me that, among the many things to be taken into consideration in deciding which operation is suitable for a given case, some can only be learned by actual sight and touch after the abdominal cavity is opened, and when the relative positions of the uterus, ovaries, tubes, and tumours are thus made absolutely certain. In undertaking to operate for a fibro-myoma, I therefore always tell the patient plainly that, though I believe the one or the other operation, as the case may be, will be most suitable for her, I cannot absolutely pledge myself as to which I shall perform till I have opened the abdomen.

I have now removed the appendages for the cure of fibro-myoma eighteen times, and all the patients have recovered from the operation. I do not propose to refer farther to these cases now, but I am watching their progress with care, for future publication. I have lately been seeking for cases suitable for the removal of the tumour, in order that I may thoroughly test the reasons for success and failure in hysterectomy; and I will now consider eighteen cases in which I have removed uterine tumours since I read my paper in Liverpool; and I shall especially direct attention to the value of Listerism with the spray in these operations.

The first case in my table was that of a woman, aged 47, with a very large lobulated tumour, surrounded by much ascitic fluid. The growth of the tumour and the accumulation of the fluid had been very ra id. The patient was stone deaf and hemiplegic, the affected side being in a constant state of tremor. It was very difficult to obtain a good history from her, but, after watching for a time, I became convinced that her only chance of life lay in the removal of the tumour. She was already in very broken health, and I felt pretty certain that the tumour was uterine, and I feared that it was malignant, so that I did not operate with much hope of pulling her through, but because I thought it my duty to give her the chance.

No.	Date.	Age.	Condition.	Weight.	General Remarks.	Place of Operation	Treatment of Pedicle.	Result.
—	1883.			lbs.				
31	Oct. 17	47	M	25	15lbs. of ascitic fluid. Malignant tumour. Patient hemiplegic. Extensive adhesions	Samaritan hospital	Serre-nœud	Died in 8hs. shock
32	Dec. 29	55	S	14½	Rapidly growing fibro-cystic tumour. Extensive adhesions	,,	,,	Recovered
	1884.							
33	Jan. 5	55	S	3	Severe hæmorrhage and increase of tumour after menopause	Nursing home	,,	,,
34	Jan. 18	58	S	5	1½pints of pus in degenerating tumour. Constant offensive discharge from uterus	Samaritan hospital	,, ovaries and tubes ligatured	,,
35	Feb. 7	45	S	25	Rapid growth of tumour and pressure on ureters	Private house	,,	,,
36	Feb. 13	40	S	4½	Cysto-sarcoma of whole uterus. This was practically a complete extirpation	Samaritan hospital	Pin and ligatures	,,
37	Feb. 20	42	S	10	Double ovariotomy with removal of broad ligament cyst as well as hysterectomy	Private house	Serre-nœud	Died on 4th day, peritonitis
38	April 5	38	M	2½	Hæmorrhage. Patient's mother died of hæmorrhage from fibro-myoma	Samaritan hospital	,,	Recovered
39	May 17	45	M	7	Rapid growth of tumour, probably due to blood-supply through extensive omental adhesions	Nursing home	,,	,,
40	June 2	49	S	4½	Pediculate tumour removed during the performance of nephrectomy	,,	Ligatures	,,
41	June 11	40	S	12½	General illhealth and pressure on the ureters	Private house	Serre-nœud	,,
42	Oct. 31	33	S	11½	Double ovariotomy at the same time. Symmetrical multilocular ovarian cysts, 9oz. each	Samaritan hospital	,, ovaries and tubes ligatured	,,
	1885.							
43	Jan. 3	31		3	Pediculate tumour. Both ovaries and tubes so adherent that they were removed with it	,,	Ligatures and flaps	,,
44	Jan. 6	47	M	10	Right ovary contained a dermoid cyst	Nursing home	Serre-nœud ovaries and tubes ligatured	,,
45	Jan. 10	34	S	3	Hæmorrhage. Both ovaries cystic	Samaritan hospital	,,	,,
46	Jan. 21	36	M	6½	Pediculate tumour growing fast. Patient came from N. Zealand for operation	,,	Ligatures and flaps	,,
47	Jan. 29	27	S	4½	Hæmorrhage and inability to work as domestic servant. Fibro-cystic tumour	,,	Serre-nœud ovaries and tubes ligatured	,,
48	Feb. 10	41	S	2	Pain and inability to do her work as a domestic servant	Nursing home	Serre-nœud right ovary and tube and left tube ligatured	,,

The operation was performed on October 17th, 1883, and, after the evacuation of fifteen pints of ascitic fluid, I removed a semisolid tumour, weighing twenty-five pounds. The adhesions were extensive to the parietes and omentum, and especially close and troublesome to the cæcum and vermiform appendix. The uterus, just above the internal os, together with both broad ligaments, was clamped by Kœberlé's serre-nœud, and the mass, with both ovaries and tubes, was removed. The stump was pinned in the lower angle of the wound without undue traction, and the patient was placed in bed, after a prolonged operation, in a condition which made me hope for recovery. The tremor of the paralysed side ceased entirely; but she did not rally, and quietly sank and died in eight hours. The macroscopic and microscopic examination of the tumour showed it to be a cysto-sarcoma. The cysts were small, from the size of a marble to those only to be seen with the microscope, and they were lined with epithelium

[3] A purer form of oleate of mercury has recently been introduced, which produces no inflammation or seborrhœa. In spite of this advantage, it has seemed, in hospital practice, less efficacious than the impure five per cent. oleate.

[1] *Transactions of American Gynecological Society*, vol. vii, 1882.

[2] British Medical Journal October 13th, 1883.

or endothelium. I have included the case in my table, as it was a supravaginal hysterectomy; but it can hardly be reckoned against operations for fibro-myoma, for everything points to its having been malignant.

I will take the only other fatal case in this series out of its order, so that I may the more readily group the successful cases.

The patient was a single lady, aged 42. I first saw her in consultation about two years before the operation, diagnosed multiple subperitoneal fibro-myomata, and advised against operation. When her medical attendant, Mr. Drake, again brought her to me, I found a large cystic tumour in the upper abdomen, with rapid loss of flesh and general decline of health. I then learnt, for the first time, that Mr. Drake had, many years ago, tapped what he believed to be an ovarian cyst, and that it had not refilled.

Exploratory operation was decided upon, and performed on February 20th, 1884. I found a multilocular ovarian tumour of considerable size on the right side, and, attached to its base by a pedicle, a flaccid broad ligament-cyst, with a little fluid in it (evidently the one tapped by Mr. Drake). On the left side, and adherent in the pelvis, was a small tumour of that ovary, and between these ovarian and broad ligament growths was an enlarged uterus, surrounded by subperitoneal outgrowths, just as I had diagnosed it two years before. I determined to remove the ovarian and broad ligament cysts, and leave the fibro-myomata; but this proved to be impossible, chiefly on account of the adhesions between the left ovary, its tube, and the fibro-myomata. I therefore performed hysterectomy, having to dissect the bladder down from the front of the mass, and completed a long and formidable operation by the application of Kœberlé's serre-nœud, applied so that it included the broad ligaments as well as the uterine stump, and the only ligatures left inside were those on adhesions. She rallied well from the operation, and, on the third day, I thought her chances of recovery were good; but, in the evening, peritonitis set in, and she collapsed and died early on the morning of the fourth day after operation.

In this case, the death was really due quite as much to the troublesome double ovariotomy as to the hysterectomy: and, as I should not have operated for the fibro-myomata, it cannot be fairly reckoned in the mortality attending their treatment, though it is a death after complete supravaginal hysterectomy,

The remaining sixteen cases were all successful; thirteen of them were complete supravaginal hysterectomies; and three were removals of large pediculate fibro-myomata; in one of the latter, both the ovaries and tubes were adherent to the tumour, and were removed with it; in the other two, they were healthy and were not interfered with. All the hysterectomies were treated by the extraperitoneal method, and all but one by the excellent serre-nœud of Kœberlé. The one exception (Case 36) was really a complete extirpation of a cysto-sarcomatous uterus, for the vessels were tied as they were cut, and only a small fragment of the cervix was pinned outside, and this sloughed away in the after progress of the case. I do not intend to give these cases in detail, as I have made the table tolerably exhaustive of the leading features in each. I shall briefly describe the method of dealing with the pedicle in the two classes of cases, and then discuss the value of Listerism with the spray in complete supravaginal hysterectomy.

The adhesions to the subperitoneal growths were secured either by ligatures or by forceps, in two places, before they were divided; this is necessary with solid vascular tumours, or much blood will be lost, as the vessels do not contract on division, as they do in adhesions to an empty and contracted ovarian cyst-wall. The pedicles were first securely tied by a No. 4 Chinese silk ligature simply passed round, then the ends of this ligature were threaded into a needle, and passed through the pedicle on the distal side of the first tie, and each half of the pedicle securely ligatured again; this method prevents any fear of oozing from the puncture, which is a source of danger. After the tumour was cut away, two flaps were formed out of the distal part of the stump, and securely fastened together by a continuous No. 3 suture. The pedicles were then dropped, as in ovariotomy. These cases in which the uterine cavity is not opened, do as well as an ordinary ovariotomy for the first two or three weeks, but the uterine stump is much longer in healing over and quieting down than the ovarian pedicle, and is apt to adhere to the intestines, and cause trouble; it is therefore a good plan to keep these patients in bed an extra week after the operation, and to insist on absolute quiet during the first menstruation. These operations were justified, in my opinion, by the circumstances of the patients. One was a domestic servant, and she found it impossible to continue in her situation, on account of the pain and inconvenience she suffered; and the other was a poor woman sent to me from New Zealand, her husband having to work their passage over and home again. The tumour was growing fast, and causing her much inconvenience; and if I had sent her back unrelieved, there would have been no chance of her coming over again if she became worse.

The following method was followed in all the hysterectomies. A four-inch incision was first made through the parietes; I then introduced my hand into the peritoneum, and carefully examined the ovaries, tubes, uterus, and tumour, and, having decided that the case was not suitable for a mere removal of the appendages, I enlarged the incision sufficiently to allow the extraction of the tumour and uterus, without unduly bruising the edges of the incision. The extraction of the mass was often much facilitated by screwing a nickel-plated corkscrew with a broad blade into the tumour, and using it as a handle. As soon as the mass with the ovaries and tubes was outside the abdomen, the latter were examined to see if they could be included in the wire of the serre-nœud along with the uterus; if this can be done, the operation is much shortened and simplified, and the after-progress of the patient is more likely to be rapid, as no stumps are then left inside the peritoneum. I was able to so include both ovaries and tubes in four of the thirteen cases, and one ovary and tube in another, in which I left one ovary and tube behind, as they were quite healthy, and it was easier to leave them than to remove them. In the remaining cases, it was impossible to include the broad ligaments in the wire; they were, therefore, transfixed on each side with a double No. 3 ligature, and the ovaries and tubes were tied off as in ovariotomy, a separate ligature being tied round each pedicle for security. A temporary clamp was then applied to the broad ligament on each side of the uterus, and the ligament divided down to the angle secured by the inner loop of the ovarian ligatures; thus the base of the uterine mass was cleared for the application of the wire. To prevent any portion of the cut broad ligament from slipping back while the wire was being tightened and screwed up, the free end of the wire was passed through the ligament just below the cut angle. After the wire had been screwed up, the pin for holding the stump in position was passed just to the distal side of the wire loop, and the tumour cut away. The ovaries and tubes were cut off, and their stumps allowed to drop back into the peritoneum, as in ovariotomy. The anterior pouch was sponged out, and the stump secured in the lower angle of the wound by a strong suture passed through the whole thickness of the abdominal wall and peritoneum, this suture being at once tied. The peritoneum was cleansed in the usual way, and the remaining sutures were introduced and tied. No drainage was used in any of the cases. The upper part of the abdominal incision was dressed with a carbolic gauze dressing, terminating about an inch above the uterine stump, and the straps at once applied to this upper dressing. The stump was then carefully packed round with dry carbolic gauze placed under its margins, and under the pin and stem of the serre-nœud; the stump was then clipped down, and dressed with a little solid perchloride of iron, care being taken to avoid any moisture from the melting iron running over the sides of the stump. The usual carbolic gauze and straps over the stump and lower portion of the wound completed the dressing. A folded towel was placed over the strapping, to absorb any moisture during the first few hours after the operation, and the flannel-bandage was pinned over all.

The lower strapping and dressing was changed under the spray generally on the second or third day, and every third day afterwards, the upper dressing often remaining undisturbed till the end of the week, when the sutures were removed. At each dressing of the stump, the wire was tightened with the screw, the stump clipped and covered with finely powdered iodoform; the pin and wire were removed about the end of the second week, and the stump again covered with iodoform. A deep granulating hole usually remained, which was from two to three weeks more in filling up.

I have more than once stated my opinion that hysterectomy, with the opening of the uterine cavity, is not a test-operation for Listerism, because the mucus in the opened cavity contains the causes of putrefaction, and is necessarily left in the centre of the stump. Great care is required when cutting away the tumour to avoid this mucus, or the mixed blood and mucus, running down and fouling the wound and peritoneum. This danger may be avoided by packing carbolised sponges all round the stump up to the constricting wire, and carefully cleansing away the mucus directly the cavity is opened. During the subsequent steps of the operation, a small carbolised sponge can be kept over the cut cavity; and, when once the stump is fixed in position, the danger of fouling the wound is pretty well ended. The solid perchloride dries and mummifies the stump, which is, moreover, surrounded by dry carbolic gauze, and then, at the first dressing, the area of putrefaction is thickly covered with iodoform. Of course, the causes of putrefaction may and do remain in the portion of the uterine

cavity deep in the stump, and, as the distal portion of the latter sloughs, it sooner or later becomes permeated by putrefaction; but this is a slow process in the dense thick uterine tissue hardened with perchloride of iron, and, long before there is any danger of its spreading to the wound generally, the peritoneum is thoroughly sealed. The dangerous time is when the pin and wire separate, or are cut away; for then, as the stump sinks back, little tears or cracks occur in the granulation-tissue round its edges, and absorption of putrid matter may take place, sharp rises of temperature, even accompanied by chills, showing the reality of the danger. The same thing was occasionally troublesome and even fatal during the separation of the clamp on the ovarian pedicle in the old days. Here, again, however, perchloride of iron is very useful; for if it be carefully applied to any points which bleed, it seals the cracks against absorption, and the powdered iodoform forms a paste with the blood and serum, and completes the protection. I think, then, that Listerism with the spray is a great safeguard in hysterectomy, for it enables us to perform an aseptic operation, and protects the patient during the early days, and until the peritoneum is sealed. The parts around the stump eventually become septic, but, with such care as I have indicated, this is of small moment when the main parts of the wound have healed. When it is impossible to bring the stump quite out of the wound with the pin, and it sinks back partly into the peritoneum, it is almost impossible to prevent putrefaction of the peritoneal wound; and if I were certain in any case that this would happen, I should not attempt perfect Listerism, but should make the whole operation as dry as possible, and use a Keith's glass drainage-tube.

The latest contributions to the statistics of hysterectomy, are from the pens of Dr. Keith and Mr. Lawson Tait. The former has, as usual, obtained brilliant results; in two papers published in this JOURNAL,[3] he has recorded 38 cases, with only 3 deaths. He scorns the spray, and expresses his belief that one may do all that is necessary in antiseptics, "as Mr. Lawson Tait does with boiled water and soda." This reference to Mr. Tait's work is rather unfortunate, for, just as Dr. Keith's paper appeared, Mr. Tait published his results in hysterectomy, in the *Medical Press and Circular*, and admits a mortality in this operation of 35.7 per cent.[4] If a surgeon, who claims an experience of 1,000 abdominal sections, have to admit such a fearful mortality as this in hysterectomy, and another with large experience who says, "I have almost gone back to the boiled water and soda of twenty years ago" only have a mortality of 7.9 per cent., it is clear that it is not the soda and water, but something more in the method of the individual surgeon, which brings the success. Until those who discard Listerism can show as a result of their method a nearer approach than this in their mortality, those who believe in the additional safeguard of Listerism, as I do, may be excused if they still give their patients the benefit of the doubt, if doubt there be. My recent results, as recorded in this paper, eighteen cases with two deaths, are sufficiently near to Dr. Keith's thirteen with one death; but they are too small series for any useful comparison, and the element of chance comes too much into play.

Dr. Keith has favoured my work with somewhat extensive notice in his last paper; but for that I should have waited longer before publishing the present cases. Surely his own brilliant records gain no additional lustre from these bitter attacks upon a fellow worker, whose chief fault is that he remains faithful to the teaching of his old master and best friend. In this JOURNAL, on October 19th, 1878, Dr. Keith published the following remarks upon Listerism. "Since 1876, every operation has been performed with all Mr. Lister's care, and I shall never go back to the old way." Again, "That the spray is essential in ovariotomy, to the perfect carrying out of Mr. Lister's principle is proved, by my experience, over so many years of the simple carbolic acid treatment. There can be no two opinions about this;" and much more to the same purpose, with all of which I cordially agree. But now all this, which was unalterable in 1878, is changed, and we are to go back to the soda and water of twenty years ago, or, if we do not we are to fall under the lash of Dr. Keith, for he now says "those who teach that the carbolic acid spray, in abdominal surgery, is anything else than an useless ceremony, can make of these results what they may." I have found that with the spray, and increasing experience in the use of Listerism, in abdominal surgery, I get increasing success, and I should be most unwise to myself, and most unjust to my patients, if I threw it aside, because one of its most ardent advocates in 1878 has become one of its most bitter foes in 1885. I began to use Listerism regularly in all my abdominal work, before Dr. Keith tried it, and I have never altered my method up to the present time, years after he has discarded it; so that I can at any rate speak with a fuller knowledge of it than he can, and if I am still a little behind him in success, perseverance may yet give me the lead. He began work before I was even a student of medicine, and time and sticking to what he proved to be good (by his 79 successive successful ovariotomies under the spray), are both fighting on my side. I admire his work with or without the spray; let him be just to mine.

[3] BRITISH MEDICAL JOURNAL, December 3rd, 1883, and January 31st, 1885.

[4] *Medical Press and Circular*, January 28th, 1885.

CÆSAREAN SECTION: A CASE AND ITS LESSONS.

BY THOMAS M. DOLAN, M.D., F.R.C.S.Ed.,
Fellow of the Obstetrical Society of London, etc.

ON Tuesday, December 30th, 1884, I was summoned by my midwifery-nurse to the Halifax Union Maternity, to see A. M. P., who was reported to be in labour. I saw her at 9.30 A.M. She was in labour; the pains were weak and occasional, and had been on a few hours. On examination, I found that the promontory of the sacrum was no only angular, but exostosed, and so far approached the pubes that it barely allowed the tips of two fingers to pass to feel the presentation; and that the pelvis was generally contracted. I anticipated some trouble with this patient, as she had been in the house a few weeks; she was dwarfed, measuring only 3 feet 11 inches. I immediately had a consultation with Mr. H. Wright and Dr. Davy; and we decided, after several examinations and measurements, that it would be impossible in any way to deliver *per vias naturales*, and that the only chance lay in Cæsarean section.

A room in another part of the building was at once prepared, and the temperature raised to the desired heat. This, of course, took little time, and it was not until 2.30 P.M. that the patient was transferred to this room. She was cheerful, not weakened, and in every way seemed to be a favourable case.

In these days of antiseptic precautions, it is needless to say that the spray was employed, and that every attention was paid to the avoidance of anything that could give rise to sepsis. The position of the placenta and child was made out, the beat of the fœtal heart being very distinct. Ether was administered by Dr. Davy, and the operation performed by Mr. Wright and myself. A central incision was made, beginning just below the umbilicus, and carried down, a little to one side of the linea alba, to an inch above the pubes. As the abdomen was thin, the uterus was soon reached, and incised without any trouble, the intestines not interfering. But little difficulty was experienced in extracting a male child, which was alive; and comparatively little blood was lost. The placenta was taken away at once; all the parts well washed and cleaned; a drainage-tube was inserted; the uterine wound was brought together with interrupted carbolised catgut ligatures; and, after the usual details, the external wound was closed with silver sutures, and dressed with iodoform and salicylic silk, kept in position by a strong firm binder. She was soon removed to bed, and made comfortable, and very soon recovered from the effects of the ether. The whole operation occupied about twenty minutes. Two nurses were told off to look specially after her—one for the night, and one for the day. An opiate suppository was inserted, a catheter used, and ice only given. She passed the first night well. The following are the temperatures: at 8 P.M., 100°; at 9.30 P.M., 95.2°; at 12 midnight, 98.4°; at 3 A.M., 99°; at 5 A.M., 98.4°; at 8 A.M., 99.2°. The uterine passages were well syringed through a tube.

She was seen repeatedly on the 31st by Mr. Wright, Dr. Davy, and myself. She craved very much for something to drink; a little milk and soda-water was allowed. Pain was very slight. She had urinated, and was in very good spirits up to about 8 P.M., when she commenced to feel sick; this was followed by vomiting. The suppositories were continued, and beef-injections of peptonised beef-jelly (Mottershead's) were given. At 12 midnight, she complained of great pain; this seemed to be relieved by the opiate suppositories.

At 4 A.M., there was a great change. A sudden state almost of collapse set in; this was overcome by hot bottles to the feet. The tube had come away during the day, and the passages were syringed in the ordinary way. The discharge was not offensive. The following were the temperatures: at 10 A.M., 100°; at 12 noon, 100°; at 2 P.M., 99°; at 5 P.M., 105°; at 6 P.M., 102°; at 8 P.M., 100°; at 10.30 P.M., 101°.

January 1st. The wound was examined; it looked well, but there was a slight discharge at the lower portion. The dressings were changed every three hours. She was still kept under opium, and

beef-suppositories were introduced into the rectum. She gradually sank during the day, dying at 8.30 P.M. The following were the temperatures: at 1.30 A.M., 102.4°; at 4.10 A.M., 102.2°; at 6 A.M., 103.6°; at 8.30 A.M., 101.3°; at 12 midday, 102.2°; at 5.5 P.M., 105.5°; at 7 P.M., 100°.

Post mortem examination, 1 P.M., January 2nd, seventeen hours after death. The body was well nourished. She was not externally deformed, the dwarfed condition being chiefly noticeable in the lower extremities. The spine was straight. Her length was 47 inches, thus distributed: lower extremities, 19 inches; trunk, 19 inches; head and neck, 9 inches. The upper extremities measured 21 inches, 11 and 10 inches respectively. The extreme measurement from the anterior superior spine of one ilium to another was 8½ inches. The wound in the abdominal walls was in excellent process of healing. I made an incision on each side, so as to reflect back the abdominal coverings without touching the central wound, so that we might observe the exact condition of the uterus. The cause of death was at once apparent; a large clot of blood lay free in the abdomen, which had been forced through the uterine wound, owing to the vomiting. The peritoneal inflammation was slight; there was no sign of pus; no offensive smell. As regards the other organs, there is nothing particular to note. I ascertained the measurement of the pelvis, which I found to be as I had already made out, one inch and a quarter antero-posteriorly, with general contraction, the bones being generally thickened.

REMARKS.—There are some lessons to be derived from this case. 1. So far as antiseptic precautions, it had been successful; and, had it not been for the vomiting, a fatal termination might not have been arrived at. The first lesson is that food should not be given by the mouth in such cases for two or three days, even though the patient is doing well, owing to the danger of exciting vomiting. This is found, I believe, to be the best practice in ovarian cases.

2. If we look at the list of cases published, sutures have been frequently inserted in the uterine wound. Though Davis says (*Parturition and its Difficulties*, p. 140), "No suture should be applied to the uterus, its contractions alone being sufficient to close the wound, while sutures through its walls would be exceedingly hazardous," yet Sir Spencer Wells, in a successful case, employed continuous sutures, to bring the uterine wound into apposition. And in Case 121, (Dr. Radford's *Observations*, p. 218), under the care of Mr. Alcock, fine carbolised catgut sutures were used to the uterine wound, and we see that the patient recovered. In my case, owing to the attack of vomiting, the sutures gave way. Had the wound been left unsutured, the same result would have followed; the blood would have come through. I think it would be better in all cases to use the continuous suture, as less likely to yield.

3. If we again analyse the cases of Cæsarean section, we find that the great cause of death is peritonitis. There is every reason to believe that this is set up by uterine exudation. In many cases, a clot has been the primary cause of disturbance. Hence Porro's operation of utero-ovarian amputation, *primâ facie*, supported as it is by statistics, suggests itself as the appropriate adjunct of Cæsarean section. 4. If we look at our statistics in bulk, we find one striking feature, namely, that cases in the country have done very well. We must allow for this good air and good constitutions, apart from surgical skill. If, however, we examine some of the successful cases, we shall find that some of our preconceived ideas as to the value of pure air, and other requirements in this class of cases, are rudely shaken. Thus, for instance, if we look at details of the case under the care of Mr. Clement Gray, we find that the operation was performed on a single woman, four feet in height, aged 41, and that the operation was done in the cottage in which the patient lived, situated in a small yard off the main street in Newmarket (England). Mr. Gray says (BRITISH MEDICAL JOURNAL, vol. ii, 1883, p. 727): "The drainage and ventilation were very defective. The bedroom in which the operation was performed was barely large enough for myself and four medical friends, who gave me their assistance. The wretched apartment was so close, and the weather so sultry, that we were obliged to keep the window open during the operation. The patient was placed on a common deal board, in a half sitting posture, and, the bowels and bladder having been emptied, Mr. Hutchinson proceeded to use the ether-spray.....The fœtus weighed seven pounds, and had been dead a week. Five equidistant wire sutures, including the peritoneum, brought the wound together, which was covered with a compress of lint, supported with bands of adhesive plaster and a broad bandage.....I was amazed to find, on the following day, five children down with the measles in the only available room for the use of the family, eight in number; a narrow stairs connecting this with the dwarf's room above, which thus received the foul air from the lower apartment. The diet consisted of milk, and from first to last no stimulant was administered. .....The patient had no nursing beyond that given by a neighbour, who ran in and out when she could spare time, but I watched her with the closest attention."

Mr. Gray very truly says, "This case, performed under the most disadvantageous circumstances, without antiseptic precautions, and amid the most unsanitary conditions, is probably unique of its kind." It certainly is. When we consider that Cæsarean section has been fatal in the hands of surgeons of the highest eminence, who have carefully safeguarded their patient by the strictest precautions, as to the temperature of the room, antiseptic measures, skilled nursing, special attention of every kind, we must come to the conclusion that there is no scientific basis for Cæsarean section as at present performed, and that we yet must seek for the cause of failure. It may be true that we have found it in the retention of the uterus, and that Porro's operation may be the key to success; but upon this point the profession is not yet agreed, so that it is to be hoped that, at the next International Congress, at Washington, we may have some papers on this subject, and the latest statistics. Though a rare operation, yet it may fall to the lot of any practitioner to have to decide what he would do in the presence of such deformity.

5. Opinion is divided as to whether a drainage-tube should be inserted or not. My opinion is that a drainage-tube is quite unnecessary; in place of assisting, it may act as an obstruction to the flow; it soon becomes clogged up, and, unless continually cleaned by injections, will not carry any fluid off.

6. I have alluded to Porro's operation as the complement of Cæsarean section. In Great Britain, the opinion of obstetricians seems to be growing in its favour, and we have already several cases on record in which it has been performed.

In the BRITISH MEDICAL JOURNAL, vol. i, 1881, pp. 910, 956, there is a very good summary of facts bearing on Porro's operation by Professor Simpson (Edinburgh); from which it appears that, up to that date, 30 mothers were saved by the operation and 42 lost, with 57 children saved and 14 lost; very gratifying statistics indeed when compared with the results of Cæsarean section, as ordinarily performed. More recent statistics give even better results. Professor Simpson lost his patient, but the child lived; nevertheless, he seems to be in favour of the operation, more particularly as out of 18 cases of Cæsarean section performed in Scotland, not a single mother survived.

In the BRITISH MEDICAL JOURNAL, vol. i, 1884, page 142, there is the most complete paper on the subject yet published in England, from the pen of Dr. Clement Godson, which was read in the Section of Obstetric Medicine, at the meeting of the British Medical Association in Liverpool. He gives a record of 134 operations, representing 59 recoveries and 75 deaths. He says: "The first idea will not be altogether favourable." "But," he adds, "in comparing these results with those of the old Cæsarean operation, I would call attention to the following astounding facts. In the Vienna Hospital, for one hundred years, there had not been a recovery after Cæsarean section; whereas, recently, in three cases of Porro's operation performed in one week by Professor Carl Braun, the whole of the patients recovered. In Italy, the old Cæsarean operation was almost always fatal. Professor Chiara of Milan writes that, out of 62 cases operated on by Porro, Lazzati, Billi, and himself, only three recovered. On the other hand, nearly half (23 out of 53) of the Porro's operations have been successful, notwithstanding that the operation has been performed by as many as thirty-five different surgeons. In our own city (London), I know that our late colleague, Dr. Greenhalgh, performed Cæsarean section ten times with only one recovery, while I have myself seen it performed by four different operators, every case proving fatal." The most telling evidence is conveyed in the BRITISH MEDICAL JOURNAL, January 26th, 1884, page 192, in a letter from Dr. Godson, detailing the results of Porro's operation in the hands of three men, namely:

	Cases.	Recoveries.	Deaths.
Professor Porro, Milan.....	5	4	1
Professor Breisky, Prague	4	4	0
Dr. Fehling, Stuttgart.....	4	3	1
Total...	13	11	2

Dr. Godson is to be congratulated as the only successful performer of a true Porro's operation in Great Britain, it having failed in the hands of Dr. Heywood Smith and Dr. Grigg. Utero-ovarian amputation has been performed in Great Britain by Savage; but, as Dr. Godson points out, in the BRITISH MEDICAL JOURNAL, February 16th, 1884, page 341, Dr. Savage's cases were not performed with the special object in view of saving the child's life. Dr. Godson says: "Dr. Savage's were not Porro's operations, and are not included in

Supplement to Dr. Radford's Tables.

No.	Years.	Locality.	Operator.	Hospital.	Cause of Difficulty.	Age.	Height.	Long Diam.	Time in Labour.	Uterine sutures.	Result to Woman.	Result to Child.	Cause of Death in Woman.	Lived after Operation.	Reference.
132	1881	Barnet	Dr. Perigal	Workhouse Infirmary	Pelvic Deformity	20	—	2½ in. ant. post.	26 hours	Wire sutures 2½ inches diam.	Dead	Dead	Peritonitis	39 hours	Brit. Med. Jour., Jan. 21st, 1882, p. 79
133	1881	London	Dr. Galton	Soho Hospital	Cancer	34	—	—	17 hours	No suture in the uterine walls; silver wires in abdominal walls	Dead	Fœtus dead	Peritonitis	27 hours	*Lancet*, 1881
134	1882	London	Mr. Morris Dr. Edis	Middlesex Hospital	Epithelioma	29	—	—	30 hours	Fish-gut sutures	Lived	Lived	—	—	*Obst. Trans.*, 1882, p. 304
135	1883	Newmarket	Mr. Gray	—	Deformed Pelvis	41	4 feet	—	Some hours	Wire sutures	Lived	Dead	—	—	Brit. Med. Jour., vol ii, Oct. 13th, 1883, p. 727
136	1884	Halifax	Dr. Dolan Mr. Wright	Union Infirmary	Deformed Pelvis	26	3ft. 11in.	1¼ in. ant. post.	5 hours	Carbolised catgut; silver wires for abdominal walls	Dead	Lived	Peritonitis	54 hours	

my tables as such, for the very reason that they were performed before the fœtus had reached the viable period. Porro's operation is particularly directed towards saving the life of the child, as well as that of the mother."

In midwifery-practice, I have always held that we owe a responsibility to the child as well as to the mother, and that we cannot either bring on abortion or perform craniotomy, or any other operative procedure on the child, at our own will and pleasure. I believe there is a growing feeling in this direction amongst the best accoucheurs.

Dr. Radford, of Manchester, whose name is much associated with Cæsarean section, was a staunch supporter of the claims of the infant, and advocated Cæsarean section as an operation of election, and not of necessity. His statistics usefully assist us in arriving at the comparative mortality after Cæsarean section and after utero-ovarian amputation. Dr. Radford furnishes a list of 131 patients on whom Cæsarean section had been performed, out of which number only 23 mothers recovered; the death in a large number of cases being undoubtedly due to the long period of labour, and the enfeebled state of the women.

If we compare the results obtained in America, collected by Dr. Harris of Philadelphia, we cannot fail to be struck by the difference in the results. Dr. Harris says:[1] "We have had 113 operations and 49 cures in the United States. Twenty-eight early operations in the United States saved 21 women and 19 children; 23 children were delivered alive; 9 women in North America, and 8 in the United States, were operated on twice, with 16 recoveries in the 18 cases, 14 children saved."

The favourable results obtained in the United States are remarkable, and must be estimated in deciding whether Porro's operation is to be the operation of the future. In order to bring the statistics down to the present time, I supplement Dr. Radford's tables with additional cases recorded in our English journals up to 1884.

The case thus stands: Porro's operation, as recorded by Dr. Godson, 134 operations, 59 recoveries and 57 deaths; Cæsarean section in Great Britain up to the present time, 136 operations, 25 recoveries and 111 deaths. If we take the statistics of the United States, we have 113 Cæsarean operations, 47 recoveries and 66 deaths.

There is ample scope for debate with such statistics as the above. My own opinion now is, that Porro's operation is the one I would recommend should I have another case. My patient would not have died from the cause found out at the *post mortem* examination; though she might, it is true, have died from shock, hæmorrhage, or septicæmia, had Porro's operation been performed.

In the discussion on Dr. Godson's paper at the British Medical Association, I do not gather that any conclusions were arrived at, relating to the following points:

1. As to whether Cæsarean section was to be discarded and utero-ovarian amputation recommended as a substitute;

2. Whether, in all cases of known deformity or diseased condition, the pregnant woman should be allowed to go to her full time so as to allow of the birth of a viable child.

These two points would form a fitting theme for our Obstetrical Society, and some definite expression of opinion might be issued, so as to guide general practitioners, who are likely from their position to meet with this class of cases; such expression might also include not only the various steps of the Porro's operation, but also what the Society might deem the best method.

[1] Dr. Radford, *Observations*, page 80, second edition, 1880.

PARASITICIDES IN THE TREATMENT OF PULMONARY PHTHISIS.

By JOHN EDWARD MORGAN, M.D., F.R.C.P.,
Professor of Medicine in Victoria University; Physician to the Royal Infirmary, Manchester.

In one of Dr. Hermann Weber's interesting Croonian Lectures on the hygienic and climatic treatment of chronic pulmonary phthisis, which have lately appeared in the Journal, he expresses a hope that some means may eventually be discovered of destroying the bacillus and its spores, either in the air we breathe, or in our tissues, without injury to ourselves. I have long thought that, if we are to contend successfully with phthisis, and set some limit to its diffusion, it is in the direction here indicated that our labours may most profitably be expended; for, as Dr. Weber further remarks, "when once the system is infected, we do not yet know of any parasite-killing remedies which, in effective doses, would not injure the host together with the parasite." The mischief, in fact, is then done; the fatal seed is sown, the bacilli are protected within the tissues and secretions of the lungs, and antiseptics are comparatively useless.

On this subject of disinfectants, in their varied bearings, much has been written of late years; some apparently coagulate albumen, others oxidise organic matter, while others, again, are fatal to the growth and increase of microzymes. Many of these substances have long been used in cases of sickness, and, in numerous instances, beneficial results have followed their adoption. But, though we are often told that antiseptic gases, sufficiently potent to destroy contagium, cannot be tolerated by the living tissues, we still know comparatively little regarding the amount of rough usage the respiratory organs are capable of enduring, not only with impunity, but, in some cases, with apparent advantage. The information we possess on this subject is certainly scanty; still, certain facts have been recorded which tend to show that healthy lung-tissues may be beneficially influenced by the action of disinfectants, and, at times, seemingly protected from the inroads of bacillus. Whether, in such cases, these organs become so altered in their chemical composition or in their vital properties as no longer to prove a congenial soil for the growth of the parasites, or the bacilli and their spores are themselves destroyed, we have at present no means of deciding.

In confirmation of these remarks, I would refer to what really may be looked upon as extended experiments on antiseptic remedies, continually and efficiently carried out in the north-western highlands and islands of Scotland. The great majority of the inhabitants of these districts unwittingly expose their lungs to an atmosphere largely charged with disinfecting fumes; thereby teaching us a useful lesson on the extraordinary tolerance of the respiratory organs to such sources of irritation. I will briefly describe the mode of life of these highlanders, in so far as the construction and heating of their dwellings

is concerned; as in this manner the singularly abnormal atmospheric conditions to which they are exposed may be most conveniently studied.

The houses to which I refer are known in the highlands as "bothies," and are the homes of the hardy crofters, to whose grievances public attention has of late been strongly directed. Many of them live under the same roof as their cattle, and in numerous instances the air of the dwelling reeks with the impure exhalations given off from the excretions of these joint inmates of the cabin. The primitive dwellings are warmed by a peat-fire kept constantly burning in the centre of the floor. The luxury of a chimney is often altogether unknown. The smoke which rises from the combustion of this fuel, after thoroughly diffusing itself through every nook and corner of the building, makes its escape by a hole in a corner of the roof. Now it may be asked, how is the health of these persons influenced by inhaling constantly, both by day and by night, such an atmosphere as this; an atmosphere so pungent, that considerable irritation of the eyes and nostrils is frequently experienced by those exposed to the fumes?

Generally speaking, these highlanders are remarkably vigorous and long lived, and singularly exempt from the ravages of tubercular phthisis. Indeed, so rare is consumption in these hovels, that I was led to investigate the causes of this immunity, upwards of twenty-five years ago, and published the results of my inquiries in an article on the Non-prevalence of Consumption in the Hebrides, and along the North-Western Coast of Scotland, which appeared in the *British and Foreign Medico-Chirurgical Review* for October, 1860. At that time, I visited most of the districts to which my investigations extended; and from what I saw and heard, I came to the conclusion that the comparative immunity from phthisis which these persons enjoy, is to be ascribed chiefly, at all events, to the inhalation of the peat-smoke, and the antiseptic ingredients contained therein, the tar, the creasote, and the tannin, together with various volatile oils and resins, black unctuous peat being rich in these substances. At that time, I need hardly say, nothing was known of the bacillus of Koch. It further appeared that any exemption from attacks of consumption which these highlanders enjoyed was only extended to them so long as they resided in their smoky huts. When they migrated to other parts of the country, or took up their abode in chimnied dwellings, they often suffered like their neighbours; nor, after the lungs once became infected, was a return to the homes of their fathers followed by favourable results. The fumes of the smoky cabin then exercised no curative influence.

The inference to be drawn from these remarks is sufficiently obvious. When the bacillus has once established itself in the lungs, the time for antiseptic remedies has gone by. On the other hand, where there is merely a predisposition to phthisis, whether hereditary or acquired, where also the climatic or social conditions for its diffusion are favourable, and where healthy persons are brought into close contact with those who are suffering from the disease, there it is reasonable to assume that disinfectants may prove of great value as prophylactics. Hence we may anticipate that, in the course of time, an efficient system of aërial fumigation will not alone assist the physician in warding off disease, but may enable the surgeon also to dispense with the cumbrous appliances associated with antiseptic dressings and the steam-diffusing urn.

NOTES ON A CASE OF COLOTOMY.

Read before the Essex District of the East Anglian Branch.

By THOMAS SIMPSON, M.R.C.S.Eng., Coggeshall, Essex.

George P. came under my care in November, 1880, complaining of constipation that had been increasingly troublesome. The exact date on which the bowels ceased to act I cannot remember; but, after he had attended at the surgery several times, I began to attend him at his home on November 27th, 1880. He was a well developed, strong, healthy man, 71 years old, a wheelwright, and was a sober, steady, industrious workman. He had an inguinal hernia on the right side, which could easily be reduced, and which was entirely omental. The symptoms became intensified. He underwent the usual practice pursued in such cases, chief reliance being placed on the internal administration of belladonna and the free use of injections. The long tube of the stomach-pump was used for the latter purpose; and on one occasion, after paying out the tube more freely than I had been able to do before, I found that it had turned in the bowel, so that the perforated end of the tube presented itself at the anus. The difficulty seemed to be at the sigmoid flexure of the colon, and the obstruction was such that neither motion nor flatus passed. No food could be retained; any attempt to take it only caused vomiting. The abdomen became greatly distended; and, as the man was lean, the course of the colon could easily be traced—a matter which rendered the subsequent operation easier to accomplish. So the case continued, the man becoming weaker and weaker, and his condition more hopeless, as every effort made for his relief turned out to be vain and futile. On Sunday, December 12th, I persuaded him to let me perform colotomy. With the help of Mr. Galpin of Kelvedon, and my assistant, Mr. W. E. Woodman (now practising at Croydon), I performed the operation in the usual situation. I succeeded in bringing the colon well forward, and in getting it safely secured to the external wound before opening it. When I opened it, enormous quantities of liquid fæculent matter spouted out. I passed my finger down the gut as far as I could, but could find no obstruction.

The after-treatment was very simple. He kept his bed for about three weeks, and the wound was dressed with spongio-piline. One motion passed naturally, and then all that passed from the bowels came through the artificial opening. He recovered quickly, and, in about two months, was at work again. I tried to close the external opening with an ivory ball, that might be removed so as to allow the fæces to escape; but, after trying several expedients of this kind, and for this purpose, I found that square pieces of spongio-piline, kept closely applied by means of a broad bandage, were the most efficient.

The man often worked for me after the operation, and never complained of any inconvenience, and he continued in active work till January 15th, 1885. He had taken cold a few days before this date, and, on the evening of that day, when coughing, he felt something give way, and found that a large swelling had appeared just below the artificial anus. A great deal of blood oozed from the swelling, and he suffered greatly from pain.

On examining him, I found him very weak and almost pulseless, and could not on that account persevere long in trying to reduce the swelling. He died exhausted on January 17th.

We opened the body on January 19th, and found that the hernia on the right side was omental, the omentum being attached by old adhesions to the anterior surface of the descending colon. The colon was distended, as were the smaller intestines. In the preparation now exhibited, a large loop of the ileum can be seen that had been forced through the abdominal walls below the artificial anus, and had there become strangulated; parts of this intestine were becoming gangrenous. The colon below the seat of operation was empty, save two extremely hard lumps of scybalous matter. There was nothing besides these to account for the symptoms to obviate which the operation was performed.

Remarks.—The case is interesting on two grounds; first, as showing that the operation may be attempted on old people with a fair prospect of prolonging their lives, as in this instance, for over four years; and, secondly, on account of its peculiar, and, so far as I know, unique termination.

The preparation illustrating this case has been sent to the museum of St. Bartholomew's Hospital.

NITRITE OF AMYL AN ELIMINATOR OF URIC ACID; ITS EMPLOYMENT IN THE TREATMENT OF GOUT.

By ARCHIBALD D. MACDONALD, M.D., Liverpool.

I propose to support the title of this short paper by three distinct, yet closely connected statements.

1. On September 13th, 1882, I attended a case of what is usually called puerperal eclampsia. After the first hour, and during three and a half hours, I repeatedly gave nitrite of amyl by inhalation, in the usual way and dose. In the course of the following eighteen hours one minim of nitro-glycerine, of 1 per cent. solution, was four times administered, and chloroform to a limited extent, as well as an operative procedure, also marked that period. Nine hours after the last dose of nitro-glycerine; that is, about 31½ hours after the first inhalation of nitrite of amyl, I drew off the urine. After standing for nearly 48 hours, it was seen to have deposited, *inter alia*, crystals of uric acid.

Then, this fact somewhat puzzled me, but I was inclined, for reasons which need not be specified, deduced from the hypotheses of authorities on the subject of this eclampsia, to look upon this as an interesting clue to a rationale of the colchicum treatment of the disease. A notice of the observations of Signori Guiseppe and Sansoni, of Turin, however, has forced me to reconsider the point.

2. Accordingly, I instituted a check-experiment, the subject of which was a healthy adult, whose urine was previously normal. The experiment, except the non-administration of chloroform, corresponded, as far as possible, with the case just mentioned. Thus, from 10.45 A.M. till 2.50 P.M., seven inhalations of 5 minims each of nitrite of amyl were taken. The urine passed at 4 o'clock, an hour after food, was of a clear dark straw-colour, very acid in reaction, and, on cooling, deposited a little mucus, and copious urates. One ounce without the urates, but *plus* a drachm of hydrochloric acid, showed, after forty-eight hours had elapsed, a large deposit of uric acid crystals. Also, as in the case, nitro-glycerine was taken.

A similar quantity, passed seven hours after the last, almost free from visible urates, similarly treated, gave what may be relatively termed a very considerable deposit; and next day (36 hours after the first drug was first administered), from the sample, a considerable amount of the crystals was obtained.

I hope shortly to narrate an experiment with regard to the effect of nitro-glycerine *per se*.

Thus I was able to confirm the statement of the Italian observers named, and also to find that the balance of fact against theory compels me now to believe that the excretion of uric acid in the case of eclampsia was, at all events, largely due to the drug employed, and not wholly to the disease, and that no deduction could be drawn from the premisses as to any connection between the gouty diathesis and puerperal eclampsia, or the consequent colchicum-treatment of that affection. My inquiry into the symptom had no pretence to have been exhaustive; the case, however, is pretty clearly, though not yet quite logically, proven now.

3. A practical application of this property of the nitrite of amyl as an eliminator of the gout-poison immediately occurred to me, to which I at once gave effect.

H. G., of Tue Brook, a powerful, slightly ruddy man, aged 37, had suffered from gout, and now had an attack chiefly in the ankle-joint. For four days, he had had an alkaline mixture with colchicum, and had obtained some relief, also, from local treatment. At 4 P.M. on April 17th, his urine was clear straw-coloured; on standing, it contained a very little mucus, no other deposit. One ounce, acidulated with a drachm of hydrochloric acid as before, and set aside for forty-eight hours, showed only a very few crystals of uric acid.

That statement enables a fair judgment to be formed of the state of matters previously to the use of the nitrite, during which the medicine and special local treatment were, of course, abandoned.

The first inhaled dose of four minims was given by myself at 4.2; a faint flush and sensation of fulness in the head resulted. At 6, 8, and 10 o'clock, the dose was repeated. Next morning, at 9, he was much better, but had a slight headache, which soon passed off. His urine passed at that hour showed a very acid reaction, and, being treated as above, gave what I describe, in the absence of a quantitative analysis, as a considerable deposit of uric acid. On the 20th, he was able to walk, the ankle-joint being very nearly well.

Remarks would be redundant. Further research is manifestly required. I will only say that all I claim is to have established a *primâ facie* case for the administration of nitrite of amyl as a rational therapeutic agent in those cases of gout, in which the usual contraindications do not prevent its use. And if we can by its means procure a more than normal discharge of uric acid when an attack threatens, we may find it prophylactic as well as curative.

SURGICAL MEMORANDA.

LIGATURE OF THE FIRST PART OF THE AXILLARY ARTERY, FIRST PART OF SUBCLAVIAN AND INNOMINATE ARTERIES.

THE plan usually recommended for this operation is to make a transverse incision, and to divide the fibres of the pectoralis major throughout the whole extent of the wound.

Some years ago, I practised ligaturing the vessel by means of an oblique incision over the line of apposition of the deltoid and pectoralis major, simply separating the two muscles from each other, and holding them apart with retractors. The operation is quite feasible in this manner, with a sufficient incision through the superficial coverings, and relaxation of the muscles by position. To obtain more light, and render the procedure easier, the oblique incision may be shortened, and a transverse incision added, dividing the skin and fascia at the lower border of the clavicle, and separating the fibres of the clavicular head of the pectoralis major from their attachment to the bone. The triangular flap of skin and fascia and the head of the muscle can then be turned down without interfering with the nerve-supply. By using the handle of the scalpel, the edge of the pectoralis minor may be defined, and the artery may subsequently be cleared and tied in any part of the space between the subclavius muscle and the lesser pectoral muscle. The cephalic vein is looked for early, and held aside with a blunt hook. I have not had the opportunity of performing this operation on the living body.

About two years ago, a case of a large aneurysm of the subclavian in a female came under my care, and I had decided to try distal ligature of the first part of the axillary in this way, but the patient would not consent to an operation. I had hoped that ligature of the axillary might suffice to cure the aneurysm, without having to resort to any interference, either with the first part of the subclavian or with the innominate. I say interference; because, if ligature of the axillary had failed, I should have tried lifting the subclavian or innominate with an aneurysm-needle sufficiently to arrest pulsation, retaining the needle in position for a few hours to enable the blood to coagulate in the sac, then withdrawing the needle, and closing the wound altogether.

It appears to me that it is inexpedient to go on repeating operations so fatal as ligature of the first part of the subclavian or innominate, and that some plan of temporary occlusion, either by ligature quite lightly tied, and afterwards removed, or with finger or aneurysm-needle, offers a fair prospect of success.

The mode of ligature of the axillary artery here described will, I think, be found superior to the ordinary method.

WALTER RIVINGTON, F.R.C.S.Eng., etc.

CLINICAL MEMORANDA.

THE COMMUNICABILITY OF CONSUMPTION.

I PUT this case forward as a possible instance of contagion in phthisis. A woman is now under my care at the Royal Hospital for Children and Women, with the signs of a cavity at the right apex and consolidation at the left apex. There is no tubercular taint in her family, and she was quite healthy until her present illness. Her husband died of phthisis fifteen months ago. For five months before his death, she was in constant attendance on him, slept in the same bed with him, and only left the room on rare occasions. Two months after she began to nurse him, she commenced to cough, and her illness has continued ever since. Dr. Waugh, the resident medical officer at the Brompton Hospital for Consumption, informs me that the husband was under treatment there for advanced phthisis. In his case, too, as in his wife's, there was no family-history of phthisis.

W. B. HADDEN, 21, Welbeck Street, W.

ALOPECIA AREATA, PARASITIC SYCOSIS, AND RINGWORM OF THE BODY IN THE SAME INDIVIDUAL.

A. P. consulted me at St. John's Hospital, on April 2nd, for the following condition. He had unsymmetrical and absolutely bald patches on his scalp. He had typical ringworm of his neck and back of right hand. One-half of the circumference of the ringworm on the neck extended into the hair-roots, but the hairs were not broken off, as we see on the scalps of young children with the same malady. The following axioms spring from this short narrative. 1. We have a common cause for the three diseases. 2. Adults do not develop on the scalp the condition which is known as tinea tonsurans. 3. Alopecia areata is the prototype of tinea tonsurans.

TOM ROBINSON, M.D., 9, Prince's Street, Cavendish Square, W.

VARICOSITY OF THE LINGUAL VEIN AS A DIAGNOSTIC SIGN.

WHILST, on the one hand, I am most unwilling to decry the credit due to Messrs. Dickson and Whitehouse for their acumen in connection with this subject, on the other, I cannot but confess that to me it seems that works on diagnosis are quite correct in omitting special reference to the lingual veins as indicating important vascular changes in the state of the cerebral vessels; for the state of these can with much more accuracy be presumed from the general arterial condition. We all know how frequently atheroma occurs in advanced life; and, although it is a trite observation, that the obstruction to the flow of blood through the arteries, which atheromatous disease induces, leads to varicose veins, so that, when atheroma is present to any extent, we may confidently expect some degree of varix, the converse does not hold; varix does not necessarily imply atheroma. Varix obviously is first observed clinically in the superficial veins, and especially in those

feebly supported, and the lingual veins in their anterior part run immediately beneath the mucous membrane of the mouth ; but, further, they very generally course under the hyoglossus, lying between it and the geniohyoglossus, and the pressure of these muscles must predispose to phlebectasis ; while elevating the tongue against the upper incisors, and especially turning it to one side, as Mr. Dickson recommends, will make these muscles tense, and cause them to retard the flow of blood in the lingual veins, which, in such conditions, may be watched dilating. Moreover, other observable veins open into the internal jugulars, notably the facials, which not only, as the angular veins, communicate with the ophthalmics, but frequently unite with the linguals to open in common into the great trunk named ; and varix of the facials, as, indeed, of the internal jugulars, is, to the best of my knowledge, exceedingly rare. The only local veins I would deem worthy of careful examination, in order that light might be comparatively directly thrown on the state of the cerebral sinuses and veins, are those anastomosing with the intracranial veins, and which, when the intracranial venous system is obstructed, dilate. Such veins, as has long been shown, are the angulars above referred to, the veins of the nasal cavities and upper surface of the skull, and the small vein passing through the mastoid foramen.

G. Armstrong Atkinson, M.B., University of Edinburgh.

ACUTE MENINGITIS IN RELATION TO DISEASE OF THE NASAL MUCOUS MEMBRANE.

The case of meningitis related by Dr. Ogston in the Journal of May 16th, brings to my mind two nearly similar cases, both attended by fatal results. The first occurred some years ago ; the patient was a girl, aged 14, of unusual intelligence. She presented the symptoms usual in meningitis—intense headache, violent delirium, constant vomiting, etc.—and, in spite of treatment, got gradually worse, death taking place in about ten days. What, however, brings this case into connection with that of Dr. Ogston, is the fact that, on the day of death, a very profuse fœtid discharge of pus suddenly took place from the nostrils. No *post mortem* examination could be obtained, but there can be little doubt that the meningitis had been set up by continuity from inflammation of the lining of the frontal sinus. In the second case, under my observation eighteen months ago, the symptoms and progress were very similar. There was nothing specially pointing to the frontal sinuses as in the former case, nor did I suspect they were particularly involved, until a profuse purulent discharge took place from the nostrils. Death occurred on the following day. No necropsy could be obtained.

The connection of meningitis with disease of the ear is sufficiently well known, but its origin from disease of the lining membrane of the frontal sinuses, is by no means generally recognised. Much credit is due to Dr. Ogston for calling attention to this subject, for it is quite possible that early inquiries directed to the point, and careful attention to the symptoms, may enable us to distinguish these cases ; and that, by early trephining, or otherwise giving exit to the pus, a favourable result may be obtained.

James McNaught, M.D., M.R.C.S.,
Newchurch, near Manchester.

THERAPEUTIC MEMORANDA.

POSTURAL METHOD OF TREATING DILATATION OF THE STOMACH.

A recent case, in which I had recourse to the above method of treatment, may perhaps be of interest. The patient had for some months suffered from debility and lowness of spirits, with loss of appetite, uneasy sensations in the epigastrium, and occasionally obscure pains in various joints. Prior to this, she had been in robust health, with excessive appetite, and used to amuse her friends by exciting splashing sounds in her stomach. When she came under notice, she vomited, every second or third day, semifluid brown yeasty matter. By applying a hand to either side of the abdomen, succussion-sounds could be easily elicited. After trying various remedies, such as rhubarb and soda, etc., with only temporary benefit, I suggested washing out the stomach with a siphon-tube. As both the patient and her relations were not agreeable to this, I resolved to try the effect of posture in relieving the stomach. I made the patient lie on her back on the sofa for two hours after every meal, with a small pillow placed below her buttocks, and restricted the diet to fluids (milk and beef-tea). The effect of the first application of this posture was to cause vomiting almost immediately. However, I insisted on pursuing the treatment; and the vomiting soon ceased, and she began to feel better and less uncomfortable about the epigastrium. A tonic of iron and strychnine was given three times a day. After a little while, she was persuaded to go out, after applying a tight binder to the stomach, but still to keep on for some hours the postural treatment after eating. In the course of a few months, the patient had regained her old energy and spirits, but was advised to be still careful with her diet, especially as to quantity.

The *rationale* of this procedure is obvious. Owing to the relaxed and flabby condition of the walls of the overdistended stomach, the food comes to hang below the level of the pylorus in the flaccid sac, incapable of emptying itself in the ordinary postures of the body. By elevating the lower end of the abdomen, the contents of the stomach are brought on a level with the pylorus, and thus put in a position to pass on in the natural way.

Peter Tytler, M.D., Surgeon to the Ardwick and Ancoats Hospital, Manchester.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

UNIVERSITY COLLEGE HOSPITAL.

(Cases under the care of Mr. Christopher Heath.)

TWO CASES OF EXTROVERSION OF THE BLADDER ACCOMPANIED BY INGUINAL HERNIA : OPERATIONS FOR RADICAL CURE.

Case I. *Double Inguinal Hernia ; Extroverted Bladder ; Radical Cure of Hernia ; Great Relief.*—F. T., a boy, aged 3 years, was admitted on June 9th, 1884, suffering from a double inguinal hernia, for which he was quite unable to wear a truss, on account of extroversion of his bladder. The hernia on the right side was irreducible, and of large size ; that on the left side was smaller, and easily reducible ; the testicles were normal.

Four days after admission, Mr. Heath exposed the sac of the right hernia, and opened it. The contents, consisting of the cæcum, vermiform appendix, and a part of the ileum, were returned within the abdomen ; the sac was then carefully separated from the structures of the cord, and divided at the upper part ; the margins of the lower part were sutured together to form a tunica vaginalis testis ; those of the upper part were stitched together with fine catgut, and that portion of the sac was returned within the abdomen ; the external ring was lessened in size by passing two sutures through its pillars. The temperature rose to 102.4° Fahr. on the day following the operation, but it afterwards gradually fell, and reached the normal on the sixth day after the operation ; the wound was quite healed on the twenty-second day. Ten days later, Mr. Heath exposed the left hernial sac, separated it from the cord, and returned it unopened into the abdomen ; he then sutured the pillars of the ring together with stout catgut sutures. The temperature rose to 103° Fahr. on the following day, and then gradually fell. A small abscess, which had formed in the scrotum, was opened on the fourth day after the operation. The patient made a rapid convalescence, and was discharged cured on the eighteenth day after the second operation.

Case II. *Inguinal Hernia ; Extroverted Bladder ; Radical Cure of Hernia ; Relief.*—S. M., aged 11 months, was admitted on June 13th, 1884, suffering from extroversion of the bladder and epispadias, together with a reducible inguinal hernia on each side. Both testicles were normal ; the symphysis pubis was deficient.

On June 22nd, Mr. Heath reduced the hernia under chloroform, and then cut down on the sac, and separated it from the vas deferens. He then tied the sac in two places, and cut it across between. The upper portion of it was returned into the abdomen, and the lower left to form a tunica vaginalis testis. The pillars of the ring were brought close together with catgut sutures. A drainage-tube was placed in the wound, and a dressing of iodoform-wool was applied. The patient made an uninterrupted recovery, and was discharged on July 5th.

FOUR CASES OF HERNIA TREATED BY THE OPERATION FOR RADICAL CURE.

Case I. *Acquired Scrotal Hernia Cured.*—C. P., a boy aged 2½ years, was admitted on October 21st, suffering from a scrotal hernia, which had existed since birth, and had been enlarging recently. On

October 23rd, Mr. Heath made an incision, an inch and a quarter long, over the spermatic cord, and exposed the sac of the hernia; this he separated from the surrounding tissues by tearing the latter off it with the fingers and forceps. The hernia turned out to be acquired. Mr. Heath returned the contents of the sac into the abdomen, and tied the neck of the sac as high up as possible, and then sutured the pillars of the ring with catgut-sutures passed through them, with the aid of Wood's needle. The wound was brought together with catgut-sutures, and a drainage-tube was placed in it. Listerian antiseptics were used. On the evening of October 26th, the temperature rose to 100.6° Fahr. By October 28th, it had fallen to normal, and continued so afterwards. The drainage-tube was removed on the second day after the operation, and, six days later, the wound was entirely healed. The patient was discharged quite well on November 6th.

CASE II. *Right Congenital Inguinal Hernia; Cured; Hydrocele a year and nine months later.*—W. M., a man aged 21, was admitted on February 20th, 1883, suffering from a congenital hernia; he stated that he had had it as long as he could remember, but had suffered no pain in it, and no discomfort beyond a dragging sensation. He had failed to pass into the army on account of it. The external abdominal ring was widely open, and the sac contained some omentum, which was easily reducible.

February 21st. Mr. Heath made an incision an inch and a half long, beginning about one inch below the external abdominal ring, over the spermatic cord, and down to the sac, which he separated from the parts around. In doing this, the sac was accidentally torn across; the lower part of it was therefore sutured close to the testicle, so as to form a tunica vaginalis. A piece of projecting omentum was removed, and the stump of it was returned into the abdomen; the neck of the sac was tied with a catgut ligature as close to the external abdominal ring as possible, and the part below the ligature was removed. The remainder of the sac was then invaginated into the inguinal canal, and the pillars of the ring were brought together, as in Wood's operation for radical cure. A drainage-tube was placed in the wound, and the latter closed. The spray was used during the operation, and a carbolic gauze dressing was applied. On February 24th, there was swelling and pain in the scrotum, which continued till February 28th, when the sutures were removed, and vent given to over an ounce of "sweet" pus; the wires were not blackened. The patient now made a rapid recovery. The gauze-dressing was replaced by iodoform and salicylic wool on March 7th. On March 16th, the wound was quite healed, and the patient was discharged cured. He was seen in November 1884 (nearly two years after the operation); he was quite cured of the hernia, but had a hydrocele on that side. He declined treatment for the hydrocele.

CASE III. *Left Femoral Strangulated Hernia; Cured.*—M. H., a woman, aged 42, was admitted on December 6th, 1883, suffering from a strangulated femoral hernia which had been down about twelve hours; taxis had been applied ineffectually before admission. The operation was at once proceeded with. The sac was much discoloured, and contained about an ounce of dark serum. The gut was congested, and had a fæcal odour. Gimbernat's ligament was notched in the usual way, and the gut was returned within the abdomen; a large piece of omentum, which seemed to have occupied the sac for some time, was ligatured in segments by fine catgut close up to the ring, and cut away; the stump with the ligatures was returned within the abdomen. The sac was then separated from the surrounding tissues, and tied at its neck with a stout catgut ligature. The lower part was removed, and the upper returned within the abdominal cavity. The superficial wound was closed and drained, and a dressing of gauze and iodoform-wool was applied. The bowels acted twice soon after the operation, and a slight discharge of blood from the rectum was noticed. Vomiting continued for four days after the operation, and the patient was unable to pass urine. There was no obstruction of the bowels, though the abdomen was much distended. Diarrhœa with involuntary evacuations were conspicuous symptoms for six or seven days after the operation. There was no abdominal pain or tenderness. She was much embarrassed by a bad attack of bronchitis, which, together with the diarrhœa, interfered much with her sleep. The wound progressed satisfactorily throughout, and on the eighth day her general condition began to improve, and she regained proper control over her bladder and rectum. The temperature did not rise higher than 101.2° Fahr., and that on one occasion only. The pulse-rate was very high, usually about 140 a minute, and sometimes over 150.

The patient was convalescent on the fourteenth day after the operation, and was discharged quite well on the thirtieth.

CASE IV. *Double Femoral Hernia; Left Hernia Strangulated; Both operated upon, and the Hernial Sacs Excised; Inflammation of Strangulated Gut; Death from Collapse.*—E. J., a woman, aged 63, was admitted on December 5th, 1883, with symptoms of intestinal obstruction, which had been present more than three days. She was aware of the presence of a left femoral hernia, for which she had worn a truss for ten years. She had noticed nothing wrong on the right side, though she had suffered pain there, and had applied mustard-poultices to relieve it. On admission, there were a large femoral hernia on the left side, and a small one on the right. She was not much collapsed; the vomit was stercoraceous. The patient was placed under the influence of chloroform, and Mr. Heath first attempted to reduce the left hernia; this he partially did, but, as it appeared probable that the right hernia was the cause of the symptoms, he first operated on that. The sac was opened, but no gut was found; he therefore cut away the sac, stitched up the neck, and closed the wound. Mr. Heath next exposed the sac of the left hernia, and opened it; some clear fluid escaped, and a knuckle of darkly congested gut was exposed; the gut was liberated and reduced. Mr. Heath then put his finger into the abdominal cavity and examined the obturator foramina and the crural ring of the opposite side, but found no herniated intestine at either site. He then cut away the sac, stitched up its neck, and closed the wound. At 1 A.M. on the following morning, the patient began to vomit almost incessantly; her pulse became intermittent, and her skin cold. The rectum was cleared out by an enema, and nutrient and stimulant enemata were administered. The temperature fell to 96.2° Fahr., and the patient died at 4 A.M. on the day after the operation.

At the necropsy, it was found that the portion of intestine involved was the jejunum, which had been tightly nipped about six feet from its commencement; it was inflamed and dark coloured; its mucous membrane was also much discoloured; there was a little turbid serum in the peritoneal caxity. There was nothing else found which bore on the case.

REMARKS BY MR. BILTON POLLARD (Surgical Registrar).—The operation for radical cure of herniæ, which was performed in this series of cases, is now perhaps generally adopted in similar cases, and the success which has attended its employment is sufficient to establish the operation on a firm basis. Of the six cases now recorded, four were operated upon with the sole object of curing the hernia, or at least of making the use of a truss possible; two of the cases were complicated with extroversion of the bladder, and owing to this malformation the use of a truss was unbearable; in another case, the neck of the sac was so large that the truss failed in its object; in the fourth, the operation was undertaken on behalf of a young man, who had been rejected by the army-authorities on account of his rupture. In two of the six cases the operation was merely an amplification of that for the liberation of strangulated gut. When the sac has to be exposed or opened for the purpose of reducing strangulated gut, the operation for radical cure does not, in the majority of cases, add to the danger. This is certainly the case in femoral hernia, in which the separation of the sac from the surrounding tissues is very quickly done. In some cases of inguinal hernia it is open to doubt whether this operation is always advisable; the separation of the sac from the structures of the cord is sometimes a difficult matter, and the prolongation of the operation, which it entails, may undoubtedly add much to the collapse produced by the strangulated gut. In one of the two cases of strangulated hernia here recorded, death occurred; but the case was one of femoral hernia, and the duration of the operation was not materially prolonged by the separation and ligature of the sac; the gut had, moreover, been strangulated for more than three days, and was found much inflamed at the necropsy. In performing the operation for radical cure of inguinal hernia, there appears to be some real danger of including the cord, or part of it, in the ligature; this is especially liable to happen in congenital herniæ, in which the vas deferens is intimately adherent to the sac. If the hernia be an acquired one, the sac below the ligature will be subsequently removed, and it is then best to free it entirely from the surrounding tissues before applying the ligature; but if it be a congenital one the case is different, and then, provided the sac has had to be opened, a good way is to pass a director immediately outside the posterior part of the sac, and watch its progress from the interior of the sac, from which point of view it is easy to see if anything more than the thin layer of peritoneum covering the cord be taken up by the point of the director. Before tightening the ligature, it is well to draw down the neck forcibly, so that, when it is liberated and returns into the abdomen, it will offer a smooth surface to the abdominal contents, and not a small pouch which might favour the return of the rupture. The neck of the sac may be closed in two ways—either by placing a ligature round the whole of it, or stitching the edges of the peritoneum together after the lower part has been excised. Both methods were employed in this

series of cases, and the latter is perhaps the better when the neck of the sac is large. In congenital herniæ it is advisable, as was done by Mr. Heath in two of these cases, to close the lower part of the processus vaginalis testis by sutures, so as to form a tunica vaginalis testis, for by that means there is less likelihood of the accumulation of inflammatory products within it. In one case, a perfectly normal tunica vaginalis resulted, as was shown by a typical hydrocele occurring there a year and nine months afterwards. In inguinal herniæ, the pillars of the ring may always be sutured, but in femoral herniæ, anything like complete closure of the ring is impossible, owing to the femoral vein being in close contact with its outer border; it is, however, possible and desirable, when the ring is large, to lessen its size, by passing sutures through Gimbernat's ligament and the deep crural arch at the upper and inner angle of the ring.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 19TH, 1885.

J. S. BRISTOWE, M.D., F.R.S., President, in the Chair.

Report of Morbid Growth Committee.—The report of the Morbid Growth Committee on Mr. Treves's cases of tumour of the soft palate was read by Mr. SHATTOCK. The report stated that the structure of the first tumour was best described as alveolar sarcoma. The second tumour was a spheroidal-celled carcinoma, but might have been originally an adenoma.

Varicella Gangrenosa.—Microscopic specimens of an eruption presenting the characters of varicella gangrenosa, which had occurred in a girl 3 years old, were shown by Dr. PAYNE. A month before her death, the child had chicken-pox; this had been certified by the attendant medical officer. The child died. At the necropsy, acute miliary tuberculosis of the lungs, omentum, and other parts, was found. In the case also shown five years ago by Dr. Abercrombie, there was tubercular disease, though less extensive. This coincidence in the only two fatal cases recorded might be of importance. On the other hand, the eruption had also been noted in children apparently healthy. There was no tubercular change in the skin, and the ulcerations were healing.—Mr. ANTHONY BOWLBY showed a drawing of one of three cases which had recently occurred in St. Bartholomew's Hospital. The patient was a boy, aged 10 months. He had had varicella fourteen days earlier. Six of the vesicles became gangrenous patches; one on the scalp involved the skull, and a piece of bone necrosed. The child, after having apparently recovered, died in convulsions the day after leaving the hospital. The second patient was a girl, aged 8 months. She had had a vesicular eruption ten weeks before admission, and about six weeks later a fresh crop of vesicles. She was admitted into hospital because five of these vesicles were succeeded by gangrenous ulcers. While in the hospital, a fresh crop of vesicles came out, and some became pustules, but none became gangrenous. She was discharged well. The third case was a child aged 18 months, who had undoubtedly suffered from chicken-pox. Instead of healing, some of the vesicles beame pustular, and then gangrenous. Other children in the same house as this patient had varicella. The gangrenous eruption in the second case mentioned was clearly not to be attributed to varicella.—Dr. RADCLIFFE CROCKER had met with only two severe fatal cases of the affection; but in neither case could a necropsy be obtained. He thought that Dr. Barlow had suggested that tuberculosis might have some connection with varicella gangrenosa. Dr. Crocker added that, in one of the fatal cases he had mentioned, there was a strong tubercular history, and no history of varicella could be obtained. The eruption began as papules, which became vesicular, then pustular; some ulcerated, others became gangrenous. The child died in convulsions. Other milder cases he had seen resulted from varicella directly, but others did not appear to have any direct connection; that is to say, the vesicles of the varicella did not pass on to gangrene. The condition appeared to come on as the varicella was subsiding. In the earliest case on record, the gangrenous process began on the fourth day. He considered the condition to be a septic process. This view was confirmed by the fact that some of the cases died of pyæmia. One case under his care had been benefited by sulpho-carbolate of soda.—Dr. PAYNE said that in his case there was a distinct interval between the varicella-eruption and the gangrenous process, the one not appearing to proceed from the other.

Rodent Ulcer.—Dr. THIN related the sequel of a case of rodent ulcer reported in 1879. The man was subsequently admitted into the Middlesex Hospital, and died in 1884. The ulcer, which, when first shown, was of the size of a crown, had assumed enormous dimensions. The point of interest in the case was that the peculiar characteristic histological appearances seen and described in the small ulcer in 1879 continued to be those seen in the case at the determination. There was the same small-celled growth at both stages.

Pyæmia.—Mr. BILTON POLLARD showed a dissected specimen of the pelvic viscera and veins from a case of thrombosis consequent on gonorrhœa. The patient was a woman aged 19, who had suffered from gonorrhœa for thirty-six days before death. The other symptoms present were pyrexia, the temperature ranging between 100° and 102° Fahr., and some pains and fixation of the right hip-joint. The symptoms of disease of the hip-joint were at times equivocal. Death was due to embolism of the pulmonary arteries. The specimen showed thrombosis of the left common iliac veins. There was no ulceration in the vagina, the cartilage of the femur and acetabulum of the right hip-joint was eroded, and the joint contained purulent material. No other joints were affected. Mr. Pollard thought the case remarkable in that so serious a set of conditions should complicate a case of gonorrhœa without giving rise to symptoms sufficient to call attention to the perilous state of the patient.

Atrophy of Adrenals.—Specimens from a case, most conveniently to be described as one of Addison's disease, in a girl, aged 19, were shown by Dr. SAUNDBY. Slight pyrexia on one occasion, and anæmia, were the only symptoms noticed during the five years she was under observation, until about a year before death, when she began to be continuously ill. Six months before death she had another attack of pyrexia, during which there was great enlargement of the spleen. In January last she had a syncopal attack, with vomiting, and, three days later, she died comatose. The only other symptom was, that all her life her urine was dark, and contained a large quantity of indican. On one occasion, during one of the attacks, it also contained hæmoglobin. There were no patches on the mucous surfaces, and but slight pigmentation of skin. The heart was somewhat hypertrophied. The suprarenal capsules were very small, weighing ten grains and eighteen grains respectively; in the cortex of the kidneys masses of pigment were arranged in chains. He referred to Dr. McMunn's theory that the function of the suprarenal capsules was to excrete the effete colouring matter of the blood. The spleen weighed sixty-six ounces. A highly interesting feature of the case was the family history. The patient's father died, aged 37, with a large spleen. All his life he had passed black urine. The patient had a brother and sister; the girl was healthy. The brother, aged 21, had had for years a large spleen, and had passed dark urine, which contained albumen. He had attacks of illness, during which the urine contained hæmoglobin and much albumen. Such an enlargement of the spleen seemed to occur very rarely in connection with Addison's disease. Dr. Greenhow referred to the subject, but quoted no cases where the enlargement was great. Rosenstein had observed the indican in the urine to be greatly increased to ten times the normal amount, in a case of Addison's disease. The nature of the case he now related was very obscure, and he was not at present prepared to apply the term Addison's disease to it, except as a matter of convenience, and as indicating the condition with which it had, at least, a close connection.

Addison's Disease.—Microscopic sections from the pigmented nymphæ in Addison's disease were shown by Dr. SEYMOUR TAYLOR. The patient was a woman aged 35, who died three days after admission. The case was a typical example; the pigmentation was marked in the usual situations; the lungs, heart, and abdominal organs, with the exception of the suprarenal capsules, which were cheesy, were all healthy. The labia majora and minora were much pigmented; the pigmentation was most marked on the external surface of the upper part of the nymphæ; microscopic sections of the nymphæ showed that the pigment was deposited in the deep layers of the epidermis, not only in the cells, but in the intercellular tissue; there was also a discrete layer of scattered pigment-cells in the cutis vera. He had also examined the nymphæ in another case, and found identical appearances.

Atrophy of Adrenals with Addison's Disease.—Dr. W. B. HADDEN read a long paper founded on the case of an unmarried woman, aged 30, who died under the care of Dr. Ord, at St. Thomas's Hospital. Her illness began eight months before admission, with vomiting. She soon found that her tongue and gums were getting black. She was giddy, used to faint, and was easily fatigued. On admission, there was pigmentation of the face, neck, backs of hands, and, to a less extent, of the trunk and extremities. It was very marked where there had been pressure. The axillæ, areolæ of the nipples, and mid-line of the abdomen were also pigmented. The upper surface and sides of the tongue, the roof of the mouth, the sides of the cheeks and under surfaces of the lips, were much pigmented. The superficial reflexes were very

brisk; the knee-jerk was absent. The main symptoms observed during her stay in the hospital were constant vomiting, fainting attacks, headaches, and, finally, drowsiness. The pulse was very feeble. She died suddenly twenty-three days after admission, after an attack of vomiting. At the necropsy, pigmentation of the vulva, of the skin around the anus, and of the upper part of œsophagus, was found. The viscera generally were healthy. There were no tubercles anywhere. The suprarenals were of about equal size, and distinctly small. The diminution was especially evident in thickness. They preserved their normal shape. There was no change in colour. The free edge was irregularly notched. Nothing abnormal was seen on section. The extreme length of the left suprarenal was 1½ inch, its breadth ¾ inch. At the hilus, the thickest part, it measured ⅛th inch, at the edge, the thinnest, $\frac{1}{16}$th. The connective tissue about the capsules and sympathetic was loose and healthy. The ganglia and filaments were healthy to the naked eye. Microscopically, the adrenal showed much fibrous thickening of the investing capsule. There was a richly fibrous nucleated growth in the zona glomerulosa. A few cells looked fairly normal, but many were undergoing atrophy, and most were replaced by the newly formed tissue. In some parts the cell-spaces were surrounded by dense fibrous tissue, and the spaces themselves were empty or contained atrophying cells. The nucleated growth passed inwards between the columns of cells in the zona fasciculata, separating them into islets. In many places the epithelial cells had undergone nuclear proliferation. The medulla was very scanty, and difficult to distinguish. There were similar large areas of round cells in the semilunar ganglion. There was also a little granular pigment in the connective tissue. The ganglion-cells were probably healthy. There was much black pigment in the rete mucosum and corium in the skin and mucous membrane of the mouth. Two lymphatic glands were examined and found normal. The atrophic condition of the adrenals was due to a chronic interstitial change, similar to that seen in cirrhosis of the liver. The lesion was identical with that of the thyroid gland in myxœdema. It was probable that there was no constant morbid change essential for the production of either Addison's disease or myxœdema. The latter could be induced in animals and in man, by removal of the thyroid gland; and Tizzoni's recent experiments showed that pigmentation occurred in rabbits after destruction of the adrenals. The essential point in both cases seemed to be that the lesion must be destructive. It was probable that the sympathetic was also at fault in the Addison's disease. The rich supply of nerve-fibres to the semilunar ganglia suggested that there was a relation between them and the sympathetic. Destructive disease of the adrenals must involve the nerve-fibres which entered them. There might be a supplementary relation between the two, or the suprarenals might exert a controlling or moderating influence over the sympathetic. An account of a case under the care of Dr. Cayley was given by Dr. KINGSTON FOWLER. The patient was a woman, aged 26. Her symptoms had begun three years earlier with an attack of syncope and vomiting; she subsequently had numerous attacks of this kind. The pigmentation was fairly marked. The woman died in one of the syncopal attacks. At the necropsy, the right adrenal body was found to be calcified and contracted; it contained a caseous nodule. The left adrenal was very much contracted. He suggested that in Dr. Saundby's case, Addison's disease was combined with the peculiar diathesis which was present in the family; he asked what were the naked eye and microscopical appearances of the spleen.—Dr. WILKS thought that the extreme atrophy of the adrenals was confirmatory of the theory that Addison's disease was dependent on disease of those bodies. The disease was an intrinsic disease, a slow integral change analogous to cirrhosis of the kidney or liver, and attended by a cell-growth belonging to the inflammatory type. At first the organ was enlarged; the adrenal bodies might be seen in the early stage very large; but subsequently contraction occurred; the adrenals were not vital organs as were the liver or kidneys, and therefore the atrophy proceeded to a greater extreme before death ensued. The fact of the organs being atrophied was therefore confirmatory of the accepted doctrine with regard to the causation of Addison's disease.—Dr. HALE WHITE observed that the inflammatory change seen in the semilunar ganglia was clearly not an essential part of Addison's disease, since it was not constantly present, and might be seen in cases where there had been no symptons of Addison's disease.—Mr. VICTOR HORSLEY thought that there was no evidence in support of the theory that Addison's disease was due to lesion of the sympathetic system.—The PRESIDENT said that the specimen shown to the Society went a long way to prove that the view which had been held that Addison's disease was due only to tubercular disease of the adrenal bodies was incorrect. The fact appeared to be that the symptoms of that disease might be produced by any destructive lesion of those bodies; the specimens further seemed to tend to show that the suprarenal glands had some definite function to perform, and that the suspension of that function by destruction of the glands led to systemic disturbances. This he understood to be Dr. Wilks's view.—Dr. WILKS explained that he held that in Addison's disease a total destruction of the organ was brought about by integral disease, and that the symptoms were due to this integral disease. Adventitious growths, therefore, though involving the adrenal bodies, would not lead to the symptoms of the disease.—Dr. SAUNDBY said the spleen, in his case, was dark purple, soft and pulpy on section. Microscopic section showed only some scattered pigment. In the capsules, microscopical examination showed only atrophy without inflammatory changes or fibro-nuclear growth.

Impaction of Calculus.—A specimen of calculus impacted in the ureter was shown by Dr. CULLINGWORTH. Ten months before admission into St. Mary's Hospital for Women and Children, Manchester, the woman had had an attack of pain in the back and right side. She stated that the urine then contained a sediment, which was probably pus. When admitted, the quantity of pus in the urine amounted to half, and there was an abdominal tumour. The case was supposed to be one of pyonephrosis. Abdominal section was performed. The right ureter was found to be enormously enlarged, and the pelvis was also greatly dilated. A large calculus was found impacted in the ureter, close above the bladder; the calculus was removed. The patient died three days after the operation. The left kidney was also riddled with abscesses, and at the lower end of the ureter was another and still larger calculus, which completely blocked the ureter.

Card-Specimens.—Dr. GOODHART: 1. Case of Phosphorus-Poisoning. 2. (For Dr. BEAVEN RAKE, of Trinidad) Leprosy. *a.* Anæsthetic Leprosy of Hand. *b.* Tubercular Leprosy of Larynx. *c.* Tubercular Leprosy of Tongue and Larynx.—Dr. BURNET: Primary Melanotic Sarcoma of Liver.—Mr. MAKINS: Primary Carcinoma of Tibia.—Dr. SHARKEY: 1. Impaction of Coin in Œsophagus for twenty months. 2. Aneurysm of Heart. 3. Multiple Epithelial Growths in Œsophagus.—Mr. POLAND: Visceral Epithelial Growths after Epithelioma of Tongue.—Dr. CHAFFEY: 1. Multiple Sarcoma in a Child. 2. Lympho-sarcoma of Bladder.—Mr. J. BLAND SUTTON: Difficult Labour in a Ricketty Monkey.—Mr. J. HUTCHINSON, jun.: Two Cases of Epithelioma of Hand.—Mr. LANE: 1. Bony Process from Humerus. 2. Displacement of Foot. 3. Fracture of Pelvis.—Mr. GEORGE LAWSON: Secondary Glioma after Removal of Both Eyes.—Dr. BARLING: 1. Round-Celled Sarcoma of Peroneus Longus. 2. Alveolar Sarcoma of Triceps.—Dr. HALE WHITE: 1. Perforating Intestinal Ulceration. 2. Typhlitis and Intestinal Strangulation from a Grain of Corn.—Dr. TURNER: Aneurysm of Aorta Communicating with Superior Vena Cava.—Mr. SHATTOCK: Hernia into the Forsa-Duodeno-Jejunalis in a Child.—Mr. F. B. JESSETT: Carcinoma of Lower Jaw.—Dr. HEBB: Melanotic Sarcoma.

Living Specimens.—Dr. DAWTREY DEWITT: Persistent Bronchial Fissure in a Child.—Mr. A. E. BARKER: Gangrene of Fingers, possibly due to Syphilitic Arteritis.

This concluded the business of the session.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, MAY 14TH, 1885.

JONATHAN HUTCHINSON, F.R.S., F.R.C.S., President, in the Chair.

Prevention of Ophthalmia Neonatorum.—The PRESIDENT announce that Mr. George Russell, M.P., on the part of the Local Government Board, would receive a deputation on May 15th, in order to learn the views of the Society on the subject of the prevention of blindness from ophthalmia neonatorum.

Rupture of Eyeball.—Mr. W. H. JESSOP showed a child, aged 8, who had suffered a compound rupture of the eyeball in February. The chief interest of the case was the rapid and complete recovery with useful vision.—In reply to Mr. NETTLESHIP, who observed that there was no trace of a scar, Mr. Jessop said that the rupture in the sclerotic was only about three or four lines in length, but that the conjunctival tear was large, and needed three sutures.

Symmetrical Coloboma.—Mr. W. H. JESSOP also showed a case of posterior coloboma of the choroid in both eyes on the temporal side of the disc. The lens, on both sides, contained striæ.

Tumour of Ciliary Region.—Mr. M. MCHARDY showed a woman, aged 54, who presented a small globular dark red tumour in the ciliary region in the outer segment; a larger growth of the same character had been removed in July, 1884.

Fat in Upper Eyelids.—Mr. M. MCHARDY showed a girl, aged 16,

in whom there was a great development of fat in the upper eyelids, causing much deformity. He had excised an elliptical piece of the upper lid, and a large mass of adipose tissue; this afforded some relief.—In reply to Mr. NETTLESHIP, Mr. McHardy said that, to the best of his belief, the fat lay above the orbicularis, and was, therefore, not intra-orbital.

On the Condition of the Ciliary Nerves in certain Diseases of the Eye.—Dr. W. A. BRAILEY read a paper founded on examination in ninety cases of the long ciliary nerves, usually of both the inner and outer sides, by sections taken at right angles to their course in the sclerotic. Being cases of excision for disease, the morbid process had been in every case severe, and, in most, of considerable standing. In primary glaucoma (thirteen cases) the nerve was, in some cases, perfectly normal, but, in about 22 per cent., there were indications of neuritis, the changes being, however, usually so slight as not to be incontestable. In a larger proportion (50 per cent.) the nerves were swollen, their axis-cylinders being large and indistinct, or not visible at all. It was observable also that the average size of these nerves in eyes with glaucoma, whether primary or secondary, was considerably (almost 50 per cent.) beyond that associated with normal tension. This enlargement was probably due to swelling of the nerve-fibrils, as it was found even where the microscopical structure appeared quite normal. It produced considerable absorption of the sclerotic through which the nerve passed; so that this condition was indicated, especially in the case of the nerve of the inner side, by a wide dark bluish streak, corresponding to the course of the nerve. In eyes exciting sympathetic disease, the nerve itself was usually normal in structure, though it might show slight traces of neuritis; but inflammation round the artery and nerve, more marked round the former, was found in the great majority of cases (85 per cent.). In the sympathetically affected eye it was also found, though not quite so commonly (66 per cent.); three cases of sympathetically produced inflammation, however, were examined. In uveitis serosa, independent, however, of any relation to sympathetic disease, inflammation round the artery and nerve also occurred, spreading evidently from the former to the latter. In the five well marked cases of suppurative panophthalmitis that had been examined, the condition was similar to that found in the eyes exciting sympathetic disease, except that the inflammation around the artery and nerve was well marked in every case. In other conditions, such as iritis and irido-choroiditis of various origin, the condition varied, inflammation in and around the artery and nerve being occasionally found, though far more often absent. In a case of non-suppurative iritis occurring after an iridectomy preliminary to cataract-extraction, and in another, with changes like those of progressive myopia, that is, disseminated choroiditis at the posterior pole and posterior staphyloma after leucoma adhærens, there was, round the artery, much inflammation, which had extended into the corresponding half of the nerve. It was inferred, from the above observations, that inflammation of the ciliary nerves was not the means by which sympathetic disease was transmitted; also that inflammation round the nerves and their companion arteries was equally ineffective in this sense, as it occurred at least as strikingly and as commonly in suppurating eyes. The corneal anæsthesia found in absolute glaucoma was explained by the degeneration of the elements of the nerve, which, together with the other changes noted in this disease, appeared to be secondary to the mechanical pressure upon them.—Mr. NETTLESHIP observed that Dr. De Wecker had argued that the fact that serous iritis affected both eyes, was the best evidence that sympathetic inflammation travelled along the optic nerves, from one eye to the other. He also asked whether in episcleritis there was any transmission of the inflammatory action back to the optic nerve.—Dr. BRAILEY replied that he quoted serous iritis merely because it was generally considered in this country not to be due to sympathetic action; he had never noticed that the disc had become involved as a sequence of episcleritis.

Disappearance of Diabetic Cataract.—Mr. NETTLESHIP said that his attention had been especially directed to the fact that diabetic cataract occasionally disappeared, by a paper by Dr. Tannahill, published in the BRITISH MEDICAL JOURNAL, January 31st, 1885, page 226. The spontaneous disappearance of opacity, not absorption of an opaque lens, was an extremely rare event; only two other cases were on record, both by Seegen. The first case was a man, aged 39. When he came under observation, about six months after symptoms of diabetes had been first noticed, he was much emaciated, and the lens in both eyes was cataractous. Under treatment at Carlsbad, the quantity of urine diminished, and, simultaneously, the crystalline lens cleared, and vision improved. The quantity of sugar did not diminish. The improvement in the patient's general condition did not last long, and the lenticular opacity also recurred before death. The second case observed by Seegen was a woman, aged 55; her sight had been so bad that she could not read, but under treatment the lens gradually cleared, and sight was reobtained. The cases supported the theory that the opacity of the lens was due either to the presence of sugar in the lens, or to the absorption of water from the lens.—The PRESIDENT said that congenital cataract in young rabbits sometimes cleared up.

Nævus of Choroid.—Mr. J. B. LAWFORD showed microscopic specimens from a case of nævus of the choroid. The patient, a child, aged 8, was brought to the hospital on account of pain in the left eye following a blow. The mother did not know how long the eye had been blind. There was a capillary nævus of the left side of the face from the forehead to the chin. There were no nævi elsewhere. The left eyelids were involved, and presented a slightly puffy appearance. The right eye was normal; the left eye and ocular conjunctiva were normal; the lens was opaque and yellow. The eye had no perception of light; T = + 2; the left eye was excised. On examination, after removal, the choroid surrounding the optic disc, and for a distance of 5 millimètres to 7 millimètres from its margin, was thickened (5 millimètres to 1 millimètre), and spongy in appearance. Under the microscope, this area was seen to be channelled throughout with vascular spaces of varying size, whose walls were formed only by the choroidal tissue. A few dilated capillaries were also visible. Beyond the limits of the nævus the choroid was normal. There was an infundibular detachment of the retina. The lens was shrunken, and its fibres much disorganised. The iris was atrophied, and adherent to the cornea at the periphery.

Recurrent Paralysis of Third Nerve, associated with Migraine.—Mr. SIMEON SNELL related the case of a little girl, aged 8, who first came under observation in November, 1883. There was then complete ptosis on the left side, with divergence of the eye and general paralysis of the third nerve; the fundus oculi was normal; refraction was hypermetropic, about 1.5 D. It was ascertained that she had had a failing of the left eye since cutting her "eye-teeth" at 18 months; since that time she had suffered from attacks of pain in the head, and sickness, and at these periods the eye had closed; and, after the subsidence of the other symptoms, it commenced to open, but only very gradually again became widely open. These attacks had recurred about every six months. The severe part of one of these illnesses had just passed when she was first seen. Another attack came on in July, 1884, and the eye-affection gradually passed away, as it had done before. On January 20th, 1885, she appeared at the infirmary with commencing drooping of the eyelid; it had begun the day before. Next day the condition was characteristic of migraine, the pain being confined chiefly to the left side, and over the left eyebrow. Ptosis was complete, as was the palsy of other muscles supplied by the third nerve; the pupil was a little dilated, and did not act to light or accommodation. Recovery gradually took place in the eye-symptoms. On April 30th, the eye was fairly wide open, but not quite so widely as on the sound side; there was divergence, but, on effort, a good deal of power of convergence; movements upwards and downwards were extremely slight. The left pupil was about the same size as right; it acted very slightly to light or accommodation. Vision (corrected) = $\frac{10}{200}$, and Jäger 16. There was a distinct neurotic history on both parents' side. Reference was made to the two similar cases described by Dr. Saundby, and also to one, mentioned by Dr. Buzzard in his *Clinical Lectures on Diseases of the Nervous System*, associated with facial tic.—Mr. ERNEST CLARKE said that he had under his care a similar case. The patient was a boy aged 12; he had attacks of migraine, accompanied by a paralytic affection of the third nerve on the left side; the attacks were marked by severe vomiting, constipation, brow-ague on the left side, and dimness of sight immediately after the attack; the left pupil was dilated, and there was extreme external strabismus, and slight ptosis; in three days, the ptosis disappeared, but the dilatation of the pupil lasted three weeks. The attacks occurred every six weeks.—Dr. ORMEROD quoted the case of an elderly woman who gradually developed paralysis of the left third nerve without any symptoms of migraine; the symptoms disappeared in about three months. She had suffered from one previous attack. The pupils acted in accommodation, but not to light; the knee-jerk was present on both sides. He quoted a case resembling Mr. Snell's, recorded by Thomsen of Berlin.—Dr. C. E. BEEVOR had seen Dr. Buzzard's case, which, however, was only under observation during one attack.

Reflex Ophthalmitis.—Mr. JONATHAN HUTCHINSON said that, when he was preparing his lectures at the Royal College of Surgeons, he had supposed that "reflex ophthalmitis" was an example of inflammation excited by reflex action. From a further consideration of the facts, he had subsequently come to the conclusion that the nerves were directly involved; he held that there was much probability that all

forms of inflammation could so contaminate the blood as to lead to a condition of that fluid which could, owing to the existence of a selective affinity, set up similar changes in tissues of the same nature as those primarily affected. In multiple periostitis, which might follow on injury to a single bone, it appeared probable that the bones subsequently affected suffered as a secondary consequence of the changes set up in the bone injured. The most plausible explanation of such an occurrence was that some elements, whether tissue-elements or bacteria was a matter of indifference, were shed into the blood; the operation of selective affinity led to the affection of the same bones on the other side. The application of these facts to diseases of the eye was obvious. The wandering elements, shed into the blood from the eye in a condition of inflammation secondary to some injury, found themselves under similar conditions in the other eye, and were then able to set up similar changes in analogous tissues. He had believed that this speculation was original, until Mr. Nettleship had pointed out to him, a few hours earlier, that Berlin had published, in Volkmann's *Archiv* in 1880, a closely similar theory, only differing from the one now put forward in that Berlin assumed the existence, *ex necessitate*, of a bacterial poison.

The ordinary time for adjournment being already passed, the discussion of this paper was postponed.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, MAY 7TH, 1885.

THOMAS MORTON, M.D., President, in the Chair.

A Case of Porro's Operation.—Dr. M. HANDFIELD JONES read the notes of a case in which he had performed Porro's operation. The patient, a single woman, aged 30, had come to him complaining of a lump in her abdomen. About four months previously, she had had an acute attack of pelvic pain, following violent exertion, and accompanied with constipation and great frequency of micturition. Since the attack, her courses had stopped, constipation had been very troublesome, and the general health had deteriorated. Physical examination revealed the existence of pregnancy, complicated by a large fibroid tumour impacted in the pelvis, and leaving only a small chink between its anterior surface and the symphysis pubis. At the time of labour, it had been found possible to dislodge the tumour under an anæsthetic to such a degree that the performance of craniotomy was deemed advisable; this, however, failing, the abdomen was opened, and the child removed by uterine incision; then the tumour, being freed from adhesions which bound it to the pelvic wall, was raised out of the pelvis, and removed with the uterus. The patient rallied well from the operation, but succumbed on the third day from peritonitis.

Electrical Diagnosis in Nervous Diseases.—Dr. DE WATTEVILLE, after showing some of the recent improvements effected in electro-therapeutical instruments, spoke of the method of conducting an investigation of the reactions of nerves and muscles. He then commented on the phenomena observed in various forms of facial paralysis. Ordinary facial paralysis from "cold" offered three types of intensity; and an accurate prognosis might often be based upon the results of an electrical investigation, and recovery might be predicted within one, two, or six months respectively. He then explained the relationships between the "reaction of degeneration" and the morbid changes in the nerves and muscles, and he pointed out how the latter depended upon an interference with the "trophic" influence of the motor nuclei. The division of paralyses into "cerebral" and "spinal" (Marshall Hall) was of value if these terms denoted the fact that, in some, the muscles were cut off from the brain-influence only, while in the others, the spinal (trophic) influence was also cut off. Progressive muscular atrophy, poliomyelitis, and "wrist-drop" from lead, or from pressure on the musculo-spinal nerve, were briefly alluded to, as offering many opportunities for clearing up doubtful points, and framing a prognosis by means of an accurate investigation of the behaviour of nerves and muscles to faradism and to galvanism.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, MAY 1ST, 1885.

F. LAWRANCE, M.R.C.S., President, in the Chair.

Digestive Ferments.—Mr. E. BURROWS gave a demonstration on the various digestive ferments, especially trypsin and vegetable and animal diastase, and illustrated it by numerous experiments. He first added some extractum pancreatis (Fairchild), supplied by Messrs. Burroughs, Wellcome, and Co., to milk, and in a few minutes he showed that no casein was precipitated on the addition of hydrochloric acid, it having been converted into peptone. Specimens of peptonised milk were handed round, which had no bitter taste whatever, and also some peptonised beef-tea, where the proteid constituents had been converted into peptones by the action of the trypsin ferment of the extractum pancreatis. Mr. Burrows then showed, in the usual way, how rapidly the pancreatic diastase in the same extract converted starch into glucose, and the intermediate products of digestion; and the same action was shown to take place with the Kepler extract of malt. Some delicious foods, as jellies prepared with peptonised milk and fruit-juices, were distributed for the members to taste. For general use, in peptonising milk, the powders contained in glass-tubes were recommended, each containing five grains of extractum pancreatis and fifteen grains of soda-bicarbonate, the quantity required to digest a pint of milk in twenty minutes. Half a drachm of the extract of pancreatis and twenty grains of soda would digest a quarter of a pound of raw meat, according to directions, in three hours. The "tabloids," each containing three grains of the pancreatic extract, were very useful for direct administration, as also the pepsine tablets, containing a grain each of pure pepsine in scales.

Latent Vesical Calculus.—Dr. FENWICK read a paper on this subject. He pointed out that stone in the bladder was frequently overlooked, because calculous symptoms were absent, owing to (1) anæsthesia of the mucous membrane of the bladder, well exemplified in a case mentioned in Deschamps's *Traité de la Taille*, vol. i, p. 166; or (2) mechanical causes preventing the stone from falling upon the sensitive neck of the bladder. These mechanical conditions were of three kinds: (1) adherence of the calculus to the walls of the bladder; (2) sacculation of the bladder-wall (both rare conditions); and (3) pouching of the *bas fond* of the bladder. He drew attention particularly to this last cause, which was generally supposed to be a condition inherent to old age, as a consequence of enlarged prostate, but which was produced by stricture of the urethra in the adult. It consisted in the hypertrophy of the muscles of the ureters, commonly known as the muscles of Ellis, which crossed the base of the trigone from ureter to ureter; the *bas fond* pouched behind this ridge or bar, and the small pool of stagnant urine which collected there, tended to produce or augment the size of a stone. This ridge was as able to prevent the stone contained in a pouch from falling on the neck of the bladder, as was an enlarged third lobe of a prostate. A case illustrating the latency of stone, due to this cause, was detailed, and the bladder, with the above mentioned ridge and pouch, exhibited. It had been removed from a man, aged 35, who had suffered for eighteen years from traumatic stricture, and had been under notice for the last nine months for chronic cystitis, stricture, and right-sided nephrosis. A month before his death, he exhibited symptoms of calculus, and was immediately sounded. A large stone was discovered, and removed at one sitting, weighing one and three-quarter ounces; he died fourteen days after the operation. Mr. Fenwick mentioned that four out of thirteen cases of calculus, which had passed through his hands during the last quarter, fell under the category of latent stone. In one of these four cases, a stone, weighing over a pound and a half, had been successfully removed by his colleague, Mr. Rivington.—A discussion followed, in which Mr. Swinford, Dr. Thudichum, Mr. Bruce Clarke, and Dr. Campbell Pope took part.

Cancer of the Prostate.—Mr. BRUCE CLARKE read the notes of a case. The patient was admitted with hæmaturia, which had come on since the passing of a catheter twenty-four hours previously. There was an enlarged mass in the region of the prostate, felt *per rectum*. There was no history of any previous illness, except that, for the last six weeks, he had had to get up two or three times at night to pass urine. Cystitis came on shortly after admission, and he was taught to pass a catheter. Pyæmia then set in. The cystitis became so severe that median lithotomy was performed, which relieved all the bladder-symptoms. A small nodule of the growth was removed, and proved to be carcinoma. The patient died on January 30th, comatose, from the bursting of an abscess in the medulla; but the bladder-symptoms never troubled him after the cystotomy was performed. A *post mortem* examination revealed cancer of the prostate, with secondary growths in liver and lungs. Mr. Clarke insisted upon the advantage of operating in these cases, and thus lessening the sufferings of the patient during the later stages of the disease.—An animated discussion followed, in which Mr. Edwards and others took part, as to the advisability of operation in such cases; and, in reply, Mr. Clarke pointed to the advantage of obtaining a rapid emptying of the bladder, and the prevention of decomposition. He did not believe that the operation shortened the life of the patient, while it gave him a vast amount of ease. He mentioned that the blood was uniformly mixed with the urine; there were no clots. The patient had not noticed anything until within two months of death, except a little frequency of micturition, and dis-

comfort in the perinæum. The patient had always led a regular life, and there was no history of cancer.

The Cavendish Lecture.—Notice was given that the Cavendish Lecture would be delivered by Dr. J. Syer Bristowe, on Hysteria and its Counterfeit Presentments, on June 5th, at 8 P.M.

Specimens.—Mr. PERCY DUNN showed specimens of Suppurating *ante mortem* Clots in Right Ventricle; of Abscess in the Brain of a Child aged 8; of primary Scirrhus of the Liver; and of Carcinomatous Disease of the Prostate and Base of the Bladder, where there was a fistulous opening communicating with a large abscess in the psoas muscle on the left side (an illustration of Mr. Bruce Clarke's case).

ACADEMY OF MEDICINE IN IRELAND: OBSTETRICAL SECTION.

FRIDAY, MARCH 10TH, 1885.

R. F. DILL, M.D., in the Chair.

Menstrual Decidua.—Dr. F. W. KIDD exhibited a very complete decidual cast of the uterus, obtained from a patient whose history did not point to pregnancy as a cause. The size of the cast was scarcely greater than that of a non-gravid uterus, and he was inclined to regard it as an unusually perfect menstrual decidua, which had been expelled entire.—Some discussion ensued as to the exact nature of the specimen, which, with the consent of Dr. Kidd, it was finally determined to refer to the Committee of Reference for examination.

Demonstration Speculum.—Dr. NEVILLE, Sectional Secretary, exhibited for Dr. H. Macnaughton Jones a new speculum, designed to show the cervix to a number of students in a class at the same time. The image of the cervix was thrown upon a good-sized mirror, so jointed on the speculum (a metallic Fergusson's) that it could be moved freely about in any direction.—Dr. MACAN and the CHAIRMAN both expressed their conviction that the instrument would achieve its objects, and prove very useful for teaching purposes.

Artificial Vesico-Vaginal Fistula for the Cure of Chronic Cystitis.—In the discussion that followed the reading of this paper by Dr. MACAN, Dr. ATTHILL considered many cases of chronic cystitis amongst the most intractable of diseases when treated by ordinary methods. He had frequently recommended the making of an artificial fistula in such cases, and looked upon this measure as the only one likely to end in cure when the cystitis had lasted for some time. His great difficulty was in persuading patients to undergo such an operation.—Dr. DOYLE believed that the credit of originating this plan of treatment was due to Sir H. Thompson.—Dr. NEVILLE said that, so far as he knew, the operation under discussion was first advocated and performed by Emmet, of New York. The operation was designed to give rest to an inflamed part, and was a practical application of the principles well enunciated by the late Mr. Hilton in his work on *Rest and Pain.*—Dr. FOY was under the impression that the operation had been done earlier than by Emmet or Sir H. Thompson.

Some Points in the Diagnosis of Pelvic Hæmatocele.—Dr. NEVILLE read this paper for Dr. W. J. Smyly. The discussion was postponed until the next meeting of the Section.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL SECTION.

FRIDAY, APRIL 24TH, 1885.

LAWSON TAIT, F.R.C.S., in the Chair.

Specimens.—The following were shown. Dr. SIMON showed a young man with Gumma of the Tongue, believed to be of hereditary origin.—Dr. SIMON showed a girl with Trophic Changes after Injury to the Ulnar Nerve.—Dr. SIMON showed a case of Keloid of recent Vaccine Scars.—Mr. BARTLEET showed a child with an enormous hairy Nævus from maternal influence.—Mr. JORDAN LLOYD showed a specimen of Intussusception from a child, who died twelve hours after abdominal section, undertaken in the hope of affording relief. Mr. Lloyd found it impossible to withdraw the invaginated portion, for reasons which he explained, and completed the operation by enterotomy.—Mr. LLOYD showed portions of an exfoliated skull, taken from a woman who had sustained a Bullet Wound of the Cranium.—Mr. PRIESTLEY SMITH showed various forms of Staphyloma; they were exhibited on a novel form of stand, which he had invented for purposes of demonstration.—Mr. GILBERT BARLING showed (1) a Round-celled Sarcoma of the Peroneus Longus; (2) Alveolar Sarcoma of the Triceps infecting the glands; (3) an Encapsuled Nævus from the Cheek.—Surgeon-Major BLACK exhibited photographs and plans of the new City Hospital at Antwerp.—Dr. COULSON BULL showed specimens of Bilharzia Hæmatobia.—Dr. COULSON BULL showed, for Dr. Simon, a case of Progressive Muscular Atrophy.—Mr. BENNETT MAY showed a man whose Elbow he had Excised five months previously, the objec being to illustrate the importance of retaining the aponeurotic expansion of the triceps muscle. The man had excellent power of extension.—Mr. JORDAN LLOYD showed an Exostosis of the Head of the Tibia, which he had removed by operation.

Lumbar Nephrectomy.—Mr. JORDAN LLOYD showed a man, aged 27, who for nineteen years had suffered from attacks of pain in the right lumbar and hypochondriac regions, associated with vomiting, pus and blood in the urine. He had been treated at various times for cystitis, stone in the bladder, albuminuria, and stone in the kidney. He had been aware for some time of a tumour in the right side of the belly, which enlarged with his painful attacks, and disappeared with their subsidence. Nephrectomy, performed by Mr. Lloyd six weeks beforehand, had failed, and had been followed by pyæmic symptoms.

Saccular Dilatation of the Urethra.—Mr. LAWSON TAIT read a paper on saccular dilatation of the urethra, which was published in the JOURNAL of May 16th.

Axillary Aneurysm: Ligature of Subclavian Artery.—Mr. BENNETT MAY read a paper on ligature of the subclavian artery for axillary aneurysm, based on a case in which he had performed the operation.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, APRIL 10TH, 1885.

J. B. BRADBURY, M.D., President, in the Chair.

Recovery after Severe Injury to the Head with Symptoms of Fractured Base.—Dr. GROVE (St. Ives) said he was summoned on November 3rd to the wife of a farmer, who had met with an accident. She was 40 years old, always healthy and temperate. She had returned home an hour previously from marketing, and had driven the pony-carriage round to the yard, but fell in getting out. She was found with her head lying on the stone step in a pool of blood, which was running out of the right ear. She was insensible, and vomited soon after being removed into the house. When seen, she was almost unconscious, but answered in monosyllables when spoken to loudly. The right meatus was filled with blood, which trickled out. She was placed in bed, and cold was applied to the head. There was no sign of injury to the scalp, the pupils answered sluggishly to light, and the pulse was slow—about 60. The next day she was more conscious; she had vomited several times during the night. The right side of the face was swollen and bruised, and she complained of pain in the head; blood mixed with serum was flowing from the ear. The head was shaved, ice applied, and five grains of calomel given. The third day she was better; slept more quietly; pulse 96; bowels relieved. On the fourth day, on lifting the eyelid of the right eye, blood was seen freely effused under the conjunctiva, and the day after there was evidently some paralysis of the right side of the face, with diplopia and indistinct vision of the right eye, loss of sensation on that side of the face, and complete deafness with the right ear; any movement of the head caused great pain. She was fed on milk for about a month, and the bowels were kept well open. In six weeks, she was able to walk into another room. Her condition about four months after the accident was as follows. She was quite deaf with the right ear; taste was impaired on the right side of the tongue; and the sensation on the right side of the head and face was diminished; the sight also of the right eye was not so good as the left, but there was no diplopia now.

Temporal Bone of a Suicide, with Bullet-wounds.—Dr. EARLE (Melbourn) gave the following account. In February 1884, he was sent for to see a man who had shot himself in the right ear. A bullet could be felt with the probe, deep in the ear, but could not be extracted. He was then unconscious, but he partly regained consciousness during the next few days. On the seventh day, there was copious discharge from the left eye; on the tenth day, the right eye also became involved, and there was ulceration of the cornea of the left. There was also slight facial paralysis. On the fifteenth day he died, and the *post mortem* examination revealed the presence of two bullets; one was found embedded in the mastoid process of the temporal bone, the other was found at the junction of the squamous and petrous portions of the temporal bone with the great wing of the sphenoid. The inner table of the skull was raised up, and over this the dura mater and pia mater were blackened to about the size of a sixpence; above this there was an abscess in the cerebral substance, containing about a drachm of pus. It seemed remarkable that the man could have discharged two chambers of his revolver with such unerring aim as not to injure the external ear.

Aneurysm of Arch of Aorta.—Dr. EARLE showed this specimen, which he had removed from a middle-aged man who died suddenly.

He had been a patient at Addenbrooke's Hospital under Mr. Laurence Humphry, with symptoms indicating a tumour pressing on the œsophagus; but there were no definite physical signs. The aneurysm was in the third part of the arch of the aorta, and had ruptured into the œsophagus by a small ragged orifice.

Pendulous Growth from Labium Majus.—Mr. POLLOCK exhibited for Mr. Wherry a large fibrous growth removed from the labium of a woman with the *écraseur*.

Rupture of Liver.—Mr. POLLOCK showed a specimen removed from a man who had been squeezed between the buffer of a truck and a cart. There was a large rent on the anterior surface of the liver. Death occurred in about three hours.

Sarcoma of Ovaries.—Dr. BRADBURY read the case of a woman, aged 38, single, and showed the specimen. Her illness began in April, 1884, when the monthly periods ceased; she had always been regular before. She was admitted to hospital on March 7th, 1885, and died on March 25th. The *post mortem* examination showed much ascites. In the right iliac region was found a large, irregularly nodulated, hard tumour, pushing the intestines aside, and pressing the uterus downwards and to the left side. It was not adherent to surrounding parts, and was evidently growing in the right ovary. The left ovary was the seat of a similar smaller tumour. The uterus was healthy. The peritoneum, especially that covering the under surface of the diaphragm, and the mesentery, were studded with hard flattened nodules of small size; similar nodules were found covering the left pleura and lung, and there was much clear fluid in both pleural cavities. The mesenteric glands were hard and firm with the same fibrous structure; and growing from the side of the tenth dorsal vertebra was a small nodule of a similar character. The ovarian tumours were quite solid, and contained no cysts, having a white fibrous structure on section. A microscopic examination of the ovarian tumours and secondary nodules was made by Mr. Francis. Beneath the outer white glistening capsule was a zone of varying thickness, corresponding, apparently, to the tunica albuginea of the normal ovary, consisting of lamellæ formed by fasciculi of large spindle-shaped cells. From this zone, septa descended into the bulk of the tumour, dividing it into larger and smaller lobules, and finally became lost by blending with the deeper substance. The lobules were good examples of the mixed-celled sarcoma, and some contained remains, apparently, of small Graafian follicles. All the secondary growths examined proved to be mixed-celled sarcomata. A direct connection between the pleural and peritoneal growths was seen in the diaphragm, where clusters of sarcoma-cells stretched along the lymph-spaces between the tendons and muscle-bundles, and connected the serous sacs.

REVIEWS AND NOTICES.

TWENTIETH ANNUAL REPORT OF THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA. 1883.

SURGEON-GENERAL CUNNINGHAM, in a note prefixed to this Report, informs us that this is the last with which he will be concerned.

Although we have, on more than one occasion, had to express our disagreement with the Sanitary Commissioner, on the doctrine he has from time to time put forth on the propagation of cholera, we are none the less glad of the opportunity afforded us, in reviewing this, his last Sanitary Report, to bear witness to his zeal and industry in, year after year, preparing for publication the immense mass of information on the important health-questions with which it has been his duty to deal. His position, as sanitary adviser of the Government of India, has been one of great difficulty and responsibility. It is given to no one to fulfil the impossible task of pleasing everyone; but, although Dr. Cunningham has had to face much hostile criticism, we are sure those who differed from him on theoretical and practical questions, will gladly bear testimony to his diligence, earnestness of purpose, and candour in the discharge of his duties, and join us in wishing him health and happiness in his well earned retirement.

The Report, as usual, opens with an elaborate account of the meteorology of the year, contributed by Mr. H. F. Blanford, Meteorological Reporter to the Government of India. A summary of the meteorological phenomena of the year, month by month, is given, to which we must refer our readers who are interested in climatic questions, our space not admitting of an abridgement likely to satisfy meteorologists.

Dr. Cunningham has been fortunate in being able, in this his last Report, to give a highly favourable account of the health of the army of India. The admission and death-rates for 1883 were lower than those of any previous years from 1870, with the exception of the daily average sick-rate, which was slightly in excess of that for 1870, although less than for the previous year. The death-rate for 1883 was 10.88, "the lowest on record since 1870, when it equalled 21.11." Professor Maclean, in his farewell address at Netley, at the end of the winter term, thus referred to this gratifying diminution of mortality. "To bring about such an enormous saving of life, many factors have contributed. They have all been much insisted on, not only by me, but also by my colleague, the Professor of Hygiene, whose province it is to deal with general health-questions." After referring to the "ameliorations in the life and surroundings of the British soldier in India, embraced in the comprehensive term 'Sanitary Reform,'" Dr. Maclean claimed for the medical officers of the army a share in the good work, in the following words. "After the largest possible allowance has been made for the beneficent operation of the means referred to, a share in the splendid results may reasonably be claimed for the successful treatment of disease. Notwithstanding the great sanitary improvements that have taken place, a vast amount of disease of the gravest kind remained to be dealt with by the medical officers of the army, for the most part trained in this School (Army Medical). Unless treatment had, to a large extent, kept pace with sanitation, the results we contemplate with so much satisfaction, could not have been obtained." We think the claim thus formulated is just, and should be better acknowledged than has hitherto been the case.

The loss to the army from invaliding was 33 per mille. In the Bengal army, the death-rate was 11.21, "the lowest on record." The mortality from cholera was exceptionally low, 0.94 per mille; this, however, was not the lowest on record, "for the rate in 1870 was only 0.63; and in 1871, 0.71; in 1873, 0.90; in 1874, 0.21; and in 1877, 0.44."

We have already, in our notice of the vital statistics of the European army of Madras, shown that the death-rate for the year under notice was very favourable, namely, 10.19—a result almost identical with that of 1880, when it was 10.18, the lowest on record. There was a cholera-mortality of 0.95, which, if deducted, would leave the ratio 9.24. The loss by invaliding was 33 per mille, which is noted as having been higher than of late years.

In the Bombay European army, the admission-rate was the lowest on record, namely, 1.249. The total mortality from all causes was 10.50, being in excess by a fraction of that of the preceding year (10.37), due to cholera-mortality. If the deaths due to this disease be deducted, the mortality from all other causes would stand at 9.68, the lowest on record.

Turning to the chief causes of admission into hospital in the three presidencies, we find that, as usual, malarial fevers gave rise to the largest number of admissions, although in all three there was a diminution. Venereal diseases gave, in Madras, an admission-rate of 289; in Bombay, 218; in Bengal, 281. In all the three presidencies, it is noted that there was an increase under this head. Respiratory diseases gave rise to 88 per mille in Bengal, 41 in Madras, 27 in Bombay. In all the presidencies, the admissions from diarrhœa were less than the averages for 1870 to 1879. Dysentery, and its common sequel, suppurative inflammation of the liver, were, as usual, more prevalent in Madras than in the other presidencies; although the mortality from the former was strikingly small, 3 deaths in 500 cases—a fact which Professor Maclean, in the address already referred to, uses in illustration of his remarks on the successful treatment of tropical disease. Sir Anthony Home, Surgeon-General of British Troops in India, has, in a very pointed way, more than once called attention to the scorbutic diathesis often observed as a sequel of malarial fevers both among natives of India and British soldiers, and to the fact that he has noticed this condition not unfrequently among considerable numbers of men in the ranks.

The Sanitary Commissioner dwells on the fact that enteric fever again heads the list of the chief causes of death in all three presidencies. The highest ratio under this head was in the Madras Presidency, 2.86; in Bengal, it was 2.52; in Bombay, 1.55. The Sanitary Commissioner points once more to the fact that, although enteric fever has been added as a new form of fever to the nomenclature of Indian diseases, no increase in the mortality of fevers as a whole has resulted; and that, while the mortality from enteric fever has of late years gradually increased, the mortality from other fevers has almost correspondingly diminished. In other words, fatal cases of enteric fever were frequently entered under the head of one or other of the forms of malarial fever.

Here we must pause; but we hope, when we receive the promised copy of Dr. Cunningham's paper with the title "Cholera, what can the State do to Prevent it?" to notice it with all the care that this important question demands.

SURGICAL DELUSIONS AND FOLLIES. A Revision of the Address in Surgery for 1884 of the Medical Society of the State of Pennsylvania. By J. B. ROBERTS, A.M., M.D., Professor of Anatomy and Surgery in the Philadelphia Polyclinic, Surgeon to St. Mary's Hospital. Philadelphia: Blakiston, Son & Co.

IN dimensions, rather a pocket-book than a manual, *Surgical Delusions* is nevertheless a production which merits some consideration, for its contents are of more value than those of many larger treatises. In subject it bears a relation to some of Sir James Paget's *Clinical Lectures and Essays;* and, although inferior in literary style and power of generalisation to those justly renowned discourses, it is most comprehensive in matters of detail. It contains much that might call for adverse criticism, yet few can deny that the delusions and follies which Dr. ROBERTS deprecates, should be held up to every student and surgeon as things to be avoided. The principal delusions to which he turns the reader's attention are: the abuse of styptics, the unnecessary fear of small hæmorrhages; operative delay in strangulated hernia, in acute phlegmonous inflammation, and in removable malignant tumours; the alleged necessary fatality of traumatic tetanus and consequent neglect of therapeutic measures; the fatality of pericardial and cardiac wounds; non-interference with inflamed synovial membranes; the fatality of peritoneal wounds; the uselessness of treating vicious unions of fractures; primary bandage to fractured limbs; prolonged confinement for fractures of the tibia, fibula and radius; early ligation of arterial trunks in continuity for primary or secondary hæmorrhage; and the hopelessness of malignant rectal disease. Under the general heading of "other delusions," he rightly includes the belief that hypermetropia and hypermetropic astigmatism can be properly estimated and corrected without paralysing the accommodation. All the "delusions" above noted are made the subject of short but useful observations. Dr. Roberts is a great opponent of chloroform, and a supporter of early trephining, which is "often an exploratory operation; and, as such, is demanded with much greater frequency than is generally supposed." He believes that the lower extremities are, as a rule, of unequal length, and therefore places "no reliance whatever upon measurements of the length of legs to determine the existence or the degree of shortening after fractures of the femur."

Under the category of "Follies," Dr. Roberts includes: the belief that certain patients cannot be etherised, but require chloroform; the use of complicated inhalers; the employment of the old-fashioned tourniquet, instead of Esmarch's apparatus, in amputations; cramped cutaneous incisions in operations; the exclusive use of silver wire for sutures; enveloping stumps in strapping; the abuse of the aspirator, and the drainage-tube; the employment of nitrate of silver to destroy a virus; the application of lead-lotion with laudanum to contusions; and the administration of insufficient doses of active medicines. The author prefers towels to sponges. "Perfectly clean surgical sponges are the exception, but clean household towels are the rule." The latter part of the statement is open to criticism. Japanese paper napkins, which he extols, are certainly very useful in operations where there is not much hæmorrhage nor serious oozing. Still, it is more in what he condemns than in what he recommends that we are in accord with Dr. Roberts, who has succeeded in producing a publication of great originality and decided merit.

NOTES ON BOOKS.

Proceedings of the Society for the Study and Cure of Inebriety. London: H. K. Lewis. April, 1885.—The current number, which is the fourth now issued, contains an interesting, though debateable, article by Dr. T. D. Crothers, of Hartford, U.S.A., on "The Incipient Stages of Inebriety." The description of the rise and progress of dipsomania is graphic, and, in many instances, accurate. There is, however, too great an effort to make inebriety a purely diseased condition, and to treat it as a pathological state, as little under the individual's control as is enteric fever or epilepsy. The statements that "the moderate drinkers who do not become chronic inebriates are rare exceptions," and that "the history of the moderate drinker reflects nearly all the manias, delusions, and degenerations of the chronic inebriate," are to be regretted, and we observe with pleasure, from the report of the discussion which followed, that the president and other members expressed their dissent. The annual address of the president is also given. He dwells on the steadily increasing recognition of the disease-aspect of habitual inebriety, which, while not ignoring the moral aspect, he classes as a disease allied to insanity. He also enforces the claim of the diseased inebriate to be treated in special institutions for the treatment of inebriety. The account of the past year's work affords a favourable augury of a successful and useful career.

Rules and Directions for Nurses at the General Lying-in Hospital, York Road, Lambeth.—The preface to this pamphlet contains the information that it forms a summary of the details of the nursing at the General Lying-in Hospital, York Road, Lambeth, drawn up for the authors, Drs. John Williams and Champneys, by the house-physician, Dr. Robert Boxall. In the same preface, great stress is laid on the prevention of puerperal fever, and the value of antiseptics in midwifery. The rules are expressed in clear and simple language. Those which refer to the treatment of the child, and to morbid appearances in still-born children, especially deserve notice, and the rules for the preparation of simple antiseptic lotions are of high value. Under the head of perchloride of mercury, the authors have not failed to note that soap decomposes that salt, so as to destroy its antiseptic properties, so that the hands must be thoroughly rinsed, if soap have been recently applied to them, before they are soaked in a perchloride solution. This rule is perhaps occasionally overlooked.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE FOOD PREPARATIONS OF THE LONDON MANUFACTURING COMPANY.

THE London Manufacturing Company, Hatton Garden, have submitted to us a series of their preparations, including essence of beef, concentrated beef-tea, and invalid-soups. The very look of these preparations characterises them as being made with the utmost care. The beef-tea is as bright and clear as calf's-foot jelly; the concentrated beef-tea of a light golden colour, not of that colour and consistency resembling printers' roller-composition; whilst the invalid-soups, and particularly the turtle-soup, are in every respect of the highest quality which preserved provisions are capable of attaining. The flavour of all these preparations is excellent; all the delicacy of the odour and taste of fresh meat is retained, and in their manufacture no deleterious influence, by heat or oxidation, which would affect the colour, has been allowed to be at work In a word, these are excellent preparations. The factory of the Company, situated near Hatton Garden, is fitted with all appliances which ingenuity can devise; enamelled and steam-jacketed copper pans, and enamelled digestors and presses, forming the main part of the apparatus necessary. The most scrupulous cleanliness of the factory, without which high class preparations of this kind could not be produced, is apparent everywhere.

A NEW TRUSS.

WE have received from Messrs. Hodges and Co., High Street, Ryde, Isle of Wight, an example of a very ingenious and successful truss. It consists essentially of a convex curve cane shell, having in its concave side a tapering stem, all formed in a single block or piece of soft vulcanised rubber, which may be made of any desired shape, round, oval, elliptical, or irregular. The body of the shell has perforations surrounding the base of the stem for ventilating purposes. The convex side is provided with a chamois-skin, secured to the edge, and so arranged as not to clog the ventilating openings. The shell yields readily to the body of the wearer, being thin and elastic. This pad is of remarkable flexibility—a very high recommendation. The pad can be fixed to any truss. The rubber being specially prepared, is free from smell. The spring consists of an American regulator hip-joint, and is so arranged that the pressure may be regulated by the screw to suit any desired shape or form, and to allow the wearer to move with ease. A non-metallic elastic spring may be used, or pure wire.

SOME of the friends of Miss Williams, for seven years Matron of St. Mary's Hospital, have formed a committee for the purpose of recognising her services in that capacity. The list is a long and influential one. The testimonial has taken the form of the presentation of a silver tea-service, with an illuminated scroll engrossed on vellum.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SESSION 1885.

Thursday, May 14th.

THE President, Sir HENRY ACLAND, took the chair at 2 P.M.

Preliminary Examinations.—The discussion on Dr. Humphry's motion with regard to the examinations in general education conducted by universities was resumed.

Dr. HUMPHRY asked permission of the Council to withdraw his motion and substitute the following: "That the examinations in general education conducted by universities be accepted as heretofore, but that if, in any of these examinations, the subject of elementary mechanics is not included, a knowledge of that subject be required at a separate preliminary examination."

The permission having been granted,

Dr. STRUTHERS withdrew his amendment.

Mr. MACNAMARA considered that it was very much to be deplored that the Council should enter into these minute details. It would have redounded to their credit if they had simply pointed out to the different bodies the subjects of general education upon which it would be desirable that medical students should be examined, and they ought not to lay it down that a certain subject, such as mechanics, should be passed before the commencement of medical studies, and try to force such a rule down the throat of a great university such as Trinity College. He was perfectly satisfied that both Dr. Haughton and the Provost of Trinity College knew more about the subject than the whole of the Medical Council put together. They knew better how to teach it, and had considerably more experience with regard to examinations in it. Dr. Haughton had told the Council that the subject could not be taught in the way now suggested, and yet the Council proposed to remit the education in this most difficult subject to proprietary schools. The fact was that the age at which students entered Trinity College was 19, and they had to spend three years before they came to the medical part of the curriculum; but now it was gravely proposed to Trinity College to alter its arrangements. Did anybody believe that such an university would do so at the suggestion of the Council? If the rule were enforced, the student would have to be 26 years of age before he got on the *Medical Register*, if he commenced his art-studies at the university when he was 19 years old. The Council ought not to enter into these minute details; it should make a general statement that such and such subjects were of great advantage or were absolutely essential to the proper study of medicine, and it should be left to the different bodies to see what was the best way in which their recommendations should be carried out.

Mr. MARSHALL supported the resolution. He could not speak too strongly as to the necessity of English as a branch of every Englishman's education. The example of Germany and France, and every enlightened nation in Europe, was in favour of teaching the mother-tongue. If the universities thought that they could really carry out a satisfactory examination in English by collateral evidence from other papers, by all means let them do it; but, in his opinion, the first part of Dr. Humphry's motion was unnecessary, and invited the Council to go back upon the proposal which they had carried last year by seventeen to three. He would propose:

"That the words 'that the examinations in general education conducted by universities be accepted as heretofore,' be left out."

Dr. STORRAR said it would be in the recollection of the Council that in 1859 they were very zealous to improve the general education of the medical student, being perfectly alive to the fact that, in order to improve the general professional education, they must begin by improving the general education. The Act gave them no authority in that matter. They could not insist upon a certain course of examination; but they decided to recommend it, and it was their sincere desire at that time to expedite, at as early a period as possible, the transference of the whole of the arts examination to the national institutions. It was utterly beyond their power to say to an university, "You must do this or that," for they had no mandatory authority whatever. They had, however, succeeded in getting a fair amount of assent to their recommendations from the bodies which conducted examinations in arts; and all that they could do was to go on year after year with such moral suasion as they could, or to get the examining bodies to conform to their views. What the Council should do was to leave the universities to exercise their own judgment, as to what they considered the proper ploughing and harrowing of the intellect of a young man. He did not know any more efficient instrument for the development of the mind than the thorough teaching of English; but there was great difficulty in getting the old universities, and the schools which were closely allied to the old universities, to recognise it, in the modern acceptation of the word, as a subject of education. He was prepared to vote for almost any motion which would leave the question as much to the discretion of the examining bodies as possible.

Dr. BANKS said that, in the new Irish University, English was one of the subjects in which there was a special examination; and, if any improvements were proposed in the preliminary education, or in the professional education, by the Medical Council, the university would be anxious to adopt them. At his suggestion, at the recent meeting of the standing Committee of the university, the consideration of the subject of revising the examinations was postponed until the results of this meeting of the Medical Council were known; and he was sure that the university would desire to conform as much as possible to the recommendations made by the Council.

Dr. HAUGHTON said he had been twitted with voting against a thing at one time and for it at another; but he held the opinion of Lord Chesterfield, who, when his son said, "You are of a different opinion to-day from what you were yesterday," replied, "Yes, my son; but I am a wiser man to-day than I was yesterday." The state of things brought about by the Medical Council last October was to set Oxford, Cambridge, and Dublin frying in their own juice. Dr. Humphry's resolution cleverly took Oxford and Cambridge out of the frying-pan, but left Dublin in it; and he objected to that.

Mr. SIMON said the universities had made a distinct appeal to the Council in regard to the resolution of last year, and it was indispensable that the Council should say something about it. He thought the first two lines of the resolution was the least that could be said; and, as regarded the rest of the resolution, it was only what the Council affirmed last year by seventeen votes to three.

Mr. COLLINS said he should be extremely sorry to give a vote which would in any way prejudice the great University of Dublin; and he would, therefore, appeal to Dr. Humphry to make such a change in his motion as would keep that university out of the difficulty in which they had been placed.

Dr. HUMPHRY, in reply, said the Universities of Oxford and Cambridge had always shown the most extreme desire to act in conformity with the wishes and recommendations of the Council, and the present process was not the result of any feeling of insubordination, but simply of a desire that the Medical Council should acknowledge that their examinations in general education were sufficient, and that they ought to be trusted by the Council in the matter. He did not think the resolution would throw any difficulty in the way of the University of Dublin; it merely recommended that the examination in mechanics should precede registration, and if the University gave a long instruction in mechanics, he presumed that it was not desired that the students should pursue their medical studies at the same time.

Dr. HAUGHTON said that over 70 per cent. of their students did pass their examination for mechanics before they entered upon their medical studies. The whole year was occupied at Trinity College with teaching mechanics. The term commenced at the beginning of October, but the examinations came on at the end of October, and so they could not certify that their second year's students had completed their examination in mechanics until they had passed that examination, though they had entered on the second term. All the students passed some examination in mechanics previously to being registered, and he would move as an amendment "that the word 'preliminary' be omitted from the resolution."

Dr. BANKS seconded the amendment.

Mr. SIMON said that, if there were anything special in the case of Trinity College, Dublin, a proviso might be proposed as a substantive motion; but to leave out the word "preliminary" would be simply a ludicrous waste of the many hours that the Council had spent upon this question.

Dr. HAUGHTON said he had been under the impression that the resolution contained "elementary mechanics, solids and fluids," but he now found that it was only elementary mechanics. If that were not to include the whole ground of solids and fluids, he would undertake that the students at Trinity College should have a preliminary education in mechanics.

The amendment, having been put, was lost, and the original motion was carried by 14 against 4.

The Case of Mr. Bryceson.—Dr. HUMPHRY, referring to the case of Mr. Bryceson, said he had ascertained from the Registrar of the

University of Cambridge that "Ebenezer Bryceson has taken no degrees at Cambridge but those of B.A. and M.A."

On the motion of Mr. SIMON, seconded by Sir HENRY PITMAN, the Council resolved to postpone further proceedings on this matter.

Report of the Pharmacopœia Committee.—A report by the Pharmacopœia Committee was read.

The Committee reported that the duty assigned to them had been so far completed as to enable them to lay on the table a revised copy of the new *Pharmacopœia*. The Committee recommended that, with a view to the publication of the work now completed, the course adopted by the Council, when the *Pharmacopœia* of 1867 was published, should be followed; and that the following resolution, similar to one passed on May 26th, 1866, should be adopted. "That as soon as the proof of the new edition of the *Pharmacopœia* is ready, a copy of it be sent to each member of the Council, with instructions that he will, within one month, return it to the Chairman of the Pharmacopœia Committee, with such observations as he shall see fit to make thereon, to be submitted to the Pharmacopœia Subcommittee; and that the Pharmacopœia Committee shall, after due consideration of such observations, hand over the proof when finally approved to the Executive Committee for publication." A copy of the completed work would be forwarded, within a few days, to the members of the Council. The Committee, in concluding their report, offered their testimony to the great care, the scientific skill, and the assiduity, with which the editors of the work, Professors Redwood, Bentley, and Attfield, etc., had performed their duties.

Dr. QUAIN moved: "That the report be adopted." He said that, as soon as the work was in a complete form, copies would be sent to each member of the Council, with the request that they would return them if they found occasion to make any suggestions or alterations; if the copies were not returned, the Committee would consider that there were no suggestions to offer. He had a copy of the work, which was complete with the exception of the index. He thought the Council was now possessed of such abundant means, that it ought to take care that the work was sold to the profession at cost price. If that were done, he believed that the new edition, though it contained 100 pages more new matter, might be sold at the same price as formerly. No pains had been spared to make it as perfect as possible, and the different reports of the Pharmacopœia Committee from time to time would show the steps that had been taken to collect all possible information on the subject.

Dr. STORRAR seconded the motion, which was agreed to.

Mr. MACNAMARA said he should like to move a resolution which, he thought, would meet with the cordial and unanimous approbation of all the members of the Council. He himself had devoted a great deal of time to writing on materia medica, and he knew it was a troublesome and irksome task. He was well aware of the great zeal and ability, and the enormous amount of valuable time, that Dr. Quain had given to supervising the production of the *Pharmacopœia*, and he desired to move:

"That the warmest thanks of the President and members of the General Medical Council are eminently due, and are hereby tendered, to Dr. Quain, Chairman of the Pharmacopœia Committee, for his invaluable services in supervising the production of the forthcoming edition of the *British Pharmacopœia*."

No one who was not a member of the Pharmacopœia Committee could realise the devotion of Dr. Quain to the work, and the courtesy and genial way in which he received all suggestions that came from any member of the Committee. He wished it were in the power of the Council to signify their approbation of Dr. Quain's services in some far more substantial way. He had not asked any person to second his motion, but he believed it would pass with acclamation.

Dr. BANKS said he had the greatest possible pleasure in seconding the motion. It had been an enormous advantage to have such a physician as Dr. Quain as chairman of the Pharmacopœia Committee.

Mr. COLLINS, as one of the Committee, cordially supported the motion, which was carried by acclamation.

The PRESIDENT, addressing Dr. Quain, said he had much pleasure in handing him a copy of the resolution which had been so unanimously carried.

Dr. QUAIN said he was so completely taken by surprise, that he could not express how deeply and sincerely he felt what had been said and done by the Council. It was an abundant reward to find that his labours had been thus appreciated. He could accept nothing more gratifying to him than such a recognition of what he had done. He had only done his duty, and he had done that with pleasure, and if he had added to the credit of the Council, or to the advantage of the profession, he should feel that his long connection with the Council had not been in vain.

Offices of the Council.—A report by the Offices Committee was submitted to the Council. It contained a statement by the Chairman, Dr. Lyons, of the inquiries he had made as to possible sites available for the purposes of new offices for the Council. After consideration of various sites, and much inquiry amongst architects, agents, and others likely to be in possession of the required information, he visited and inquired into the detail of lettings of two sites on the Thames Embankment. The first was one immediately adjoining the Temple Gardens. The Metropolitan District Railway ran under the fore front of this site, and restrictions were imposed as to buildings erected thereon. The second site was on the Savoy Estate of the Duchy of Lancaster. He had had interviews with the Chancellor of the Duchy in reference to this site, and believed he was justified in saying that the erection of a building suitable for the reception of the General Medical Council would be viewed with favour by the authorities of the Duchy. The letting of the present premises would, in all probability, balance the new rent of £375 incurred for the site, and it would be entirely a question for the General Medical Council to determine what expenditure they would be willing to sanction out of their reserve-funds for the erection of a building. The Committee considered that the site on the Savoy Estate would alone be adapted to the purpose, provided the Council were satisfied as to the necessity of removal and the convenience of the proposed site, and were prepared to incur the increased expenditure involved in the change.

Dr. LYONS said that he had privately called in the assistance of an architect, who gave the opinion that, considering the situation and the rights which in all probability would be invaded in attempting to increase the present building upwards, the Council would meet with insuperable difficulties, and also that the building did not admit of the necessary structural alterations. He had made many inquiries for a suitable site in different parts of London, but the only two that he thought it necessary to mention to the Council were those referred to in his report. He moved:

"That the report of the Offices Committee be received and entered on the minutes."

Dr. AQUILLA SMITH seconded the motion, which was carried.

Dr. LYONS moved:

"That the Committee have leave to sit again, and to confer with an architect as to the outlines of a plan for the erection of suitable buildings and probable cost thereof, and to report further in detail to this Council at its next meeting."

Dr. CHAMBERS seconded the motion.

Dr. QUAIN said he did not approve at all of the site at the Savoy, and was prepared to move that the report should not be again referred to the Committee. The Government spent £2,500 in fitting up the present premises for the Council, and they had them at a rent of only £300 a year; but, for the site at the Savoy, they would have to pay £370 a year ground-rent, and could not erect a proper building there under £10,000. He thought it would be a very foolish thing to spend their money in the way proposed.

Dr. STORRAR agreed with Dr. Quain. He could not see any justification for leaving the present premises, which were admirably suited for the purposes of the public. It would be quite sufficient to make some arrangements for improving the hall in which the Council met, instead of running into such an extraordinary expenditure as the erection of a new building on the Savoy estate would necessitate.

Mr. SIMON also hoped that the Council would not go into indefinite experimenting, either in the present building, or on another site.

Mr. TEALE did not think there was sufficient reason for the Council undertaking such an enormous expenditure of the funds entrusted to them for public purposes in the erection of a new building.

Dr. STRUTHERS also considered the present premises extremely suitable.

Dr. HERON WATSON proposed as an amendment:

"That the report of the Offices Committee be referred to the Executive Committee, with an instruction that they continue the inquiry in the direction of improving the present premises, with power to take professional advice, and to report to the Council."

Mr. TEALE seconded the amendment, which was carried.

On its being put as a substantive motion,

Dr. STORRAR moved:

"That the matter be left entirely in the hands of the Executive Committee, to take action if they find they could do so without incurring great expense."

Dr. QUAIN seconded the amendment, which was carried; and, on its being put as a substantive motion, was again carried.

Charge against a Registered Practitioner.—It was resolved, strangers having been excluded:

"That the Council's solicitor be directed to summon to appear before the Council, at 3 o'clock P.M. on Monday, May 18th next, a registered practitioner against whom a complaint has been made, to answer the charge of having caused to be registered in the *Medical Register* a qualification which he did not possess."

Application of the Funds of the Council to Scientific Research.—Sir HENRY PITMAN moved:

"That a committee be appointed to consider in what way, if any, the accumulated funds of the General Medical Council can be applied in promoting scientific research for the public good."

In doing so, he said that the average excess of income over expenditure for the last three years was about £2,500 a year. It had been said that that was not a sufficiently wide average of years to take; but, even if they took seven years, the average excess of income over expenditure was more than £1,300. The result of this annual accumulation was, that the Council had now standing to its credit in the funds the sum of £38,000, over which they had entire supervision. The Branch Councils had no special interest in the money beyond the fact that they were permitted to have the direction of a portion of the receipts, but they were accountable to the General Council. The Act of Parliament said, "All moneys received by any treasurer arising from fees to be paid on registration from the sale of registers, and penalties, or otherwise, shall be applied for expenses of registration and execution of this Act." He, therefore, apprehended that there could be no question but that the money was entirely within the control of the General Council. It might be doubted whether any application of the funds such as he was now proposing came literally within the meaning of the words "the execution of this Act." On that point he would refer to the 56th section, which said, "The General Council shall cause to be published under their direction a book containing a list of medicines and compounds, and the manner of preparing them, together with the true rates and measures by which they are to be prepared and mixed, and containing such other matter and things relating thereto as the General Council shall think fit, to be called *The British Pharmacopœia*, and the General Council shall cause to be altered, amended, and republished such pharmacopœia as often as they shall deem it necessary." He contended that some portion of the General Council's funds might, under that clause, be expended in the way which he urged—in relation to the *British Pharmacopœia*. The intention of the legislature in framing Acts of Parliament having reference to the medical profession was manifest from the 32nd clause of the Dentists' Act: "That all moneys arising from funds paid on registration, or from the sale of copies of the *Register*, or otherwise received by the General Council under this Act, shall be applied in accordance with such regulations as may be from time to time made by the General Council in defraying the expenses of registration and other expenses of the execution of this Act, and subject thereto towards the support of museums, libraries, or lectureships, or public purposes connected with the profession of dentistry or dental surgery, or towards the promotion of learning and education in connection with dentistry." In asking for the committee, he thought the only point to be ascertained was whether the Council were satisfied that the expenditure of the funds in the way he suggested could be brought under clause 54. No one would contend that science had not of late years made great advances in various directions. It had advanced very much with regard to sanitary questions, and, no doubt, the health of the public had been very much benefited thereby. Of late years, attention had been directed to the scientific aspect of the cause of disease. Commissions of inquiry had gone into the causes of cholera, and many private investigations were taking place as to the effect and action of germs upon the causation of diseases in the human body. What he was anxious to do was to expend some portion of the largely accumulated sums of money in promoting what he might call the physiology of therapeutics. He wanted knowledge improved as to the action of agents administered in disease, so as to keep pace, as far as possible, with the progress of science in other directions connected with the profession. He thought, in connection with the *Pharmacopœia*, that it was a legitimate inquiry how far the action of medicines, either singly or in combination, was influenced in the human body by the presence of disease. The Council now had more money than they could apply to ordinary purposes, notwithstanding the large expenditure from time to time in visitations; and he hoped that they would be able to apply some portion of it in the promotion of scientific research for the public good. After the committee had sent in its report, the Council would be in a better position to consider whether they were justified in adopting his suggestion, or whether they would exceed the power granted to them by the Act of Parliament, if some of the money which they had at their diposal was applied for the purpose which he had mentioned. He thought the Committee should be a somewhat large one, comprising every section of the profession and every representation.

Dr. MATTHEWS DUNCAN seconded the motion. He said it would be for the Committee to find out if Sir H. Pitman's view as to the power of the Council in expending the money was justified or not. It was a very great evil and grievance to the Council to possess such a large sum of money; and if they could not get rid of it in the way suggested, it was desirable that they should throw it away in some other direction. The responsibility of having such a large accumulated fund was an unmixed evil when they had no prospect of making use of it.

On the motion of Mr. Simon, the debate was adjourned.

Friday, May 15th.

Sir H. ACLAND, President, took the chair at 2 P.M.

Application of the Funds of the Council to Scientific Research.—The debate on Sir H. Pitman's motion for a Committee on Scientific Research was resumed.

Mr. SIMON considered it absolutely unquestionable that the Council had nothing to do with the object proposed by Sir H. Pitman, and any such expenditure would be a breach of trust. There might be certain expenses incurred in connection with the *Pharmacopœia*, but not of the kind indicated in the motion. No one would doubt the value of scientific research, but that was no reason for diverting the moneys held by the Council in trust, to purposes not contemplated by the Act. If too much money were being received, the registration-fee might be reduced to three guineas.

Mr. MARSHALL thought that the registration-fee should be reduced to three guineas, if it could be shown that all the expenses of the Council could be met by such a reduction. He thought that, in a few years, that might easily be done.

Dr. STRUTHERS said the powers of the Council were very limited, and did not include expenditure for scientific research. The funds might, however, be applied to an extended system of visitation of examinations.

Dr. HUMPHRY hoped that in future the visitation of examinations would be carried out more energetically than it had been. That was certainly a direction in which the funds might legitimately be employed.

Dr. LYONS also approved of a widely extended system of visitation of examinations. There should be a thorough annual inspection, and, if that were carried out, it was impossible to say to what the consequent expenditure might amount. For that reason, he was opposed to Sir H. Pitman's motion. It was quite right that the question of scientific research should be kept in view; but, until the Council had had the experience of several years as to an enlarged system of visitation, it would be unwise to sanction any such expenditure as that proposed.

Sir H. PITMAN, in reply, said his proposal was not that money should be at once expended for scientific research, but only that a committee should be appointed to consider whether such an expenditure could be adopted. If, as had been alleged, any great improvement had taken place in consequence of former visitations, the necessity for more must be less rather than greater. The cost of a visitation was enormous, but the expense of researches would be comparatively small. It was, in his opinion, a dereliction of duty on the part of the Council to receive large sums of money which they could not usefully employ.

Dr. LYONS moved, as an amendment:

"That a committee be appointed to consider and report in what way the accumulated funds of the General Medical Council can be best applied for the public good, in conformity with the duties imposed upon the Council under the Medical Act."

Dr. PETTIGREW seconded the amendment.

The PRESIDENT said, if the Council had the power and the means, he could not understand on what principle they were to conclude that they were not at liberty to inquire into the mode of action of those substances of which they were in the habit of prescribing doses.

Dr. STORRAR sympathised with the object of the motion, but could not consent to an illegal expenditure of money.

Dr. QUAIN thought that the Council could not, because of its other duties, undertake the work sought to be imposed upon them by the motion.

Both the amendment and the original motion were negatived.

Report of the Finance Committee.—The Committee reported that the income of the General and Branch Councils for the year ending December 31st, 1884, had been £8,424 2s. 3d., an amount which exceeded by £478 14s. 9d. the income for 1883. The expenditure during the year 1884 had been £7,084 6s. 7d., which was £2,633 0s. 1d,

more than the expenditure of 1883. Notwithstanding the large expenditure during the past year, the excess of income over expenditure for the year 1884 amounted to £1,339 15s. 8d. The excess of income over expenditure for the year 1883 was £3,494 1s. As regarded expenditure, the largest item of increase had been that for fees to members of the General Council, in consequence of the two sessions of the Council held in 1884. This excess amounted to £1,580 1s. 10d. The fees to members of the Executive Committee also showed an increase of £173 11s. 8d. The preparation of the new edition of the *British Pharmacopœia* had involved an expenditure on account of £358 12s. 2d., and in General Printing there had been an increase of £39 12s. 7d. The only items of diminished expenditure for the year 1884 claiming notice, as compared with 1883, were a decrease of £18 14s. 5d. in house-expenses, and £13 14s. 6d. in the production of the *Medical Register*. While, therefore, the total increase of expenditure was £2,320 7s. 1d., the total decrease amounted to £92 2s. 4d., showing an actual increase in expenditure of £2,228 4s. 9d. During the last seven years, the average yearly income exceeded the average yearly expenditure by £1,617. A table showed the receipt and expenditure of the Dental Registration Fund for the year. In the receipts, £585 17s. 11d., there was a decrease of £82 6s. 5d. over those of the previous year, while the expenditure, £896 2s. 9d., had been greater by the sum of £151 4s. 7d. The deficiency of income for the year was thus £310 4s. 10d., as compared with a deficiency of £76 13s. 10d. in 1883.

Pursuant to instructions given by the English Branch Council in 1884, the treasurers had made an additional purchase of £2,500 Consols, thus making a total invested of £33,000 Consols. The total amount now invested by the three Branch Councils was £38,669 17s.

With respect to the reference from the General Medical Council, namely, "to present a scheme which will render it necessary in future that the Branch Council for England should advance the money required to meet the current expenses of the General Medical Council," the Finance Committee recommended the following plan to be adopted: 1. That an estimate of the sum probably required for the current year's expenses of the General Medical Council having been made by the Executive Committee at their first meeting in each year, the proportionate rate to be paid by each Branch Council in order to provide such sum be made by that Committee, and that the half of that sum be paid in January and July of each year. 2. That the sums paid by each Branch Council be placed to an account to be opened at the bank in the name of the General Medical Council. 3. That any balance remaining at the close of each year, over and above what has been required for the expenses of the General Council for that year, be calculated in the estimate of the sum required for the following year; or, should there be any deficiency, that the respective Branch Councils supply such deficiency, computed on the percentage rate.

Dr. QUAIN moved the adoption of the report. He thought the recommendations of the committee would be very satisfactory in working, and would save a great deal of confusion.

Dr. HAUGHTON seconded the motion, which was agreed to.

Training and Examination in Elementary Physics, Chemistry, and Biology.—Mr. MARSHALL moved:

"That it is desirable that the first principles of physics, chemistry, and biology should be regarded as branches of the preliminary scientific training, and of an examination to be taken before the commencement of purely professional study."

He said he regarded the motion as distinctly and emphatically within the province of the Council. He wished to make two remarks in anticipation. First of all, he admitted that he had altered the form of the motion since he last gave notice of it, but it was quite legitimate to do so before it was laid before the Council. It might be said "Why not leave this subject until we are considering the whole of the recommendations for altering the medical curriculum?" His reason for thinking it desirable that the subject should be treated separately, was because he thought it could be better considered in that way than with a number of other recommendations, among which its effect might be lost. Letters were last year sent, through the agency of the President, to a great number of persons, and questions had been asked upon this very point of a preliminary scientific examination. That was one reason why the Council should now consider it. Another reason was that, not only had questions been asked, but a great number of answers had been received. He found such a large majority of those to whom the letters had been sent were turning their minds to the desirability of establishing some sort of special preliminary examination, that he was quite sure that, outside the Council, the minds of the profession, and especially of the junior members, were actively engaged in discussing this point, and they had arrived at certain definite conclusions. He had taken great pains to analyse the answers which had been received from the fifty-eight persons to whom the questions were sent. Nine had not sent any reply; eight were decidedly adverse for various reasons, chiefly, he thought, because of the additional expense, and because they considered it was not right to encumber the curriculum any more; eight more might be said to be moderately against it; in one part of their answer they seemed in favour of it, but in another part did not. Then there were thirty-four who certainly were more or less inclined towards it, and twenty-three of those absolutely said "Yes." Many of them confined themselves entirely to the word "Yes." Three gave, so far, a qualified support that they said, "Yes; a preliminary scientific examination, as it is expressed in the joint scheme of the Royal Colleges of Physicians and Surgeons." That meant that the first year of medical study should be utilised, when necessary, by attendance upon lectures upon these preliminary scientific subjects, and that there should be an examination upon them at the end of the first year. Then there were seven who said "By all means have it, but do not have it at the schools." They seemed to think it was intended that this preliminary scientific examination should be remitted entirely to the schools of general education. The evidence was, therefore, strongly in favour of a movement of this kind, and no further apology on his part was required for introducing this subject to the Council. He believed it to be extremely important. The main object, of course, was the relief of the professional curriculum. Most of those who had answered the questions were of opinion that the time now allotted to the professional curriculum was insufficient, especially if these fundamental or elementary sciences were retained in that curriculum. No doubt, by his proposal, the period of education would be increased, and it might be said that the Council was not called upon to impose a larger burden upon the parents of those coming into the profession, or to insist upon a larger expenditure of money on the part of young students, who had great difficulty in fighting their way into the ranks of the profession. He did not, however, think that that was an objection which the Council ought to consider. It must be met by the withdrawal of those who could not afford the necessary education. The point for the Council to consider was, what was the best mode of training men to the profession; and, if it should happen that a certain number fell off, it was better that their deficiencies should be found out early in their career, rather than that they should go through a long period of medical education and then be disappointed. Some people said that the supply was inadequate, but that was not the view that he should take. All questions of waste and supply were provided for on higher economical laws than the action of the Council. If the public required a large number of well educated men capable of taking care of their health and lives, the supply would be met, whether it was made difficult or easy to enter the profession. He should, therefore, set aside altogether this question of supply and demand. But how did the matter really stand? If they took an average of nine years, it would be seen, from the Registrar's returns, that the number of students annually registered was 1,842. The practitioners registered, on the average, in the same period, numbered 1,109, so that the average entries during the last nine years had been 733 in excess of those who ultimately got put on the *Register*. That was a proof that a great number of men entered as students who never passed on to the *Register*. There was, therefore, an antecedent waste of 733 students who never became efficient and qualified men. If it should happen that, by virtue of the Council's regulations, some difficulty was imposed on the entry to the profession, it seemed to him to be a good instead of a bad thing. Then there was also a waste from death, retirement, etc., of 856, and, deducting that number from 1,109, there was a balance of 253, representing the number entered on the *Register* yearly in excess of the waste. That, he thought, was a sufficient supply. The increase of population was not at all equal to that, so that there need be no fear of the supply not being sufficient for the demand. The number of students entered in 1879 was 2,009. They would take five years to get on the *Register*, so that they would appear in 1884. The number of practitioners then registered was 1,388, so that the antecedent waste had been 621, and the balance, after deducting the 615 who had died and retired, was 713. These figures showed clearly that they need not be alarmed as to the question of supply. Then complaints were constantly made that medical men were not sufficiently well paid. A scarcity of men would make each man more valuable than he was at present, and the competition for poor-law medical officers was so great that there were men breaking their hearts on a salary of £50 a year, who would get £100 a year if the numbers entering the profession were diminished instead of increased. He thought the objections to rendering it a little more diffi

cult to enter the profession were met by these statements. But he thought it extremely doubtful whether his proposal would increase the length of time during which a medical student would have to study. His own impression was that a preliminary training of a sound character would enable a man to get through his professional curriculum quite as rapidly as at present, when, owing to imperfect preliminary training, many men were rejected, and the result was the prolongation of the period of study. He believed that, if the first year were entirely devoted to a substantial preliminary training in physics, chemistry, and elementary biology, the student would pass into human anatomy and pathology with so much greater facility that time would be saved. Experience showed that men having that sort of training were really much more apt students. He had been astonished to find, in one of the answers, that a gentleman said he had not found those with good scientific training more apt than others to pursue their professional training. A man might be one of those superficial observers who jumped to conclusions that were laid down by his teacher, and who had not the inner consciousness of using his own knowledge in the study of the treatment of disease, but he believed the more the scientific knowledge, the more easy would it be to acquire a perfect knowledge of clinical surgery and medicine. If he did not think so, he should consider that the labours of the Council in regard to preliminary education, and so on, had been entirely thrown away. The question then was, how to carry out any proposals of this kind. It was distinctly to be pre-professional. Now, was it to be conducted in schools? There could be no doubt that one of the chief efforts of the Council had been to lighten the load of the professional curriculum by handing back to schools as much as they could; and he quite agreed that there was some advantage in it, but there was great danger that the subjects would be remitted to schools which were utterly unfit to teach them. The latest report he had come across was that of the examiners at the last Cambridge local examination. It spoke very favourably of the Euclid and algebra paper, and said that in trigonometry and mechanics some of the seniors had done well. It added, "In practical chemistry a large proportion of juniors, last year, gained high marks, and the percentage of failures was considerably less than in the theoretical papers. A few seniors sent in very good answers, but the greater number were answers to which it was difficult to attach a definite meaning. The phenomena and principles of chemistry were evidently quite unreal to most of the senior candidates." With regard to heat, it was said that they did "rather worse than last year." But that was one of the things that was supposed to be well taught in schools. If what was said in the report were true, it dashed to the ground the hope of those who looked so schools for pre-professional training. The report continued to say that, "the seniors on the whole answered badly; many of them were quite unfamiliar with scientific facts. Electricity and magnetism showed a slight improvement, but biology showed a large percentage of failures." He did not mention this to show that the efforts of schools should not be directed to teaching science, but as showing that it was futile for the Council to rely upon getting at the schools a sufficient preliminary education in the fundamental sciences, such as physics, chemistry, and elementary biology. What was wanted was not a perfunctory knowledge, but a solid knowledge, so that the students might know the reality of the things and the principles. In the German system, science was introduced as early as possible, but they did not rely upon that as a subject of examination, for they followed it up in the higher schools. He, therefore, emphatically said that the Council must rely on the medical schools for these sciences. His aim would be to encourage the scientific divisions of the medical schools. This preliminary education would come before the students were registered, and he believed that was the only solution of the problem. It might be asked what it was wished to include in this. The Council had already entrusted mechanics to schools, but he very much doubted whether that was sufficient. He would take mechanics, physics, light, heat, and electricity, the latter of which was of great consequence in the therapeutical treatment of diseases, and also in the investigation of disease; and yet gentlemen had come up to recent examinations who did not know anything about a battery, who could not tell the positive from the negative pole, who had no idea of the influence of induction, and did not know the difference between a continuous and an intermittent current. Yet these were men who would have to diagnose a disease by the aid of electric apparatus. These things really should be taught in a pre-professional course of study and examination. Everybody would agree that chemistry must be thoroughly taught, but the understanding of the applied part of that science would be greatly facilitated by a sound knowledge of the first principles, which, however, could not be generally obtained at schools. Already large numbers were rejected in preliminary education, and he thought it was better to keep the subject of general education separate from what were properly scientific subjects, which might come in afterwards. By biology he did not mean systematic botany run to death, or systematic zoology run to death, but a knowledge of the structure and functions of vegetable and animal tissues of certain plants that could be pulled to pieces and dissected, and dissections of animals, which should lead the way to dissection of man. It was quite conceivable that a sound scientific course of vegetable anatomy and physiology, and animal anatomy and physiology, would so prepare the way for a student that, when he came to dissect a human body, he would find he had a general knowledge of the organs of the human body and their relations to one another. The subsequent study of human anatomy would thereby be facilitated; and a sound idea of the principles of chemistry would enable the student to follow his physiological studies with such rapidity, that the preliminary training would really shorten the time during which he could acquire such a knowledge of human anatomy and physiology as to pass the examinations. It was quite possible that an additional year might be required at first, but after a time it might not be required. Even supposing the period of study were lengthened, there would be no harm; it would be rather a public good, and the Council need need not be afraid of diminishing the number of men; while, if the number were diminished for a short time, the probability was that the rising generation would adapt themselves to the new system, and there would be just as many enter the profession as formerly, and they would be better men. One great object of all this was to raise the position of the profession, and he believed that his proposal would do that. This preliminary scientific examination must be an adequate one. It already was so with regard to university students, but he should like to see it so with regard to all students. He believed it could be done at the science-schools—pre-eminently at the medical schools. He asked the Council to say whether it was desirable or not that a man should have a certain preliminary introduction to scientific knowledge, which he could not get at the schools, before he entered upon the purely professional curriculum. He could foresee the suggestion that this preliminary examination might be passed at any time; but that was a question for the Council to determine subsequently. It might take the form of a recommendation that, with certain exceptions, it must be done before the professional curriculum was entered upon. He hoped that the Council would give a favourable reply to his proposal.

Mr. SIMON seconded the motion. He said the object at which the proposal aimed was one in which he had taken great interest from the first days when he began to attend to the business of medical education. As the subjects to be taught became more numerous and complicated, so it was more necessary for those who had influence with regard to medical education to provide for method, otherwise the majority of students would find it a really hopeless task to get on. He therefore believed that it was of the very utmost importance that these general scientific subjects should be treated as preliminary, so that, before the student passed to anthropology proper, he should have a notion of biology in general, and be acquainted with the elements of the sciences of inorganic Nature, of mechanics, physics, and chemistry. The progress in physiology and in other sciences would be almost infinitely more rapid and easy to the student who had received a sound preliminary general education in the first principles of physics, chemistry, and biology. The answers that had been sent showed a vast mass of evidence with regard to the relative shortness of the period of forty-five months for medical education. In the case of a raw medical student, who had never previously learned the subjects to which Mr. Marshall referred in his resolution, the early portion of the period must be passed in a very difficult struggle, and the forty-five months were certainly not sufficient. He would be quite prepared to say that forty-five months might be enough for a man who had this preliminary knowledge, but at least fifty months were necessary for a man who had it not. How would a recommendation founded upon that view operate? There would be no absolute obligation on the student to acquire the knowledge beforehand, but if he had acquired it, then his curriculum would be only forty-five months; but if he chose to register before he had passed an examination in it, the curriculum would be extended to fifty months, so that the student would find it well worth his while to begin at a medical school, say, in the month of May, instead of October. No doubt courses would be organised in all the schools to give the particular teaching required. During the summer session, the student would give his attention to these preliminary subjects, would then pass his examination, and would be ready to commence his forty-five months in October. Still he would not be obliged to come to the medical school to get that knowledge; he might get it in any way he chose.

Dr. PETTIGREW asked if it was Mr. Marshall's intention to strike chemistry out of the medical curriculum. To his mind, chemistry was a fundamental subject so far as medical training was concerned, and ought not to be relegated to the preliminary scientific examination. In the Scotch universities, one hundred lectures, occupying six months, were devoted to chemistry; and there were more rejections in chemistry, zoology, and botany, than in any other subjects, showing the importance which was attached to them. The first thing for the Council to do was to determine the number of years to be devoted to the course. He himself would have no objection to five years, but then the question arose whether the necessary supply could be obtained. He thought it would have been better if the motion had been deferred until that point had been settled.

Dr. BANKS thought that the numbers entering the profession were now too large, and many men were in it who ought never to be there, because they were utterly unfit for it. Two grades in the profession ought to be recognised, and one eminent gentleman had suggested that parliamentary sanction should be obtained for two kinds of legal qualification—one for the ordinary practitioner, and one for the consulting physician and surgeon, for the latter of whom the examination should be made far more stringent. He considered that five years ought to be the minimum. In the universities, the higher degrees required six years. He had had a great deal of experience of young medical men, and the amount of ignorance shown by them in general education, not to say scientific education, was something appalling. No duty was more encumbent upon the Council than to endeavour to elevate the profession in every way, and he thought their thanks were due to Mr. Marshall for the manner in which he had brought this subject forward.

Dr. HUMPHRY said the resolution was simply the enunciation of the principle, that it was desirable that certain subjects should be branches of the preliminary education and examination; and that was in accordance with the feeling of a very large number of those gentlemen who had taken the trouble to answer the questions which had been sent to them. He had taken an analysis of the answers, and his conclusions were precisely the same as Mr. Marshall's. The feeling was very prevalent, both on the part of the various licensing bodies and teachers, and other persons well acquainted with students, that the subjects of chemistry and physics should be made branches of preliminary education, and he thought the Council could do no harm by assenting to the proposition "that it was desirable." He was extremely glad to see the word "principles" inserted in the resolution, for, to his mind, the great defect among students was an imperfect knowledge of principles; and if they could get their students, before entering the profession, to have a knowledge of the principles of physics and chemistry, it would be an enormous advantage. He was therefore entirely in accord with the spirit of the resolution, though he confessed he did not see how it was to be carried out at present. The teaching of science at schools was now simply mischievous; it merely added on a number of subjects to be badly taught; but, in course of time, if the resolution were passed, it would gradually accustom the profession and the licensing bodies to consider the desirability of it, and no doubt then a way would be found in which to carry it out.

Dr. STORRAR said twenty years ago he succeeded in getting put upon the recommendations of the Council words to the effect that "the Council looked with approbation upon any scheme for carrying on the examination in the natural sciences before the commencement of medical study;" but that had stood upon the minutes as a mere *brutum fulmen*. He was quite aware that at most schools these scientific subjects were taught in such a way that it probably did more harm than good, but at least physics and chemistry could be taught at some schools. He had gone through the laboratory at Eton, and found that they had there complete apparatus for teaching physics and chemistry. The same thing might be said of Rugby. Science was also being taught at Clifton; and both at the Grammar School and the Modern School at Bedford, there were complete laboratories. What was it that made schoolmasters of the old type so indifferent to the teaching of science? It was simply this, that they knew nothing about it, and consequently did not believe in it, and gave no encouragement whatever to its being taught; but if, through the instrumentality of the Council, the qualifying bodies would make the demand, they would get it probably in a shorter time than many persons had any idea of. Dr. Pettigrew need not fear that, by putting chemistry into the preliminary scientific examination, it would be taken out of the medical examination. He admitted that biology involved a greater amount of difficulty. No person ever dreamed of teaching biology out of books; but if the demand were made for practical teaching, it would be sure to be met. He could not assent to any suggestion that any principle of compensation should be exercised. He would separate the preliminary scientific examination as entirely from the purely professional study as the arts examination at present was.

Dr. HAUGHTON said he felt very kindly disposed towards accepting Mr. Marshall's proposal, but he regretted that such a barbarous term as biology had been introduced. He would prefer the old terms botany and zoology. The utter breakdown of the schools with regard to mechanics showed that the machinery for teaching the scientific subjects did not at present exist at the schools, and he would suggest that mechanics should be thrown in with physics, chemistry, and biology, to be dealt with in the preliminary examination; and he would further suggest that the student should not be entitled to register until he had passed his examination in sciences. He had a fear lest, if Mr. Marshall's proposal were not surrounded with safeguards, a number of bogus examinations would be started, which would represent nothing but answering questions from books.

Dr. CHAMBERS thought that boys' minds were not capable of receiving all these subjects. Their brains were not sufficient to comprehend chemical and biological ideas, even if the schools were prepared to teach them. He did not object to an addition to the curriculum, but he thought the proposed addition was at the wrong end. It would be better to enforce the study of these subjects after registration as a medical student.

Mr. TEALE thought preliminary education was being mixed up with professional education. What was the object of school-life? It was to train boys without any special reference to their future profession. What was required was training, and not specialisation; and the attempt to throw these things back on to school-education was an attempt to interfere with general training. In a training, it did not matter whether a man was trained in Latin, in Greek, in science, or in French, so long as it was well done; and the great object of the Council in laying down rules for preliminary education was to get good preliminary training without special reference to any particular work. The more they tried to increase the subjects in which boys should be examined, the more they would tend to deteriorate the original education which they desired to be good. It was almost a pity that the Council had not discussed the amount of time that should be given to medical education before they considered the present resolution. Where did those who were educated thirty years ago get a knowledge of the subjects referred to in the resolution? They certainly did get it, but it was in lectures; but now chemistry-lecturers repudiated other subjects, and said that the whole of the time must be given to chemistry. They obtained their knowledge of biology by attending a course of lectures in botany. It also made a great difference whether the education was mixed up with examination. The student might be taught sufficient to enable him to attend explanatory lectures; but, if he had to be examined first, it became more a matter of detail and cram. Every additional examination deteriorated thorough medical study. He constantly heard complaints that men who had gone through their curriculum were not so well qualified to enter the profession, and were not such good observers, as those that used to be turned out years ago, and he was afraid that the schools were being turned far too much into cramming machines. It was the business of the Council to see that, by increasing the number of examinations, they were not adding to a growing evil.

Dr. FERGUS said that, before he was a member of the Council, he was examined by the Scotch University Commissioners, and the views that he then expressed were almost identical with those now propounded by Mr. Marshall. If something of the kind suggested by the resolution were not adopted, a large majority of the students would absolutely lose the first year, for when they went to medical schools they did not know how to study. He would have them taught beforehand how to study. The principal arguments which he used before the Scotch University Commissioners, in support of his views, were the returns given by the Council. It was perfectly scandalous and disgraceful that there should be such an enormous percentage of rejections at the first examination. No doubt many of the students were idle and lazy, but a great number of them were utterly unfit for the profession, and they wasted one or two years, and then went up for the examination, and were rejected, so that all that valuable time was lost. If such an examination as Mr. Marshall proposed were to be carried out, he believed such men would be eliminated. He therefore very cordially supported the resolution.

Dr. STRUTHERS regarded the motion as an abstract one. He did not see that any good could arise from it. The subject could be taken up again when the curriculum came before the Council, and they decided what the first examination was to be.

On the motion of Mr. MACNAMARA, the debate was adjourned.

Saturday, May 16th.

The President, Sir H. ACLAND, took the chair at 1 P.M.

Training and Examination in Elementary Physics, Chemistry, and Biology.—The adjourned debate on Mr. Marshall's motion was resumed.

Mr. MACNAMARA said that every member of the Council must sympathise with Mr. Marshall in the earnest desire that these most important subjects should be thoroughly and carefully studied; but, at the same time, there might fairly be a strong difference of opinion as to the mode in which they should be studied. So far as he could recollect, Mr. Marshall proposed that they should be taken previously to the commencement of professional study, and that, when once examined upon, they were to be put on one side. No one who knew anything about the profession would underestimate a knowledge of chemistry, and he could not approve of the suggestion that the examination in it should be passed before the student was registered. He would, however, be prepared to go the whole length with Mr. Marshall if it were to be subsequent to the registration. A year could be well spent in studying the subjects to which the motion referred. It was, in his opinion, to be regretted that the Council did not divide the whole course of study into sessions, and allocate to each its various subjects.

Dr. HERON WATSON was glad that Mr. Marshall had brought forward his motion at this particular time, before the discussion commenced on the arrangements to be made in regard to the requirements of study and examination in future. The present curriculum, to be completed in forty-five months, was certainly overweighted. Students of more than average attainments might succeed in it, but, in most instances, those who did so had had a preliminary education of a very different kind from that which was to be obtained at an ordinary school. That they were able to pass within the forty-five months was, in reality, generally due to the fact that they had virtually entered upon the intermediate professional studies before they passed into the rank of medical students. It was a misfortune that the universities did not require such preliminary training before the students commenced their medical study. When it was proposed in some way to relieve the curriculum, the suggestion by Mr. Marshall to put certain things into the preliminary examination appeared to be a very valuable one. Some members of the Council had spoken as if, by putting chemistry into the preliminary, they were slighting that subject; but the chemistry which he understood Mr. Marshall proposed to put in the preliminary course was what must, under any circumstances, be acquired before further steps could be taken in that science, and in all his subsequent studies the student would have it constantly before him. If he knew that he could not begin as a medical student until he had passed the proposed examination, he would be compelled to deal with it in such a way that he would acquire habits of study in connection with chemistry which would be a good training for his future life as a medical student. But the question arose, when and how could physics and biology be studied? It appeared to him that there was only one way, namely, that it should be in those schools where such subjects were really taught. If there was one thing that was bad for a medical student, it was that he should not pass his examination, and yet carry on his study in further subjects. It was a matter of the very highest moment that anatomical studies should not be conducted at the same time with clinical studies, or the risk would be run of carrying septic germs into the anatomical ward. Chemistry and physics might easily be put into the winter session, and zoology and botany into the summer. It appeared to him, from every point of view, that it was desirable to pass the resolution.

Dr. SCOTT ORR was of opinion that more than one year's study would be required by the student to pass in the subjects mentioned in the motion. If there were to be an extension of the curriculum, it should be in the direction of professional study, and not of preliminary study. The proposal might be very suitable for university students, but certainly not for those who were educated at the extramural schools, who would find it extremely difficult to comply with the regulation. It would impose a very serious tax upon them to compel them to undergo this additional study and examination. He could not see the propriety of relegating chemistry entirely to the preliminary course; and a knowledge of that science should be, as it had hitherto been, a part of the first professional examination. He entirely sympathised with the views expressed by Dr. Chambers and Mr. Teale.

Mr. MACNAMARA proposed as an amendment:

"That it is desirable that the first principles of mechanics, physics, chemistry, anatomy, and biology, should be regarded as branches of a preliminary scientific training, and of an examination to be taken at the end of the first year of professional study."

Dr. PETTIGREW seconded the amendment.

Mr. MARSHALL, in reply, said he was very glad to find that there was an almost unanimous opinion at the Council that the study of the subjects to which his motion referred could not be satisfactorily conducted at the schools. Some of the speakers seemed to think that he meant it could, but he did not. His intention was to secure a *bonâ fide* scientific education and examination of a preliminary kind; and the reason why he advocated it was, that he regarded school-life as educating the mind in the instruments that a man must use in the acquisition of knowledge. Then the special sciences came in, and those special sciences were entirely new to a student's mind; and he saw no objection to boys at school being allowed to indulge themselves in botany, zoology, and other sciences. They might be encouraged to use their eyes, ears, and fingers, in the study of nature, but examinations arising out of this should not be taken seriously into account. A purely scientific training was necessary as introductory to the study of the human body in health and disease, which was the ultimate object of medical science, which began with the anatomy of a man, went on to the physiology of a man, to the pathology of a man, and then to the management of disease or accident. The intermediate study between school and professional training should include mechanics, physics, chemistry, and general biology. Mechanics had already been relegated to the schools, but he should prefer to see it brought up again in the scientific year. He could not understand the argument that chemistry was such an important subject that it could never be taught effectually separately. He quite agreed that it might be better taught in existing medical schools than in general schools, and he foresaw that the requirements would be fulfilled in the medical schools or in other schools that stood precisely on the same level with regard to scientific training and education. A student would learn his chemistry much better if he were not restricted and hampered by other studies. There would then be less cram; and, therefore, he thought that chemistry should be taught in the preliminary year, irrespectively of any medical school. He quite agreed that it was utterly impossible to make a man a perfect chemist, either in one year or five or six years; but he might acquire a knowledge of the general laws of chemistry, so that afterwards he might understand applied chemistry without the trouble of learning the principles. It therefore appeared to him that the plan he proposed would rather improve a man's knowledge of chemistry than lessen it. With regard to biology, he had Professor Huxley's sympathy with him, in saying that that subject should be taken out of the medical curriculum, which should begin with human anatomy. By general biology, he did not intend to include all botany in the fullest sense of the term, nor all zoology, but the elementary principles which surrounded the structure and action of living things. Whatever related to life on the surface of this planet was referred to by the general term biology. What he meant was that a man should have a general idea of the arrangements and the systematic classification of plants and animals, that then he should go on to the structure of plants and their organisation, and the functions and organisations of animals; next, to their relation to the inorganic world, and then to animals. The moot point appeared to be, whether this course of scientific instruction should be introduced between the general education and the purely professional education, or should form part of the professional education itself. He admitted that there was room for argument and for difference of opinion, but some sort of scientific preliminary training was necessary. He thought it should be before a man was allowed to be regarded as a registered medical student. If a man entered upon his course as a medical student, he was marked out by all his friends as a medical student; and if he failed, and did not go on, it was a social disadvantage that he should be recognised as one who began to be a doctor, but could not be. If, however, he were merely recognised as a student in general scientific subjects, even if he failed, he was fit for any other profession; he might be a lawyer or a clergyman, an engineer or a merchant. There was no calling in the world into which he could not go; and from that point of view it was better that a man should be rejected twice over, at the end of the first year, and at the end of another three months, and find he could not go on, than that he should be allowed to be called a medical student, and then be rejected, and be branded by the opprobrium that he could not make himself a doctor. Next came the great question of prolonging the curriculum. He was not in favour of declaring a minimum, if it were understood that a man was called upon to pass within that time. As a fact, men constantly passed the limits of the minimum; and he maintained that, if his plan were adopted, just as many men would pass in the fourth year as did at present. What had been called the direct way of prolonging the minimum period was, to his mind, utterly objectionable; it would make the men more lazy

than they were now, and encourage them to think that their seniors believed them able to get through in a certain time. If the minimum were prolonged, it would have very different effects on different minds. If it were extended to five years, damage would be done to the very best men, who now could get through in four years. He would, therefore, extend the minimum indirectly ; and the true way to regulate medical education was to let the minimum take care of itself. To say that a man must pass his scientific examination before he began his professional study, was one way of setting free from the curriculum the subjects in which he had passed, and was practically enlarging the time of his study. The first step would be the scientific step, and until the man passed that he would be told that he could not be registered as a medical student. Then, at the end of the first year, he would go on to the next step; at the end of the second year to the next; and so on. This way of prolonging the minimum would enable the industrious to get through, and give a little time to the laggards. He therefore could not see any hardship in insisting upon what he suggested being the preliminary course. He believed it would fall into the hands of medical schools. It would be better to interpolate a scientific examination between the earlier and later period, and get rid of the idea of anything like an arbitrary extension of the minimum. Let a man get through in the minimum if he could, but at the same time let it be prolonged for those who could not, and that would be accomplished by the method he suggested.

Mr. SIMON said the resolution simply contended that, before the anthropological studies began, the man should have acquired knowledge in physics, chemistry, and biology. He thought more time would be required in the future by the man who was preparing himself for the medical profession. It could not be gained in the direction of school-studies, which, after all, were governed by the period of birth. When some of the members of the Council were young, the training required for the medical profession was probably not so much as was now required for the veterinary profession. Fifty years ago, the amount of science required was certainly very small. In professional subjects, the increase had since that time been simply stupendous, and it could not be expected that students could acquire a clear knowledge of the different subjects, with adequate skill in practice, within the time that sufficed fifty years or even thirty years ago. He therefore anticipated that there would be a prolongation of study for the medical student, and that would be indirectly provided for when the student was required to pass an examination in the subjects mentioned in the motion before he began his purely professional studies. He would ask the Council to be unanimous in the affirmation of the principle that, before a man entered upon his anthropological studies, he should have acquired a knowledge of the differences between the inorganic and the organic worlds, and of the general laws of life common to animals and vegetables. He would then be prepared to go to the study of the anatomy and physiology of man.

Dr. QUAIN asked Mr. Simon if he thought that the rising generation of physicians and surgeons were very much more qualified to treat disease than those of the previous generation. For himself, he felt that the treatment of disease was deteriorating in this country. By cramming science down the throats of the students, they were causing them to lose all idea of practice. He was delighted to find that it had been clearly acknowledged that this was a question of whether five years should be devoted to medical studies ; for it was utter nonsense to say that any young man in any school in England—except, perhaps, one of the great schools—could acquire the knowledge that was asked of him in the time at present allotted. The poor biological knowledge that a man would pick up at a school would have to be forgotten, before he listened to such lectures as those by Dr. Sharpey or Mr. Schäfer. If a youth spent his time in catching butterflies or dissecting frogs, he would have to forget it all when he came to attend such lectures. The Council would have to say that the period of study must be five years, and then the common-sense view would be to determine how those years should be regulated.

The PRESIDENT said that formerly, at Oxford, everybody had to pass an examination in arts, and afterwards four years were required for medical study ; but within the last twenty-five years a person might take a degree in arts and in science, and take up all these biological studies. Still he had to spend four years in medical study. That was accounted a great hardship, because, it was said, a man had already passed in these anthropological specialities. There was, therefore, an endeavour to shorten the four years ; but others said : "The practical studies of medicine and surgery have become so great, that you cannot spend less than four years in the anthropological studies." The fact clearly was, that the professional studies of the present day required four years ; and, somehow or other, whether it was called preliminary, intermediate, or professional, one year was wanted for the science-studies. Those scientific studies had become a necessity, and the vast and accumulated mass of professional work which had grown up in the last quarter of a century could not be put into three years.

Dr. LYONS could not say that he did not see the necessity of some such medical legislation as that indicated in the resolution, but he was not sure that the Council would not do better to consider a motion like the present after they had gone through the various questions which they would have to consider under the head of Recommendations. He considered that not less than two years' serious study would have to be devoted to acquiring anything like a respectable knowledge of the first principles of physics, chemistry, and biology. Anything short of that would be found to be completely imperfect and practically useless, otherwise nothing whatever in the nature of real and permanent good would be accomplished. Probably the usual age for a boy leaving school was sixteen, and the two years of studying these subjects would bring him up to eighteen ; then, at least four years must be devoted to professional study, which would bring him to the age of twenty-two. The discussion which had taken place as to the age at which a man should enter the medical profession, seemed really to point to a proposition that the legislature should be recommended not to admit a man to the study of his profession until he had passed at least two years in some recognised university ; and he thought the simpler and better plan would be for the Council to recommend such legislation. The State complained that, notwithstanding all the facilities for medical education, there was not, at present, a sufficient supply of medical servants for the business of the State and all its various departments. He himself was not prepared to say whether the present supply was sufficient or not ; but he wished to remind members that the Vice-President of Council, in his speech introducing the Medical Bill last year, based a great part of his argument for the necessity of medical reform upon a statement that there were not sufficient medical servants of the State, and that it was desirable to afford greater facilities for supplying them. He did not believe that full statistics had been afforded to show what the average annual want of the State would be over a period of ten or twenty years. He would be prepared to support any motion for deferring the consideration of this subject until after the recommendations had been discussed.

Dr. HAUGHTON thought that the most convenient way would be to group the subjects mentioned in the motion under the name of professional studies, and to say that the Council thought the curriculum should be for five years instead of four. He could answer for it that the University of Dublin would accept that at once.

Dr. STRUTHERS said the whole question resolved itself into this—five years or four. His objection to the resolution was, that it answered the question indirectly. If the Council meant that the period should be five years, let them say so fairly and openly. The danger of Mr. Marshall's proposal was that it would only secure a smattering of knowledge ; but the intention was to make the knowledge genuine, and, therefore, the time must be five years. He thought that point should be discussed on its real merits, and not indirectly. The discussion had cleared the air, but if the motion were passed, the Council would tie their own hands, and find it very difficult to arrange a curriculum which the different bodies would look at.

The amendment was negatived by ten votes to seven.

A further amendment by Dr. STRUTHERS, seconded by Dr. PETTIGREW : "That the Council postpone its decision on the motion until it comes to decide on the questions of professional education and examination," was also negatived ; and, on the original motion being put to the vote, it was lost by ten votes against nine.

The Registration Fee.—Mr. SIMON moved :

"That the statements which have been made to the Council, that the Council's accumulated funds amount to £38,000, and that the Council's annual income exceeds its annual expenditure by an average amount of £1,300, be referred to the Finance Committee and to the Executive Committee jointly to inquire, and that these Committees be instructed jointly to report their opinion to the next meeting of the Council, whether the registration-fee of five pounds now charged to each person who enters the medical profession, is more than enough to provide for the full efficiency of the Council in all its branches of duty, and whether the Council might properly proceed to make a reduction of the fee."

Mr. MARSHALL seconded the motion.

Dr. HAUGHTON strongly objected to the motion. If this question was to be raised, the Council ought to decide it at once, and not refer it to a Committee. He agreed that the surplus ought to be spent in some useful way but the proposed reduction of the fee would confer

only an infinitesimal benefit on the practitioner, who only paid it once in a lifetime. He proposed, as an amendment:

"That the question of a reduction in the registration-fee be decided by the Council itself."

The amendment was seconded by Dr. PETTIGREW, and was carried.

Dr. HAUGHTON moved:

"That the registration-fee remain *in statu quo*."

Dr. PETTIGREW seconded the amendment, which was carried.

New Decree of the University of Oxford.—Dr. CHAMBERS moved:

"That the Council sanction the following decree passed by the Convocation of the University of Oxford, February 24th, 1885:

"That no person shall be henceforward presented for the degree of Bachelor of Medicine who has not passed a qualifying examination, not only in medicine, but also in surgery and midwifery, before the Examining Board for England, unless or until an Examining Board be appointed by the University for that purpose.

"And that the Council also sanction the adoption by the Colleges of Physicians and Surgeons of England of the following resolution of the Committee of Management of the Examining Board for England of the said Colleges.

"That every member of an English university who shall have passed such an examination or examinations at his university as shall comprise the subjects of the first and second examinations of the Examining Board for England, and who shall have completed not less than four years of medical study according to the regulations required by his university, be eligible for admission to the third or final examination of the Board, two years after his having passed all the other required examinations."

He said that this matter arose out of the 19th section of the Medical Act. The degree about which it was principally concerned was that of M.B. of the University of Oxford. That degree formerly did not authorise the recipient to practise, but only to teach and give lectures on the practice of medicine. Formerly, the University used to give an admission to practise under the title of Licence in Medicine, which was one of the qualifications scheduled in the Medical Act. It was a separate diploma, paid for by a separate fee of 2s. 6d.; but, when the Act of 1858 was passed, the M.B. was made a qualification, and thus the Bachelor of Medicine was admitted on the *Register*, and practised by the authority of the Medical Council, and by no other authority whatever, The scheduled degrees were a selection, and some of the higher degrees were not put on the *Register*, as, for example, the M.D. of Canterbury, the examination for which was not considered sufficient. The Licence in Surgery of the University of Oxford was also not on the *Register*, because it was under an antiquated statute, of which one requirement was impossible, one illegal, and the other unprofessional. In order to carry out loyally the recommendations of the Council, the University of Oxford had, for more than fifteen years, been gradually increasing year by year the standard of its examination. Then there came from the Council the recommendation that all persons who received the qualification should be examined in a minimum quantity of surgery and midwifery. The University felt that, if it went on increasing its standard in medicine, it must also increase the standard in midwifery and surgery, and that it would be absurd to make the same examination both a minimum and a maximum. On the other hand, it would be oppressive for the candidate to be required to have a higher knowledge in all three branches. A great many came up for the M.B. with no intention to use the qualification for teaching, but simply as general practitioners; and the examination in medicine was not suited to them, because it was of too high a standard. The University was, therefore, debarred from going on increasing the standard. Then the question arose whether the examination should be lowered, so as to make the M.B. a suitable qualification, or should the standard in surgery and midwifery be raised. It was thought that the difficulty might be best got over by the proposal in the resolution.

Sir H. PITMAN asked Dr. Chambers if he was officially representing the University in bringing this subject forward, because, to his mind, the Council had no authority to interfere.

The PRESIDENT said he thought Dr. Chambers had brought it orward on his own motion; but there was a legal question involved in it which had not yet been settled, and was very likely not to be. It was very doubtful whether the Council had anything to do with it.

The usual hour for rising having arrived, the Council adjourned the debate.

Monday, May 18th.

Sir H. ACLAND, President, took the chair at 2 P.M.

New Decree of the University of Oxford.—The adjourned debate on Dr. Chambers's motion respecting the decree passed by the University of Oxford was resumed.

The PRESIDENT said that Dr. Humphry had called his attention to the circumstance that allusion was made in the Oxford decree to "the Examining Board for England." There was no such body, but there was "an Examining Board in England."

Dr. CHAMBERS, in continuing his address in support of the motion, said that a question had been addressed to him as to his *locus standi*. It was this: he was a member of the Convocation, and the representative of that body on the Council; and he had brought the matter forward in order that the Council might know what the University was doing. The University had endeavoured to comply with the recommendation of the Council respecting examinations in midwifery and surgery, and its opinion was that such examination for Bachelors in Medicine would be best carried out in London. He asked the Council to sanction the arrangement; otherwise the University might find itself in the awkward position of not knowing whether its examinations had been legalised or not. His attention had been drawn to the misdescription referred to by the President. He believed that the error was in the original decree; and he would ask the permission of the Council (in order that the error might be rectified) to withdraw his motion, on the understanding that he might be permitted to bring it forward again, and discuss it on its merits.

Permission was given.

Dr. HUMPHRY gave notice that on the following day, for the purpose of preventing misunderstanding, he should move:

"That the representative of the University of Oxford be requested to make it known to the University that there is not at the present time any Examining Board for England."

Recommendations of the Council.—The Council then went into Committee, for the purpose of considering the existing recommendations of the Council, and the proposed alterations therein adopted by the Branch Councils for England, Scotland, and Ireland.

Age for Licence to Practise.—The first of the recommendations considered by the Council was No. 19:

"The age of twenty-one shall be the earliest age at which a candidate shall obtain a licence to practise; and the age shall, in all instances, be duly certified."

No alteration was proposed by the English and Irish Branch Councils.

Dr. HALDANE, in behalf of the Scotch Branch Council, moved the substitution of the word "should" for "shall." He said there was really no difference in the meaning; but, as the Scotch Branch Council looked upon this paragraph in the light of a recommendation rather than as an actual law, they thought that the word "should" was preferable.

Dr. HAUGHTON seconded the motion.

Mr. SIMON took exception to the proposal of Dr. Haldane. He drew a distinction between opinions which the Council had a right to make imperative, and opinions in regard to which it had no such right. Opinions which the Council regarded as imperative ought, he thought, to take the form of standing orders.

Dr. HERON WATSON supported the motion, which was put and carried.

Dr. BANKS moved:

"That the age of twenty-two be the earliest age at which a candidate shall obtain a licence to practise"

He believed that, if the question of age were considered, after the question of the curriculum had been disposed of, there would be a general consensus of opinion in favour of his motion. He was not alone in his advocacy of that proposal; for the King and Queen's College of Physicians, Ireland, had recommended that no candidate should be admitted to practice before the age of twenty-two. Sir William Gull had recommended twenty-three as the earliest age. When he (Dr. Banks) brought forward the subject on a former occasion, it was postponed, on the suggestion of Mr. Simon, until the subject of medical education was under discussion. They had had abundant evidence that a medical student's education could not be completed in forty-five, or even forty-eight, months, and they knew that a number of young and immature youths had been admitted to the profession.

Dr. AQUILLA SMITH seconded the motion.

The motion was rejected, only two voting in its favour.

Dr. HERON WATSON moved the omission of the word "duly" before "certified." He regarded the word as superfluous. He said that the affidavit of the candidate himself as to his own age was accepted as a sufficient certificate.

The motion, having been seconded by Dr. PETTIGREW, was agreed to.

Duration of Professional Study.—Recommendation 20, "No licence

shall be obtained at an earlier period than after the expiration of forty-five months subsequent to the registration of the candidate as a medical student," was then considered.

Dr. HALDANE, on behalf of the Scotch Branch Council, proposed to add the words, "and his commencement of study at a medical school." The object of the addition, he said, was to prevent candidates from being registered who had merely become pupils of a registered practitioner. The Scotch Branch Council was aware that, in a number of cases, students had availed themselves of that mode of commencing medical study; and by that means in some cases a year or more had been deducted from the period of education.

Dr. FERGUS seconded the motion.

Mr. MACNAMARA said that the Irish Branch Council were unanimously of opinion that the present regulation was not satisfactory. It regarded the work with a registered practitioner as a sham. He proposed, on behalf of the Irish Branch Council:

"No licence shall be obtained at an earlier period than at the close of the attendance on four winter and four summer sessions of medical study, subsequent to the registration of the candidate as a medical student."

The Case of Mr. Bryceson.—Mr. Macnamara's speech was interrupted by the announcement of the President that the hour had arrived when, according to arrangement, the Council had to consider the case of a medical practitioner (Ebenezer Bryceson), summoned to answer the charge of having caused to be registered in the *Medical Register* a title which he did not possess.

Strangers were requested to withdraw. Upon their readmission:

The PRESIDENT said that the Council had decided to postpone the consideration of the case until Thursday.

Standing Orders Regarding Penal Measures. — Sir HENRY PITMAN said it was considered desirable to reconsider the standing orders with reference to penal measures, as to which there was no very clear mode of procedure. Such cases were becoming more and more difficult to deal with, and it was desirable that the rules respecting them should be more exact. He moved:

"That the Executive Committee, with the assistance of the legal advisers of the Council, be requested to revise Sections 11, 12, and 14, of the standing orders, having reference to penal measures, and to make, at the next meeting of the Council, such recommendations as they may think fit for amending the same."

Mr. SIMON seconded the motion, which was agreed to.

Application for Admission to the Dentists' Register.—A communication received from the Lord President of the Privy Council, enclosing copy of a petition of Mr. E. Wooton, praying that his name might be entered in the *Register* as a dentist, was ordered to be entered on the minutes.

Mr. MACNAMARA wished to know if the matter would be brought on for discussion.

Sir HENRY PITMAN said there was really nothing to discuss. The petitioner, who had presumably been in practice before the passing of the Dentists' Act, now applied to be registered, and had he applied within a certain time his request might have been granted. That time had passed, and therefore the Act of Parliament would not admit him.

Application from the University of Pennsylvania.—A communication was received from the department of Dentistry of the University of Pennsylvania, asking for the recognition of its diplomas.

Sir HENRY PITMAN said that the Council had decided that the course of study at that University was below the required standard.

Dr. HAUGHTON asked in what particular it was defective. There were two universities, the course of study in one of which was greatly inferior to that in the other. He asked that the matter might stand over, in order to enable him to obtain information from Dublin.

The request of Dr. Haughton was acceded to, and the Council adjourned.

Tuesday, May 19th.

Sir H. ACLAND, President, took the chair at 2 P.M.

Recommendations of the Council.—The Council resumed the consideration of the reports by the Branch Councils in regard to the General Medical Council's recommendations on the subject of the age of licence for practice and of professional education and examination.

Period of Professional Study.—Mr. MACNAMARA, speaking with reference to the amendment moved by him on the previous day, said that, if there was one thing on which the Council had spoken with no uncertain breath, it was that the period of medical study should occupy at least four years. He believed this subject was of the very highest importance, more important than all the other recommendations put together. It was the keystone of the arch, and if the Council did not take a firm stand upon this point, it would be a sad thing for professional education. The Council had included nine subjects in their professional examination: chemistry; anatomy; physiology; materia medica and pharmacy; pathology, including morbid anatomy; medicine, including medical anatomy, clinical medicine, and therapeutics; surgery, including surgical anatomy and clinical surgery; midwifery; and forensic medicine. What had they done, *quoad* these essential subjects, in their recommendations? They said that everyone of them were to be completed in twenty-four months of study in a school—three winter sessions of six months each, and two summer sessions of three months each, equal to twenty-four months. He could not for one moment entertain the idea that these most essential subjects could be studied completely and with advantage in twenty-four months of student-life in a hospital and in a medical school. Then, another point upon which the Council had expressed an exceedingly strong opinion was that of unqualified assistants, and he should be surprised if one hand was held upon in their favour; but, notwithstanding that, it was proposed that these gentlemen, who had not yet completed their curriculum, and who certainly had not obtained any qualification whatsoever, were to go down to the general practitioners in different parts of the country, and to remain with them for a year and a half, as a portion of the four years? What experience was a man to gain there? Surely all that he wanted to know about compounding could be learned in a far shorter time than that. But, on the other hand, he would very likely be employed to visit the sick poor, and probably people of higher rank; so that while, on the one hand, the Council was saying, "Down with the unqualified assistants," on the other hand, it was saying, "Up with the unqualified assistants." They had no experience of this kind in Ireland. He served his time as a dispensary doctor, and he knew that if he were to attempt to send one of his apprentices to visit a poor patient, he would be called up before the Board and summarily dismissed. If the Council persevered in their present recommendation of twenty-four months, he asked whether they were not giving encouragement to a practice which, on the other hand, they deprecated. Four winter sessions and four summer sessions would be little enough in which to teach these important subjects. A proposal had, on one occasion, been brought forward by himself and seconded by Dr. Pettigrew, that it was desirable that the first principles of mechanics, physics, chemistry and biology, should be regarded as branches of a preliminary scientific training, and that an examination in them should be taken at the end of the first year of professional study. If that resolution had been agreed to, it would have materially lightened the professional curriculum. The curriculum had not been lightened; and, as the recommendation stood at present, the whole of these subjects had to be disposed of within twenty-four months. It had been mentioned to him that if the proposal of the Scotch Branch Council were accepted, the result would be to increase the expense to the poor English medical student. That was founded upon the idea that it would be necessary for the students to live in London, whereas the fact was that there were many other most important medical centres in England, at Cambridge, Manchester, Liverpool, Leeds, and Sheffield, at which these sessions could be kept, so that the argument of extra expense would hardly apply. If so much was to be said on the part of the poor English students, what about the poor Irish students? Ireland was a far poorer country, he regretted to say, than England, and he wished that the reverse was the truth; but, still, the poor Irish managed to find money to keep the four winter and the four summer sessions. He held in his hand the regulations and by-laws relating to the education and examination of candidates, applicable to students presenting themselves for licences at the College of Surgeons in Ireland; and there it was insisted that a certain curriculum should be gone through, and that curriculum was of such a character that the student must put in four winter and four summer sessions. At the end of each session, he was examined on the subjects of that session. If he failed in passing that examination, he had a chance at a supplementary examination; and if he failed in that, then the whole of that year's study was wiped out, and he must commence again. If in a poor country like Ireland they found it practicable to do that, and if the Scotch authorities felt that they would be ready to go nearly as far as Ireland, he thought it would be very much to be regretted that English students were to have facilities for getting on the rolls, having put in only three winter sessions and two summer sessions, where they could not possibly be taught the whole of the subjects thoroughly. He rejected altogether the year and a half with the general practitioner, on the ground that it was against the repeatedly expressed opinion of the Medical Council with reference to unqualified assistants.

Mr. COLLINS said he had much pleasure in seconding Mr. Macnamara's proposal. He thought if there were any members round that Board qualified to speak on behalf of the general practitioners, they were his friend Mr. Bradford and himself. He was convinced that a year and a half spent entirely with the general medical practitioner was not as valuable, in the vast majority of cases, as Sir James Paget, perhaps, and other members who were not as well acquainted with the matter as he was, might expect. As far as he knew, a very large number of practitioners would be unwilling to take the trouble of communicating really practical and useful knowledge to their assistants; but a still larger number of young men, he was sorry to say, from his own personal knowledge and experience, were as utterly unwilling to receive instruction from the general practitioners. For his own part, he had never any pupil or assistant who was as willing to receive instruction as he would have been willing to communicate it to him. He often prepared assistants for the examinations for the Apothecaries' Hall of Ireland, but his experience was that he could not get them to study. He could not, therefore, say that a year, or a year and a half, with a medical practitioner was of that great value that otherwise it ought to be and would be. If, on the other hand, the general practitioner were able and willing to communicate medical knowledge to his assistants, and they were desirous of receiving that instruction, he believed it would be the most valuable part of medical instruction. He had listened with the greatest possible interest to the statement made by Mr. Marshall, and was greatly inclined to support him in the recommendation that he brought forward ; but he had already agreed to support the resolution of the Branch Council of Ireland, seeing the great importance of increasing the months actual study from twenty-four to thirty-six. He thought, on the whole, that thirty-six months of real study, and then giving three months in each year to the student, would be a very fair division and a good commencement, and that proper progress would be made afterwards if the student thought it desirable.

Dr. MATTHEWS DUNCAN said he could see no essential difference between Dr. Haldane's resolution and Mr. Macnamara.

Dr. PITMAN said there was a considerable difference between the amendment handed in by Mr. Macnamara and that which he had moved.

The PRESIDENT said the motion as handed in by Mr. Macnamara was : "The course of professional study required for a licence shall occupy at least four years, of which four winter and four summer sessions shall be passed at any school recognised by any of the licensing bodies mentioned in schedule (*a*) of the Medical Act." That was in place of the recommendation of the Irish Branch Council as printed in the programme.

After some discussion, it being pointed out that this amendment would more properly belong to the next recommendation to be considered, Mr. Macnamara, by permission of the Council, withdrew his amendment.

Dr. BANKS, in resuming the discussion upon Dr. Haldane's motion, said he believed four years were not sufficient for medical study, and he therefore moved that the recommendation of the Royal College of Physicians of Edinburgh be adopted : "That the course of study after registration, if including elementary mechanics, physics, chemistry, and biology, should occupy at least five years." He mentioned the names of a number of teachers and men of great experience who all agreed that the period of study was insufficient. He had inquired into the period occupied in medical study in all countries of Europe, and found that, with one exception, that in this country was the shortest. In Holland it was seven years ; in Sweden, six to ten years ; in Denmark, seven years ; in Norway, seven years ; in Belgium, seven years ; in Russia, five years ; in Turkey, six years ; in Greece, five years ; Italy, six years ; and in France, six years. It was quite within his experience that four years was insufficient ; and, as a proof of this, he said, clever and industrious young men who could pass the examination at the end of forty-five months, or the lowest minimum period, were frequently so conscious of their unpreparedness to enter on practice, that they sought for a residency in the hospital, or endeavoured by means of clinical instruction to prepare for entering on professional work. He was of opinion that they ought not to increase the facilities for getting into the profession, but that they should, on the contrary, make the examination more stringent, and consequently more extensive. They knew a certain supply was necessary, but he did think it was an unmitigated evil to send in ill educated young men at a very immature age to enter upon medical practice. This did not apply to the universities, because there it was very unlikely that less than five years could be passed in scientic and professional education.

Dr. HAUGHTON seconded Dr. Banks's amendment.

Dr. HALDANE said he had some difficulty about this amendment. In the College of Physicians, he quite agreed with the majority that five years should be the shortest period. When they came to consider the recommendations of the different bodies at the meeting of the Branch Council, he suggested that it should be five years, but that was overruled ; and, in making the motion which he did on the previous day, he was acting as the mouthpiece of the Scotch Branch Council, and not merely expressing his own sentiments.

Mr. SIMON said this was raising again the question that the Council practically declined to settle on the previous Saturday. If, when Dr. Banks spoke of five years he intended that it should include the studies of physics, chemistry, and biology, there was a great deal to be said in its favour. But when the Scotch Branch Council proposed that the whole period of forty-five months should be spent at a medical school, he pointed out that, whether or not it was desirable that the student should do this particular thing for his own good, it was certainly retrograde legislation. He believed that all who had studied legislation, apart from their own individual wishes for particular objects, would agree that the fewer absolute regulations there were the better. If there were no part of the medical curriculum that a student could acquire elsewhere than at a medical school, then by all means have the absolute rule, that the whole period must be passed in such school ; but if it could be assumed, as no doubt was the case, that part could be learned elsewhere, they would then be going beyond their legitimate province in laying down such regulations. Every unnecessary law was an evil. To insist that a student must spend forty-five months in a particular discipline was justifiable if it were shown that he could not obtain for any appreciable time elsewhere the discipline which he required; but if he could, then they had no right to make such law. He was strongly of opinion that the examination in physics, elementary chemistry, and biology, ought to be passed before the commencement of purely medical study, and he suggested that the recommendation should provide that no licence should be obtained at an earlier period than after the expiration of forty-five months subsequently to the registration of a candidate as a medical student, and subsequently to his having passed an examination in the first principles of chemistry, physics, and biology. If these subjects were cleared off, the forty-five months then to be given to medical study would be equal to Dr. Banks's five years. Mr. Macnamara's proposal, so far from lightening the medical curriculum, would bring additional subjects into it ; he would extend the curriculum, perhaps, but he would weight it more heavily; but his (Mr. Simon's) proposal was to lighten the purely medical curriculum, by making these subjects intermediate.

Dr. DUNCAN said Dr. Banks's motion could not be adopted by the Council, because they had already arranged their preliminary examination in a manner inconsistent with it. Their preliminary examination included "elementary mechanics, and solids and fluids," and the Council could not go back upon that. To do so, would be to overturn their own work. It was certainly much better, as was arranged after long discussion last year, that this subject should be in the preliminary examination.

Dr. QUAIN, while cordially agreeing that five years was fully short enough for a man to acquire his knowledge, said he could see no advantage in fixing the subjects of study. This same question was before the Council twenty years ago ; for, in the minutes of 1865, he found this motion carried : "That no licence be obtained at an earlier period than after the expiration of 48 months subsequent to registration of the candidate as a medical student." That was the question they were now discussing ; and then, to show how they had advanced, the next motion was : "The examination in physics, botany, and natural history may be undergone at an earlier period than the first professional examination." He hoped, for the credit of the Council, that they would determine clearly that the period for study should be five years after registration, and then they might hereafter try and determine what the subjects should be. He would move :

"That the course of medical education for a student registered on and after October, 1886, shall occupy a period of five years."

Dr. BANKS said that, in old times, five years was not considered too much, and there were not so many subjects to be dealt with then as now.

Charge against a Registered Practitioner.—The Council then deliberated in private upon the case of Daniel Sutherland, who had been summoned to appear before it, but did not appear. The evidence in support of the charge against him was read by Mr. Farrer, the solicitor to the Council.

The University of Oxford.—On the proposal of Dr. HUMPHRY, seconded by Dr. MARSHALL, it was resolved :

"That with reference to the motion by Dr. Chambers, respecting

a decree passed by the Convocation of the University of Oxford, February 24th, 1885, in order to prevent misunderstanding, the representative of the University of Oxford be requested to make it known to the University that there is not, at the present time, any Examining Board for England."

Instruction in Insanity.—A communication was read from the Faculty of Physicians and Surgeons of Glasgow, enclosing a resolution to the effect that instruction in insanity should be made compulsory in medical education. It was ordered to be entered on the minutes.

Wednesday, May 20th, 1885.

Sir HENRY ACLAND, President, took the chair at 2 P.M.

An Explanation.—The PRESIDENT desired to make a personal explanation. He wished to express his regret that, on the occasion of Dr. Humphry's motion on the previous day, he had not the opportunity of drawing the serious attention of the Council to the matter. He had no idea that Dr. Humphry was in earnest in bringing forward his motion. The Council, they would remember, had been engaged in a very serious and difficult discussion of legal business. The Council, which was already in movement, suddenly resumed, and when their legal advisers were standing by, Dr. Humphry proposed his motion, which was, in fact, that a vote of censure should be passed on the University of Oxford. In the peculiar position in which he (the President) stood towards the University of Oxford, it was manifest that he could say nothing in its defence or in explanation concerning it, and that therefore he should have called upon the representative of the University to make any observation he had to make upon it. But he did not take it seriously; he allowed it to pass, and the vote was carried without any observation. The University of Oxford had for many years been doing its utmost to develop education in the direction it thought fit, with express regard to the action of the Medical Council and to the interests of the country. Its course was not to fly in the face of the general endeavours of the legislature to establish combined examinations, and not to fly in the face of the general sentiments of the country by multiplying qualifying titles and diplomas. Acting, therefore, in good faith, it had come to a certain conclusion, that it would, in the course of its educational arrangements, accept the examinations of a certain body composed of eminent persons in the metropolis; upon which, without any discussion or observation, a message was ordered to be sent to the University, having reference to the decree which they had passed in this loyal spirit, informing them that there was not, at the present time, any "Examining Board for England." He was sorry that Dr. Humphry was not present. What was the precise meaning of that communication, he could not, as President, inform them. All he could say was that, on the representation of Dr. Humphry, seconded by Mr. Marshall, they were to be informed of that fact. It was of some significance that no observations were made, but the vote was taken and carried. It would have been well if the representative of the University had ascertained precisely what the University had done. He had not seen Dr. Chambers, but he himself telegraphed to Oxford to ascertain what the exact words of the decree which they had passed were. He was informed that the words were "the Examining Board *of* England." That was wrong; the words should be "*in* England." In point of fact, however, the University had not used the words mentioned in the motion of Dr. Humphry. He (the President), if any one, was to blame for being weak enough to allow the vote to be taken without serious consideration. He was truly sorry that he had not been quick enough to call Dr. Humphry's attention to the subject, and ask him to defer it until further information had been received.

Dr. HAUGHTON said it would be remembered that the transaction occurred a few minutes before the hour of adjournment, at a time when the Council did things that it did not think of doing at any other period of its sitting. There ought now to be an appeal from Philip drunk to Philip sober. He presumed that Dr. Chambers, when moving for the Council's sanction to the decree, was referring to the conjoint scheme of the Colleges of Physicians and Surgeons.

Dr. QUAIN said that was not an Examining Board for England.

Dr. HAUGHTON said that it was not a very polite way of putting it.

Mr. SIMON expressed a hope that the President would confer with Dr. Chambers and Dr. Humphry with a view of bringing about a satisfactory arrangement. Although the motion was quickly disposed of, it was not irregularly passed, the Chairman of the Business Committee moving the suspension of the standing orders for the purpose. He hoped that the President would allow the matter to drop for the present.

Mr. MACNAMARA said that the suspension of the standing orders was moved *sotto voce*, and in such a hubbub that the proposal did not reach him; had it done so, he should have objected to it. He was glad that the present difficulty had arisen, because it thoroughly justified the course he had always taken in objecting to the suspension of the standing orders. His experience had been that, when the standing orders requiring the Council to adjourn at six o'clock were suspended, their legislation was gone through so hurriedly, that they always regretted it. He wished to give Sir Henry Pitman notice that whenever such a motion was made, he would object to it, and a single objection, he believed, would be fatal to the motion.

Dr. CHAMBERS said that he had made a mistake in the description of the Examining Board. Its full title, he believed, was "The Examining Board in England of the Royal College of Physicians, London, and of the Royal College of Surgeons of England."

Mr. MARSHALL said that, in Dr. Humphry's absence, as he had seconded the motion, some explanation might be expected from him. The object of the motion was not to propose a vote of censure, but to correct an error that had been made. It was thought that it would be very unadvisable to have the error perpetuated in the minutes. It did not appear to him that the matter was very serious, but, if the President so regarded it, he would give notice of motion that the Council should leave it to the discretion of the representative of Oxford to make the communication in any way he liked.

Dr. MATTHEWS DUNCAN said there was no such body as "The Examining Board in England."

Sir H. PITMAN said it was "an Examining Board in England."

Dr. DUNCAN said everyone knew that what was meant was the conjoint board of the two Colleges.

The PRESIDENT said the Council must ask the representative of the University to communicate to them the full title of the Board. Of course, if Dr. Humphry's motion had been simply a request to the representative to point out that the expression used in the decree was not an accurate description of the Board, and that it should have been so-and-so, there would have been no objection. But this curt message was such as to startle everybody.

Dr. QUAIN said all that Dr. Humphry meant to do was to correct an inaccuracy.

The matter then dropped.

The Business of the Council.—Sir HENRY PITMAN said when the Council met on the previous day, he felt it his duty as Chairman of the Business Committee to look back and see what they had done during the last eight days, and also to look forward and see what they had to do during the few remaining days of the week. On looking at the programme, he did not suppose any one was sanguine enough to imagine that they could get through the business before them within the week. They had forty-five distinct questions on the reports by the Branch Councils alone, and there were other questions besides. The next day would be in part occupied by a legal case, and then there would only remain Friday and Saturday. He was persuaded that if the business were got through, it would be done in so hasty and unsatisfactory a manner that it would bring some discredit upon the Council. He therefore suggested that after what fell from their solicitor as to what ought to be the notice given to Daniel Sutherland for his appearance there, they should not commit even the appearance of an act of injustice, but should give him fair notice and time for his defence. He would abstain from any further remarks upon the legal question; but, in regard to the time at the disposal of the Council, the President agreed with him that it would be far better to have a short session towards the close of the year, and that all such legal cases should be submitted to that session. They would then get on as far as they could with the programme of that day, and anything left unfinished could be taken at the next meeting.

Mr. SIMON said he could not quite share the pessimist views of Sir Henry Pitman. There appeared to be one or two really difficult questions in connection with the recommendations, one of which was almost decided on the previous day; and, when that question was decided, the remaining business, he thought, was not more than might be got through during the present week. It would be much more convenient to get the business through during the present week than to have an indefinite future appointment.

Sir HENRY PITMAN said he should be glad if the Council could get through the business during the present week, but his impression was that it could not.

By direction of the President, the REGISTRAR read to the Council the following letter:

"20, Gordon Square, W.C.,
"May 20th, 1885.

"DEAR MR. PRESIDENT.—The experience of the present session compels me, as Chairman of the Business Committee, to draw your serious attention to the time occupied by the legal business of the Council. The Council was summoned this session for the special consideration and revision of the Recommendations relat-

ing to professional education and examination, and, after seven days' sitting, scarcely any progress has been made in this work, owing to the legal proceedings on which, under the advice of our solicitor, the time of the Council has been occupied. It rests with the Council to determine whether any and what course can be devised in reference to the action which they ought to take on such matters, having regard to the economy of their time, and the due discharge of the duties imposed on that body by Parliament. May I, therefore, suggest that you would be so kind as to bring this subject at once before the Council, and ask their permission to take the opinion of the law-advisers of the Crown as to the readiest mode of carrying into effect the penal clauses of the Medical Act.—Believe me, yours faithfully,

"HENRY A. PITMAN.

"Sir Henry Acland, K.C.B.,
"President of the General Medical Council."

On the motion of Mr. MARSHALL, seconded by Mr. SIMON, the foregoing letter was ordered to be entered on the minutes.

The Case of Daniel Sutherland.—Strangers having withdrawn, the Council proceeded to further consider the case of Daniel Sutherland, and to deal with it in accordance with Clause 29 of the Medical Act.

On strangers being readmitted, the following resolutions were read:

"That the Council have heard the evidence, and considered the defence of Daniel Sutherland, as stated in his letter received on May 18th instant, and do judge him, after due inquiry, to have been guilty of infamous conduct in a professional respect. That, as it has been proved to the satisfaction of the General Medical Council that Daniel Sutherland has been guilty of infamous conduct in a professional respect, the Council does, by this order in writing, direct his name to be erased from the *Medical Register*, and gives orders to the Registrar to erase his name accordingly."

Recommendations of the Council.—The adjourned debate on the reports of the Branch Councils in regard to the recommendations was resumed.

Period of Professional Study.—Dr. BANKS submitted his amendment in the following form:

"That the course of medical study after registration should occupy at least five years, if the subjects of elementary physics, chemistry, and biology are included in that period, or at least four years, if a satisfactory examination in these subjects has been passed previous to registration."

Dr. STRUTHERS, in supporting Dr. Haldane's motion, said he was strongly of opinion that four years of genuine study were sufficient, and that a fifth year would be a tax on ability and industry, keeping back the better class of students. An average man, if industrious, could complete his course satisfactorily in four years. When he (Dr. Struthers) was in his fifth year he was demonstrating in the lecture-room, and the better class of his own students were in similar positions. Two of his students, after four years, were now teaching for him a class of one hundred students. It would be an iniquitous thing to say that a man should not enter the profession under five years. Of course idle students must have five years, but they could find that out by being rejected. Many of the physicians and surgeons who had sent in their answers to the question addressed to them had declared their opinion that a period of four years was ample. Some said that four years were not enough. Not enough for what? Of course not enough to make consulting physicians or surgeons; but that was very different from simply entering on the practice of the profession. Sir Joseph Lister, who had had great experience in Scotland and England, had expressed his opinion that a period of forty-five months was sufficient, if employed to the best advantage, and Dr. John Bruce had expressed himself to the same effect. A similar answer had been given by almost every one in Scotland who had seen the working of any organised medical school. In Germany the period was four years, and during the whole of the first year the student was working at chemistry, zoology, mineralogy, and natural philosophy, the first examination taking place at the end of the second year. The French system was also an example in favour of Dr. Duncan's proposal.

Dr. DUNCAN said there was not much difference in the two proposals, but Dr. Banks's amendment overturned the decision of the Council as to the preliminary subjects; and he should therefore vote against it.

Dr. PETTIGREW, in supporting the motion, said he thought it would be very foolish to keep back industrious and intelligent youths, and encourage lazy ones, by extending the period to five years. In Scotland, they had fairly considered the question, and had agreed to recommend four winter and three summer sessions, but they laid particular emphasis upon the candidate being a *bonâ fide* medical student. He hoped that the Council would see its way to adopt the recommendation, and would be careful to introduce only such subjects as were fundamental and necessary, so as to avoid overweighting the medical curriculum. The students ought to have fewer subjects, and more time to reflect, as they proceeded with their education.

Dr. WATSON objected to Dr. Banks's amendment, because it did not compel the student, before beginning his professional study, to put behind his back the subject of systematic chemistry, neither did the arrangement compel the student to pass an examination in systematic chemistry at the end of the first session, but he would be permitted to carry it on to a period in the course of his curriculum in which the study of it would seriously interfere with the study of such matters as anatomy and physiology. What they had to do was to consider the minimum period really requisite to enable the student to obtain a satisfactory knowledge of his profession. That knowledge certainly did not consist in an absolute knowledge of the subjects included in medicine, surgery, and midwifery, such as might be obtained after diligent practice for twenty years. A period of forty-five months, if properly utilised, ought to afford abundant time for the student to acquire the kind of formal systematic knowledge which was all that could be really expected from him. Arrangements should be made so as to avoid the waste of time which often took place in the educational course.

Mr. SIMON said he could not see in the Scotch motion any security for getting, in the purely medical education, the desired relief from the preliminary subjects. If the professional curriculum was to be weighted with the elementary subjects, five years would be wanted to do justice to it. The amendment permitted an alternative of four years, with the understanding that an intermediate examination was passed before the strictly professional studies commenced.

Dr. BANKS referred to the case of Austria, where a period of five, six, and sometimes seven, years was required, and quoted Billroth's figures to that effect. Almost every young physician in England found it necessary to prolong his studies beyond the four years before commencing practice. The Scotch bodies were not unanimous in regard to their recommendation of four years, the Royal College of Physicians of Edinburgh recommending five. At the Royal College of Surgeons of England, only 23 per cent. of the candidates obtained their diploma in four years.

Mr. MARSHALL suggested that the consideration of the matter should be delayed, in order to obtain more unanimity on the subject. With regard to Germany, it must be borne in mind that university education there gave no title to practise, a State examination being required for that purpose. That was not the case formerly. The State examination lasted several weeks, and was of a very serious and practical kind. There could be no parallelism between the Scotch universities and the German, unless the former gave up their privilege of granting licences to practise, which they were not likely to do. In France, the student was required to go through a preliminary training, and obtain a diploma before entering upon his four years; and, if the preliminary training were sound in its character, a four years' course was sufficient. The majority of the answers sent in complained that the time was not long enough; but, if the writers were asked whether they would prolong the time without any conditions being attached, they would, no doubt, reply in the negative. There would certainly be a hardship in extending the term without attaching a condition as to elementary subjects. He was willing to accept the alternative provided in Dr. Banks's amendment. There ought to be a certain flexibility in the arrangement, which should not be enforced too strictly on the corporate bodies. The hospital-authorities would not allow a house-surgeon to be appointed unless he were qualified; and, if the Council declared that a man was not qualified until he had gone through an additional year of study, such a hard and fast line would inflict a hardship upon him. They ought to be careful not to extend the minimum period of education too much. The question was, whether the period assigned was sufficient to enable the student to obtain a fair amount of knowledge, and the Council had no right to lay an additional burden on the better class students so as to enable the inferior class to enter the profession. From figures laid before the Council, it appeared that fifteen per cent. of the students entered the profession during the recognised period, and they ought to be careful that they did not prevent the better class of students from earning their livelihood. Students, as a rule, did not have their pockets very well filled, and the Council should be chary of inflicting a pecuniary hardship upon them. Moreover, it was important that good students should pass all their requisite examinations as soon as possible, so as to enable them to pursue their further studies with more freedom, and to enable them to obtain the hospital and other appointments open to them. He was willing to support Dr. Banks's amendment if it would not be strictly enforced on the corporate bodies. He did not expect that any of the licensing bodies would alter their existing arrangements.

Mr. TEALE sympathised with what had been said, especially as to the importance of not choking up the minimum examination to be passed after four years. In the Leeds Infirmary, there were four

assistant resident medical officers, who until recently were students who had passed all the requisite examinations, but had not gone in for a qualification. A year and a half ago, it was decided that only qualified men should be appointed; and the result had been, that they had no candidates from their own students competing for the office. That showed the effect of having a rigid arrangement for an additional year. He supported the modified elastic proposal contained in the amendment, which the licensing bodies could adopt at once, or defer if they saw good reason for doing so.

The amendment was then put, and carried by eleven votes against eight.

The subjoined footnote was agreed to without discussion.

"Exception may be allowed in the case of any graduate in medicine of an Indian, colonial, or foreign university, or of any student who, having completed the full time required by the Medical Council, and having given satisfactory evidence of general education, shall have spent the whole or three-fourths of that period at an Indian, colonial, or foreign university, the several licensing bodies being requested to communicate to the Council, annually, in the month of January, a statement of the action taken by them respectively during the last preceding calendar year, in regard to such exceptional cases."

The following existing recommendation was then considered:

"The course of professional study required for a licence shall occupy at least four years, of which at least three winter and two summer sessions shall be passed at any school recognised by any of the licensing bodies mentioned in Schedule A of the Medical Act."

Sir HENRY PITMAN moved:

"That the Recommendation be as follows: "At least three winter and two summer sessions should be passed at some school or schools recognised by one or more of the licensing bodies."

Mr. SIMON seconded the motion.

Dr. HALDANE moved, as an amendment:

"That the Recommendation be as follows: At least four winter and three summer sessions should be passed at any school recognised by any of the licensing bodies mentioned in Schedule A of the Medical Act."

Mr. MACNAMARA seconded the amendment. The subjects, he said, were so extensive, and the examinations so searching, and in some respects so practical as well as theoretical, that the time mentioned in the amendment was the least that should be required, if the student was to receive adequate instruction: in Ireland, four *bonâ fide* summer and three *bonâ fide* winter sessions in a medical school were required. At the end of each session, there was an examination. If the student did not pass, he was allowed a supplementary examination, and, if he again failed, he was sent back. That arrangement was stringently carried out, for it was felt to be of vast importance and necessity, that the study should be carried on where alone it could be conducted satisfactorily.

The debate was then adjourned, and the remainder of the sitting was occupied with some formal dental business.

Thursday, May 21st.

The debate on Sir Henry Pitman's motion that "At least three winter and two summer sessions shall be passed at some school or schools recognised by one or more of the Licensing Bodies" was resumed.

Mr. SIMON was in favour of giving as much liberty as possible to the students in carrying on their studies, and considered that a year spent at such hospitals as those at Bradford or Sheffield should be counted in the curriculum.

Mr. TEALE and Dr. HUMPHRY supported the motion, while Dr. PETTIGREW, Dr. STORRAR, Dr. SCOTT ORR, and Dr. DUNCAN were in favour of the amendment.

At three o'clock, the Council proceeded to consider in private the case of Mr. Ebenezer Bryceson, and at 5.45 decided that "though it adjudges him guilty of infamous conduct in a professional respect, it does not, under all the circumstances, now direct his name to be erased from the Register."

The Council then adjourned.

BEQUESTS AND DONATIONS.—The Rev. James Alsop, of Birmingham, formerly of Bristol, has bequeathed £250 each to the Bristol Dispensary for the Cure of Diseases of the Eye, the Birmingham and Midland Free Hospital, and the Birmingham and Midland Hospital for Women.—The Jessop Hospital for Women, Sheffield, has received £195 under the will of Mr. Brian Bates, of Buxton.—Mr. Alfred Tylor, of Newgate Street and Carshalton, has bequeathed £100 to the Invalid Home, Stamford Hill; and £100 to the North-Eastern Hospital for Children.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 23rd, 1885.

THE GENERAL MEDICAL COUNCIL.

THE session of the General Medical Council for 1885 commenced on Tuesday, May 12th, and had not concluded at the time of our going to press.

A study of its proceedings will only serve to increase the feeling of regret that it has not yet been found possible to alter its constitution on the lines laid down by the Royal Commission and in the Bills which have been introduced into Parliament. In the meantime, it travels along the road in ponderous and costly inefficiency, leaving its annual track of talk; and is still in the "hortatory" stage on matters of preliminary and professional education.

The session was opened by an address from the President, Sir H. W. Acland, who took as the text of his remarks three important instructions given at the last meeting of the Council, namely; 1, the revision of the Recommendations of the Council; 2, the withholding of registration from persons who have not passed examinations in medicine, surgery, and midwifery; 3, the inspection of the final examinations at the universities.

In his comments on the first of these topics, the President took occasion to reply to the criticisms of those who hold that great institutions, such as certain of the universities, should not be interfered with unduly by the Council, and of those who hold that the Recommendations of the Council have no value because they cannot be enforced. The Council, he said, was never intended to be mandatory, but simply hortatory. It was not formed to relieve the great institutions for high education of responsibility, or to deprive them of freedom of action. There were differences in the three divisions of the kingdom which should be taken into account; and the letters received from certain universities indicated that it was dangerous for the Council to issue Recommendations which could not be enforced.

With reference to the second subject, Sir Henry Acland pointed out that the Council had long since advised the licensing bodies to carry out the principle of combination. This had been done in Scotland and in England; and he hoped it would be done also in Ireland. He further stated that, from an examination of the entries in the *Medical Register* from October 1st, 1884, to April 1st, 1885, 175 persons had been registered with single qualifications; and of these only 11 had subsequently registered a second. This constituted about 37 per cent. of the total registrations: 50 per cent. for England, 10 per cent. for Scotland, 32 per cent. for Ireland.

The President also referred to the fact that the inspection of examinations had been commenced; to the cases in which the action of the Council was called for under the penal clause of the Medical Act; to the approaching completion of the new edition of the *British Pharmacopœia;* and to some other matters. In his concluding remarks, referring to the great progress in biological science made in recent years, he said that "the chief fear for the ordinary medical student of the end of this nineteenth century is, that he will be oppressed by details in many departments of science, which, though important to the expert, the specialist, and the discoverer, and attainable by exceptional men, are an actual source of distraction to the ordinary clinical student in the precious and too brief years of his student-life."

In moving that the address be entered on the minutes, Mr. Marshall and Dr. Humphry spoke of it as containing much weighty matter and valuable information.

The usual table of the results of professional examinations in 1884 was presented; also a table showing the results of preliminary examinations, returns from the Army and Naval Medical Departments, a table showing the results of examinations held under the Dentists Act, and a report from the College of Preceptors of the results of the preliminary examination held in March last. All these were ordered to be entered on the minutes; and the return on preliminary examinations was referred to a committee. Summaries of the returns were given in last week's JOURNAL.

The judicial action of the Council was called for in several instances in which registered practitioners were charged with misconduct. The Faculty of Physicians and Surgeons of Glasgow reported the removal of the name of Mr. George Washington Evans from the list of Fellows, on account of his having been guilty of infamous conduct in a professional respect. The qualification was ordered to be erased from the *Register;* and as Mr. Evans had been already deprived of his only other qualification, that of membership of the Royal College of Surgeons of England, his name was ordered to be removed altogether. The Royal College of Surgeons reported that the diploma of membership obtained by Mr. Ebenezer Bryceson had been cancelled, in consequence of his having presented forged certificates of professional study; and the qualification was ordered to be erased from the *Register.* It also appeared that Mr. Bryceson had registered the degree of M.B. of the University of Cambridge; and, on inquiry, it was found that he had obtained only degrees in Arts at that University. His qualification of M.B. was removed from the *Register;* and he was summoned to appear before the Council to answer the charge of having produced forged certificates to the College of Surgeons. The Royal College of Physicians of Edinburgh reported the removal from its list of licentiates of two registered practitioners who had been convicted of crime in South Australia, and sentenced to imprisonment; and the qualifications were ordered to be erased. Reports were also received of the erasure from the New Zealand *Medical Register* of the names of two practitioners who had been convicted, one of felony and the other of manslaughter. These cases were referred to the Royal Colleges of Surgeons of England and of Edinburgh, whose diplomas were held by the persons in question. The Solicitor to the Council reported that Daniel Murray O'Hara, against whom legal proceedings had been ordered by the Council to be instituted, in consequence of his having obtained admission to the *Register* by personating one Owen Patrick O'Hare, had been sentenced to penal servitude for levying black mail. It was also reported that O'Hara had committed suicide in prison. The name of Daniel Sutherland was removed from the *Register,* in consequence of his having been adjudged guilty of infamous conduct.

The encroachment of the legal business on the time of the Council has attracted the attention of Sir Henry Pitman, Chairman of the Business Committee, who, in a letter to the President, which has been entered on the minutes, has asked that the law-advisers of the Council may be consulted as to the best method of proceeding with a view to greater economy of time.

A correspondence with the Irish Branch Council, on the subject of the payment of the contributions to the general fund, was the subject of a brief discussion. The Executive Committee in January last passed a resolution that it was desirable that the Branch Councils should forward their contributions when required by the Executive Committee to do so. This the Irish Branch Council replied that they were not prepared to do. Sir Henry Pitman moved that the matter be referred to the Finance Committee, in order that a scheme might be devised which would render it unnecessary for the English Branch Council to advance the money required to meet current expenses. In the course of his remarks, Sir Henry intimated that the money due from the Irish and Scotch Branch Councils was not paid with such regularity as was indicated by the yearly returns, and that the money to meet current expenses had to be advanced by the English Branch Council. Dr. Haughton, a member of the Irish Branch Council, in seconding Sir H. Pitman's motion, pointed out that the ground of objection on the part of his Council lay in the use of the word "required." If "requested" had been used, the matter would have been settled at once.

A proposal by Mr. Marshall, that a Committee be appointed to superintend the production of statistical returns relating to the medical profession, with power to expend thereon such sums as might be sanctioned by the President and Treasurer, was adopted after a brief discussion; and Mr. Marshall, Dr. Haldane, and Dr. Struthers, were selected to form the Committee. Further remarks on this important resolution will be found on another page.

The subject of preliminary examination occupied a considerable portion of the time of the Council. Communications with reference to the amended regulations of the Council had been received from the Universities of Dublin, Oxford, and Cambridge, in which exceptions were taken to certain portions of the proposals. The University of Dublin in particular objected to any interference with its method of teaching mechanics and physics. After considerable discussion, it was decided that the examinations in general education conducted by universities should still be accepted; but that, if any of them did not include elementary mechanics, a separate preliminary examination in the subject should be required.

Connected with the subject of preliminary examination was a proposal subsequently made by Mr. Marshall, that the first principles of physics, chemistry, and biology, should be regarded as branches of preliminary scientific training, and that they should be the subject of examination before the commencement of purely professional study. This gave rise to a discussion, of which an account will be found on another page. Mr. Macnamara proposed, as an amendment, that the examination on the subjects mentioned should be taken at the end of the first year of professional study. This amendment was negatived by 10 votes against 7; 5 members of Council not voting, and 3 being

absent. After the failure of another amendment in favour of postponing decision until the questions of professional education and examination had been decided, the original motion itself was defeated by 10 votes against 9.

A report from the Pharmacopœia Committee was presented by the Chairman, Dr. Quain. It stated that the new edition of the *British Pharmacopœia* was so far completed that a copy would be sent in a very few days to each member of the Council for approval, and bore testimony to the care, skill, and assiduity with which Professors Redwood, Bentley, and Attfield had performed their duties as editors. The report was adopted, and a cordial and well merited vote of thanks was given to Dr. Quain for his invaluable services in superintending the production of the work.

A report from the Committee appointed to inquire as to sites available for new offices for the Council was presented by Dr. Lyons, the Chairman. It contained a statement by Dr. Lyons of investigations which he had made, the result of which was to lead him to prefer a site on the Savoy Estate of the Duchy of Lancaster. The Committee considered that this site would alone be adapted to the purpose, provided that the Council were satisfied as to the necessity for removal, and were prepared to incur the expense of the change. In the discussion, several members objected to the outlay, and it was at last decided that the report should be referred to the Executive Committee, in order that they might take such steps as might be found desirable, under professional advice, for improving the ventilation of the present place of meeting; or that, if necessary, they might report to the next meeting of the Council on the improvement of the building.

Several years ago, a proposal to apply the funds of the Council to the promotion of scientific research was brought before the Council by, if we remember rightly, the present President, who at that time represented the University of Oxford. The proposal at that time met with little favour, and has since remained in abeyance. This year, however, it was revived by Sir Henry Pitman, who proposed the appointment of a Committee to consider and report whether the accumulated funds of the Council could be applied in promoting cientific research for the public good. His object was, that the Council should expend money on the scientific investigation of therapeutic agents, in connection with its duty of preparing a *Pharmacopœia*. The motion was seconded by Dr. Matthews Duncan, but was opposed by Mr. Simon and other members, several of whom considered that the funds might be usefully employed in extending the system of visitation of examinations. Dr. Lyons proposed an amendment, to the effect that a Committee should be appointed to consider how the accumulated funds might be best applied for the public good, in conformity with the provisions of the Medical Acts. The amendment was negatived; and the original motion also, on being put to the vote, was negatived, the numbers being—for, 5; against, 10; did not vote, 8; absent, 1.

The report of the Finance Committee was presented by the treasurer, Dr. Quain, and was adopted. A summary is given on another page. It contained a recommendation as to the plan to be adopted to prevent the necessity for the Branch Council for England to advance the money for the current expenses of the year.

A proposal was made by Mr. Simon and seconded by Mr. Marshall, to the effect that, in view of the considerable average excess of income over expenditure, the Finance and Executive Committees should consider and report whether the present registration fee of £5 might not be reduced to £3. It was, however, resolved that the question of reduction should be decided by the Council itself, and it was forthwith resolved to leave the registration-fee *in statu quo*.

On Monday last, the Council went into Committee for the purpose of considering the alterations proposed in the recommendations. A full account of the discussion is given in another page. Considerable discussion took place on the question of the duration of professional study; and it was ultimately decided "that the course of medical study after registration as a student should occupy at least five years, if the subjects of elementary physics, chemistry, and biology be included in that period; or at least four years if a satisfactory examination in these subjects have been passed previously to registration."

Our analysis of the proceedings of the session will be continued in next week's JOURNAL.

MILITIA SURGEONS.

THE intolerable uncertainty which attends parliamentary business, as at present conducted, was never more strikingly shown than on Tuesday evening, when the militia-surgeons fondly hoped to have had the opportunity of laying their grievances before the House of Commons. All the arrangements had been carefully planned. Sir E. Wilmot was to lead the attack, and was to have been seconded by Dr. Farquharson from the other side; others had promised to speak, and a large number of members had expressed their intention of supporting the motion. Dr. MacCormack had been hard at work for days past, sending out circulars and enlisting sympathy, and the Chairman of the Parliamentary Bills Committee had placed the influence of his powerful organisation at the command of those who were about to advocate the good cause. All seemed to promise well for an animated debate, a good division, and a possible consent on the part of the Government to the very moderate demand about to be made for a committee of inquiry into the hardships so harshly imposed upon a body of hard working and deserving public servants. But, alas for "the best laid schemes of mice and men,' Mr. Warton had unhappily obtained the first place on the notice-paper, and the temptation was irresistible to pay out the "champion blocker" for the persistent way in which he obstructed the legislative efforts of private members; and, in addition to this plausible reason for a count, the honourable member for Bridport had already exhausted the patience of the House by talking at inordinate length earlier in the afternoon on a railway-Bill; so that, when he rose to discuss the subject of Wednesday sittings, a veritable stampede at once began, which nearly emptied the benches. The confusion had scarcely subsided, when the Speaker's attention was directed to the fact that forty members were not present; and, after the proper interval had elapsed, and heads had been duly counted, the quorum was found to be short of its proper number by thirteen. Disappointing as was this result of so much hard work and careful preparation, it is hoped that another opportunity may be found of bringing the subject before the House; and an informal consultation was held in the lobby between Sir E. Wilmot, Dr. Farquharson, and Dr. Lyons (who had hurried back from the Medical Council to take part in the debate), as to the best mode of procedure. It was agreed that a further effort should be made to bring the question forward after Whitsuntide, on going into Committee of Supply. With this view, several of those who are specially interested will ballot for a place; and, if this fail, recourse

can then be had to the last expedient of all, which is to raise a discussion on the pension-vote in the Army Estimates. We therefore confidently hope that the good seed sown during the last and present sessions will yet bear good fruit.

THE HOUSING OF THE POOR IN SCOTLAND.

THE second report of the Royal Commission on the Housing of the Working Classes, as to the state of affairs existing in Scotland, bears evident traces of hasty compilation. The Commissioners, or rather such of them as spent their Easter holidays in Edinburgh, probably felt that, inasmuch as the evils for which they were called upon to find a remedy did not exist in their worst form in Scotland, this part of their labours had better be got over with the least possible delay. And, accordingly, a week after the issue of the major report, the Commissioners are able to publish an account of their stewardship north of the Tweed. Scotch law is always more or less a sealed book except to the elect, and the sketch of the existing legal enactments in force with regard to artisans' dwellings is, therefore, less of surplusage than might at first sight appear. Our Northern neighbours have not troubled themselves with such a mass of legislation as we have in England; and an Act of 1867 is their latest development in the way of general public health law. The large towns, such as Glasgow, Edinburgh, and Aberdeen, have meanwhile filled up the gap with private Acts of their own, so that on many important points the law is not uniform throughout Scotland. As we understand it, however, measures as to artisans' dwellings, similar to Mr. Torrens' and Sir Richard Cross's Acts, have force in some of the large towns, though they appear to have been, more or less, a dead letter. When action has been taken by a corporation as to the dwellings of the poor, this has usually been done under its private Act or Acts. There is very little in the report to show how far the ordinary law has been called into action.

The general feeling expressed in the evidence as to the large towns is that the condition of the housing of the working classes, though in many cases deplorable, is not of the extremely miserable character existing in London. Efforts have been made for its amelioration, not without marked effect; and the causes of the misery are to be ascribed as much to the habits of the people, as to the outside influences which complicate the question in the metropolis. The single-room system appears to be an institution coexistent with urban life among the working classes in Scotland, and is so firmly established that the Scottish law provides for the difficulties which may arise out of the joint ownership of a house in portions. In Edinburgh, there are 14,000 single-room houses; in Glasgow, 25 per cent. of the population live in single rooms; and in Dundee there are 8,221 houses of one room, containing 22,870 inhabitants. The Commissioners do not comment on the sanitary and social evils consequent upon the single-room system, further than remarking that, "although the evidence shows a not very desirable state of things in the housing of the working classes in the towns of Scotland, yet, on the whole, the only persons to whom reform might be looked for—the representatives of the more active local authorities—are not discontented with the condition of affairs." The only recommendation that they find themselves justified in making is, therefore, the familiar consolidation of the sanitary laws, and the introduction of an uniform system of administration in sanitary matters. The section which gives power to local authorities to make regulations as to houses let in lodgings, is stated to be almost unknown, "even to officials whose lives are passed in administering the sanitary law." The general Public Health Act does not contain any provision for building by-laws, and it is recommended that such by-laws should be made general throughout the country.

The evils of the single-room system might, the Commissioners think, be mitigated by raising the standard of cubic feet of air required for each individual, and vigorously enforcing that standard. A reduction in the cost of the transfer of land and of small houses is advised, as the present "feu" system renders the building of workmen's dwellings very expensive. Sanitary inspection in the more thinly populated parts of smaller towns is now "altogether illusory," and the grouping of parishes for this purpose is recommended, so as to permit the payment of a proper salary to the officers appointed. This is about all the Commissioners offer by way of remedy; the impression left upon their minds by the evidence brought before them being evidently that, in Scotch towns, the question of the housing of the poor has not reached the acute stage at which it has arrived in London.

No one who knows what Highland cottages are will be surprised at the deplorable account given by the Commissioners of the housing of the poor in the rural districts north of the Tay, and in the islands. The Crofters' Commission turned the dwellings question over to Sir Charles Dilke's Commission, which, in its turn, avoids making any recommendations, because the condition of the "crofters' and cottars' houses seems to depend on the conditions of their tenure of land;" and the Lord Advocate is introducing a Bill for dealing with this latter question. The housing of the rural poor throughout the three kingdoms depends, indeed, to a degree little understood, upon the great land question. It is one of the reasons which make the legislative grappling with land-tenure important and pressing. The rural labourer is in some respects better off than the urban artisan; but the extent to which he is dependent for decent house-accommodation upon the good will of the landowner sometimes makes his lot very hard and comfortless. The remedies applicable to towns will not serve in the country, where the relics of feudalism and serfdom still survive; and, if the proper housing of rural workers is to come within the range of practical politics, we shall have first to make sweeping changes in the land-laws. It is necessary to indicate the manner in which this dwellings problem branches out into questions of high and deep social importance, because there seems to be an idea abroad that you have only to consolidate the sanitary law, and get local authorities and their officers to work better, for everything to come right. Much more than that will be necessary, if we are to excise this canker at its root, though the columns of this JOURNAL are, perhaps, hardly the place for discussing the large politico-social question of the burdens and responsibilities of land proprietorship.

DR. FREDERICK TAYLOR has been appointed Physician, and Dr. Hale White Assistant-Physician, to Guy's Hospital.

A MEETING of the Council of the Association for the Advancement of Medicine by Research will be held at the Royal College of Physicians on Wednesday, the 27th of May, at 5.30, to receive the Treasurer's report and reports of subcommittees, and for the election of a treasurer and secretary.

THE death-rate of Hastings for the first quarter of this year was 16.88 per 1,000, one-fifth of the deaths occurring amongst non-residents or visitors.

THE annual dinner of King's College Hospital, which took place in the hall of the Inner Temple, on Saturday last, was presided over by the Duke of Cambridge, who, in proposing the toast of "Prosperity to King's College Hospital," said that they had reason to congratulate themselves on their medical staff. Last year, Sir William Bowman and Sir Joseph Lister were honoured by Her Majesty's gracious acknowledgments, and this year they had received the high compliment of the order *Pour le Mérite* from the Emperor of Germany. He reminded the meeting that there was a deficit of £6,668 on the hospital; and subsequently Lord Francis Hervey, Chairman of the Committee, in responding to the toast, announced subscriptions to the amount of £2,229.

DR. LANDOLT, of Paris, has made an announcement of much interest to students of ophthalmic surgery. He will commence this summer his usual course of practical lectures on operations on the eye; and should there be a sufficient number of Englishmen who may wish to attend regularly, the professor proposes to form a separate class for them, at which the lectures will be delivered in English. Professor Landolt's reputation stands so high throughout Europe that this announcement will be received with pleasure by many who will find in it a useful opportunity of comparing their existing knowledge with the latest developments of Continental surgery, and of availing themselves of the teaching of one of the most accomplished ophthalmologists of the day.

MR. PETER SQUIRE.

THE ceremony of unveiling a portrait-medallion of the late Peter Squire, in the Pharmaceutical Society's House in Bloomsbury Square, was performed on Wednesday afternoon by Sir Spencer Wells, in the presence of a large gathering.

THE HUNTERIAN COLLECTION.

A SPECIAL meeting of the trustees of the Hunterian Collection was held at the Royal College of Surgeons on the 15th instant, to elect four trustees in the vacancies occasioned by the decease of Dr. Allen Thomson, the Duke of Buccleuch, and Mr. Cæsar H. Hawkins, and by the resignation of Mr. William Hunter Baillie. The following gentlemen were elected to fill the vacancies:—Professor W. H. Flower, LL.D., F.R.S., late Conservator of the Museum; Lord Walsingham; Sir James Paget, Bart., F.R.S., late President of the College; and Mr. William Hunter Baillie, jun.

PROFESSOR HENLE.

DR. GUSTAV JAKOB HENLE, the eminent anatomist, died on the 13th instant, in the seventy-sixth year of his age. In the early part of his career, he was an assistant of Rudolphi, and afterwards of Johannes Müller. Afterwards, he taught anatomy and physiology in Zürich and Heidelberg, and in 1852 was appointed Professor of Anatomy in the University of Göttingen; this post he occupied up to the time of his death. He was the author of numerous works, among which the best known is his *Handbook of the Systematic Anatomy of Man*..

RESPONSIBILITY FOR BULLYING.

As the Home Secretary has put the case of Bourdas, the boy who died in consequence of bullying at King's College School, in the hands of the Public Prosecutor, it would not be proper to further discuss the merits of the case, which will probably be investigated by a legal tribunal. We can only express the hope that the investigation may be thorough and searching, and that the responsibility may be placed on the right shoulders. Managers of schools ought to feel that their moral responsibility does not end when they have supplied a certain number of teachers, and so many hours of school-work. School-authorities are bound to make reasonable provision for healthy recreation; in the case of board-schools, this has been recognised, while in the case of many schools of greater pretensions, it is ignored.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE lectures for the present year will be resumed on Monday, June 1st, by Professor Edward Lund, who will deliver on that day, and on the 3rd and 5th, three lectures on some of the "Injuries and Diseases of the Head and Neck, Genito-Urinary Organs, and Rectum." Professor John Wood will deliver three lectures on "Hernia and its Radical Cure," on June 8th, 10th, and 12th. Mr. E. A. Schäfer will deliver three lectures on "Secretion," on June 15th, 17th, and 19th. Professor Charles Stewart, Erasmus Wilson Lecturer, will conclude the course for the present year by delivering three lectures on "Inflammation," on June 22nd, 24th, and 26th. The lectures will commence at four o'clock each day.

DR. MURRELL AND THE FRENCH ACADEMY OF MEDICINE.

AT the public sitting of the Académie de Médecine of Paris, on Tuesday last, a prize was accorded to Dr. Murrell, of the Westminster Hospital, for his work on *Nitro-Glycerine as a Remedy for Angina Pectoris*. This prize, which is one of the most valuable in the gift of the Academy, was founded by Baron Berbier for the encouragement of the study of pharmacology and therapeutics. By the terms of the will, it is enacted that it shall be conferred on those who have discovered a means of curing or alleviating diseases such as consumption, cancer, epilepsy, tetanus, hydrophobia, scrofula, typhus, and cholera, which are usually regarded as being beyond the range of medicinal treatment. In 1868, a similar prize was awarded to Professor Fraser of Edinburgh, for his papers on the action of physostigma, and its application in the treatment of tetanus.

A TEACHING UNIVERSITY FOR LONDON.

ANOTHER meeting of the Conference between the Subcommittee for Medicine of the Executive Committee of the Association for Promoting a Teaching University for London, and representatives of the medical schools in London, was held on Monday last. A good deal of discussion took place, and many and valuable opinions were elicited. One question upon which much difference of opinion was discovered was the mode in which the Board of Studies was to be constituted, some thinking that the medical schools should elect one-half of the number of members, and the faculty the other half; others thought that the Faculty should elect the whole number. With regard to the governing body, also, a difference of the same order arose, whether the members should be chosen by the Boards of Stndies or by the Faculties. A general consensus of opinion was found as to the great importance of establishing such Boards of Studies, and, with due liberality and flexibility of guidance, there is great reason to hope for a practical and useful issue of these conferences.

THE BRITISH PHARMACOPŒIA.

AT the meeting of the General Medical Council on May 14th, the Pharmacopœia Committee were able to lay on the table a revised copy of the new *Pharmacopœia*. We understand that the new edition contains about a hundred pages more than its predecessor, that over a hundred new remedies and preparations have been added, while only about a score have been omitted, and that the number of alterations in preparations retained are neither numerous nor important. Copies of the proof must be in the hands of members of the Council for one month for their suggestions, which will then be considered by the Pharmacopœia Committee. It is highly probable that the edition will be issued to the profession before the end of the summer session. As will be seen from the report of the proceedings of the Council, published in another page, a cordial vote of thanks to Dr. Quain

was passed; its terms—"That the warmest thanks of the President and members of the General Medical Council are eminently due, and are hereby tendered, to Dr. Quain, Chairman of the Pharmacopœia Committee, for his invaluable services in supervising the production of the forthcoming edition of the *British Pharmacopœia*"—are a just recognition of one of the numerous public services which that distinguished physician has so well and so freely rendered. We can wish nothing better for the profession than that Dr. Quain may be able to see yet other editions through the press with the industry, vigour, and devotion which he has lavished on the present volume.

SCOPE OF THE INTERNATIONAL SANITARY CONFERENCE.

THE International Sanitary Congress met for the first time in Rome on May 20th, and was welcomed by the Minister for Foreign Affairs, Signor Mancini, who said that the duty of the Conference would be to concert preventive measures, to be enforced in each country, to prevent the introduction of communicable diseases, or to stamp them out at their outbreak, and also to make arrangements to adopt a rational and practically useful method for protecting other countries from invasion. Signor Mancini having declined to be nominated president, Count Cadorna was elected. The Conference adopted the rules in force at the Vienna Conference, constituted its bureaus, and then adjourned until Monday next, May 25th. Dr. Sternberg, delegate of the United States, presented copies of the protocols of the Conference held at Washington in 1881. It has been generally understood that the Conference will sit for about a month at the present time, and that if the business before it is not then completed its sittings will probably be suspended during the hot weather. As we have previously announced, scientific theories and controversy as to the nature of contagion, will be as far as possible kept outside the deliberations, and, if the Conference really confines itself to the business before it, there is no reason why it should not finish its work within a month. It has in fact only to lay down general principles, already well recognised by all epidemiologists and administrators, and ratified by the Conference at Vienna in 1874. Passages in articles published even in English daily papers seem to show that the writers are still under the impression that the abandonment of quarantine is a bold and venturesome proceeding. It is not necessary again to discuss this well worn question in these pages. Quarantine is condemned not merely, and not chiefly, because it is injurious to trade, but because it has been proved again and again, in almost every country which has resorted to it, to be not only useless but mischievous, whereas the system of medical inspection and isolation has been found almost uniformly effective.

MEDICAL LEGISLATION IN JAPAN.

AN imperial decree, dated October 23rd, 1884, prescribes the conditions under which the practice of medicine is to be permitted in Japan on and after January 1st, 1885. The following is a summary of the regulations. No one can practise medicine until he has passed the prescribed examination, and obtained a licence from the Minister for Home Affairs. The privileges of persons already permitted to practise medicine are preserved. Those candidates who have obtained a certificate of graduation from the medical school of the Government, or from city or prefectural schools, may, at the discretion of the Home Minister, receive the licence without further examination. Graduates of foreign universities and holders of recognised licences to practise medicine from foreign governments, are, on the production of their diplomas and certificates, to be admitted to practice without examination. Temporary licences to practise may be granted, after due inquiry, in places where the number of physicians is insufficient for the needs of the population. A fee of three yen (about eleven shillings) is charged for such licence to practise; and, in the case of the renewal of the licence, one yen is charged. A medical register is to be kept by the home department, and the names of registered practitioners are to be announced to the public from time to time. If a practitioner retire from practice, or die, his licence must be returned to the home department. "If a physician shall commit any criminal offence or unlawful act relating to his professional duty, his licence to practise medicine shall, after due deliberation by the Central Board of Health, be suspended or revoked by the order of the Minister for Home Affairs. If . . . . . any physician is prohibited from practising medicine, the city or the prefectural authority shall immediately take up his licence and forward it to the home department; and if the sentence of suspension of licence is passed, the said authority shall endorse the period of suspension on the licence, and, after affixing the official seal to it, return it to the owner." The prohibition to practise medicine may be removed by the Minister for Home Affairs, after deliberation by the Central Board of Health.

THE PREVENTION OF BLINDNESS.

A DEPUTATION of the Ophthalmological Society, headed by Mr. Jonathan Hutchinson, president, and Sir William Bowman, Bart., waited upon Mr. George Russell, M.P., Parliamentary Secretary of the Local Government Board, on May 15th. Sir William Bowman pointed out that about 30 per cent. of the inmates of the Blind Asylum had lost their sight as a consequence of ophthalmia neonatorum, and that this disease could be effectively treated if taken in time. Mr. Russell repeated the objection, made by the Registrar-General last year, that if the Government interfered in regard to one disease of infancy, it might be called upon to adopt measures against others; but Sir William Bowman replied that this disease ought to be ranked apart from others, occurring as it did in infants of so tender an age, so that it could not be legitimately compared with any other disease with reference to the claim for State interference. Mr. Hutchinson urged that, as the disease occurred chiefly among the poor, the poor-law organisation might be asked to issue a warning, and dwelt on the recommendations adopted by the Society at its meeting on March 14th, and reported in the BRITISH MEDICAL JOURNAL, on March 21st, p. 600. Inasmuch as these measures would only reach a small section of the poor, owing to the fact that many are attended in their confinements by midwives not connected with the parish authorities, and inasmuch as there was no system of certification of such midwives in existence, it was desirable that some further steps should be taken. The Society therefore suggested that the registrars of births should, when giving the certificate of vaccination to the person who registered the birth of a child, at the same time give a printed slip containing the above notice. The warning would be received too late, the Society knew, for that particular child, but the parents might bear it in mind in the case of any subsequent child. The Registrar-General, who was present, of course threw cold water on the suggestions made, on the ground that it would throw additional and unremunerated work upon the registrars of births. Mr. Russell, on the other hand, said that he was impressed with the desirability of taking some such steps as those suggested by the Society, but added that the Local Government Board had no power to order boards of guardians to do anything, though these bodies generally showed great readiness in carrying out suggestions emanating from the Local Government Board. He promised to bring the matter before the notice of Sir Charles Dilke. The deputation, which included Mr. John Tweedy, Dr. McKeown, Dr. Brailey and Dr. Abercrombie, then withdrew.

ILLNESS OF THE BISHOP OF PETERBOROUGH.

THE Bishop of Peterborough is again suffering from severe and dangerous symptoms, indicating impaction of a gall-stone. Dr. Walker, of Peterborough, states that there is a collection of matter deep in the epigastrium, where the biliary and pancreatic ducts enter the intestine. The condition cannot, therefore, but be considered very dangerous.

DESQUAMATION IN SCARLET FEVER.

MR. GEORGE SMITH of Axbridge, Somerset, states, in a note in the *Bristol Medico-Chirurgical Journal*, that he has for several years been in the habit of having his patients sponged over the whole surface of their

bodies twice a day—commencing, as a rule, about a week from the appearance of the eruption, and continuing the process until desquamation is complete—with a mixture of one ounce of oatmeal to one pint of boiling water. The solution must be made fresh every day and used tepid, or at such a temperature as may be comfortably borne by the back of the finger. His reason for using this particular form of scalded, not boiled, oatmeal is, that the gluten in it sticks the scales to each other and to the surface of the body, thus allowing their removal, from one sponging to another, without the ordinary risk of infecting either atmosphere or clothes, and greatly lessening the risk of spreading the disease. Secondly, this same gluten fills up the cracks of the new skin and protects it from cold as, patch after patch, it becomes bare, and thus greatly lessens the risk of the dropsy which often follows this disease.

ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A GENERAL meeting of the Association of Fellows was held on Wednesday last, at the rooms of the Medical Society, to consider resolutions which had been forwarded to every member of the Association. The president, Mr. George Pollock, briefly related the actions of the Committee since the last general meeting, and described the interview which had taken place between a section of the Committee and a Subcommittee of the Council, from which very little, if anything, in the way of satisfactory concession had been obtained. The meeting between the Fellows Association and that of the Members was also described, and the results, as given in the JOURNAL, were detailed. A letter which had been drawn up by the President and Secretaries, and addressed to the Home Secretary, praying that no fresh charter may be granted to the College until the Association of Fellows have been allowed to represent their views upon this question was read ; and the action of the Committee in forwarding such letter received the cordial approval of the meeting. The question was then discussed as to how far, and in what way, the two Associations of Fellows and Members could unite upon some common ground by which they could approach the Secretary of State. Considerable discussion took place, in which Mr. Oliver Pemberton, Mr. Crosse, Mr. Davy, Mr. Willett, Mr. Macnamara, and Mr. Butlin took part. Finally, the following resolution, proposed by Mr. Tweedy, and seconded by Mr. Alban Doran, was carried : "That, while it is inexpedient for the Association of Fellows of the Royal College of Surgeons to join with the Association of Members in their demand for universal suffrage, and for equal representation on the Council, yet, in the opinion of the Association of Fellows, it would conduce to the welfare of the Royal College of Surgeons, and tend to promote the interests of medical polity and education, if Members of the College were empowered to take part in the election of members of Council, provided that no Member of the College shall be eligible to vote until he has been such Member for a period of at least ten years." It was agreed that this resolution should be forwarded to the Members' Association ; and it was further resolved: "That the Committee of the Association of Fellows be empowered to treat with the Association of Members on the basis of the above resolution." The meeting ended with a vote of thanks to the chairman.

MEDICAL TITLES FOR LONDON STUDENTS.

THE initiative undertaken by Mr. Durham, in proposing that seven delegates from the College of Surgeons should invite an equal number of delegates from the College of Physicians to a conference, with the object of taking steps to enable the two Colleges to confer the title of "Doctor" upon persons passing the examinations of their conjoint board, met with its first success in being passed, as we last week reported, without a dissentient voice, at the meeting of the Council of the College of Surgeons on the 14th instant. In pursuance of that resolution, seven delegates were appointed by the Council, consisting of the President (Mr. Cooper Forster), Vice-Presidents (Messrs. Savory and Holmes), Mr. Marshall, Sir Joseph Lister, Mr. Durham, and Mr. Hulke. It now remains for the College of Physicians to carry out its own initiative in this matter, and to take steps to confer with the College of Surgeons. That they will do this there is no reason to doubt. It is strongly argued by the profession in London that men who have passed successfully the examinations of the conjoint board of the two Colleges should have their professional attainments stamped in a manner which the public can appreciate, and with the degree to which, by the mere accident of studying and passing in smaller centres of medical education than London, they would, without difficulty, and by examinations of no greater difficulty, have attained. The Colleges having instituted this conjoint examination, it is held to be desirable that they should be entitled to confer the title of Doctor, to which a twofold examination, qualifying adequately in the whole range of medicine and surgery, should naturally lead. Meantime, considerable progress is being made by conferences of the London teachers towards the establishment of Boards of Studies. Thus the question of obtaining medical degrees for London medical students, which we have for some time treated as very urgent, seems advancing along the whole line. It may now be hoped that the question will receive its solution in one of the three ways now partially opened up, namely, either by the authorities of the present University of London adapting their examinations more closely to the requirements of the time, of which solution of the difficulty we confess that Sir James Paget's speech on Presentation Day does not offer much hope ; or, secondly, by the establishment of the proposed Teaching University in London, apart from, or in connection with, the present University ; or, thirdly, by the authorities of the Colleges of Physicians and Surgeons obtaining the right to confer the title of Doctor on those whom they have conjointly examined in the whole range of medical and surgical science and practice.

DISQUALIFICATION BY MEDICAL RELIEF.

THE clause in the English Registration Bill which removed the disqualification of an elector because he was the recipient of medical relief, received its quietus from the House of Lords on Tuesday evening. The previous history of the clause was a somewhat chequered one. Called into being in consequence of the passing by the Commons (with the approval and support of the Government) of a clause in the Irish Registration Bill specifically declaring that medical or surgical assistance was not to disqualify from the franchise in Ireland, the clause was negatived in Committee on the English Bill, through the opposition of the Government, by 170 votes to 102. But, in the report stage of the Bill, Mr. Davey got it passed by 87 to 50 votes. In the House of Lords, Lord Balfour of Burleigh, on the ground that its passing would make the "first inroad" upon the principle that the acceptance of poor-law relief should disqualify a man for the exercise of the franchise, moved its rejection, and was able to throw it out by 72 votes to 47. No doubt there is something to be said on both sides of the question. Although most people are desirous that the deserving artisan should lose no electoral privilege because he is obliged to have recourse to the parish doctor ; yet it is argued that the statement in an Act of Parliament that nothing will be lost by accepting free medical relief, will lead to a great increase in the dishonest rush for gratuitous doctoring. The materials do not exist for appraising the respective importance of these two factors. There is, however, one department of so-called "medical relief" which should be deliberately divested of any taint of pauperism, and that is the isolation, in a rate-supported hospital, of patients suffering from infectious disease. The acceptance of isolation is an advantage even greater to the community at large than to the householder himself ; and it would be a great hardship if, as has already happened, a man's claim to vote be disallowed because his children are removed (per-

haps against his will) to an infectious hospital. The question ought not to be left in its present uncertain condition; for there will infallibly be great heart-burning amongst the million and a half of new electors if, as is quite possible with an active election-agent, many of their number are ruled out at the general election in the autumn because themselves or their families have been treated for infectious disease in a rate-supported hospital. Such persons may fairly argue that free vaccination and free education at the public expense are specifically dissociated by express enactment from any electoral disqualification or disability, and that free isolation is on a par with either or both of these. Sanitary authorities and their officers have difficulties enough as it is in getting people to go to hospital.

MR. HOPWOOD AND VACCINATION.

DR. A. E. KENNEDY, of Plaistow, writes to the *Standard*: I see, to my surprise, that Mr. Hopwood, in the House of Commons, has been trying to make capital for the antivaccinators, out of the circumstances that there is a severe epidemic of small-pox at West Ham, and that 98 (it is 98.7) per cent. of the West Ham population is vaccinated. May I request you to inform the public of the further fact that, at the Guardians' Small-pox Hospital, at Plaistow, 29 deaths have recently been contributed by the 98.7 per cent. of the vaccinated population of the district, while 76 deaths have been contributed by the remaining 1.3 per cent. forming the unvaccinated population. This is the fact, and it will be found that the mortality of this hospital, among the unvaccinated classes, was, in proportion to their numbers, 200 times the mortality among the vaccinated classes. Would Mr. Hopwood desire to abolish vaccination in West Ham?

THE PRELIMINARY SCIENTIFIC EXAMINATION OF THE UNIVERSITY OF LONDON.

THE new regulations for the preliminary scientific (M.B.) examination of the University of London have been issued. As we have already announced, the pass-examination will be held twice a year, on the third Monday in July and the third Monday in January. The honours examination will only be held once a year, in July. Candidates for the pass-examination, whether in January or July, will be allowed either to take all the three subjects of the examination—inorganic chemistry, experimental physics, and general biology—at the same examination, or at two separate examinations; two subjects may be taken at the first and one at the second, or one at the first and two at the second. In other respects, the examination will remain much what it has been for some years. Very much will still depend on the interpretation which the examiners put upon their duties. Reasonably and sensibly worked, with an eye constantly to the relative importance of subjects, the number of students who will pass after adequate teaching ought to be large; the severity of the regulations has been materially diminished within the last ten years. The examination may be passed at any time after passing the matriculation. A candidate may thus in future matriculate in June, pass the preliminary scientific in inorganic chemistry and experimental physics, subjects to which he has already given some attention, at the January examination, and in biology at the July examination. The Senate is undoubtedly wise in making the examination in biology as far as possible a test of knowledge gained objectively in the laboratory, but the regulations bear somewhat hardly on poor students, who are thus compelled to enter at some college earlier than used to be the case some years ago. Facilities are, however, now greater, and whereas the necessary laboratories and instruction were formerly only to be found in a few places in England, the numerous science-colleges now in existence place the needed means within the reach of a far larger number. The examination for honours is only to be held in July. A candidate who desires to sit for honours in botany or zoology, must first take the pass-papers in chemistry, physics, and general biology. A candidate who sits for honours in chemistry or physics is not to be given pass-papers in those subjects, but only the honours papers. If he fail to obtain honours, the examiners may recommend him for a pass if they are satisfied that he has shown such a competent knowledge as is required by the regulations for the pass-examination; but candidates are warned that only under special circumstances will such a transference be allowed. Special prominence, therefore, is given, both in the honours and the pass-examinations, to biology, and this is undoubtedly as it should be. Candidates who so desire will be allowed forthwith to take advantage of these changes, but it will be some years before their full effect can be gauged; and, before that, other and more radical changes may have been introduced into the University curriculum.

NOTES FROM THE SEAT OF WAR.

THE following is an interesting communication from one of our correspondents, who writes from Kurot, forty miles south of Dongola, on the banks of the Nile. He says: "I am at present, amongst other duties, in charge of an enteric hut, containing twenty-six beds, all of which, excepting two, are full. I am sorry to say we have had five deaths within the last ten days. The heat, which has already (on some days) reached 114° Fahr. in the shade, appears to help in carrying these cases off very quickly. In the five cases mentioned above, death took place from the thirteenth to the sixteenth day after admission. The nights, or early mornings, as yet are very cold, and inclined to be damp; and, if great precaution is not taken, patients are almost sure to get pectoral complications. I was all through the campaign, but crossed the desert from Korti to El Gulbat instead of going up the river from Korti to Merwaisee. Two surgeons (Turner and Bradshaw) died from the effects of the desert-march, and one or two others have been very ill. I myself had dysentery (acute) in the middle of the desert from drinking muddy water of the colour of pea-soup, for a pint of which I gladly gave a pair of almost new boots. Another surgeon (Haselden) here lies seriously ill with acute rheumatic fever. Two nights ago his temperature was 42.2 Cent. Owing to the low state of the river, everything is very scarce—pens, paper, and eatables. We have all, or most of us, compulsorily been teetotallers for the last four months. Fortunately, we have abundance of medicines and comforts for the patients, and those who do not die rapidly improve in general health under hospital-treatment. We are very badly off for books and papers, only a certain number being allowed up by the mail, namely, one paper for each regiment."

NORTHERN HOSPITAL, WINCHMORE HILL.

THE laying of the foundation-stone of the Northern Hospital at Winchmore Hill, for the reception of fever and small-pox cases above the pauper class, was performed on Saturday last by Mr. E. Galsworthy, J.P., Chairman of the Metropolitan Asylums Board. The building, which is in the modern style, is of brick, and consists of two stories, with accommodation for 512 patients, and the necessary officers and staff. The main entrance to the administrative department is a fine specimen of masonry. The laundry, which consists of five large divisions, is to be fitted up with steam-power, and all the most modern appliances. The grounds are to be surrounded by pavilions, built in blocks, for infectious cases of fever and small-pox. Between each pavilion there will be a space sufficiently large to prevent infection. Mr. Galsworthy, in the course of an address, stated that there was great need of such a hospital in North London, especially for the reception of patients who were not of the pauper class, and that need would now be met to some extent. The Committee had selected this site, which consisted of 36½ acres, in a most healthy locality, and in the midst of beautiful scenery. The cost was £13,580, or about £380 per acre. The hospital would be fitted up for 512 patients. There would be 17 blocks, built in two stories, each block separated by a garden of half an acre in extent. A *post mortem* and mortuary building would be provided, and, in the administrative block, all the necessary offices for the staff and officials would be provided. The

drainage was perfect, and gas and water were carried into the building and grounds. He concluded by expressing the hope that the erection of the hospital would result in the greatest benefit to all who entered its walls. The architects were Messrs. Pennington and Brigden, and the contractors Messrs. Wall Brothers.

THE DARWIN MEMORIAL.

A MEETING of the general committee of the Darwin Memorial Fund was held on Friday in last week at the rooms of the Royal Society, Professor Huxley, President, in the chair. It was stated by the treasurer, Dr. Evans, that, after payment for the statue and other expenses, a balance of about £2,200 would remain. The following resolutions were then passed: "That the statue of Darwin be made over to the Trustees of the British Museum in trust for the nation." "That the balance of the fund, after payment for the statue and medallion and incidental expenses, be transferred, under the name of the Darwin Fund, to the President, Council, and Fellows of the Royal Society, in trust, to invest the same in or upon any stocks, funds, or securities authorised by law as investments for trust moneys." "That the President and Council of the Royal Society apply from time to time the dividends and interest of such investments in such a manner as shall to them appear best calculated to promote biological studies and research." "That a list of subscribers and a statement of the accounts be printed and circulated, together with the resolutions now passed, and that a woodcut, or some other representation of the statue, accompany the statement." The statue, by Mr. Boehm, R.A., has been placed in the great hall of the British Museum (Natural History), Cromwell Road, and arrangements for its unveiling will, it is understood, be made shortly.

THE CONJOINT BOARD AND THE UNIVERSITIES.

THE following recommendations to the two colleges from the Committee of Management of the Examining Board were received and adopted at the meeting of the Council of the College of Surgeons on May 14:—1. That every member of the University of Edinburgh who shall have passed such an examination or examinations at his university as shall comprise the subjects of the first and second examinations of the Examining Board in England, and who shall have completed not less than four years of medical study according to the regulations required by his university, be eligible for admission to the third or final examination of the Board two years after his having passed all the other required examinations; that every candidate so admitted to examination be required to pay a fee of five guineas; and that every such candidate who shall have passed such third or final examination shall, on the further payment of not less than twenty-five guineas, and subject to the by-laws of each college, be entitled to receive the licence of the Royal College of Physicians of London and the diploma of Member of the Royal College of Surgeons of England. 2. That the regulation exempting candidates, members of universities, from any part of the examinations of the Examining Board in England do continue in force so long only as the examinations of the universities shall be satisfactory to the Committee of Management. 3. That the regulation applicable to the conditions of the admission of members of the English universities to the third or final examination of the Examining Board in England be extended to such of the Scotch and Irish universities as require that not less than two of the four years' curriculum of professional education shall have been spent in residence at the university.

TYPHOID FEVER AT HEBDEN BRIDGE.

LAST year, typhoid fever was very prevalent at Hebden Bridge, an overcrowded and dirty fustian manufacturing town in Yorkshire, near Halifax. The attention of the Local Government Board having been called to the matter, apparently through the Registrar-General's returns, one of their medical inspectors was instructed to inquire into the outbreak; and for this service, Dr. Astley Gresswell, one of Dr. Buchanan's temporary helpers, was assigned. Dr. Gresswell has made a very painstaking report, quite in accordance with the best traditions of his department; but he finds in the epidemic nothing more novel than the spread of disease by polluted water. Besides the waterworks of the local board, there are several other sources of water at Hebden Bridge, and the gathering ground for one of these is thus described. "The Birchcliffe water is open to pollution on every side. The land over which the channels run is part of the slope of the valley; it is thickly manured (with human as well as animal excreta) in autumn; on the hillside, above and within a short distance of the springs and channels, there were two large privy-pits, a small privy-pit, and a large manure-heap, the tracks of leakage from some of which were very plainly visible down to the uppermost channel, etc." The water from this source has been repeatedly condemned by the local health-officers, but the local board have apparently taken no steps to secure the laying in of their own water, which appears to be above suspicion of pollution. And this is the result. Of 135 houses supplied with the Birchcliffe water, 20 were invaded last year with typhoid fever, 19 of such invasions occurring amongst 65 houses supplied by certain cisterns more exposed to pollution than another. Dr. Gresswell was unable to trace the first case which gave rise to the epidemic; but he speaks of hay-making going on in the fields over which the water naturally flows. Very likely some person suffering from ambulant typhoid was among the hay-makers.

THE PATHOLOGICAL SOCIETY.

THE President of the Pathological Society of London, in bringing the labours of the session to a conclusion, was able to congratulate the Society on a large mass of useful work accomplished, and also to announce a subject upon which the Council had determined to invite discussion at the first meeting in February next. This long notice is given in order that there may be opportunity for collecting as many specimens, drawings, and diagrams as possible to illustrate the subject of Intracranial Tumours, including cysts and gummata. Facts are especially desired with regard to the nature, situation, size, and probable duration, of such tumours, the age at which they occur, the number of tumours present in the brain, and the presence and situation of secondary tumours. The choice of the subject is undoubtedly opportune at the present time, when the desirability of surgical interference with intracranial growths is engaging the attention of physicians and surgeons.

LAMP-EXPLOSION.

AN unhappy illustration of the danger attending the too common practice of blowing down the chimney of a partially filled oil-lamp, to extinguish the flame, has this week been afforded at Sedgley, where a married woman named Maria Lloyd met with a shocking death through endeavouring to extinguish a paraffin-lamp in this way. The lamp exploded, and ignited her clothing, and also that of her husband. The woman died after undergoing great agony. At the inquest on the body, a verdict of accidental death was returned. We recently called attention in these columns to the precautions which Sir Frederick Abel recommends to be observed, which would certainly have the effect of reducing, if they did not altogether remove, the risk of accidents attending the use of petroleum and paraffin oils. In order to safely extinguish an explosive lamp, it was pointed out that the flame should be lowered until only a flicker is visible, when the mouth should be brought to a level with the top of the chimney, and a sharp puff of breath projected across the opening. Had that plan been adopted in the present instance, there is little doubt that the accident, which in one case has been attended with fatal consequences, would never have occurred.

HOSPITAL SATURDAY IN BIRMINGHAM.

LAST week, the thirteenth annual Hospital Saturday collection was made in Birmingham. The financial result has far surpassed the pro-

ceeds of any previous year. The large sum of £6,181 has been already contributed, and this will probably be largely increased by many payments that have yet to come in. A principal factor in this extraordinary growth has been an extension of the system of weekly collections from workpeople throughout the year. Birmingham appears to be ahead of every place except London in its progress in the movement. The total amount collected by the Hospital Saturday Committee in Birmingham in 1884 was £6,062 16s. 6d. In London, £10,437 was collected; but this included £2,783 collected in the streets by over a thousand ladies, the workpeople only contributing £7,654. In Birmingham, the street-collection has not yet assumed important proportions, only £67 being taken in this way last year. It should also be noted that, whilst the Birmingham Hospital Saturday donations to the hospitals are absolutely unconditional, in London over twelve thousand tickets were given to the contributing establishments. The Liverpool collection last year was £2,560, and the Manchester one £2,937 7s. 11d.

SCOTLAND.

By the will of the late Mr. Robert Hunter, farmer, sometime of Dalhousie Chesters, and latterly residing at Grove End, Broomieknowe, the Royal Infirmary, Edinburgh, benefits to the extent of £8,000, and the University to that of £1,000.

LOW DEATH-RATE IN EDINBURGH.

At a meeting of the Edinburgh Town Council held on Tuesday, Baillie Clark, Convener of the Health Committee, stated that the death-rate in the city during April was 16.88 per 1,000 of the estimated population, and the Lord Provost, Sir George Harrison, said it was the lowest in the memory of the oldest inhabitant.

DEATH UNDER CHLOROFORM.

To the now long list of deaths while under the influence of chloroform, there falls to be added another, which took place last week in the Western Infirmary, Glasgow. The patient was a young girl, who had undergone an amputation of the thigh; and, as her condition was one of considerable weakness, it was deemed advisable to administer chloroform at the changing of the dressings. When this had been accomplished, and the towel removed from the face, it was noticed that respiration had ceased, and every effort to re-establish it proved unsuccessful. The most important condition found at the *post mortem* examination, was the presence of extensive thrombosis of part of the venous system.

EXTENSION OF THE UNIVERSITY OF ABERDEEN.

The Aberdeen University Club held their annual reunion in London on Saturday last. It was resolved to give every support to the scheme for raising money to enlarge the buildings of the medical school and the University.

MEETING OF THE BRITISH ASSOCIATION IN ABERDEEN.

The Council of the British Association have nominated Professor J. Struthers as a Vice-President of the Association, and have added the name of Professor Wm. Stirling, of the University of Aberdeen, to the list of those nominated for the Vice-Presidency of Section D (Biology).

THE RECENT OUTBREAK OF SMALL-POX IN FIFESHIRE.

We are glad to be able to state that the patients under treatment for small-pox at Kirkcaldy have nearly all recovered. No fresh cases have occurred recently, and it is expected that the hospital set aside for those cases will be closed in a few days. It will be remembered that the first of these cases of small-pox occurred at Kinghorn, where there have been at least forty cases, of which nine proved fatal. There is now only one case under treatment in the hospital there. It is worthy of notice that during the prevalence of the outbreak over 700 persons had themselves re-vaccinated by a local practitioner.

THE SECRETARY FOR SCOTLAND BILL.

The Government Bill for the creation of a Secretary of State for Scotland is not of a nature to enchain the imagination, but it appears to have the elements of a good working measure. Scotch affairs have, in recent Parliaments, been elbowed into a corner by the press of other business, and it is undeniable that they sadly need the undivided attention of a Minister of State of rank equal to the other heads of departments. At present, the Lord Advocate is supposed to look after the internal organisation of Scotland when he finds time from the preoccupations of law business. The Home Secretary obligingly casts a supervising eye over affairs north of Tweed when he has nothing south of that historic river to engage his attention; and, altogether, Scotch administration and Edinburgh public departments want a great deal of overhauling. The new Secretary, who, it is safe to say, will be Lord Rosebery, will have no reason to complain of want of variety in his work, for he is to have the powers of the Home Secretary with regard to poor-law, lunacy, public health, the protection of wild birds, public works' loans, the Fishery Board, the Register Office, the registration of births, deaths, and marriages, vaccination, marriage notices, general police, burgh police and improvement, the division of burghs into wards, markets and fairs, prisons, public parks, county general assessment, turnpikes' accounts, roads and bridges, locomotives' regulation, sheriff court-houses, rivers' pollution, burial grounds, food and drugs, artisans' and labourers' dwellings, local taxation returns, and alkali. To these are to be added certain powers and duties of the Scotch Education Department, the Treasury, the Local Government Board, and the Home Secretary in relation to the Scotch Universities; also those of the Privy Council under certain statutes relating to the Board of Manufactures, to education, to educational endowments, and to public health; and generally all powers and duties of the Scotch Education Department as defined by the Act of 1872. The new Secretary is to be Keeper of the Great Seal of Scotland, and he is to be capable of sitting in Parliament. His salary for the performance of these manifold duties is to be at the not extravagant rate of £2,000 a year.

IRELAND.

By a recent bazaar the Home for Protestant Incurables, Cork, has obtained a sum of nearly £80 towards the funds of that institution.

The Earl of Rosse has been elected Chancellor of the University of Dublin, in place of the late Earl Cairns.

Mr. Edward Hamilton has been elected a member of the Council of the Royal College of Surgeons in Ireland, in place of Dr. Mapother, who has resigned.

We understand that the High Sheriff of Cork, Dr. Wycherly, will be knighted, in recognition of the leading part he took during the recent visit of H.R.H. the Prince of Wales.

THE ROYAL UNIVERSITY OF IRELAND.

A meeting of the Senate will be held on Wednesday next, the 27th inst., to elect two Fellows, at a salary of £400 per annum each, in the department of Natural Science. Upon the same day, there will be a public meeting of the University, at which the newly elected Vice-Chancellor, Lord Emly, will preside, to confer the degrees obtained at the recent medical examinations. The following day, the 28th inst., the convocation of the University will assemble to select a member of the Senate in the place of the late Lord O'Hagan. Only one candidate, Dr. Maguire, has been nominated, and he will accordingly be the new Senator. It is stated that a series of propo-

sitions, seeking to effect very radical changes in the constitution of the University, both as to the Senate and the Fellows, will be submitted to Convocation, and it is anticipated that much discussion of an animated character will arise.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND AND IRISH VACCINATION-CERTIFICATES.

AT the ordinary meeting of the Council of this College, on Thursday, May 14th, the report of the Committee was received, in reference to the required certificate of instruction and proficiency in the practice of vaccination. The Committee was appointed on April 9th, 1885, to consider and report to the Council on the application made by Professor Redfern, on behalf of the Council of Queen's College, Belfast, to the effect that the certificates of instruction in vaccination, given by the public vaccinators under the Local Government Board of Ireland, and guaranteed by the Council of Queen's College, might be recognised by this College. The Committee reported that they had fully considered (1) the several communications received from Professor Redfern, and the minutes of the Council thereon of the 12th ultimo and 9th instant; (2) the conditions relating to the recognition by this College of the certificates of instruction and proficiency in the practice of vaccination, whereby it has been agreed that only such certificates shall be received as will meet the requirements of the Local Government Board in England; and (3) semi-official statements, from which it appears that, if the recognition by this College of certificates were extended, beyond those of officers appointed by the Local Government Board in England, to those of public vaccinators not under its control, the diploma of this College would no longer, as at present, be received as evidence that its possessor was duly qualified to hold appointments under that Board. The Committee, therefore, recommended to the Council that the existing regulation on the subject of the recognition of certificates in vaccination should remain in force, not only on account of the obligations of the College to the Local Government Board in England and the agreement with the Royal College of Physicians under the scheme for the Examining Board in England, but because, by recognising other certificates, the value of the diploma would be depreciated to future Members of this College. The Committee further reported that they had reason to believe that if a representation were made by the Council of Queen's College, Belfast, to the Irish Local Government Board suggesting that that Board should invite the English Local Government Board to confer, with a view to the establishment of educating vaccination-stations in Ireland, subject to terms to be agreed upon by both Boards, the difficulty under which Irish candidates for the diploma of this College now laboured might be surmounted. The Committee accordingly recommended to the Council that an answer to the foregoing effect should be sent to Professor Redfern in reply to his application. The above report was received and adopted by the Council.

THE CHOLERA.

IT is reported that two cases of cholera have occurred at Marseilles. The first victim was a vigorous and healthy washerwoman, aged 75, living near Nôtre Dame de la Garde. In the second and most recent case, the sufferer was transported to the Conception Hospital, where death ensued rapidly. Nevertheless, hopes are entertained that the disease will not spread, and no special precautions have been taken. Much excitement has been caused in Madrid by telegrams from Paris, announcing a severe outbreak of cholera in Durham. There would appear to be no official confirmation of this alarming statement, although it is stated in many quarters that the Spanish Government will immediately adopt preventive measures against arrivals in British vessels. We have communicated with the Town Clerk at Durham, and learn from him that there is no foundation for the report.

THE LUNACY ACTS AMENDMENT BILL, 1885.

Letter to the Lord Chancellor.—Report of Subcommittee of the Parliamentary Bills Committee.—Opinion of Counsel as to the Protection of Medical Men afforded by the Provisions of the Bill.

THE following memorandum and enclosure has been addressed by Mr. Ernest Hart, the Chairman of the Parliaamentary Bills Committee of the British Medical Association, to the Right Hon. the Lord Chancellor.

To the Right Hon. the Lord Chancellor.

My Lord,—The Subcommittee appointed by the Parliamentary Bills Committee of the British Medical Association, to take into consideration the provisions of the "Lunacy Acts Amendment Bill, 1885," has drawn up a report, subjoined hereto, in which are embodied, in brief terms, several suggestions which the Subcommittee felt it to be desirable to make, and which are now most respectfully brought to the notice of your lordship, and submitted in all deference.

With regard to some of the suggestions contained in the report, it is felt to be desirable to offer a few remarks, explaining, in greater detail than it was convenient to insert in the report itself, some of the reasons on account of which the particular suggestions now referred to were made. Others of the suggestions are explained in the report itself, and still others seem not to require any explanatory remarks.

Under Section II, the object of the suggestion made in the report is to legalise consultation between the medical practitioner, termed in this Bill "the usual medical attendant," and other medical practitioners who may be called in for a second or further opinion.

It may very often occur that the usual medical attendant may begin to fear that the symptoms of mental derangement observed by him are such as to require the removal of the patient to an asylum. He wishes to have another opinion on this point, and another medical practitioner is called in consultation. It may happen that the result of the first consultation may be to suggest some modification of the treatment before deciding to send the patient to an asylum; but that ultimately both, or all, of the medical practitioners may come to the conclusion that removal to an asylum is the right course to adopt. As the Bill now stands, only one of these two or more medical practitioners who have watched the case together could sign the Form 6, page 39; because, the others having been in constant consultation, it would be impossible for them to say that they were "not acquainted with the contents of any other medical certificate relating to the mental condition of the said C. D., made within the last seven days." They might not be acquainted with the exact words, but they must be acquainted with the substance.

In the interests of the patient, it is unnecessary and harmful to place any impediments in the way of full, free, and deliberate consultation between the medical men called in. In connection with this point, the opinion of Sir J. Fitzjames Stephen is worthy of most careful attention. Writing upon the subject of medical witnesses, the learned judge says: "If medical men laid down for themselves a positive rule that they would not give evidence unless, before doing so, they met in consultation the medical men to be called on the other side, and exchanged their views fully, so that the medical witnesses on the one side might know what was to be said by the medical witnesses on the other, they would be able to give a full and impartial account of the case, which would not provoke cross-examination."

The suggestion made under Section VIII would afford to the pauper patient the same protection, as regards the number of medical certificates, as the private patient now has.

The suggestions offered under Section IX would provide and preserve, particularly for the poor, a valuable means of enabling sudden, violent, and dangerous cases of insanity, or cases with sudden exacerbations, or with recurrences of former symptoms—and often occurring at night—to be promptly dealt with. Such patients, in a few hours, may accomplish a large amount of destruction, do much personal injury to themselves or to others, and create much public disturbance.

In many of these cases, no justice of the peace, or specially appointed justice, could possibly be obtained for the purpose of signing an order of admission until, at least, the next day; and it seems to be extremely desirable to have some method of dealing with the imminent dangers, of various kinds, whether to the patient or to others, attending cases of the sort referred to.

Under Section XII, alternative suggestions are made with regard to the insertion of a subsection affording some protection to the medical men and others, who rightly and conscientiously do their duty in regard to certifying a person of unsound mind, or in regard to receiving

or detaining him, as a person of unsound mind, in a hospital, asylum, or licensed house, or as a single patient.

It is felt to be extremely desirable that some clause should be inserted which would have the effect of preventing frivolous and vexatious or speculative actions from being brought against the various medical men and others concerned in certifying, receiving, and detaining persons of unsound mind. In the present state of the law, a person admitted into an asylum, or hospital, or licensed house as being of unsound mind, under certificates that are in proper legal form, and all the proceedings in connection with whose certification, reception, and detention as a person of unsound mind have been perfectly regular, may bring an action at law, or a series of actions, against each individual medical man concerned in, or in any way a party to, the said certification, reception, or detention.

The subcommittee desires to offer the suggestion that the absence of fair and reasonable protection in the performance of duties in connection with persons of unsound mind would, no doubt, greatly increase the already increasing difficulty in getting medical men to certify in cases of insanity. Many more of the best men in the profession would, no doubt, join those who have already felt it absolutely necessary to refuse to certify in cases of insanity, and this for their own protection, and to avoid a series of actions at law. The tendency of this condition of affairs would be to drive the certification and care of lunatics into the hands of the less worthy members of the profession. This would be against the best interests of the insane.

It is felt that a series of actions at law, brought against a medical man for doing his duty with regard to a person of unsound mind, may be detrimental, even should he successfully defend every action; for he would suffer a loss of time, of professional reputation, and of peace of mind, and in some cases, also, he would have to find his own costs in each suit; that is to say, where the plaintiff was without means.

It is, especially, in cases admitted under urgency-orders, that some provisions for the fair and reasonable protection of those concerned appear to be most necessary.

The suggestions under Section XVII, flow from the belief that, except where the number of patients is small, the provisions of this section would periodically necessitate a very large amount of extra routine work on the part of the medical superintendent, and thus for a time completely absorb his whole attention, to the detriment of his numerous and important duties. And in the very large asylums it would seem to be impossible to thoroughly carry out the provisions of this Section within the space of time allowed by the Bill.

With reference to the suggestions under Sections XXXII and XXXIII, it is felt to be undesirable that letters (meaning here those not addressed to the authorities, and persons named in Section XXXII) should in all cases necessarily be forwarded to their destination, inasmuch as there are some patients who write incessantly, reiterating the same tissue of delusions; some whose letters are quite unintelligible; and others whose letters are indecent, and the sending of them *contra bonos mores*. It is, therefore, suggested, either that these two sections be omitted, or that the Commissioners, within the metropolitan district, and the committees of visitors, elsewhere in England and Wales, should have a discretionary power to direct that the letters of any given patient may be detained and laid before them at their next visit, in order that they may give such directions with regard to them as they may think fit; and that this should close the matter.

The subcommittee has also made suggestions designed to lessen the severity of, and to modify, the clauses concerning the penalties to be incurred, under the Bill, by medical men; penalties which, it is believed, if incurred, would, in almost every case, be so as the result of inadvertence only.

Report of Subcommittee.

Your subcommittee begs to offer the following suggestions, remarks, and amendments, with regard to the "Lunacy Acts Amendment Bill, 1885."

Schedule—Section II, Form 2.—It is sugggested to omit the question "Whether any near relative has been afflicted with insanity?"

Subsection 8, line 33.—It is thought desirable to omit the words "separately from the other;" and in Form 6, page 39, to omit lines 14 and 15. The Committee is strongly of opinion that consultation of the medical persons signing certificates should be permitted.

Section II, Subsection 10, page 4, line 4.—After "thereof" to insert "and all documents and papers relating thereto shall be held to be privileged."

Section III, Subsection 1, page 4, line 34.—After the word "may" to insert "notwithstanding that a petition has already been presented."

[This would provide for the more rapid placing under care of a patient with regard to whom a petition had been made under Section II, should the necessity arise.]

Section III, Subsection 6, page 5, line 14.—It is suggested to omit the words "within that time."

[This would avoid the possible necessity of two successive "petitions," should the last suggestion be adopted.]

Section V, Subsection 4, page 6, lines 37 and 38.—To omit "under an order made on the application of, or."

[It is thought to be very desirable that governors of hospitals should be permitted to sign applications for such orders of admission.]

Section V, Subsection 5, page 6, line 41.—After the word "patient," it is suggested to insert "wilfully or knowingly."

[It would often be impossible for the superintendent or proprietor to know whether or not all the provisions of this section had been complied with.]

Section VII, after Subsection 1, to insert two new subsections, in substitution for the present Subsection 2, as follows:

2. It shall be the duty of the person upon whose application an order for the appointment of a committee of the person of the lunatic has been made, forthwith to send notice of such order to the person having custody of the patient.

3. An order under Subsection 1 of this section shall remain in power until ten days after the receipt of the notice aforesaid, by the person having custody of the patient.

[This would secure the person in charge of the patient against keeping the patient improperly, in consequence of his being unaware that an order in lunacy appointing a committee of the person of a lunatic has been made, and thereby incurring a penalty. As the subsection now stands, this might often occur, inasmuch as no notice of the order in lunacy aforesaid is now sent to the medical superintendent or other person in charge of the lunatic.]

Section VIII, subsection 3, page 7, line 34.—After "any," insert two;" for "practitioner," read "practitioners."

Section IX, Subsection 3, page 8.—To prefix to this subsection the following subsections.

3. In cases of urgency, if a constable of any parish or place, or a relieving-officer or overseer of any parish, shall have knowledge that any person wandering at large within such parish or place (whether a pauper or not), is deemed to be a person of unsound mind, and is violent and likely to do immediate injury to himself or others, he shall immediately apprehend and take, or cause such person to be apprehended and taken, to the workhouse of the union, or of the district of the union in which the alleged lunatic is.

4. In cases of urgency, where a person not wandering at large (whether a pauper or not) is deemed to be a person of unsound mind, and is violent and likely to do immediate injury to himself or others, any relative or friend of, or any person residing in the same house with, such alleged lunatic, may apprehend and take, or cause such alleged lunatic to be apprehended and taken, to the workhouse of the union, or the district of the union, in which the alleged lunatic is.

5. In either of the cases mentioned in Subsections 3 and 4 of this Section, the master of the workhouse may receive such person into the workhouse, and detain him there for a period not exceeding three days.

6. To be the present Subsection 3, amended by substituting for the words "under such order as aforesaid," the following, namely: "as in this section provided."

7. To be the present Subsection 4, amended by omitting the words "under such order."

Section XII.—The following protective subsection is suggested to precede the present Subsection 1, page 9, namely: "No action shall be brought, and no prosecution shall be commenced, against any person, in respect of any petition, statement of particulars, or order for the reception of a private or pauper patient under the Act 8 and 9 Victoria, Chapter 100, or the Lunatic Asylums Act, 1853, or the Acts amending those Acts respectively, or under this Act, or in respect of any medical or other certificate, made under or in pursuance of any of the same Acts; or the reception or detention of a lunatic or alleged lunatic, under or in pursuance of any of the same Acts, or in respect of anything done or omitted in connection therewith, without the written fiat of the Commissioners being first obtained; *and* a duly qualified medical practitioner entering a house or other place where an alleged lunatic is, for the purpose of examining him, under any of the Acts aforesaid, shall in no case, by reason only of such entry, be liable to an action of trespass."

Or, as an alternative suggestion, the following:

Section XII, Subsection 1.—No person who does any act, or signs any document required by the terms of this Act, or by the Act 8 and 9 Vict., c. 100, or by the Lunatic Asylums Act 1853, or the Acts amending those Acts, shall thereby become liable to any action at law, or shall incur any penalty other than in this Act is set forth, unless and until such penalty relating to the matter forming the

ground of an intended action, shall have been incurred and enforced under this Act.

Section XV, Subsection 2, page 10, lines 25-26.—For the words after "shall," substitute "forfeit a sum not exceeding forty shillings."

Section XVI, Subsection 1, page 10, line 29.—To be defined whether this statement is in substitution for, or in addition to, the one now sent between two and seven clear days after the admission of a patient.

Section XVII, page 12.—It is thought to be desirable to omit this section. Should the section not be omitted, it is suggested that the word "wilfully" be inserted after "who," in Subsection 7, page 13, line 16; and in Subsection 4, page 12, lines 33 and 34, that the words "a special report of the mental and bodily condition of the patient with," be omitted.

Section XIX, Subsection 3, page 14.—To omit in this subsection, lines 23, 24, the words "for each day or part of a day during which the default continues."

Section XXV, page 16, line 14.—For "undertake to pay and discharge," to substitute "give satisfactory security for the payment and discharge of." Also to add the same provisions with regard to the medical persons signing the certificates under this section, as are made in Section V, Subsection 3, page 6.

Section XXVI, Subsection 1, page 16, lines 26-27.—To omit the words "not being of unsound mind." To omit Subsection 2. And at line 37, for "24 hours' notice," substitute "at least three clear days' written notice." And in Subsection 7, page 17, lines 11 and 12, omit "for each day or part of a day during which he is detained;" and in lines 7 and 8, for "24 hours' notice," read "at least three clear days' written notice."

[These suggestions would preserve to persons who are boarders the advantages of the section, and would enable other arrangements to be made when a boarder was about to use the power of self-discharge to his own disadvantage during a recurrence of mental disturbance, excitement, morbid impulse, or propensity. The class of persons benefited by the section can rarely be spoken of as "not being of unsound mind."]

Sections XXXII and XXXIII, pages 20 and 21.—It is suggested either to omit these sections, or, at least, to give a discretionary power to the Commissioners or to Committees of Visitors to direct that, where they so see fit, the letters of certain patients be retained, and laid before them at their next visit.

Section XXXIX, Subsection 2, page 25, lines 31 and 32.—To omit "for each day during which the default continues."

Section XLIII, page 26, lines 23 and 24.—To omit "for every day during which the default continues."

Section LIX, page 32, line 17, after "house," to insert "or workhouse."

Section LXI, Subsection 1, page 32, lines 32 and 33.—To omit "for each day or part of a day during which the default continues."

Section LXI, Subsection 2, page 32, line 37; and Subsection 3, page 33, line 2, for "fifty pounds," substitute "ten pounds."

Section LXII, Subsection 1, page 33.—To omit this subsection.

[The provisions at present made by law are thought to be fully adequate to ensure the proper sending of documents, etc.]

The opinion of counsel was taken by the Subcommittee upon the following questions, which were submitted to Mr. J. Vesey Fitzgerald.

It is desirable to ascertain what protection will be given to the certifying surgeon—

1. If, under Subsection 9 (Section II), the magistrate is satisfied with the certificates.

2. If, under Subsection 11 (Section II), the magistrate investigates the case himself.

In the event of an action for false imprisonment, or any other charge, would the magistrate be liable? or the medical man [receiving or detaining] in Case 1, and Case 2?

Would the persons, medical or other, receiving or detaining a patient under an order of a justice, etc., given as by Subsections 9 and 11 of Section II, be protected by the fact that the justice, etc., signed such order of admission?

If certificates were given declaring a person of unsound mind in the form of the statute—Form 6—and the magistrate, Subsection 12, line 14, discusses the petition, would the certifying doctor be liable to action for defamation of character, or other [charge]?

Does the certificate of the magistrate clear away responsibility for any possible irregularity in previous stages of proceedings?

Under Section III—Urgency:

To what extent is the certifying doctor secured from responsibility by the certificate given by the other person—Form 4—urgency order?

The opinion of counsel was that:

By Section XII of the Lunacy Acts Amendment Bill, the making of a wilful misstatement is made a misdemeanour, punishable with fine and imprisonment; but I do not see that making a misstatement, which is not wilful, is anywhere provided against by the Bill. If, therefore, a medical practitioner, or any other person, *bonâ fide*, though erroneously, make any statements which turn out to be unfounded, I do not see that he is made responsible for so doing. The order for the confinement of a lunatic is now, under Section II, to be a judicial act, made by a county court judge or a magistrate; and it is the duty of such judge or magistrate to satisfy himself that he has proper evidence before him upon which to make the order. Subsections 9, 11, and 12 appear to me to prescribe the duties of the judge or magistrate, but in no way to affect the position of the medical practitioners who give the certificates. If they take care to fill up their certificates in the manner provided by the Bill, they will, I think, be in the position of witnesses, and liable for the statements in their certificates, just as witnesses are liable for the evidence they give; that is, they will be criminally liable for making wilfully false statements, but not civilly liable for damages caused by statements given by way of evidence, though untrue, if given *bonâ fide*. If the medical practitioner do not comply with the directions given as to his certificate, the document may fail to be what is required by the Act, and so not be protected; but even then it would only be shown to the judge or magistrate in private; and I doubt whether that would amount to a publication, so as to render the signer liable to an action for libel. The protection afforded seems, therefore, to be sufficient, if the medical practitioner take care to fill up his certificate in proper form.

The Subcommittee consisted of Dr. Orange, Dr. Mickle, Mr. Sibley, Dr. Langdon Down, Mr. Wickham Barnes, and Dr. Grigg, who devoted much time and trouble to the work. In preparing the report and accompanying memorandum, continuous assistance was rendered by Dr. Orange, Dr. Mickle, and Mr. Sibley, to whom special thanks are due. It is understood that many of these proposed amendments will be adopted on the report of the Bill in the House of Lords.

CONFERENCE IN BERLIN FOR THE DISCUSSION OF CHOLERA.

[FROM OUR OWN CORRESPONDENT.]

THE seventh and last meeting of this series took place on May 8th.

The discussion on the second and third points was continued, namely: "The spread of cholera by ordinary traffic, by means of human beings, pilgrims, and vessels," and the "influence of the soil, air, and water."

Professor von PETTENKOFER said that when he had suggested that subsoil-water should be regarded as the index of cholera, he did not mean the actual rise and fall of subsoil-water, but only so far as the fluctuations in the soaking of the layers of soil lying above the subsoil-water caused the rise and fall of the water-level. It was only these fluctuations that had an etiological value, and only wells that did not fluctuate from other causes could be utilised for measurement.

Dr. FRÄNKEL thought that, with regard to the causal relation of the comma-bacillus to cholera, it was easy to come to an understanding, as follows. The comma-bacillus was the cause of cholera. To produce an epidemic, it was necessary that the bacillus should be able to thrive outside the human body. But special conditions were necessary for this, namely, those which were called local and temporal dispositions. He therefore asked Professor von Pettenkofer, if, in what was known of the local and temporal dispositions for cholera, there were facts which excluded the assumption that the comma-bacillus was the cause of this disease.

Professor von PETTENKOFER replied that the local and temporal dispositions depended, first, on the physical qualities of the soil (its permeability); second, on the amount of water contained in it, and on the changes to which this amount was subject; and third, on its impregnation with organic substances. He could only recognise the comma-bacillus, or any bacillus, as the cause of cholera, as the real cholera-virus, when it could be shown that the micro-organism in question answered to the epidemiological facts of local and temporal disposition. In order to do this, it was necessary for the organism to have some relation to the soil, like the virus of malaria.

Professor VIRCHOW said that, when Professor von Pettenkofer began his studies on cholera, it was presupposed in Munich that a fungus was the cause of cholera; but that Thiersch's experiments on white mice had given rise to the idea that the virus only developed afterwards in the dejecta. Although these experiments had been shown to be erroneous, Dr. von Pettenkofer has not abandoned the thought of the after-development of the cholera-germ. In investigating the other conditions to which the fæcal matter was subject, the soil naturally claimed the chief attention. So far as this was concerned, Dr. Pettenkofer's labours had afforded excellent results. But the exclusive

point of view was, to Dr. Virchow, incomprehensible. Why could not the matter that caused cholera and existed in the soil pass into drinking-water? In practice, the question immediately arose, whether improvements in the drinking-water could restrain cholera-epidemics? But drinking-water was of very different kinds, and of changeable constitution. As a rule, drainage was improved when the supply of water for drinking and household purposes was improved. Both of these processes had a good influence on epidemics. What was true of cholera was also true of typhus. When Halle was supplied with good drinking-water, a sudden, and what had since proved a lasting, decrease in the frequency of typhus fever took place. In those houses that were supplied with good drinking-water, no more cases of typhus had occurred. From this, it was not concluded that typhus and cholera had nothing to do with the soil. It had been shown that the comma-bacillus could live in water. Should another fungus be shown to be the cause of cholera, it would have to be examined in this respect also. By subsoil-water, he did not understand the water that oozed through the surface. In Berlin, for instance, the water-courses impregnated the soil only to a very slight extent; the water in them came rather from localities lying higher, and situated at some distance. But the water in the soil formed an uniform substance, and it was impossible to draw distinctions in it. According to investigations made by Dr. Babes, in the Pathological Institute, the comma-bacillus was very speedily stifled in its struggle for existence with other bacilli. Further experiments, which must be made in connection with subsoil-water, drinking-water, linen, etc., would in the end throw some light on the question as to how the bacillus could best thrive. Nor could a personal disposition for cholera be disputed. An attack of cholera generally came during digestion, when the substances in the stomach were more speedily moved on, and a living organism could reach the more deeply situated portions of the intestines before it had been in prolonged contact with the acid gastric juice. He (Professor Virchow) also attached some importance to the air. For instance, by simply moving or unpacking linen, damp particles could be dispersed in the air, and from thence enter the mouth.

Professor KOCH said he had a great deal to say against the remarks made by Dr. Pettenkofer; but, owing to the shortness of time at their disposal, he would defer his answer to another occasion.

The fourth point of discussion was "Practical Consequences in connection with the Measures to be taken against Cholera."

Professor KOCH summarised the chief measures that could be taken against cholera as follows.

1. Measures should be adopted by which the infectious matter was directly destroyed, disinfection of the dejecta, destruction or thorough disinfection of the linen, etc. 2. Sanitary measures should be adopted for removing the infectious matter from the vicinity of human beings; for example, drainage, provision of good water for drinking and household purposes. 3. There should be a supervision of the population by experts, in order that the very first cases might be diagnosed, and that the epidemic might be nipped in the bud. The patients must be isolated. Houses in which people had been attacked must be evacuated; that is, the inhabitants not yet attacked must be removed and placed under supervision. 4. The public must be instructed. Their attention must be drawn to the danger of using infected food—for example, uncooked food, and well-water that had not been boiled, and they must be warned against the use of infected linen.

Dr. GÜNTHER said that it was very difficult to say what water was dangerous to health, and in what cases the wells should be closed.

Professor KOCH replied that no general rule could be given; but it was necessary, not only to consider the chemical properties of the water, but also to examine how many germs of micro-organisms, and of what kind, were in the water.

Dr. GÜNTHER alluded to the difficulties connected with the supervision of travellers at railway-stations.

Professor KOCH replied that the provisions on this point must be taken in a humanitarian sense as a measure for the protection of the patient himself, and in the interest of his fellow-sufferers.

Dr. MEHLHAUSEN drew attention to the importance of keeping all water-courses, gullets, etc., clean.

Professor VIRCHOW said that Bacon's disinfecting apparatus had been found capable of killing all bacilli. The Commune of Berlin was building special disinfecting stations; but, in many cases, transportable apparatus would have to be used. The isolation of cholera-patients was necessary, as they could, beyond a doubt, spread the disease. A land-quarantine was impossible, owing to the complicated conditions of traffic.

Professor KOCH advised the process of drying during disinfection. He had always observed that the comma-bacillus quickly died by being dried. Drying should be resorted to where carbolic acid and disinfection by means of hot vapours could not be applied. For disinfecting furniture and houses, the drying process could be hastened by keeping up fires in the rooms. He did not recommend corrosive sublimate as a disinfectant in general.

Professor VON PETTENKOFER admitted, in the case of measures for the isolation of patients, disinfection, etc., that, although they would not be decisive, something must be done to calm the population.

Dr. KERSANDT said the authorities would not stand idle when an epidemic broke out. The State could do a great deal to prevent a plague from being introduced into the country.

Professor VIRCHOW said that, in 1848-49, medical men in Berlin acted on the supposition that cholera was not contagious. The mortality in this epidemic (12 per 1,000) was the highest ever known in Berlin.

Dr. MEHLHAUSEN said that cholera-corpses ought to be wrapped in cloths soaked in carbolic acid, and buried at once, without being exposed, in thick tarred coffins.

The discussion on the fourth point was then concluded. As nobody suggested any further point for discussion, Professor Virchow thanked those that had come to Berlin. The series of discussions was closed, after Professor von Pettenkofer, in his own and Dr. Günther's name, had acknowledged the kind reception given to them.

THE CHOLERA AND THE COMMA-BACILLUS.

AT the Friday evening meeting of the Royal Institution, on the 15th instant, an address "On Cholera" was given by Professor Burdon Sanderson, to a large and appreciative audience, attracted by the eminent reputation of the lecturer, and his pre-eminent acquaintance with the subject of "Micro-organisms and Disease," and especially with that of cholera.

The lecturer commenced by giving an account of the chief outbreaks of cholera which had occurred, showing that it originated in the Delta of the Ganges, a perpetual swamp overgrown with rank vegetation, and almost inaccessible to man; in this locality, it had its perennial habitat, and thence had spread at intervals to other parts of India, in the different provinces of which its prevalence was graphically shown by a series of maps and plans variously shaded. From India, it had invaded other parts of Asia, on some occasions latterly Europe, and ultimately, by perfectly recognised routes, had arrived in this country, on the occasions which were described; showing how in 1832, subsequent to a great outbreak in the East during the previous year, the disease invaded Europe by way of Persia, the Caspian, and Russia, appearing at Sunderland, and in the beginning of the following year in London.

Cholera—that is, Asiatic cholera—was defined as a "specific disease," one in which constant symptoms were due to the action of a particular morbific material. The fact that it was epidemic, and capable of propagation from a given nidus, seemed to show, in accordance with our present knowledge on these subjects, that it was caused by a living organism or germ—a *contagium vivum*—something capable of reproduction and multiplication; but what the intimate nature of this *materies morbi* was, had, up to the present time, eluded discovery, assiduously as it had been sought for by numerous investigators. The lecturer, however, expressed his opinion that the disease was not, in the usual sense of the term, contagious, or communicable by personal intercourse; and, on this point, cited the experience and opinion of Dr. D. Cunningham, the Sanitary Commissioner with the Government of India, who had spent many years in observation of this disease in its native habitat.

In the body, the chief seat of the virus, whatever its real nature, appeared to be the small intestine, in the discharges from which it might be spread abroad, as had been shown to be the case in some instances, by soiled linen, and as it appeared by water, perhaps also by the soil and the air.

These circumstances seemed to point to the fact that the virus was capable of multiplication outside the human body, and the theory of Professor von Pettenkofer was supported by much probability, his view was that it originated in the soil, and that its propagation therein was dependent upon the hygrometric and other conditions.

Analogy would lead us to believe that the morbific germ or material in cholera was of a similar nature to that which of late years had been conclusively shown to constitute the virus in some other specific diseases. Of these the chief and typical case was anthrax, a splenic fever, as it was termed, amongst cattle; in man, known as wool-sorters' disease, and here, mainly by the admirable investigations of Dr. Koch extending the previous results of others, it had been clearly shown that the active contagium was a micro-parasite, capable of being propagated

outside the animal body in artificial cultivations, the development of this organism termed a bacillus, and the formation of resting spores was described, and illustrated by photographs, of preparations of the blood of an infected animal, in which it occurred, thrown on a screen.

Another disease likewise shown by the same observer to be due to a micro-parasite, was tuberculosis, which was intimately connected with the most deadly scourge of this country, pulmonary consumption; here the investigation was more delicate and difficult even than in the former case, owing to the specific characters and constitution of the microphyte; but in this case, also, by artificial cultivations infecting some of the lower animals, the demonstration had been completely made.

In another case in this country, swine-fever, or pig-typhoid as it had been termed, Dr. Klein, following the same methods of investigation, had proved conclusively that a micro-parasite constituted the contagium.

A severe disease commonly prevalent in India, relapsing fever, was characterised by the presence in the blood during the febrile stage, of another micro-organism, in great numbers, termed a spirillum; by cultivating it artificially, and inoculating monkeys, Dr. Vandyke Carter, of Bombay, had communicated the disease to these animals, and thus proved it to constitute the contagium. Photographs of blood containing these microbes were also thrown upon the screen.

In these instances, as the lecturer remarked, it was clearly shown, by the means described, that the micro-organisms which had been observed constituted the contagium, and conveyed infection. Cholera, however, stood in a different position from these cases. Minutely and assiduously as they had been examined, neither in the blood nor other tissues, to any extent, could any organisms be detected. The history of the discovery by Koch, in Egypt, of the comma-bacillus was then described; and the subsequent development in India of his view that it constituted the virus of the disease, alleging that, though not found in the blood of cholera-patients, it occurred in vast numbers in the small intestine, which was recognised as the seat of the disease, and here, as he maintained, secreted a poison, which was absorbed into the system.

[The comma-bacillus was here described, a drawing of it was shown, and a photograph from a preparation projected on to a screen, with remarkable clearness and distinctness for so minute an organism; its development and characters were described, as were the methods recently introduced of cultivating micro-organisms in nutrient jelly as a means of specific diagnosis. Many of these cultivations, made by Dr. Klein, were shown, and an admirable series of photographs of them, which method gave and perpetuated their characters at any desired stage of development. In the library, numerous preparations of the comma-bacilli and other microbes were shown under the microscope, which were examined with great interest by most of those present.]

Subsequently to Koch's discovery, a Commission was sent out to India from this country, at the head of which was Dr. Klein, selected from his knowledge of these subjects, in the investigation of which he was indeed *facile princeps*, as was generally recognised. The results which he obtained were valuable and conclusive; the lecturer paid a deservedly high compliment to his abilities, and considered that he had sufficiently disproved the theory of Dr. Koch, as to the relations of his commas to cholera, a view which was not supported by any adequate evidence, the promulgation of which he termed an "unfortunate fiasco;" remarking that, from a scientific point of view, the most laudable desire to mitigate disease, or to benefit humanity, would not excuse error.

The above is a very brief and imperfect abstract of a lecture which was heard with the deepest interest and attention.

VISIT OF THE QUEEN TO THE ROYAL VICTORIA HOSPITAL AT NETLEY.

On Saturday, the 16th instant, the Queen, accompanied by Princess Beatrice and Prince Henry of Battenburg, visited the Royal Victoria Hospital, and inspected the sick and wounded soldiers who had recently been invalided from Egypt. The royal party left Windsor Castle at one o'clock, and travelled by special train to the railway station at Netley, which was reached about three o'clock. Lieutenant-General Sir G. Willis, K.C.B., commanding the Southern District, had come over from Portsmouth, and together with Colonel Bell, Assistant-Adjutant-General at Netley, received Her Majesty at the station. The royal party then drove to the hospital, at the entrance of which Surgeon-General Dr. Murray, the principal medical officer, and the other medical officers of the hospital, were in attendance. In the Central Hall, where some ladies and other visitors were assembled, the Queen spent some minutes in examining the marble memorial, with its numerous figures executed in bas-relief, erected to the memory of the officers and men of the Medical Staff Corps who lost their lives during the last campaigns in South Africa and Afghanistan. This beautiful work, which was sculptured by H.S.H. Count Gleichen, occupies a prominent position opposite to the principal entrance of the hall; and as the light of the afternoon sun, shining through the large open doors, fell upon it, all the delicate parts of the sculpture were brought conspicuously into view. Ascending the staircase, the Queen went to the nurses' quarters, in front of which she was received by Mrs. Deeble, the superintendent of the nursing-service of the hospital. Mrs. Deeble wore the Royal Red Cross and medal for field-service in South Africa. From the nurses' quarters, the Queen passed into the Medical Section of the hospital, where Deputy Surgeon-General Dr. Boyes Smith and Surgeon-Major Dr. Cherry were in attendance to explain the nature of the ailments from which the patients were suffering. The men who were not confined to bed were drawn up in line along the corridor out of which the wards open. The Queen inspected each in turn, and also went through the wards, addressing a few words to many of the sick men, and making sympathetic inquiries as to their progress. The Princess Beatrice and Prince Henry of Battenburg also conversed with many of the patients.

The Queen next ascended to the upper story of the building, where the surgical cases are placed, and Her Majesty was conducted through this part of the hospital by Surgeon-General Longmore, C.B., and Surgeon-Major Codrington. Here were seventy men suffering from the effects of gunshot and spear wounds, many of them of an extremely severe character. A fair proportion had, however, so far recovered that they were able to be paraded in the corridor; but there were still five wards in which a number of wounded men were confined to bed. The Queen visited each man in turn, and had the nature of the injuries explained to her and the action in which they had been inflicted. A man in bed in one of the wards showed by his accent that he was a foreigner. He had been severely wounded by a bullet which was believed to have passed through the liver. It turned out that he was a Hanoverian by birth, but had become a naturalised British subject before enlistment. The Queen conversed with him in German, as did also Prince Henry of Battenburg. In another ward there was a patient who had been greatly reduced by a gunshot wound near the knee-joint, and who had recently had his limb amputated. The Queen evinced the greatest sympathy with the poor fellow, and, indeed, throughout Her Majesty's visit, as well among the sick as among the wounded, the kind and feeling manner in which the Queen spoke to the men was most touching, and must have left an impression among them that is not likely to be effaced from their memories as long as they live. On leaving the surgical corridor the Queen passed by the large patients' lift, or ascending room, which is worked by hydraulic power, and is capable of carrying several men, lying down on litters, from the basement of the building to its highest story. This is a recent addition to the resources of the hospital, and is said to have proved itself to be of the greatest value. Before its construction all recumbent patients had to be carried up and down the staircases, and, owing to the sharp turns in them, this was not only a difficult but also a hazardous proceeding. The lift had been prepared for the reception of the Royal party in case Her Majesty chose to use it in ascending to the upper stories of the hospital; but the Queen walked up the stairs—a sufficient proof that the weakness of the injured knee from which Her Majesty was suffering about a year or so ago is no longer a source of special trouble.

The Queen now went to the quarters of the sick officers in the centre of the building, and here she remained a short time in conversation with Captain the Hon. North Dalrymple of the Scots Guards, who is still suffering from the effects of a very severe gunshot wound at the upper part of the chest in one of the actions in the Soudan. The Queen also visited one of the medical officers, Surgeon McMillan, who was confined to bed in one of the sick quarters suffering from a severe attack of pneumonia. Altogether, the Queen spent upwards of an hour among the patients in the hospital, and only took a short rest in the quarters occupied by Mrs. Deeble before quitting the establishment. The Royal party left Netley Station to return to Windsor shortly before 5 o'clock. The total number of patients in the hospital at the time of Her Majesty's visit was 679, of whom 217 were patients from Egypt; but, very soon after the Queen's departure, this number was increased by 85 more sick and wounded men from the Soudan. These had arrived the day previously at Portsmouth by the transport *Australia*.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

ANY qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member *by the Council* or by any recognised *Branch Council.*

Meetings of the Council will be held on July 8th, and October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, June 17th, and September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Eastbourne, on Friday, May 29th. Dr. Habgood will preside. Meeting at 3.30 P.M. Dinner at 5.30 P.M.; charge 6s., exclusive of wine. The following papers are promised: 1. The Chairman, Notes on Lateral Dislocation of the Patella; 2. Dr. Crighton, the Therapeutic Value of Chloride of Calcium; 3. Mr. Hodgson, Paraldehyde as a Hypnotic. Messrs. Down Bros. will exhibit some recent improvements in surgical instruments. Gentlemen desirous of reading papers or showing cases should communicate with the Honorary Secretary, T. JENNER VERRALL, 95, Western Road, Brighton.—April 27th, 1885.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting (annual) of this District will be held at the Kent and Canterbury Hospital, on Thursday, May 28th, at 3 P.M.; Mr. Rigden in the chair. Messrs. Down Brothers, of London, will exhibit surgical instruments. Besides the usual business of the Annual Meeting, the resignation of the Honorary District Secretary has to be received and a successor appointed. Papers—1. Dr. Gogarty, Chorea; 2. Mr. Wacher, A Case of Puerperal Fever treated with Warburg's Tincture. The dinner will take place at the Royal Fountain Hotel at 5 P.M. Members wishing to bring forward cases or specimens are requested to communicate at once with the undersigned.—T. WHITEHEAD REID, Honorary District Secretary, 34, St. George's Place, Canterbury.—May 13th, 1885.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at the Royal Sea-bathing Infirmary, Margate, on Thursday, June 4th, at 2 o'clock; Dr. T. S. Rowe, of Margate, President-elect, in the chair.—CHARLES PARSONS, M.D., Honorary Secretary and Treasurer, 2, St. James Street, Dover.—May 13th, 1885.

SOUTH-WESTERN BRANCH.—*Preliminary Notice.*—The annual meeting will be held on Tuesday, June 9th, at Truro, under the presidency of Edward Sharp, Esq. By invitation of the President, a steamboat-trip, with luncheon on board, will be made on the Fal. The dinner will be held at an hour to permit members to leave by the 8 P.M. up and down trains. Members intending to be present, or to make communications, or who may have new members to propose, are requested to communicate as soon as possible with the Honorary Secretary, Wonford House, Exeter.—By order, P. MAURY DEAS, Honorary Secretary.

SOUTHERN BRANCH: SOUTHAMPTON DISTRICT.—The next meeting of this District will be held on Wednesday, the 27th inst., at the residence of Dr. Trend, 6, Anglesea Place, Southampton, at 8 P.M., when a paper will be read by Dr. Maclean, C.B., on Cholera; What can the State do to prevent it? Other business—Election of Officers; Examination of Accounts.—THEOPH. W. TREND, M.D., Honorary Secretary.

STAFFORDSHIRE BRANCH.—The third general meeting of the present session will be held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, May 28th, 1885. The President, Dr. E. T. Tylecote, will take the chair at three o'clock in the afternoon.—VINCENT JACKSON, General Secretary.—Wolverhampton.—April 25th, 1885.

EAST ANGLIAN, SOUTH MIDLAND, AND CAMBRIDGE AND HUNTINGDONSHIRE BRANCHES.—A combined meeting of the above Branches will be held in Cambridge on the 12th of June next, under the presidency of Dr. P. W. Latham, Downing Professor of Medicine. Notice of intention of reading papers to be sent, without delay, to one of the Secretaries, W. A. ELLISTON, Ipswich; C. J. EVANS, Northampton; BUSHELL ANNINGSON, Cambridge.

BATH AND BRISTOL BRANCH.—The sixth ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday evening, May 28th, at half-past seven o'clock; R. S. Fowler, F.R.C.S.Ed., President. The following communications are expected: 1. A case of Macewen's operation for Genu Valgum. (the patient will be shown): Mr T. D. Ransford. 2. Some points in the treatment of Acne, especially of the Face: Dr. Spender. 3. On the treatment of Uterine Hæmorrhage unaccompanied by Local Disease: Dr. A. E. Aust Laurence.—R. J. H. SCOTT, E. MARKHAM SKERRITT, Honorary Secretaries.

DORSET AND WEST HANTS BRANCH.—The next meeting will be held at Ringwood, on Thursday, May 28th. The business meeting will be held at the White Hart Hotel, at 2.30 P.M. Agenda—Secretaries' Accounts for 1884. Election of Branch Council. Election of a representative of the Branch on the Council of the Association. Election of New Members of the Branch. Place of the autumn meeting. Dr. W. V. Snow will move the adoption of the following new by-law: "The election of officers and council of the Branch, and of the Representative on the Council of the Association, shall be conducted by means of voting papers, which shall be sent to each member of the Branch, and returned in sufficient time to allow the result to be announced by the council to the next meeting of the Branch. The council shall from time to time make such regulations as may be necessary for the conduct of the election." Address by the President. Communications—Dr. Macdonald: Remarks on a case of Phthisical Mania, with Pulmonary Fistula: Death: Necropsy: Specimen. Mr. Lawton: Case of Hypertrophic Elongation of Cervix Uteri: Specimen. Dr. Snow: On the Prevalence of Enlarged Thyroid in the District during the Autumn. Surgeon-Major McWatters: Case of Abscess of the Liver: Specimen. Dr. Macdonald: Specimen of Cystic Tumour from Subdural Space. Dr. Macdonald: Specimen of Cancer of the Bladder involving Rectum. Dr. Macdonald: Specimen of Gall-Bladder distended by Small Calculi. Discussion—Ophthalmia Neonatorum. Dinner at 5 P.M.; charge, 6s. each, without wine. Drive through the Somerley Estate at 7 P.M. Members intending to be present are requested to notify the same to Dr. Dyer, Ringwood, on or before Monday, May 25th.—WM. VAWDREY LUSH, M.D., Weymouth; C. H. WATTS PARKINSON, Wimborne, Honorary Secretaries. N.B.—Dr. Dyer will be pleased to see any member or friend at his house to luncheon before the meeting. Mr. Parkinson requests all members to fill up at least one or two Collective Investigation cards, and bring or forward them to him.

SHROPSHIRE AND MID WALES BRANCH.—The annual general meeting of the Branch will be held at the Salop Infirmary, on Tuesday, June 30th, at 2 P.M. Members desirous of reading papers or opening discussions are requested to communicate with the Honorary Secretary.—EDWARD CURETON, Honorary Secretary, Shrewsbury.—May 13th, 1885.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting will be held at Southport early in the month of June. Members desirous of reading papers, making communications, or showing cases, are requested to communicate with the Honorary Secretary without delay.—CHARLES ED. GLASCOTT, M.D., 23, Saint John Street, Manchester.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting vill be held at the Iufirmary, Hull, on Wednesday, May 27th. Gentlemen who intend to make any communication, or to propose any resolution, are requested to inform the Secretary not later than the 18th inst.—E. P. HARDEY, Honorary Secretary, 17, Brunswick Terrace, Hull.—May 7th, 1885.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at Leicester, on Thursday, July 9th. Notice of papers, etc., to be sent to the undersigned.—LEWIS W. MARSHALL, M.D., Honorary Secretary and Treasurer, 2, East Circus Street, Nottingham.

METROPOLITAN COUNTIES BRANCH.—The Annual Meeting of this Branch will be held at the Holborn Restaurant, on Tuesday, June 23rd, at 5.30 P.M. President: Charles Macnamara, Esq.; President-elect: Walter Dickson, M.D. Dinner at 7 P.M.; tickets 7s. 6d. each, exclusive of wine.—ALEXANDER HENRY, M.D.; W. CHAPMAN GRIGG, M.D., Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held at the Royal Forest Hotel, Chingford, on Thursday, May 28th, at 5.30 P.M.; the President in the chair. Business: Election of Secretary. At 6 o'clock, the members and their friends will dine together. Tickets 7s. 6d. each. Members intending to be present at the dinner are requested to communicate with the Honorary Secretary not later than Monday, May 25th.—JOSEPH W. HUNT, Honorary Secretary, 101, Queen's Road, Dalston.

NOMINATION OF REPRESENTATIVES IN COUNCIL OF ASSOCIATION: SPECIAL NOTICES.

METROPOLITAN COUNTIES BRANCH.—Notice is hereby given, that the nomination of members to represent this Branch in the Council of the Association will shortly take place, in accordance with the following by-law: "The representatives of the Branch in the Council of the British Medical Association shall be annually nominated by the Council of the Branch in such manner as the said Council may from time to time determine. Any six members of the Branch shall be entitled to nominate any one or more members as representatives, on giving notice of such election to the Secretaries of the Branch at least three weeks before each annual meeting." Members desirous of nominating candidates are invited, in accordance with the above, to send in the names to Dr. Henry, 132, Highbury Hill, N., on or before June 1st. There will be two vacancies: one caused by the appointment of Mr. Macnamara as Treasurer of the Association; the other by the death of Dr. Mahomed. The remaining present representatives are Dr. Bridgwater, Mr. Sibley, and Dr. Grigg.—ALEXANDER HENRY, M.D., W. CHAPMAN GRIGG, M.D., Honorary Secretaries.—132, Highbury Hill, N., April 29th, 1885.

LANCASHIRE AND CHESHIRE BEANCH.—Members of this Branch who are desirous of nominating members of the Council of the Branch, or Representative Members in the Council of the Association, are hereby reminded that such nominations, signed by five nominators, must be sent to the Secretary on or before the 31st instant.—CHARLES E. GLASCOTT, M.D., Honorary Secretary.—23, St. John Street, Manchester.

SHROPSHIRE AND MID-WALES BRANCH: QUARTERLY MEETING.

A QUARTERLY meeting of the Branch was held at the Pump House Hotel, Llandrindod Wells, on Tuesday, May 12th. W. Bowen-Davies, Esq., the president, occupied the chair.

New Member.—The following member of the Association was duly elected a member of the Branch—C. E. Denning, County Asylum, near Shrewsbury. The following gentlemen were elected members of the Branch—H. R. Russell, Salop Infirmary; J. F. Herring, Builth, Breconshire; F. L. C. Richardson, Rhayader, Radnorshire.

Instruments—Selections of all the most recent improvements in surgical instruments were laid before the meeting.

Visit to the Wells.—The members subsequently visited the wells, or springs of mineral waters, which are known to have been in use for medicinal purposes for at least two hundred years, and which are of three kinds, sulphuretted, saline, and chalybeate; the saline having been awarded a bronze medal at the Frankfort Balneological Exhibition, held in 1881.

The members afterwards sat down to a repast at the Hotel.

LANCASHIRE AND CHESHIRE BRANCH: SPECIAL MEETING.

A SPECIAL general meeting of this Branch was held at Chester on May 1st, 1885; Dr. WATERS, President of the Branch, in the chair.

Mode of Election of the Representatives in the Council of Association.—The CHAIRMAN made some opening remarks as to the urgent need that existed for an alteration in the rule relating to the mode of election of representatives in the Council of the Association, and called upon the Secretary to read the resolution on the subject, which had been passed by the Council of the Branch.

The SECRETARY read the following resolution of the Council: "That the existing mode of nomination and election of ordinary members of the Branch Council be adopted in the case of representatives in the Council of the Association and the office-bearers."

Mr. TAYLOR (Chester) proposed, Mr. MOULD (Cheadle) seconded: "That the mode of electing representative members be considered separately from the mode of electing office-bearers." This was carried.

Mr. TAYLOR proposed, and Mr. MOULD seconded: "That the election of office-bearers remain as at present." This was carried.

Dr. CULLINGWORTH (Manchester) proposed, and Dr. CARTER (Liverpool) seconded: "That the mode of nomination and election of the ordinary members of the Branch Council be adopted in the case of the representatives of the Branch in the Council of the Association." This also was carried.

Dr. CULLINGWORTH proposed, and Dr. CARTER seconded: "That the Secretary be hereby authorised to alter the rules of the Branch in accordance with the foregoing resolution." This was carried.

Vote of Thanks.—Dr. EDWIN RAYNER (Stockport) proposed, and Dr. FITZPATRICK (Liverpool) seconded: "That the best thanks of the meeting be given to the Mayor of Chester for his kindness in lending the assembly room in the Chester Town Hall, for the purposes of this meeting." The motion was carried unanimously.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Cerebral Localisation.—The Influence of Heat on the Development of Micro-organisms.—Synthetical Colloidal Substances.—The Microbe of Erysipelas.—Ainhum.—The Municipal Laboratory.—General News.

M. VULPIAN has recently shown, after having determined what is the minimum electric stimulus necessary to apply to the grey substance of the brain in order to provoke movements, that the same effects are obtained by a weaker current, if isolated electrodes (entirely covered by gutta-percha, except at the extremity) be allowed to penetrate the grey substance until they reach the white matter. He also affirms that epileptic attacks are provoked by stimulating the underlying white bundles by weaker currents of less duration than those used for stimulating the surface of the grey substance. Other experiments by M. Vulpian tend to show that the grey cortical substance is of quite secondary importance in the pathogeny of epilepsy. M. Vulpian has arrived at this conclusion from freezing the cerebral surface of a dog by methyl-chloride, and then applying an electrical stimulus, which provokes epilepsy. The results of his researches appear to be opposed to the doctrine of functional cerebral localisation. They indicate that the nerve-fibres destined to transmit cerebral motor initiations from certain regions to a limb, for example, may issue from a certain circumscribed area without the superposed grey substance being necessarily a defined initiating area. M. Vulpian, in the course of his experiments, observed that in less than a minute after the last heart-beat, faradisation of neither the grey nor white cerebral substance provoked the slightest movement of either the limbs or the face. This demonstrates that, among the higher order of mammals, the cerebral substance loses its motor stimulus as soon as the circulation is arrested in the nerve-centres.

M. Charles Richet, at a recent meeting of the Société de Biologie, stated that heat helps the action of substances that impede or arrest the development of micro-organisms. In two bottles of urine mixed with a few drops of putrid urine, five milligrammes of mercuric chloride were added; one remained in the laboratory, the other was placed in a stove at 40° C. (104° Fahr.). In the former, micro-organisms were developed; the other, which was subjected to heat, remained clear and limpid.

M. Grimaux has communicated to the Biological Society the result of his researches on colloids. If the product obtained by heating phosphorus perchloride with amido-benzoic acid be submitted to the influence of ammonia, the result is a substance which M. Grimaux calls amidobenzoic colloid. It resembles albumen in its behaviour to reagents. It coagulates in the presence of acids, salts, and lime-water; also under the influence of heat. A weak solution does not coagulate under the influence of heat, but the addition of sodium chloride in solution coagulates both substances, the albumen and the amidobenzoic colloid. If a weak solution, after ebullition, be submitted to the influence of a current of carbonic acid, a white coagulum is obtained, which disappears when the carbonic acid is replaced by atmospheric air. This substance is thus undoubtedly a synthetical albuminoid. M. Grimaux, however, does not agree with those who believe in the possibility of the artificial formation of living protoplasm. Nothing indicates the process by which an albuminoid is converted into a living cell.

At a recent meeting of the Académie de Médecine, M. Cornil stated that a microbe is present in all forms of erysipelas. The organisms have been cultivated on gelatine by Fehleisen and Rosenbach. They are round, generally arranged in pairs, or in sinuous bands. The microbe of erysipelas is a streptococcus. Rosenbach asserts that there is a difference between the streptococcus of erysipelas and the pyogenic streptococcus. M. Cornil failed to observe any difference, but believes that, if the identity between the streptococcus of erysipelas and the streptococcus present in phlegmonous inflammation be not fully established, it is nevertheless demonstrated that erysipelas is always provoked by the presence of streptococci in the connective tissue, the plasma of the lymph, and the blood.

M. Ruault showed, at a recent meeting of the Anatomical Society, a specimen of ainhum. The patient was a native of the island of Bourbon. A fibrous band enclosed half of the little toe of the right foot. During some months the toe was turned outwards, and thus subjected to painful concussions. In consequence of the frequency of tetanus among the coloured races after operations with the knife, the toe was removed by the thermo-cautery.

Since the Municipal Laboratory has been founded, a considerable number of analyses of wine, beer, milk, butter, coffee, and chocolate have been made in it. Pharmaceutical products have also been tested in it; also colouring substances; milk in the bottles used for children at the *crêches;* air collected from the sleeping rooms at the Veterinary School at Alfort; soil and air from cemeteries, etc. There are twenty experts employed as inspectors. Qualitative analyses are made made gratis. Quantative analyses are paid for.

The French Consul at Alexandria has informed the Sanitary Committee there that cholera has appeared between Madras and Calcutta, and he urges that vessels coming from India, and crossing the Suez Canal, should be sent into quarantine.

A society has recently been founded called La Société de Psychologie Physiologique, for the purpose of studying psychical phenomena in normal and pathological conditions, both clinically and experimentally,

An excellent little book, entitled *Notions d'Hygiène* (notions on hygiene), has just appeared; its author is Dr. Benoist de la Grandière. It is intended especially for schoolmasters and pupils. In five chapters, they are fully instructed concerning fresh air, dwellings, food, peasonal cleanliness, clothes, exercise, and work.

The chamber of appeal has ratified the sentence pronounced on Dr. Watelet, for having communicated to the daily papers the cause of Bastien

Lepage's death. He therefore stands condemned to pay a fine of 100 francs (£4).

M. Chantemps urges the Municipal Council to establish in the country districts hospitals for isolating children suffering from infectious diseases.

CORRESPONDENCE.

FRERE v. WINSLOW.

SIR,—As solicitors for Mrs. A'Beckett (one of the daughters of the late Dr. Forbes Winslow), Mr. A'Beckett, and their children, our attention has been called to a paragraph in your paper of the 16th instant, relative to the termination of Dr. Lyttleton S. Forbes Winslow's connection with the asylums so successfully conducted by his father, Dr. Forbes Winslow.

That paragraph is calculated to create a misleading impression in two important respects; but, as the matter has since come before Mr. Justice Pearson, we trouble you with a copy of his lordship's judgment, given on the 15th instant, and venture to ask you, in fairness to the parties interested, to insert it in your next issue, either with or without this letter, as you may deem fit.—We are, sir, your obedient servants,

CHESTER AND CO.

Staple Inn, London, W.C.

The following is a copy of the judgment of Mr. Justice Pearson.

"I think that this is about as plain a case as ever came before the court. I am sorry that Dr. Winslow should have thought fit to act in this way. He was left trustee under his father's will of this property. There are two asylums, one for gentlemen, the other for ladies, who suffer from mental disease, which form part of the estate, to be divided, when sold, between himself and his brother and sisters. For some time, he has been managing the asylum. On a former occasion, I stated that, in the evidence before me, there was nothing to show that he had not conducted these asylums with skill and industry; but whatever he did for the asylum was done for the benefit of the estate. Not only as medical person in charge, but also as trustee for his father's will, he was bound to do everything for the benefit of the estate. Unfortunately differences between himself and other members of the family have arisen as to the asylums. The result was, an agreement was come to on the last occasion, under which Dr. Winslow undertook to retire; and it was then permitted to the other beneficiaries, under the will, to nominate another gentleman as medical superintendent, if the Commissioners should think it right, and approved that gentleman. That was done; and, as I understand, the gentleman has been appointed and approved, and the Commissioners have expressed their intention to allow these two houses to remain open for another year. Dr. Winslow thinks it right, under those circumstances, to write letters which have the object of withdrawing the patients, emptying the asylums, and destroying the estate. Nobody can for a moment think this right. It is contrary to the commonest and simplest principles of honesty, it would be the destruction of the property, and the means of depriving the estate of all benefit of the care and skill which he had properly used, and for which he was paid. I think the interim injunction was properly granted, and must be continued."

THE CHOLERA-BACILLUS FROM A PUBLIC HEALTH POINT OF VIEW.

SIR,—As one specially interested in the subject of public hygiene, I have made it my business to follow the researches as to the nature and diagnostic value of the comma-, or so-called cholera-bacillus.

The subject is not merely of local or even national importance. The rapidity with which cholera can travel, the frightful ravages due to its epidemic violence, and the great facilities offered for its spread by the increased means of communication between different countries at present, render this subject one of universal importance. Up to the present time, there has existed the greatest difficulty in diagnosing cases of severe English cholera (cholera nostras) from true Asiatic cholera.

In consequence of erroneous diagnosis, unnecessary panic and great commercial loss have been many times caused by the announcement of the occurrence of a case of Asiatic cholera, which was really only English cholera. And, what is still worse, epidemics of Asiatic cholera have been allowed to grow to formidable proportions before their real nature was discovered. Hence the great value which Koch's discovery assumes, if it offers, as he says, a certain and easy means of diagnosing between two diseases very different in their fatality, but not dissimilar in their symptomatology.

The German government at once recognised the value of Koch's discovery from this point of view. It has arranged that medical men from various localities shall have the opportunity of studying in Berlin, under Koch's personal superintendence, the nature and mode of artificial culture of the cholera-bacillus. Already 150 medical men have gone through the bacteriological course in the Imperial Sanitary Institute, and are now in a position, within forty-eight hours, to diagnose whether a suspicious case is one of Asiatic cholera or not. The apathy hitherto displayed in this country, although certainly not less interested in the question than the German Government, is not a little surprising. So far as I am aware, there is no public institution in Great Britain where a person anxious to study this most important and recent branch of experimental pathology can do so. I have had to avail myself of the resources of a private one, and I believe that our Government possesses no laboratory where researches of this nature can be carried on, but is obliged to depend on the resources of private individuals, or of the Brown Institute.

Dr. Klein, who was sent to India, after Koch's return, to investigate the matter in the light of recent discoveries, does not admit the specific character of the comma- (cholera-) bacillus, and has nowhere expressed an opinion in favour of its diagnostic value. It is most perplexing, indeed, that he has not expressly stated his opinion on this capital point. In a recent number of the JOURNAL, he states that "they [the comma-bacilli] are therefore the result, and not the cause, of the disease." Now, if they are an invariable result of Asiatic cholera, and are the result of no similar disease, their presence as a diagnostic sign is quite as important as if they were the cause, instead of the result. The discovery of a scarlatinal rash, the result of the specific infection, is of quite as great value as a diagnostic sign as would be the discovery of the microbe to which the disease is due. This being the case, it is most surprising that, in view of the possible recrudescence of cholera on the Continent, and of its invasion of this country, Dr. Klein should not advise the Government to take steps to utilise Koch's discovery. If, however, his silence on this point is to be taken as a denial of the diagnostic significance of the comma- (cholera-) bacillus, then we are landed in the difficulty, that the official adviser of the English Government stands in direct opposition to the unanimous opinion of the great majority of those who are capable of giving an authoritative opinion on the subject. In this country, one of the ablest bacteriologists, Mr. Watson Cheyne, is publishing a series of papers in the JOURNAL, in which he very ably maintains the accuracy of Koch's results. Surely the point is deserving of immediate decision, so that the Government and the medical officers of health throughout the country may be relieved from any doubt.

I would suggest, as the only way of deciding the contradictory experiments of Dr. Klein and Mr. Cheyne, that they be repeated before a competent commission. Neither of the gentlemen named need consider such a reference to arbitration as in the least derogatory, and a decision of the disputed points would be of the utmost importance.

It is well known that on many occasions the novel and surprising discoveries of Pasteur were received with open doubt, and even disbelief, at the Academy of Sciences in Paris. Confident in the accuracy of his methods and the correctness of his conclusions, he several times claimed the appointment of a commission of experts, before whom he repeated his experiments. Koch has, apparently, not hesitated to act in a similar way, in calling together a commission of scientific men to see and discuss his experiments. There are a number of men among ourselves well able to supervise and test experiments of this kind. I need only mention the names of Tyndall, Lister, and Burdon Sanderson. I believe that the appointment of such a commission would be highly satisfactory. May I hope that the Association, on whose behalf Mr. Cheyne is reporting on the subject, will take the initiative in this matter? The Association has specially involved itself in the investigation, and ought at once to justify its selection of Mr. Cheyne as its research scholar, by having his experiments tested, and his conclusions proved to be warranted or not.—I am, sir, yours, etc.,

THOS. WHITESIDE HIME, M.B., Medical Officer of Health.

Town Hall, Bradford.

OBITUARY.

JOHN CAUNT, M.R.C.S.ENG., L.S.A.LOND.

MR. JOHN CAUNT for many years resided and practised as a surgeon in Wheeler Gate, Nottingham, which town he left in 1856, and some time afterwards was appointed by the Chief Inspector of Factories, Mr. A. Redgrave, C.B., to a district in London. He discharged the duties of this office faithfully to within a short time of his death. The deceased gentleman was greatly esteemed by a large circle of friends

and patients, by whom the announcement of his death will be received with regret. He had attained the ripe age of nearly eighty-two years.

Mr. Caunt died on April 19th, at No. 2, Dudley Place, St. Mary's Terrace, Paddington, and was buried at Old Willesden on the following Thursday, April 23rd.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE COLLEGE OF PHYSICIANS AND HOSPITAL OUT-PATIENTS.

SIR,—Will you allow me to draw your attention to one of the laws by which Fellows of the Royal College of Physicians are bound, and to which they promise to conform when admitted to the Fellowship? It is the law that they will not, under any pretext of charity, prescribe for a patient whom they know to be under the care of another practitioner. It is such a very common thing in hospital practice for this law to be broken, that it is time some attention should be directed to it.—Yours obediently, R. J. L.

*** It may be as well to quote the by-law in question more fully. It is as follows. "No Fellow or Member of the College shall officiously, or under colour of a benevolent purpose, offer medical aid to, or prescribe for, any patient whom he knows to be under the care of another legally qualified medical practitioner." It might perhaps be well for our correspondent to state more specifically how it is infringed as "a very common thing in hospital practice."

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS—Tuesday, May 19th.

Lunacy Acts Amendment Bill.—On the order for going into Committee on this Bill, the LORD CHANCELLOR said he proposed to ask their lordships to go into Committee *pro formâ* on this Bill, for the purpose of inserting thirteen pages of amendments, of which he had given notice, after which the Bill would be reprinted. After the Whitsuntide recess, they might go into Committee again on the Bill, when the amendments proposed by various noble lords could be properly considered and discussed.—The Earl of MILLTOWN acceded to the course proposed, and remarked that he had wished to see the Bill referred to a Select Committee, in order that the whole question involved in it might be dealt with in a more thorough manner than it could be by a Committee of the whole House. But, as he knew that the noble and learned lord had a sincere hope that the measure would become law this session, and knowing the great anxiety that existed on the part of the public on the subject, he would not press for the reference of the Bill to a Select Committee.—The House then went into Committeee, when the series of amendments proposed by the Lord Chancellor were inserted, and the Bill was ordered to be reprinted.

HOUSE OF COMMONS.—Thursday, May 14th.

Small-Pox in West Ham.—Mr. HOPWOOD: I wish to ask the President of the Local Government Board, whether he is aware that, by a house-to-house visitation of 15,000 houses in West Ham, instituted by Dr. Kennedy, the local officer of health, it has been ascertained that the inhabitants are vaccinated in number up to the average of the metropolis, and to the extent of 98 per cent. Whether the rate of mortality from small-pox is, in the last Registrar-General's return: for London (including its outer ring) 1,320 per million; for West Ham alone (included in above) 5,132 per million. Whether small-pox is usually most frequent in quarters of the town otherwise unhealthy; and, whether he will make inquiry in this case into the existence of unsanitary defects in sewers, etc., of which the inhabitants complain, and apply effective remedies to this zymotic epidemic.—Mr. GEORGE RUSSELL: The answer to my honourable and learned friend's first question is in the affirmative, but the recent returns of the number of children vaccinated have been comparatively unsatisfactory. During the past six months 105 deaths from small-pox have occurred in the guardians' hospital at Plaistow, and out of this number 76 were found to be unvaccinated, 21 imperfectly vaccinated, 8 vaccinated, and none revaccinated. According to the return of the Registrar-General for the week ending May 2nd, there were 23 deaths in the West Ham district, 19 of which were local cases; and in London, including the outer ring, there were, inclusive of 16 deaths of London residents in hospitals outside London, 78 deaths. Small-pox is not usually most frequent in quarters of a town otherwise unhealthy, except in so far as the unhealthiness may be synonymous with overcrowding and want of isolation. Dr. de Chaumont recently visited West Ham, and has reported to the Board as follows: "The local system of sewers and drains is said to be well carried out as a whole, but the district appears to be increasing at a rate that will probably overtax the system as at present arranged." We will look into this matter.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SERVICE.

BRIGADE-SURGEON G. L. HINDE is promoted to be Deputy Surgeon-General, *vice* E. M. Sinclair, M.D., who has been placed on temporary half-pay. Mr. Hinde entered the service May 15th, 1855; became Surgeon September 19th, 1868; Surgeon-Major, March 1st, 1873; and Brigade-Surgeon, April 25th, 1881. He served in the Crimean war in 1855, was at the siege of Sebastopol, and has the medal and clasp, and the Turkish medal. He was also in the Boer war in 1881. He accompanied the recent expedition to Suakin, and was granted the rank of Deputy Surgeon-General.

Surgeon-Major W. TEMPLE, M.B., V.C., is appointed Brigade-Surgeon, *vice* G. L. Hinde. His commissions are dated: Assistant-Surgeon, November 1st, 1858; Surgeon, March 1st, 1873; and Surgeon-Major, October 18th, 1873. Brigade-Surgeon Temple served in the New Zealand war in 1860-61, and in the Waikato campaign in 1863-65, and was at the battles of Rangiriri and Rangiawhia, and was honourably mentioned in despatches, received the Victoria Cross for his gallant conduct on November 20th, 1863, and obtained the medal granted for the campaign. He is at present serving in Bengal.

Surgeon-Major J. S. DUNCAN, M.D., has been granted retired pay, with the honorary rank of Brigade-Surgeon. He entered the service December 14th, 1858, became Surgeon, March 1st, 1873, and Surgeon-Major, April 1st, 1874. Dr. Duncan has no war-record.

Surgeon-Major C. W. WATLING has also gone on retired pay, with a step of honorary rank. His commissions are dated: Assistant-Surgeon, April 20th, 1859; Surgeon, March 1st, 1873; and Surgeon-Major, July 29th, 1874. Mr. Watling served in the recent war in Afghanistan, and was at the battles of Ahmed Khel and Urzoo (medal, with clasp).

Surgeon-Major E. H. LLOYD, M.B., also has retired, with the rank of Brigade-Surgeon. He dates as Assistant-Surgeon from June 13th, 1859; as Surgeon, from March 1st, 1873; and as Surgeon-Major, from January 6th, 1875. He is not credited in the Army Lists with any war-service.

Surgeon B. M. SKINNER, who is at present serving in Bengal, has passed the examination for the lower standard in Hindustani.

The undermentioned gentlemen have obtained leave of absence for the periods specified: Surgeon W. R. HENDERSON, M.D., serving in Bengal, for six months on medical certificate; Brigade-Surgeon T. WALSH, also serving in Bengal, for a similar period; Surgeon-Major W. T. MARTIN, M.D., serving in Madras, for 182 days on medical certificate.

A telegram received at the War Office, dated Cairo, May 17th, says that Surgeon-Major J. KINAHAN and Surgeon C. E. FAUNCE had left for England from up Nile, invalided.

From another telegram received at the War Office, dated Suakin, May 15th, we learn that the *Tyne* left for England the previous day, with Staff-Surgeon C. J. HOLMES, Surgeon W. C. BEEVOR, and Nursing-Sister Irving on board, among others. The same telegram informs us that Staff-Surgeon P. A. HAYES had arrived sick from the front, and gone on board the *Ganges*.

Mr. JOHN STEWART GRAVES, Deputy Inspector-General of Army Hospitals, late Surgeon to the 4th Light Dragoons, and for many years Surgeon at the Tower of London, died at Kensington on the 14th instant. He entered the service as Hospital-Assistant, February 22nd, 1826; became Assistant-Surgeon on the 28th of September of the same year; Surgeon, July 2nd, 1841; Surgeon-Major, October 1st, 1858; and retired, with the honorary rank of Deputy Inspector-General, December 7th, 1858. *Hart's Army List* informs us that Mr. Graves served with the 4th Light Dragoons in Afghanistan under Lord Keane, and was present at the siege and capture of Ghuznee (medal). He served also in the Crimea, with the 68th Regiment, in 1854-55, and was at the battle of Inkerman and the siege of Sebastopol (medal, with two clasps, and Turkish medal).

Surgeon-Major JOHN OLDMAN, M.R.C.S., L.S.A., of the 5th Battalion of the King's Royal Rifle Corps (better known as the Huntingdon Militia Rifles), died at Huntingdon on the 16th instant, in the 49th year of his age. Mr. Oldman was appointed Surgeon to the corps, February 15th, 1864, and promoted to Surgeon-Major from March 1st, 1873.

Surgeon P. J. B. O'SHAUGHNESSY, at present serving in Bengal, has passed the lower standard examination in Hindustani.

INDIAN MEDICAL SERVICE.

BRIGADE-SURGEON S. M. SHIRCORE, Bengal Establishment, has retired from the service. He entered as an Assistant-Surgeon, July 2nd, 1856, and became Brigade-Surgeon, December 18th, 1883. He does not appear to have served in any campaign.

The services of Surgeon-Major E. LAWRIE, M.B., Bengal Establishment, Professor of Anatomy and Surgery at the Lahore Medical School, are replaced at the disposal of the Government of India in the Military Department.

The services of Surgeon-Major W. H. ROBERTS, M.D., Madras Establishment, Surgeon of the 2nd District, Health-Officer, and Superintendent of the Lock Hospital, Madras, are temporarily replaced at the disposal of the Commander-in-Chief.

Surgeon E. W. YOUNG, Bombay Establishment, in medical charge of the 1st Bombay Lancers, has been appointed Staff-Surgeon at Poona, in the place of Surgeon-Major E. Sexton, M.D., who has resigned that appointment.

Surgeon-Major C. SIBTHORPE, Madras Establishment, is directed to do duty with the companies of Queen's Own Sappers and Miners proceeding to Quetta.

The services of Surgeon W. B. BROWNING, Madras Establishment, have been replaced at the disposal of the Military Department.

Surgeon E. P. FRENCHMAN, Madras Establishment, whose services have been replaced at the disposal of the Military Department, is directed to do general duty in the British Burmah Division.

Surgeon G. M. E. M'KEE, Madras Establishment, whose services have also been replaced at the disposal of the Military Department, is ordered to do general duty in the Eastern District.

Surgeon-Major T. BEAUMONT, M.D., Madras Establishment, Residency Surgeon

at Hyderabad, has been promoted to be Brigade-Surgeon, *vice* J. M. Donnelly, who has been promoted.

The undermentioned gentlemen have been granted leave of absence for the periods specified: Surgeon C. W. S. DEAKIN, M.B., Bengal Establishment, for 182 days, on medical certificate; Surgeon-Major B. T. SUFFREIN, Madras Establishment, Medical Officer to the 2nd Light Cavalry, for one year, on medical certificate.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

DURING the week ending May 9th, 5,558 births and 3,440 deaths were registered in the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons. The annual rate of mortality per 1,000 persons living in these towns, which had been 23.4 and 21.1 per 1,000 in the two preceding weeks, further declined to 20.2, a lower rate than has been recorded in any week since December last. The rates in the several towns, ranged in order from the lowest, were as follow:—Plymouth, 13.0; Brighton, 14.1; Bolton, 15.2; Leicester, 15.3; Norwich, 16.6; Portsmouth, 17.8, Bristol, 17.9; Hull, 17.9; Nottingham, 18.0; London, 18.7; Bradford, 19.0; Birmingham, 19.4; Sheffield, 19.5; Halifax, 19.5; Leeds, 20.4; Birkenhead, 20.7; Derby, 20.9; Sunderland, 21.6; Liverpool, 23.4; Huddersfield, 23.9; Salford, 24.0; Cardiff, 24.7; Wolverhampton, 25.0; Manchester, 26.0; Oldham, 26.4; Blackburn, 26.4; Preston, 28.6; and Newcastle-upon-Tyne, 36.8. The average death-rate for the week in the twenty-seven provincial towns was 21.4 per 1,000, and exceeded by 2.7 the rate recorded in London. The 3,440 deaths registered during the week in the twenty-eight towns included 481 which were referred to the principal zymotic diseases, against 529 and 549 in the two preceding weeks; of these, 181 resulted from measles, 116 from whooping-cough, 48 from small-pox, 37 from "fever" (principally enteric), 36 from scarlet fever, 33 from diphtheria, and 30 from diarrhœa. These 481 deaths were equal to an annual rate of 2.8 per 1,000. The zymotic death-rate in London was equal to 3.1 per 1,000; while in the twenty-seven provincial towns it did not exceed 2.6 per 1,000, and ranged from 0.0 and 0.2 in Brighton and Nottingham, to 4.6 in Sunderland, 5.1 in Blackburn, and 9.5 in Newcastle-upon-Tyne. The deaths referred to measles, which had been 218 and 176 in the two preceding weeks, rose again to 181, and showed the largest proportional fatality in Sunderland, Cardiff, and Newcastle-upon-Tyne. The 118 fatal cases of whooping-cough were within 9 of the number in the previous week; this disease caused the highest rates in Preston, Blackburn, and Plymouth. The deaths referred to "fever," which had declined from 42 to 22 in the three preceding weeks, rose to 37, and caused the largest proportional fatality in Norwich. The 36 fatal cases of scarlet fever, showed a slight further increase upon the numbers returned in the two previous weeks, and caused the highest death-rates in Sunderland and Salford. The 33 deaths from diphtheria during the week in the twenty-eight towns included 24 in London, 3 in Liverpool, and 2 in Oldham. Of the 48 fatal cases of small-pox, 44 occurred in London (exclusive, however, of 21 deaths of London residents from this disease which were registered in the Metropolitan Asylum Hospitals situated outside registration London), 2 in Manchester, 1 in Liverpool, and 1 in Sunderland. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 1,034 and 1,282 on the two preceding Saturdays, further increased to 1,361 on May 9th; the admissions, which had been 246 and 354 in the two previous weeks, declined to 315. The death-rate from diseases of the respiratory organs in London was equal to 3.7 per 1,000, and was considerably below the average. The causes of 73, or 2.1 per cent., of the 3,440 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 14th instant, and, when eligible, will be admitted to the pass examination.

Messrs. F. H. Cooke, H. C. Smith, R. L. Roberts, and H. F. C. Marvin, students of University College; A. Caddy, and C. M. Clark, of St. George's Hospital; J. A. P. Lockett, of the London Hospital; A. J. De Butts, and A. S. Hanson, of St. Mary's Hospital; and R. W. Senior, of King's College.

The following gentlemen passed in Anatomy only.

Messrs. W. Watkins, of St. Bartholomew's Hospital; F. M. Howse, P. C. de Wet, and H. B. Shepherd, students of St. Thomas's Hospital; and J. P. Westrup, of King's College.

The following gentlemen passed in Physiology only.

Messrs. J. V. Albert, student of St. George's Hospital; P. J. Le Riche, of University College; G. H. Metcalfe, of Guy's Hospital; and F. C. Angear, of Charing Cross Hospital.

Seven candidates were referred in both subjects, one in Anatomy, and six in Physiology.

The following gentlemen passed on the 18th instant.

Messrs. C. F. Marshall, and G. E. Fryer, students of the Manchester School; G. P. Boddie, of the Edinburgh School; E. W. Evans, of St. Bartholomew's Hospital; R. W. Bishop, C. R. Salisbury, and J. V. B. Twamley, of the Leeds School; J. P. Howe, of the Dublin School; G. E. Roberts, of University College; C. E. Matthews, of the Cambridge School; and J. F. Twist, of the Birmingham School.

The following gentlemen passed in Anatomy only.

Messrs. G. S. Ridgley, E. A. F. Harris, and E. Carnall, students of St. Bartholomew's Hospital; R. Hebblethwaite, of the Leeds School; A. P. Walters, of University College; W. C. Burt, R. W. Rouw, G. W. A. Mitchell, and F. S. Wood, of Guy's Hospital; J. Magauran, of the Dublin School; W. Mitchell, of the Sheffield School; J. W. Smith, of the Aberdeen School; W. J. Watkins, of the Bristol School; and J. E. Syme, of the Edinburgh School.

The following gentlemen passed in Physiology only.

Mr. E. Lambert, student, of the Leeds School.

Seven candidates were referred in both subjects, one in Anatomy, and fourteen in Physiology.

The following gentlemen passed on the 19th instant.

Messrs. A. E. O'Leary, student of the Bristol School; W. H. F. Noble, and C. A. Ducket, of University College; A. E. Nuttall, A. Harris, and F. O'Kinealy, of St. Bartholomew's Hospital; H. Corner, and D. F. B. Cotes, of the London Hospital; H. A. Kidd, of St. Mary's Hospital; H. N. Edwards, of Guy's Hospital; S. M. Kaka, of the Grant Medical College; H. Danvers, of St. Thomas's Hospital; and W. J. B. Carter, of St. George's Hospital.

Sixteen candidates were referred.

The following gentlemen passed in Anatomy only.

Messrs. C. D. H. Rygate, and E. E. P. Tindall, students of Guy's Hospital; C. T. Bowen, of St. Bartholomew's Hospital; and J. T. R. Miller, of St. Thomas's Hospital.

Three candidates were referred.

The following gentlemen passed in Physiology only.

Messrs. H. F. Devis, student of the Bristol School; J. D. H. Smyth, of St. Mary's Hospital; J. Bampfylde, of Guy's Hospital; and S. E. Rossiter, of St. Bartholomew's Hospital.

Four candidates were referred.

The following gentlemen passed on the 20th instant.

Messrs. W. Halley, and R. E. Fasnacht, students of Charing Cross Hospital; P. T. Carpenter, of St. Mary's Hospital; E. A. Tudman, of University College; J. M. Thorne, R. G. Hicks, P. W. Streatfield, and J. W. Smith, of Guy's Hospital; and G. S. Farquharson, of the London Hospital.

The following gentlemen passed in Anatomy only.

Messrs. C. R. H. Buckly, J. P. Pendlebury, and C. G. Thorp, students of Guy's Hospital; W. G. R. Farquharson, and F. W. Guiselin, of St. Mary's Hospital; W. H. Hand, of St. George's Hospital; and F. W. Barton, of University College.

The following gentlemen passed in Physiology only.

Messrs. H. E. Belcher, and H. H. Browne, students of University College; D. T. Jones, and C. J. Fuller, of Guy's Hospital; N. F. Fisher, and F. S. Reid, of the London Hospital; R. Stuart, of St. George's Hospital; J. E. Finnie, of the Liverpool School; E. Loveday, and T. H. Leggett, of St. Bartholomew's Hospital; and F. Osborne, of St. Thomas's Hospital.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—During the recent sittings of the Examiners, the following gentlemen were admitted Licentiates of the College.

H. W. Dixon, Gateshead-on-Tyne; J. D. M. Swinburne, Belgaum, India; A. MacDonnell, County Mayo; and E. Crowley, County Cork.

The following gentlemen passed the first professional examination for the Licence in Dental Surgery.

E. P. Rose, Leicester; D. Thomson, Edinburgh; and J. T. Fripp, London.

The following gentlemen passed the final examination, and were admitted L.D.S. Edinburgh.

W. Wilson, Edinburgh; J. L. Fraser, Inverness; J. Johnstone, Nottingham; A. W. Cormack, Edinburgh; B. J. Douthwaite, London; and L. L. Wilde, Winchester.

UNIVERSITY OF DUBLIN.—At the First Summer Commencements in Trinity Term, held on Wednesday, May 6th, 1885, in the Examination Hall of Trinity College, the following Degrees in Medicine and Surgery were conferred by the University Caput, in the presence of the Senate.

Bachelors of Surgery, and of Medicine.—O. P. Beater, A. G. Fausset.
Doctor in Medicine.—O. P. Beater.

SOCIETY OF APOTHECARIES, LONDON.—The following gentleman passed the Examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, May 7th, 1885.

Tyndall, Francis, M.R.C.S.Eng., Liverpool School of Medicine.

The following gentlemen passed on Thursday, May 14th.

Creighton, Edward, St. Thomas's Hospital.
Dearden, William Francis, M.R.C.S.Eng., Manchester School of Medicine.
Dobson, Leonard Charles Talbot, St. Bartholomew's Hospital.
Hall, Thomas Godfrey, Leeds School of Medicine.

MEDICAL VACANCIES.

The following vacancies are announced.

CELBRIDGE UNION.—Medical Officer, Rathcoole Dispensary. Salary, £115 per annum, and fees. Applications to Joseph Stacey, Honorary Secretary, up to May 30th. Election on June 1st.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Assistant-Physician. Applications by May 30th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Dental Surgeon. Applications by June 8th.

FULHAM UNION INFIRMARY.—Assistant Medical Superintendent and Dispenser. Salary, £100 per annum. Applications by May 25th.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Resident Medical Officer. Salary, £50 per annum. Applications by June 1st.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Junior Resident Medical Officer. Salary, £50 per annum. Applications by June 3rd.

LISTOWEL UNION.—Medical Officer, Listowel Dispensary. Salary, £120 per annum, and fees. Applications to C. Keane, Honorary Secretary. Election on May 28th.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.—Honorary Assistant-Physician. Applications by May 30th.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.—Resident Medical Officer. Salary, £40 per annum. Applications by May 30th.

NEWARK HOSPITAL AND DISPENSARY.—House-Surgeon and Secretary. Salary, £100 per annum. Applications by June 1st.

NEWCASTLE-UPON-TYNE INFIRMARY.—House-Surgeon. Salary, £50 per annum. Applications to the Chairman of the House Committee by June 15th.

PAROCHIAL BOARD OF STRONSAY.—Medical Officer and Public Vaccinator. Salary, £70 per annum. Applications to Mr. Learmonth, Inspector of Poor, Stronsay, Orkney, by June 4th.

PLYMOUTH PUBLIC DISPENSARY.—Second Honorary Physician. Applications by June 8th.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer. Applications by May 23rd.

ROYAL BERKS HOSPITAL, Reading.—Senior Physician. Applications by May 23rd.

ST. BARTHOLOMEW'S HOSPITAL.—Two Casualty Physicians. Applications by June 5th.

ST. HELEN'S FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.—Medical Officer. Applications to Mr. E. Fidler, Boundary Road, by June 20th.

SURREY COUNTY LUNATIC ASYLUM, near Wandsworth Railway Station.—Junior Assistant Medical Officer. Salary, £150 per annum. Applications to Dr. Biggs by May 29th.

WEST BROMWICH FRIENDLY SOCIETIES' MEDICAL ALLIANCE.—Resident Medical Officer. Salary, £200 per annum. Applications to Mr. G. Abbott, 9, St. James Road, Sheffield.

MEDICAL APPOINTMENTS.

CHILDE, C. P., M.R.C.S., appointed Assistant House-Accoucheur to King's College Hospital.

EAST, C. H., L.S.A., appointed Physician's Assistant to King's College Hospital.

GRAY, J. P., M.R.C.S., L.S.A., appointed Ophthalmic Clinical Assistant to King's College Hospital.

HARRIES, J. F., M.R.C.S., appointed House-Surgeon to King's College Hospital.

HUGHES, E. A., M.R.C.S., L.R.C.P., appointed Physician-Accoucheur's Assistant to King's College Hospital.

JEFFICE, F., M.R.C.S., appointed House-Surgeon to King's College Hospital.

LEWIS, P. G., L.S.A., appointed Assistant House-Physician to King's College Hospital.

PRIESTLEY, R. C., M.R.C.S., appointed House-Surgeon to King's College Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTH.

THATCHER.—At 13, Albany Street, Edinburgh, on May 2nd, the wife of Charles H. Thatcher, F.R.C.S.E., of a son.

DEATHS.

BARNES.—At 6, Portland Square, Carlisle, on the 13th inst., Dorothy, younger daughter of Henry Barnes, M.D., F.R.S.E., aged one year and four months.

CHADWICK.—On the 18th inst., at Park Road, Royton, after a short illness, William F. Chadwick, M.R.C.S., L.R.C.P., son of the late N. F. Chadwick, of Park House, M.R.C.S., in the 30th year of his age. Friends kindly accept this, the only, intimation.

COLEBROOKE.—On May 19th, at his residence, "Brightlands," Southborough, Henry Colebrooke, M.D., aged 70 years.

CREE.—On the 18th inst., on board s.s. *Dorunda*, on his way home from Queensland, Percy Kinburn Cree, M.R.C.S., L.S.A., Surgeon R.N., aged 29.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Spencer Cobbold: Cases of Hæmaturia due to Bilharzia, paper illustrated by specimens. Dr. Angel Money: The Experimental Production of Chorea and other Results of Capillary Embolism.

WEDNESDAY.—British Gynæcological Society. Specimens as usual. Discussion on Dr. More Madden's paper on Fibro-myomata.

EPIDEMIC CEREBRO-SPINAL MENINGITIS.—Several cases of this remarkable disease have recently been admitted into some of the Dublin hospitals. It will be remembered that the last time Dublin was visited with a serious epidemic of the disease was in 1867. The majority of four cases admitted into one of the hospitals this and the previous week were from adjoining rural districts.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 1.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S. 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2 o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S, 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE NEW LUNACY ACT.

SIR,—There is a rumour that, since the new Lunacy Act has been brought before the public, parents and guardians have withdrawn a great many of their relatives and friends, and placed them at foreign asylums, where there is neither publicity, difficulty, or trouble. Now, a clause should be inserted in the new Act, prohibiting any English lunatic from being placed in any foreign asylum without, at least, a special permit.—I am, sir, your obedient servant,

12, Landridge Road, Fulham. AUGUSTUS HARVEY.

CHARITY COMMISSIONERS AND CRAMMING.

REV. G. F. BROWNE.—We are glad to have the assurance of this gentleman, referred to in our remarks on Charity Commissioners and Cramming, April 25th, that he is much opposed to overpressure. He writes: "We have no concern or power in the arrangements of the schools which send candidates to our local examinations. From the nature of the case, we are bound to offer opportunities for examination in all the subjects ordinarily taught in schools, and the complete list of subjects is a formidable one. The most abnormal boy could not cover them all; and, to make quite safe, we have made a rule which prevents his attempting to do so." We are glad that such is the case, and regret that Mr. Browne is not (as we had supposed) a Charity Commissioner himself. Nothing which Mr. Browne says leads us to alter the opinion we expressed in favour of Mr. Allen's protest.

A CAUTION.

SIR,—Having recently returned to England, after an absence of several years, I am disgusted to find that an individual, calling himself Dr. Batchelor, of Dunedin, New Zealand, has been touting round the profession here for pecuniary assistance, on the plea of poverty, ill health, etc. I have practised in Dunedin over ten years, being the only medical man of the name in New Zealand. Consequently, the fellow who has been assuming and trading upon my name is an impostor. I write partly to put the profession upon their guard, partly in the hope that any who have been victimised will give me the information necessary to put the police upon his track.—I am, yours truly, FERD. C. BATCHELOR.

90, Brockley Road, Brockley.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT the primary, or anatomical and physiological, examination, which was commenced on Friday, the 8th inst., there were 138 candidates, to whom the following questions on Physiology and Anatomy were submitted. Four questions in each division were required to be answered. A. *Physiology.*—1. Enumerate the various proteids, and state the physical and chemical properties of serum-albumin. 2. Describe the red corpuscles of the blood. 3. Give the structure and distribution of the sweat-glands. What is their function (*a*) in excretion, and (*b*) in regulating temperature? 4. Describe the mechanism of accommodation. 5. What do you understand by the term "blood-pressure?" Compare the mean blood-pressure in the arteries, capillaries, and veins. 6. Enumerate the constituents of urine. What circumstances increase or diminish the (*a*) water, (*b*) the urea, and (*c*) the salts? B. *Anatomy.*—1. Describe the lower third of the femur, and enumerate the muscles and ligaments attached to it. 2. Describe the dissection required to expose the anterior surface of the brachialis anticus. 3. State the position and boundaries of the third ventricle of the brain. 4. Describe the distribution of the arteries in the scalp. 5. Give the connections and relations of the stomach. 6. Give the origin, course, and distribution of the posterior interosseous nerve.

THE LUNACY ACTS AMENDMENT BILL.

SIR,—Clause 10 of the above, Sections 5, 6, and 7, make it compulsory on every workhouse medical officer to give notice to the relieving officer to take every lunatic before a justice in order to obtain a certificate for detention in the workhouse, together with a certificate under the hand of a duly qualified medical practitioner, not being a medical officer of the workhouse.

According to the Local Government Report, 1883-1884, there were, on the 1st January, 1883, 17,330 lunatics in the workhouses. Consequently, as soon as this Bill becomes law, the above course must be followed with all these lunatics. The cost will be £1 1s. each medical fee, 5s. each court-fee, and, say, 4s. each relieving officer's expenses; total for 17,330, £25,995. This is a nice little item to begin with.—Yours, etc., THOMAS J. VALLANCE, M.D., F.R.C.S.

CUCAINE IN HAY-FEVER.

SIR,—May I, through your columns, ask some of those who are now familiar with the use of cucaine, whether they consider it probable that the application of a weak solution to the conjunctivæ and the mucous membrane of the nose would, by virtue of its remarkable anæsthetic properties, be likely to prove of benefit to sufferers from hay-fever? Before many days, the intolerable miseries of this complaint will be again inflicted upon us; and if there is a likelihood of this suggestion proving serviceable, it behoves medical men to give the drug a trial, with the hope of adding another to its numerous virtues.

I have had no experience in the use of this valuable aid to the oculist, etc., and am, therefore, unable to say what would be the proportions of a solution strong enough to be of service without causing discomfort by affecting the accommodation of the eye. I am afraid expense would be an obstacle; for, on inquiry, I find that the present price of a 4 per cent. solution of hydrochlorate of cucaine is 35s. an ounce.—I am, sir, yours obediently, C. A. OWENS.

Long Stratton.

CATALEPSY.

MR. A. GAIRDNER LACY asks of any place suitable for a person suffering from catalepsy; the terms must be moderate.

MILK-TESTING.

IF "Vera," who writes for information on this subject in the correspondents' column of the JOURNAL of May 16th, will communicate with the Manager of the Experimental Dairy of the Sanitary and Œconomic Association, Gloucester, he will obtain all the information in regard to it which he may desire.

MEDICAL GRADUATION AND EDUCATION IN AUSTRALIA.

MR. E. DU CANE (Peterborough) asks for information as to the fees and necessary qualifications for medical degrees in the Australian universities.

*** Information as to the conditions under which degrees are to be obtained may be found in Hardwicke's *Medical Education and Practice*. The fees, however, are not stated, and we are not aware of their amount.

H. H.—We should say not.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. Wickham, Newcastle-on-Tyne; Mr. T. G. Lithgow, Farnborough; Our Berlin Correspondent; Dr. Ward Cousins, Southsea; Dr. Strachan, Monkwearmouth; Mr. E. Sharpley, Newark; Our Glasgow Correspondent; Mr. C. H. Taylor, Bradford; Mr. J. Hodgson, Oldham; Mr. T. Whitehead Reid, Canterbury; Mr. John Ritchie, Glasgow; Mr. T. M. Stone, London; Dr. S. Werner, Dublin; Mr. H. Drinkwater, Sunderland; Dr. Jelly, Valencia; Mr. J. S. Ward, Lisburn; Mr. C. D. Batt, Witney; Brigade-Surgeon Orton, Newcastle-under-Lyme; Mr. T. Jenner Verrall, Brighton; Our Dublin Correspondent; Mr. E. J. Spitta, London; Dr. J. Curnow, London; Dr. Marshall, Nottingham; Our Birmingham Correspondent; Dr. W. H. Daly, Pittsburgh; Dr. Grant Bey, Cairo; Mr. Otto Hehner, London; Mr. Leonard M. Bickle, Queensland; Dr. Sheen, Cardiff; Our Aberdeen Correspondent; Mr. J. B. Bailey, London; Dr. F. Taylor, London; The Secretary of the Sanitary Institute; Mr. W. H. Doyle, Shanghai; Mr. J. Merces, London; Mr. W. Greenwood, Liverpool; Mr. R. Hamilton, Cawood; Dr. Heywood Smith, London; Dr. W. H. Dawson, Malvern; Mr. J. Betts, Lincoln; Mr. H. E. Spencer, York; Dr. G. Cresswell, Huddersfield; Mr. S. Glen Allen, Woolwich; Mr. C. E. Paget, Kendal; Dr. S. West, London; Dr. A. Downes, Chelmsford; Messrs. Chester, Mayhew, Broome and Griffiths, London; Messrs. C. Griffin and Co., London; Mr. Victor Horsley, London; Mr. J. Booth Clarkson, Liverpool; Mr. J. J. Goodlake Murrey, Belfast; Dr. W. Ewart, London; Mr. A. J. Barnard, Wigan; Dr. Graily Hewitt, London; Mr. Norman Reed, Aldershot; Mr. R. J. Bryden, Gravesend; Miss H. Morcom, Liskeard; Dr. Cosgrave, Dublin; Mr. Robert Jackson, Richmond; The Registrar of the University of London; Dr. A. R. Turnbull, Cupar; Mr. John Morgan, London; Mr. Thom, Crieff; Dr. E. West Symes, Halifax; Surgeon-Major Cavanagh, Liverpool; Dr. James McNaught, Newchurch, near Manchester; Mr. Arthur J. Moss, Manchester; Dr. Mickle, London; Mr. W. W. Cooke, Hay; Dr. Bond, Gloucester; Mr. C. R. Walker, Brussels; Mr. G. P. Atkinson, Pontefract; Mr. M. A. Adams, Maidstone; Mr. Major Greenwood, jun., Dalston; M. E.; Dr. T. W. Trend, Southampton; Mr. A. H. Benson, Dublin; Mr. H. G. F. Taylor, London; Mr. R. Davy, London; Dr. Suckling, Birmingham; Mr. John Lunn, London; Mr. W. Sinclair Dobbin, Dublin; The Secretary of the Local Government Board; Dr. Champneys, London; Mr. Charles Benson, London; Mr. Henry H. Master, Ixworth; Mr. W. J. Mason, Carlisle; Dr. T. J. Barnardo, London; Dr. J. W. Moore, Dublin; Our Edinburgh Correspondent; Mr. G. Eastes, London; Dr. Danford Thomas, London; Dr. T. J. Walker, Peterborough; Our Paris Correspondent; Mr. W. Rivington, London; Dr. Farquharson, M.P., London; Dr. Norris, South Petherton; Mr. J. Paul Bush, Clifton; Dr. Robertson, Ventnor; Mr. C. T. Dent, London, etc.

BOOKS, ETC., RECEIVED.

Handbook of Geographical and Historical Pathology. By Dr. A. Hirsch. Vol. II. Translated by C. Creighton, M.D. London: New Sydenham Society. 1885.

Physical Expression. By F. Warner, M.D., F.R.C.P. With Fifty-One Illustrations. London: Kegan Paul, Trench, and Co. 1885.

Diagnosis and Surgical Treatment of Abdominal Tumours. By Sir T. Spencer Wells, Bart. London: J. and A. Churchill. 1884.

Royal University of Ireland Calendar for the year 1885. Dublin: A. Thom and Co.

A Practical Treatise on the Diseases of Women. By J. Thorburn, M.D. London: C. Griffin and Co. 1885.

Face and Foot Deformities. By Frederick Churchill, C.M. London: J. and A Churchill. 1885.

The Pathology and Treatment of Stricture of the Urethra and Urinary Fistulæ. By Sir Henry Thompson. Fourth Edition. London: J. and A. Churchill. 1885.

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CLINICAL LECTURE
ON
THE CONSEQUENCES OF LONG CONTINUED CONSTIPATION.

By J. S. BRISTOWE, M.D., LL.D., F.R.S.,
Senior-Physician to St. Thomas's Hospital.

CASE I. *Fæcal Accumulation in Colon forming a Tumour.*—A little more than five years ago, while at the seaside, I was requested by the local medical man to see a patient with him. This was a married lady, about 30 years of age, who had for the most part had good health, and was the mother of several children. She had been suffering for about a week from abdominal pain, sickness, and disturbance of the bowels; and, now that she was recovering, a tumour had been detected within the abdomen. This discovery caused some alarm; and it was mainly in reference to this that my opinion was desired. She was a healthy looking, somewhat plump young woman when I saw her; and had then no particular complaint to make. But there was a hard rounded mass in the upper part of the left side of the abdomen, between the umbilicus and the ribs. This was not tender on pressure, was freely movable within narrow limits, and perhaps about 2½ inches in diameter. Although rather larger and rounder than a healthy kidney might have been expected to be, I was inclined at the time to think it was a movable kidney. The urine was healthy. A week later, I saw the lady again. She was then in her usual health; but on examining the abdomen, the tumour was still there. Strange to say, however, it had shifted its position; for it now lay in the centre of the abdomen immediately subjacent to the umbilicus; and, although still freely movable in a restricted space, it could not by any manœuvre be restored to the region which it had formerly occupied. This circumstance led me to modify my original opinion, and to think it probable that the tumour was a lump of solid fæcal matter, which had descended within the week from the descending colon into the sigmoid flexure. This opinion was confirmed by what I now, for the first time, learnt of her history. She had suffered, since her marriage, from persistent constipation; and after one of her confinements (I think the first), an enormous accumulation of solid fæcal matter had to be removed, partly by mechanical means, from the lower bowel. Ever since that time, her bowels had been exceedingly sluggish.

I did not see the patient again for three months. I had returned to town, and she to her home in the south-west of England. On this occasion, she had come to London to consult Sir James Paget, and I was asked to meet him. During the interval, she had, in the belief that the tumour was fæcal, been treated very actively with enemata, administered by the long tube, and powerful purgatives, including croton-oil. This treatment had pulled her down a good deal, but had not dispersed the presumed accumulation. At this interview, I learnt that the rectum was very roomy, and that the tumour could at times be felt descending into the pelvis. It was now entirely below the umbilicus, lying between this and the left Poupart's ligament. It could be moved a little from side to side, but could not be restored to the position in which I had last detected it. Moreover, it was larger and flatter, having much the shape of a penny bun, and it was now somewhat soft and doughy, and could be distinctly indented and moulded by the fingers. There was no doubt at this time that the tumour was fæcal, and that it had travelled slowly along the large intestine between my first and this last interview. I have not heard of the patient since.

I assumed that, in this case, owing to long continued and neglected constipation, the large intestine, and more especially its lower half, had become dilated and hypertrophied, sluggish, and a less efficient instrument for the propulsion of its contents than the healthy bowel; and that a solid lump of fæces, accidentally (as it were) left behind, had remained there and formed a nucleus, around which additional solid matter had gradually accumulated.

CASE II. *Fæcal Tumour in Ascending Colon: Dilatation and Hypertrophy of Sigmoid Flexure: Dysenteric Diarrhœa.*—Mrs. K., aged 46, came under my care on January 31st, 1885. She had been a fairly healthy, but not robust, woman, and had never had any serious illnesses; but for many years she had suffered from irregularity of the bowels, constipation of two or three weeks' duration, and looseness of bowels with discharge of mucus, often succeeding one another. Occasionally she had been sick, and at times had complained of abdominal pain. I had seen her at her own home early in July; at which time she had been suffering for two or three weeks from paroxysmal pain across the upper part of the belly, and sickness. The temperature was normal. I did not recognise any abdominal lump or tenderness, nor at that time did I know that she had been liable to bowel-disturbance; and I thought that probably she was suffering from the passage of small gall-stones. I saw her a week later, at which time she was complaining of diarrhœa; and my attention was called to two movable lumps in the belly; one hard, about the size of a pigeon's egg, and situated a little above the outer extremity of the left Poupart's ligament; the other larger and softer, just above the pubes, but mainly to the right of the mesial line. Her health was no worse than on the first occasion; and I formed no definite conclusion as to the nature of the abdominal tumours. Subsequently she improved in health, and in September went to Margate. During the last few weeks, there had been a recurrence of the symptoms from which she suffered in the summer.

She was a pale, spare woman, complaining of uneasiness in the belly, loss of appetite, and constant diarrhœa. The thoracic organs were all healthy. The abdomen was relatively large, prominent, and flaccid. There was no general tenderness of it, and it could therefore be examined without difficulty. On the right side, a little below the level of the navel, and about two inches from it, was an irregularly rounded very hard mass, altogether about as large as a hen's egg, which was freely movable within narrow limits. There was a sense of resistance in the umbilical region, but no definite tumour. And above the left Poupart's ligament there was a largish rounded mass, smooth, not very hard, slightly movable, and somewhat tender. There was no enlargement of the liver or spleen, no ascites. The so-called diarrhœa consisted in the frequent, and at times unrestrainable, discharge of dirty jelly-like mucus, of very offensive odour, mixed with small quantities of thin fæcal matter. There was never any discharge of blood; pulse 80; tongue clean; urine free from albumen.

The patient was kept in bed; and her abdominal uneasiness disappeared, and her general health improved. But her evacuations continued, for the most part, of the same character as on admission, and as they had been for months. They were thin, offensive, composed largely of mucus, and containing only a relatively small quantity of fæcal matter, which was for the most part fluid or semi-fluid. She did not suffer from tenesmus, but the discharge from the anus was frequent, and difficult to restrain.

Repeated examinations of the abdomen modified the views originally expressed with respect to the condition of parts within. The movable lump to the right of the umbilicus remained unchanged in position until she left the hospital; but it became more and more certain that it was merely a lump of fæces left behind in (probably) the ascending colon. At first this was very hard, perhaps an inch in diameter, and rounded, but somewhat nodulated in form. On February 8th, it was noted that either the lump had split into two unequal fragments, or a second smaller lump had developed in its immediate neighbourhood. But in the course of a few days the second lump had disappeared. As time went on, and partly perhaps as the result of frequent manipulation, the mass, which had previously been extremely hard, became more and more plastic, until at length it could be moulded between the fingers, like a lump of stiff dough. We never succeeded, however, in breaking it down. The vague sense of resistance above referred to as existing in the neighbourhood of the umbilicus, and the doughy tumour recognised in the left iliac region, turned out to be due to temporary conditions of the bowel, doubtless of the sigmoid flexure. For repeated examinations made it clear, that there was a large loop of bowel, the concavity of which faced the left lumbar region, while its convexity extended beyond the navel to the right, the upper limit reaching a couple of inches above the navel, the lower limit lying just above Poupart's ligament; that the bowel measured between an inch and a half and two inches in diameter, was thick and doughy and sausage-like to the feel, presented sluggish peristaltic movements which revealed themselves by slowly developed variations of elevation and depression of the abdominal walls; and that there was no tumour, in the proper sense of the term, in this situation. This loop of bowel gave the impression of being thick-walled and dilated, and of containing fæcal matter in some abundance; but it was resonant on percussion. It remained essentially unaltered to the last.

She was treated mainly with tonics and enemata; and for ten days (shortly before her discharge) had the continuous current applied daily to her abdomen. This caused a more continuous and profuse discharge of liquid, and almost total loss of control over her evacua-

tions; but it did not promote the escape of any larger proportion of solid fæces than she had been in the habit of passing, and moreover it made her feel ill and low-spirited. A few days before she left the hospital this treatment was discontinued, and she again improved in general health. I may add that we were compelled to discontinue the use of large enemata, in consequence of the pain and distress that followed their employment.

During her stay in St. Thomas's Hospital, she gained flesh, became stronger, and more healthy-looking, and lost her abdominal pain; but her evacuations underwent no material change. Her tongue was clean; her appetite fair; her pulse about 80 in the minute; and her temperature between 96° and 98°.

She was discharged on March 18th.

The opinion at which I arrived in regard to this case was that, from long-continued constipation, as in the former case, the larger bowel, and more especially its lower half, had become dilated, thick-walled and sluggish, that fæces were disposed to lag within it, and that one hard lump had become impacted. But I thought it also probable that, under the influence of overdistension and of the irritating effects of resting fæces, the mucous membrane of the larger bowel had undergone excoriation in tracts, and that the offensive mucus discharged from the anus was the product of the diseased surface; that, in fact, owing to the combination of ulceration of the mucous membrane with sluggishness and distension of the bowel, a condition clinically not unlike that of chronic dysentery had arisen.

The views above expressed with respect to the two cases just quoted will probably be accepted as giving an adequate explanation of the clinical phenomena which they severally presented. Nevertheless, I proceed to adduce two or three cases, the recollection of which had some influence in determining my views, and which not only help to confirm them, but are in other respects very instructive.

CASE III.[1] *Constipation: Enormous Accumulation of Fæces in Large Intestine: Hypertrophy and Dilatation of Bowel: Ulceration of Mucous Membrane: Death: Necropsy.*—Elizabeth M., a little girl 8 years of age, was admitted into St. Thomas's Hospital on May 15th, 1855. The history was that she had been ill for nine weeks, and that she had long been subject to constipation, the bowels often remaining unrelieved for three weeks together. On admission, she was pale, emaciated, and delicate-looking, and presented a large tense abdomen, the fulness being most marked in the upper half. There was no pain nor tenderness, and no distinct evidence of tumour. Tongue clean; pulse 80. She was supposed to be suffering from abdominal tuberculosis.

She lived for three weeks, and, during this time, her abdomen became more and more tense and hard, and also tender; she vomited from time to time; she never passed any actual fæcal matter, but occasionally a little dark, greenish-coloured, offensive fluid; her urine was for the most part scanty and dark coloured, and she grew more anxious looking, thinner, and weaker. Her tongue was generally clean; her pulse not very rapid, but extremely feeble; her skin dry. Amongst other items of treatment, opening medicines were given, and enemata employed, but without any definite result. She died on June 5th.

I may here add that, although I had seen the patient once or twice during life, she was never under my care, and I had never troubled myself to form any opinion of my own about her case; that the results of the *post mortem* examination, presently to be detailed, led me to make very careful inquiries of the sister and nurse of the ward in which the patient had lain, and of her friends; that I then discovered that the child's bowels had not been relieved for fully seven weeks before she came into the hospital; that there had never been passage of actual fæcal matter during her stay in the hospital; that her abdomen grew larger and larger during the whole of the period she was under observation, without there being at any time much pain or tenderness in it; that she was constantly complaining of feeling so full that she should burst; and that latterly she had vomited constantly.

Necropsy.—The body was extremely emaciated; the abdomen was much enlarged, and the form of the greatly distended intestines in contact with the walls distinctly mapped out. On opening the abdomen, the sigmoid flexure, and the descending and transverse colon, were found enormously distended, measuring between three and three and a half inches in diameter, elongated in a proportionate degree, and occupying between them the whole of the front of the abdomen. The cæcum and ascending colon were also distended, but not to the same extent. The peritoneal surface of the large intestine was smooth and uncongested; but there was a degree of opacity in its walls, and a sort of doughiness on pressure, which were remarkable. The appendices epiploicæ were small and red. The small intestine was universally distended, but much less in proportion than the large. The peritoneum was everywhere healthy. The stomach was small and contracted, its cavity empty, its mucous membrane pale. The small intestine was filled throughout with thick, fluid, olive-green-coloured fæces. Its mucous membrane was generally healthy; but, here and there, and especially at the lower part of the ileum, there was some congestion. The large intestine contained no trace of flatus, but was choke-full of thick, semi-solid, olive-green-coloured fæces. These were more solid in the rectum than elsewhere, and, immediately above the anus, formed an indurated conical lump. The dilatation of the bowel involved the upper part of the rectum, and ceased abruptly at two inches from the anus. But there was no stricture or any such condition in that situation, or, indeed, anywhere else. The walls of the large intestine, especially the muscular coat, were generally much thickened. The thickening of the muscular coat commenced in the ascending colon, and gradually increased to the lower end of the sigmoid flexure, where it measured one-eighth of an inch thick. The mucous membrane was tolerably healthy in the greater part of its extent, and consistent. It was, however, somewhat thickened, and, in many parts, presented patches and streaks of congestion, of various degrees of intensity. There were also half a dozen large tracts of ulceration, scattered at long and unequal distances from the cæcum to the rectum. These were of irregular shape, and occupied each an area of from four to eight square inches. They presented numerous circular ulcers, from half an inch to a line in diameter, which towards the margins diminished in size and distinctness, and produced a rough reticulated condition of parts. The network of mucous membrane still remaining upon the tracts was generally much, but patchily, congested. The immediate edges of the ulcers were deeply congested, but not thickened. Their floors had an ashy colour, and were formed by the submucous and muscular tissues. There were also a few small ulcerated patches measuring from half a square inch to an inch in area. The mesenteric glands were healthy. The liver was somewhat congested, but healthy. The gall-bladder was large, and full of dark treacly bile. The spleen was small, healthy. The pancreas, kidneys, uterus, etc., were healthy. The thoracic organs were all healthy. There was no tubercle anywhere.

In this case, we have a striking example of the injurious effects of neglected and prolonged constipation. How far former repeated occurrences of constipation may have been instrumental in causing some of the dilatation and hypertrophy of the large intestine which were present at the time of death, it is impossible to say. But that the main part of the dilatation and hypertrophy was due to the ten weeks' absolute constipation that preceded death, there can be no reasonable doubt. It is easy to understand, and this case demonstrates the fact, that a lump of fæces unduly retained in the ampulla of the rectum, growing harder with time, and larger from repeated additions to it, may thus, before long, become extremely difficult of spontaneous dislodgment, and that the longer the process is continued, the more the addition of concentric laminæ of fæces around the central core distends the ampulla, and the more the accumulation dilates the rest of the larger bowel, the more (notwithstanding the development of compensative muscular hypertrophy) the bowel becomes an inefficient instrument for the transmission of its contents; until at length what was at first only difficult, becomes impossible without mechanical assistance. This case shows how extreme the hypertrophy and dilatation may become under such conditions; but it shows, also how, under the same conditions, the mucous membrane of the distended bowel tends—partly, probably, from the mechanical effects of over-distension, partly, probably, from the fretting of the surface by the retained fæces—to undergo excoriation. I may point out that the same kind of excoriation, similarly produced, is a common and grave sequence of dilatation of the colon due to stricture.

The next case I quote from the 23rd volume of the *Transactions of the Pathological Society*. It was under the care of my friend the late Dr. Peacock, and was put on record by him. But I recollect the case well; and it is one of those on which my personal experience of dilated and incompetent bowels is based, and it will bear repetition. In its pathology, it resembles the last case in almost every particular. Clinically, also, there is a striking resemblance between the two; but there are instructive differences, dependent on the fact that absolute obstruction of the bowel had never, as in the last case, been permitted. The long progress of the case, too, and the age the patient had attained, explain the much larger dimensions of the colon in this case than in the other.

CASE IV. *Fatal Constipation from Excessive Dilatation of the Colon. Necropsy.*—A man, aged 28, was admitted into St. Thomas's Hospital, under Dr. Peacock's care, on May 11th, 1871; and Mr. J.

[1] This case, and Case v, are described in briefer detail in my article on Intestinal Obstruction in Reynolds's *System of Medicine*.

Purvis, who sent him to the hospital, forwarded the following notes of his case.

"R. M. suffered from constipation from birth; his mother had great difficulty with his bowels, and was perpetually giving him purgative medicines. As he grew up, this constipation continued, and recourse was frequently had to enemata. About the year 1860, he had a severe attack of obstruction. Mr. Le Gros Clark was called in consultation, and removed from the rectum a very large accumulation of fæcal matter. After this, aperients had no effect, and the bowels never acted without an enema, which he used about every other day. He suffered greatly from flatulence. His occupation was that of a teacher of music and singing at a ladies' school. While teaching, he had frequently been so distended as to necessitate his leaving the room, and going to the closet in order to evacuate the wind.

"Notwithstanding this, he enjoyed tolerably good health, and was able to do his daily work to within six weeks of his death. At that time, he was seized with symptoms of obstruction of the bowels, vomiting, etc., and his rectum was found to be blocked up with hardened fæces. These were removed, and an enema administered, with some relief to his symptoms; but, at the end of a few days, the condition recurred, and necessitated the same treatment. The abdomen during this time was enormously distended, and extremely tympanitic all over; his appearance was that of a woman just previous to her confinement. Frictions in the course of the colon, galvanism, and nux vomica and other aperients, were tried with a view to get the bowels to act, but all to no purpose; they merely enabled him to pass small quantities of flatus, and produced much uneasiness. Enemata administered daily were the only means which produced any relief, but they only procured very scanty evacuations."

When admitted into the hospital, the abdomen was enormously distended, and there was a greater amount of fulness on the left side than on the right. The distension was to a great extent tympanitic, though the resonance on percussion was not very clear; and on the left side, when he lay upon the back, there was marked dulness. The integuments about the lower part of the abdomen, the penis and scrotum, and lower extremities, were œdematous; the liver and heart were very much displaced upwards from the abdominal distension, and the heart's sounds were noisy, but without murmur. The pulse was very small and feeble, 100. The urine was passed in small quantity, and was highly coloured and loaded with lithates, and contained a very slight trace of albumen. He stated that he had not had evacuations oftener than every other day, and those procured were very small, though he passed much flatus. He had not, however, had recently any sickness.

He was ordered to have enemata administered, and nux vomica and rhubarb were directed to be given, but he died unexpectedly on the third day after his admission.

Post Mortem Examination.—All the organs of the body were healthy, except the lower part of the alimentary canal, which presented the following conditions. The lower end of the ileum was somewhat distended with fæcal matter. The large intestine, from the cæcum to the upper part of the rectum, was enormously distended; the diameter of this portion of the gut, which was pretty uniform throughout, measured from six to eight inches. It contained fully fifteen quarts of semisolid greenish-coloured fæcal matter. On washing out the intestine, the mucous membrane was found extensively ulcerated, the ulcerations being for the most part aggregated into two groups—one situated about the middle of the transverse colon, the other at the lower end of the sigmoid flexure. The distension ceased somewhat abruptly at the upper end of the rectum; and that portion of the bowel was free from obstruction, and was quite healthy, except that there were some hæmorrhoids near the anus. The peritoneum did not display any appearances either of present or of past inflammation.

The next case came under my observation a few months after that of the little girl. Its relation to hers impressed me while I was making the *post mortem* examination. Indeed, even before I had collected the scanty ascertainable facts of the medical history, I felt sure that the case had been one of chronic neglected constipation, issuing, as in the child's case, in large hypertrophy and dilatation of the bowel, and irritative excoriation of the mucous membrane; and I assumed that the patient had been suffering of late, not from accumulation of fæces, but rather from the dysenteric symptoms likely to accompany abundant ulceration of the mucous membrane, and from which also the little girl had probably suffered in some degree, as indicated by the occasional escape of the greenish fluid, and that the perforation which caused his death was simply an accident likely to happen in all such cases when attended with consecutive ulceration.

CASE V. *Dilatation, Ulceration, and Perforation of the Large Intestine Arising from Long Continued and Neglected Constipation: Death: Necropsy.*—C. H., a baker, aged 24, was admitted into hospital under one of my colleagues on February 26th, 1856, and died on March 26th from peritonitis, induced by perforation of the bowel. I never saw the patient during life, and no notes of any value were made concerning his clinical history. I learnt, however, that, during his stay in the hospital, and up to the time at which symptoms of peritonitis suddenly declared themselves, he had been suffering from dysenteric symptoms; and I further learnt, on pursuing my inquiries, that for some long time he had suffered from habitual constipation, but that diarrhœa had come on a fortnight before admission, and, consequently, just six weeks before death.

Post Mortem Examination.—The body was much emaciated. On opening the abdominal cavity, a few ounces of fluid escaped. There was a little clear lymph deposited over the portion of peritoneum above the great omentum. Below, the lymph was more abundant, and a little fæcal matter was incorporated with it. A small quantity of thin pea-soup like fluid was found in the pelvis. There was a small perforation in the anterior part of the transverse colon, two or three inches from its junction with the descending colon. The colon was much dilated in its whole extent, but flaccid and empty, and the longitudinal bands of muscular tissue were remarkably thick and distinct, especially in the sigmoid flexure. On removing and laying open the intestine, it was found that the lower two or three inches of the rectum had their normal dimensions, and were in all respects healthy; but that, above this, the rectum presented a sudden large dilatation, and that this dilatation was continued to the cæcum. The greatest degree of dilatation was presented by the sigmoid flexure, and some parts of the transverse colon, where the circumference of the bowel was over seven inches. The peritoneal covering was unthickened. The muscular coat was generally hypertrophied, and, in the sigmoid flexure, was a line and a half thick. In the cæcum, the muscular coat was of the usual thickness, and in the rectum it was normal. The mucous membrane was extensively ulcerated. There were two or three patches, about the size of the palm of the hand, in the sigmoid flexure. From the middle of the descending colon to the corresponding point in the ascending colon, the ulceration formed a continuous tract, and, in the rest of the colon and in the cæcum, there were a few small patches. The diseased tracts everywhere presented the same characters. They were made up of innumerable small ulcers, blended in a greater or less degree with one another at their margins, so as to form an irregular network of ulceration, the interstices of which were occupied by irregular fragments and bands of mucous membrane. The floors of the ulcers were formed, in some places, by the submucous tissue, but mostly by the muscular coat more or less eroded. The fragments of mucous membrane presented, for the most part, abrupt margins, and were congested, thickened, and, in places, œdematous. The stomach and small intestine were healthy, as also were the other abdominal and the thoracic viscera.

I have little to add. The three cases which I have adduced in elucidation of my first two, show clearly how, in association with long continued obstinate constipation, the colon undergoes hypertrophy and dilatation, and becomes sluggish and inefficient. They show, in its extremest form, the condition of bowel which, from the history and observed clinical facts of the other cases, I assume to be present in them in a slighter degree. It may be gathered from them how fæcal masses of unusual consistency and coherency might, in such cases, be easily left behind, while the softer parts were transmitted, and might remain *in situ* almost indefinitely. And one may see from them how readily dysenteric diarrhœa, due to ulceration, might, as in my second case, alternate with, or succeed, or even accompany, the more characteristic constipation. I do not myself think that fæcal accumulations often form definite circumscribed tumours, detectable by palpation; but they certainly do occasionally, and I can call to mind one or two cases of abdominal cancer, with some dilatation of bowels, in which such definite movable lumps, doughy to the fingers, and disappearing in the course of time, were repeatedly recognised.

The cases I have narrated show the importance, in the first place, of not allowing constipation to be neglected and to become habitual; and, in the second, of emptying the rectum by mechanical means when there has been constipation of long standing, which does not readily yield to medicines. They show also the little efficacy, in such cases, of even drastic purgatives, in either dislodging impacted masses, or emptying the bowel.

In conclusion, I may briefly advert to a case, now in the hospital under my care, in which I am inclined to believe the conditions I have described are in process of manufacture.

CASE VI. *Habitual Constipation of Two Years' Duration.*—S. W., a housemaid, aged 20, was admitted on March 20th of the present year. Two years ago she was suffering from weakness, and at that time she

began to be troubled with constipation. The first attack lasted three weeks, and, since then, the bowels had been relieved on the average only once every two or three weeks. During this time she had been taking purgative medicine constantly, with no effect, and having frequent enemata. The relief of the bowels had been due to the enemata. For the last two or three months she had had pain in the lower part of the back, and running down both thighs, and the feet had been liable to swell.

On admission, she was well nourished, but pallid and delicate-looking. The abdomen was rather large, and resistent, but it was resonant; there was no tumour, no pain or tenderness, and its walls were flaccid. The bowels had not been relieved for three weeks. During the ensuing week, large enemata were administered on several occasions, and thus a considerable quantity of solid fæces was evacuated. Since then, the bowels have been periodically relieved by enemata, so that there has been no reason to believe that there has been any continuance of undue fæcal accumulation. They have never yet, however, acted spontaneously, or under the influence of purgatives. The patient suffered at first from occasional pains in the abdomen, and severe aching in the legs, but these symptoms have improved. She has been liable, also, to bad headaches. In other respects her health has been fairly good, and it has improved. The patient is still under treatment (April 18th).

ON THE ADVANCE OF THE PERIPHERY OF THE IRIS IN GLAUCOMA.

By W. A. BRAILEY, M.D.,
Assistant Ophthalmic Surgeon to Guy's Hospital, etc.

THE application of the peripheral part of the iris to the cornea in glaucoma is one of the most interesting phenomena of this remarkable disease. It has, at the same time, great importance in a practical sense, since its occurrence appears to me to signify the entry of the malady on a new and less curable stage, in which neither myotics any longer afford a chance of cure, nor is any operation so easily done or so likely to be effective. For it appears reasonable to assume that, when the iris has once reached this position, it remains there, pressed valve-like against the meshwork of the ligamentum pectinatum. Moreover, the applied part very rapidly contracts inflammatory adhesions, and soon passes, probably in consequence of this, into atrophy, together with the rest of the iris.

These circumstances prevent its removal by iridectomy from this, in this sense, most important region of the cornea. They also hamper the performance of this operation and of sclerotomy, by misleading the operator as to the real position of the point of the knife at its emergence into the anterior chamber.

In connection with this application of the iris, certain questions suggest themselves.

1. Is this condition essential to the establishment of increased tension?
2. Though perhaps not essential in the above respect, does it not always occur at a later period in those cases where the disease runs its course to blindness?
3. What are the symptoms indicative of its occurrence?
4. What is its cause?

I venture myself at once to supply answers to the first three and less important questions, in order that we may come as quickly as possible to the fourth, which forms the essential question before us. I say decidedly, both on clinical and on pathological grounds, that increased tension does not necessarily involve the application of the periphery of the iris to the cornea, and that eyes in which the disease has attained merely an early or very subacute stage do not exhibit this phenomenon. For, when we see a patient suffering from glaucoma, in whom the pupil is active, and becomes contracted to a pin's point under eserine, we must believe that the muscles of the iris have good tone, and, consequently, that this membrane is not inordinately stretched, as it would be if its periphery were applied to the cornea. And the clinical evidence seems conclusive in those cases in which heightened tension falls to normal under the use of this drug. So, also, in intermittent glaucoma.

Pathological evidence in the same direction is not easy to obtain, since, in the vast majority of eyes excised on account of glaucoma, the disease is in its final stage. But I have three such eyes in which the iris-periphery shows no evidence of application. One of them is of about two years' standing from the commencement of the disease, with no great rise of tension, though perception of light has ceased. The margin of the anterior chamber is, however, narrower than normal. Both the others are cases of recent and acute glaucoma. They appeared to be in a condition curable by operation, and would not have been available for our instruction, had not the operator chanced in each case to wound the lens in his attempted sclerotomy.

The above observations will also furnish my answer to the second question. Though I admit that the periphery of the iris is applied in the vast majority of eyes excised on account of primary glaucoma, and though I have found it thus placed even where the pupil, though not excluded, has remained small and rigid from adhesions between it and the lens, I cannot, in the face of the specimens above referred to, suppose that it may not remain unapplied.

With regard to the third point, excepting such cases as those with posterior synechiæ just referred to, I should say that dilatation, often excentric, and immobility of the pupil, in association with an advanced position of the iris, are the signs by which this application can be recognised clinically, and that a sudden wide dilatation of the pupil shows the exact time of such advance.

As to the causes of this condition, and the exact pathological states associated with it, I propose to speak more fully. From the anatomical conditions of the normal eye, I admit, as maintained by Weber, Priestley Smith, and others, that the ciliary folds can, by their advancement, cause this application of the iris; for the more prominent of these folds run on to the base of the iris, and the shorter ones up to it. From a consideration of the relative extreme diameters of the aqueous chamber and lens, it is clear that the latter itself, so long as it retains its normal attachments, cannot, by its advance, effect such application. A lateral pressure of the lens or of the ciliary folds, such as would be due to the swelling of either, without any advancement, is not the means of effecting it, since there is no evidence of the compression of the ciliary folds, either against each other or towards the ciliary body, in any one of the very numerous cases that I have examined microscopically. Moreover, the extreme base of the iris, which would be the part pressed outwards, if the diameter of the lens became materially increased, retains its normal position. Indeed, the anterior chamber may still exist at its extreme periphery, notwithstanding the application just in front of it of the corresponding part of the iris to the ligamentum pectinatum.

If, then, we conclude that the ciliary folds are, by their advance, the cause of this application of the periphery of the iris, the next question is as to the cause of the advanced position of the ciliary folds, or, at all events, of their anterior border.

Before undertaking this part, let me state some facts, or some things appearing to me to be facts. Perhaps I shall make certain recantations.

1. There is no atrophy of the ciliary body, inclusive of its muscular part, in the early stages of glaucoma. This I state on the strength of certain preparations which I have examined comparatively recently. The atrophy of the ciliary body and iris, which is so well marked and characteristic, comes on later, and is, in my opinion, only a consequence of this application of the iris. It is the ultimate stage of the inflammatory change set up by the adhesion.
2. The anterior chamber is rendered shallow in the earlier stages of glaucoma by a partial advance of the lens and iris. Later still, when the margin of the iris has become applied to the region of the ligamentum pectinatum, and when atrophy of the ciliary region has set in, the lens recedes to its normal position. Then, as we see by the numerous microscopic preparations in which fluid is clearly trying to push its way between iris and cornea, to the separation of the adhesion between them, the iris tends, though ineffectually, to regain its proper position.
3. In most cases of glaucoma, the vitreous body is at least not below the normal size. But cases are not wanting where it is shrunken and detached from the posterior part of the retina by fluid; and others are found where it is only represented by traces remaining in the cavity of the umbrella-shaped detached retina.
4. The canal of Schlemm is open, at least as widely as normal, up to and for some time after the establishment of the glaucomatous condition. And the ligamentum pectinatum presents its usual loose texture.
5. The lens does not usually exceed the normal size in glaucoma. In the comparatively rare cases where I have found a disproportionate size, this is simply in consequence of the initial stage in the development of the cataractous condition. Moreover, this enlargement causes it to approach the spherical shape, being developed principally in an antero-posterior direction.
6. There is no certain evidence, either pathological or clinical, that the ciliary folds are swollen in glaucoma; though, from the enlarge

ment of the ciliary arteries always, or, at least, so frequently found, we must admit that this condition is not an improbable one.

What, then, is the agent by whose pressure the ciliary folds are advanced? Not the swollen lens, since, as before said, demonstration of such swelling is rare; and, admitting it to be more frequent than I think, its effect would be principally, as in the early stage of some forms of cataract, to render shallow the more central parts of the anterior chamber. Moreover, the advance of the ciliary folds takes place as readily after the lens has been removed by extraction, whether in its capsule or not; but a swelling of the lens would doubtless predispose to glaucoma by its simple encroachment on the space included within the ocular tunics. Nor is an accumulation of fluid in front of the vitreous body, that is, between it and the ciliary body or lens, the agent; for such, if it had existed, would give some microscopical evidence of its presence by distension of the region of the so-called canal of Petit, or otherwise. Therefore, the parts posterior to the lens and ciliary folds, and between these and the secreting parts, must be the agents in question. Such might be the vitreous body itself, the retina, or fluid accumulated between the vitreous body and retina, or between the retina and choroid.

It is difficult to demonstrate an enlargement of the vitreous body, and impossible to measure such; but I take it that, if the lens and ciliary folds be advanced, and the optic disc pressed backwards into a concave shape, and if there be, at the same time, no detachment of the vitreous body to be found, then this body must be enlarged. Such a condition is probable in glaucoma on other grounds, since, in most cases of this disease, the vitreous body is firmer, and contains more cell-elements than normal.[1] Enlargement of the vitreous body occurs undoubtedly in the early and acute stages of suppurative hyalitis, and there produces an advance of the lens, ciliary folds, and iris, as well as increased tension.

The retina is extremely frequently thickened in glaucoma by cystic œdema of its substance. This thickening affects most commonly the front part, and occasionally, especially in the glaucoma accompanying Bright's disease or embolism of the central vessels of the nerve, at the posterior part of the retina. It is occasionally found in isolated patches, and in such the thickening may be very great, even amounting to ten times the normal; but such thickenings, even the greatest of them, can have no very great effect in pushing the vitreous body forwards, and, therefore, may be simply taken as indications either that more fluid passes from the surrounding vessels, or that there is some obstruction to the outflow of this fluid from the retina. *Post mortem* examinations sometimes demonstrate the existence of fluid just behind the detached retina, or between it and the choroid. We must then ask why this fluid, whether it be in the vitreous body or elsewhere, is detained there, and if it be normal in constitution, and in the amount secreted.

I judge it to be normal in constitution, in the absence of direct evidence to the contrary, and insomuch as, under the mechanical influence of eserine, it can escape *viâ* Schlemm's canal; also, that it is beyond the normal in amount, since, Schlemm's canal and the entrance to it remaining normal, there is sufficient fluid still retained within the eye to keep it hard. The demonstration of an increased flow through Schlemm's canal in glaucoma is convincing, when the instillation of eserine rapidly brings about a restoration of the tension to normal; and that of an increased secretion depends upon the rapidity with which the tension is re-established after paracentesis in glaucoma, and, perhaps, also on the slowness with which the anterior chamber is re-filled after more extensive operations for the same disease.

But why should this application of the iris take place only in the latter stage of glaucoma? It is, as many specimens in which sarcoma of the choroid co-exists with still normal tension show, preceded by a somewhat advanced position of the base of the iris, such advance being sufficient to narrow but not to close the peripheral part of the anterior chamber of the aqueous. The ciliary folds are, of course, the agents in this case, but their action is opposed by that of the muscles of the iris, especially the sphincter. But when, as in the later stages of glaucoma, the motor-nerves to the iris are paralysed, then this structure is impelled forwards to within the influence of the suction towards the ligamentum pectinatum, and immediately close apposition is brought about.

It is worthy of note that pressure on the posterior pole of the eye, as by sarcoma of the optic nerve or orbit, produces some advance of the periphery of the iris, just as in the earlier stage of glaucoma. This commends itself to me as a fact by the microscopic evidence of numerous cases of intra-orbital tumour.

[1] "On the Vitreous Body in its Relation to Various Diseases of the Eye." *Moorfields Hospital Reports*, 1882.

The lens regains its position in the later stages of glaucoma by the tension of the zonula, which becomes greater as the atrophy of the ciliary body progresses. This tension is now free to act with effect, since, supposing the vitreous body to be now of the normal size, the pressure in front of and behind the lens becomes equalised on the closure of the exits from the anterior chamber. The iris tends to regain its position from the same cause, but its attempts are frustrated by the inflammatory adhesion which is speedily developed between it and the peripheral part of the cornea.

CHYLOUS ASCITES.

By W. WHITLA, M.D.,

Physician to the Belfast Royal Hospital; Consulting Physician to the Ulster Hospital for Women and Children; Vice-President of the Section of Therapeutics at the Annual Meeting of the British Medical Association, etc.

CASES where large quantities of chyle have been removed from the body are sufficiently uncommon, and of such physiological importance, as to warrant me in bringing the following under notice.[1]

The following is an abstract of the case, taken by my clinical clerk, Mr. Thomas.

A. C., aged 13, was admitted to hospital on November 10th, 1883, complaining of abdominal swelling.

Family History.—His mother was alive and well; his father suffered from phthisis (and had since died); he had one sister who died in infancy.

Personal History.—The patient stated that he enjoyed good health until last spring. He had been an inmate of a reformatory for over two years. In May, 1883, whilst at work, he got a severe wetting, which was followed by bronchial catarrh, accompanied with pain in the left side. After he had got rid of the catarrh, the pain remained, catching him on breathing deeply. In August, the pain became more severe, due, he thought, to getting overheated, and he was sent to hospital. The following is Dr. Lindsay's account of his condition at that time. He was suffering acute pain in the left side, and had a cough; a loud friction-sound was audible in the sixth space, on the left side in front. There were some dulness and faint crepitus over the corresponding part of the same lung behind. His temperature did not rise beyond 100°, and the constitutional symptoms were slight. He remained in hospital five weeks, and his illness ran a slow but mild course. He was confined to bed for only four or five days; and convalescence was gradual, and apparently complete.

Present Illness.—He thought that his present illness began about four weeks after (about the middle of October), when he had a shivering fit, followed by pain on the left side, in the axillary line above the level of the last rib. Owing to this, he was placed in the sick-ward of the reformatory.

On October 31st, the patient first noticed that his abdomen was swollen. The swelling was always uniform; there was no œdema of the face, feet, or legs. The swelling increased rapidly; it was unaccompanied by pain. The appetite became poor, and he suffered much from thirst. The bowels were a few times irregular, some days confined; diarrhœa lasting three or four days following; a confined state again supervening. The patient stated that he passed urine more frequently than in health, not a great quantity at a time, and thought that, altogether, he passed less than usual; he stated that it was sometimes reddish and darker than normal.

Condition on Admission.—The patient was fairly well nourished; intelligent; he ate moderately, and slept well. His tongue was slightly furred. The abdomen was uniformly distended. On palpation, there was increased resistance, with slight pain on pressure over the left hypochondriac region. The percussion-note was tympanitic over the epigastric and umbilical regions, but became duller towards the pubes and flanks; this dulness changed with position. Fluctuation was well marked, and could be easily made out. His bowels were now regular, and his appetite good. The region of hepatic dulness could not be clearly made out on account of the distension. Pressure close to the costal arch in this region caused slight pain. The heart-sounds were normal, and the pulse was 90.

On examination of the lungs, the percussion-note was somewhat dull, over a limited area, at the inferior angle of the right scapula, over which region the breath-sounds appeared feeble, and there was some loss of vocal resonance. At the base of the right lung, a few crepitations were audible on deep inspiration; there were also a few

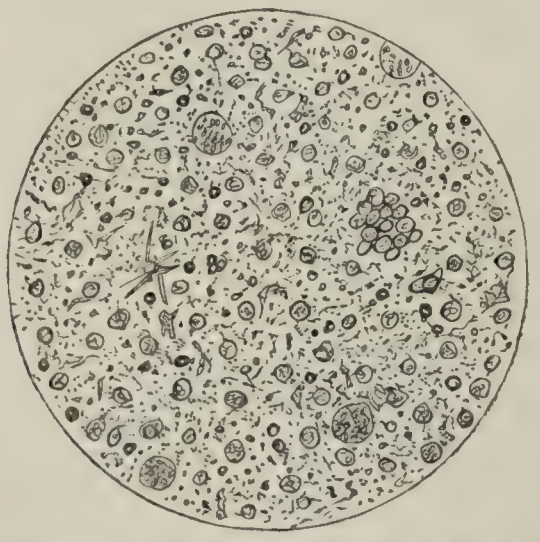
[1] Specimens of the chylous fluid, and morbid specimens, were exhibited before the Ulster Medical Society and the last annual meeting of the British Medical Association.

crepitations in the axillary region of the left side; but the examination did not reveal anything except what pressure would account for; and these physical signs were entirely absent upon a subsequent examination.

December 2nd. The abdomen measured thirty-three inches in circumference at the umbilicus. The abdominal wall was tense and resisting, with enlargement of the superficial veins. The percussion-note was clear over the epigastric region to within four inches of the umbilicus, but became dull in the hypochondriac regions. The dulness extended all over the abdomen, except in the above-mentioned parts. In the flanks, there was a line of clearer note along the colon. In the erect position, percussion over the whole abdomen was dull, including the epigastric region. Fluctuation was distinctly felt. The apex-beat of the heart was visible, and could be felt at the left nipple. The first sound was normal; the second sound was accentuated; pulse 100. Over the lungs, the percussion-note seemed slightly clearer on the right than on the left side in the infraclavicular region in front. On the right side, this clearness extended as low as the nipple. A few *râles* were audible over the left lung, at the anterior border of the axilla. Behind, there was dulness extending downwards on both sides, from the inferior angle of the scapula, more marked on the right side (liver). Over this latter region, the breath-sounds were feeble. On the left, an occasional *râle* might be heard. The patient complained of slight cough; no expectoration. The urine was of specific gravity 1023; no albumen; no sugar.

December 3rd.—Five small circular blisters were applied to the abdominal wall. The abdomen measured 32⅜ inches over the umbilicus, and the patient complained a good deal of the distension and discomfort of the accumulated fluid.

December 7th.—The patient was tapped, and twelve pints of fluid came away. The fluid closely resembled milk in appearance; it was albuminous, slightly alkaline, had a sweetish saline taste, and a faintly pleasant smell. The density was 1020. It did not coagulate spontaneously, but coagulated on the addition of nitric acid, and became almost solid on the application of heat. A small portion of the fluid shaken up with ether became nearly transparent after the ether had risen to the top. On evaporation of the ethereal liquid, the residue consisted of almost pure oil. After standing for some time, the liquid separated into two layers; the upper was an opaque pearly-white fluid, resembling so closely the cream which rises on a good sample of cow's milk, that it could not possibly be distinguished from it; this stratum was about one-eighth of the entire mass. The lower stratum was of a very faint yellow colour; it was opalescent, but decidedly milky in appearance. Several to whom the samples were shown were positive that the liquid was milk, and that it had a milky odour.



Under the microscope, the liquid was seen to contain corpuscular elements. The corpuscles were not very numerous; they presented all the characteristics of white blood-corpuscles, were distinctly nucleated, and some appeared as if about to divide. There were a few red blood-discs, which were larger and more rounded than normal, and some of them appeared to approach the white cells in character. They presented most unusual changes of shape on being watched for a moment, becoming crescent-shaped, and gradually flattening out again (these changes were only noticed when the specimen was observed fresh). Acetic acid did not cause the nuclei of the white cells to become tripartite. There were a few large exudation-corpuscles. The remainder of the field was occupied by a fluid consisting of numerous small molecular bodies, hardly capable of being measured, but apparently all of about the same size. After the slide upon which the liquid was being examined was allowed to remain for a few minutes under observation, the molecules congregated into little cylindrical masses, and then presented an appearance not unlike some specimens of amorphous urates. Though congregating into masses, each molecule remained distinct, and did not run into the neighbouring ones, or become in any way continuous. In the fresh specimen, they were so numerous, and so uniform in size, as to be but faintly distinguishable from the surrounding fluid. The entire appearances resembled those presented by the molecular base of chyle. There were no oil-globules, and a few small spherical bodies might be seen, like the enlarged nuclei of the larger lymphoid cells.

The accompanying woodcut gives a fair idea of the microscopic characters of the fluid, after about twenty-four hours' removal from the body. The minute molecular base (for the sake of clearness) is not so abundantly represented as it should be.

Six days after removal from the body, the fluid was examined again by the microscope, and the innumerable uniform molecules presented identically the same appearance. If a drop were taken from the upper layer, the molecules were so numerous as to obscure everything else; oil-drops might be seen in this layer; the lower layer did not contain any appearance of oil-drops, but exhibited the molecular base, just as when removed from the body. There were only a few corpuscles to be seen, and they were indistinct. No crystals were noticeable in this lower stratum; a few were noticed in the previous examination.

The abdomen was carefully examined after the tapping, and a tumour was found lying across the front of the spine about the level of the umbilicus; it was about the size of two small bantam's eggs. It was firm, elastic, smooth in outline, and conveyed the feeling to the touch as if one were palpating a small horse-shoe kidney. This tumour was conjectured to consist of enlarged lymphatic glands lying on the front of the spine, and occluding the thoracic duct in the abdomen.

December 20th.—There had been little to report since the tapping a day or two after it, he was able to sit up, and move about the ward. His appetite had remained fairly good, and he had not been thirsty. His diet consisted of chicken-soup for dinner, and two pints of extra milk through the day, with bread and butter, tea, etc. His bowels had been slightly relaxed, but nothing abnormal was noticed in the stools. He was apparently somewhat more emaciated than he had been; his temperature had been about normal, and he slept pretty well. The swelling in the abdomen had increased since tapping; it appeared to increase uniformly.

December 29th.—There had been no change in the condition of the patient, except that the swelling had continued to increase, and he now measured 36¼ inches, and had considerable dyspnœa from the ascent of the diaphragm. The physical characters of the abdomen in no way differed from those seen in a typical case of ascites. At his own request, he was tapped in the middle line (as before), midway between the pubes and umbilicus, and eighteen pints of milky fluid were drawn off. This in no way differed from that previously removed. On the examination of the abdomen immediately after tapping, the tumour previously mentioned was only to be vaguely felt by the side of the spine in the right hypochondriac region. It appeared to be slightly movable. Deep in the abdomen, to the left of the umbilicus, a small and movable tumour, about the size and shape of a large filbert, could be felt; it was smooth and doughy, and easily slipped away from under the fingers; it was probably a small scybalum.

December 30th. The temperature rose, after the tapping, to 100.2° Fahr.; the abdomen was slightly tender; otherwise, the patient was much relieved. On examining the chest posteriorly the breathing was natural from apex to base. In front, about the border of the cardiac region, submucous crepitation was to be heard. At a spot above and to the left of the nipple, very fine crepitation was heard on inspiration; this disappeared after a few deep respirations. There was no tubular breathing, but a faint degree of dulness could probably be appreciated under the left clavicle. The patient was carefully weighed yesterday after tapping, and found to be 5 st. 9½ lb. with two shirts on. The liquid, after standing since yesterday in a large bottle, had a most unmistakably milky odour in the opinion of the many members of the clinical class who examined it.

January 13th, 1884. There was little change in the aspect of the patient. His fingers were beginning to club at the extremities; anything, he was more *apparently* emaciated, but not marked anæmic. His tongue was slightly furred, and his hair was peculiarly dry; it had not been washed. The skin over the body was not unusually dry or harsh, but it was so on the legs. The veins on the abdomen were prominent, but not more so than when first reported upon. He had been on his ordinary diet for the last week or so, consisting of—breakfast, one pint of tea, with sugar, milk, and

bread and butter; dinner, half a chicken broiled, one potato, and one or two pieces of bread; supper, same as breakfast; besides which, he had about two pints of milk during the twenty-four hours. Temperature, 98.9° Fahr. The abdomen was very prominent; it measured 38 inches; the sense of fluctuation was very distinct. There was only a small tympanitic area at the bottom of the sternum, not larger than the palm of the hand. This area did not become dull when the patient lay on his left side, but became clear towards his right flank.

January 14th. The patient was tapped, giving 22 pints of fluid, differing in no way from that drawn off before. The abdomen now measured 25 inches, and through the relaxed walls a tumour could be felt in front of the spine; it was movable, and appeared to be as large as a small hen's egg, and slipped easily into the grove on the left side of the spine. In the right hypochondriac region, a more uneven and larger mass could be obscurely felt; it also appeared to be movable. There was not much tenderness over the abdomen. Weight, after tapping, 6 st. 2 lbs., with exactly the same clothing upon him as when previously weighed (gain, 6½ lbs. in sixteen days). He was probably not so completely emptied by this tapping. I forwarded 12 ounces of the fluid obtained by this third tapping to Professor Matthew Hay of Aberdeen. He received it next day (January 15th), and commenced a chemical examination of it upon the following day. I am much indebted to him for his able and careful analysis; the following is his report.

"The fluid was received by post on January 15th, 1884, and its examination was commenced on the day following. The whole fluid measured about 12 ounces.

"It presented to the eye all the appearances of milk, being white and opaque and limpid. Although it had been allowed to stand for twenty hours in a tall jar, it showed no signs of separating into two layers, as is the case with milk. It had no odour; its specific gravity was 1014; and its reaction was moderately alkaline. A portion of it was heated without showing signs of coagulation; a fresh portion was diluted with water until distinctly translucent, and then heated, but the opacity of the fluid was not visibly increased. Acidulated with acetic acid and heated, the fluid yielded flaky coagula, just as milk does when similarly treated. The amount of coagulation was not such as to render the fluid semi-solid. Heated with excess of caustic potash, the fluid quickly became of a dark olive-green colour, without losing its opacity.

"Twenty grammes of the chylous fluid evaporated to dryness over the water-bath, and afterwards heated in an air-bath, at 100° Cent., until it ceased to lose weight, yielded a residue weighing 1.183 grammes (after prolonged combustion the residue was reduced to 0.199 grammes). The fluid, therefore, contains 5.915 per cent. of solids, of which 4.920 is organic, and 0.995 inorganic.

"In order to ascertain the amount of albumen, 50 cubic centimètres of the fluid were slightly acidulated by means of dilute acetic acid, and boiled. The flaky precipitate, after repeated exhaustion with ether, was collected on a filter and well washed, and then dried at 100° Cent. Deducting the weight of the filter, the precipitate weighed 1.439 grammes, which is equivalent to 2.878 per cent. of albumen in the fluid.

"The amount of fat was obtained by evaporating 50 cubic centimètres of the fluid to dryness, and thoroughly exhausting the residue by means of ether. The ethereal solution was then shaken with acidulated water, poured off and evaporated; the residue weighed 0.515 gramme, equal to 1.030 per cent., of not perfectly pure fat.

"As regards sugar, the fluid, either in its original state or diluted with water, gave no reaction with Fehling's solution; although it yielded, as already mentioned, a dark olive colour, on heating with excess of caustic potash. However, after previous removal of the albumen and greater part of the fat, by means of acetic acid and heat, a colourless and almost perfectly transparent filtrate was obtained, which readily reduced Fehling's solution. For the purpose of estimating the amount of sugar, 25 cubic centimètres of the fluid were, therefore, acidulated and boiled, and the albuminous coagulum filtered off, and the filtrate was triturated with a standard solution of Fehling. In this manner the fluid was found to contain 0.210 per cent. of sugar.

"The analysis was not carried further. I now give the quantitative results, in a tabular form.

Water...	94.085 per cent.		
Solids...	5.915 ,,		
	Inorganic...	0.995 per cent.	
	Organic ...	4.920 ,,	
		Albumen	2.878 per cent.
		Fat	1.030 ,,
		Sugar	0.210 ,,
		Other organic matter	.802 ,,

"I may mention that, by diluting the chylous fluid with definite quantities of water, and comparing it with skimmed cow's milk (specific gravity, 1035.2) similarly diluted, both fluids being placed in glass tubes of equal diameter, I ascertained that the chylous fluid was slightly more opaque than the milk, the relative degree of opacity being as 102 : 100.

"I should also remark that I never observed, even after the fluid had stood for some days, any creamy scum form on its surface. This was probably due to the fact that the specific gravity of the suspending liquid was low, and that the particles of fat were remarkably fine, much finer as shown by the microscope, than the fatty globules of milk.

"The aseptic property of the fluid was noteworthy. A portion of it kept in an open bottle in a warm room showed no signs of undergoing decomposition, as judged by the odour and the appearance, for more than a fortnight. It may be well to state that the fluid received contained no trace of spontaneous coagulum, as ordinary chyle sometimes does.

"This chylous fluid would appear, therefore, from its chemical examination, to consist almost entirely of pure chyle, and has evidently been poured out into the peritoneal sac through some rupture in the walls of the thoracic duct, or the receptaculum. Owing to the lowness of the percentage of albumen, the chyle is apparently not much mixed with serum from the peritoneum."

One very interesting physiological fact is brought out in the chemical analysis—namely, that the chyle contains sugar. Although this long remained in doubt, and has only comparatively recently been shown to be the case, as regards the chyle of some of the lower animals, it has not yet, so far as I know, been demonstrated in man. There is no question here of the chylous fluid having obtained the sugar from its admixture with peritoneal exudation, since serous exudations are well known to contain at most a trace of sugar. The sugar has been absorbed from the intestines by the lacteals.

The absence of separation of the fluid into two layers, in Dr. Hay's specimen, might possibly be caused by changes produced by the shaking of the bottle during the long journey from Belfast to Aberdeen.

January 17th. The abdomen measured thirty inches in circumference one inch above the umbilicus. On this day, the chest was examined, and nothing abnormal was found.

January 27th. There was no alteration in the appearance of the patient; the abdomen was much distended, and the veins were very prominent over the entire surface. He complained of great inconvenience from accumulation of the fluid. In the sitting posture, there was dulness on percussion, from the symphysis pubis to the xiphoid cartilage.

January 28th. The patient was tapped in a sitting posture in the usual place, and twenty-two pints were removed, differing in no way from that obtained at former tappings. He had been taking three pints of milk daily in addition to his ordinary diet of chicken, bread, tea, etc. A sample of the fluid in a tall urine-glass, taken as it flowed from the trocar, on being compared with a sample of milk of the same size, presented a faintly yellow trace of colour as compared with the milk. The entire amount of fluids taken by the patient averaged about four pints and a half daily, notwithstanding which *he passed under twenty ounces of urine.* His bowels were moved regularly every day, and he had a natural soft motion (sometimes two were passed).

After tapping, the parietes appeared to be thickened and slightly œdematous, and he was very tender, and did not permit a thorough examination. A small tumour, like an enlarged gland, not bigger than a walnut, could be felt on the left side, below the umbilicus. On firm pressure at the level of the umbilicus, the finger was able to come down on the spine, and there did not appear to be anything between it and the bodies of the vertebræ. His weight, half an hour after tapping, was 5 st. 13 lbs.

Temperature.—This was normal in the morning, with slight rise in the evening. This rise was greatest on the evenings after tapping, the highest temperature reached being 100.8° The following is a week's temperature, from January 21st to 28th.

	M.	E.
January 21st	98.4°	100.2°
,, 22nd	98.8°	98.8°
,, 23rd	98.4°	100.2°
,, 24th	98.4°	100.6°
,, 25th	99°	100°
,, 26th	98.4°	99.4°
,, 27th	99°	100.2°
,, 28th	99°	100.8° after tapping.

Urine. November 10th.—Clear in colour, acid in reaction, specific gravity 1020. Albumen present about $\frac{1}{16}$; no sugar, no deposit.

November 21st. Clear, acid; specific gravity 1012; no albumen, no sugar.

December 8th. Clear, neutral; specific gravity 1023; no albumen, no sugar.

January 24th, 1884. Yellow, acid; specific gravity 1030: no albumen, no sugar.

Quantity of Urine passed Daily since December 8th.

	Oz.		Oz.
December 8th	19	January 7th	22
,, 9th	22	,, 8th	20
,, 10th	18	,, 9th	21
,, 11th	17	,, 10th	18
,, 12th	18	,, 11th	20
,, 13th	23	,, 12th	21
,, 14th	22	,, 13th	19
,, 15th	19	,, 14th	21
,, 16th	18	,, 15th	19
,, 17th	17	,, 16th	20
,, 18th	15	,, 17th	18
,, 19th	17	,, 18th	20½
,, 20th	23	,, 19th	23
,, 21st	20	,, 20th	17
,, 22nd	18	,, 21st	22
,, 23rd	22	,, 22nd	19
,, 24th	18	,, 23rd	16
,, 25th	17	,, 24th	20
,, 26th	18	,, 25th	16
,, 27th	16	,, 26th	18
,, 28th	19	,, 27th	17½
,, 29th	18	,, 28th	14
,, 30th	15	,, 29th	18
,, 31st	17	,, 30th	16½
January 1st	18	,, 31st	18
,, 2nd	19	February 1st	20
,, 3rd	17	,, 2nd	21
,, 4th	16	,, 3rd	23
,, 5th	17	,, 4th	18
,, 6th	19		

February 5th. The abdomen was much distended, apparently more than it had been yet, and the veins were very distinctly visible. The general aspect now would not strike one as being marked by any great emaciation or wasting. He was tapped in the usual position, and twenty-one and a half pints were withdrawn. The fluid appeared thinner than before; its gross physical characters were the same as on previous tappings, with this exception, that it was only very faintly alkaline. A sample taken and moderately heated became thick, but became more fluid again on cooling; the addition of heat and nitric acid caused thorough coagulation.

On examination immediately after tapping, there was a good deal of tenderness over the relaxed abdomen. A smooth, soft, elastic elongated tumour, occupying the position, and apparently having the same dimensions as the pancreas, lay across the spine at a level of about two inches above the umbilicus. On manipulation, this partially disappeared from below the fingers, receding into the left vertebral groove, but could still be obscurely felt deep in the left hypochondrium. On deep pressure in the left iliac region, a fibrous ridge could be felt occupying the position of the tendon of the psoas muscle. Weight, 5 st. 10 lbs.

February 14th. 10 P.M. The abdomen was very much distended, causing dull dragging pain in the flanks, and general uneasiness to the patient, who sat up in bed unable to rest, and was crying. The superficial veins were plainly visible. He was tapped in the usual manner, and twenty-two pints of fluid were removed. This fluid bore the same general characters as on previous tappings, but seemed to flow more easily from the cannula, its density being 1008. The tumour could be felt lying in the same position, but appeared firmer to the touch. The patient weighed 5 st. 9¼ lbs. after tapping

February 25th. 10 A.M. Since the last tapping, there had been a considerable change in the patient's aspect and symptoms. His urine had been rising in density and diminishing in amount; he had only passed nine ounces in the last twenty-four hours. The abdomen was moderately distended with fluid, not more, however, than it would have been on the fourth day after previous tappings. It could scarcely be said to be tender on pressure, except a little below the sternum. He complained for the last week of severe and persistent headache, felt most in the frontal region. During this time, he had been vomiting two or three times a day; these symptoms were accounted for at first by quantities of food and sweetmeats, which had been brought to him by friends, and of which he ate freely. He lay in bed on his back, with a handkerchief tied tightly round his eyes, complaining severely of headache. Admission of light was a positive pain to him; the sound of the voice, or the vibration of footsteps on the floor, were particularly distressing. He had ceased to take any solid food, but still managed to take three pints of milk in the twenty-four hours. His pupils were equal, and readily responded to light; his brows were contracted. His pulse was moderately full, and counted 52 per minute. His temperature was 99.2°. He felt very sick, and had vomited twice to-day, and complained of a good deal of pain and uneasiness in the stomach, which he called heartburn. His vomit was very acid.

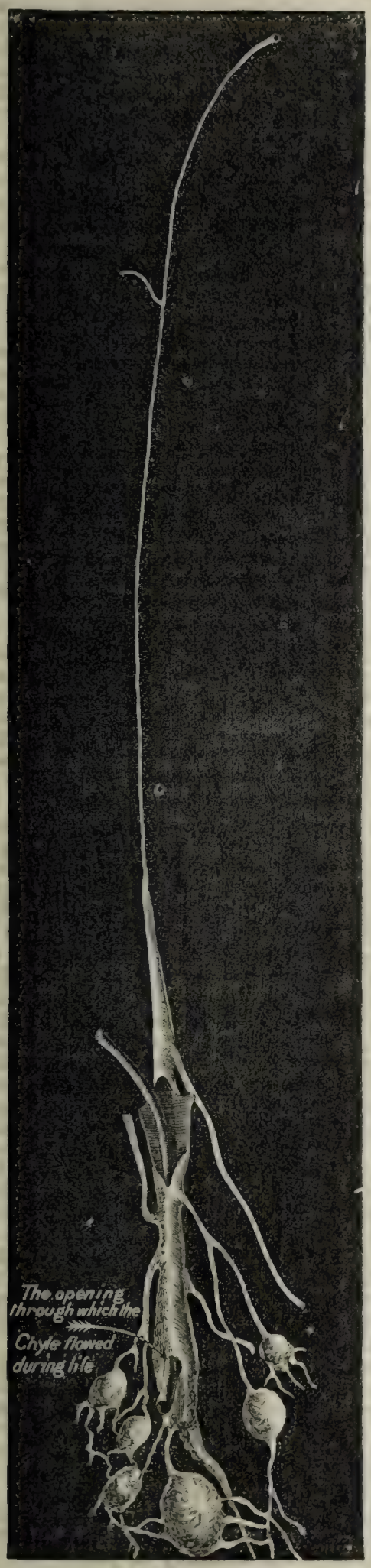
February 26th. 8.30 P.M. The patient had slept very little since last report. His headache had been very severe, and the vomiting frequent, he having vomited about twelve times since yesterday. His temperature was 101°; his pulse 60, unequal, and irregular, some of the beats being imperceptible, others barely full. There was slight dyspnœa, but an examination, which was unsatisfactory and difficult to obtain, revealed no adventitious sounds in the chest. The expiratory murmur was prolonged at the left apex, and the breathing was slightly harsher, and there appeared to be the slightest shade of dulness over this region. Otherwise, there was no physical sign indicative of phthisis. His meningeal symptoms were, upon the whole, not more pronounced than they were on the morning of the previous day.

February 27th. The patient vomited twice during the day, once after breakfast, and again after dinner, the matter vomited being very acid. The headache was not severe during the day, but grew much worse towards night. The pain was chiefly frontal, and most severe on the left side. Wrinkling the skin of the forehead caused pain. Movement of the head was painful, and caused shooting pain along the muscles of the neck posteriorly. Pulse 87. Temperature, morning, 98°; midday, 98.2°; evening, 99°. Quantity of urine passed, eight ounces.

From this date on till his death, which occurred on March 7th, the clinical report details the progressive deepening of tubercular meningeal symptoms—vomiting, irregular pulse, and respiration—and coma alternating with periods of semi-consciousness, and delirium; the temperature never exceeding 102°.

Post Mortem Examination, one hour and a half after death.—The body was not markedly emaciated. An incision was made in the median line, and about a gallon of dirty yellow semi-purulent fluid escaped. The intestines bulged into the wound, and were deeply congested, and covered here and there with shreds of lymph. The bladder was distended, and filled with yellow-coloured urine. The cæcum was very much distended with gas; the ascending colon was moderately dilated; the transverse very much dilated; and the epiploon gathered up into a firm thickened band, resembling a pancreas. It was also deeply congested; and, with the exception of a few miliary elevations, it was smooth, and felt like a fœtal lung. On tracing this band of the epiploon, it was found to be attached to the abdominal wall, at the splenic flexure, opposite the tenth rib. On tracing the transverse colon in the same direction, it was found still distended, and contained some hard scybalæ. About two inches below the splenic flexure, the colon was found to be constricted for nearly three inches. Its walls were thickened, and the appendices epiploicæ matted together. Towards the sigmoid flexure the bowel was considerably dilated, though empty, as was also the rectum. The presence of fæces was confined to that part of the splenic flexure above the constriction. The peritoneum covering the intestines was everywhere studded with miliary tubercle; this was most marked in the mesentery proper, which presented a deeply congested appearance, relieved by myriads of greyish-white granulations. The glands of the mesentery were not very much enlarged, and were somewhat obscured by the presence of so many granulations. The small intestines were deeply congested, and comparatively empty. That portion of the peritoneum which is reflected from the duodenum to the small intestine, as it goes to form the mesentery, was very much thickened, and infiltrated with the same miliary granulations; and, together with its glands, which were very considerably enlarged, it formed a tumour, lying on the front of the spine; this was what was felt during life after the tappings. The liver and the pleura covering both lungs were studded on the surfaces with fine miliary granulations. The kidneys were deeply congested; the capsule was easily removed. The connective tissue around was studded with tubercle. On section, the lungs were infiltrated everywhere with fine millet-seed granulations; but in no place in the pulmonary tissue was there any caseation, softening, or excavation, the deposit apparently being of comparatively recent origin, and not yet leading to any destruction of the lung. The costal and pulmonary pleura and diaphragm were adherent, and fused together about the fifth, sixth, and seventh interspaces on the left side below the heart in front; this corresponded to the site of his pleuritis in July, and accounted for the constant pain which he referred to the spot all through his last illness. The structures upon the front of the spine in the abdomen and chest, which lay between the serous covering and the vertebræ, seemed quite healthy, the veins and nerves in the neighbourhood of the thoracic duct glistening through the pleura and peritoneum. I did not think it wise to attempt a dissection of the duct, under the difficulties surrounding the *post mortem* examination, but removed all the structures *in situ*, separating everything clean off from the periosteum of the vertebræ, and removing the mass for a subsequent careful dissection.

To Professor Redfern I am mainly indebted for the beautiful dissection of the thoracic duct; and Dr. Maguire (Manchester) has kindly made a microscopic examination of its walls, and also of the coats of the colon,



which he found ulcerated and infiltrated with tubercle at the narrowed portion previously mentioned.

The lower third of the duct is considerably dilated; its walls are of normal thickness, and its internal surface is smooth and glistening. Near the upper end of this portion of the duct, whilst it is still slightly dilated, its walls are thickened, and upon its internal surface a few minute elevations are noticeable, having the naked-eye characters of *exceedingly small* miliary tubercles. At the lower end of this dilated portion of the duct is a distinct perforation, reminding one of a minute bullet-wound; its edges are smooth, and they are not infiltrated—indeed, here the coats of this dilated part seem rather attenuated. The accompanying woodcut gives a fair idea of this aperture. It represents the lower third of the duct, slit up in its upper part, and a portion of a No. 2 catheter passed through the slit, and its point brought out through the rounded aperture, out of which the chyle flowed during life. There can be no doubt whatever that this aperture is the result of a rupture some months before the patient's death, and not artificially produced during the dissection. The extreme care taken by Professor Redfern and myself rendered this impossible: and you see the margins are rounded off by some vital action very distinct from *post mortem* violence.

The middle third of the duct at its lower part, for a short distance, admits a fine knitting-needle, and was sealed with a perfect little plug of fibrin, almost half an inch in length; at this spot there are minute miliary elevations to be seen, with difficulty, upon its inner surface: beyond this, the middle third of the duct, is an impervious cord, feeling as hard as a piece of ligature-silk. Its walls are firm, and a transverse section shows, under the microscope, the remains of a lumen, in the form of a transverse mark, around which is seen only the firm fibrous thickened walls.

The upper third of the duct, at its lower end, is also impervious and similar to the middle third; above this, for half an inch, is a portion which still shows a central cavity with thickened walls; above this, again, is a small portion which is impervious; whilst above this the extreme upper part of the duct is perfectly normal.

There are no enlarged glands pressing upon the duct, nor is there any fibrous cicatrical tissue in its neighbourhood.

Dr. Maguire reports that the microscopic examination of the thickened lower part of the duct, shows that the small elevations noticed upon its inner surface are round-celled miliary tubercles, showing no caseation, or giant-cells. The tubercles are all situated towards the inner portion of the duct.

The obliterated middle third of the duct shows, by the microscope, thickening of the walls, which contain minute tubercles surrounded by tuberculous infiltration consisting of fibro-nuclear growth and giant-cells; this tissue is seen to be at the inner part of the duct, and more towards the outer coats is seen a quantity of young fibrous tissue, with a few spindle-cells, whilst surrounding the whole is a layer of ordinary fully formed fibrous tissue.

From these appearances one is forced to conclude that the primary tubercular deposit in the walls of the duct led to its closure, and finally to complete obliteration. The part played by the inflammatory action excited by the deposit which led to the complete *fibrinous* plugging must not be overlooked.

The chyle, flowing from the radicles entering the duct from below, caused the receptaculum to dilate, and finally to burst; and it is evident that all the chyle during life flowed into the receptacle and out through the perforated spot.

An examination of the cranial cavity was not permitted; it would doubtless have proved that the immediate cause of death was tubercular meningitis—part of the general acute tuberculosis which studded over all the serous membranes and infiltrated every organ in the chest and abdomen.

As the details of the case have necessarily occupied so much space, there is, unfortunately, little left for remarks; and it is hoped that the facts are recorded in such a way that valuable deductions may be derived from them which may throw light upon the important and somewhat mysterious processes going on in the lacteal system.

It is probable that the rich fluid obtained from the first tappings was pure chyle in a concentrated form, the more watery portions of which had become to some extent absorbed by the abdominal vessels. It is equally probable that no such absorption had taken place in the intervals between the last two or three tappings, owing to the state of the entire peritoneal surface, which was so studded with minute granulations that the head of a pin could scarcely be laid anywhere upon the peritoneum without impinging upon a millary elevation.

It will thus appear reasonable to calculate that the bulk of the fluid removed will represent less than the actual amount of chyle passing through the thoracic duct in health, since any peritoneal secretion will be more than balanced by peritoneal absorption. Altogether, 117½ pints, or nearly 15 gallons, of chyle were removed from the body

during life. From the tapping upon December 7th till February 14th, a period of 68 days, 2,110 ounces were removed, or rather more than 31 ounces per day. The extraordinary fact must be noted that though 117½ pints were removed, the patient did not lose weight. He weighed 79⅛ pounds upon December 29th, and 79¼ pounds on February 14th. The weight of chyle secreted amounted to 150 pounds, or nearly double that of the patient's body. It is not possible that there could be any error in the weighing. It should be borne in mind, however, in reviewing the generally accepted doctrine of the importance played by chyle in the maintenance of the nutrition of the body, in the light of these figures, that the presence of the tubercle must be considered.

It may appear absurd to regard miliary tubercle as a possible factor in preventing loss of body-weight; but when one thinks of the millions of little tubercles, there must be some ponderous importance attached to their presence. It appears, therefore, that the general and extensive infiltration might have made up for the wasting which must have been at work. Though the adipose tissue was scanty, it was not so scanty as may sometimes be seen in apparently healthy lean folk. The patient was imbibing 90 ounces of fluids, and passing less than 20 ounces in his urine; of the balance, only 30 ounces went to make chyle. The observation made about the milky odour of the chyle was often verified by numerous members of the clinical class from time to time, and it is probable that the milk passed with little change through the lacteals.

Attention has been drawn recently to the pathology of chylous ascites by Dr. M. Letulle in the *Revue de Médecine*. This observer is strongly of opinion that such cases are always caused by peritonitis, independent of any opening or connection with the lacteals; and he espouses the view which was promulgated by M. Gueneau de Mussy, that the purulent products of the inflammatory action are slowly transformed with the leucocytes into a granulo-fatty emulsion. After a most exhaustive survey of the whole literature of the question, he formulates the following startling propositions. 1. All cases of chyliform ascites known up to the present time, and followed by necropsies, are cases simply of chronic tuberculous, cancerous, or neomembranous peritonitis. 2. The granulo-fatty retrogression of the inflammatory products is sufficient to hold all the emulsified fat in suspension in the peritoneal serosity.

A glance at these specimens, or a study of the woodcut, answers these fanciful theories for all time to come. Debove maintained, but without any reason, that emulsified fat could be formed in the serous cavities, "qui ne provient ni d'une transformation des globules de plus ni d'un épanchement de chyle."

Having once seen the cause, in a case like this, so clearly demonstrated, one is justified afterwards in assuming that there is probably a small aperture in some of the minute lacteals, which, though not visible, can still permit the direct escape of the chyle.

ON EARLY SYPHILITIC EPIDIDYMITIS.

By ARTHUR COOPER, M.R.C.S.Eng.

When syphilis attacks the testis, it rarely does so during the so-called secondary period; and when this organ does suffer, it is well known that, in nearly all cases, the body of the testis is first affected, and that the epididymis either remains free, or only becomes implicated later on, by extension of the morbid process from the testis itself.

The much rarer affection now to be considered differs from ordinary syphilitic orchitis, in that the epididymis is especially attacked, and that it occurs in the earlier portion of the secondary stage. Syphilitic epididymitis appears to have been first clearly described in 1863, by M. Dron of Lyons, who reported sixteen cases (*Archives Gén. de Médecine*, 1863, vol. ii, pp. 513, 724). In 1869, and again in 1875, M. Fournier (*Annales de Derm. et de Syph.*, 1869; and *Du Sarcocele Syphilitique*, Paris, 1875) wrote on the subject, and referred to eight cases which had come under his own observation. Since then, most authors have included epididymitis among the consequences of syphilis, and the reality of its occurrence is now generally accepted. It should be mentioned, however, that no less an authority than the late Professor Sigmund, of Vienna, stated that he had never seen such a disease, and doubted its existence. It is worth notice that, during the twenty years which have elapsed since the publication of M. Dron's paper, but little appears to have been written on the subject in England. This is pretty well shown by the fact that, in the *Medical Digest*, the only reference on this matter relates to an abstract, in the *British and Foreign Medico-Chirurgical Review*, of M. Dron's paper mentioned above. It may be well, therefore, before giving the notes of a case which I believe to be of this kind, to refer very briefly to the chief features of the affection.

First, as to the time of appearance: this seems to be nearly always within the first year, and most commonly within about the first six months. Of five of Dron's cases in which this point was ascertained, the earliest was two months, and the latest five months, after the appearance of the initial lesion, the average being three and a half months. Six of Fournier's eight cases occurred within seven months, one at the ninth, and one at the eleventh month, after the initial lesion. One or both organs may be attacked. In nine of Dron's sixteen cases, both were enlarged at the same time. The degree of swelling is usually unequal on the two sides. The enlargement always begins in the globus major, and hardly ever extends beyond it. Fournier has never seen the whole epididymis affected. In one of Dron's cases, the globus minor, and in two, the body of the testis, was enlarged. The scrotum and cord remain free. Only once in Dron's cases was the scrotum adherent for a short time. The swelling is indolent, usually painless, or nearly so, and rapidly subsides under general antisyphilitic treatment. The significance of the affection is doubtful. Jullien (*Maladies Vénériennes*, 1879, p. 776), however, thinks it indicates a severe attack of syphilis. The morbid anatomy is unknown. There appears to be no *post mortem* examination on record, unless a case of gumma of the epididymis mentioned by Dr. Greenfield (*Pathological Transactions*, 1877, p. 225) were of this kind.

Case.—Mr. P. H., aged 21, came under my care on August 26th, 1882, with two venereal sores of the inner prepuce, which had been first noticed five days previously. The date of contagion could not be ascertained. At this time, the sores were suppurating, and neither induration of the sores nor enlargement of the glands was sufficiently marked to make the diagnosis certain. A week later, both signs were characteristic, and mercury was at once begun. Roseola occurred in due course, and was followed by mucous patches in the throat and small fissures on the tongue. A few days after a visit to me on October 20th, the patient, whilst hunting in one of the midland counties, broke his left forearm; and it was in the early part of November (that is, about two months and a half after the appearance of the initial lesion), while lying up on account of his injury, that he first noticed swelling, with some amount of pain, in both testicles, but especially the left one. He was sure that the organs were not hurt in the accident, and he had no urethral discharge. The next time I saw him was on December 21st, consequently five or six weeks after the testes began to enlarge, and the patient said their condition remained pretty much as at first. He had been taking mercury (one grain and a half of mercurial pill three or four times a day) since I last saw him. On examination, the head of the left epididymis was found to be considerably enlarged. The swelling involved the whole globus major, and the bulk was about equal to that of a quarter of a Tangerine orange; the usual form of the organ was preserved, and the surface was moderately smooth. On the right side, the swelling was similar in every way, except that it was only about half the size. The swelling was strictly limited to the globus major on each side, the body and tail of the epididymis being of natural size and consistence. The scrotum and spermatic cords were unaffected. Only slight discomfort was caused on handling the parts. There was no urethral discharge. Elsewhere, also, there were signs of active syphilitic growth—namely, a prominent tubercle on the glans penis, a considerably raised scaly patch on the abdomen, and a very large and prominent mucous tubercle on the dorsum of the tongue. The pills (four a day) were continued until December 30th, on which date, as there was no improvement in any of the symptoms, the pills were left off, and a mixture containing one-twelfth of a grain of perchloride of mercury and five grains of iodide of potassium, to be taken three times a day, was prescribed. This was taken regularly until February 21st, 1883, when he next came to town. Both epididymes at that time were perfectly natural in size and to the touch, except that the left globus major was perhaps very slightly thickened; this, however, was only perceptible on carefully comparing the two organs, and would not have been noticed under other circumstances. The signs of active growth elsewhere had also disappeared. The patient had remarked that his testicles began to get smaller about a week after his visit to me on December 30th. They had given no further trouble up to the time I last saw him, in December 1883.

Remarks.—In any case of enlargement of the epididymis, the first thing to be looked for is, of course, urethral irritation of some kind. Here there had been none for a long time; but it should be mentioned that there was a history of swelled testicle on the right side, with gonorrhœa, in 1879, and of a blow on the scrotum from a cricket-ball in 1881. That the affection was due to syphilis, seems

clear from the fact that it appeared without any other known cause, and whilst the patient was laid up on account of his accident; from the indolence of the swelling, and its strict limitation to the globus major in both organs; from its coincidence with signs of active syphilitic growth elsewhere; and, finally, from the effects of treatment, by which tubercle and cysts were also, of course, excluded. The extent of the swelling was greater than in most recorded cases.

French writers say a good idea of the affection would be gained by imagining that a pea or a haricot bean, or, at most, an olive, had been introduced into a healthy epididymis. In the case above recorded there was no circumscribed nodule, and the natural form of the organ was maintained.

Although the exact pathology is unknown, it would appear most probable that the enlargement is due to the production of the ordinary syphilitic new growth, and that here, as elsewhere, this may develop in a circumscribed or in a diffused form, the present case being an example of the latter variety. The exact seat of the morbid growth has been thought to be the connective and not the tubular tissue, apparently because, in one of Dron's cases, where both organs were affected, spermatozoa were found in the semen. Dr. S. W. Gross (*On Impotence*, etc., 1881, p. 93), however, has met with a case in which they were absent. This would lead to the inference that here, as in other parts of the body, it is greatly a question of extent of the new growth that determines to what degree, if at all, the function of the affected organ is interfered with. The circumscribed variety appears to be more frequent than the diffused; this might, perhaps, partly account for the supposed rarity of syphilitic epididymitis; for one can easily understand that an indolent nodule, of the size of a pea or a bean, might escape notice. Enlargement to the extent above noted, however, could hardly be overlooked.

Lastly, though not a very rare event in syphilis, it is worthy of remark that the various signs of active growth showed themselves while the patient was taking mercury, that they all appeared to be uninfluenced by moderate doses of that drug alone, and that all rapidly subsided under a combination of iodide of potassium with corrosive sublimate. Probably it might almost be laid down as a rule—at least, it is one that I have found very useful to bear in mind—that, whenever syphilis shows a tendency to excessive growth, iodine, in some form, will be likely to do good, no matter whether the stage of the disease be called secondary or tertiary.

CLINICAL MEMORANDA.

UNUSUAL CAUSE OF FATAL PERITONITIS.

At 10 P.M., I was summoned to a man, with the following history. He was fairly temperate in habits, and had always enjoyed good health, with the exception of a slight attack of dysentery three years ago; he, however, since suffered from dyspepsia and constipation, necessitating care in his diet. He had, a short time before I saw him, eaten freely of veal, mince-pies, plum-pudding, etc.; and, shortly afterwards, was seized suddenly with intense pain in the abdomen. When I saw him, he was doubled up in great agony, and pressing his abdomen. Examination revealed nothing save great pain and tenderness in the umbilical region. I gave an inhalation of chloroform, and a hypodermic injection of half a grain of morphia. The next morning, when I saw him, he had symptoms of peritonitis; he died the same evening. The necropsy showed three strictures of the small intestine (jejunum); in front of the third was a perforation at the site of an old cicatrised ulcer. Through this perforation, about a dozen currants had escaped into the peritoneal cavity. The case is interesting from the difficulty of making an immediate diagnosis, and also from the unusual position of the ulcers and strictures. It would be interesting to know, if this lesion could have been diagnosed, what good, if any, might have been done by abdominal section.

Norman Reid, Army Medical Staff.

EQUINIA MITIS.

Some weeks ago, I had under treatment a carter, aged about 45, whose ailment seemed to come under the above category. About six weeks before I saw him, he had been working an old horse affected with grease, and had occasion frequently to manipulate the diseased parts; and, for some time before taking to his bed, he had suffered from what he took to be rheumatic pains in various parts of his body. At last he was obliged to give up work, from the severity of the pain in the lumbar region and along the course of the right sciatic nerve; and, after two days in bed, an eruption appeared on the outer aspect of the right leg, extending from about six inches above the knee to within four inches of the ankle-joint, and partially invading the popliteal region. This consisted, at first, of large and small bullæ, speedily succeeded by a profuse eruption of pustules, arranged in small clusters upon a base, which speedily swelled, presenting the appearance of a large crop of small carbuncles, which discharged pus, and some of them cores, through perforations of the skin, where the pustules had been. These perforations had the appearance as if the skin had been riddled with pellets. Immediately before and during the earlier period of the eruption, the leg was much inflamed and swollen, and there was considerable pyrexia, with severe headache, nausea and sleeplessness. The glands in the right groin were tender and swollen for some days, but did not cause much trouble. There were only one or two more inflamed pustules on other parts of the body, and I was inclined to regard it as a form of herpes zoster, aggravated by equinia-poisoning. That it was infectious, was soon proved by his wife, who attended upon him, being attacked by it, though less severely. An angry pustule appeared upon the back of one of her little fingers, attended with great pain, redness, and swelling, which began rapidly to extend over the hand, but was checked by a free incision over the pustule, followed by fomentations and poultices. This was succeeded by an erysipelatous blush round the left eye, with a small abscess over the inner canthus. The husband was confined to his bed for three weeks, but has now entirely recovered. The treatment in his case was iron and quinine, and chloral, with linseed and charcoal poultices, and carbolic and lead lotions. The wife, although feeling very much out of sorts, was never laid up.

Benjamin Strachan, M.B., Monkwearmouth.

ACUTE MENINGITIS IN CONNECTION WITH INTRANASAL DISEASE.

Dr. McNaught has called attention to an interesting class of cases. I have alluded to them in a special chapter in my book on *Diseases of the Nose* (pages 349-350), where Dr. McNaught will find that others have also called attention to the same kinds of cases; namely, Dr. Abercrombie in 1845, and more recently Sir William Gull and Dr. H. G. Sutton. The important point in the clinical aspect of these cases is that the intra-cranial symptoms come on very insidiously, and that the nasal disease is often quite overlooked, so that the appearance of meningitis seems inexplicable, or is attributed to some other cause.

As instances of intra-cranial disease complicating abscesses of the frontal sinus and antrum, I may refer to Cases xvi, xxxiv, and xxxvii, in the appendix of my book. W. Spencer Watson.

VARICOSITY OF THE LINGUAL VEIN.

I have noticed lately several articles on the subject of varicosity of the branches of the lingual vein in connection with disease of the cerebral vessels. It may interest some to know that I have, at the present time, a patient under my care who exhibits this condition of the terminal branches of the lingual vein in a very marked degree; I have, moreover, attended him during the last few years for slight apoplectiform attacks, pointing to degenerative changes in the cerebral vessels. He is, however, of an advanced age, being over 80 years, and shows most of the usual signs of senile degeneration, but his superficial arteries are neither so tough nor tortuous as to be in any way suggestive of a special tendency to disease in the vessels of the brain. M. Greenwood, Junior, M.R.C.S., L.R.C.P.Lond.

THERAPEUTIC MEMORANDA.

A REMEDY FOR GOUT.

I find that the solution of the biniodide of mercury in potassic iodide, known as the "Edinburgh mixture," is of great service in the treatment of gout. I prescribe as follows: ℞. Solutionis hydrargyri bichloridi (*B.P.*) ʒvi; potassii iodidi ʒss; infusum quassiæ vel calumbæ ad ʒvi. Misce et solve; fiat mistura. Signetur: capiat æger semiunciam secundis vel tertiis horis. If there be much pain, I add two-minim doses of the solution of morphia when admissible, or, in preference, five-grain doses of chloral and bromide of potassium, with simple syrup.

It is hardly necessary for me to state that, when congestion or actual inflammation, not only of the kidney, but of other internal organs, exists, this medicine should not be prescribed.

C. R. Illingworth, M.D.Ed.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

DUNDEE ROYAL INFIRMARY.

CHRONIC PNEUMONIA, WITH ABSCESS; PURULENT INFECTION; DOUBLE EMPYEMA; ASPIRATION; DEATH; NECROPSY; REMARKS.

(Under the care of Dr. SINCLAIR.)

[FOR the clinical record of the following case we are indebted to Mr. J. MACKIE WHYTE, M.A., M.B., M.R.C.S., House-Surgeon; and for the notes of the *post mortem* examination to Mr. A. M. STALKER, M.A., M.B., Pathologist.]

K. G., a mill-worker, aged 20, was admitted on November 28th, 1884. He said his illness began one morning, about nine weeks previously, when he felt a pain in the right side of the neck and chest, followed by a severe fit of coughing. Since then, the cough had been very troublesome; it was accompanied by a good deal of fœtid expectoration. The breath, too, had generally a fœtid smell. He had been becoming thinner, but had not been troubled with excessive sweating. On two or three occasions there had been slight hæmoptysis. His father and mother were healthy. A grandfather had had "asthma." A sister, aged 18 years, had been pronounced "consumptive." He was pale and thin; the tongue was dirty, the appetite fair, and the bowels conspitated; the pulse was 100, and regular. There was no flattening of the chest, and expansion was good; but there was dulness at the right apex down to the second rib anteriorly, and to the spine of the scapula posteriorly. Vocal fremitus was increased; breathing was bronchial, inspiration was jerky, and expiration prolonged, vocal resonance was increased; no other part of the lungs appeared to be involved. The heart-sounds were weak but pure, and the urine was normal. There was slight hæmoptysis on the day after admission, but no recurrence. The temperature was usually 99° Fahr. in morning, and 100° Fahr., or slightly higher, at night. Iodine was painted over the right apex, and hypophosphite of lime given in infusion of gentian. There was slight improvement. For a week at one time there was no fœtor in the sputum, but this constantly recurred. Coarse crepitations were present occasionally; otherwise the physical signs remained the same.

On December 29th, the patient had a rigor; his temperature rose to 103.8° Fahr., and he complained of pain in the back. Sulphate of quinine in doses of ten grains thrice daily, and carbolic inhalations, were ordered. The temperature fluctuated between 99.6° and 104.6° Fahr., and the patient's distress increased.

On December 31st, he complained of pains all over the body, and especially in the right side of the chest when trying to cough. He had rigors; his breath had a sickly sweet odour, his breathing was embarrassed, and his appearance strongly suggested pyæmia. There was dulness, with feeble and distant breathing, over the right base; and nearly a pint of fluid (two-thirds serum, and one-third pus) was withdrawn by the aspirator. In the evening the respirations were 52, and he had pain in the region of the heart.

On January 1st, 1885, ten ounces of sero-pus were withdrawn from the right side of the chest. There was pericardial friction, but no increase of cardiac dulness. Death occurred next morning.

NECROPSY.—There was purulent infiltration in the anterior mediastinum; there was a deposit of recent lymph on the pericardial surfaces, and half an ounce of serum in the sac; the heart was otherwise healthy. The right pleura was closely adherent at the apex, and the cavity contained 10 ounces of sero-pus. There were slight adhesions of the left pleura, and the cavity contained 11 ounces of serum, with a small admixture of pus. The right lung weighed 27 ounces. The apex for about three inches was in a state of inflammatory consolidation, and contained an empty cavity, about the size of a walnut, with smooth congested walls. The posterior part of the lower lobe was œdematous. The left lung weighed 29 ounces, and there was much œdema in the posterior part. The kidneys were in a state of recent inflammation. The other organs were apparently healthy.

REMARKS BY DR. SINCLAIR.—I presume there can hardly be a doubt that the pneumonia in this case was of the scrofulous type; and there can be equally little doubt that the course it followed was of a very unusual character. It has long been observed by surgeons that chronic scrofulous affections are rarely followed by purulent infection; the reason probably being that the very chronicity of these maladies enables the tissues to become gradually habituated to the presence of suppurative action. Otherwise, it would be difficult to understand this undoubted fact, because, although healthy granulations offer an efficient barrier to the most septic fluids, scrofulous granulations can scarcely be regarded as healthy, and unhealthy surfaces, as we all know, open the way to septic infection with great readiness. Had the cavity, in the case above recorded, been situated near the surface of the lung, and had the purulent pleural effusion been found only on the side which contained the pulmonary abscess, it might have been argued that the empyema was due to perforation of the lung-tissue into the pleural cavity. But it was not so. The pulmonary cavity was situated deep in the tissue of the apex; both pleural sacs contained sero-purulent effusion; and there was purulent infiltration of the anterior mediastinum. Again, even granting the deep situation of the abscess in the midst of consolidated lung-tissue, it might have been plausibly held that the attendant pleurisy had given rise to empyema, even although primary purulent effusion is a very rare affection. But the clinical history of the case, clearly pointing, as it does, to pyæmic infection, the double empyema, and the condition of the anterior mediastinum, effectually dispose of any such explanation. The aspiration of the right pleural sac, I need hardly say, was not attempted with any hope of effecting a cure, but simply as a palliative measure, the condition of the patient being obviously hopeless.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 26TH, 1885.

GEORGE JOHNSON, M.D., F.R.S., President, in the Chair.

Cases of Hæmaturia due to Bilharzia.—By T. SPENCER COBBOLD, M.D., F.R.S. The author explained that the terms "endemic hæmaturia" and "Bilharzia disease" could no longer be regarded as synonymous, and insisted upon the necessity of separating the dysenteries and hæmaturias that were, and that were not, due to parasites. Any measures of prophylaxis, to be successful, must have for their basis an intimate knowledge of the genesis of the parasite, and to this end the author had made some experiments with very young specimens of Helix alliaria; these mollusks were subjected to the action of the swimming ciliated embryos; the latter, however, though constantly sticking to the snails, refused to penetrate their bodies. The living ciliated larvæ were next subjected to the action of certain drugs, alcohol, santonin, salt, etc. The embryos were found to be excessively sensitive to stimuli of all kinds. Thirteen cases of the disease were fully described. Concerning its pathology, Dr. Cobbold remarked that *post mortem* investigations had shown that the home of Bilharzia was the portal system, where the adult worms had been found in great numbers, including, however, but few females, and only a small proportion in sexual combination. The eggs accumulated within the chylopoietic branches of the portal vein, and also within certain systemic veins that anastomosed with them. To the dispersion of the eggs nearly all the symptoms of the disease were due; and the intimate relation between the chylopoietic veins and the systemic veins supplying the genito-urinary passages was sufficient to explain why the kidneys, ureters, bladder, and rectum were all liable to become the seat of the disease. An outline of Dr. Sonsino's classification of the Bilharzia infarcts was given. The author considered the remarkable variations of the eggs of Bilharzia to have no pathological or clinical significance. With regard to treatment, the employment of medicated injections and "surgical measures" were both condemned, and reliance was rather placed on good climatic conditions, general tonics, and other means, to aid the curative efforts of nature. In connection with the paper, many microscopical specimens of the ova of the Bilharzia hæmatobia were shown in the tissues, in blood by clot, and in the urine. Dr. Cobbold further exhibited six specimens of the adult worm taken from human beings, and five taken from the ox. They had been sent by Dr. Sonsino, under Sir J. Fayrer's care. He also brought forward a specimen of Bilharzia crassa, as Sonsino wished it to be called: a stouter worm, with very different ova, which had two spines, one at each end, not one only like the Bilharzia hæmatobia. Two other illustrative preparations were shown; a part of the bladder sent by Dr. Sonsino, and containing miliary infarcts, which extended also into the terminal

vesicle, and were of the size of a pin's head, and visible to the naked eye; lastly, three out of seven stones removed by cystotomy at Cairo; of these, the two which had been examined both showed ova in the centre, which had given rise to the stone.—Dr. JOHN HARLEY said that he could only wish a nearer approach had been made to a complete history of this parasite than seemed to have been the case during the fifteen or twenty years since he had first brought it under the notice of the Society. Contrary to Dr. Cobbold's experience, he had found that the most robust colonists were affected with the parasite without apparent detriment to their health; they treated the matter as of no importance, and some passed innumerable ova without any hæmaturia; the ova, however, in one of these cases, gave rise to a small calculus, which was passed after an acute attack of renal colic. He saw no reason why the parasite should not flourish all the more when the host was healthy, so that he could hardly think that improved general nutrition was likely to be a cure. He did not gather from Dr. Cobbold that he had cured any cases; he had himself cured one about twelve years ago, by injection into the bladder, first, of a solution of potassium-iodide, and then of oil of male fern, which produced expulsive efforts. To inject a styptic was, perhaps, heroic, but certainly useless, as the parasite lay in crypts of the veins of the bladder which the styptic could not reach; and he still retained his opinion that the only way of getting rid of the Bilharzia from the prostate or urethra was by injecting solutions of salts or drugs such as santonin into the bladder.—Dr. SPENCER COBBOLD was glad to find himself so much in agreement with Dr. Harley. He quite agreed that very little trouble might be felt, though many eggs were passed; he also thought there might be many eggs in the body when none were being passed in the water. But he was specially anxious to correct an opinion that was sometimes expressed, namely, that the Bilharzia lived in the bladder; it did not live in the bladder, though sometimes in the walls of that organ. Still, its home and head-quarters were in the portal system; and if that were thoroughly realised as true, as he imagined it to be, he did not see how these sexually immature worms could possibly be killed by injections into the bladder.

The Experimental Production of Chorea and other Results of Capillary Embolism. By ANGEL MONEY, M.D., M.R.C.P.—The experiments, of which this communication was the first record, were begun in October, 1884. The animals used had been rabbits, guinea-pigs, cats, and dogs. The emboli found most suitable were arrowroot-particles, granules of potato-starch, and carmine. The particulate liquid was generally injected into the common carotid artery. Sometimes the injection was made towards the brain, but, as a rule, the liquid was injected towards the heart. It was exceedingly easy to produce embolism of the capillaries of the brain, but it was very difficult to get emboli into the capillaries of the upper part of the spinal cord without causing death by paralysis of respiration. The most important clinical observation which had come out of the experiments was the production of involuntary movements undistinguishable from those of chorea. These movements had not been accompanied by appreciable paralysis or spasm. The chorea of the animals experimented on never resulted from capillary embolism of the brain. In nearly every animal in which the brain was affected with capillary embolism, some form of "uncontrollable" movement was present, allied, the author believed, in essential nature to chorea. The "chorea" of the animals experimented on was always the result of embolism of the capillaries of the spinal cord. The want of development of the pyramidal tracts in the animals under consideration, possibly afforded an explanation of the reason why chorea did not in them result from embolism of the brain proper. The author was of opinion that the reasons given for locating the lesion of most cases of chorea in the human subject in the brain were too powerful to be upset by experiments on animals so far removed from man as those experimented on by him. When the "chorea" of the animals experimented on was well marked, reflex action in the spinal cord was exaggerated. The suggestion was made that, in the few cases of chorea in the human being, where the reflexes were exaggerated, the spinal cord would be found to be the seat of the pathological condition. Rhythmical repetitions of one movement, and also irregular succession of different movements, had both been observed, so that experimental "chorea" both resembled and differed from the chorea of man and the ordinary chorea of dogs. Spinal paralysis had been observed as the result of the author's experiments, and also complete facial palsy. The respiration and cardiac action were variously affected by capillary embolism. The temperature appeared to be always lowered, but it was difficult to eliminate the influence of the shock of the operation. Capillary embolism might give rise to any symptom of disease of the nervous system. As a rule, the capillary emboli gave rise to no pathological lesion recognisable by the microscope or naked eye. The view was supported that chorea was due to defective nutrition, of the same kind as that which led to paralysis, though in a less degree. This defective nutrition might be brought about by many causes, of which embolism was one. The relationship of chorea to involuntary movements generally was discussed. Suggestions were made for distinguishing the varieties of chorea.—The PRESIDENT said he was very sorry that Dr. Money had been obliged, owing to the late hour of the evening, to very seriously curtail his interesting paper, which they must all look forward to seeing in print.—Dr. HUGHLINGS JACKSON thought the paper was one of great value. But, putting it at the lowest, that Dr. Money had produced irregular involuntary movements of any kind by artificial embolism was a very important thing. That the movements were or were not like those of chorea in man was not the question of first importance, although one of great importance. One could, in no circumstance, expect to see abnormal movements in a dog's fore-leg like the elaborate movements of a child's arm in chorea; the dog had not such movements to be produced. The fact that in human chorea the movements were very elaborate was some evidence as to localisation, pointing to the morbid affection of some part of the nervous system "high up," where the nervous arrangements were very special and complex. Since 1864, Dr. Hughlings Jackson had held that the seats of the lesions in chorea were convolutions near to the corpus striatum; at the same time, after Kirkes, suggesting that the lesion was often owing to plugging of small arteries; he had never undertaken to show that this process was the sole one productive of chorea. That some convolutions did represent movements was, since the experiments of Hitzig and Ferrier, certain. As the face was affected in chorea, it was quite clear that there was some lesion above the spinal cord; cases of hemichorea in which the face was affected were inexplicable on the view that the lesion was spinal only. Certainly cases of post-hemiplegic chorea and præhemiplegic chorea were inexplicable on that view; in those cases, indeed, cerebral lesions had been found (Weir Mitchell, Charcot, Raymond, Demange). It might, however, be said that, in ordinary chorea in man, spinal lesions also were concerned; they had been found by Dickinson and Ross. Again, it had been proved by Chauveau, Legros, Carville, and Bert that, in a choreal dog, the abnormal movements of its fore-leg persisted after section of the cord above the origin of the nerves for that limb. Dr. Hughlings Jackson had found the same in the canine chorea of veterinarians; the movements were rhythmical, and it did not follow that in the dog such comparatively simple movements might not be developable from activity of spinal centres, whilst they might not be so in a higher animal, as in man. An assertion bearing on this question had to be considered. Albertoni, Franck, and Pitres said that an epileptiform seizure, started in a dog by faradaic irritation of some part of its motor and cortical region, continued in spite of sudden removal of the part of the cortex excited. An objection often brought against the hypothesis of embolism and thrombosis was that these processes led to destruction of nervous elements. That was perfectly true, and it needed no saying that from destroyed nerve-tissue there could result no movements of any sort. But, then, it was equally true that, with destructive lesions, there sometimes occurred over-development of movements—in post-hemiplegic chorea, for one example. It was certain, too, that epileptiform seizures occurred in some cases of local cerebral softening, from thrombosis or embolism; a condition for repeated seizures was established. In these, and in most cases of chorea, every one had two opposite motorial states to account for—some paralysis, and some overmovement. Destruction of some nervous elements from embolism could only account for the paralysis in chorea; there must be on any hypothesis an overactivity of some other nervous elements to account for the coexisting overmovements. Reasserting that overmovements of some kind (post-hemiplegic chorea, athetosis, epileptiform seizures) did occur in cases where there were destructive lesions, cerebral lesions, Dr. Hughlings Jackson spoke next of the researches of Dickinson (*Med.-Chir. Trans.*, vol. lix). He thought these researches went a long way towards proving the hypothesis of embolism and thrombosis in chorea. He said this with great respect, as Dr. Dickinson rejected that doctrine. Indeed, his researches had been declared by one very able physician to have destroyed it. Dr. Dickinson said that the lesions in chorea were determined in position by the course of the arteries in the brain, notably by the middle cerebral, which, as he said, were favourite routes of emboli. He wrote: "The first visible change would seem to be the injection or distension of the arteries, succeeded by extrusion of their contents, to the irritation and injury of the surrounding tissues." Was not that like a description of the effects of embolism or thrombosis? He found also spots of sclerosis (meaning, he said, by sclerosis, "degeneration of nervous elements"); the sclerosis was usually peri-arterial. Now, that sort of

change, the sclerosis, a negative one, softening in miniature, could not cause movements of any kind. There must be another change, an opposite one, else there would not be the overdevelopment of movements. Moreover, Tuckwell, Bastian, and Ross, had found plugging of arteries in some cases of chorea. Dr. Ross, in his great work on *Diseases of the Nervous System*, related a very important case, confirming Dr. Dickinson's observations. Ross found plugging of the anterior or antero-lateral arteries of the cord, and also necrotic spots in the corpora striata. Regardless of any hypothesis, Dr. Money's researches proved that, in some way, some involuntary movements were producible by embolism. It could scarcely be but that his work would be of great scientific and practical importance; it constituted a new starting point. Dr. Hughlings Jackson concluded by remarking that, in chorea, there was often a condition for embolism or thrombosis; that the movements were hemiplegic or double-hemiplegic; that emboli most often did get into the middle cerebellar artery, which supplied the convolutions supposed to be morbidly affected in chorea; and that slight faradaic excitation of these convolutions did produce elaborate movements, although it was not yet proved that it set up a persistent condition for a quasi-spontaneous succession of different movements at different intervals, such as occurred in chorea.—Dr. F. C. TURNER observed that he had been led to some consideration of the pathology of chorea by the examination of the brains of children who had died in that disease. The most striking appearances that he had found had been near the fissure of Rolando, where, in the third layer of the cortex, he had noticed some swollen and distorted multipolar cells; they were not many, but very conspicuous, and of interest, because an essential factor in the production of chorea was the paralysis of the cells which conveyed volitional impulses to the muscles. Dr. Hughlings Jackson regarded ataxy as a paresis, a state in which the nerve-stimuli only found a way to some muscles, and accumulated their effects on them so as to produce overaction. The embolic theory hardly sufficed, he thought, to cover all the symptoms; the results of small emboli would probably be much more transient than was often the case in chorea, which might last for years. He was inclined to believe that the pathological basis of chorea was a structural change.—Dr. STURGES thought that some points in the clinical symptoms of chorea needed further attention; it might be stopped for a time, or for good, by an intercurrent acute affection, such as tonsilitis. And why should such a great preference for the female sex be shown? and for the English rather than the Hindus? and pre-eminently for children rather than adults? He could not accept the rhythmical movements of a cat, such as Dr. Money had described, as like chorea. There were such rhythmical movements to be seen in children, but they were quite unlike chorea clinically. He could not think the title of the paper quite accurate, namely, "The Experimental Production of Chorea."—Dr. SPENCER COBBOLD remarked, in illustration of the subject of embolism, that the researches of Böllinger and Freiburger showed that 90 per cent. of horses, 7 years old, had aneurysms; and that in them intermittent and irregular movements resulted from emboli, due to these aneurysms, and to be found in the branches of the crural arteries.—Dr. JOHN HARLEY added one observation, namely, that, when examining the action of opium-products, he had injected narceia, which, so far as he knew, was only soluble in glycerine, into some small creatures, which bore it very well for about three hours, and then suddenly became lethargic, and died in convulsions. He had found, in *post mortem* examination, that the narceia had been deposited in, and had completely blocked, the straight tubes of the kidneys, and the animals had died of physical anuria.—Dr. BROADBENT congratulated Dr. Money on having laid before the Society such a valuable paper; it would need careful reading and careful thought, before they could grasp all that it might lead to; but he felt that it opened a new door for discovery. He did not think children alone could have capillary embolism, and did not imagine that was the sole cause of chorea, or, indeed, that Dr. Money had that idea. It must be still regarded as unsettled what movements in an animal adequately represented human chorea; such rhythmical movement in a dog, as Dr. Money had described, was certainly not equivalent to the chorea of a child. He considered human chorea as cerebral in origin; for hemichorea, following hemiplegia, must be cerebral. Scarlatina generally did away with chorea, but typhoid fever did not, as a rule; other pyrexiæ, so far as he had noticed, affected it but little.—Dr. ANGEL MONEY, in reply, stated emphatically that he had nowhere in his paper contended that human chorea had ever been caused by capillary embolism; he had only gone so far as to say that, in some animals, some irregular movements, which appeared to him undistinguishable from chorea, had been produced in this way. Chorea was an elastic word; when there were rhythmical movements of the head and neck in the cow or dog, with horizontal nystagmus, it was said to have chorea. Of irregular movements in animals, he considered capillary embolism to be only one of the causes. That the symptoms in his experiments were due to physical anuria, as Dr. John Harley had suggested, he thought was disproved by the fact that they came on within a minute of the injections; and, further, that an examination of the kidneys after death showed no emboli. He was at present conducting some further experiments on monkeys, but he had as yet not succeeded in producing in them anything that could be called chorea. Chorea in the human subject, he considered to have many causes; in a few cases, he thought cerebral embolism might be the origin. As to the action of fevers upon chorea, he had seen typhoid fever both annul and produce it.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 22ND, 1885.

THOMAS BRYANT, F.R.C.S., President, in the Chair.

Report of the Committee Appointed to Inquire into the Anatomy of Spina Bifida, and its Treatment by the Injection of Iodo-Glycerine Solution.—Mr. R. W. PARKER read portions of this long report, of which the following is an abstract. Before attempting to discuss the results of treatment of spina bifida by Morton's or other methods, it was thought desirable to determine more clearly than had hitherto been done the pathological conditions included under that term. With this object, the committee undertook an examination of all the specimens of the deformity contained in the London museums, as well as in those in Cambridge and Glasgow, and sundry others placed at their disposal by different contributors to this report. The subject was therefore divided into two parts: first, the pathological anatomy of spina bifida; and secondly, the treatment of the deformity. I. *Pathological Anatomy.*—The term spina bifida was used to define certain congenital malformations of the vertebral canal, with protrusion of some of its contents in the form of a fluid tumour. With very rare exceptions, the malformation affected the neural arches of the vertebræ, and the tumour projected posteriorly; in rare cases, however, the bodies of the vertebræ were involved, and the tumour in such cases protruded anteriorly into the thorax, abdomen, or pelvis, between the lateral halves of the bodies affected. The museum specimens were discussed under the following, or some of the following, headings:—1, position of the tumour; 2, size and configuration of the sac; 3, coverings of the sac; 4, disposition of meninges within the tumour; 5, size and configuration of the deficiency in the neural arches; 6, disposition of the spinal cord and nerves; 7, unusual variations; 8, the process of cure. The result tended to show that the specimens fell under three chief divisions: 1, protrusion of membranes only (spinal meningocele); 2, protrusion of membranes, together with the spinal cord, and its appertaining nerves (meningo-myelocele); and, 3, protrusion of the membranes, together with the spinal cord, the central canal of which was dilated so as to form the sac-cavity, the innermost lining being constituted by the expanded and atrophied substance of the cord (syringo-myelocele). As to the comparative frequency of these three varieties, the committee stated that the second, meningo-myelocele, was by far the most frequent, while simple meningocele came next, and syringo-myelocele last. As a typical example of the common variety, a specimen now in the College of Surgeons was quoted. This was a case of lumbo-sacral spina bifida, of the size of a Tangerine orange, sessile, but constricted slightly at the point of attachment. The tumour presented normal skin for a short distance round its base, but the central portion consisted of a thin translucent membrane; along its vertical axis the tumour was slightly furrowed, this furrow corresponding to the attachment of the cord to the inner surface of the sac-wall. The spinal cord ran almost horizontally across the upper part of the sac, and then became incorporated with the sac-wall, from which also the lowest nerves arose; they then passed across the sac to gain the intervertebral foramina, from which they issued normally. The anterior and posterior roots of the nerves were separated from each other by an exaggerated ligamentum denticulatum. Concerning simple meningocele, and cases where there was dilatation of the central canal of the cord, little was said, except that they might very easily be mistaken one for the other; for both sacs were free from nerves, and a careful dissection was often necessary in order to distinguish them. In some cases of meningocele, with a large communication with the vertebral canal, the cord could be seen lying at the bottom of the sac in the vertebral canal, and then there could be no difficulty about the diagnosis. Besides these three chief varieties, mention was made of several variations; among these, the division of the sac into smaller loculi, and the occurrence of bony outgrowths across the vertebral canal, button-holing the spinal cord, were the most remarkable. Careful microscopic examina-

tion of the sac-wall in a typical case of meningo-myelocele had disclosed the continuation of the central nervous system within its median vertical portion, the integrity of the central canal of the cord within this part, and the absence of true skin over it. It further displayed the absence of any meningeal cavities behind the incorporated portion ot the spinal cord. It was clear, therefore, in the first place, that the nerve-roots, which traversed the sac, arose from this intramural portion of the central nervous system, and that all expressions of descriptive pathological anatomy which implied a distribution of the nerves to the sac-wall were a reversal of facts. Even more important than this, the histology of the sac-wall in a typical case, by demonstrating the integrity of the central canal of the included portion of the cord, showed beyond dispute that the neural furrow did not remain unclosed in spina bifida, nor, after having been closed, was it subsequently distended by dropsy and ruptured. The absence of true skin from the central portion of the sac-wall was next adverted to. This fact implied that the mesoblastic basis of the true skin, and the structures lying in subjacent connection with it, had not been developed. The presence of the cord in the sac-wall offered no difficulty of explanation when its epiblastic origin was remembered. The theory, therefore, which best explained the pathological anatomy of spina bifida, was that which assumed a primary defect of development of the mesoblast from which the structures closing in the vertebral furrow were developed. II. *Clinical Course and Treatment of Spina Bifida.*—In order to form a correct estimate of the value of treatment by the injection of Dr. Morton's iodo-glycerine solution, the committee had endeavoured to ascertain as far as possible the natural history of the deformity when untreated, and had prepared tables of cases treated in various manners for purposes of comparison. As regarded the natural history of the deformity, the Registrar-General's report for 1882 showed 649 deaths from spina bifida in England and Wales, of which 612 occurred under 1 year of age. The committee held that, though a certain number of these deaths were due to local causes—rupture of the sac, draining away of the cerebro-spinal fluid, and subsequent septic meningitis—yet in a large proportion of the cases death ensued from the marasmus and general defective nutrition frequently associated with the deformity, and which could not be remedied by any local or other treatment. The tables next dealt with treatment by injection with simple solutions of iodine, and showed a considerable amount of success. Then ligature of the sac was considered, and here again good results seemed to have been obtained. Excision likewise had a considerable proportion of success. The plan of repeated tapping and pressure gave the least successful results of any. The injection of Morton's fluid, according to the committee's tables, showed a percentage success of between 50 and 60. The high mortality was thought to be, in unsuitable cases, largely due to the treatment having been adopted on account of its simplicity and supposed safety. In spite of the favourable results of ligature and excision of the tumour as shown in the tables, the committee felt themselves compelled to report against these methods of treatment. There was reason to think that the published cases might be misleading, owing to some cases of failures not being recorded, while all the successes, being regarded as surgical triumphs, were almost certain to have been recorded. Moreover, it seemed probable that a careful selection of cases had been made. The committee, therefore, advocated the plan of treatment by injection—and preferably by the injection of Morton's fluid. A series of conclusions brought the report to a close. The report was signed by Mr. Howard Marsh, Mr. A. Pearce Gould, Mr. H. H. Clutton, and Mr. R. W. Parker. A large collection of drawings, illustrating the usual forms, as well as the most noticeable variations, of spina bifida was exhibited, and the committee especially acknowledged the help which Mr. Shattock had rendered in their preparation.—The PRESIDENT thought a hearty vote of thanks was due to the committee for their very valuable report, which would be found to correct many previous opinions held on the subject. The report was an excellent example of the good work done by that Society. Their thanks were greatly due, as Mr. Parker had remarked, to Mr. Shattock for his special work in preparing the drawings.

A Case of Successful Œsophagotomy.—Mr. G. LAWSON read the report of this operation, which he had performed for the removal of a plate with three false teeth which had been accidentally swallowed, and was impacted in the œsophagus. The patient, a milkwoman, aged 55, was admitted into Queen Ward, Middlesex Hospital, on January 14th, 1885, having, about half an hour previously, swallowed a vulcanite plate with three artificial teeth. On examination externally, something hard could be felt in the œsophagus, about the level of the cricoid cartilage, by deep pressure by the fingers on the left side of the neck. Mr. Lawson endeavoured to remove the foreign body with a pair of long curved œsophagus-forceps; but, although he could feel the plate, yet he could not grasp it, and therefore decided at once to open the œsophagus. This he did through an incision about three inches in length along the lower prominent border of the sterno-mastoid muscle. The sterno-mastoid and the omo-hyoid, with the carotid sheath, were drawn outwards; while his colleague, Mr. Gould, drew the trachea in the opposite direction, and, with his fingers on the right side of the neck, pressed the œsophagus towards the incision. The œsophagus was now visible, and the plate could be easily felt with the fingers. A vertical incision was then made in the œsophagus on to the plate, which was seized with a pair of forceps; but it was so firmly fixed into the walls of the œsophagus by the clips, which had held it to the neighbouring teeth, that it could not readily be extracted through the incision. Mr. Lawson then slightly enlarged the opening, and, having first divided the plate with a pair of bone-forceps, removed it in two portions. In the operation, one of the thyroid arteries was divided, and bled rather freely. No sutures were put into the œsophagus, as, owing to the wound in it being somewhat lacerated from the drawing through it of such a sharp irregular body, Mr. Lawson thought that the parts would fall together better than he could adjust them. The superficial wound was then partially closed with sutures, and covered with boracic lint charpie, over which was placed carbolic gauze and oil-silk. The patient was ordered to be fed with nutrient enemata and Slinger's nutrient meat-suppositories. No food was to be taken by the mouth, but from time to time the lips and tongue might be sponged with ice-water to allay thirst. On the following morning, the wound was dressed, and there was found to be a very free discharge of saliva and mucus. The patient was fed solely by the bowel for the first four days, but, feeling then very much exhausted, she was allowed to take in addition some of Brand's essence of meat; but a large portion of what was taken by the mouth escaped through the wound. On the 19th, the fifth day after the operation, some redness appeared around the wound, and this increased for two or three days. This was followed by an offensive discharge, with some sloughs of cellular tissue. On the 20th, the seventh day after the operation, as much of the fluid taken by the mouth continued to escape by the wound, Mr. Lawson introduced an œsophagus-tube, with a funnel-shaped extremity, which projected about six inches from the mouth. This was kept in, and through it the patient was regularly fed. The tube was worn until February 8th, when, as the wound in the œsophagus was apparently closed, it was removed. During this period, the tube was changed about every four or five days for purposes of cleanliness. For about a fortnight after the patient ceased to wear the tube, it was introduced four or five times during the twenty-four hours for administering food, as the external wound had not completely cicatrised. On February 22nd, the external wound was healed, and the patient since then had been able to take her food as usual. She had left the hospital, and was now quite well.

A Case of Œsophagotomy.—Mr. LEDIARD, of Carlisle, contributed this case. The patient was admitted into the Cumberland Infirmary with a tooth-plate in the œsophagus, which had become dislodged from the mouth during sleep twenty-four hours previously. There were pain on swallowing, and emphysema of the neck. Various attempts, prior and subsequently to admission, failed to remove the plate, which was believed to rest somewhere behind the thyroid cartilage. Œsophagotomy was performed, but nothing found in the pharynx or cervical portion of the œsophagus; but it was believed that, during manipulation on the table, the plate might have been unconsciously moved from its resting place, as the mucous membrane of the œsophagus behind the cricoid cartilage was somewhat bruised. The wound healed well, the plate was passed *per anum* on the nineteenth day, and the patient went home quite well, having been in hospital a month. The plate measured an inch and a half by three-quarters of an inch, and presented several sharp points and a hook at one end.—Mr. GODLEE, who had read the abstract of Mr. Lediard's case to the Society, remarked that Mr. Lediard had closed the œsophagus by two or three catgut ligatures. The patient had been first fed by nutrient enemata, and afterwards, for a time, through an œsophageal tube.—The PRESIDENT thought the question of passing a tube and leaving it in for some time was one to be considered. He thought that that modification would be an improvement. Mr. Lediard's case taught a lesson, namely, not to be in too great a hurry to interfere in such cases. He himself had had a case not long since in which a patient on the eighth day had passed a larger plate than that passed by Mr. Lediard's patient. But such considerations must not lead to dilatory surgery. If the case were recent, the œsophageal wound might be closed with catgut ligatures, and the patient fed with a soft elastic tube, retained in the gullet, as was done by Mr. Symonds in cases of cancer of the œsophagus.

Two Cases of Raynaud's Disease.—Dr. COLCOTT FOX brought two adults affected with this disorder, and read notes on the cases. A woman, aged 41, of extremely nervous temperament, dated the commencement of the disorder from ten years back; but though this was the period when her attention was attracted by her pain, it was probable that she had suffered from slight attacks for some years previously. In the earlier stages, all her fingers continually went "like white wax." This condition of recurrent local syncope gradually gave place to local asphyxia, and the feet became involved. The fingers gradually lapsed into a state of chronic asphyxia, which was intensified by frequent attacks of more severity, often leading to "blood-blisters and ulceration." The nutrition of the phalanges had suffered greatly, so that her hands were crippled, the fingers were fusiform in shape, livid, shiny, and withered, the nails variously distorted, and the end-phalanges much atrophied and almost immovable. The nose and ears were affected to some extent on exposure. Cold and nerve-shocks were readily exciting influences. The second case, that of a man, aged 51, was of considerable interest from the fact that, like one of Raynaud's cases, he suffered from diabetes. His hands were not deformed, but he had suffered for several years from "dead fingers." He sought Dr. Fox's advice for symmetrical gangrenous patches on the skin, which recurred, and later for an attack of asphyxia of one great toe and lower third of the inner side of the leg; and then it was found that he had been attacked in a similar manner, though more severely, in the other toe; and on another occasion, blood-blisters had formed beneath the ends of his toes. Dr. Fox concluded his paper by giving a reference to some cases which had been recorded as scleroderma of the extremities. A woman with the latter disease was shown to illustrate the difference between it and Raynaud's symmetrical gangrene of the extremities.—Dr. B. O'CONNOR inquired if there was any history of hæmoglobinuria in these cases. A case which he had last year presented to the Pathological Society was very similar. In that case, he had given nitroglycerine, and the attacks and pain had been much lessened thereafter.—Mr. CRIPPS said the second case was apparently one of gangrene due to diabetes; though the first case was one of Raynaud's disease. These cases were not far removed from frost-bite and senile gangrene, the former depending upon the starvation of a part from cold, the latter due more to a constitutional cause, the arteries being diseased. Raynaud's disease fell between the two. Many of these patients had cold extremities, which at length became gangrenous when the weather was very cold. A case recorded in the *Lancet*, eighteen years ago, well exemplified this. A girl, noted for cold hands and feet, married, became a mother, and had great loss of blood during her confinement. Six weeks afterwards, she left her bed, was exposed to cold, and had gangrene of the feet, hands, ear, and nose. Senile gangrene resembled the condition found in an old tree, in which the circulation of the sap kept the lower branches living, though the upper branches died. Such patients should particularly keep their limbs warm.—Dr. BARLOW said that Raynaud had recommended the use of the constant current for these cases. A patient of his own, a man, aged 42, had for two years been almost constantly suffering from severe attacks of pain in the feet, which were blue and cold. He could not walk, and was not entirely free from the trouble even in the summer. Last autumn, the constant current was applied, one pole to the spine, one to the extremities; but this was useless. It was then tried with both poles to the extremities, and kept up for about twenty minutes every day to each extremity, from August to April of this year, with benefit. The feet soon had a warm glow; and the result had apparently been permanent. The man now shampooed his feet every day, and could do his work. As to the acute paroxysmal attacks in the two little girls mentioned in the same paper, formerly brought before the Clinical Society, together with the man whose case he had just described, these attacks only came on when the cold weather appeared; they were both well in the summer, except once last August, when, after hot weather, there came a cold time. The paroxysms lasted generally a couple of hours, coming on at about 9 A.M. and 5 P.M., usually each day. The feet were quite cold, black, and intensely painful. In one attack, ten minutes after its commencement, a bath of salt and water was used; one pole of a Léclanché's battery was applied to the limb in the water, the other pole some inches above the ankle, and the benefit was considerable. In another patient, he had also tried galvanism, and the benefit was great. He had tried nitrite of amyl; the face flushed, but it had no influence on the local condition of the extremities. He was sure that, in Dr. Fox's first case, it would be well to try the constant current daily for months, and follow up that treatment by constant shampooing.—The PRESIDENT said he would ask Dr. Barlow to embody his very valuable remarks in a paper, which might be published with one of the drawings of his cases in the Society's *Transactions*.—Dr. Fox, in reply, said that there was no hæmoglobinuria in his cases. The patient with diabetes had unquestionably Raynaud's disease. The other patient had been treated with the constant current in the Westminster Hospital for some weeks, as recommended by Raynaud, and had received great benefit.

A Case of Papilloma of the Bladder.—Mr. WILLIAM ANDERSON read the particulars of this case. James S., aged 53, caretaker at a lecture-hall, was admitted into St. Thomas's Hospital on August 9th, 1884, with symptoms of a vesical tumour of twelve years' duration. The first indication of the disease was an attack of apparently spontaneous hæmaturia in 1872. This quickly subsided, leaving the patient in his usual health for twelve months, at the end of which time it recurred, to be succeeded by a shorter intermission of six months. After the third attack, the relapses appeared about four times yearly. The hæmorrhage was for a long time the only symptom, and nothing confirmatory could be educed by investigation of the urine or by vesical examination, except a peculiarly localised tenderness in the region of the trigone on contact with a sound. In June, 1884, a vesical catarrh became superadded, and thenceforth the intermissions ceased, the urine always containing more or less blood and a copious deposit of muco-pus, and the patient was tormented by constant hypogastric pain and irritability of the bladder. On the 14th August the *boutonnière* operation was performed, and a soft flocculent growth was found occupying the region of the trigone, extending upwards for about an inch and a half from the internal meatus, and an inch on either side of median line. The mass was removed by means of forceps, at the expense of considerable, but not serious, hæmorrhage. The progress of the case was satisfactory, and on September 10th, twenty-seven days after the operation, the patient was discharged well, except for a minute perineal fistula and a trace of blood in the urine. He was still in good health, stronger than he had been for many years before, and was following his employment. The microscopical examination of the growth showed the usual characters of a fimbriated papilloma. The points of interest in the case were the extremely slow evolution of the tumour (twelve years) and the absence of conclusive evidence of the nature of the disease before the digital exploration of the bladder. Under such circumstances, any operation determined upon could only be "diagnostic" in the first instance; and it was fairly certain that, had surgical intervention been withheld on account of the element of doubt, the patient would not now be in a condition to appreciate the precaution. The ultimate result of the ablation of non-malignant vesical tumours was still uncertain, as nearly all the more systematic operations were of very recent date. Theoretically, it seemed probable that relapse would take place sooner or later in a rather large proportion of cases, considering the exceptional difficulty that must frequently arise in making sure of the complete removal of every portion of the tumour by any mode of operation yet devised. Bearing in mind also the very slow development of the primary growth in many instances—sometimes protracted over a long term of years—it might be expected that the signs of recurrence would occasionally be deferred until a very late period. The statistics in connection with this point at present stood as follows. Out of thirty-eight cases in which the nature of the tumour was sufficiently indicated in the reports, there were four instances of undoubted, and four of probable, recurrence, all within a year of the operation. Complete relief was noted in one case for five years up to the date of record; in one, for four years; in five, for two years; and in four, for periods ranging between twelve and fifteen months. In nineteen other cases, no signs of recurrence had appeared at the time of the report; but the observations had been limited to a term of less than twelve months. There were hence, as yet, only eleven cases out of thirty-eight in which was registered an immunity of one year and over, against eight cases in which relapse was noted as certain or probable. It might be hoped, however, that operators would, at some future time, supplement the details of cases already given by further observations where the condition of the patient could be followed.

A Case of Tumour of the Bladder.—Mr. BERNARD PITTS gave notes of this case. The patient, W. B., aged 43, a watchmaker, was admitted on September 10th, 1884, to St. Thomas's Hospital, suffering from some hæmorrhage from the bladder. He had a blanched and debilitated appearance, and stated that he had been passing blood with his urine for more than two years, and that of late the hæmorrhage had considerably increased in quantity, and he had been compelled to give up work. He had never suffered any pain, but had been troubled of late with irritability of the bladder. The urine was offensive, deep red in colour, and contained a large quantity of clot; and a microscopic examination showed traces of villi. A perineal exploratory operation was performed on September 15th, and a large

pedunculated tumour discovered, situated on the right side, and just below the orifice of the ureter. With serrated forceps, portions of the softer part of the growth were broken off; but the wire of a strong *écraseur* was subsequently passed round the pedicle, and the whole of the tumour thus removed. The pedicle was about one inch long, and of the thickness of a finger. A soft tube was left in the wound, and removed on the fourth day. The patient made a quick recovery, and on October 7th was passing all his urine the right way. He rapidly regained health and strength, and had had not the slightest trace of hæmorrhage up to the present time. The tumour, on microscopic examination, proved to be a fimbriated papilloma, with the usual structure. Some remarks were made on the diagnosis of the case, which depended rather on the prominence of the hæmorrhage as a symptom than on the microscopical evidences in the urine. The probe-pointed gorget was tried, but abandoned; and the dilatation of the neck of the bladder was made with an ordinary director as a guide for the finger. There was a good deal of bleeding during the manipulation with the forceps, and the operation would have been less prolonged if the *écraseur* had been used in the first instance. It was not, however, until portions of the growth had been removed that the extent of the pedicle was discovered. The prognosis in this case was an extremely favourable one; for by the use of the *écraseur* the pedicle was cut off close to the wall of the bladder, and the rest of the bladder-surface was examined by the finger, and found quite healthy.—Mr. GODLEE said that, as to tumours too large to remove, he thought it was safe to incise the bladder, and remove as large a part of the growth as possible, as such a procedure allowed of very great improvement in the condition of the patient. He would operate thus, not only for the sake of diagnosis, but even in some cases if the eventual result were sure to be hopeless.—Professor HUMPHRY, of Cambridge, being called upon by the President to make some remarks, observed that, in his case, in which, some years ago, he had done the first operation of the kind recorded in England, there was a tumour of the bladder. The patient, a boy, was losing blood. He (Professor Humphry) had made an exploratory incision, and, finding a tumour, had removed it. Such an operation had before then been done by Billroth, of Vienna. One great point of peculiarity in these cases was, he thought, the long time that would elapse between different hæmorrhages in the same case. In one case, this period was ten years; and in some cases of his own, two or three years had so passed without recurrence of bleeding after it had once occurred.

Living Specimens.—The following were exhibited. Mr. JESSETT: A case of Plastic Operation for Epithelioma of the Lower Lip.—Dr. DE HAVILLAND HALL: A case of Rheumatoid Arthritis, with nodules on the head and clavicles, probably of syphilitic origin.—Dr. HALE WHITE and Mr. ARBUTHNOT LANE: A patient with a Cervical Rib.—Mr. ARBUTHNOT LANE: Fracture of both Superior Cornua of the Thyroid Cartilage.—Dr. STEPHEN MACKENZIE: A remarkable case of Nævoid condition of the Scalp.—Mr. R. W. PARKER: Sacro-Coccygeal Meningocele.—Dr. A. T. MYERS.—A Case of Old Symmetrical Gangrene of the Ears (Raynaud's Disease), with Paroxysmal Hæmaglobinuria. The patient was a boy, aged 12. The ears showed scars of symmetrical gangrene, from which the boy suffered for about two years, 1881-1883. Since then, there had been cyanosis, tenderness, and aching of the ears on any slight exposure to cold, but no actual gangrene. About the same time that the gangrene began, he first noticed attacks that had had all the characteristics of paroxysmal hæmoglobinuria, and these had continued ever since. The blood, drawn from the ear or hand during these attacks, showed some loss of hæmoglobin, from the coloured corpuscles and "blood-flakes," that were interpreted as indicating dissolution of the coloured corpuscles in their vessels. Neither syphilis nor malaria could be traced in the history of the case.

The session then ended.

BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, MAY 13TH, 1885.

ALFRED MEADOWS, M.D., F.R.C.P., President, in the Chair.

Multilocular Ovarian Cyst.—Dr. HEYWOOD SMITH exhibited a multilocular cyst of the left ovary, which he had removed from a patient the same afternoon, together with the right ovary, which also contained a cyst with chocolate-coloured contents; and a small subperitoneal fibroid from the same patient. The woman was 30 years of age, had been confined nine months, and had just weaned her infant.

Puerperal Tetanus.—Dr. R. C. BENINGTON read a paper on a case of puerperal tetanus. The patient, a secundipara, had been in labour about six hours, when the attending midwife sent for Dr. Benington. On examination, he found the os fully dilated, the membranes ruptured, and the head in the vagina. Pains recurred at intervals of two or three minutes. He applied the forceps, but failed to move the head. Dr. Walker, of Peckham Rye, then arrived, and, having applied the forceps again, was able, after some trouble, to deliver the child. The perinæum was torn up to, but not through, the sphincter. There was some hæmorrhage from a thrombus on the left labium. The presentation was third cranial, and the child was still-born. Until the seventh day after delivery, the patient appeared to be making an exceptionally good recovery. On this day, she was unable to pass urine. A pint and a half of healthy looking urine was drawn off. The lochia being very offensive, a weak vaginal injection of carbolic acid was ordered. On the evening of the same day, the husband came to say that his wife had lock-jaw. Dr. Benington found her suffering from severe pains in the nape of the neck and about the jaws. There was a slight amount of trismus; temperature 103°. She could swallow nothing; a frothy foam issued from her mouth; and the slightest touch about the head, neck, or shoulders, caused a paroxysm of pain and feeling of strangulation, accompanied by emprosthotonos. The attacks became more frequent and severe, and the trismus more marked. She died in twenty-four hours from the first seizure.—Dr. BARNES said the case was of extreme interest. He believed a close analysis of cases would show that there were always three factors, at least, in operation. First, there was a peculiar state of nervous susceptibility; secondly, there was a poison-element; then there was the *tertium quid*, the exciting cause, which was commonly a wound.—Dr. EDIS referred to a paper by Mr. HUTCHINSON, in which details of tetanus occurring in ewes after parturition were given.—Dr. BANTOCK had had one case of tetanus after ovariotomy.—Dr. BENINGTON, in reply, said he wished to point out the large number of cases in which it might fairly be assumed to be due to some fœtal products having been left *in utero*.

Double Uterus.—Mr. LAWSON TAIT read the notes of a case of double uterus, in which there was pregnancy in the left half, with hæmatometra in the right. The patient, aged 39, had had twelve children. She came to the hospital three weeks after her last confinement. On examination, a large cystic tumour was found to occupy the abdomen. On handling the tumour, it became tense, in exactly the same way that a pregnant uterus did during rhythmic contractions. On examination, a cervix was met with on the right side of the vagina, but no aperture in it could be discovered. Higher up the vagina, a cervix and os uteri could also be made out, and bimanual examination made it clear that the second organ was that from which the child had passed, and that the tumour and the first cervix together constituted the right half of a double uterus. The nipple-shaped first cervix was perforated, and a large quantity of bloody serum and clot escaped. The cavity was finally washed out with warm water. When the patient left the hospital on the fourteenth day, the supplementary uterus had contracted to the size of a cricket-ball. The cervix in the vagina had almost entirely disappeared.—Dr. ROUTH believed cases of double uterus were more common than was generally supposed, but were often overlooked.

Gynæcological Surgery.—Dr. H. BIGELOW read notes of the various antiseptic and surgical procedures at present in use in some of the German universities.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 6TH, 1885.

J. B. POTTER, M.D., President, in the Chair.

Specimens.—The following specimens were shown: 1. Fœtus showing numerous Deformities of the Limbs; 2. Living child showing Absence of lower two-thirds of Left Forearm and Hand; 3. Two cases of Imperforate Rectum in new born children (Dr. Horrocks); 4. Double Pyosalpinx from a woman who died from perforation of the stomach by an ulcer. The pyosalpinx had caused no special symptoms.

On the Ulceration of Lupus of the Female Generative Organs, including Perforations, Pits, and Excavations.—Dr. MATTHEWS DUNBAN read a paper on this subject. He said that ulceration was not an essential part of lupus. Some ulcerations were to be regarded rather as excoriations than as lupus-ulcers. Generally, ulceration was accompanied by hypertrophy. The hypertrophied parts were not specially liable to ulceration. The ulceration might affect the hip or thigh, or any part of the genital organs, external or internal, also the bladder and rectum; the ulceration was generally not sensitive. There might be one or many ulcers. Lupus minimus was characterised by small ulcerations. The skin, mucous membrane, and subcutaneous

cellular tissue were the parts chiefly affected ; but any structure (except bone) might be destroyed. Sometimes the skin was chiefly affected ; sometimes the subcutaneous cellular tissue. The ulceration sometimes produced pit-like cavities, sometimes producing great excavations, sometimes perforating, producing fenestræ or fistulæ ; the peritoneum might be perforated. The ulceration was not accompanied by sloughing. The ulcers might heal in whole or in part. Ulcers, the result of wounds of hypertrophied parts, healed favourably. A specimen from the London Hospital (lent by Dr. Herman) of dilated uterine cavity, with perforating ulceration, was shown.—Dr. HORROCKS mentioned a case, under his care in Guy's Hospital, which he had observed for nearly two years. The patient was a single woman, never pregnant. Her complaint was pain in the pudendum, and scalding on micturition. Small ulcers occupied the base of the hymen and fossa navicularis. There was no enlargement of the glands, and no history of sore throat ; but, on the suspicion of syphilis, mercury was given internally, and lotio nigra applied externally. No improvement resulting, caustics of various kinds were used ; but pain persisted, and no improvement followed. The hymen was apparently entirely eaten away, and along the line of its attachment were small red nodules with a few tiny ulcers. The nodules were very different from carunculæ myrtiformes ; there were no linea gravidarum, and the cervix was nulliparous. The tubercles were then removed by scraping with a sharp curette, and by cutting away with the scissors. The bleeding was so free that one or two vessels had to be tied. Dr. Horrocks asked Dr. Duncan what was his experience of scraping, and what was the best mode of treatment.—Dr. GANDY asked whether there was any fetid odour or other characteristic discharge ; whether the profuse hæmorrhage could be explained with so little physical evidence of disease. He related a case in a patient aged 35, in fairly good health, who was suddenly seized with very profuse bleeding, which was arrested by subcutaneous ligature. No cause for the bleeding could be discovered ; and it now occurred to him that the case might be one of lupus. There was always pain on coitus ; but there had not, so far as he knew, been any return of the bleeding.—Dr. CHAMPNEYS asked Dr. Duncan (1) on what grounds these very different affections were included under the same name ; (2) why they were called lupus when microscopists pronounced the appearances to be unlike those of lupus ; (3) what these diseases were called before they received the name of lupus.—Dr. MATTHEWS DUNCAN replied that he used the term lupus because others did so. West, in his *Diseases of Women* used this term. Esthiomene was an awkward word. Lupus expressed the great eroding character of the disease ; it included ulcerations, inflammations, hypertrophies, variously combined, and which were not cancerous, not epitheliomatous, not syphilitic. It might turn out that several diseases were included in this comprehensive term. At present they were combined for description on account of their apparent similarity. They were far from being as uncommon as was supposed.

A Case of Uterine Fibroid complicating Labour, and treated by Enucleation.—Mr. WILLIAM H. DAY (Norwich) described this case. The tumour itself presented, and above the tumour a breech. The size of the tumour and its immobility precluded the possibility of delivery while it was *in situ*. After separating its connections to a great extent, and thereby attaining greater mobility of the tumour, delivery was effected by the feet, the remaining attachments were severed, and the tumour removed. It weighed 3¼ pounds, was a soft fibroid, and would nearly have filled an ordinary tall hat. A successful case of enucleation of a large fibroid immediately after parturition induced Mr. Day to adopt this treatment. The patient lived for twenty-eight hours after delivery. The child survived.—Dr. BRAXTON HICKS reminded the Society of a case which he had read before it some years ago, in which he divided the capsule by a bistoury vertically, and enucleated the tumour from its capsule with complete ease and success. This he thought best in the case of sessile or imbedded fibroids. He called attention to the work of Dr. Chahbazian on the fibrous tumours of the neck of the womb in pregnancy and labour, to a paper by Dr. Mundé of New York, and to a case of Dr. Fry. He thought that, where delivery was urgent, the general opinion was in favour of enucleating the sessile forms from their capsule, which, in all the cases reported, was not a difficult operation.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, APRIL 1ST, 1885.

WALTER WHITEHEAD, F.R.S.E., President, in the Chair.

Nephrectomy.—Dr. WALTER mentioned the case of a woman, aged 39, from whom he had removed, by abdominal section, a movable kidney, which had become painful, and enlarged to three times its normal size. The interior of the kidney was full of pus and caseous material, but no calculus was present, nor had pus, blood, or albumen been found in the urine, which sometimes contained mucus and cells resembling renal epithelium. The anterior surface of the renal tumour was so adherent to a coil of the small intestine as to necessitate a small portion of its wall being left attached. Vomiting became very frequent, and the patient died on the fifth day from suppression of urine, and in a convulsion.

Nerve-stretching in Epileptiform Neuralgia.—The PRESIDENT referred to the patient he had shown on December 3rd, 1884, suffering from epileptiform neuralgia. He stated that he stretched the inferior dental nerve on December 7th, 1884, and the patient considered that the pain was very much mitigated by the operation. At the suggestion of Dr. Dreschfeld, five drops of gelsemin-tincture were given every hour for some weeks. The pain entirely disappeared, and, notwithstanding all treatment had been suspended for four weeks, there had been no recurrence of the pain.

Osteo-sarcoma of the Skull.—The PRESIDENT invited an expression of opinion respecting the nature and proper treatment of a tumour growing from the vault of a clergyman's skull. The patient was 45 years of age, and the growth first appeared when he was 15 years old. Six attempts had been made to remove the whole of the disease ; but that some small outlying portion had always been left, from which the growth repeated itself.—The general opinion of the members present was that the tumour, whatever it might have been originally, was an osteo-sarcoma, and beyond the range of surgical treatment.

Spasmodic Torticollis : Tenotomy.—Mr. HARDIE showed a case of spasmodic torticollis, successfully treated by excision of a portion of the spinal accessory nerve ; also a case of double facial spasm, treated by stretching both facial nerves. The operation was followed by complete paralysis, lasting for two or three months. As this passed off, there was some return of the spasm, which was, it was feared, increasing.

Torticollis.—Mr. SOUTHAM showed three cases of congenital torticollis, treated by tenotomy ; and two cases of spasmodic torticollis, occurring in adults, where excision of a portion of the spinal accessory nerve had been followed in one instance by complete disappearance of the spasm, and in the other by marked relief to the symptoms.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, MAY 7TH, 1885.

CHARLES OLDHAM, F.R.C.S., President, in the Chair.

Spasmodic Spinal Paralysis.—Dr. WHITTLE showed a boy, aged 6, admitted two months previously to the Children's Hospital for talipes. When set on his feet, after a fortnight in bed, he was found to walk with straddling gait, only by holding on to something, and the heel was drawn up. There were ankle-clonus, exaggeration of reflexes, and some rigidity of the limbs, increased by handling ; no alteration of sensation or of electrical reaction ; no affection of the bladder ; no spinal deformity. The arms were somewhat rigid, and showed tremor when used. Intelligence was below normal. Strabismus and hypermetropia were found, but the fundus oculi was healthy. There was no known cause in the child's history ; no convulsions ; he walked late, but properly up to a short time ago. The symptoms pointed probably to lateral sclerosis.—Mr. Black, Dr. Gasquet, and Dr. Mackey made remarks.

Displacement of Heart.—Mr. MORGAN showed for Dr. EWART a boy, aged 10, recently received into the Children's Hospital with a history of several attacks of pleurisy, for which he had been in three hospitals in London. He was now convalescent, gaining weight, and with regular pulse and normal temperature, but with dyspnœa on exertion. There was some dulness at the base of the left lung, but none over the ordinary cardiac area, and the apex-beat could be felt midway between the posterior axillary line and the scapular angle.

Constipation of Typhoid Fever.—Mr. R. SANDERSON read a paper referring to an epidemic of enteric fever occurring in Westminster in 1882, and noteworthy for tendency to constipation and to relapses, as well as for slowness of pulse, compared with height of temperature in the early stages. In a few cases, the bowels were confined from the beginning ; in many, constipation occurred towards the end of the attack, but whilst the temperature was still febrile. The former were not serious, and were relieved by enemata, but the latter proved difficult to treat. It was preferred to leave them alone so long as pyrexia continued, and then to give castor-oil or enemata ; but, in some instances, when the fever had not disappeared by the thirtieth day, constipation having lasted ten days, with foul tongue, etc., and scybala

being evident through the abdominal wall, it seemed desirable to produce evacuation. Drachm-doses of oil, repeated twice or thrice, were, however, quickly followed, in one or more instances, by fatal perforation. The author thought it was better to relieve such condition earlier, after constipation had lasted two days, and to prescribe small enemata of warm olive-oil rather than aperients by the mouth. The constipation might be partly explained by impaired muscular power, and partly by the milk-diet.—The PRESIDENT suggested a relationship between some of these cases and true "relapsing fever," and inquired the proportion of those that suffered from constipation, which was said to be about one-fourth.

Early Stages of Insanity.—Dr. GASQUET read a paper on early symptoms of insanity, referring especially to acute mania and to melancholia. Of the former, an "incubative stage" of variable duration was marked by depression, dulness, and irritability, headache, loss of sleep, dyspepsia, etc. Such symptoms should receive attention at once, especially in those disposed to mental disorder. Medicinally, drachm-doses of bromide of potassium would be likely to relieve, whilst chloral would be contraindicated. Prolonged warm baths were of service; but the most important point was to secure rest and quiet, and to avoid the mistake of sending such patients to scenes of excitement and stimulation, foreign travel, etc. In melancholia, there was no true incubative stage; for the early symptoms, though less in degree, were similar in character to those which developed later: simple gloom or depressing delusion, self-absorption or restlessness, with expression of mental suffering, and often foreboding fear of loss of reason. More might be done in these conditions by medicines; for example, aperients, or, in climacteric cases, bromides, and in others, opium (when it suited). It was more likely to benefit those who complained of mental suffering than those who were more restless, or with marked digestive disturbance. Change was more indicated in melancholia than mania; but suicidal tendency had to be guarded against; and, as a rule, all attempts at travelling or stimulation of mind were better reserved for the later stages of any case.—A discussion followed, in which Mr. Nicholson, Mr. Giffard, Dr. Whittle, and Dr. Mackey took part; and Dr. Gasquet replied.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, APRIL 22ND, 1885.

T. H. BARTLEET, F.R.C.S., President, in the Chair.

Locomotor Ataxy, with Joint-Disease.—Mr. SPOFFORTH showed a case. The patient, a man, aged 49, had exhibited the usual symptoms of locomotor ataxy for two years before he met with an accident, seven months ago. A reaping-machine passed up the right leg, over the hip, across the back, and over the left shoulder, He went about for nearly a month after the accident, and was then laid up from swelling in the right knee, attended with great pain. About five weeks after the accident, he was admitted into Kidderminster Infirmary. At the time of the report, the right patella was much enlarged, and dislocated outwards, and there was considerable effusion in the joint. The circumference of the right knee was eighteen inches, of the left fourteen inches. The ends of the bones forming the joint were enlarged, and crackling was produced on movement. There was absence of the patellar reflexes; swaying movements and the Argyll-Robertson pupil were present.

Thyrotomy for Papilloma of the Larynx.—Mr. BENNETT MAY showed a boy, aged 3½, from whose larynx he had successfully removed a mass of soft vascular warty tumours. The thyroid cartilage being laid open by vertical incision, some were removed by scissors, and others by twisting. Nitrate of silver was freely applied to the surfaces. The boy, when shown, was quite free from dyspnœa or cough, and having a good voice. He had steadily improved up to the present time, five months after operation.

Ideal Paralysis.—Dr. SUCKLING showed a case. The patient, a boy, aged 16, two years previously, after a trivial injury to the left knee, suffered from complete paralysis of the left lower extremity. The paralysis supervened suddenly a few days after the injury, and had remained unchanged till within a few weeks ago. The boy was not hysterical, but was emotional and nervous. After being told that he would quickly recover, and after faradisation, he was able to move the limb; and, when shown, could walk four miles, to and from the Queen's Hospital, without any support.

Collection of Calculi.—Mr. BENNETT MAY exhibited a collection of calculi from recent operations, two removed by nephro-lithotomy, one by suprapubic lithotomy, six by litholapaxy, and a number by perinæal lithotomy, mostly lateral. Mr. May expressed himself an advocate of litholapaxy for the majority of adult patients. He had found the main difficulty associated with the operation to be an obstacle to the introduction of instruments sometimes encountered in the later stages. This seemed to be greatest when instruments rather too large for the urethra had been used, and appeared due to a turgidity or turgescence of the walls. Great gentleness was needed in overcoming it. He found a No. 15 evacuating-tube, if made of thin metal, large enough for any reasonably sized fragments. The *débris* of the largest of the six cases shown weighed 13 drachms, representing a stone an inch in length. It was of uric acid, and was taken from a gentleman aged 63. In each of the others, together with four more not shown, recovery had been complete and rapid.—Mr. BENNETT MAY then showed, on behalf of Mr. CROMPTON, a splendid collection of calculi, sixty in number, which the latter gentleman had formed during his life, and representing the majority of his operations. Many of the specimens were of great beauty and of large size. These were nearly all removed by lateral lithotomy, and a large proportion from adult and aged patients, with the exception of one of enormous size, weighing 6½ ounces. The removal of only one of the number had been followed by a fatal result.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, MAY 1ST, 1885.

JOHN MARSHALL, M.R.C.S., President, in the Chair.

Syphilitic Ulceration of the Rectum, with Recovery.—Mr. CABLE read a paper on the above-named subject, in the discussion of which Drs. Moon, Ernest Clarke, Forsyth, Messrs. Marshall and others, took part.

Medical Sickness, Annuity, and Life-Assurance Society.—Mr. BRINDLEY JAMES read a paper on the objects and advantages connected with this institution. Subdividing his subject into several headings, he delineated the truly pitiable condition to which sudden accident might unexpectedly reduce those whose prospects seemed most favourable; and showed how the active and genial local practitioner, the recognised authority of his little circle, with, in all human probability, many years of useful activity in store for him, might, by a chill caught at night, or by a railway-collision, when hastening to the bedside of a distant patient, see his useful and honourable career closed in one brief day; his life possibly spared, at the expense of shattered limbs and impaired faculties. But what darker hues did not such a picture assume respecting his wife and children? Save in a few brilliant instances, fortune had no smiles for the medical profession, the least adequately remunerated of the liberal callings. The most provident could not rapidly amass savings for the future; their position and public opinion exacted outward display. Instancing the sudden stoppage of his late father's professional career by an accident Mr. James alluded to the frequent advertisements in the papers illustrating the precarious position to which ladies, the widows or orphan daughters of professional men, might be suddenly reduced, and drew a pathetic picture of all the sufferings a lady of refinement and sensibility must experience under such conditions. Turning to the more welcome subject of a remedy for these sorrowful eventualities, and admitting the impossibility for human prudence or foresight to avert all calamity, he said that it was remarkable that, while tradesmen and artisans had made provision against the contingencies of fate, the learned professions had hitherto shown much apathy and want of foresight. In medicine especially, a profession which might be honourably congratulated on not holding money-making for its sole aim, a modest life-competency was the lot of the majority. Mr. James proceeded to summarily illustrate the Society's actual rate of progress, by comparing the data published at the first meeting of the executive committee, held in October last, and those verified at its latest meeting on April 8th. The total funds in hand at the first-named period amounted to £2,782 10s. 9d; at the present time, to £5,314 18s. Twenty-four interesting cases had been adequately relieved in the last quarter. Most judicious economy was observed in the working of the Society, the secretary alone receiving any salary. Mr. James concluded his paper by an appeal to the sympathies of the audience on behalf of an institution so deserving of support.—A cordial vote of thanks was given to Mr. James for his paper.

Rare Form of Congenital Malformation of the Heart.—This subject was illustrated by a pathological specimen, exhibited by Dr. ERNEST CLARKE, whose remarks elicited a hearty vote of thanks.

PRESENTATION.—Dr. Arthur M. Archer has, upon the occasion of his marriage, been presented by the members of the "Anchor of Hope" Tent, Independent Order of Rechabites, Connah's Quay, and the Loyal Wepre Lodge of Odd Fellows (Holywell District), with some elegant and pleasing souvenirs.

REVIEWS AND NOTICES.

REPORT OF THE CHIEF INSPECTOR OF FACTORIES AND WORKSHOPS FOR THE YEAR ENDING OCTOBER 31st, 1884.

THIS report is, on the whole, a very satisfactory one, though, in some few industries, much remains to be done. For instance, we are met on the first page by the statement that, in the textile factories, the number of accidents has increased of late, notwithstanding the general adoption of guards, in consequence of the inveterate habit of the operatives, especially women and young persons, of cleaning the machinery while in motion in order to avoid the loss of time, and, consequently, of wages, they being paid by the piece, which stopping the machinery would involve. By-laws imposing a fine would be the most effective preventative of this dangerous practice, as well as of another of which one inspector complains, namely, the removal by the workpeople of "strap-guides" and covers for the gearing wheels at the ends of the mules.

As a rule, the suggestions of the inspectors are willingly adopted, and even improved on by masters and managers; but occasionally they have been disregarded, even after their necessity has been shown by fatal accidents. This neglect is due as much to stupidity as to selfishness, for, in one case, the victim of his obstinacy was the miller himself.

In Wales, numerous accidents occur from the falling of slate in the quarries. Mines are subject to special regulations, but the Act gives the inspectors no power over quarries, in which the dangers are equally great. Inspector Richmond states that, of fifty-one fatal accidents in his district, twenty-three occurred in quarries. He suggests the substitution of tunnels for sheltering huts for the protection of the men during blasting. On one occasion a block of stone, weighing two tons, fell on the roof of a hut, killing five men.

The question of the "flying" of shuttles has attracted much notice. Since shuttles may weigh as much as 9 ounces, and make 230 "picks" per minute, the force of the blows they inflict, if by any chance they leave the "race," may be imagined; indeed, when the loom stands near a wall, the latter is sure to be honeycombed by "flights," anyone of which might have caused the loss of an eye. Great practical difficulties attend the employment of shuttle-guards, which, for the most part, are but partially effective, or interfere seriously with the work; but, fortunately, the question has been solved by Mr. Theophilus Hanson, of Bradford, who has invented one which acts automatically, dropping the moment the machine is stopped for threading, or otherwise attending to the shuttle, and returning to its position as the loom resumes work.

We may here remark that Mr. Lakeman had his attention called to a new brake, by which the fly-wheel of an engine can be instantly stopped, and the machinery put to rest from any room in a building; and that in the Inventions Exhibition may be seen an electric centrifugal machine for sugar-refining without any shafting, belts, or pulleys whatever.

At Bradford, the wool-sorters' disease has attracted considerable attention; and regulations, which, however, are but optional, have been drawn up with a view to minimise the danger of infection.

Major Beadon discusses the unhealthy nature of work in flour-mills, as well as the long hours, even 16 to 21 in the twenty-four.

Accidents in ship-building yards, and the working of the half-time system in Scotland, are considered at some length; but one of the most difficult and important problems in the report is the overcrowding, and the execrable sanitary condition, of the smaller workrooms of tailors, cap-makers, etc., in the east end of London, where the operatives are mostly Polish and German Jews, working under the sweating-system in private houses. Of these, 1,478 were visited, but, in 724, Her Majesty's inspectors had no jurisdiction whatever, and, in 387 more, none over the sanitary defects, reports of which, however, were forwarded to the local authorities, though whether with any result we are not told.

Several pages are devoted to the question of ventilation in workshops, especially those in which much gas is used. The general feeling of the inspectors is in favour of Tobin's tubes, and combinations of these, with Sherringham valves, as designed by Messrs. Kite and others, of which two pages of illustrative lithographs are given, with estimates of cost.

In conclusion, Mr. Redgrave enters into a defence of the standard of 250 cubic feet per head under ordinary circumstances, and of 400 when work is continued for more than five hours at a time, urging the precedent of the Education Act. But to render the limited space permitted in any of these cases sufficient, good ventilation during the occupation of the factory or school, and free perflation in the intervals of work, are absolutely necessary, and should be insisted on.

EXPERIMENTAL RESEARCHES ON CICATRISATION IN BLOOD-VESSELS AFTER LIGATURE. By N. SENN, M.D., of Milwaukee, Wisconsin. Extracted from the *Transactions of the American Surgical Society*, vol. ii, 1884. Philadelphia: Collins. 1885.

THIS monograph begins with an instructive history of the ligature in surgery, and a summary of old and modern views on the histology of blood-vessels, and the effects produced by artificial constriction of their walls. Dr. SENN describes at length the result of fifty-four experiments, where double ligature of arteries was performed with strict precautions. In twenty-three cases, double permanent ligatures were applied to arteries; in nine, double temporary ligatures. In most of the remainder, similar experiments were tried on veins. In all cases where the wound healed by primary union, the isolated portion of the vessel became adherent, as early as the second day, to the adjacent tissues; and, after a few days more, the interrupted vascular connections were restored. As might have been expected, suppuration was more frequent when the temporary ligature was applied, on account of the necessary interference with the reparative process in the wound, and the increased difficulties encountered in preventing infection. In all cases where suppuration followed double ligature, the vitality of the intervening portion of the vessel was destroyed in part or in its entirety; and if a sufficient length of time had elapsed, this portion of the vessels was usually found completely separated and within the abscess-cavity. Secondary hæmorrhage, however, was never observed as the result of suppuration or sloughing of the intervening portion, for the narrow intravascular cicatrix in both ends of the vessels was usually supported by a strong ring of connective tissue which formed a part of the thick wall of the abscess. In all these cases of suppuration, the vessels had invariably suffered a loss of continuity by the ligature. These facts demonstrate the importance of antiseptic precautions for the purpose of preventing suppuration, and the evil results which it is shown to produce.

Dr. Senn's experiments appear to disprove the prevalent theory on the coagulum. He shows that thrombosis by no means necessarily follows every case of ligation; in fact, it very often fails to take place where closure of the vessels has been very perfect. The experiments proved favourable to the cause of antiseptic catgut, as opposed to silk, horsehair, or silkworm gut. When well prepared, this material resisted absorption until definitive obliteration of the vessel had taken place; it did not act as a foreign body, and did not destroy the continuity of the vessel, and it was completely absorbed, and replaced by organised tissue, which furnished an additional support to the walls of the vessel at the seat of cicatrisation. Changes in the adventitia and in the cellular tissue outside the vessel played the earliest share in its obliteration after ligature. The most important feature in the process, as observed by Dr. Senn, was the extension of the inflammatory process from the adventitia inwards until the connective tissue proliferation perforated the epithelioid lining of the intima, an event which marked the formation of the intravascular cicatrix. The epithelioid cells assumed an active part in this process, which always began underneath and in the immediate vicinity of the ligature. As above stated, the services of a coagulum in the process are entirely disowned by the experimenter. The researches with the temporary ligature proved that, in arteries of the size of the (sheep's) carotid, at least three days elapsed before the intravascular cicatrix became sufficiently firm to resist the intra-arterial pressure independently of the ligature, whilst in the jugular vein the same object was accomplished in two days. In all cases, veins closed earlier than arteries.

The results of Dr. Senn's experiments chiefly tend to prove the value of the aseptic catgut ligature, which should be double when large arteries have to be tied in their continuity near a collateral branch, or when varicose veins are so treated. They also favour free opening of the sheath of a vessel before application of the ligature as a perfectly safe proceeding, provided that antiseptic precautions be taken, which facilitates subsequent manipulations. Lastly, the experiments lead us to assign to inflammatory connective tissue and epithelioid proliferation the share in permanently closing a ligatured vessel which is generally attributed to the thrombus. Dr. Senn, indeed, boldly states that the clot never undergoes organisation. His researches are, it cannot be denied, of high importance; but repeated observations will be required before they can be satisfactorily confirmed.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SESSION 1885.

Thursday, May 21st.

Sir HENRY ACLAND, President, took the chair at 2 P.M.

Recommendations of the Council.—The Council resolved itself into committee, for the purpose of further considering the recommendations of the Branch Councils.

Period of Professional Study.—Mr. SIMON, resuming the debate on Recommendation 21, said that the hope of the Council in passing Dr. Banks' resolution, was that the second alternative should be accepted by the student, and that, before entering on his four years of purely professional study, he should pass an intermediate examination, which would include mechanics, elementary physics, chemistry, and biology. The view taken by the promoters of the amendment, however, was that the whole of the four years should be spent at a recognised medical school. In his opinion, every rule that was unnecessary was an evil. As much liberty as possible should be left to the student. Would it be said that, if a man spent six months as assistant house-surgeon in the Bradford Hospital, the Sheffield Hospital, at an ophthalmic hospital, or at a lying-in hospital, that time should be excluded from the curriculum? The English proposal left room for options of that kind. It did not confine the student to what were, in the strictest and narrowest sense of the words, recognised medical schools. If too much pressure were put on in favour of such schools, the result might be that the number of students was out of all proportion to the opportunities for practice, and so each might get only a small fraction of the personal experience which he ought to have. The Council ought to call in to the assistance of medical instruction as many hospitals and infirmaries as possible. Many of the members of Council were also members of recognised schools, and therefore they must be on their guard. If the question of armouring ships were referred to a committee of curriers, would they not be likely to vote that there was nothing like leather? It was contrary to all his notions of legislation to make any regulation which could be avoided. If it were possible to do with examination without any curriculum at all, he would be in favour of it. Let the curriculum then be fair to the candidate in the sense of allowing him options. The English proposal, requiring at least three winter and two summer sessions at a recognised school, went as far as it was desirable to go, and he hoped the proposers of the more extended regulation would, on reconsideration, not press it.

Mr. TEALE agreed with Mr. Simon that it was undesirable to rivet the fetters too closely, or to lay down any stricter limit than at present existed. It should be left to the bodies that regulated examinations to lay down for each branch of the kingdom what they considered most convenient.

Dr. PETTIGREW thought the system of pupilage a bad one—bad for the student, for the profession, and for the public. It was too much to expect that any man in busy practice could devote much of his time to teaching. On the other hand, at a school or hospital, even if the student had only one patient, it would be better for him to have one case well demonstrated than a great number treated in a general way. In his opinion, three winters and two summers at a recognised school were not sufficient. The Council had had before it many examples of serious evils arising from the employment of unqualified assistants. He was in favour of Dr. Haldane's amendment, considering that four winter and three summer sessions should be the least to be insisted on.

Dr. HUMPHRY saw no reason why Scotland and Ireland should lay upon England a yoke which England was unable to bear. Scotch students might be able to listen to one hundred lectures on surgery in six months, and to profit by them; but he did not think English students would be. This was a question which, in his opinion, the Council had better leave open. The details and processes of education should be largely left to the licensing bodies. There seemed to be a rooted idea, in the Scotch and Irish mind, that a pupil was an unqualified practitioner, but he was not a practitioner at all. Might it not, in many cases, be a good thing for a young lad just free from school to be placed under the superintendence of a judicious general practitioner, who would take care, not only of his studies, but of his morals? He himself commenced his professional studies with a decided dislike to everything connected with the profession but he was placed in the house of a superior medical man, in a town in which there was a hospital, and there his abhorence was converted into a genuine ardent love for his studies. He did not think he should have continued in the profession had it not been for the wise direction and good example and teaching which he received from the general practitioner. Subsequently, he had three years in a medical school, and was then fortunate enough to become surgeon to a hospital. At hospitals such as those at Norwich and Brighton, the student would be under first-rate practitioners; and it would be perfectly absurd for the Council to assert that the work done at such places should not form part of the curriculum of education. The resolution left it entirely open to the Scotch licensing bodies to require four years at a medical school, and he did not think Scotland should demand that the English bodies should follow their example.

Dr. STORRAR admitted that there could be no better instruction than that which might be acquired by attendance at such hospitals as that at Norwich, and also that there were gentlemen in practice who could take charge of the education of a student for a year with very great advantage to him; but the recommendations of the Council were not absolutely mandatory, and the various licensing bodies might give to them that latitude of interpretation which circumstances required or justified. But if the four years' study were not clearly defined, the young entrants into the profession would be led to devise schemes for evading the recommendations. Their parents might say: "It will be greater economy for me to send my son to a local practitioner in the middle of Wiltshire, or Somersetshire, or Devonshire, for a year, than to send him to a medical school." The consequence would be an all-round system of evasion, and that he wished to discourage. The College of Surgeons and the College of Physicians might be justified in allowing a year to be passed at the Exeter Hospital, or the Leeds Infirmary; but that was entirely a different thing from laying it down, as a principle, that four years might mean something less than it really did.

Dr. HAUGHTON considered that this was unquestionably the most important debate in which he had ever taken part on the Council. If the principle involved in it were once accepted, he had no doubt that there would be a substantial agreement among the three Branch Councils as to the other recommendations. Until the recommendations appeared side by side, he was in hopeless ignorance as to what they really were. The old recommendation simply meant that two and a half years should be passed in a recognised school, and the other year and a half might be spent in Aylesbury or Wiltshire. Dr. Humphry had mixed up the two different questions of provincial hospitals and private practice. He now understood the extraordinary anxiety of the English representatives to get rid of mechanics, physics, chemistry, zoology, and botany. In Ireland, there were thirty-two country infirmaries, averaging from forty to sixty beds, and in the same towns there were fever-hospitals, and many of the most distinguished physicians and surgeons in Ireland had risen to the first rank of their profession after attending these infirmaries. The Royal College of Surgeons in Ireland recognised these institutions, and the teaching given at them. The time spent in a country infirmary was regarded as equal to half the time in a metropolitan hospital; and Trinity College did the same, if the surgeon at the infirmary were considered by the medical professors to be a fully competent man. Ireland, however, would never recognise apprenticeship to a private practitioner, because he could not possibly teach mechanics, physics, chemistry, zoology, and botany, which the Council were agreed should be learned at the commencement of professional study. He was strongly opposed to the possibility of the student spending a year and a half out of the four as an apprentice.

Dr. HUMPHRY said that the resolution spoke of recognised "schools." Norwich was not a school, nor were the Irish infirmaries schools.

Dr. SCOTT ORR considered that there should be but one rule for the three divisions of the kingdom. Dr. Humphry thought that attendance at one hundred lectures in six months was too much for English students; but the fact was, that for years such students had been in the habit of going to Scotland, and submitting to it.

Dr. MATTHEWS DUNCAN agreed with the views expressed by Dr. Scott Orr. The Council had insisted on five years, and yet they were now asked to say that there need be no additional education. Four winter and three summer sessions meant thirty-three months out of the five years; and the remaining twenty-seven months afforded sufficient time for the students to attend provincial hospitals, if they so desired. The present agitation for a teaching university for London arose out of the desire to get more lectures for students, and it was perfectly erroneous to say that English students could not bear one hundred lectures. If they could not, why did they crowd to Scotland? At the present moment, the lectures on midwifery in

London were really very meagre. He knew that some courses, not long ago, did not consist of as many as twenty lectures; and he called that a farce. Many of the students had told him they wished they had not gone there at all, because they were not worth hearing.

The continuation of the discussion was adjourned.

The Case of Ebenezer Bryceson.—The Council discussed, in private, the case of Mr. Ebenezer Bryceson, who had been summoned to appear, and who attended, accompanied by Mr. Jelf, Q.C.

Strangers were not readmitted until a few minutes to six, the debate having lasted nearly three hours, when the PRESIDENT announced that the following resolutions had been arrived at.

"*a.* That Ebenezer Bryceson is judged, after due inquiry, to have been guilty of infamous conduct in a professional respect, in that he has produced to the Royal College of Surgeons of England forged certificates of professional study. *b.* That the General Medical Council, though it adjudges Ebenezer Bryceson guilty of infamous conduct in a professional respect, does not, under all the circumstances, now direct his name to be erased from the *Medical Register.*"

The Penal Clauses of the Medical Act.—It was moved by Sir HENRY PITMAN, seconded by Dr. HUMPHRY, and agreed to:

"That the solicitor of the General Medical Council be authorised to take the opinion of such counsel as he may think fit as to the readiest mode of carrying into effect the penal clauses of the Medical Act (1858)."

The Council then adjourned.

Friday, May 22nd.

Sir H. ACLAND, President, took the chair at 2 P.M.

Recommendations of the Council.—The Council resolved itself into committee, to consider the suggestions of the Branch Council's motion.

Period of Professional Study.—By permission of the Council, the amendment proposed by Dr. Haldane, on the previous Wednesday, was altered to read as follows:

"At least four winter and three summer sessions shall be passed at a school or schools recognised by any of the licensing bodies mentioned in Schedule A of the Medical Act."

Dr. MATTHEWS DUNCAN, continuing his speech, said when he came to London he increased the number of lectures on midwifery from a nominal 40, which was a practical 30, to between 70 and 80. The lectures were given every day in the week—on Whit Monday and Derby Day, and it was the largest midwifery-class in England. He was sure that, if he gave 100 to 120 lectures, students would regularly attend. About six or seven years ago, when the question of midwifery-teaching was under consideration, two of the most eminent medical lecturers on midwifery in London wrote clamorously for an increase of the number of lectures from 40 to 100, so that Dr. Humphry's opinion as to the capacities of English medical students was not held by some of the eminent midwifery-lecturers. There could be no doubt that the recent movement for a teaching university in London was partly the expression of a desire for introducing what might be called the Scotch system of education more thoroughly into London, and he thought it would be a very great pity if the extension of the curriculum for five years were not utilised in that way. He had seen the apprenticeship system at work in Scotland and in England, and he was satisfied that it was only valuable under peculiar conditions. It might be useful for a medical student to reside with a young and ardent teacher who was not very rich, and who was very glad to give him his assistance, but for a student to go and reside in Wiltshire or in the wilds of Connemara with a country practitioner, was nothing but a waste of time. In addition to that, it taught him many things not in the way of his profession, but in the way of trade, which he had better not know. If the apprenticeship system were ever restored, it must be in that modified collegiate method which was practised in Edinburgh and Dublin with great advantage. He should, therefore, support Dr. Haldane's amendment.

Mr. MACNAMARA said that Dr. Humphry's speech seemed to amount to this: "Legislate for Ireland and legislate for Scotland, but do not attempt to touch England." He, however, always understood that the Council was the General Council on Medical Education, and assembled for the purposes of making general laws that were to be applicable to all the divisions of the kingdom, and he never heard anything that filled him with more surprise than Dr. Humphry's suggestion that the Council should not interfere with England, nor with the minimum that England had adopted. The outcome of the consideration of this question in Scotland and in Ireland was, that it would be very desirable that four winter sessions and three summer sessions should be occupied in some school in the study of professional subjects. Dr. Humphry had drawn a remarkable picture of the great advantages that were to be derived by residents with provincial practitioners, but on the previous night he had had the honour of dining with one of the most distinguished medical officers in the army, a gentleman who, three years after entering the service, was promoted to be surgeon-major, and had three times received the thanks of the Commander-in-Chief for his services on the field. That gentleman was his (Mr. Macnamara's) apprentice, and was educated according to the Irish plan, and said, "Mr. Macnamara, if it had not been for the Irish method of education, I should not have been in the position that I am now." He then asked him what he knew of the general practitioner, and his reply was: "The first year after I left you I went as an assistant, and in that practice I saw what so disgusted me, that I resolved to enter Her Majesty's service. I used to go round and prescribe for the patients, and write my prescriptions, and I found that the pupils who made up prescriptions used to alter them because some of the medicines I prescribed were too expensive." He then asked him if the practitioner ever taught the pupils anything, and the answer he got was: "No, he did not, because he did not know anything to teach them." "Did he take them round to study disease?" "Oh, bless me! he would not be allowed to take them into the houses; they simply compounded the prescriptions, and the rest of the time they were smoking." That being the state of things, the Council was gravely asked to allow at least two years and a half of the time of the education to be taken out of the schools. Ireland and Scotland would never consent to that. English members had not hesitated to support the five years' recommendations for Scotland and Ireland; and certainly the representatives for Scotland and Ireland would not hesitate to discharge their duty in legislating for the United Kingdom, so as to provide a sound system of education applicable to every position of Her Majesty's dominions. He sometimes found it extremely difficult to get members of the Council to understand what was being done in Ireland; but the fact was that, no matter how long a man was in a provincial hospital, he must still spend four winter and four summer sessions in a recognised medical school. His own experience, and the experience of all the grinders in Dublin, was that a student who had got a smattering of practice was the most difficult to prepare for any examination.

Dr. HUMPHRY was very much surprised that any one should have supposed that he had thought of legislating for England, for Ireland, and for Scotland separately. The motion which he had supported was "at least three winter and two summer sessions shall be passed at some school or schools." If that were agreed to, there would be liberty all round, and England, Scotland, or Ireland could increase the sessions to any extent they pleased.

Mr. MARSHALL supported the amendment. The Council had already passed a resolution that there should be at least five years, or four years provided certain preliminary subjects were taken. Having supported that view, it appeared to him he would act inconsistently if he did not attempt to utilise the additional time in the best possible way. The little minutiæ of the profession might be learned by a student after he left the schools; but the Council should require that the additional period should be retained for special scientific training. Considering that men who had passed from the schools did not, as a rule, return to them, it was really kind to a student to compel him to pass as long a time as possible in receiving systematic education at a recognised school.

Dr. STRUTHERS said that the remarks of those who supported the motion had all been apologetic, amounting to this: "Leave us alone; do not meddle with us in England." They had shown no objection to thrust the five years on Scotland; and, for the first time in his life, he felt as if the English representatives were trying to raise medical education, and that the Scotch and Irish members were on the opposition side; but the outcome of it all was, three years for medical education in England, and two years for apprenticeship or pupilage. Did a young man learn from a general practitioner? He simply acted as a druggist, making up prescriptions; then he acted as a clerk, entering those prescriptions in a book; next he was sent out as a kind of messenger-boy. If he visited at all, he was sent to the workhouse to see the paupers. The young man began as a tradesman, and that tended to keep down the tone of the profession. He acquired the idea that his business was to give medicine, and the more the better; and that kept up the practice of medical men being paid by the drugs they gave. In Scotland, no man of position in the profession ever thought of having what was called a surgery. If a man had, he was simply a tradesman, on the footing of a tobacco-merchant. It would not do for a medical man to feel: "I do not think that person requires anything, but I can put five shillings in my pocket if I prescribe a dose of medicine for him." To allow two years' apprenticeship would be a concession to that degrading system. In Scotland, a medical man was a gentleman, in the same position as a lawyer or a clergyman, but

could the same be said of practitioners in all the provinces of England? It had been said that Scotch graduates, when they came to England, made bad assistants; but that was because they were too good to be assistants—in fact, they were better than their masters. It might be said that a man could learn midwifery by simply attending cases, but he could not; for who would trust a nurse, however many cases she had attended? A man who had had a number of stimulative and practical lectures, even though he had attended but a limited number of cases, would be far more fitted for midwifery-practice. If the student were to have general practice at all, let it be after he had passed through the schools.

Mr. SIMON said that the question of apprenticeship was not that which was raised by the resolution. Dr. Struthers had given admirable reason, to his own mind, why Scotland should be superior to England with regard to its medical practitioners; if those reasons satisfied Dr. Struthers, it might be all very well, but that was not the point raised by the resolution. The main question was whether provincial hospitals should be recognised, or whether there should be a narrow limitation of medical education to a comparatively small number of specially privileged schools. There were a great many institutions, besides fully organised medical schools, where very valuable knowledge might be acquired, and they ought not to be excluded from consideration. It was tyrannous to insist that the four years should be spent at the schools with which the gentlemen around the table were more particularly familiar. So far as he had any bias at all, it was in favour of a London medical school, for he had been associated with one ever since he was a boy; but it would be despotic to pass such a law as the amendment proposed.

Dr. CHAMBERS was in favour of the amendment, because he thought it would afford candidates the opportunity of holding resident or other medical appointments.

Dr. QUAIN said the Council had the power of visiting examinations, and judging by the results of the teaching. A man might get little good from a general practitioner, but he might get still less at a medical school. He might come to London, spend his time as idly as possible, and pass a cram-examination, knowing as little as if he had been five years with a general practitioner. With regard to the value of lectures, he himself took honours at the University of London in midwifery, but he never attended any lectures on it in his life; he simply read the books and attended cases. He would say, let the students get their education how and when they could, and then pass an examination. The Council should see that the examination was sufficient, and test it by visitations; but they should not ask a man where he got his education, or whether he had spent four sessions or three sessions in attaining it. At the present moment, the education given was of a most unpractical character.

Dr. HERON WATSON thought that, if there was one duty which the Council ought to perform, it was to lay down such a minimum as should secure that the students of the future were thoroughly educated. They had decided upon a five years' curriculum after a student had passed his preliminary examination, before he obtained the diploma. If there were one thing more than another which was looked to by the profession at large as likely to elevate its position, it was that the practitioner should cease to combine the duties of druggist with that of a medical man. It was a matter of astonishment to him that practitioners in England should to such a large extent continue to send out the medicines which they prescribed for patients, instead of writing prescriptions to be compounded by druggists. If Sir Henry Pitman's proposal were adopted, the student would have thirty-six months out of the five years at his own disposal; and it appeared to him that any education which he could be expected to obtain with a country practitioner under those circumstances would be worse than nugatory. The employment of unqualified assistants afforded an encouragement to the issue of false certificates and to forgery, and lowered the character of the profession. More than thirty years ago, an assistant-surgeon in Her Majesty's service, who had formerly been a pupil to a general practitioner, told him that the general practitioner, who had a great number of old ladies of distinction under his care, would, after returning from his rounds in the morning, give orders what medicines were to be carried out, and he would sometimes say: "Lady So-and-so is too well; put a little antimony in the mixture." That was the sort of thing that an apprentice to a public practitioner might learn, but nothing of that kind was likely to occur in connection with the public teaching of a medical school. Dr. Humphry had drawn a most picturesque presentment of his experience as a pupil, but that must have been somewhere about forty-five years ago, and it was to be hoped that the profession had undergone some change since then. Those days were only to a slight extent removed from the time when one of the duties of an assistant was to go body-snatching.

The PRESIDENT said that every one who had listened to the discussion must feel that it struck at the root of the difficult question as to how long students should be occupied, and in what way the five years were to be spent. He had heard, with some regret, more than one of the graphic and humorous descriptions of what, in former times, used to happen; and no one of his age, knowing much of the country practitioner in English towns, was unable to tell equally facetious stories; but he felt sure that some of the most hard working, most honourable, wisest, and best Englishmen, were to be found amongst the country practitioners. From accidental circumstances, he had considerable knowledge of them in various parts of the country; and if it were desired to find a typical man, well-balanced, practical, serious, accurate, benevolent, he could produce him from among the general practitioners of England. He trusted the Council would forgive him for saying this, because it would be improper for him to make anything like a commentary, and still less a criticism, on what had passed; but he felt it necessary to make these observations. Dr. Struthers had spoken of the difference between Scotch and English practitioners in outlying districts. He quite recognised that there was a difference, but it was an error to suppose that all the country practitioners in England could rely upon the sterling quality of drugs supplied by the druggists in remote districts. It was, therefore, not right to imply that it was in any sense an evil for practitioners to send out their own drugs. Many of the hard working men in country districts would be thankful to get rid of the labour of pharmacy if possible, but they could not.

Dr. HALDANE'S amendment was then put to the vote, and the numbers were 15 for, and 6 against, whilst 3 did not vote.

The amendment was then put as a substantive motion.

Dr. LYON proposed the addition of the word "hospitals" after the word "schools," but the proposal found no seconder; whereupon Dr. Haldane's amendment was carried as a substantive motion.

Number of Courses of Lectures.—Dr. HALDANE proposed:

"That Recommendation 22 should read as follows: 'No teaching or licensing body should insist on the student taking in any one subject more than one course of lectures, which should include practical instruction in practical anatomy; clinical instruction should be exempted from this Recommendation.'"

In Scotland, he said, the great majority of courses consisted of one hundred lectures, which were really too many; but the practice had obtained of late years of having a practical course in addition to the systematic course. He thought it was a vicious system to have a practical course of fifty lectures in addition to the one hundred systematic lectures. It involved considerable additional expense to the students. A hundred lectures should cover the whole of the present systematic as well as the practical course. Of course, that observation would not apply to practical anatomy and clinical instruction, proficiency in which required a greater amount of training.

Dr. HERON WATSON seconded the motion.

Dr. HAUGHTON said he would support the motion if the word "surgery" were inserted after "practical anatomy."

Dr. HALDANE said he would accept the addition.

Mr. SIMON said that the Recommendation was made additionally difficult by the introduction of surgery. These were matters which the schools might be left to regulate at their own discretion. He thought that the suggestion of the English Branch Council to omit Recommendation 22 was the right way to deal with the subject. He proposed that Recommendation No. 22 be omitted.

Mr. MARSHALL seconded the amendment, which was carried.

Subjects of Professional Study.—Sir HENRY PITMAN moved, and Mr. SIMON seconded:

"That Recommendation 23 be as follows: 'The following are the subjects without a sufficient knowledge of which no candidate should be allowed to obtain a qualification entitling him to be registered: 1, chemistry, including the principles of the science, and the details which bear on the study of medicine, and the rudiments of heat, light, and electricity; 2, anatomy; 3, physiology; 4, materia medica and pharmacy; 5, pathology; 6, medicine, including medical anatomy, clinical medicine, and therapeutics; 7, surgery, including surgical anatomy and clinical surgery; 8, midwifery, including diseases peculiar to women, and to new-born children; 9, theory and practice of vaccination; 10, forensic medicine.'"

The motion was agreed to.

On the motion of Dr. HALDANE, seconded by Dr. H. WATSON, hygiene was added as No. 11.

Dr. SCOTT ORR moved: "That mental disease be added as a separate subject—namely, No. 12." He said that a great many practitioners were utterly at sea with regard to mental disease, while at the same time they incurred serious responsibility with regard to it

and the most appalling consequences might result from their ignorance.

Dr. MATTHEWS DUNCAN seconded the motion.

Dr. BANKS supported it, and said that the Royal College of Physicians in Edinburgh, the University of London, the Royal University of Ireland, the University of Dublin, the Faculty of Physicians and Surgeons of Glasgow, the Society of Apothecaries, and the Irish Branch Council, all considered that mental disease should form part of medical education.

Dr. HAUGHTON said that some recent trials in Dublin had in a terrible manner raised this question of mental disease. It was scandalous to the medical profession to find witness after witness called up, some to swear that the accused was insane, and others that he was shamming.

Dr. H. WATSON said that, if the Council agreed to the motion, they would be trenching on specialisms. He approved, however, of clinical education in mental disease.

Dr. PETTIGREW thought that mental disease could come in as a department of medicine.

Dr. STRUTHERS moved that the foot-note should be inserted: "It is understood that insanity, diseases of the skin, and other subjects on which special instruction may be given, are included in the above enumeration."

Mr. SIMON seconded Dr. Struthers's amendment.

Dr. LYONS thought the Council would not be discharging its duty unless they gave the subject of mental disease special prominence. A Bill dealing with it was now in Parliament, and it would not do for the Council to treat it as a mere subsidiary matter.

Dr. HAUGHTON hoped the Council would not pass Dr. Struthers's amendment.

Dr. Struthers's amendment was then, by the permission of the Council, withdrawn, and Dr. Scott Orr's proposal, to add mental disease to the list of subjects, was carried.

Professional Examinations.— Sir HENRY PITMAN moved, Mr. SIMON seconded, and it was resolved, that Recommendation 27 be as follows:

"The professional examinations shall be so framed as to secure that the knowledge of every practitioner whose name appears in the *Medical Register* has been tested in all the subjects of professional education which the Council deems essential."

The subjects were those enumerated above; hygiene and mental disease being added to the list.

The Council then resumed, and the Recommendations that had been passed in Committee were adopted.

Report from the Dental Committee.—A report by the Dental Committee was received, and ordered to be entered on the minutes. It stated "that Charles Rudulph Werner (registered on December 31st, 1878, as in practice before July 22nd, 1878) was, on December 8th, 1884, in the Sheriff Court of Mid-Lothian, held at Edinburgh, convicted of misdemeanour, and thereupon sentenced to six months' imprisonment, in due course of law."

Saturday, May 23rd.

Sir H. ACLAND, President, took the chair at 1 P.M.

The Case of Mr. Bryceson.—Sir H. PITMAN asked the President what steps the Council desired to take with regard to the offences committed by Mr. Ebenezer Bryceson, under sections 39 and 40 of the Medical Act.

The PRESIDENT, in reply, said: "It is not in my power to say, at present, what course the Council may desire to take. Anticipating that this question might arise, I have already directed the Solicitor of the Council to consider and advise what steps, if any, the Council should take in this case. His reply will be laid before the Council. I have further instructed the Solicitor, should he deem it requisite, to take counsel's opinion thereon."

Recommendations of the Council.—The Council resolved itself into committee to further consider the reports by the Branch Councils in regard to the recommendations of the Council.

Professional Examinations.—Recommendation 29 was considered, namely:—

"The professional examinations should be arranged in two divisions; the first division to embrace the more elementary subjects. The first division may be completed at or before the close of the second year of professional study, but the second division not till the expiration of two years after the passing of the first division, nor before the completion of the fourth year of study. The examinations, and the subjects included in each, should be such, and in such order, as may insure, as far as possible, a due continuity and sequence of study."

Sir HENRY PITMAN said that, although he could not quite agree with it, he would move the adoption of the recommendation of the English Branch Council:—

"The candidate should not be admitted to the second examination till he has passed the first, and he should not be admitted to the third examination till at least twenty-one months after passing the second, nor until the completion of forty-five months of medical study."

The final clause of the existing recommendation was the only one to which the Council should adhere. The Council should confine itself to general principles. If their principles were not carried out, and the omission were sufficiently serious to warrant any interference with the privileges of the bodies, it would then be time enough to interfere.

The motion was seconded by Mr. SIMON.

Dr. HAUGHTON moved, as an amendment, the Recommendation of the Irish Branch Council; namely, the omission of the first two paragraphs, and the retention of the last paragraph, of the original Recommendation.

The amendment was seconded by Dr. BANKS, and was agreed to.

Specification of Subjects at Examinations.—Sir HENRY PITMAN moved the omission of Recommendation 30, which specified the subjects to be included in the first and second divisions of the examinations. The principle was admitted in the clause just agreed to, and the Council had already expressed the opinion that they should not state in what manner the subjects were to be considered.

The motion was seconded by Dr. HAUGHTON.

Dr. STRUTHERS thought the Council might define what the final examinations should be, but he did not think they could agree as to the earlier ones.

Dr. PETTIGREW said the Scotch Branch Council entered into the matter very carefully, and divided the examinations into three, specifying the subjects. This, from the student's point of view, was of very considerable importance; and he did not see what harm could result from such a scheme as was presented by the Scotch Branch.

Mr. MACNAMARA said they could not follow out the Recommendations of the Council in Ireland, because their scheme of education involved examinations at the end of each year."

Mr. MARSHALL moved, as an amendment:

"The final examination should not take place till the termination of the full period of medical study, and should include medicine, surgery, midwifery, forensic medicine, hygiene, and mental diseases."

The amendment was seconded by Dr. STRUTHERS.

Mr. SIMON deprecated detail. He adhered to the opinion that the original proposal to omit the table was the better one.

Sir HENRY PITMAN pointed out that the subjects laid down were really those adopted by all the licensing bodies. They might be quite well omitted. It was really repeating over and over again what was unnecessary. After all, they were but recommendations; and they were not needed, because they had already been adopted.

On the suggestion of the PRESIDENT, the amendment was divided, and the first clause, "The final examination shall not take place till the termination of the full period of medical study," was agreed to.

The second clause, specifying the subjects, was withdrawn.

The first clause was then put as a substantive motion, and agreed to.

Conduct of Examinations.—The following was retained.

32. "The professional examinations should be conducted both in writing and orally; and they should be practical in all branches in which they admit of being so."

Number of Examiners.—On Recommendation 33, "Not less than two examiners should take part in every oral and clinical examination," Sir HENRY PITMAN moved that "two examiners at least should take part in every oral and clinical examination."

The motion was seconded by Dr. STRUTHERS.

Dr. HAUGHTON heartily approved of the Recommendation as far as the clinical examination was concerned, but there would be great difficulty in carrying it out with the oral examination. There was greater risk of error in clinical examination, and therefore the necessity of having it conducted by two persons.

Dr. PETTIGREW said that this rule was made, not in the interest of the examiners, but of the students, so that they might feel that they were not in the hands of one man.

Mr. MACNAMARA said that the Royal College of Surgeons of Ireland entertained quite an opposite opinion to that of the University of Dublin as expressed by Dr. Haughton. They heartily concurred in the view the Medical Council had adopted, and had recast their Court of Examiners so as to have two at each oral or written examination.

Dr. MATTHEWS DUNCAN considered it unnecessary, in the case of written examinations, to have two examiners to read every paper. With regard to the oral, speaking for himself as an examiner, he thought it extremely unsatisfactory to examine alone. It was a question, not of honour on the part of the examiner, but of responsibility;

and although a single examiner might conduct the whole matter, it was very desirable that there should be another present.

The motion of Sir Henry Pitman for the adoption of the English Branch Council's Recommendation was agreed to.

Recommendation 35. "The written answers should be submitted to more than one of the examiners," was altered in accordance with the suggestion of the Scottish Branch Council, "That a candidate should not be rejected on any written examination, unless his answers had been submitted to at least two examiners."

Recommendation 36 was made to read as follows: "Excellence in one or more subjects should not be allowed to compensate for failure in other subjects."

Periods of Examination: Special Examinations.—Sir HENRY PITMAN moved that Recommendation 37 should read as follows. "The professional examinations should be held by the several licensing bodies at stated periods, to be publicly notified, and if, for exceptional reasons, special examinations be held, the fact, with explanations, should be notified to the General Council at its next meeting."

Mr. SIMON seconded the motion. He said there were no such things as special examinations in England; but it had been felt that, in certain cases, they might be necessary, and all the Branch Council for England asked was that, if they were held, they might be specially recorded. They were liable to abuse, and reasonable security ought to be taken in regard to them.

Dr. STRUTHERS supported the motion.

Dr. HERON WATSON said that special examinations entailed an immense amount of trouble on examiners, and were an encouragement to idle students to go from one licensing body to another. In Scotland, they were now refused, and he trusted that the Council would do everything in its power to express disapproval of them.

After a brief discussion, the following Recommendation, proposed by the Scottish Branch Council, was agreed to: "The professional examination should be held by the several licensing bodies, at stated periods, to be publicly notified."

Limitation of Subjects.—Sir HENRY PITMAN moved, and Mr. SIMON seconded, the adoption of Recommendation 40 as follows: "In the examinations on several of the subjects of the curriculum—particularly as to physics, chemistry, physiology, and materia medica, and forensic medicine—the licensing bodies should limit and define by schedule the extent of examination."

Dr. PETTIGREW moved, as an amendment, that the Recommendation be omitted. Both the Professor of Physiology and the Professor of Chemistry at the University of Glasgow considered that it would be most detrimental to teaching to define those subjects by schedule.

Dr. HAUGHTON seconded the amendment, which was carried.

On the motion of Sir HENRY PITMAN, seconded by Mr. SIMON, Recommendation 41 was made to read as follows: "In no case should the examination of a candidate in any subject be conducted exclusively by his teachers in that subject in the school in which he has been educated."

Evidence of Practical Study.—Sir HENRY PITMAN moved the adoption of Recommendation 43, as follows: "Every candidate for the final professional examination should be required to give evidence that he has had sufficient opportunities of practical study, with care of patients, medical, surgical, and obstetrical, in hospital, dispensary, or elsewhere."

Dr. HAUGHTON seconded the motion.

Dr. SCOTT ORR did not think it should be made compulsory on the candidate to give such evidence. It would give rise to great looseness in giving certificates.

The motion was agreed to.

Recommendations omitted.—The following were withdrawn from the list of Recommendations.

24. The Council will view with approbation any encouragement held out by the licensing bodies to students to prosecute the study of the natural sciences, before they engage in studies of a strictly professional character.

25. A certificate shall be required by each licensing body from every candidate for its degree, diploma, or licence to practise medicine or surgery, that he has studied vaccination under a competent and recognised teacner; that he has himself performed the operation successfully under the teacher's inspection; that he is familiar with the different stages of the vaccine vesicle, and with the methods of preserving lymph; and that he is thoroughly informed in every necessary part of the subject.

26. Such a certificate should be received by any licensing body only from an institution where the appointed teacher of vaccination is recognised by the Local Government Board.

31. An examination in the earlier subjects of professional study should take place before the end of the first year of professional study.

34. The questions to be answered in writing should be submitted to the whole body of examiners for consideration, and revision, if desirable, before being proposed to the candidates.

38. No university of the United Kingdom should confer any degree in medicine or surgery, whether that of Bachelor, Doctor, or Master, upon candidates who have not graduated in arts, or passed all the examinations required for the Bachelorship in Arts, or passed, after due course of education, examinations, such as are, *bonâ fide*, academically equivalent to those required for a degree in arts.

39. As a general rule, none of the higher degrees or qualifications in Medicine or Surgery should be conferred on persons who have not shown evidence of higher professional attainments.

44. In examinations in anatomy, candidates should understand that they may be called upon to perform actual dissections; and candidates in examinations in surgery should understand that they may be called upon to perform one or more operations on the dead subject.

45. Returns from the licensing bodies enumerated in Schedule (A) of the Medical Act (1858) shall be made during the month of January in each year, and in the subjoined form, to the General Medical Council, stating the number of candidates who have passed their first as well as their second and third examinations, and the number of those who have been rejected at the first and second and third examinations respectively; and the Registrar shall forward a sufficient number of forms, with a notice for their being returned in due time. [The form appended to the Recommendation is here omitted.]

The Council then resumed, and the amended Recommendations adopted by the Committee were approved.

Preliminary Examinations.—Dr. HAUGHTON moved the adoption of the report of the Committee on Preliminary Examination.

"At the October meeting of the General Medical Council, held in 1884, a circular was ordered to be sent to each of the bodies in the United Kingdom, whose examination in arts are recognised by the Council, asking for information on the following points:—1, The numbers passed and rejected in 1884; 2, the highest and lowest percentages of those who passed; 3, copies of the examination-papers set. 1. The bodies addressed were twenty-two in number, and answers to the first question were sent by all the bodies except five. Independently, however, of the probable errors in the returns, your Committee do not attach much importance to the percentage of rejections, which depends on so many factors which are unknown that the percentage represents no tangible result. 2. Nine of the bodies furnished the percentage of the lowest pass-marks, which range from 25 per cent. to 50 per cent., the higher percentages occurring chiefly in Scotland, where it is customary to allow the candidate to pass the several subjects at several times; whereas, in England and Ireland, all the subjects must be passed at the same time. Nine of the bodies were unable to furnish the information; two of the bodies were not authorised to do so; and, finally, two of the bodies sent no answers whatever to the questions. 3. Copies of the examination-papers were sent by nineteen of the bodies, and three bodies did not send papers. Your Committee carefully examined most of the papers, and formed their own judgment as to what would be a fair percentage pass-mark, on the supposition that all the subjects were taken up at the same examination. Their estimate ranges from twenty-five per cent. to forty per cent., the lower percentages indicating the more difficult examinations. Your Committee believe that the differences in some of the examination-papers are caused by the fact that the difficult papers are intended not merely to test a pass-candidate, but also to form a basis for the classification of the well prepared candidates. In the Arts Examination, conducted by the College of Surgeons in Ireland, the examination in Greek and Latin is altogether oral. Your Committee are of opinion that these subjects should be examined in by printed papers as well as orally. Your Committee recommend that the examinations of the Queen's Colleges of Belfast, Cork, and Galway should be removed from the list of recognised preliminary examinations, chiefly on the ground that they are superseded by the matriculation examination of the Royal University of Ireland, to which these colleges are now affiliated. Your Committee also recommend that the name of the Civil Service Commission be also removed from the list, as their examinations are not fixed at a definite standard, but vary with the service for which they are intended, and also because these examinations are not attended by medical students."

Dr. Haughton said the percentage of rejections depended on three things; the bad preparation of candidates, the want of knowledge on the part of the candidates of the requirements of the examination, and the personal equation of the examiners. The Queen's Colleges of Belfast, Cork, and Galway had become affiliated to the Royal University of Ireland, and, therefore, their examinations were now useless. The examination of the Civil Service Commission were regulated according to the service for which the candidates were intended.

Dr. STORRAR seconded the motion.

Dr. LYONS said the Civil Service Commission was one of the most powerful bodies in the State at the present time, and it was not judicious to invite collision with it. He would therefore move, as an amendment, that the Civil Service Commission Examinations be not removed from the list of recognised preliminary examinations.

The amendment was not seconded.

Dr. HAUGHTON said the Civil Service Commission had not sent any answer to the Council's questions.

Sir H. PITMAN said the Commissioners were very much surprised at their examinations ever having been put upon the list.

Dr. HAUGHTON said they held hundreds of examinations, but he doubted if any one of them covered exactly the same ground as the examination required by the Council.

The report was adopted.

Visitation of Examinations.—Dr. STRUTHERS moved:

"That a more complete and continuous system of visitation of examinations is desirable, and that it be referred to the three Branch Councils to consider the subject, and to report on it to the Council before its next meeting."

He said he had been stimulated to bring forward this motion by the fact that the question had arisen, how certain funds could be disposed of. Hitherto, the expense attending visitation of examinations had been the great objection to carrying them out thoroughly, but that

difficulty no longer existed. Personally, he believed that all the examinations were in a very satisfactory state; but, in order to satisfy the public and the profession, it was desirable to make certain that they had not degenerated. At the last meeting, the Council resolved that the universities should be visited; but it turned out that those visits had only extended to medicine, surgery, and midwifery. The University of Aberdeen had not been visited at all, though they were anxious to be. His proposal was to seek the advice of the Branch Councils, which, in his opinion, might do far more useful work than they had hitherto done. The Council had power to delegate to the Branch Councils all its duties except that of making representations to the Privy Council; and, by Clause 18 of the Medical Act, the Branch Councils might appoint inspectors of examinations irrespectively of the General Council. He thought each Branch Council might appoint visitors, and make annual reports.

Dr. HERON WATSON seconded the motion. He thought it most desirable that visitations should be regularly carried out, and in such a manner as to cost comparatively little.

Dr. PETTIGREW saw no reason why there should not be a double system of visitation. The universities and corporations might visit one another. The motion pointed to a very legitimate division of labour. By having more frequent meetings of the Branch Councils, the work of the General Council would be simplified.

Sir H. PITMAN proposed, as an amendment: "That the question of a system of visitation of examinations be referred to the three Branch Councils for their opinion, and that they be requested to report to a future meeting of the Council."

Mr. MARSHALL seconded the amendment, which was accepted by Dr. Struthers, and agreed to.

Medico-Legal Cases.—Dr. LYONS had given notice of motion to the following effect:

"That a Judicial Committee, not exceeding five in number, be appointed to fully consider and report upon all medico-legal cases coming up for consideration before this Council, and to report their decision to a meeting of the General Medical Council specially summoned for the purpose of pronouncing judgment on such cases, whenever three such cases have accumulated and are ripe for judgment."

On the suggestion of Sir H. PITMAN, this was allowed to stand over for future consideration.

Removal of a Name from the Dentists' Register.—Strangers were then requested to withdraw, and, on their being readmitted, it was announced that the following resolution had been passed:

"That the Council direct the Registrar to erase from the *Dentists' Register* the name of Charles Rudolph Werner."

The Case of Mr. Bryceson.—Mr. SIMON moved:

"That the case of Mr. Bryceson, as regards his having caused himself to be registered as M.B. of the University of Cambridge, though not possessed of the qualification, be referred to the Executive Committee, and that the Committee have authority to take on behalf of the Council such course as the legal advisers of the Council may advise to be taken under Sections 29 and 30 of the Medical Act."

Dr. MATTHEWS DUNCAN seconded the motion, but, on it being put to the vote, it was lost.

Future Business of the Council.—The PRESIDENT stated that, from communications he had received, he had no doubt that it would be his duty to call the Council together for an autumn session. He had been requested to summon the Executive Committee in the course of five or six weeks, to receive the *Pharmacopœia* in its complete form, and to take immediate steps for its publication. He wished, before the Council separated, to tender, in their name, their thanks to the Chairman of Business, who had admirably arranged their proceedings from day to day. He wished also to thank the Registrar and the printer for the manner in which their work had been done.

The session then terminated.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

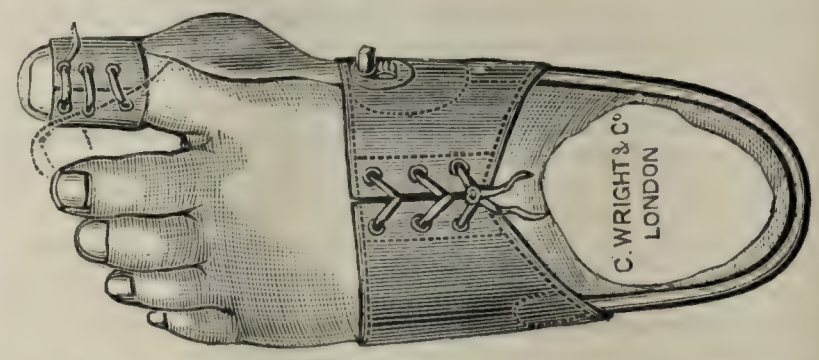
EXTRACTUM PANCREATIS (FAIRCHILD).

THE pancreatic juice is probably the most generally useful of all the digestive fluids. It contains at least four ferments: trypsin, which changes proteids into peptones; the curdling ferment, which curdles the casein of milk; the pancreatic diastase, which converts starch into dextrine and sugar; and, lastly, an emulsive ferment, which emulsifies and partly saponifies fats. The pancreas, in the words of Dr. William Roberts, "excels the stomach as a digestive agent, in that it has power to digest two great alimentary principles, starch and proteids." An extract of the gland, he adds, "is possessed of similar endowments;" but the difficulty hitherto experienced has been to obtain a reliable and convenient preparation of sufficient activity to satisfy the requirements of actual practice. The extractum pancreatis (Fairchild) is not only very active, but is thoroughly reliable. It is sold in little glass tubes, each containing just enough extractum pancreatis and bicarbonate of soda to peptonise a pint of milk. We have been at some pains to obtain a reliable opinion as to the value of these peptonising powders, both in hospital and in private practice, and are satisfied that they are everything that can be desired. We have had opportunities of seeing cases of acute dyspepsia, gastric ulcer, carcinoma of the stomach, uræmic vomiting, pernicious anæmia, phthisis, and other diseases, treated with them, and are informed that the results were in every instance most satisfactory. The powders may be used for the preparation of peptonised soups, jellies, blanc-manges, etc., and as an addition to nutritive enemata. Their introduction is a boon to every practical physician. They are prepared by Messrs. Burroughs and Wellcome, Snow Hill Buildings, E.C.

NEW BUNION SPLINT.

BY EDMUND J. SPITTA, L.R.C.P.Lond., M.R.C.S.Eng.

OWING to the difficulty often experienced in maintaining the great toe in its normal position after continued distortion from badly fitting boots, etc., and in the case of bunion, or enlargement of the joint, Messrs. C. Wright and Co., of 108, New Bond Street, have under my direction manufactured an appliance which, after a trial of some months, fully answers my expectation, and will, I am sure, be found most useful in all cases of similar distortion. It is light, convenient, and easily used during the day, provided that a somewhat larger boot is worn, and that with square toes.



It will be seen by the above woodcut that it essentially consists of a well fitting band of steel, suitably covered, about half an inch wide, passing round the heel from the base of the toe on the inner side, to a corresponding point on the outer border of the foot, being kept in position by a shaped lacing-piece across the arch, and passing beneath the sole. To the steel band is attached, at its inner extremity, a rack and pinion, by which the toe can be drawn away from the median line to any extent desired, the pressure of the screw on the foot being relieved by a moulded steel plate, accurately fitted to the side of the foot, and which is cupshape over the joint or bunion, and covered with soft leather. From the screw and rack, a firm piece of metal is continued on to the end of the foot, and, as the woodcut shows, is provided with a leather stall, which laces round the toe and grasps it tightly.

When extension is applied with the key, the toe is immediately drawn from the median line, and, although the whole structure of the instrument is light, it is maintained in position. Beginning with moderate extension, after a week or so, the toe is readily placed in its normal state.

The splint can be worn whilst walking; but, if it cause the patient pain from the constrained position of the toe, it is advisable at first for it to be removed whilst exercise is taken, but reapplied when that is finished, and especially during the night.

AT a recent meeting held in the Athenæum, Glasgow, Dr. Leishman presiding, it was decided to found an obstetrical society in that city.

MEDICAL CORONER.—Mr. George Arthur Tailer, M.R.C.S.Eng., has been appointed coroner for the borough of Wenlock, *vice* Mr. E. G. Bartlam (his partner), resigned.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

Subscriptions to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 30th, 1885.

DISQUALIFICATION BY MEDICAL RELIEF.

The subject of the disqualification from the exercise of the franchise involved in the acceptance by an elector of certain forms of parochial and medical relief, has lately achieved a prominence quite out of proportion to its intrinsic importance. The recent debates in both Houses of Parliament, and the letters in the daily newspapers, have proceeded almost entirely upon false premisses as to the actual state of the law; and there may be advantage, therefore, in our setting upon record the particular sections of Acts of Parliament which define such disqualification, and the relief which occasions it. We shall not attempt, in what follows, to argue either one way or the other, but simply to state the facts of the case.

Before the passing of the Reform Act of 1832 (2 Wm. IV, c. 45), parochial relief, given on particular occasions (for example, the breaking out of cholera and small-pox), or rendered necessary by an unforeseen accident, was held not to disqualify. But Section 36 of that Act, which section is still in force, provides that "no person shall be entitled to be registered in any year as a voter" in the election of a member or members to serve in any future Parliament for any city or borough who shall, within twelve calendar months next previous to the last day of July "in each year, have received parochial relief or other alms which, by the law of Parliament, now disqualify from voting in the election of members to serve in Parliament." This applied to boroughs only; in the case of counties, the law presumed a voter continuing in possession of his freehold not to be in a state of disqualifying indigence. But by Section 40 of the Reform Act of 1867, the same disqualification was extended to county voters, and the overseers were instructed to omit from their lists of persons entitled to vote the names of all persons who had received parochial relief in the previous twelve months.

Neither the new Franchise Act nor the Registration Act just passed alters the law on this point. Section 10 of the former Act recites that "nothing in this Act shall confer on any man who is subject to any legal incapacity to be registered as a voter or to vote, any right to be registered as a voter or to vote." Section 16 of the Registration Act requires the clerk to the guardians, upon payment of a fee, to send to any voter a list giving the names and addresses of all persons who have, during a period specified in the requisition, received out of the rates either parochial relief or out-door parochial relief.

The forms settled by the Act of precepts to the overseers as to the making out of the voters' lists, lay down that every person entitled to be registered as a voter "must be a man of full age, and not subject to any legal incapacity, and must not, at any time during the twelve months immediately preceding July 15th next, have received any parochial relief" (Instruction 4). On or before the last day of July next, the overseer is to ascertain from the relieving officer acting for his parish the names of all persons who are disqualified from being entered on the list of voters by reason of having received parochial relief, and the relieving officer is bound to produce his books containing the names of such persons (Instruction (31).

The intention, therefore, of the Legislature is clear: to allow no one to be inscribed on the list of voters who has, within the previous twelve months, been in the receipt of "parochial relief," which may be explained as assistance of any kind obtained through the medium of the overseer or relieving officer, and the charge of which is borne out of the poor-rates. So far as can be ascertained, "parochial relief" has never been legally defined; but cases which have from time to time been decided bring the following within the definition; (1) attendance by a parish surgeon under instructions from a special board of health established during a cholera-outbreak, and whose funds were supplied by the parish; (2) maintenance in a lunatic asylum by a third person, who looked to the parish for repayment; (3) medical attendance, even if supplied by the parish without the knowledge of the voter; (4) medical attendance given by the parish surgeon without order of the guardians, if subsequently ratified by them [but medical relief ordered by the police, and paid for by the county, did not disqualify]; (5) providing a coffin, or payment of funeral-expenses; (6) payment for labour by the parish at a lower rate than the usual run of wages; (7) maintenance of a child in the workhouse; (8) medical relief given to a child of the voter under 16 years of age [but medical relief to a grandchild did not disqualify]; (9) relief given to the wife, or to children under the age of 16 (see Poor-law Amendment Act of 1834, Section 56); (10) medical attendance during lying-in of wife, etc.

As to the "other alms" mentioned in the Act of 1832, it seems to have been considered a general principle, with regard to charitable foundations and endowments, that those only disqualify whose funds form a part of the general parish-resources for the relief of the poor, and are managed by the overseer or other officer whose duty it is to provide for and pay the paupers, in the same way as if the funds had been the produce of the parish-rates. And, whilst upon the question of definition, it may be useful to note that, under the fourteenth section of the Divided Parishes and Poor-Law Amendment Act of 1876 (39 and 40 Vict., c. 61), "no person shall be entitled to vote in the election to an office under the provisions of any statute who shall be in receipt of relief given to himself or his wife or child, or who shall be in receipt of such relief on any day during the year last preceding such election."

Thus, so far as the medical side of the question is concerned, there can be no sort of doubt that any person upon whom a district medical officer attends in his poor-law capacity is not entitled to a vote. But it has been made a strong argument in the recent debates that a man who, or whose child, is removed to a hospital in consequence of an attack of infectious disease, will thereby lose his electoral privileges, although such removal may be against his own wishes, and its advantages to the community through the checking of the epidemic may be much greater than to himself. It will be worth while to examine this contention a little more closely. In the first place (and this disposes of very much of the argument), isolation and treatment in a

hospital provided by the sanitary authority do not involve any electoral disability whatever. It is true that, except as regards boroughs, this is nowhere definitely stated in Acts of Parliament; but facilities given by a sanitary authority cannot in any sense be called "parochial relief." In the debates which took place in the winter of 1878-9 with regard to the Disqualification by Medical Relief Bill then before Parliament, both the President of the Local Government Board and the Lord President of the Council, laid it down distinctly that medical relief at the hands of a *sanitary authority* did not disqualify.

Mr. Sclater-Booth, speaking on February 14th, 1879, said: "The Bill provided that a person was not to be disfranchised by receiving medical relief at the hands of a sanitary authority; but, in truth, there was no such condition of disfranchisement, and the Bill, in that respect, pretended to deal with what did not exist. It was well known that hospitals set up by sanitary authorities under the Public Health Act pauperised no one." The Duke of Richmond repeated this declaration on March 21st, 1879, in the House of Lords, adding that the "only persons disqualified from voting were those to whom relief was administered from the poor-rates by officials legally appointed for the purpose, and the law did not apply to sanitary hospitals."

It is to be regretted that this point was not brought out clearly in the recent debates in both Houses, because much misconception might have been saved thereby. It would certainly appear from Sir Charles Dilke's recent utterances that he was not aware of the cardinal fallacy underlying the Bill of 1878, when he offered last June to Mr. Commins the support of the Government in case a measure on the removing disqualification, on account of isolation in an infectious hospital, should be re-introduced.

As regards all sanitary hospitals, therefore, there is no fear of disqualification. As regards the infectious hospitals in the metropolis, which, being provided by the Metropolitan Asylums Managers (a body performing for the whole of London duties otherwise devolving on the Board of Guardians), might come (and, indeed, have in former years come) under the ban, there has recently been special legislation. The Diseases Prevention (Metropolis) Act of 1883 (46 and 47 Vict., c. 35), contains a clause (Sec. 7) providing that "the admission of a person suffering from infectious disease into any hospital or hospital-ship provided by the managers of the Metropolitan Asylums District, or the maintenance of any such person therein, shall not be considered to be parochial relief, alms, or charitable allowance to any person, or to the parent of any person; and no such person or his parent shall by reason thereof be deprived of any right or privilege, or be subject to any disability or disqualification."

The sole question, therefore, as to hospital isolation in its disqualifying capacity must arise in those rural districts where the guardians of the poor act as the rural sanitary authority. But even here there is an avenue of escape; for, by section 14 of the Poor Law Act, 1879 (42 and 43 Vict. cap. 54) it is provided that, if it appear to the guardians of any union desirable that any hospital or building vested in them as guardians of the poor should be vested in them as the rural sanitary authority for such union for the reception of persons suffering from any dangerous infectious disorder, the guardians may, by resolution, to be confirmed by order of the Local Government Board, transfer such hospital or building accordingly. Probably there are a good many workhouse-hospitals that are not so transferred; but a considerable number have been vested in the rural sanitary authority, and it rests with the local guardians to take the initiative in transferring the others.

THE GENERAL MEDICAL COUNCIL.

THE session of the Medical Council came to an end on Saturday last, after a duration of eleven days. The session was thus one of the longest on record.

In our summary of the proceedings of the Council in last week's BRITISH MEDICAL JOURNAL, it was mentioned that on Monday of last week the Council commenced the consideration of the alterations in the Recommendations concerning Professional Education and Examination, which had been sent in by the three Branch Councils in pursuance of a resolution adopted last year by the General Medical Council. This matter occupied the greater part of the time of the Council up to the end of the session. The results may be thus summarised.

The first point considered was the age at which a licence to practise might be obtained. An attempt was made by Dr. Banks and Dr. Aquilla Smith to raise the age to 22; but this found no supporters beyond the proposer and seconder, and the age of 21 was left as at present.

The recommendation as to the earliest period after registration as student at which a licence might be obtained was the subject of considerable discussion; and it was ultimately decided that "the course of medical study after registration should occupy at least five years, if the subjects of elementary physics, chemistry, and biology are included in that period; or at least four years, if a satisfactory examination in those subjects have been passed previously to registration." In connection with this, it was agreed that exceptions might be allowed in the cases of graduates of medicine of Indian, colonial, or foreign universities, or of students who had passed three-fourths of the full time at Indian, colonial, or foreign schools.

Closely connected with the above mentioned recommendation, was one requiring that the course of professional study shall occupy at least four years, of which at least three winter and two summer sessions must be passed at a recognised medical school. In the debate on this, Mr. Simon, Dr. Humphry, and other members, ably urged the recognition of the instruction afforded by the large provincial hospitals which are not connected with medical schools, such as those at Bradford, Brighton, and Exeter. The system of apprenticeship or pupilage to a private practitioner was also referred to, and was disapproved of by several of the Scotch and Irish members of the Council. Ultimately, it was decided that at least four winter and three summer sessions should be passed at a school or schools recognised by any of the licensing bodies.

With regard to the recommendation that not more than one course of lectures on any one subject should be required, the Scottish Branch Council suggested that Practical Anatomy and Clinical Instruction should be exempted from the recommendation. A motion to this effect was proposed by Dr. Haldane; and the Rev. Dr. Haughton desired to add Surgery. An amendment, however, in favour of withdrawing the recommendation altogether, was proposed and carried.

The list of subjects of professional education and examination has undergone some additions. "Midwifery" is now made to include "diseases peculiar to women and to new-born children;" and the following subjects have been added to the curriculum: Theory and Prac-

tice of Vaccination; Hygiene; and Mental Disease. With regard to the last named subject, a special suggestion had been made by the Faculty of Physicians and Surgeons of Glasgow, who, on the proposal of Dr. Yellowlees and Professor Gairdner, had expressed the opinion that "instruction in insanity should be made compulsory in medical education." Vaccination having been included in the list, the special recommendations regarding it were withdrawn.

The recommendation as to the arrangement of the professional examinations in two divisions, and as to the times at which these might be passed, was withdrawn; the concluding paragraph only being retained, namely, that "the examinations, and the subjects included in each, should be such, and in such order, as may insure, as far as possible, a due continuity and sequence of study." The lists of subjects to be included in each examination were also withdrawn; and it was decided to simply recommend that "the final examination shall not take place till the termination of the full period of medical study."

The recommendations in favour of an examination in elementary subjects before the end of the first year of professional study, was withdrawn, as was also that requiring the written questions to be submitted to the whole body of examiners. With regard to written answers, an important alteration was made. The recommendation has hitherto been that "the written answers should be submitted to more than one of the examiners." As altered, it is that "a candidate should not be rejected at any written examination unless his answers have been submitted to at least two examiners."

The recommendations as to the requirement of degrees in arts, or the passing of equivalent examinations prior to the granting of degrees by the universities, and as to the limitation of the higher degrees or qualifications to those who have shown evidence of higher professional attainments, were withdrawn on the suggestion of the English Branch Council, it being considered that those were matters which, among others, would be best left to the discretion of the universities and licensing bodies.

The Irish Branch Council suggested the withdrawal of the recommendation that the range of examination in section subjects should be limited and defined by schedule, and the suggestion was adopted by the Council.

The recommendation that the examination of candidates should not be conducted by their own teachers was retained, a few superfluous words being expunged.

The Council made some verbal alteration in the recommendations that candidates at the final examinations should give evidence of having had opportunities of practical study.

The recommendations as to the possible requirement of dissections during examinations in anatomy, and of operations on the dead subject during examinations in surgery, was withdrawn. The reason for this was, we believe, that which was unsuccessfully urged when the recommendation was first proposed several years ago; namely, the great difficulty which some of the examining bodies would experience in carrying it out, however desirous they might be of doing so.

The Council also decided on withdrawing the demand made on the licensing bodies to make yearly returns of the numbers of candidates who had passed or were rejected at the several examinations.

The recommendations having been considered in committee of the whole Council, and altered as above stated, the Council, on resuming, approved of the amended recommendations. It will have been seen that the result of the investigation has been to simplify the recommendations by omitting various matters of detail, which are now left altogether in the hands of the examining bodies.

A report was presented from the Committee on Preliminary Examinations; and, in accordance with the recommendations contained therein, it was decided to remove from the list of recognised examinations those of the Queen's Colleges of Belfast, Cork, and Galway, and also those conducted by the Civil Service Commission.

The question of a system of visitation of examinations was referred to the three Branch Councils, to be reported on at a future meeting of the Council.

The case of Mr. Ebenezer Bryceson was the subject of much debate, which was conducted in private. Having been summoned, he attended, accompanied by Mr. Jelf, Q.C. The Council adjudged him guilty of infamous conduct in having produced to the Royal College of Surgeons forged certificates of professional study; but "under all the circumstances" decided on not, at present, erasing his name from the *Medical Register*. On the last day of the session, a motion was proposed to the effect that the action of Mr. Bryceson, in causing himself to be registered as M.B. of the University of Cambridge, should be referred to the Executive Committee, with authority to take such measures as might be recommended by the legal advisers of the Council. This was negatived, the numbers being: against, 10; for, 7; did not vote, 4; absent, 3. The name of Charles Rudolph Werner, also, who had pleaded guilty in the Sheriff Court of Midlothian of "falsehood, fraud, and wilful imposition," and had been sentenced to six months' imprisonment, was ordered to be removed from the *Dentists' Register*.

In concluding the business of the session, the President intimated that it would be probably necessary to hold another session of the Council later in the year. The session just concluded may be described as characterised by a great deal of talk with very little result. What result there has been, may be best described as for the greater part negative; namely, the withdrawal of recommendations which could not be enforced in the present constitution and disposition of the examining bodies. The news of the near completion of the new edition of the *British Pharmacopœia* is a satisfactory feature; but for this thanks are less due to the Council than to Dr. Quain, the able and persevering Chairman of the Pharmacopœia Committee, and his coadjutors.

PROFESSIONAL STUDY.

NOTHING definite is likely to ensue from the "hortatory" decisions of the General Medical Council; still, the opinions expressed by some of its members are entitled to consideration. It is evident to all who read our full report of the proceedings of the Council, that some of the most eminent authorities on medical education are at issue amongst themselves on the cardinal points of professional study; that is to say, upon its duration, its nature, and the kind of study which should precede it. We have often expressed our opinion on the last point, especially with regard to theoretical chemistry, which should be made a preliminary, and at the same time a compulsory subject. It seems to be generally recognised that the school-boy destined for medicine should receive a liberal education, being brought up, in fact, as other young gentlemen are supposed to be brought up in England in these days. The chief difficulty attending the study of the preliminary essential sciences lies in the position which a youth is supposed to hold when studying them, a difficulty solved by laying down the law that chemistry must be studied after leaving school, together with the

general or boys' school subjects known to examining boards as "arts," as part of the preliminary examination, the turnpike leading to professional study proper. Concerning the matter of duration, all are agreed that in the United Kingdom the law fixes it at too short a period, especially when it is remembered that "four years" includes true vacations, and also accidental holidays, as when great personages visit hospitals, or festivals are held in honour of the close of the labours of some distinguished officer or teacher, or when there is a dearth of subjects in the dissecting-rooms, or a closure of wards for cleaning and whitewashing. All these contingencies are known to involve a suspension of study, either to the entire body of students in a school, or to dissectors, dressers, or clinical clerks. In addition, the average student may occasionally be indisposed, and may sometimes take a holiday during session. The Council appeared to be particularly divided on the nature of professional study. The apprenticeship question was, of course, raised. Sir James Paget has already expressed himself in favour of the revival of apprenticeship; and Professor Humphry spoke in no ambiguous terms in almost the same sense, though he referred rather to the entrusting of a first year's student to the board and care of a general practitioner in a town where there is a hospital. Under such an arrangement, it is evident that a student is learning his profession, and is not more likely to be neglected than at a large medical school; only there is the grave disadvantage that he is not beginning, as he ought to do, with practical anatomy. Lastly, the lecture-question led to much speaking at the Council. The Scotch members seem to believe greatly in enforced attendance at long courses of lectures. It must not be forgotten that what answers under the centralised university system in Scotland is open to obvious objections in London, with its multiplicity of schools; for, if two hundred lectures on comparative anatomy were enforced over the entire kingdom, the university-student would have to listen with profit to some great biologist, whilst the metropolitan school student would often be forced to attend the discourses of some young surgeon or physician placed in the chair as a stepping-stone to a staff-appointment.

THE distribution of prizes to the students of the Medical School of St. Thomas's Hospital will be undertaken by the Right Hon. the Lord Mayor in the Governor's Hall on Monday, June 15th, at 3 P.M.

THE Spanish Congress for the discussion of Hydrology and Climatology, which was fixed for October 1st, 1885, has been postponed to the same date next year.

THE eleventh meeting of the Italian Medical Association will be held at Perugia next September. There will also be an exhibition of medicinal articles, and of surgical and sanitary instruments and appliances.

A CONVERSAZIONE will be given on the occasion of the annual meeting of the Society for Training Teachers of the Deaf, at the College, Elmhurst Castle Bar Hill, Ealing, W., on Saturday, May 30th, from 4 to 7 P.M. At 4 o'clock, methods of instruction will be illustrated. A stall for the sale of fancy and useful articles left over from the Mediæval Market of last year, will be provided.

THE employees of the London and South-Western Railway have handed a sum of £105 13s. 4d. as a contribution to the funds of St. Thomas's Hospital. In doing so, they have conveyed their thanks to the medical and surgical staff and their nurses for the kind attention always shown to patients from the railway-works. So excellent an example desires record.

WE have much satisfaction in announcing that Sir E. Wilmot has yielded to the persuasions of Surgeon-Major MacCormack, and will again take charge of the motion regarding militia-surgeons on Friday, June 19th, when he has obtained the second place on going into Committee of Supply.

THE ancient firm of Godfrey and Cooke, which was founded at the sign of the Phœnix, in Covent Garden, in 1680, and had a long career of eminent success, has, we read, collapsed. The management has, however, now passed into the competent hands of Mr. H. Greenish, of New Street, an ex-president of the Pharmaceutical Society, and long favourably known to the medical profession.

AT a meeting of the Council held in the library of Queen's College, Birmingham, on May 21st (the Rev. W. H. Poulton, M.A., Warden, in the chair), Dr. James Sawyer, Senior Physician to the Queen's Hospital, and President-elect of the Birmingham and Midland Counties Branch of the British Medical Association, was unanimously elected co-Professor of Medicine, as the colleague of Dr. Foster. Dr. Rickards, Physician to the General Hospital, and Dr. Carter, Physician to the Queen's Hospital, were elected co-Professors of Materia Medica and Therapeutics, in succession to Dr. Sawyer.

THE BRIGHTON MEETING: 1886.

THE Corporation of Brighton have, we are informed, resolved to grant the use of the whole suite of rooms at the Royal Pavilion, including the Dome, to the proposed annual meeting there, in 1886, of the British Medical Association, and they also have supplemented the invitation from the profession by a distinct one from their civic body. Under such auspices, the Brighton meeting is calculated to be a great success.

THE LATE PETER SQUIRE.

THE *Pharmaceutical Journal* of May 23rd contains a very interesting sketch of the proceedings on the occasion of the unveiling of the medallion of the late Mr. Peter Squire at the Pharmaceutical Society's house in Bloomsbury Square by Sir T. Spencer Wells, Bart., to which we last week referred. Sir T. Spencer Wells, Dr. Garrod, Mr. Haynes Walton, Dr. Theodore Williams, and Professor Bentley, gave interesting biographical notes of the special virtues of industry, public spirit, accuracy, and trustworthiness, of which Mr. Squire's useful life gave so many evidences, and did justice to his services to the practical advance of pharmacy, and especially his labours in connection with the revision of the *British Pharmacopœia*.

INOCULATION FOR CHOLERA.

THE abstract, published in another column, of the report of the committee on Dr. Ferran's alleged discovery of a method of inoculating for cholera, cannot but strengthen the feeling of distrust with which the announcement has been generally received by pathologists in this country. Its perusal leaves the impression that Dr. Ferran has not been working with pure fluids; indeed, this is specifically stated to have been the case in the experiments made by the Commission. It is stated that the guinea-pigs which died presented no indication of septicæmia; but much stronger evidence on this head will be required. The blood, moreover, is stated to have contained micrococci, as well as spirilla and comma-bacilli, which is certainly not the case in Asiatic cholera. In man, the symptoms were distinctly of the septicæmic type, and resembled those noted by M. Socin of Bâle in some recent experiments with an organism which occurs in osteomyelitis and in phlegmonous inflammations. The fact that a second

inoculation of Dr. Ferran's cultivation produced no ill results proves nothing as to the nature of the organism. With regard to the protection of human beings against cholera, there are at present no data for forming a correct opinion. Dr. Ferran, it is true, reports that at Alcira, among 5,432 persons inoculated by him, only 7 cases of cholera have occurred, with no deaths; while there have been 64 cases, with 34 deaths, among the remainder of the inhabitants (about 10,500); but this fact alone does not prove that any true protection had been produced. Indeed, a second report is less favourable; it states that 7,128 persons have been inoculated once, that 7 were attacked by cholera, and that 2 died; and that 3,011 have been inoculated twice, of whom none have died; but how many were attacked is not stated. Meanwhile, among the population of Alcira not inoculated, 73 cases occurred, with 39 deaths.

TRIVIAL COMPARISONS.

A PROTEST ought to be made against the loose and inaccurate way in which measurements are often guessed at, in medical and especially in surgical writings. We have long been accustomed to read of the tumour which was about the size of a fœtal head, or a hen's egg, or a Tangerine orange, or a millet-seed, and we have all endeavoured to form some working average of the size of this miscellaneous series; so too, it is not uncommon to read that an ulcer is about the size of a sixpenny-bit, or half-a-crown. Of late years, however, since the florin has come into more general use, ulcers also seem to have become smaller. We have grown so accustomed to this most unscientific system, that we have almost ceased to remember how bad it is; but when we find other nations following our bad habit, we at once perceive its inconveniences. In a recent number of one of the principal medical journals published in the United States of America, two trivial comparisons occur which leave the average European reader quite in the dark. In one case we are told that a certain tumour of the thumb was "altogether about as large as a butter-nut," and that in another case the slough was "about the size of a quarter-dollar.' Now, what do these comparisons convey to the average English reader? As to the quarter-dollar, he has perhaps a hazy vision of a coin rather smaller than a shilling; but the butter-nut, we imagine, conveys no more precise idea to his mind than the famous "piece of chalk," or to use the comparisons in vogue on this side of the Atlantic, the tumour might have had any size between a "fœtal head" and a "Barcelona-nut."

TYPHOID FEVER AT YORK.

LAST autumn a very serious prevalence of typhoid fever took place at York. York may be taken roughly to contain a population of 50,000 persons. Amongst these there occurred, in 1880, 18 deaths from typhoid fever; in 1881, 23 deaths; in 1882, 14 deaths; in 1883, 17 deaths; and in 1884, 57 deaths. Evidently there must have been some special reason for the magnitude of the last named figure. The whole of the circumstances of recent prevalence of typhoid in York have been minutely examined by Dr. Airy, on behalf of the Local Government Board, and Mr. S. W. North, the local health-officer, on behalf of the Town Council. Dr. Airy finds it difficult to speak definitely on the origin of the recent abnormal prevalence of the disease. Mr. North is able to speak with a little more positiveness. He points out that, of 162 deaths from typhoid from 1874 to 1883, more than a third (67) occurred in one or other of the six areas in which the disease was chiefly prevalent during 1884, and a considerable portion of the remainder in streets where cases were known to exist in 1884. This shows pretty clearly that the recent epidemic travelled very much upon old lines, and should be regarded as exceptional only in the severity of its incidence. The result of any inquiry into the cause of the outbreak in 1884 would go far to explain the cause of previous outbreaks. Both Dr. Airy and Mr. North agree in dismissing the water-supply or milk as agents in the propagation of the epidemic; and they agree, also, in ascribing a large responsibility for it to the exhalations from the ill-ventilated sewers, under the influence of an exceptionally dry and warm season, to use the words of Dr. Airy. The River Ouse, on which York stands, and into which it drains, seems to be peculiarly liable to floods. The largest proportion of cases of fever occurred on the lines of sewers having the lowest levels. One thing is obvious, that the sewage-arrangements of the whole city need immediate consideration and improvement.

COLLECTIVE INVESTIGATION IN RUSSIA.

A MEETING of delegates from the different medical societies has been held in the Red Cross Hall, in St. Petersburg, for the purpose of organising collective investigation in Russia. The question arose as to whether it would be better to establish an independent central committee in Russia, or to send the individual reports direct to the International Committee in London. The meeting unanimously decided in favour of the former alternative, on account of the difficulty of entering into an extensive correspondence in a foreign language. The meeting consequently resolved itself into the Collective Investigation Committee for Russia, and arranged to keep up communication with the English Committee. Professor Lesshaft and Dr. Monastyrski were chosen as secretaries. Dr. Rauchfuss presented a report upon the results already obtained, and which had been published in the form of two little books, one dealing with phthisis, the other with acute pneumonia. It was decided that the next subjects for collective investigation should be those proposed by the International Committee, and with the same tables of questions, namely rachitis, calculus, typhus exanthematicus, acute rheumatism, and diseases of the age of school-attendance.

DISFRANCHISEMENT FOR RECEIPT OF MEDICAL RELIEF.

ON this subject, which is discussed in our first leading article this week, Dr. Balthazar Foster of Birmingham writes to the *Times* as follows.

"This disfranchisement for medical relief will affect mostly the new rural voters, men who have comparatively none of the opportunities that the more fortunate dwellers in towns have of obtaining gratuitous medical help, and who have, moreover, from their lower rate of wages, to bear the burden of a more pressing poverty. It is true that sick-clubs may, in many cases, afford a mode of escape for the men themselves, but in very much fewer instances for their wives and children, through whose illnesses the vote will be most often lost. There is, however, another aspect of the question which, in the public interest, ought not to be forgotten. Every possible encouragement should be given to the voluntary notification and isolation of infectious diseases. The chief means of doing this, in the country, is through the Poor-law organisation. Many a village epidemic might be stamped out by judicious and timely isolation. Surely, it is unwise to add another obstacle, so serious as the loss of political status, to those that already exist against measures so conducive to the public health. The agricultural labourer, whose child has scarlatina, has been supplied with another argument for concealing the illness or refusing to allow his child to be removed to a parochial hospital. A whole district may, in consequence, be ravaged by a deadly disease. The argument as regards making "provision for bad times" is somewhat of a mockery when applied to a large proportion of our agricultural labourers, whose scanty earnings allow little to pay for the medical aid which the artisan too generally gets for nothing. In its concern for education, the State, as the *Times* has so forcibly pointed out, has provided that the payment of the child's school-pence shall not rob the father of his vote. In a matter of the child's health, likely to injure the community more immediately than any lack of education, a similar liberality should have prevailed. There is one hope left. Since the generosity of the House of Lords has failed to protect the poor voter, I hope the unfailing charity of the medical profession may find a way to save the agricultural labourer, even when guilty of bodily sickness, from being robbed of his late-won vote."

Dr. Alfred Carpenter writes on the same subject on the following day in the *Times*:

"The action of the House of Lords is to be commended, even by a Radical. The letters which appear in the *Times* of to-day show a lamentable ignorance of the great principles which underlie this important subject; the appeal to the medical profession by my friend and

colleague, Balthazar Foster, being not the least, though one of the most, venial of the errors of the day. Surely, sir, there is something more in this matter than the question of a vote or no vote. The principle of independence and self-reliance which characterises the Briton, in opposition to the paternal government of the foreigner, which acts by keeping the people in leading-strings, is the basis of action. The *quasi*-benevolence of the medical profession has, to some extent, helped to pauperise the people, by leading them to think that medical aid may always be had for nothing. Now, however, that the education of the medical student is becoming a very onerous duty, which cannot be satisfactory unless it be upon a safe foundation, requiring several years for proper adjustment, gratuitous aid cannot be afforded. It is unjust to the medical profession to suggest that it should be. There is no reason why combination among the people should not effect the object required in sickness as well as in trade. If the principle of provident dispensaries among the poor were properly inculcated, so that, by means of a small payment per week or one shilling a month, a family should be able to obtain medical advice when required, there would be no occasion at any time to call upon the parish for assistance, unless something more should be wanted. Self-dependence would be inculcated as a virtue. If our Lady Bountifuls and our benevolence-organisers in country parishes would see that the payments were kept up, they would do much more real good than by urging poor people to accept aid, which in the end lowers their self-respect and makes them lean upon other people rather than trust to their own powers when disaster overtakes them. A principle of sick-assurance among our working classes, for women and children as well as men, upon a sound financial basis—a principle of sanitary supervision entirely independent of the destitution-authority, an intimate association of the medical organisation with the sanitary staff, so that when a case cannot be nursed at home satisfactorily it should be moved into the workhouse-infirmary if the person is in the care of the parish officials, or into the infectious wards if of an infectious character, or into a voluntarily supported hospital if the family is not requiring parish relief—would place our medical organisation in its proper position, and there would be no necessity for discussion upon the subject; disabling chronic disease would be reduced to a minimum, and our struggling younger medical brethren have a certainty in quarterly payments from the dispensary, instead of the uncertainty which belongs to the present plan of levying fees from the sick-poor which they are utterly unable to pay. At the same time, it would do away with the vicious out-patient system, which is producing much mischief in great cities, among the people as well as in the medical profession. I fear that a desire to conciliate the new electors—to buy them, in fact—is thought to be of more importance than the welfare of the nation at large. The House of Lords can be attacked much more efficiently for other *lâches* than its action in disfranchising a voter who has obtained medical assistance for nothing.

THE INTERNATIONAL SANITARY CONFERENCE.

THE discussions which have already taken place among the technical expert delegates at the International Sanitary Conference at Rome have revealed the fact that even the nations which formerly most relied on quarantine are beginning to understand that quarantine is useless. Turkey is now the only country which maintains that sanitary cordons and quarantine on land-routes are useful measures. With regard to maritime quarantine, there is not the same unanimity, though the chief supporters are the Spaniards, Portuguese, and Turks, who have not yet learnt the lesson which experience has often taught them within their own borders. It is understood that, in urging the practical administrative advantages of medical inspection and isolation, the delegates of the British and Indian Governments have had the powerful support of Dr. Koch, the delegate of the German Government, and Dr. Sternberg, the delegate of the United States, and that a resolution proposed by M. Brouardel, the delegate of the French Government, endorsing this principle, has been unanimously adopted by the Conference. The resolution invited the powers interested to construct model ports and to provide for a rigorous inspection of vessels arriving from infected places. At the meeting on May 27th, a subcommittee, consisting of Dr. Koch, Dr. Thorne Thorne, Dr. Sternberg, Dr. Eck, and M. Proust, was appointed to report on the best means of disinfecting ships, public conveyances, and buildings. The report ought to be a valuable document, and will, it may reasonably be hoped, result in an uniform method of disinfection in all countries, so that we shall hear no more of the puerilities which were often noted in these pages last year. A proposal, made by Dr. Sternberg, authorising consuls to examine the sanitary condition of ships proceeding to ports in the countries which they represent, was negatived by a large majority. So far, the Egyptian question appears to have been successfully avoided. The Suez Canal Draft Treaty, recently drawn up in Paris by the Subcommittee of the Suez Canal Commission, though carefully avoiding all reference to quarantine, does not appear to simplify matters, and, sooner or later, the question must be discussed and settled.

FEVER AND SMALL-POX IN THE METROPOLIS.

THE returns presented at the Metropolitan Asylums Board at the last meeting on Saturday, in regard to fever and small-pox, showed that, during two weeks ending on that day, 72 fresh cases of fever had been admitted to the five fever-asylums in different parts of the metropolis, 12 had died, and 48 had been discharged, leaving 229 under treatment, namely, 190 cases of scarlet fever, 4 of typhus (in the south-eastern district), and 35 cases of enteric fever. The number under treatment a fortnight ago was 12 less than the number left on Saturday. The small-pox asylum returns showed that, during the fortnight, 497 fresh cases had been admitted to the ships and the five hospitals around London (the sixth, that at Plaistow, now being closed), while 351 had been transferred to the Darenth Camp, and 108 to the hospital-ships. During the fortnight, 91 had died, and 43 had been discharged recovered, leaving 1,344 under treatment, a decrease of 30 on the numbers left the previous fortnight. Of the whole number, 996 are in the camp at Darenth, 237 are in the hospital-ships, 29 in the south-eastern asylum, 22 in the south-western asylum, 16 in the western asylum, 12 in the north-western asylum, and 28 in the eastern asylum.

THE WATER-SUPPLY OF LINCOLN.

THE Town Council of Lincoln have lately been discussing in a very animated fashion the quality of the water-supply of that city. Dr. Harrison, the medical officer of health, was invited some time ago to make a report upon the sources of the supply of water; and he presented a very clear and valuable statement, in which he expressed the opinion that the water, after filtration, contains an excess of organic matter, making it only a second-class water; that the sources of the water are polluted by drainage from land highly cultivated, and occasionally manured with night-soil; that the quantity available is not sufficient for the wants of the city; and that it is "not advisable" to take water for the supply or the city from the river Witham, which receives the effluent from the Grantham sewage-works, and is polluted in other ways. Acting upon this studiously temperate report, the Waterworks Committee had passed a resolution recommending the Council to direct inquiries as to any other source available for the city; but the full Council decided, by thirteen votes to four, that "the quality of the water supplied by the corporation does not afford reasonable ground for complaint; but that the Council be requested to take such means as may be practicable to limit, as far as possible, the entry of contaminating matter into the sources of supply, and to improve, if possible, the condition of the water." We have no space, nor is the matter of sufficient general importance, to warrant us in pointing out in detail the hopelessness of this resolution; but we may take the opportunity of protesting once more against the pernicious doctrine, much relied upon in the Lincoln debate, that, if polluted water be allowed to run a certain number of miles, it is "oxidised," and becomes harmless. No chemical sophistry will convince us that the water of a stream, once fouled by excrement, can be physiologically safe for drinking purposes at a point lower down the stream. The Lincoln town-councillors appear to be quite content that their water should be described as "second class," and they do not see any danger in the state of affairs to which Dr. Harrison has called their attention. The Council will find that it is *not* possible to

limit the entry of contaminating matter into their water-supply, and is *not* possible to improve the condition of the water whilst it is derived from the dangerous sources described by their medical officer of health. It would be far wiser, and in the end far cheaper, to direct their attention to an alternative supply from sources above suspicion.

DEATH OF DR. THORBURN.

We deeply regret to hear of the death of Dr. John Thorburn, Professor of Obstetric Medicine at the Owens College and Victoria University, Manchester, and Obstetric Physician to the Manchester Royal Infirmary. Dr. Thorburn was fifty-one years of age, and had just lived to see the publication of his *Practical Treatise on the Diseases of Women*. Dr. Thorburn occupied a leading position as a gynæcologist and obstetrician, and took part in the formation of the British Gynæcological Society. He was a familiar presence in London, and much esteemed.

EXCISION OF TUMOUR OF THE BRAIN.

Dr. Macewen sends the following correction of the report of his observations at a meeting of the Royal Medical and Chirurgical Society, published in the Journal of May 16th, p. 989, line 17 from bottom: "The bone was reimplanted between the dura mater and the scalp in continuity with the skull, and not in the brain as was stated." Concerning some remarks on Dr. Macewen's case, on page 1,006 of the Journal, he writes: "There was *no* wound or other external manifestation in the skull or soft tissues of the head in the second which was described, and therefore nothing of that nature which could have led to the possibility of a diagnosis. The diagnosis was effected entirely from the motor symptoms exhibited."

THE CROONIAN TRUST.

The Royal College of Physicians, which not long ago was, for so august a body, very poor, has, in recent years, been growing rich; the last piece of good fortune which has fallen to it has been the immense increase in the value of the Croonian Trust, which used to bring in about £10 a year, but now affords an income of over £200. How to dispose of this income to the best advantage of medical science has been a subject of anxious consideration with the Council and Fellows, as will be seen from a report which we publish elsewhere. The various proposals made differ rather in detail than in purpose; all are designed to advance the study of practical medicine by encouraging original research in the field of therapeutics or applied physiology and pathology. Whatever may be the details of the scheme as eventually worked out, there is every reason to hope that it will confer a real benefit on medicine.

COUNTY-COURT JUDGES ON MEDICAL FEES.

The proverbial uncertainty of the law has not unfrequently been exemplified in actions for the recovery of medical fees; and lawyers, who, in their own practice, will not write a note of half-a-dozen lines without a fee, sometimes appear to think that medical men ought to drive as many miles, and give their skilled opinion, for a fee which would hardly cover the posting-charges. A mediæval physician has left us an epigram in which he says that the physician, when sent for in the moment of illness, appears an angel to the sick man and his friends, but that when, after the patient has recovered, he demands his fee,

Horridus apparet, terriblisque Sathan!

A case was recently tried in the Colchester County-Court, in which a medical man practising in Colchester sued the manager of a firm of coal-merchants for a bill of about £20, the accumulated fees of about three years. One of the excuses made by the defendant was that the charges were unreasonable; but it was proved that the fee charged for a visit, which involved a journey of between four and five miles, was only five shillings, and that the fee charged for a consultation with a consulting-surgeon was only ten shillings. The judge, in summing up, said that he was surprised at the moderate charges made by medical men in his circuit; no men, he thought, worked harder than they did. It is pleasant to find this expression of opinion fully confirmed by the judge of the county-court in a neighbouring district (Sir Francis Roxburgh, Q.C.), who, when trying a case a few weeks ago, remarked "that he did not know a class of men who were worse paid than doctors in the country."

DEATH FROM CHLOROFORM.

An inquest was held at Guy's Hospital, on Wednesday last, on the body of Thomas Chambers, aged 24, a law-stationer's clerk, lately residing at 3, Old North Street, Red Lion Square, who had died in the hospital under chloroform on the previous day. On that day, the deceased dislocated his humerus while getting off the box of an omnibus. He was taken to the hospital, where four ineffectual attempts were made to reduce the dislocation. Chloroform was then used, and the shoulder was easily set, but the patient died under the influence of the anæsthetic. Mrs. Chambers gave evidence that her husband had, on a former occasion, wrenched his shoulder while getting off an omnibus. She did not know that his heart was weak. Mr. Charles Muspratt, the house-surgeon of the hospital, deposed that the deceased took the chloroform badly. A very small quantity was administered. A *post mortem* examination showed slight degeneration of the large vessels of the thorax, but there was no organic disease sufficient to account for death. The death was caused by syncope, the result of an anæsthetic. The effect of chloroform could never be forecast, as it was different on almost every patient. A verdict of "Death from misadventure" was returned. The substitution of some safer anæsthetic than chloroform for adults has still to be constantly urged upon those responsible for the production of anæsthesia in hospitals and elsewhere. Ether, or even the "A.C.E." mixture, notoriously fulfils these conditions of increased safety, and either of these two agents is usually to be preferred to chloroform.

DIARRHŒA AT LEICESTER.

The persistent way in which diarrhœa attacks Leicester every summer has more than once been discussed in these columns. Dr. Ballard, of the Local Government Board, has for some years brought his analytical and judicial mind to bear upon the meteorological and topographical phenomena of the localities where autumnal diarrhœa makes its greatest inroads, but, so far, without any outward or visible result. The mortality at Leicester from diarrhœa last year was extraordinarily heavy, 344 deaths being recorded, against 148 recorded in 1883, and 248, the annual average for the twelve years 1872-83. Of the 344 deaths last year, 276 were those of infants under one year of age, 48 were of children from one to five years, and 20 were persons over five years. The annual rate for the thirteen weeks included in the summer quarter of 1884 was equal to 9.8 per 1,000, against 3.9 in 1883 and 5.7 in 1882. In any endeavour to discover the occasioning causes of this annual scourge, great weight must be attached to the fact that the disease, in its progress over Leicester, affects simultaneously persons of every age, although the fatal cases are, as a rule, met with almost exclusively among the very young and the old—that is, among those sections of the people where stamina is either not yet fully acquired or has declined. Among the sufferers last year to whom diarrhœa-mixture was dispensed by the Sanitary Committee, were to be found, indiscriminately mixed, infants and children of school-age of every constitutional phase, adolescents, men and women in the prime of life, as well as persons of more advanced years. Very few of the children in Leicester, and particularly of those living in the lower lying districts of the town, reach the age of twelve months without being attacked with the complaint in some form or other. Additional experiences of the disease, gained last summer, have served to strengthen Dr. Johnston, the local health-officer, in his conviction that "diarrhœa, as it affects both adults and infants during the summer months, depends, in the majority of instances, upon the in-

troduction into the system, by means of air or in food, of living organic ferments derived from the putrefactive decomposition of animal refuse-matter."

FROZEN MEAT FOR HOME AND PUBLIC CONSUMPTION.

NOT the least of the advantages which we gain from our connection with the Colonies, is that of participation in their practically inexhaustible food-supply. It is a fact of the best omen for the mother-country and for them that, in a time of general commercial torpor and need of economy, meat, the best and costliest form of necessary food, is to be had at two-thirds, or even half, of the price at which it has hitherto been sold in the British market. At various parts of the metropolis, frozen mutton or lamb from Australia, and beef from America, of excellent quality, are now being sold at this low rate. The meat is well preserved, fresh, and usually succulent and tender, though we have observed about some of the mutton a certain density, which is perhaps due to its previous contraction by freezing. This, however, is a small evil, and by no means sufficient to discount in any marked degree the value of the meat as nutriment, or even to mar its agreeable flavour. The care with which the freezing process is carried out appears in the freshness of the meat when thawed, a freshness which is not quickly lost. These facts ought to speak in favour of the imported beef and mutton, which come not at all too soon in the interest of all classes, of the poor especially, but not of the poor alone. A short time ago, a suggestion appeared in one of the evening papers, that the abundant meat-produce of the Colonies might thus be utilised to feed the army at Suakin. It would certainly seem that, so long, at least, as the army can be easily reached from its base at the coast, it is not likely to find in the flesh-pots of Egypt better provision than that which we have here briefly described.

LIEBRECHT'S METHOD FOR EXCISION OF THE ANKLE-JOINT.

LIEBRECHT'S method, as described in the *Annales Médico-Chirurgicales*, 1885, No. 1, consists in making a transverse superficial incision, beginning at the middle of the posterior border of one malleolus, and ending at a corresponding point on the other side. The tendo Achillis is cut across, and a second incision is then made along its inner border. The posterior tibial vessels and nerve, and the tendons which pass behind the malleoli, are then easily freed and drawn aside. The joint is opened from its posterior and external aspect, and the bones can then be examined and excised, after which the two ends of the tendo Achillis are united by sutures. The operation is easy, and the dependent position of the wound makes a retention of the secretions almost impossible.

DIGITAL TENOTOMY IN PIANISTS.

IT is well known that the movements of extension of the fourth finger are very limited when the adjoining fingers are fixed. This seriously increases the difficulty of piano-playing for beginners; and an operation has been planned by Dr. William Forbes, of Philadelphia, with a view to freeing the fourth finger, and rendering it more movable. He divides subcutaneously, with a tenotome, the fibrous bands which unite its tendon to those of the third and fifth fingers; and, in his fourteen cases, a good functional result has been obtained without accident of any kind. It seems, however, probable that the effort necessary to stretch any fibrous band existing between the fingers is in itself useful, as tending to strengthen all the muscles attached to them.

ANKYLOSTOMUM DUODENALE.

FOUR years ago, this blood-sucking intestinal parasite attracted attention from the ravages which it produced amongst the workmen on the St. Gothard railway. A short but very complete sketch of the epidemic, with an account of the characters and zoological affinities of the parasite, written by Dr. Bugnion, of Geneva, appeared in the JOURNAL of March 12th, 1881, page 382. It is very frequent in Egypt, where it causes Egyptian chlorosis, and is found in Brazil, India, and other hot countries, always entering the body through the medium of water, as McConnell, Cobbold, Sonsino, and others have proved. A year or two after the St. Gothard epidemic, some cases were observed in Germany (JOURNAL, vol. ii, 1883, p. 640), and some more have recently been recorded in the German medical press. Dr. Mayer, of Aix-la-Chapelle, in the *Centralblatt für Klinische Medizin*, describes a case of a miner, aged 32, who became suddenly anæmic, and was seized with diarrhœa. The stools were of a dull-red colour, and on microscopic examination the eggs of the ankylostomum were discovered. Free doses of extract of male fern were given, and quantities of the parasite passed in the motions; the patient at once began to improve in health. He had worked near Liège, where, in January, Professor Masius had already observed some cases of ankylostomum disease. In the *Korrespondenzblatt für Aeryze* Dr. Bäumler gives notes of a case that died of phthisis at Freiburg last year. Although the epidemic had ceased for over three years, this patient, who had worked in the St. Gothard tunnel, became characteristically anæmic during his last illness, and passed ankylostomum-eggs. Dr. Bäumler tried, with success, a Brazilian remedy. Four drachms of doliarina, a substance found in the sap of *Ficus doliaria*, and mixed with ferruginous and aromatic powders, were given three times daily. Severe griping pains were produced, and fluid evacuations passed, loaded with ankylostoma. The patient experienced relief, but after nine doses the drug was discontinued, owing to aggravation of his pulmonary symptoms. After death, a few months later, masses of the parasite were found hanging on to the mucous membrane of the jejunum and ileum to about six feet above the ileo-cæcal valve, below which point no more could be detected. Dr. Bäumler believes that doliarina is a good remedy to carry about and use for mild, incipient cases; but male fern kills the parasite more quickly and with greater surety. There can be little doubt that ankylostomum disease may spread northwards and westwards, even to this country, especially amongst bricklayers and tile-burners, who are the most exposed to its causes.

THE CLINICAL SOCIETY.

THE final meeting of the session was one of peculiar interest. As will be seen from perusal of our account of the proceedings, published elsewhere, the report of the committee appointed, some two years ago, to inquire into the treatment of spina bifida, by Morton's method, was read in abstract by Mr. R. W. Parker. The committee consisted of Messrs. Marsh, Gould, Clutton, and Parker; and the report, if somewhat delayed, amply justified its tardy appearance by the elaborateness of the committee's investigations. It is not too much to say that the pathological anatomy of spina bifida will now be better understood than it has ever been before; and that the indications for, and results of, treatment by different methods have never hitherto been so carefully compared. It seems that 649 persons died from spina bifida in England and Wales in 1882, of whom 612 were under one year of age; whence it will be seen that this abnormality is by no means rare in this country. According to the committee's report, the treatment by ligature, and also that by excision, showed a certain amount of success; whilst that by repeated tapping and pressure gave the least successful results of any plan. But the committee found themselves compelled to report against all these methods of treatment, and advocated that by injection, and, preferably, by the injection of Morton's fluid. A large and valuable collection of drawings, in the preparation of which the committee had the benefit of Mr. Shattock's assistance, accompanied the report. Two cases of successful œsophagotomy, one by Mr. Lawson, and one by Mr. Lediard of Carlisle, for impacted teeth-plates, next occupied the attention of the meeting; from which the teaching seemed to be that the operation should not be performed too hastily, as the plate may gradually finds its way into the stomach, and eventually be passed *per anum*, and if the operation

be performed, and the case be recent, the œsophageal wound might be closed with catgut ligatures; whilst in all cases a soft elastic œsophageal tube should be passed into the stomach, and left in position, and the patient fed through it, for some days. Cases of Raynaud's disease, brought to the Society by Dr. Colcott Fox, were next discussed. The necessity of keeping the limbs constantly warm, and the value of treatment by the constant current, and by shampooing, were enforced by several speakers, chiefly by Dr. Barlow. Two cases of tumour, removed successfully from the bladders of male patients in St. Thomas's Hospital, were detailed by Mr. W. Anderson and Mr. B. Pitts. Mr. Godlee dwelt upon the fact that tumours too large to be completely taken away might be partially removed, with a probability of much improvement in the patient's condition; whilst Professor Humphry, who, it may be remembered, had the first operation of the kind recorded in England, emphasised the observation that the interval between the attacks of hæmorrhage in a patient known to be the subject of tumour of the bladder may be one of years. Several rare living specimens were also exhibited. Mr. Bryant, the President, in commenting upon the close of the session, considered that it might be claimed as a success, and hoped the members would, during the recess, collect fresh facts and originate fresh thoughts for the Society's benefit during the following session. The Council, he said, had no suggestions to make for the future; but he thought the members should cultivate the thorough discussion of the papers read, so that all points might be well threshed out in the debates.

SCOTLAND.

THE CHARITY-MATCHES OF THE SCOTTISH FOOTBALL ASSOCIATION.

Last year, we drew attention to the very commendable practice of the Scottish Football Association, by which the surplus funds resulting from the drawings at the various Charity Cup matches were divided amongst several of the charitable institutions of Glasgow. This plan has been followed again this year, and different charities have benefited to the extent of £520; the Royal and Western Infirmaries heading the list with £100 each. During the ten years that these matches have been instituted, no less a sum than £5,240 has been disbursed by the Association from this source.

THE GLASGOW INFIRMARIES AND THE MILK-SUPPLY.

It will be remembered that last autumn the different infirmaries in Glasgow were visited by a severe epidemic of enteric fever, the source of the disease being traced to the unsanitary condition of some farms from which the milk-supply was drawn. It was also very clearly shown, by the inquiries made at the time, that, if the local sanitary authorities, within whose jurisdiction these farms lay, had done their duty, and exercised proper supervision, the outbreak would probably never have taken place. We observe that the lesson has not been thrown away on the hospital-authorities in Glasgow, and that for the ensuing year they have concluded their contracts for milk-supply under such conditions that they almost preclude the possibility of repetition of the previous unfortunate occurrence. The conditions insisted on are too long for enumeration here; but a perusal of them shows that they are such as ordinary prudence and the present state of our knowledge as to the origin of previous epidemics of fever would suggest, especially in the face of the indifferent sanitary inspection which at present undoubtedly exists in many rural districts of Scotland, and which is a positive source of danger to many of the large towns.

OBSTETRICAL SOCIETY IN GLASGOW.

For a short time past there has been some talk of establishing an Obstetrical Society in Glasgow, and a meeting was held in the Athenæum on Tuesday, the 19th instant, to determine the matter. Professor Leishman presided, and there were about thirty gentlemen present. It was the generally expressed opinion that such a society was needed; and, on the motion of Dr. Park, seconded by Dr. Pollok, it was unanimously agreed that this society should be established. It was further agreed, on the motion of Dr. Park, seconded by Dr. T. F. Gilmore, that a committee should he appointed to draw up a constitution to be submitted to an early meeting. The committee, consisting of the mover and seconders of the motions, Drs. W. L. Reid and Murdoch Cameron, with Mr. J. Stuart Nairne as convener, will, it is to be hoped, draw up such a constitution as will be agreeable not only to practitioners resident in Glasgow, but to those resident in the neighbourhood and western districts of the county. Obstetrics is a subject in which every practitioner has more or less experience; and the interest in it is so universal, that a society specially devoted to it is, in these days, not only an advantage, but a necessity,

THE WEATHER IN SCOTLAND.

The weather of the present month in Scotland has been quite unprecedented in its severity. The showers of hail and sleet during the day have been frequent, while at night several degrees of frost have been noted on different occasions. In some of the highland districts, a heavy coating of snow covers the ground. As a consequence of this state of matters, vegetation has suffered a good deal, and the prospects of the fruit-season are not so hopeful as they were. At present, there are not wanting signs of the approach of more genial weather.

THE BEN NEVIS OBSERVATORY.

With the view of increasing the usefulness of the work carried on in this observatory, a notice of which appeared in the Journal of May 16th, it has been resolved to add to the appointments of the institution a printing-press, so that copies of the hourly observations made there may be printed daily, and distributed among the more distinguished meteorologists and meteorological establishments of the world. At the last meeting of the directors, the return of observations laid on the table extended down to May 6th, and from the records of the anemometer at the observatory, it seems that, during the great storm which occurred about the end of April, the wind on two occasions showed a velocity of at least 80 miles an hour during two hours, and a velocity of 75 miles an hour during nine consecutive hours.

THE PURIFICATION OF THE WATER OF LEITH.

Complaints having been made to the Leith Town Council by inhabitants on the shore as to the smells arising from the accumulation of mud in the harbour, a report has been prepared by Dr. Williamson (Medical Officer), Mr. Gilbert Archer (Sanitary Inspector), and Mr. Beatson (Burgh Surveyor), which states that sewage is put into the water of Leith both within Edinburgh and Leith, and that a considerable proportion of the impurity is caused by public works above the city of Edinburgh. The drain passing through Leith is considered to be too small, and it is stated that heavy rains or floods cause a large overflow of sewage to go into the harbour. Copies of the report have been sent to the Board of Supervision, the Leith Harbour and Dock Commissioners, and the Edinburgh and Leith Sewerage Commissioners, the attention of the latter body being particularly directed to the provisions of the Act of 1864, which were framed to deal with such a nuisance as that complained of.

WATER-SUPPLY OF ST. ANDREWS.

The authorities of the flourishing and fashionable watering place St. Andrews, have been much exercised during the past few months, or perhaps years, over the question of water-supply, an effort having been made by some to bring the question of a pure water-supply for a growing health-resort to its proper position. They have, however, been defeated, but, having invoked the opinion and aid of the Board of Supervision, they have received a letter from the secretary, in which it is stated "that the Board believe that the majority of the local

authority are ill advised in abandoning what is known as the Lochty scheme. They are of opinion that the water at present supplied to the town, coming as it does from a highly manured area, is of distinctly inferior quality, and that no measures which the local authority can take will have much, if any, effect in improving its quality throughout the year. The value of a sufficient supply of first-class water to a town like St. Andrews cannot be overrated, and they regret that, by the action of the local authority, the inhabitants should for the future be restricted to the use of water of an inferior quality." These pointed remarks of the local authority carry the question out of the area of parochial disputation, and, it is to be hoped, will aid the cause of the water-reformers ere the place be "boycotted" by visitors, through the obstinacy of those who insist on all drinking inferior water.

REPRESENTATION OF EDINBURGH AND ST. ANDREW'S UNIVERSITIES.

THE announcement of the Right Hon. Sir Lyon Playfair, M.P., that he will not seek re-election for the Universities of Edinburgh and St. Andrew's, has come as a complete surprise to the constituency; it is a disappointment to his friends, while it is a cause of jubilation to his opponents. To those again, who value university representation apart from mere political bias, Sir Lyon Playfair's retirement must be a source of sincere regret. Sir Lyon Playfair's reasons for leaving the constituency is, that he is not in accord with those educationalists who desire that Scottish education should be placed under the care of a Secretary of State for Scotland, and who have prevailed with the Government in proposing that it should be placed there; that his opposition to such, combined with the fact that his majority in 1880 was by no means a large one, renders it clear that his chance of re-election would be very unlikely; and so he has concluded not to try again. The constituency is to be sympathised with on losing a member who has so thoroughly identified them with the discussion in Parliament, and settlement, of many questions in education, science, and art, and more particularly in regard to a just conception of the claims of vaccination and vivisection. Sir Lyon Playfair can scarcely be congratulated on relinquishing for himself, and perhaps for his party, a seat which did him no dishonour. It was worth a contest, even a defeat; and his supporters, who worked hard for him before, and were willing to do so again, surely merited some consultation on the matter. He would have been sure of a seat at any time had he been defeated for the Universities. We hope he will soon get another seat, and that, although not an university representative, he will remain an academic member of Parliament. A meeting of the Liberal Committee of the Universities was held on receipt of Sir Lyon's determination last week, and steps are being taken to secure a suitable candidate.

DESTITUTE SICK SOCIETY, EDINBURGH.

AT a quarterly meeting of the Directors of the Society for the Relief of the Destitute Sick, held last week in Edinburgh, the report submitted showed that, during the past three months, the visitors of the Society had made 3,600 visits, and that 439 new cases had been dealt with. The sum of £579 had been spent in giving relief to the destitute sick in the form of money, meal, and coal; in addition to which, several persons had sent parcels of clothing. This Society is the able assistant of dispensaries and out-door departments of hospitals in Edinburgh.

COTTAGE HOSPITAL AT GRANTOWN.

THE Jan Charles Cottage Hospital for the reception of the sick poor in Grantown and its district was opened on May 19th. The hospital, along with the magnificent memorial chapel, are in memory of the late Earl of Seafield, who died suddenly last year, after an operation for aneurysm, when just over 30 years of age. The hospital was erected and endowed by funds provided by Jan Charles, eighth Earl of Seafield, and his mother, the Countess of Seafield. It is fitted to receive ten patients.

ABERDEEN UNIVERSITY EXTENSION SCHEME.

A DEPUTATION of professors and others representing Aberdeen University had an interview on Monday, the 18th inst., with the Earl of Rosebery, as the official head of the Board of Works, anent the proposed extension of the buildings for the medical school of this University. The deputation pointed out that the buildings were at present under the care of the Board of Works, and that, owing to the recent great increase of the medical students, improved laboratory and class-room accommodation was urgently required, and that a sum of £100,000 would be needed to effect the necessary additions and improvements. His lordship, after listening to the statements of the deputation, and asking some questions, said that he thought the application ought to have been made in the first place to the Treasury, who held the purse-strings, his lordship facetiously remarking that he was merely a plumber and glazier. It cannot be said that Lord Rosebery's method of dealing with the deputation has given satisfaction in Aberdeen. His lordship must have known beforehand what they wished, and if that were so, he ought to have let them know, so that they need not have wasted their time and his as well. In fact, Lord Rosebery simply indicated that they had come to the wrong shop. The Principal pithily stated that, had he known how matters stood, he would not have come so far to "plague" his lordship. No doubt his lordship's advice will be acted on, and Mr. Childers will in due time be favoured with a call, on the recommendation of Lord Rosebery.

IRELAND.

THE annual meeting of the Royal Medical Benevolent Fund Society of Ireland will be held at the Royal College of Surgeons, Dublin, on Monday next, June 1st, at four o'clock. The President of the College will preside.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE following Fellows of the College have been elected examiners under the newly acquired provision in the Charter: Anatomy and Comparative Anatomy, Mr. W. Stokes, Dr. Macdowel, Dr. Swan, Dr. Ormsby; Surgery and Surgical Anatomy, Dr. W. Thomson, Mr. Croly, Mr. O'Grady, Dr. Ball; Medicine and Therapeutics, Dr. R. Hayes, Dr. Boyd; Materia Medica, Dr. Minchin, Dr. Frazer; Physiology, Dr. Mapother, Mr. Abraham; Medical Jurisprudence, Dr. Pratt; Midwifery, Dr. Cranny, Dr. S. Mason; Ophthalmology, Mr. A. H. Benson, Mr. Swanzy; for Diploma in Midwifery, Dr. Roe, Mr. Croly; for the Preliminary Examination in General Education, Dr. Davys, Dr. Morton, and Dr. Tweedy.

SOUTH INFIRMARY, CORK.

THE trustees recently issued an advertisement that, as, according to Rule 1, all officers appointed after 1876 shall cease to hold office after five years, but are eligible for re-election; and that on the 12th of June a vacancy will occur for a physician and two surgeons, applications might be sent in for the same. On this becoming known, a meeting of the medical profession was held recently, presided over by Dr. O'Connor, senior, when the following resolutions were adopted. "That we, the members of the medical profession in Cork, are of opinion that the system of electing the staff of the various hospitals for a limited period, and then compelling them to stand an election, and send in applications for re-election to the appointments, the duties of which they have discharged to the advantage of the hospital, and with credit to themselves, is casting a slur on our profession, and lowering the status which members of the staff of an hospital should hold, and

therefore injurious to the best interests of the hospitals." 'That we are of opinion that it would not be in accordance with medical ethics for any medical man to send in an application, or oppose the re-election of any member of such staff, unless he had voluntarily resigned his appointment, or had been incapacitated by the infirmities of age or otherwise, or had been proven to be neglectful of his duties."

THE IRISH MEDICAL ASSOCIATION.

THE annual general meeting of this Association will be held, as usual, on Monday next, being the first Monday in June, and the day of the annual meeting of the Royal College of Surgeons in Ireland.

HEALTH OF IRELAND, 1884.

DURING the past year, the births registered numbered 119,195, or 24 per 1,000 of the population; and the deaths 87,564, or a rate of 17·6. The birth-rate and death-rate were both below the average of the past ten years. Zymotic diseases caused 7,221 deaths, of which only one was due to small-pox, as compared with 16 in 1883, and an average annual number of 335 in the ten years, 1874 to 83. Measles caused 485 deaths, as against 801 deaths in 1883; scarlet fever 1,342 deaths, or 473 less; diphtheria, 346; whooping-cough, 1,650, or a decline of 391; fever, 1,785; diarrhœa, 1,588, against 1,435; and simple cholera, 24. Inquests were held during the year in 2,140 cases, or one in every 41 deaths registered.

DUBLIN CITY PUBLIC BATHS AND WASH-HOUSES.

THE Lord Mayor of Dublin formally opened, last Monday, the first municipal public baths and wash-houses erected in the city. They are situated in a convenient locality for the class for whose benefit they are intended; and if they prove successful and popular, the corporation are pledged to provide similar bathing and washing accommodation in other quarters of the city. The cost of the new building was £5,000. It contains eight reclining baths for males and four for females. The wash-house contains twenty stalls. There is a corresponding number of drying chambers, and new and elaborate machinery is provided for the washing and mangling of clothes. The total charge for the laundry, with all its conveniences, is one penny per hour. A swimming-bath for males is also to be erected in connection with the building.

THE ROYAL COLLEGE OF PHYSICIANS.

AN extraordinary meeting of the College was held on Thursday, May 28th, under the presidency of Sir William Jenner, K.C.B.

Nineteen new Fellows, whose names have been already published in the JOURNAL, were formally admitted to the Fellowship.

On the motion of Dr. Priestley, a motion was passed unanimously expressing the sympathy of the College with the widow and family of the late Dr. Thorburn, of Manchester, who was elected to the Fellowship at the last Comitia, but whose lamented death has prevented his formal admission.

A communication was received from the Royal College of Surgeons, asking that seven Fellows might be appointed as delegates to meet seven delegates of the College of Surgeons, to consider whether any plan could be adopted with a view to obtain the title of M.D. for those who have obtained the qualifications of the two Colleges. Seven delegates were accordingly appointed.

After a discussion on the question of publishing the MS. lectures of Harvey in autotype, and with a deciphered text, it was decided that the College should guarantee the cost of one hundred copies.

The income of the Croonian Trust having of late largely increased, it has become necessary to make new arrangements with reference to it. Various amendments were suggested to the scheme proposed by the Council, and finally the matter was again referred to an enlarged committee, consisting of the Council and of those who had moved amendments.

A long debate followed with reference to the Lunacy Bill and to the position of medical men with regard to the signing of certificates of lunacy. Some difference of opinion was manifested with regard to the advisability of the proposed interposition of the magistrate, and of the probable security or otherwise of the medical man in consequence. Finally, a strong committee was named to consider the whole question and report to the College.

THE PARIS CONGRESS OF SURGERY.

Club-Foot.—Military Surgery.—Cholecystotomy and Cholecystectomy.—Antiseptic Drainage.

THE Paris Congress of French Surgeons, which has recently terminated its first meeting, includes surgeons of many nationalities; among whom, we observed M. Koeberlé, of Brussels, and M. Reverdin, of Geneva, the well known inventor of skin-grafting. One of the most marked features of this Congress is the evidence it furnishes that antiseptic treatment has at last gained a firm footing in France. All French surgeons advocate it theoretically, although some among them still work on such threadbare subjects as that of erysipelas and pyæmia in hospital-wards, treated in the communications made to the Congress by M. Cauchois and M. Dumenil, of Rouen.

A considerable number of papers were read on the treatment of club-foot; among those of the most eminent authors, there are communications from M. Ollier, M. Gross, and M. Reverdin. The first two authors advise extirpation of the astragalus, and resection of the other tarsal bones. M. Reverdin urges extirpation of the astragalus and resection of the inferior extremity of the tibia. M. Demons, of Bordeaux, in a paper on osteotomy and osteoclasis as a means of treating knock-knee, affirms that osteoclasis, with Robin's (of Lyons) instrument, is preferable to osteotomy even where every antiseptic measure is observed. Osteoclasis is never attended with risk of infection; complications rarely or never occur, the results are generally satisfactory, and the operation requires less manual skill.

Military surgery was discussed at great length. The conditions provoked by modern warfare, which in a few hours strewed a battlefield with 40,000 wounded, requiring immediate care, were fully discussed; also the difficulties resulting from a necessary scanty medical staff, the impossibility of housing the wounded, and the imperfect means of conveying them, without loss of time, to the ambulances of the second and third line. It was unanimously admitted that antiseptic dressing should be exclusively adopted. M. Bousquet urged that lint and compresses, which form part of each soldier's portable baggage, should be substituted by wool-plugs and hemp, impregnated with mercuric chloride, a bandage, and oil-silk. M. Audet insisted on the unimportant wounds being quickly dressed at the medical stations, and removed beyond the battlefield; the dressing should consist of a plug of cotton-wool prepared with carbolic acid. The surgeon of the medical station should arrest the hæmorrhage of those more dangerously wounded, and then send them on to the ambulances, where the surgeons would operate, and take such measures as they might judge best; in cases of non-intervention, Guérin's cotton-wool dressing might be superposed on a Listerian dressing, in order to render removal less painful. M. Bedouin and M. Chauvel considered that dressings made on the battlefield should be of the same character as ambulance-dressings; both must be antiseptic; also the dressing the soldiers carried in their knapsacks must be antiseptic and portable, therefore not fluid. In order to realise all these conditions, M. Bedouin recommended unsized paper, purified by the influence of heat, and impregnated with carbolic acid, or, still better, boric acid or mercuric chloride, being non-volatile substances; a strip of gutta-percha would complete the dressing. At the ambulances, the surgeon could apply such antiseptic dressing as the wound might demand. M. Delorme condemned the dressings carried by soldiers as useless, and considered that medical stations ought to be furnished with different kinds of dressings which were easily and quickly prepared. As antiseptic agents, he recommended iodoform and mercuric chloride, especially the latter, because a kilogramme of this salt furnished 10,000 litres of antiseptic solution. M. Delorme recommended Guérin's dressing, not as an antiseptic dressing, but as a protective agent, rendering removal painless. In the ambulances of the second line, and in hospitals, he recommended that the surgeons should be allowed to choose the most fitting dressings, provided that they were rigorously antiseptic.

M. Boeckel's and M. Thiriar's communications on cholecystotomy and cholecystectomy were listened to with marked attention. This operation, which was inaugurated by Herlin and Campaignac, had been performed seven times. Langenbuch had performed it four times. In three instances, it was successful. M. Thiriar had done it three times, and with favourable results. M. Thiriar preferred cholecystectomy to cholecystotomy because, in the former operation, the organ in which the biliary calculi form was removed. They were rarely formed in the biliary ducts except in cases of cancer or obstruction of the biliary ducts; in such cases, it was evident that the operation ought not to be attempted. M. Thiriar considered cholecystectomy to be the least dangerous form of laparotomy.

M. Houzel has devised a most ingenious method, which combines antiseptic treatment with the drainage of wounds. Two India-

rubber drainage-tubes are placed in the wound, and the part in contact with the wound presents several apertures. The extremity of the remaining portion is plunged into a receptacle containing an antiseptic solution, which is below the wound ; this disposition establishes a suction movement, which draws away the pus. The wound is removed from contact with the air by an antiseptic dressing.

It will be gathered from this summary of the most important communications read at the Congress, that its outcome has not furnished any facts interesting from their novelty ; but, as it is in its infancy —not yet a year old—we may venture to say that it promises well for the future. And we believe, and sincerely hope, that the exchange of ideas that all such congresses foster will contribute to the much needed progress of French surgery.

INOCULATION FOR CHOLERA.

Report of the Committee of the Madrid Academy of Medicine.

THE following is an abstract of a report made by a committee consisting of Señor Carreras and four others, to the Academia de Medecina y Cirugia, of Barcelona, on this subject.

The report commences with a brief account of Dr. Ferran's original memoir, in which he states his agreement with Koch's conclusions, and his belief in the identity of the micro-organism with which he worked and Koch's comma-bacillus. The investigation was conducted with the aid of Dr. Ferran in the performance of the experiments, or of many of them, and with his full recognition.

The work of the Committee was arranged under the following heads.

I. The investigation of the *morphology* of the micro-organism, the manner of its cultivation, and the changes effected in it by various re-agents.

II. The *pathogenic action* of the cultivated organism, especially before attenuation.

III. The *preventive action* of the cultivated organism when ejected after attenuation, both in quantity and quality.

I. *Morphology.*—A full account is given of the precautions taken to secure purity of the apparatus, of the air of the laboratory, &c., and then the mode of preparation of the tubes of sterilized gelatine, and of the flasks of sterilized broth, ready for the cultivation of the microbes is described. These media were inoculated with (1) the microbe of Van Ermengen, procured from Brussels ; (2) the microbe of Ferran ; and (3) the microbe of Finckler and Prior, as obtained from cases of sporadic (non-Asiatic) cholera. The results, summarised, are to the following effect. 1. The micro-organism of Finckler and Prior found in sporadic cholera is distinct from the comma-bacillus of Koch. 2. The organisms described by Koch, by Van Ermengen, and by Ferran, are the same, and are found in Asiatic cholera. 3. The comma-bacillus (of Koch) represents only one stage of this organism. 4. It has been shown by Ferran, and confirmed by the Committee, that this organism passes through the following stages : *a*, a spiral filament ; *b*, production of spores in fins; *c*, separation of the spores ; *d*, growth of the free spores ; *e*, change of the spores into a mulberry-shaped mass (*cuerpo muriforme*) ; *f*, which becomes diffluent protoplasm ; *g*, from which, by condensation, a very fine filament is again formed. 5. Bodies, other than this micro-organism in its various stages, are also found in the cultivation-fluids. It having been stated by Ferran that alkaloids which had a toxic action upon animal life generally, had no such action upon the microbe, the effect of the addition to the cultivation of several of these was tried, such as aconitine, morphine, codeine, camphor, digitaline, ergotine, eserine, strychnine, and several others. The result was to confirm the statement as to their inaction, save in the case of eserine, which appeared to favour the development of the spores. The Committee, however, do not enter into any explanation, or speculate further upon this exception. Following the example of Ferran, in his memoir, the committee do not discuss the question of the classification of the microbe.

II. *Pathogenic Action.*—A. *Experiments on Animals.* These were exclusively performed upon guinea-pigs, by means of hypodermic injection. Von Ermengen's and Ferran's cultivations were used indifferently, the results being the same in each case. As a preliminary precaution, some of the cultivation-fluid was sterilised by heat, filtered, and injected into a guinea-pig. There was no injury to health, nor were any new organisms found in the blood. The same and similar cultivations, unsterilised, were then injected in various doses (from one to eight cubic centimètres). The severity of the symptoms produced varied directly with the dose. These symptoms were briefly, at first, discomfort and restlessness, with refusal of food ; then rapidly increasing prostration, followed by seemingly painful convulsions, spasms similar to the actions of vomiting, marked cyanosis, terminating generally in death within a period of from six to thirty-six hours, the time varying with the dose. On *post mortem* examination, the principal changes were found in the blood, and in the lymph exuding from the neighbourhood of the hypodermic injection. The corpuscles were disintegrated or reduced in size, and numerous micrococci, spirilla, and commas were present. In no case was any indication present of septicæmia or pyæmia, nor of the presence of the *coccidia oviformis.* Injection of a very small quantity of the cultivation-fluid into the duodenum, as has been performed by Nicati and Rietsch, of Marseilles, and also by Von Ermengen, was tried with negative results ; but, in these experiments, the animals had not been starved.—B. *Experiments on Man.*—The same cultivation-fluids were similarly injected hypodermically into eleven human beings (one of the first being a member of the Investigation Committee), for the purpose of studying the pathological results. These are described at length, but the chief points are these. Within a few hours, the site of injection (the back of the arm) became hot and swollen to a limited extent ; this was followed by malaise, muscular fatigue, and a sense of exhaustion, nausea, and slight shiverings, followed by febrile action, and a temperature ranging from 100° Fahr. to 101.5° Fahr. The blood, examined during the febrile stage, showed changes similar to those observed in the guinea-pig, but less marked. In all the cases, vomiting and looseness of the bowels were produced, but the vomit and dejecta were not preserved for examination. The dose employed for human beings was half a cubic centimètre, as compared with six cubic centimètres in the case of the guinea-pigs.

II. *Preventive Action.*—The general results obtained by Ferran are stated by the committee to be absolutely confirmed by them. With regard to the guinea-pigs, it was found that, if those which survived a first injection were afterwards re-inoculated, even with doses invariably fatal if employed on the first occasion, *without exception*, no ill results followed beyond a very slight constitutional disturbance. Further, those persons who, having been once inoculated, submitted themselves to re-inoculation, experienced only a slight local irritation upon the second occasion. There appear to have been four of these cases, the clinical details of which, together with those of the seven others who were inoculated once only, are given in an appendix to the report.

Lastly, it is mentioned that Dr. Ferran himself, having suffered one morning with a looseness of the bowels, causing two unusual evacuations, found in the second true specimens of the comma-bacillus, which he used for a series of cultivations.

The report ends by saying that, in the opinion of the Committee, the identity of the micro-organism of Ferran with the comma-bacillus of Koch has been established, and that its pathogenic effects have been proved to be prevented by inoculation. Therefore, a means of averting cholera has been discovered.

The original report was illustrated by photographs, which are not reproduced in the printed copy.

THE PROFFERED PRIZE FOR A SOUND-DEADENER.

WE have received some questions on this subject ; and, on inquiry, we learn that the following are the facts.

In December 1881, the paper appeared in the BRITISH MEDICAL JOURNAL on a "New Ear-Protector, and the Prevention of the Injurious Effects of Cold and Noise upon the Ear." The question of protective treatment was especially mentioned in connection with aural disturbances. The "new ear-protector" consisted in a little conical cap of vulcanite, made of flesh-coloured material, so that, under ordinary circumstances, it is scarcely noticed. The special advantages mentioned were its durability, lightness, and softness in the ear. It was recommended as an ear-protector in cases of aural disease and chronic delicacy of the organ ; also during exposure to cold and wind. It was also suggested as a shield to prevent the entrance of water to the tympanum. (See BRITISH MEDICAL JOURNAL.)

In the month of October 1882, Mr. Bartleet of Redditch, having read the paper on Ear-Protection, offered a prize, through the British Medical Association, for the best "sound-deadener," suitable for artisans and others exposed to the injurious effects of noise ; and the award of the prize was to rest with the Otological Section of the Association.

A "sound-deadener" was exhibited at the annual meeting at Liverpool, 1883, and brought before the Section by Dr. Ward Cousins. It

consisted of a small elastic *air-cushion* adapted to the aural orifice, and made of various sizes, to suit the varying capacities of different ears. The little instrument powerfully modifies and reduces the intensity of sound, and prevents the shock from falling directly upon the drum. It has been found very useful by persons working daily in great noise, and also by soldiers and artillerymen exposed to the blast of modern cannon. It does not suspend the sense of hearing, but is only a "deadener and reducer of sound," diminishing the intensity of sonorous vibrations. It is also an excellent protector against the injurious effects of cold water and cold air, and forms an elegant and cleanly substitute for the old-fashioned and unsightly plug of cotton-wool.

The prize was not awarded during the annual meeting of 1883. On June 23rd, in the following year, the Secretary of the Association stated that the winner of the Bartleet Prize had not been officially announced to him by the President of the Otological Section. However, on July 5th, 1884, Mr. Field informed Dr. Ward Cousins, by letter, that the prize had been awarded to him, and that the decision of the Section had been sent to the General Secretary.

The prize was not presented during the last annual meeting at Belfast; but, a few days after this meeting, the General Secretary informed Dr. Ward Cousins that Mr. Bartleet declined to give the prize, as it was not awarded at the Liverpool meeting, and that he now refused to accept the decision of the Section. Mr. Bartleet's letter was then brought before the Council of the Association, at the meeting held in October 1884, but up to the present time the matter has not received any consideration.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

ANY qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member *by the Council* or by any recognised *Branch Council.*

Meetings of the Council will be held on July 8th, and October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, June 17th, and September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation. The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HÆMOGLOBINURIA.
ALBUMINURIA IN THE APPARENTLY HEALTHY.
SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person, if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th, Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—*(a)* The influence of residence and occupation; (*b*) the previous state of the patients' thoracic organs and general health; (*c*) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161a, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

SOUTH-EASTERN BRANCH.—The annual meeting of this Branch will be held at the Royal Sea-bathing Infirmary, Margate, on Thursday, June 4th, at 2 o'clock; Dr. T. S. Rowe, of Margate, President-elect, in the chair.—CHARLES PARSONS, M.D., Honorary Secretary and Treasurer, 2, St. James Street, Dover.—May 13th, 1885.

SOUTH-WESTERN BRANCH.—*Preliminary Notice.*—The annual meeting will be held on Tuesday, June 9th, at Truro, under the presidency of Edward Sharp, Esq. By invitation of the President, a steamboat-trip, with luncheon on board, will be made on the Fal. The dinner will be held at an hour to permit members to leave by the 8 P.M. up and down trains. Members intending to be present, or to make communications, or who may have new members to propose, are requested to communicate as soon as possible with the Honorary Secretary, Wonford House, Exeter.—By order, P. MAURY DEAS, Honorary Secretary.

EAST ANGLIAN, SOUTH MIDLAND, AND CAMBRIDGE AND HUNTINGDONSHIRE BRANCHES.—A combined meeting of the above Branches will be held in Cambridge on the 12th of June next, under the presidency of Dr. P. W. Latham, Downing Professor of Medicine. Notice of intention of reading papers to be sent, without delay, to one of the Secretaries, W. A. ELLISTON, Ipswich; C. J. EVANS, Northampton; BUSHELL ANNINGSON, Cambridge.

NORTH WALES BRANCH.—The annual meeting will be held at Wrexham in the first week in July. Any member who desires to read a paper should communicate before June 25th with the Honorary Secretary, W. JONES-MORRIS, Portmadoc.

SHROPSHIRE AND MID WALES BRANCH.—The annual general meeting of the Branch will be held at the Salop Infirmary, on Tuesday, June 30th, at 2 P.M. Members desirous of reading papers or opening discussions are requested to communicate with the Honorary Secretary.—EDWARD CURETON, Honorary Secretary, Shrewsbury.—May 13th, 1885.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at Leicester, on Thursday, July 9th. Notice of papers, etc., to be sent to the undersigned.—LEWIS W. MARSHALL, M.D., Honorary Secretary and Treasurer, 2, East Circus Street, Nottingham.

METROPOLITAN COUNTIES BRANCH.—The Annual Meeting of this Branch will be held at the Holborn Restaurant, on Tuesday, June 23rd, at 5.30 P.M. President: Charles Macnamara, Esq.; President-elect: Walter Dickson, M.D. Dinner at 7 P.M.; tickets 7s. 6d. each, exclusive of wine.—ALEXANDER HENRY, M.D.; W CHAPMAN GRIGG, M.D., Honorary Secretaries.

YORKSHIRE BRANCH.—The annual meeting of the Branch will be held at the Town Hall, Halifax, on Wednesday, June 24th, at 3 P.M. The members and their friends will dine together at the White Swan, at 5.30 P.M. Members intending to read papers are requested to communicate with the Secretary before June 10th.—ARTHUR JACKSON, Sheffield.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of the Branch will be held at the Prince of Wales Hotel, Southport, on Wednesday, June 24th, at 2 P.M. Dinner at 5.30 P.M.; tickets, 7s. each, exclusive of wine. Members desirous of reading papers, making communications, or showing cases, are requested to communicate with the Honorary Secretary without delay.—CHARLES ED. GLASCOTT, M.D., 23, Saint John Street, Manchester.

NOMINATION OF REPRESENTATIVES IN COUNCIL OF ASSOCIATION SPECIAL NOTICES.

METROPOLITAN COUNTIES BRANCH.—Notice is hereby given, that the nomination of members to represent this Branch in the Council of the Association will shortly take place, in accordance with the following by-law: "The representatives of the Branch in the Council of the British Medical Association shall be annually nominated by the Council of the Branch in such manner as the said Council may from time to time determine. Any six members of the Branch shall be entitled to nominate any one or more members as representatives, on giving notice of such election to the Secretaries of the Branch at least three weeks before each annual meeting." Members desirous of nominating candidates are invited, in accordance with the above, to send in the names to Dr. Henry, 132, Highbury Hill, N., on or before June 1st. There will be two vacancies: one caused

by the appointment of Mr. Macnamara as Treasurer of the Association; the other by the death of Dr. Mahomed. The remaining present representatives are Dr. Bridgwater, Mr. Sibley, and Dr. Grigg.—ALEXANDER HENRY, M.D., W. CHAPMAN GRIGG, M.D., Honorary Secretaries.—132, Highbury Hill, N., April 29th, 1885.

LANCASHIRE AND CHESHIRE BRANCH.—Members of this Branch who are desirous of nominating members of the Council of the Branch, or Representative Members in the Council of the Association, are hereby reminded that such nominations, signed by five nominators, must be sent to the Secretary on or before the 31st instant.—CHARLES E. GLASCOTT, M.D., Honorary Secretary.—23, St. John Street, Manchester.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

THE annual meeting was held at the Royal Pier Hotel, Sandown, on April 30th; J. GROVES, M.B., President, in the chair. Eight members were present.

Election of Officers.—The following were elected. *President-elect:* J. L. Whitehead, M.D. *Vice-President-elect:* E. A. Waterworth, M.D. *Secretary and Treasurer:* W. E. Green, Esq. Dr. Neal was elected as representative on the Branch Council.

Next Meeting.—It was proposed by Dr. NEAL, and seconded by Dr. PLETTS, and resolved, that the next meeting be held at Shanklin.

Collective Investigation.—The Secretary gave a report of the work during the past year, and stated that 55 cards had been returned from the district since the commencement, of which Sandown had contributed 46. He also reported receipt of letters from the Secretary of the Collective Investigation Committee, which were postponed to the next meeting for consideration.

Address of Retiring President.—Before vacating the chair, Dr. GROVES gave a short address, recounting the work and proceedings of the district during the past year.

A cordial vote of thanks to the retiring president was proposed by Mr. MEERES, and seconded by Mr. GREEN, who thanked Dr. Groves for his courtesy and kind assistance during the past year. It was carried with acclamation.

President's Address.—The new President, Dr. BEATON, gave an interesting address on "Lay Scepticism in Medicine."

Dr. GROVES proposed, and Dr. NEAL seconded, a vote of thanks to Dr. Beaton for his address.

Colotomy in Perityphlitis.—Dr. GROVES read a paper on a severe case of perityphlitis, in which it was found necessary to perform colotomy. The surgeon was anxious to operate through the abdominal walls and peritoneum, but, on the suggestion of Dr. Groves, lumbar colotomy was performed. An enormous abscess was evacuated in doing so. The patient made a good recovery, after a very protracted illness, the fæces being passed by the natural passage.—The President proposed a vote of thanks to Dr. Groves for his interesting communication, which was carried.

Estimation of Urea.—Mr. GREEN exhibited Dr. Squibb's apparatus for the approximate estimation of urea; explaining its action, and giving a few notes as to the value of a knowledge of the amount of urea excreted, as giving an indication of the power of the kidney with regard to this portion of its functions.

GLOUCESTERSHIRE, AND WORCESTERSHIRE AND HEREFORDSHIRE BRANCHES: CONJOINT MEETING.

THESE two Branches held an united meeting at the County Infirmary, Gloucester, on Tuesday, May 19th; Dr. NEEDHAM, of Gloucester, in the chair. There were forty-five members and visitors present, amongst them being Dr. Balthazar Foster, President of the Council of the Association; Dr. Milner Fothergill, of London, and Mr. T. H. Bartleet, of Birmingham.

Representation in the Council of the Association.—It was proposed by Dr. BATTEN, seconded by Dr. WATKIS, and carried unanimously, "that Dr. Needham, the President of the Branch, be elected as representative of the Gloucestershire Branch on the Council of the British Medical Association."

Medical Sickness, Annuity, and Life-Assurance Society.—Dr. STANLEY HAYNES gave a short summary of the benefits of the Society.

The Lunacy Law.—Dr. NEEDHAM read a paper on "The Proposed Changes in the Lunacy Law," which was followed by a discussion, in which Dr. M. Fothergill, Mr. Cornwall (Fairford), Dr. Batten, and Mr. Wilton took part.—As a result of the discussion, it was proposed by Mr. Wilton, and seconded by Dr. Batten, that a subcommittee be formed, consisting of the presidents and secretaries of the two Branches, with power to add to their number, to draw up and formulate the objections to the proposed alteration.

Gouty Affections of the Heart.—Dr. MILNER FOTHERGILL read a paper on this subject, which was followed by some discussion, in which Drs. Crowe and Cullen, and Messrs. Ellis and Bartleet, took part.

The Drainage-Tube.—Mr. BARTLEET read a paper on "The Drainage-Tube in Surgery," which, he said, was an unwritten chapter in surgery, being nearly altogether overlooked in all works on this subject.—A short discussion followed. Mr. Ellis (Gloucester) maintained that no rule of principles existed for the treatment of wounds, which he considered one of the greatest opprobria of surgery. He thought that the drainage-tube was a necessity, directly owing to the nature of dressings used in surgery, especially the Listerian, and suggested that, what was wanted, was a method by which a wound could be made under such a condition of atmosphere as would require no drainage.—Mr. Bartleet, in his reply, said that Mr. Gamgee, in his work on the *Treatment of Wounds*, had laid down a rule, which was "rest, position, and pressure," to which Mr. Bartleet also thought might be added drainage, so that the rule might be "rest, position, pressure, and drainage;" for Mr. Gamgee remarked, in citing most of his cases, that drainage was employed.

Dinner.—After the meeting, the members adjourned to the Bell Hotel, where they dined together. After the usual loyal toasts had been given, Mr. Wilton proposed continued success and prosperity to "The British Medical Association," to which Dr. Balthazar Foster responded. "The Worcestershire and Herefordshire Branch" was proposed by Dr. Batten, and responded to by Dr. Pike (Malvern). "The Visitors" was proposed by Dr. Wilson (Cheltenham), and responded to by Dr. Milner Fothergill and Mr. T. H. Bartleet. "The Gloucestershire Branch," was proposed by Mr. Lawson Tait (Birmingham), and was responded to by the President, Dr. Needham.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

THE Fifty-third Annual Meeting of the British Medical Association will be held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28th, 29th, 30th and 31st, 1885.

President: JAMES CUMING, M.D., F.K.Q.C.P., Professor of Medicine in Queen's College, and Physician to the Royal Hospital, Belfast.

President-elect: W. T. EDWARDS, M.D., F.R.C.S, Physician to the Glamorgan and Monmouth Infirmary, Cardiff.

An Address in Therapeutics will be delivered by W. Roberts, M.D., F.R.S., Consulting Physician to the Manchester Royal Infirmary.

An Address in Surgery will be delivered by John Marshall, F.R.C.S., F.R.S., Professor of Surgery in University College, and Senior Surgeon to University College Hospital.

An Address in Public Medicine will be delivered by Thos. Jones Dyke, F.R.C.S., Medical Officer of Health, Merthyr Tydvil.

SECTION A. MEDICINE.—*President:* S. Wilks, M.D., F.R.S., London. *Vice-Presidents:* T. D. Griffiths, M.D., Swansea; Byrom Bramwell, M.D., Edinburgh. *Secretaries:* W. Price, M.B., Park Place, Cardiff; E. Markham Skerritt, M.D., Richmond Hill, Clifton.

SECTION B. SURGERY.—*President:* E. H. Bennett, M.D., President of the Royal College of Surgeons in Ireland, Dublin. *Vice-Presidents:* P. R. Cresswell, F.R.C.S., Dowlais; Edmund Owen, F.R.C.S., London. *Secretaries:* G. A. Brown, M.R.C.S., Tredegar. Thomas Jones, F.R.C.S., 96, Mosley Street, Manchester.

SECTION C. OBSTETRIC MEDICINE.—*President:* Henry Gervis, M.D., London. *Vice-Presidents:* S. H. Steel, M.B., Abergavenny; W. C. Grigg, M.D., London. *Secretaries:* A. P. Fiddian, M.B., 6, Brighton Terrace, Cardiff; D. Berry Hart, M.D., 65, Frederick Street, Edinburgh.

SECTION D. PUBLIC MEDICINE.—*President:* D. Davies, M.R.C.S., M.O.H., Bristol. *Vice-Presidents:* E. Davies, M.R.C.S. M.O.H., Swansea; J. Lloyd-Roberts, M.B., Denbigh. *Secretaries:* Edward Rice Morgan, M.R.C.S., Morriston, Swansea; Herbert M. Page, M.D., 16, Prospect Hill, Redditch.

SECTION E. PSYCHOLOGY.—*President:* D. Yellowlees, M.D., Glasgow. *Vice-Presidents:* G. J. Hearder, M.D., Carmarthen; G. E. Shuttleworth, M.D., Lancaster. *Secretaries:* C. Pegge, M.R.C.S., Vernon House, Briton Ferry, Glamorgan; A. Strange, M.D., County Asylum, Bicton Heath, Shrewsbury.

SECTION F. OPHTHALMOLOGY AND OTOLOGY.—*President:* Henry Power, M.B., F.R.C.S., London. *Vice-Presidents:* E. Woakes, M.D., London; D. C. Lloyd Owen, F.R.C.S., Birmingham. *Secretaries:* J. Milward, M.D., 54, Charles Street, Cardiff; A. Emrys-Jones, M.D., 10, St. John Street, Manchester.

SECTION G. PHARMACOLOGY AND THERAPEUTICS.—*President:* T. R. Fraser, M.D., F.R.S., Edinburgh. *Vice-Presidents:* J. Talfourd Jones, M.B., Brecon; W. Murrell, M.D., 38, Weymouth Street, London. *Secretaries:* Evan Jones, M.R.C.S., Ty Mawr, Aberdare; J. H. Wathen, L.R.C.P., Coburg Villa, Richmond Hill, Clifton.

Local Secretaries: Alfred Sheen, M.D., Halswell House, Cardiff; Andrew Davies, M.D., Cadiz House, Cardiff.

TUESDAY, JULY 28TH, 1885.

2.30 P.M.—Meeting of 1884-85 Council.
3.30 P.M.—General Meeting. Report of Council and other business. Adjourn at 5 P.M.
8 P.M.—General Meeting. President's Address, and any business adjourned from meeting at 3.30 o'clock.

WEDNESDAY, JULY 29TH, 1885.

9.30 A.M.—Meeting of 1885-86 Council.
11.0 A.M.—Second General Meeting. Address in Therapeutics.
2 to 5 P.M.—Sectional Meetings.
8 P.M.—A *Conversazione* will be given by the President of the Association and the South Wales and Monmouthshire Branch.

THURSDAY, JULY 30TH, 1885.

9.30 A.M.—Meeting of Council.
11 A.M.—Third General Meeting. Address in Surgery.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner.

FRIDAY, JULY 31ST, 1885.

10 A.M.—Address in Public Medicine.
11 A.M.—Sectional Meetings.
2 P.M.—Concluding General Meeting.
8 P.M.—Reception by the Mayor of Cardiff.

SATURDAY, AUGUST 1ST, 1885.

Excursions.

PROPOSED EXCURSIONS, SUBJECT TO FUTURE ALTERATION.

1. *Tintern.*—Leave Cardiff by Great Western Railway 10.10 A.M.; by carriage from Chepstow at 10.56; stopping to visit Wyndcliff and Moss Cottage, and reaching Tintern at 12.30. Luncheon at Beaufort Arms. Leave Tintern at 3.30, and, proceeding by 4.53 train from Chepstow, return to Cardiff at 6 P.M.; or by train from Tintern Station at 4.25, reaching Cardiff at 6 P.M.

2. *Raglan.*—Leave Cardiff at 10.10 A.M., proceed *viâ* Newport and Pontypool Road to Raglan Footpath, reach this at 12.10. Luncheon at Beaufort Arms Hotel. Engage the old harper. Leave at 5.17 P.M., reaching Cardiff at 6.42.

3. *Cheddar and Weston-super-Mare.*—By *Lady Mary* steamship to Weston at 10 A.M. (according to tide). Proceed by carriages to Cheddar (twelve miles), which would be reached about 1 P.M.; returning at 5 P.M., reaching Cardiff at 8 o'clock.

4. *Glastonbury Abbey and Wells Cathedral.*—Leave Rhymney Railway Station at 8 A.M. for Low Water Pier, by steamer to Burnham. Sail round Steep Holm. Special train to Wells. Luncheon at Wells. Special train to Glastonbury, and afterwards to Burnham, returning to Cardiff about 8 P.M.

5. *Caerphilly, etc.*—Leave Cardiff, 12.20 P.M. Luncheon in Banquetting Hall, 1.30. Drive over top of mountain to Castle Coch, and home by way of Llandaff Cathedral, reaching Cardiff at 7 P.M.

6. *Vale of Neath Waterfalls.*—Leave Cardiff 7.48, reaching Neath 9.33 (next train 11.20, reaching Neath 1.3 P.M.) From Neath 11.51, arriving at Glen Neath at 12.15, or arrange for special train. Return 3.51, Neath 4.16; depart 4.27, reach Cardiff 6.2 P.M.; or leave Cardiff 9 A.M. *viâ* Aberdare, reaching Glyn Neath at 10.38. Leave Glyn Neath at 4 P.M., returning to Cardiff at 5.45.

7. *Symonds Yat and Speech House.*—Leave Cardiff, 10.10 A.M.; reach Symonds Yat, 12.46. Luncheon at hotel. Walk to Lydbrook Junction. Train to Speech House Road, 3.20; reach Speech House Road, 4 P.M. Leave 7.20 for Lydney Junction, 7.45; or leave Cardiff, 10.10; Lydney, arrive 11.9; proceed from Lydney 11.33, reaching Speech House Road 11.55. Luncheon. Special train, enabling visitors to see Symonds Yat, and catch 5 P.M. train from Monmouth, arriving at Cardiff at 6.42.

ANNUAL MUSEUM.

THE nineteenth annual exhibition of objects of interest in connection with medicine, surgery, and sanitary science, will take place in the Public Hall, Queen Street, Cardiff, during July 28th, 29th, 30th, and 31st, 1885. (Floor-space, 9,000 feet.)

The Museum will be divided into the following sections.

SECTION A.—Preparations, diagrams, casts, and models of anatomical and pathological objects, microscopes and microscopical preparations. (Secretary, W. M. Hier Evans, Esq.)

SECTION B.—Surgical and medical instruments and appliances; other instruments for scientific investigation; new medical works. (Secretary, A. Plain, M.B.)

SECTION C.—Foods, drugs, chemicals, and pharmaceutical preparations. (Secretary, Maurice G. Evans, M.D.)

SECTION D. SANITARY SECTION.—1. Books on sanitation. 2. Ambulances and appliances for carrying or moving sick and wounded. 3. Recent improvements in hospital furniture. 4. Personal hygiene, as clothing, beds, educational appliances, domestic appliances, filters, and arrangements for softening water; disinfectants and disinfecting apparatus. (Secretary (1, 2, 3, 4), E. Seward, A.R.I.B.A.) 5. Sanitary appliances, including drawings, models, and apparatus illustrative of the ventilation, lighting, draining, etc., of hospitals, public buildings, and private dwellings. (Illustrations of defects usually found would be of great interest.) (Secretary, E. M. B. Vaughan, A.R.I.B.A.)

In Sections A and D a printed name and description must be attached to each exhibit.

In Sections B and D, and with microscopes in Section A, exhibitors must send a printed list, with the name, number, and price of each article, and a corresponding number on each exhibit.

Unless these instructions are carried out, the exhibits will be declined.

The medical, surgical, and scientific instruments and sanitary appliances must be genuine novelties or improvements on those in common use.

EXHIBITION OF INSTRUMENTS AND APPARATUS.

It is intended to arrange for the exhibition of complete series of instruments, electro-therapeutic apparatus, instruments for physical diagnosis, and appliances relating to sanitary science and public health.

Facilities will also be afforded, when requested, for the display of instruments and apparatus in action.

CATALOGUE.—It is intended to print a catalogue of the exhibits in the Museum, and lithograph-plan. Descriptions should be sent in as early as possible, not later than June 20th, 1885.

TO ADVERTISERS.—The catalogue of the Museum will be one of the best advertising mediums of the day. The following will be the scale of charges for advertisements: One page, £1; half-page, 12s. 6d.; quarter-page, 7s. 6d.

TO EXHIBITORS.—All expenses of carriage to be prepaid, and all risks to be borne by the exhibitors; but the committee will exercise every care of the articles entrusted to them. A card bearing the name and address of the exhibitor, with the name of the instrument, etc., to be enclosed in each package, ready to be fixed on the outside of the exhibit.

All communications with reference to the museum and advertisements for the catalogue to be addressed (prepaid) to C. E. HARDYMAN, Esq., 42, Crockherbtown, Cardiff.

Notice is hereby given that, at the annual meeting to be held at Cardiff, on Tuesday, the 28th day of July next, a motion will be made on behalf of the Council that, in Articles 13 and 15, the word "fifty" be altered for "one hundred," so as to read as follows, namely:

13. The Council may, whenever they think fit, and they shall, upon a requisition made in writing by any one hundred or more members, convene an extraordinary general meeting.

15. Upon the receipt of such requisition, the Council shall forthwith proceed to convene a general meeting; and if they do not so within twenty-one days from the date of the requisition, any one hundred members may themselves convene a meeting.

INDIA AND THE COLONIES.

THE STRAITS SETTLEMENTS.

Nurses for the Hospital at Singapore.—In the report of the proceedings of the Legislative Council for the Straits Settlements, we find a petition signed by 144 residents of Singapore directed against the scheme for providing the hospital with nurses. The opposition appears to be founded on the belief that the scheme is based upon ecclesiastical projects for setting up a sort of *imperium in imperio* in practice in the hospital, by which the leader of this party, and not the principal civil medical officer, will presently be at the head of the department. The petition was read in the Legislative Council, but an assurance was given that the nurses will be, in every instance, efficient, and trained nurses, and the official opposition in the Council was, for the time, withdrawn.

PRESENTATION.—Dr. John Hern has been presented with a valuable time-piece, a number of bronze ornaments, and an illuminated address, upon resigning as senior house-surgeon of the Darlington Hospital and Dispensary.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Treatment of Tetanus.—Urinary Affections in Pregnancy.—A Leech in the Palpebral Conjunctival Fold.—Tuberculosis in Cows.—Tuberculosis in Gallinaceæ.—General News.

At a recent meeting of the Société de Chirurgie, M. Verneuil opened a debate on the treatment of tetanus. He recently recommended that tetanic patients be kept in a dark room where no sounds could be heard, that they should be enveloped in cotton-wool, be fed on fluid food, and take strong doses of chloral mixed with morphia. The treatment should be continued as long as possible, notwithstanding any improvement that declared itself. M. Verneuil mentioned a case described by M. Cauchois, in which the patient died on the thirty-first day, the day that the treatment was discontinued. M. Cauchois mentioned another patient, who was treated according to M. Verneuil's plan, and was cured in twenty-three days. M. Verneuil has cured two cases. One patient, whilst under treatment, took 450 grammes of chloral and 114 centigrammes of hydrochlorate of morphia. Another was a young man, aged 19, who wounded his hand. He was under treatment during twenty-seven days. Chloral and morphia were administered at the same time as potassium-bromide, without having any effect. Chloral was discontinued, and the condition was greatly aggravated. It was resumed. In thirty-six hours, thirty grammes of chloral were absorbed. A daily dose of fifteen grammes was then administered. M. Verneuil insists on the necessity of giving strong doses of chloral. Recently, an Italian has published five cases, all of which were cured. Two of the patients were given baths ; three others had baths and atropine ; two others had chloral, atropine, and baths of one or two hours, or more. M. Ferrier observed, during the discussion, that the treatment recommended by M. Verneuil would be perfectly useless in acute tetanus ; for instance, when dysphagia was present, it was impossible to give chloral in a draught, and when administered by the rectum often provoked rectitis and spasms. M. Poncet believed that chloral was efficacious in chronic tetanus, but was useless in the acute form.

M. Werner, at a recent meeting of the Société Anatomique, showed the genito-urinary organs of a pregnant woman, who died from an urinary affection. At the fourth month of pregnancy, she suffered from retention of urine. The urine was purulent, notwithstanding borax-injections ; the bladder was very much distended. At the necropsy, adhesions of the bladder and the abdominal walls were observed. Probably, the distended bladder was the cause of the retroversion of the uterus. The inner surface of the bladder was red, and covered with a false membrane, which obstructed the cervix, and prevented a catheter from passing. This cystitis was attributed to catheterisations without previous antiseptic measures.

Dr. Charles Amat reports an instance in which a leech found its way into the palpebral fold of the conjunctiva of the upper eyelid. A division of Zouaves were encamped at Chellala, in Algeria. The drinking water was chemically pure, but contained a considerable number of leeches. A Zouave applied at the hospital to be relieved from the sensation of having something in the left upper eyelid. On raising the eyelid, a leech was observed in the palpebral fold, and adhering to the conjunctiva bulbi. It was from twenty-five to thirty millimètres long, and one and a half in diameter. This leech had fixed itself on the eyelid, and continued to grow during five or six days. The Zouave used unfiltered water for washing.

M. Mocard, of the Veterinary School at Alfort, states that he has carefully examined the milk of eleven cows admitted to be tuberculous, but he has not discovered Koch's bacillus.

M. Cornil and M. Mégnin stated at a meeting of the Biological Society that tuberculosis is very common among fowls, turkeys, pheasants, partridges, and pigeons. Tubercles are found most especially in the liver, spleen, and peritoneum.

Dr. Landouzy began a few days ago his lectures on hygiene. His pupils have visited the laboratory at the Parc Montsouris, where MM. Marié Davy and Miquel showed them the apparatus and instruments used for meteorological observations. The Cité brrracks and the Municipal Laboratory will be visited by Dr. Landouzy's pupils. At the Laboratory, Dr. Girard will instruct them how to make analyses of water, wine, and milk.

News arrives that an alarming epidemic has broken out in the Chinese army at Tonkin. The character of the disease is not known. The Chinese authorities suppress all information, but it is believed that it is a virulent form of plague.

The French Association for the Advancement of Science will hold its fourteenth meeting at Grenoble on August 13th. M. Verneuil will act as President.

The statue erected to the memory of Dr. Bouillaud was unveiled at Angoulême on May 16th. M. Vulpian was presented as delegate of the Institute, M. Laboulbène from the Paris Medical Faculty, and M. Henri Roger from the Académie de Médecine. Many of the local officials, the Mayor of Charente, etc., M. Verneuil, M. Potain, M. Cornil, professors at the Paris Medical Faculty, witnessed the ceremony.

Dr. Dujardin-Beaumetz, at a recent meeting of the Conseil d'Hygiène et de Salubrité de la Seine, described cases of rabies ending in death. One of the sufferers was a man aged 51, who had been bitten, on February 12th, on the lower eyelid, by a dog accompanying an itinerant dealer. The symptoms of hydrophobia appeared on March 30th, and he died on April 2nd. Inoculation from the patient's medulla oblongata produced rabies in animals.

M. Haureau, at a meeting of the Académie des Inscriptions, read a paper on the Surgical Anæsthetics used in Ancient Times and the Middle Ages.

The Minister of the Marine and Colonies sanctions the proposition of the Union des Femmes de France to send to the French troops at Tonquin luxuries and comforts that the army regulations do not provide.

News arrives from Nîmes that Dr. Vigouroux, formerly Juge de Paix, has died suddenly from a very acute attack of gout. He was to have been tried on the 12th of this month for infanticide.

A new hospital will be opened at Havre on May 31st.

The statue to Dr. Crévaut will be unveiled at Nancy on June 13th. Dr. Crévaut was assassinated by Indians during his intrepid exploring excursions.

The Academie de Médecine awards to Dr. Straus a Monbinne Prize of 2,000 francs (£80), and the same to Dr. Roux, for their researches on cholera at Toulon. Dr. A. G. Martin has gained the Monbinne Prize of 4,000 francs (£160) for his essay on foreign civil sanitary administration.

M. Béclard, at the annual public meeting of the Académie de Médecine, delivered an address on Claude Bernard. He described the work, and the value of the work, done by M. Bernard, and vividly traced his mental characteristics.

The statue to the memory of M. Pinel will be unveiled on July 12th. It is placed on the Place Salpêtrière, facing the entrance to the Hospital for the aged.

Small-pox is very prevalent in France, near the Swiss frontier. At Neuchâtel, sanitary precautions have been observed to prevent the disease from spreading.

An interne (house-surgeon) at the Hôtel-Dieu of Lyons has just died, at the age of 22, from the effects of a dissection-wound.

Dr. Proust succeeds Dr. Bouchardat as lecturer on hygiene in the Paris Medical Faculty.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Allegation against Hospital Officials.—The Financial Position of the Stanley Hospital.—Trial and Suicide of O'Hara.—The Infectious Hospital Question.—Summer Camp for Destitute Boys.—Marine Biology Association.—The "Gordon Working Lads' Institute."—The new Muspratt Scholarship.

A Special Meeting of the Committee of the Stanley Hospital has been held to consider the allegations of neglect made against the hospital-staff, to which I referred in my last letter. The coroner forwarded the mother's complaint to Canon Major Lester, the chairman of the Hospital Committee. After a searching and lengthy investigation, involving the examination of several witnesses, the committee expressed an unanimous opinion that no blame in the case attached to the hospital-staff. It appears that the injured child was refused admission because there was no vacant bed, In the course of his examination, the house-surgeon stated that he frequently had to refuse admission to patients, owing to insufficiency of accommodation in the hospital, and he mentioned three cases in which he had been obliged to put two patients in a bed.

The Stanley Hospital was founded to meet a great want at the north end of the city ; and its promoters, from the very commencement, have had, and, indeed, are having, a hard fight to establish it on a satisfactory financial footing. At the present moment, the charity is in urgent need of sixty-four additional beds, and there is a debt of £3,000. It has been customary to hold a gala and fancy fair every

two or three years, in the adjacent Stanley park in aid of the hospital. These fancy fairs have each time produced from £3,000 to £4,000. The proceeds of the last one were expended upon the extension of the building. Owing to the fact that in 1886 there is to be an exhibition of "Navigation, Travelling, and Commerce" in Liverpool, the committee do not propose to carry out their original intention of holding a fancy fair next year. A few days ago several gentlemen interested in the hospital, had an interview with the mayor, in the course of which, they mentioned the financial position of the charity, and stated that they felt themselves in a dilemma as to the necessary means for carrying on the work of the institution. The mayor has therefore opened a special fund, contributions to which are received at the Town Hall; and Mr. John Houlding, a city councillor, and president of the Everton Football Club, has arranged for a series of football matches to come off on the ground of that club, the gate money taken at these matches to be handed over to the treasurer of the hospital. The first of these took place on May 23rd, and, considering the weather, produced good results.

At the recent Assizes, a man named O'Hara, who, it was stated, had been twenty-five years in the profession, was sentenced to penal servitude for ten years for sending menacing letters. It was proved that he had written to a young married lady to the effect that, if the money he required were not sent, he would tell the husband that before her marriage he had procured abortion for her. In 1878, O'Hara was convicted at Belfast of a similar offence; and, subsequently, his name was removed from the *Medical Register*. A few days after his removal to Walton Gaol, he was found dead in his cell, having strangled himself with a sheet. O'Hara had acted as assistant to medical men in the vicinity of Liverpool.

The question of providing suitable hospital-accommodation for infectious diseases again was brought up at the last meeting of the City Council. An important amendment was proposed by Dr. Hamilton, and carried by a large majority. The principal points in this proposition are that two sites be secured, at the north and south ends of the town respectively, for two small district-hospitals of eighty beds each; and that a convalescent-home for 180 patients be erected within easy distance of the city, thus making provision for 340 cases. I believe that this new scheme is regarded with satisfaction both by the profession and the general public, as affording some grounds for hoping that this most important matter may, after so much bungling, at last be settled satisfactorily.

A scheme for the establishment of a summer-camp for destitute boys is attracting a good deal of attention. Some months ago, a committee was formed; and the most important of the preliminary arrangements are now completed. A camping-ground has been rented, for June, July, August, and September, near Hoylake; and a resident superintendent will be appointed. It is proposed to give a fortnight's recreation here to about two hundred boys, in relays of from ten to twenty at a time, the boys being taken from the poorest parts of the city, and from the industrial schools, Newsboys' Home, and kindred institutions. Dr. Pierce, of Hoylake, and Mr. George Walker, of Liverpool, are to be the honorary medical officers.

On May 9th, the newly established Marine Biology Association commenced their season's work with a preliminary dredging-expedition. A steam-tug was kindly lent for the occasion. The chief dredging and trawling operations were undertaken in the vicinity of Hilbre Island, off the mouth of the Dee, which is a noted locality for actinidæ. The animals, etc., collected, were taken to the zoological laboratory at University College, there to be carefully examined.

Active steps are being taken towards founding an institution for working-boys at the north end of Liverpool, to be called "The Gordon Working-Lads' Institute."

The widow of the late Dr. Sheridan Muspratt has given £1,500 to the Council of University College, for the endowment of a scholarship or scholarships in furtherance of the study of chemistry, in commemoration of her late husband.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

DOWNING COLLEGE.—There will be an examination in certain branches of natural science for minor scholarships at this College on Tuesday, June 2nd, and following days. Persons who have not entered at any college in the University are eligible to the minor scholarships, which will be of the value of from £40 to £70 *per annum*, and tenable until their holders are of standing to compete for a Foundation Scholarship. Further information will be given by Dr. Perkins, or the Rev. J. C. Saunders, Tutors of the College.

CORRESPONDENCE.

THE COMMA-BACILLUS: PROPOSAL FOR A COMMISSION OF INQUIRY.

SIR,—I have read Dr. Hime's letter, in last week's JOURNAL, with great pleasure. I fully agree with him, and think that the only way in which this matter can be settled is by repeating the experiments in dispute before a competent commission. The subject is of such immense importance, that it certainly should not be allowed to rest in its present unsatisfactory state.

There are four statements made by Dr. Klein which ought, I think, on account of their importance, to be submitted to a commission of the kind suggested by Dr. Hime.

1. Dr. Klein states that in the cæcum of healthy guinea-pigs the "comma-bacilli of Koch" are present. I have investigated this matter, and cannot confirm this statement. Let us repeat the experiment side by side before the commission.

2. Dr. Klein states that after isolation by ligature of a loop of intestine in monkeys, and injection of sulphate of magnesia into the part between the ligatures, comma-bacilli appear in the contents of this part which he is "unable to distinguish from the choleraic comma-bacilli." I have not repeated this observation: let it be done before the commission.

3. Dr. Klein states that the comma-bacilli of the saliva can be cultivated in neutral jelly, and, after acclimatisation in this medium, can be made to grow in the same material as is used for the cultivation of the cholera-bacilli, and that then the cultivations of the two organisms are identical in every respect. I cannot confirm the statement that the comma-bacilli of the saliva can be grown in neutral jelly. The observation ought to be repeated.

4. Dr. Klein makes various statements with regard to the behaviour of cholera-bacilli with acids which are in apparent contradiction to my results, and which it would be well to test before the commission; not that this is an essential point, but it would serve to illustrate the methods employed, more especially the sufficiency of the control-experiments.

It would also be well to repeat some of Dr. Koch's recent experiments on animals, in order to give Dr. Klein the opportunity of proving satisfactorily, by control-experiments, that the results are due to septicæmia or to the surgical interference.

As regards the conditions under which the experiments should be done, it seems to me essential that, having regard to Mr. Dowdeswell's experience, they should be carried out in a laboratory in which cultivations of cholera-bacilli have not previously been made; that the apparatus used—more especially the syringes, needles, etc.—should be new; and that every step we take should be in the presence, and subject to the criticism, of each other and the members of the commission.

The commission would not, of course, be asked to express any opinion as to Dr. Koch's views, but merely to state the facts which they see.

I hope that Dr. Klein will not hesitate to accept this proposition.
—I am, sir, yours faithfully, W. WATSON CHEYNE.
14, Mandeville Place, W.

THE CAIRO MEDICAL SCHOOL.

SIR,—With reference to a portion of the letter from Mr. Ernest Hart, which appeared in a late number of the JOURNAL, we think it due to Issa Pacha Hamdi, the Principal of the Cairo Medical School, to submit the following short statement, for the accuracy of which we are willing to bear testimony.

The school has been under the direction of Dr. Issa since April, 1883, only; and though admittedly far from perfect at the present time, has been considerably improved since the appointment of that gentleman.

Contracts for the erection of museum, laboratory, and theatres, were made some time back, before Mr. Hart's visit; and the work is now actually in progress.

Six months ago, a commencement was made for the establishment of self-supporting pupils; and there are now about twenty-five on the books who keep themselves without aid from the State.

Since last September, thermometry and stethoscopy have been taught practically, as well as the examination of urine; and note-taking has also been started, though it is to be feared that the notes are more voluminous than scientific.

Collections of natural history, and of objects of physical science, have been dug out from the obscurity in which they had lain for twenty-five years, and have been arranged and catalogued. A collection of pathological specimens has been commenced; and some demonstrations in microscopy and section-preparing have been given.

Botanical gardens have lately been planted, where students can have the opportunity of studying materia medica; and in time, no doubt, will yield very good results; and lastly, written and *vivâ voce* examinations of the students have been instituted in place of irregularly conducted interrogations.

The above is sufficient to show that the director of the school is, to a certain extent, alive to a sense of his duties; but it must not be forgotten by English readers that reforms in Egypt are not easily carried out, and that to produce even a small result, great exertion has to be used.—We are, sir, your obedient servants,

H. R. GREENE, Sous-directeur des Sciences Sanitaires.
HERBERT MILTON, Médecin-en-Chef de Kasrel Aini.

*** Full credit was given for these embryonic reforms; the fact remains that the "pathological collection" is a dozen or so bottles of useless preparations; that the anatomical collection is non-existent; that the chemical teaching is undeveloped; that the dissecting is a disgusting form without reality; that the Minister of Education has refused grants for material; and that the so-called reorganisation of the medical school is, like the so-called reorganisation of the sanitary service, a delusion and a snare. Of this I shall have more to say when space can be found for my further Egyptian notes, of which, from pressure of other matter, I had suspended the publication. Our legacy to Egypt in the matter of re-organisation of sanitary affairs, with the single exception of the remodelling of the Kasr-el-Ein hospital, threatens to be a *damnosa hæreditas;* chiefly from want of thoroughness, from the divorce of administrative from executive power, and the selection of persons for high office who have not the requisite experience, knowledge, or authority.—E. H.

THE DISCUSSION ON CHOLERA AT THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

SIR,—The letter of Mr. Watson Cheyne in reply to Dr. Klein, contained in the issue of your JOURNAL that has just reached us (April 11th), has effectually annihilated the various misstatements concerning the nature of Koch's bacillus. The discovery of this bacillus was undoubtedly a severe blow to that school of pathology which has been so epigrammatically stigmatised by Professor de Chaumont, of Netley, as the "Nihilistic," and by the late Professor Parkes as the "Revolutionary." Consequently, no efforts were spared to dissipate the bacillus. Unfortunately, many of the would-be dissipators were utterly and supremely ignorant of the technics of bacteriology. Ridicule was then called in to supply the place of knowledge. Thus we were forced to read, in one of the principal daily papers of India last year, a leading article on the "Collapse of Dr. Koch," in which ignorance of Dr. Koch's method was uniquely blended with maliciousness. Again, during Dr. Klein's stay at Simla, a letter from Simla related to the public, with manifest glee, the scornful rejoicings and the manifest relief at the supposed decease of Dr. Koch's bacillus. The idea that the English Commission could have annihilated the unfortunate bacillus after a few weeks' stay in India, however, to a few sceptics appeared somewhat premature.

My communication to you is not only to express my thanks to Mr. Watson Cheyne for his accurate exposure of the fallacies of Dr. Koch's opponents, but I would also ask you for space to correct an idea that appears to be gaining ground at home concerning the nature of cholera as it is held out here in India. Owing to the persistent clamour of a few retired officers, I believe the idea has gained ground at home that cholera is held generally out here to be entirely independent of human intercourse. Indeed, in the terminal periodical on cholera, published by Dr. J. D. Cunningham, formerly Sanitary Commissioner with the Government of India, the views therein promulgated, that cholera has nothing whatever to do with human intercourse, are laid down as the views held in India.

At the opening meeting of the South Indian Branch of the British Medical Association, Dr. Cornish, Surgeon-General of Madras, in speaking of cholera, said: "I am bound to say here that all my individual experience, extending over thirty years, would lead me to deal with the epidemic form of cholera as a disease favoured in its diffusion, under certain conditions, by human intercourse." Of the innate authority attached to Dr. Cornish's opinion, it would be superfluous on my part to speak. Secondly, Surgeon-General Furnell, Sanitary Commissioner of Madras, and at present Acting Surgeon-General of Madras, holds similar views, gained from experience in the same Presidency; and also has presented not long ago to us a crucial proof of the *in corpore vili*, in the matter of the pilgrimage at Tirapate. Thirdly, Surgeon-General A. C. De Renzy, formerly Sanitary Commissioner of Assam and the Punjab, not only, like nearly everyone else, maintains this view, but has also proved the wisdom of it by completely stopping, during his term, epidemics of the disease amongst the coolies on the Assam steamers by measures based on this elementary fact. Fourthly, Mr. Macnamara, after investigating cholera in Bengal, ranged himself on the same side; whilst, finally, the present Surgeon-General of Bombay is evidently also here with us, in that he has lately successfully frustrated the astounding proposal to locate a cholera-hospital inside the compound or garden surrounding the European General Hospital. In a few words, indeed, without proceeding any further, we here have the Surgeon-General of Madras, the Sanitary Commissioner of Madras, the Surgeon-General of Bombay, a late Sanitary Commissioner of Assam, a recognised authority from Bengal, and a late Sanitary Commissioner of the Punjab, with an experience thus gained collectively from the whole of Hindustan, which experience is totally opposed to the theory which Dr. Cunningham has stated to be the theory in India.

But besides Dr. Cunningham, Sir Joseph Fayrer and Sir William Guyer Hunter have been mainly instrumental in informing the medical societies at home of the nature of the supposed expert Indian medical opinion on the matter. I have not time to reply to these gentlemen minutely, and doubtless you will not be able to afford me the space. Sir Joseph Fayrer, indeed, I see, has stated, at the debate of the Royal Medical and Chirurgical Society, that he is no nearer the *iota causans* of cholera; this fact, however interesting, certainly cannot be said to tell against the common sense view that cholera is propagated by human intercourse. Sir Joseph Fayrer, in common with a few other medical officers, is somewhat prone to indulge in oracular periods, forgetful apparently that something more than oracular periods is required at the learned medical societies at home. It is, however, satisfactory to learn that the speaker has learnt a good deal from the discussion.

Finally, with regard to Sir William Guyer Hunter's theory, I feel it is not incumbent on me with reference to the subject-matter of my letter, namely, the view held really in India concerning the relation of human intercourse to cholera, to do more than to quote from your Annual Summary for 1884. You, sir, thus truly wrote: "Surgeon-General De Renzy criticised very effectively Surgeon-General Hunter's report on the endemic character of cholera in Egypt, which probably nobody believes outside the small circle of Government officials."—I am, sir, yours obediently, ANDREW DUNCAN, M.D.Lond., etc.

Jhahun, May 1st, 1885.

THE SURPLUS FUNDS OF THE GENERAL MEDICAL COUNCIL.

SIR,—Our Medical Council have now on hand £38,669 17s. which they do not require; for, as the registration-fee has not been lessened, that sum must annually accumulate. The members of the Council do not receive too much in fees for attendance at their meetings, yet it is quite enough for anything which has hitherto been done by them for the good of the profession.

As a means of using up part of the £38,669, I would, with all due deference, suggest that copies of the forthcoming *British Pharmacopœia* and *Medical Register* be sent free, carriage paid, to every medical man on the *Register;* and that every student receive copies within twelve months after passing and paying the registration-fees. Every medical gentleman now in practice has paid from £2 2s. to £6 for registration-fees; and it is not quite right that he should be called upon to pay so much more than is required, and also have to pay for a third, and, it may be, still imperfect, *Pharmacopœia*, and a *Register* in every way, except that it is official, inferior to Churchill's *Medical Directory.*

When the Medical Acts of 1858 came into force, I paid my £2 12s. willingly—that is, for registering three qualifications; but those who have passed since have had to pay more for registration than any equivalent benefit they have received from the Medical Council's deliberations. By sending the two volumes to every registered practitioner, no rule of Council that I know of would be broken, and it would be a becoming way of returning a portion of what has been overpaid. I therefore think that the President, Sir Henry Acland, could, on his own responsibility, send everyone two copies. But, if some law were infringed by doing so, the Council might please the

profession more than they usually do at their meetings were they to spend some of the surplus funds in another session to give the required authority.—I am, etc.,

J. CARRICK MURRAY, M.D.

7, Windsor Terrace, Stranraer, N.B.

MILITARY AND NAVAL MEDICAL SERVICES.

THE REORGANISATION OF THE MEDICAL SERVICE OF INDIA.

AN enormous Blue-book of 766 pages, on the subject of "Army Organisation in India," has just been printed by order of the House of Commons. With the purely military part of this great subject we have nothing to do, and pass from it to that which deals with the medical services of India. We may, however, remark, in passing, that, as yet, nothing has come of the recommendations of the committee appointed by the Viceroy in Council. They appear to have been of a very sweeping character, and to have provoked strong minutes of dissent on the part of some very influential members of the Council of the Viceroy; and it is evident they were not, in the main, acceptable to the Secretary of State for India and his Council. It is not likely that any final decision will be come to on the subject for some years to come. Organic changes in the constitution of an army cannot be considered, much less acted on, at a time when the utmost resources of the State may be strained to repel invasion. As our readers are aware, many schemes for the reorganisation of the Medical Service of India have been submitted for the consideration of the Viceroy in Council and the Secretary of State. As none of them afforded a satisfactory solution of the problem, the two heads of the Medical Service in India—Dr. Crawford, Surgeon-General of Her Majesty's Forces, now Director-General of the Army Medical Staff; and Dr. Cunningham, Surgeon-General with the Government of India—were requested to consider the matter; and the scheme devised by these officers is to be found in the Blue-book under notice, with remarks on it by the Government of India, by the Secretary for India, in a despatch to the Viceroy of India in Council; and by the Permanent Under-Secretary for War, in a letter to the Secretary of State for India.

The main features of the scheme are thus summarised.

1. The new service to be under the control of the Indian Government, but available, on emergency, for service in any part of Her Majesty's dominions.

2. It is to be recruited by volunteering from the whole Royal Service. Volunteers for India to be of not more than three years' service.

3. After electing for Indian service, such officers to be at the disposal of the Indian Government permanently, and not, as army medical officers sent out to India now are, for tours of only five years' duration.

4. The service to be primarily military, but civil also. On joining, the first two years to be passed in military duty. The conditions of civil employ, its effect on promotion, and the appointments open to medical officers, are referred to in paragraphs 6 to 8 of the joint memorandum. These provisions are, briefly, that medical officers in civil employment are to be considered as merely lent to the local governments requiring them, and are liable to be recalled to military duty, if required. If officers so employed do not return to military duty in ten years, they must look for promotion to the administrative grade on the civil side of the service. Officers who hold such appointments as Superintendent of the Botanical Gardens, or in the Mint, are not to look for promotion in the medical department; they cannot rise above the rank of surgeon-major; and must look for their reward in the advantages conferred by the appointments they hold. Rank and uniform to be the same as in the home service.

5. Exchanges to be allowed between the home and Indian branches, subject to the sanction of the Secretaries of State for War and India.

6. Furlough of Indian officers to be governed by the 1875 rules.

7. Half-pay and pensions to be on the new scale for the Indian Medical Service announced in General Order, No. 279, of 1881. Fourteen good service pensions to be allotted to the Indian Branch.

8. The head of the service to bear the title of Director-General, Royal Medical Service in India.

9. The proposed scheme estimated by its authors to result in a saving of 73,000 rupees a year.

10. The new service to be formed, in the first instance, as follows—(*a*) by drafting into it all officers of the old Indian Medical Service; (*b*) the remainder to be made up by volunteers from the British service.

This scheme excludes natives of India. It is proposed to establish a new Indian Medical Service, to be purely local, manned by natives of India solely, qualified by a degree of an Indian College; to consist of two grades, assistant-surgeons and civil medical officers, to be primarily employed in civil duty, but liable to serve in military hospitals. This scheme thus briefly, in its main features, summarised, in its original form occupies fifty-two long paragraphs, with a separate memorandum of twenty-five more. The scheme, however, was not well received, either by the Secretary of State for India or the War Minister, and it may be said to be snuffed out in a despatch from the former to the Governor-General of India in Council, and by the War Office in a letter to the Under-Secretary of State for India.

Space forbids our giving in detail the objections to the scheme by the above high authorities. As might have been expected, the Secretary of State for India plainly states that no scheme will be entertained that excludes natives of India from the commissioned medical service of that country. The authors of the scheme do not appear to have remembered that an Act of Parliament blocks the way to any such exclusion. We were not surprised to see also that the Secretary of State for India objects to the way in which the scheme deals with the so-called "minor presidencies" of Madras and Bombay, the great part of the proposed saving being at the expense of the administrative officers of the medical services of Bombay and Madras; and it is further pointed out that the scheme does them great injustice in the allotment of officers, and their advancement to the higher grades.

Mr. Childers did not like the scheme for many reasons, chiefly because he is perfectly satisfied with the home service as it is; content has been restored to its ranks; a sufficient number of good medical officers are to be had on the present terms, something like "fixity of treatment" has been attained by the last warrant, and he objects to disturb a system with which both the Government and the medical officers are satisfied. He objects also that the scheme would interfere with the "interchange of experience" which the present system secures. There is one suggestion made by the War Office which will, we suspect, cause much surprise, and not a little indignation, in India; it is a suggestion which, for "coolness," surpasses anything that has ever come under our notice. "Mr. Childers would suggest, for the consideration of Lord Hartington (then Secretary for India), that when a vacancy shall occur in the Civil Medical Service of India, to which a junior officer has not already a guaranteed right of succession, an officer of the Army Medical Department should be appointed to it." The medical officers of Her Majesty's Indian Service need not disturb themselves about this "suggestion," which, like the scheme to which it refers, may be considered dead and buried.

It seems pretty clear, from the above, that any scheme of real amalgamation between the two services is not likely to be brought about for many a year to come.

RELATIVE RANK.

SIR,—I was glad to see the letter headed "Relative Rank" in the JOURNAL of the 16th instant. It is a subject on which we, most of us, feel strongly, but on which we are, as a rule, deterred from entering, owing to the fear that we may be misunderstood, especially by our civil brethren, and be imagined to be ashamed of our profession as medical men. Let me assure you that, far from that being the case, it is usually those men amongst us who are keenest at their work who feel most strongly the desirability of our having *honorary*, as distinct from *relative* rank. In commanding our men, in drill, or in any other of our various duties, the want is felt. By all means let us retain the honourable title of "doctor;" but let it be as a generic term, in much the same way as we speak of an engineer as a "sapper," or an artilleryman as a "gunner," no matter what his rank; but do not let us apply it, as is at present done, to every grade in our corps except the quartermasters, from the white-moustached, bronzed surgeon-general, whose breast is thick with medals, down to the last joined surgeon on probation. There can be no doubt that it would increase our *esprit de corps*, and our influence socially and professionally, and thereby add to the efficiency of the army as a whole, if we had some titles which could be "understanded of the people," instead of our at present unwieldy and meaningless appellations. Most of our officers with whom I have talked on the subject would prefer to retain the word surgeon as a distinctive affix, simply putting the various ranks before it, as captain-surgeon, major-surgeon, colonel-surgeon, etc., which are much more manageable compounds than the present, and convey some idea of what seniority a man has. The reason we would retain the word "surgeon," if possible, is, because we are proud of it, and of the noble profession to which we have the honour to belong; and we should not run the risk of being mistaken for

an ordinary line-soldier. ("Tommy Atkins," who has evidently felt the incongruity of the present system, has solved the question for himself, and always talks of the "major-doctor," the "general-doctor," etc.) That this, sir, is a needed change, to which attention must soon be paid, is shown by the way in which it is exercising the minds of so many officers of the M. S.

*** The military title which marks the rank of the medical officer in the army is now attached to the professional designation in the Army Medical Departments of several countries—in the military medical staffs of the United States, Russian, and Italian armies, for example; and we have no doubt the same system will be adopted in the British army before long. We are not aware of any valid objection to such an arrangement, while it seems to carry with it many practical advantages.

MILITIA-SURGEONS.

SIR,—The writer of the article bearing this heading in the last number of the JOURNAL, regards as "disappointing" the "count out" of the House of Commons on Tuesday last, as it prevented Sir E. Wilmot's moving for the inquiry into the case of the militia-surgeons. He says that "a large (?) number of members had expressed their intention of supporting the motion. Dr. MacCormack had been hard at work . . . ," and that the influence of a "powerful organisation" (that is, the Parliamentary Bills Committee) had been placed "at the command of those who were about to advocate the good cause."

Now, all this may appear very fine, and may look very grand, but one very simple, though primarily indispensable little, detail must have been omitted—if, indeed, it was ever thought of—namely, the ensuring, at the outset, the attendance, on the appointed day, of forty members for the sole purpose of "keeping a house." Until this is done, it will not be true that "all the arrangements had been carefully planned."—I am, sir, yours, etc., BERNARD O'CONNOR.

*** The adhesion and attendance of considerably more than forty members had been secured, but the project of procuring a "count out" as a sort of punishment to Mr. Wharton, and the prospect of a holiday, proved too tempting to a number of members who were interested in this and other subjects which were to be brought forward on the same evening. Members of Parliament have a great deal of the schoolboy in them, and a pre-arranged "count out" seems to have an irresistible attraction, even for the most serious.

ARMY MEDICAL SERVICE.

SURGEON-MAJOR C. W. MARRIOTT has resigned his appointment in the 4th Battalion of the Warwickshire Regiment (otherwise the 2nd Warwick Militia), which corps he joined as Surgeon on April 21st, 1863. Surgeon-Major Marriott is permitted to retain his rank and uniform.

Surgeon H. G. BUDD, of the 3rd and 4th Battalions of the Worcestershire Regiment (formerly of the Worcester Militia), and Surgeon DUNCAN MCFAYDEN, of the 2nd Battalion of the Queen's Own Cameron Highlanders (formerly the Highland Light Infantry Militia), have been made Surgeon-Majors.

Acting-Surgeon THOMAS HORNE, M.D., has resigned his appointment in the 1st Cinque Ports Artillery Volunteers, which he joined on June 26th, 1880.

Honorary Assistant-Surgeon JOHN TAYLOR, of the 1st Cinque Ports Volunteers, has also resigned his commission, which was dated May 20th, 1867. He is to retain his rank and uniform.

The *London Gazette* of May 22nd announces that the services of Honorary Assistant-Surgeon H. E. HUDSON, of the 1st Cinque Ports Volunteers, are dispensed with. Mr. Hudson joined the corps on April 4th, 1871.

Mr. I. G. BUTTERS has been appointed Surgeon to the 11th Middlesex (Railway) Volunteers.

Brigade-Surgeon T. N. HOYSTED, now serving in Bengal, is directed to officiate on the administrative medical staff of the Army with the temporary rank of Deputy Surgeon-General, *vice* J. Ferguson, who is on leave.

Surgeon JAMES RAMSAY, M.D., of the 3rd Battalion of the Prince of Wales's Own West Yorkshire Regiment (2nd West York Militia), has been gazetted Surgeon-Major.

Surgeon W. C. WATSON has resigned his commission in the Cheshire Yeomanry, which he joined on July 11th, 1877.

The undermentioned gentlemen have been appointed Acting-Surgeons to the corps specified: Dr. W. H. PACKER, to the 1st Worcester Artillery Volunteers; Mr. J. J. MARSHALL to the 1st Cinque Ports Volunteers; Mr. W. DEANS to the 3rd Lancashire Volunteers; Mr. T. P. GREENWOOD to the 10th Lanarkshire (Glasgow Highland) Volunteers.

A telegram from Suakin says that the hospital-ship *Ganges*, with invalids for England, was to sail on May 26th, and the *Bulimba* would follow shortly with a further batch. The hulk *Underwriter* was being converted into a hospital-ship; her 'tween decks are described as being lofty and roomy, and everything possible was being done to ensure the comfort of the men.

Deputy Surgeon-General J. FERGUSON, serving in the Rawal Pindi Division, Bengal, has obtained leave of absence for six months on medical certificate.

Surgeon-Major E. SEXTON, M.D., Bombay Establishment, having returned from furlough, is placed on general duty in the Presidency Circle.

A telegram has been received at the War Office, dated Cairo, May 26th, informing us that Surgeon H. P. BIRCH had arrived there from the Nile invalided.

Surgeon F. H. TREHERNE is also reported as having arrived at Cairo from up the Nile.

Surgeon-Major R. W. O'DONNELL and Surgeons R. H. CLEMENT and W. S. PRATT, M.B., have left Cairo for England invalided.

Surgeon P. A. HAYES left Suakin in the *Calabria* on May 22nd.

Surgeon N. MANDERS was among the officers who left Suakin invalided on May 27th for England, in the *Ganges*.

Surgeon ROBERT LESLY, M.D., died of enteric fever at Abu Fatmeh, on the Lower Nile, on May 20th, aged 29. He was the youngest son of the late William Sole, M.D., F.R.C.S. He entered the service on February 2nd, 1884, and was sent to the Soudan at the close of last year.

INDIAN MEDICAL SERVICE.

BRIGADE-SURGEON G. FARRELL, Bengal Establishment, Medical Officer of the 5th Goorkha Regiment and Honorary Surgeon to the Viceroy, has been appointed to the medical charge of the Brigade Staff in addition to his own duties.

Surgeon H. M. HAKIM, Madras Establishment, has been appointed to the medical charge of the 23rd Native Infantry at Hoskungabad, *vice* A. P. Adams.

Surgeon-Major J. B. GAFFNEY, Bengal Establishment, has been appointed to the charge of the Seonee District until relieved by Mr. Priest.

The undermentioned gentlemen have obtained leave of absence for the periods specified: Surgeon-Major A. H. WILLIAMS, M.B., Bengal Establishment, in medical charge of the 9th Native Infantry at Peshawur, for 61 days; Surgeon-Major R. Reid, Bengal Establishment, doing duty in the Peshawur District, for one year on medical certificate; Brigade-Surgeon H. R. L. MCDOUGALL, M.D., Bombay Establishment, for six months on medical certificate in extension of his present leave.

Mr. J. D. V. PACKMAN, late a Surgeon in the East India Company's service, died at Anerley on May 11th, in the 72nd year of his age.

Surgeon J. M. YOUNG, M.B., Bengal Establishment, officiating medical officer to the 5th Native Infantry, died at Gorukpore on April 28th, aged 28. Mr. Young joined the service on March 21st, 1883, and had not been in any campaign.

THE NAVAL MEDICAL SERVICE.

MR. ARTHUR KEESS, M.R.C.S., has been appointed Honorary Surgeon to the London Brigade of the Naval Artillery Volunteers.

Mr. JOHN WILSON, Staff-Surgeon, has been appointed to the *Cormorant*.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, May 21st.

Spurious Butters.—Mr. CHAMBERLAIN, in reply to a question pu by Mr. R. PAGET, said the importers of butterine were now required to declare the quantities and values of such import; and the monthly trade and navigation accounts showed the quantity and value of butterine imported, and the country from which it was brought. As regarded the sale of butter-substitutes, he believed that the Sale of Food and Drugs Act gave the purchaser protection, and that any person selling any of those substitutes as butter would render himself liable to the penalties prescribed by that Act.

Friday, May 22nd.

Cholera-Vaccination.—Dr. CAMERON asked the Secretary to the Local Government Board whether his attention had been called to the experimental tests of the efficacy of the system of protective vaccination against cholera, at present being carried on by Dr. Ferran at Alcaira, an insular town of the province of Valencia; whether he had been made aware that, of the 16,000 inhabitants of Alcaira, Dr. Fearan asserted that, between the 1st and 18th of the present month, 5,432 had been inoculated according to his method, and that among them the number attacked with cholera had been 7, or 1 in every 776 persons, and the number of deaths *nil*, while among the uninoculated remainder the number of attacks had been 64, or 1 in every 163 persons, and the number of deaths 30, or 1 in every 352 persons; whether he was aware that Dr. Ferran was desirous that an English Commission should be appointed to verify the results he claimed; and whether, in view of the reappearance of cholera in the South of France, and the special importance of questions relating to that disease to Great Britain as possessor of India, he would consider the propriety of nominating a small Commission to visit Alcaira and report.—Mr. G. RUSSELL: I am aware that Dr. Ferran is testing the efficacy of the system known as "protective vaccination against cholera;" and I have seen a telegram from him containing the statement of facts mentioned in the question, and asking that an English Commission may be sent out. We are considering whether we can comply with this request, but the telegram was only placed in our hands yesterday. I will, however, at once bring the proposal under the notice of the Secretary of State for India, as India is even more directly interested than England in measures for the prevention of cholera.

BEQUESTS AND DONATIONS.—Mr. Bartholomew Stretton has bequeathed £500 to the Royal Infirmary, £200 to St. Mary's Hospital, £150 to the Clinical Hospital for Women and Children, and £150 to the Northern Counties Hospital for Incurables, all at Manchester, and which have been paid.—The Royal Hospital for Diseases of the Chest has received £500 under the will of Miss Sarah Smith, of Islington.

MEDICO-LEGAL AND MEDICO-ETHICAL.

FEES AT INQUESTS.

SIR,—Can I claim a fee in the following case? A fortnight ago an inquest was held in the case of a woman who had been severely burned two months ago. I had been the medical attendant up to the time of her decease. On the morning of the inquest, the coroner's officer called at my house and left word that I was to attend the inquest at 4 P.M. that day. I did so, and after waiting half an hour, the same officer came and informed me that the coroner said I should not be wanted. I went home, and sent in a note to the coroner for my fee. He refuses to pay, stating that he did not give any order or authority for my attendance. I presume he meant that I did not receive a written summons; but I was warned in the same manner as the other witnesses, and he paid them. Although there have been numerous inquests in this neighbourhood, I have never known a medical man to be present at one of them. Other witnesses are not summoned, but only warned by the officer to be present.—Yours, etc.,

M.B., C.M.

*** In reply to our correspondent "M.B., C.M.," we have ascertained that, in country places, it is by no means an uncommon practice for witnesses to be "warned" to be present at an inquest, either by the parish beadle or police-constable, acting as coroner's officer. This mode of procedure is irregular and most inconvenient, and has led to the difficulty which our correspondent has experienced. "M.B., C.M.'s" wisest course in the future will be to attend no inquest unless he receive a proper summons to do so. It is the duty of the coroner's officer, and under the direction of the coroner, to summon all creditable and reliable witnesses, and others who may be able to give evidence touching the cause of death; and therefore "M.B., C.M." should have been duly summoned to give medical evidence in the case, as, although the deceased may have suffered from burns two months previously to her death, it by no means follows that some intervening cause, other than from the secondary effects of burns, may not have effected the fatal termination. In cases of inquest where there is no medical evidence, the verdicts are often vague and obscure; and, as a scientific record of disease or injury, they are valueless, and, from a legal point of view, would be useless in a criminal court, should the result of the inquest lead to further proceedings. We should hardly advise our correspondent to take any legal proceedings for the recovery of the fee he claims, as he can produce no legal proof of having been summoned. Nevertheless, from the custom which appears to prevail in the district, and from the fact that he was warned to appear, he is, in our judgment, morally and justly entitled to the fee he claims.

OBITUARY.

CHARLES P. TURNER, L.K.Q.C.P.I., Surgeon, Army.

SURGEON C. P. TURNER entered the service in March, 1874. During his eleven years' service, he had seen more war-services than any officer of his standing in the department, having received the Indian frontier medal, Afghan medal, Egyptian medal and star for the 1882 campaign, with clasps on all his ribbons; he also served at Suakin last year, where he was wounded, receiving two additional clasps on his Egyptian ribbon. In the present campaign, he was attached to the 19th Hussars, and was present with them at both battles and skirmishes at Abu Klea, Metemneh, and Gubat. He, in common with most others, suffered great hardships, on many occasions having to sleep on the ground just as he was, without blankets, the nights at the time being bitterly cold, and after being for twelve or fourteen hours at a stretch in the saddle under a burning sun, accompanying the Hussars wherever they went. He was attacked with dysentery on the return march across the desert, and died at Korti on March 5th, the day after his arrival.

Of a hearty, genial disposition, he was beloved by all, officers and men alike; a good sportsman, and charming companion, combining with these qualities considerable professional zeal and ability. Had he survived this campaign, he would no doubt have received some special recognition of his services.

As an example of his popularity, it may be mentioned that the men of the 19th Hussars came forward in a body, and asked that they might be permitted to furnish his funeral party, instead of the men of his own corps; and also at the auction of his effects, little trifles were run up to almost fabulous prices, so anxious were his friends to obtain a keepsake of him.

OSWALD G. D. BRADSHAW, L.R.C.P., M.R.C.S.Eng., Surgeon, Army.

SURGEON O. G. D. BRADSHAW entered the service in February, 1884. He accompanied a detachment of the Royal Irish Regiment in their march across the desert, and was present at skirmishing between Abu Klea and Gubat. During his short period of service, he showed that, had he been spared, he would probably have been one of the most brilliant men in the medical staff. At the examination for the service, he took first place out of an excellent batch of candidates, and, at the Netley examination, he took the Martin Gold Medal for practice of medicine, and a special prize given by the Director-General for pathology. He had done good and hard service in the present campaign up to the time of his death, which took place at Korti, from enteric fever, on March 13th, a few days after his return from the desert march.

EMILY BOVELL STURGE, M.D.

THE death of Mrs. Bovell Sturge, which occurred at Nice in the beginning of last month, excited the sincere sympathy of many who were of widely different pursuits.

Long before she devoted herself to the study of medicine, Miss Bovell had earned a distinguished place at Queen's College, London. She was a pupil of Frederick Maurice; and, after becoming an associate of the college, she held for a time the post of mathematical tutor in that institution. She won for herself the devoted attachment of many who came within the circle of her influence. But her ambition was to learn as well as to teach, and in 1871 she entered those medical classes which at that time were open to women in Edinburgh. In 1873 Miss Bovell went to Paris, in consequence of the hindrance to further study in Edinburgh. Whilst in Paris she was a most eager and enthusiastic student of every branch of her profession. The thesis which she wrote for her degree of doctor of medicine in 1877 was on the "Congestive Phenomena following Epileptic and Hystero-epilectic Fits." During the same year she was married to Dr. Allen Sturge, and was appointed physician to the new hospital for women in Marylebone Road. Mrs. Bovell Sturge also resumed her connection with Queen's College as lecturer on physiology and hygiene; and she also held several ambulance-classes for ladies with much success.

In hospital and private practice there seemed to be for Mrs. Sturge an honourable and useful career; but her health began to fail, and in consequence of signs of lung-disorder becoming manifest, her husband determined, in October, 1881, to give up practice in London, and settle in Nice. For a time Mrs. Sturge's health and spirits were greatly improved. Her summers were spent in England and on the Continent. She attended several sessions of the International Congress of Hygiene, before which she read some excellent papers. One of these was on the "Special Dangers attaching to the use of Red Lead, with Illustrative Cases." She also read a paper on the pathology of fibroid phthisis before the Medical Society of Nice.

In 1880 Mrs. Sturge received the distinction of being nominated by the French Government "Officier d'Académie"—a distinction only conferred for scientific and literary merit, and which has been very rarely given to women. In the summer of 1884 the lung-mischief became active again, and in the early part of the present year rapidly advanced, till there was rather sudden collapse in the beginning of April.

Nobody who knew Mrs. Sturge could withhold his admiration for her thirst for knowledge and her energy of character. For the so-called political rights of her sex she cared very little, but few could plead so eloquently for the breaking down of all barriers to the intellectual development of women. For every social improvement also she had a deep sympathy, and the last paper she read before the International Congress of Hygiene was on the education and maintenance of pauper children, supporting strongly the system of boarding such children in families.

To the one who helped and cheered her in her work, who rejoiced in every recognition of her merits, and who grudged no sacrifice for the sake of her health and comfort, we can but offer a deep and respectful sympathy.

W. WATKINSON MOXHAY, M.R.C.S., L.S.A., READING.

THE death of Mr. Moxhay occurred at his residence in London Street, Reading, after a somewhat protracted and painful illness, on the morning of May 13th. During his illness, he was attended by Dr. Shea, Mr. F. W. Sutton, Dr. Ord of St. Thomas's Hospital, and Mr. O. C. Maurice of Reading. Mr. Moxhay's long and honourable career, and unfailing kindness and geniality of manner, had endeared him to the whole of the people of Reading. He began professional life under Mr. Pilcher, then of London, and as a student at the then united school of Guy's and St. Thomas's, taking his qualifications in 1843. He first practised in London, but an attack of hæmoptysis compelled him to give up town-work. For the restoration of his health, he made several voyages to the East Indies as ship's surgeon, and about thirty-five years ago settled in Reading, his first appointment being that of house-surgeon at the Royal Berks Hospital. Having held this

post for five years, Mr. Moxhay commenced practice in Reading, and was shortly afterwards appointed surgeon to the Royal Berks Hospital. He was one of the Vice-Presidents of the Reading Pathological Society, and was a careful and skilful operator and a much esteemed general practitioner. He was also an occasional contributor to the medical journals. Mr. Moxhay was son of Mr. Richard Hellings Moxhay, of Exeter, and married in March, 1856. He leaves a family of seven daughters, four of whom are married.

ROBERT LARGE BAKER, M.D., Leamington.

Dr. R. L. Baker died at his residence, Barham House, Leamington, on May 21st, in his sixty-fifth year. In failing health for some years, he continued his activity in public work until about five months ago, when he had an apoplectic seizure, after which he gradually sank. Dr. Baker, who was a native of Essex, practised as a surgeon in Birmingham for over twenty years. About fifteen years ago, he retired from practice, and removed to Leamington. In the latter town, he was an active supporter of local charities, and an energetic member of the committee of the Warneford Hospital. As a member of the Jephson Gardens Committee, his botanical knowledge was of great public service. He also took an active part, as a director for many years, in the management of the Birmingham Medical Benevolent Society. Dr. Baker was educated at St. Bartholomew's Hospital. He became a Member of the Royal College of Surgeons in 1841, and was admitted to the Fellowship in 1861. He proceeded to the degree of M.D. in the University of St. Andrew's in 1866.

HOSPITAL AND DISPENSARY MANAGEMENT.

JOINT COUNTIES ASYLUM, CARMARTHEN.

The twentieth annual report of this asylum is very satisfactory. Dr. Hearder makes some pertinent remarks upon the Criminal Lunatics Act of 1884. He points out that it makes no change in the place of their custody, and that county asylums are still regarded as fit places for them. Again, it fails to distinguish (except financially) between the habitual criminal who becomes insane, and the lunatic who happens to commit a crime as the result of his malady. All it does is to make provision for the relief of the local rates, and for the patient's maintenance out of moneys provided by Parliament, so long as he is a criminal lunatic. The habitual criminal becoming insane after his sentence is thus provided for, as Dr. Hearder observes, only during the term of his sentence, at the expiration of which he becomes an ordinary pauper, chargeable to the local rates. On the other hand, "the criminal who commits an offence, and is found while waiting trial to be insane, remains a criminal lunatic until recovery or death, and as such is provided for by the moneys of Parliament." On the dietary of the asylum, Dr. Hearder's remarks are of great practical importance, and merit transcription.

"It is now five years since you ordered the disuse of beer as an article of diet, and there has been no reason to regret the change, which has been in every respect satisfactory. When first discontinued, I was able to quote only one county asylum where beer was not included in the dietary; now, in at least half the asylums in the country its use has been discontinued, and this proportion will doubtless steadily increase. In the same year, (1879) it was reported to you that 'the use of wine and spirits in the management of disease has now been practically discontinued in your asylum for a period of three years;' and the further experience since acquired of the non-alcoholic treatment has confirmed me in the belief of its efficiency. There can be no doubt that this belief is steadily and irresistibly gaining ground with the medical profession. Evidence in support of this statement may be difficult to obtain as regards the body of general practitioners, and reliable statistics could scarcely be procured; but, as regards asylum-practice, it admits of easy and full proof. In the report of the Commissioners in Lunacy, published in 1876, we find that the average weekly cost per head for 'wines, spirits, and porter' in county asylums was 1½d., and in borough asylums 1⅞d.; and in their report for 1883, the last published, the average weekly cost for 'wines, spirits, and porter' in county asylums was ¾d., and in borough asylums ½d. Thus, in eight years, the consumption of 'wines, spirits, and porter' as medical extras has decreased in county asylums by 50 per cent., and in borough asylums by 73 per cent. In your asylum, these medical extras have been almost entirely replaced by eggs and milk, at an average cost of 1¾d. per head per week. The change has not effected any money-saving, but it has replaced alcohol by the most easily digested of foods, our types of nutrition."

THE WILTSHIRE COUNTY ASYLUM.

In accordance with an excellent and growing custom, the report of the Commissioners in Lunacy is printed along with the Thirty-fourth Annual Report of the Wilts County Asylum for 1884. In it, we read: "It is just ten months since two members of our Board visited this asylum, leaving a report which made certain suggestions which, if carried out, would add largely to the comfort and safety of the patients. We regret to have to report that, with the exception of the erection of a very small soaking-room in the laundry, not one of the other suggestions has been executed." The suggestions were the provision of means of escape from fire, a detached hospital, a larger chapel, a good recreation-hall, and an adequate laundry. In other respects, the Commissioners were much pleased to report that they were well satisfied with the condition of the asylum, and expressed their opinion that the management of the institution reflected credit on Dr. Bowes, the medical superintendent.

Referring to the Government grant of four shillings per head, Dr. Bowes shows, by a comparative table of the number of patients in asylums and workhouses in Wiltshire, that it has had the effect of concentrating them in the former, particularly the "village fools." In 1873, the year before the grant was allowed, the percentage of lunatics in asylums on the total number was 59.8; in workhouses, 26.9; and with friends, 13.2. In 1883, the percentages were: in asylums, 66.7; in workhouses, 24.6; and with friends, 8.62. Twenty years ago, the percentage of patients living with friends was twice as high as now. This is not pleasant for the ratepayers, and we do not doubt many lunatics are in asylums who might be elsewhere at a cheaper rate. At the same time, it is a satisfaction to know that they are kindly cared for; and that, putting aside the expense, they are better where they are than in workhouses or with their friends.

The Committee of the Wiltshire Asylum has hitherto avoided the introduction of an uniform dress for the patients. They have now decided to adopt one, and, in so doing, follow the custom adopted in all county asylums, with one exception. We regret this change, and consider that it would have been much better had the exception become the rule. Economy can alone justify a course which is generally offensive to the friends of the patients, and tells hardly upon those inmates who have seen better days, and become pauper-lunatics from no fault of their own.

SUSSEX COUNTY ASYLUM, HAYWARD'S HEATH.

It must be a satisfaction to the ratepayers that the Committee of Visitors of this asylum are able to state, in the annual report for 1884, that, notwithstanding long entertained fears, the condition of the house warrants the postponement of the question of the provision of a second asylum for Sussex.

There has been a diminution of the admissions, and a slight increase in the deaths; and the number of vacant beds is forty-seven in the main building, and twenty in the Sanatorium. It is noteworthy that, among the discharges, there are thirty-two patients handed over to the care of relatives as chronic harmless cases. This is a mode of relieving asylums to which Dr. Williams has for long attached great importance, and has carried out as far as is consistent with the good of the patient and the safety of the friends; at least, we presume so. Beyond the bald statement, however, of these figures, Dr. Williams does not say anything. He might have expended a paragraph or two in informing the reader of the report whether inconvenience has or has not arisen to the friends by the return of their insane relatives. It is conceivable that the latter may be retained at home, and yet the advantage be doubtful to all except the ratepayers. One would also like to know whether they receive parish relief, and if so, how much. Greatly to the credit of the asylum, no suicide occurred till last year since 1877. The patient was not supposed to be actively suicidal, and there would appear to be no ground for blame. Why the jury requested the coroner to draw the attention of the Commissioners to "the circumstances of the case" is not explained.

CORK NORTH INFIRMARY.

From the annual report, it appears that, during 1884, there were 880 intern patients and 30,003 extern patients treated in this hospital; while the cases of accident and emergency numbered 5,385. It is a subject of regret that a debt of nearly £500 presses on the institution, but the trustees are confident that the public will contribute the necessary funds, so as to carry on the necessary work unimpaired. A sum of £822 was received in legacies, of which £380 was invested; but this is an uncertain source of income, and what is urgently re-

quired is an increase in the number of yearly subscribers, so as to place the hospital on a satisfactory financial basis. During the year, one of the medical staff died, namely, Dr. Finn, and the eulogies passed on him by the trustees showed how they valued and cherished his memory.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THE quarterly return of the Registrar-General, which has just been issued, comprises the births and deaths registered in England and Wales during the first quarter of the current year, and the marriages in the last three months of 1884. The marriage-rate showed a marked decline from that recorded in the corresponding quarter of the previous year; and, with one exception, was lower than the rate in the same quarter of any of the ten preceding years. The birth-rate and the death-rate were also below the average. The mean temperature exceeded the average, and the weather was, on the whole, favourable to the public health. During the first quarter of 1885 the births of 232,015 children were registered in England and Wales, equal to an annual rate of 34.2 per 1,000 of the population, estimated by the Registrar-General to be nearly twenty-seven and a half millions of persons. The birth-rate, although showing an increase upon the low rate that prevailed in the first quarter of 1884, was considerably below the average rate in the corresponding quarters of the ten years, 1875-84. The birth-rate last quarter did not exceed 27.8 in North Wales, and 27.8 in Shropshire, while in the other counties it ranged upwards to 38.4 in Essex, and 38.8 in Staffordshire, Nottinghamshire, and Monmouthshire. In the twenty-eight large towns, for which the Registrar-General publishes weekly returns, the average birth-rate last quarter was 35.9 per 1,000, ranging from 28.4 in Brighton to 45.2 in Cardiff. The births registered in England and Wales during the quarter under notice exceeded the deaths by 84,104; this represents the natural increase of the population during that period. From returns issued by the Board of Trade, it appears that during the first three months of this year, 37,686 emigrants sailed from the various ports of the United Kingdom at which emigration officers are stationed; of these, 20,201 were English, 3,238 Scotch, and 6,609 Irish. The proportions of emigrants to a million of the population in the three divisions of the United Kingdom were 760 from England, 829 from Scotland, and 1,344 from Ireland. The deaths of 147,911 persons were registered in England and Wales, equal to an annual rate of 21.8 per 1,000 ot the population; this death-rate, although showing an excess of 2.3 upon the unprecedentedly low rate in the corresponding quarter of last year, was below the average rate in the first quarter of the ten preceding years. The rate of mortality among the urban population of the country, estimated at more than sixteen millions of persons, was equal to 22.3 per 1,000; in the remaining and chiefly rural population of about ten millions and three quarters, the rate was 21.0. The urban rate was considerably below, while the rural rate slightly exceeded, the average rates in the corresponding period of the ten preceding years. The death-rate last quarter at all ages, was 4.4 per cent. below the average; that among infants showed a decline of 1.4 per cent.; that among children and adults, between one and sixty years, a decrease of 7.9 per cent.; while the rate of mortality among elderly persons exceeded the average by 3.5 per cent. The 147,911 deaths from all causes, registered in England and Wales last quarter, included 13,308 which were referred to the principal zymotic diseases; of these, 3,413 resulted from whooping-cough, 3,094 from measles, 1,744 from scarlet fever, 1,433 from "fever" (principally enteric), 1,384 from diarrhœa, 1,156 from diphtheria, and 1,084 from small-pox. These 13,308 deaths were equal to an annual rate of 1.96 per 1,000, which was considerably below the average of the ten preceding corresponding quarters. The mortality from each of these zymotic diseases, except small-pox and diphtheria, was below the avarage.

HEALTH OF ENGLISH TOWNS.

In the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,767 births and 3,487 deaths were registered during the week ending May 16th. The annual rate of mortality, which had declined from 23.4 to 20.2 per 1,000 in the three preceding weeks, was 20.4 during the week. The rates in the several towns, ranged in order from the lowest, were as follow:—Brighton, 10.9; Bolton, 14.2; Derby, 15.1; Bristol, 15.5; Huddersfield, 16.7; Bradford, 16.8; Birmingham, 17.9; Hull, 18.8; Leicester, 18.8; Nottingham, 19.0; London, 19.1; Wolverhampton, 19.1; Birkenhead, 19.6; Leeds, 20.5; Plymouth, 20.6; Cardiff, 22.0; Portsmouth, 22.1, Norwich, 22.9; Halifax, 22.9; Blackburn, 23.2; Salford, 23.3; Oldham, 23.9; Liverpool, 24.8; Sheffield, 24.9; Sunderland, 25.0; Manchester, 27.7; Newcastle-upon-Tyne, 30.3; and Preston, 33.3. In the twenty-seven provincial towns, the death-rate for the week averaged 20.5 per 1,000, and exceeded by 1.4 the rate recorded in London. The 3,487 deaths registered during the week in the twenty-eight towns included 143 which resulted from measles, 126 from whooping-cough, 50 from small-pox, 45 from "fever" (principally enteric), 37 from scarlet fever, 33 from diphtheria, and 29 from diarrhœa; in all, 463 deaths were referred to the principal zymotic diseases, against 449 and 481 in the two preceding weeks. The zymotic death-rate was equal to an annual rate of 2.7 per 1,000. In London, the zymotic rate was 2.9; while it averaged 2.6 per 1,000 in the twenty-seven provincial towns, among which the zymotic rates ranged from 0.0 in Norwich and Derby, to 5.4 in Sunderland, 5.5 in Blackburn, and 5.8 in Newcastle-upon-Tyne. The deaths referred to measles, which had been 176 and 181 in the two preceding weeks, declined during the week to 143, and and caused the largest proportional fatality in Birkenhead, Manchester, and Newcastle-upon-Tyne. The 126 fatal cases of whooping-cough exceeded by 10 the number in the previous week; and caused the highest rates in Plymouth, Oldham, and Blackburn. The deaths referred to "fever," which had been 22 and 37 in the two preceding weeks, further rose to 45; this disease was proportionally most fatal in Salford, Cardiff, Sunderland, and Plymouth. The 37 fatal cases of scarlet fever showed a further slight increase upon the numbers returned in recent weeks, and caused the highest rates in Cardiff and Sunderland. Of the 33 deaths from diphtheria in the twenty-eight towns, 21 occurred in London, and 2 in Brighton. Of the 62 fatal cases of small-pox, 45 occurred in London (exclusive of 30 deaths of London residents from this disease in the Metropolitan Asylum Hospitals situated outside registration London), 4 in Manchester, and 1 in Sunderland. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 1,282 and 1,361 at the end of the two preceding weeks, further rose to 1,364 on May 16th; 211 new cases were admitted to these hospitals during the week, against 354 and 315 in the two previous weeks. The death-rate from diseases of the respiratory organs in London was equal to 3.7 per 1,000, and was considerably below the average. The causes of 82, or 2.4 per cent., of the 3,487 deaths registered in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

During the week ending May 22nd, 5,443 births and 3,594 deaths were registered in the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons. The annual rate of mortality per 1,000 persons living in these towns, which had been 20.2 and 20.4 in the two preceding weeks, further rose to 21.1. The rates in the several towns, ranged in order from the lowest, were as follow:—Bolton, 13.3; Bradford, 17.3; Halifax, 17.5; Leicester, 18.0; Bristol, 18.4; Brighton, 18.7; Salford, 18.9; Hull, 19.0; Plymouth, 19.2; Derby, 19.2; London, 19.9; Leeds, 20.2; Huddersfield, 20.3; Sheffield, 20.8; Birmingham, 29.9; Portsmouth, 21.7; Wolverhampton, 21.7; Nottingham, 22.0; Oldham, 22.3; Norwich, 22.9; Birkenhead, 23.5; Sunderland, 24.1; Liverpool, 24.2; Cardiff, 25.8; Manchester, 29.1; Newcastle-upon-Tyne, 30.0; Preston, 30.1; and Blackburn, 31.5. The average death-rate for the week in the twenty-seven provincial towns was 22.1 per 1,000, and exceeded by 2.2 the rate recorded in London. The 3,594 deaths registered during the week in the twenty-eight towns included 510 which were referred to the principal zymotic diseases, against 481 and 463 in the two preceding weeks; of these, 182 resulted from measles, 158 from whooping-cough, 42 from diarrhœa, 40 from scarlet fever, 37 from "fever" (principally enteric), 34 from small-pox, and 17 from diphtheria. These 510 deaths were equal to an annual rate of 3.0 per 1,000. The zymotic death-rate in London was equal to 3.1 per 1,000; while, in the twenty-seven provincial towns, it was 2.9 per 1,000, and ranged from 0.0 in Derby and 0.5 in Brighton, to 5.6 in Birkenhead, 7.9 in Blackburn, and 8.9 in Newcastle-upon-Tyne. The deaths referred to measles, which had been 181 and 143 in the two preceding weeks, rose again last week to 182, and showed the largest proportional fatality in Cardiff, Liverpool, Birkenhead, and Newcastle-upon-Tyne. The fatal cases of whooping-cough, which in the two previous weeks had been 116 and 126, further rose to 158; this disease caused the highest rates in Oldham, Plymouth, and Blackburn. The deaths referred to "fever," which had risen from 22 to 45 in the three preceding weeks, declined again to 37, and caused the largest proportional fatality in Cardiff and Norwich. The 42 fatal cases of diarrhœa showed a considerable increase upon recent week numbers. The deaths from scarlet fever, which had steadily increased from 32 to 37 in the four preceding weeks, further rose to 40; this disease was fatally prevalent during the week in Wolverhampton. The 17 deaths from diphtheria showed a marked decline, and were fewer than those recorded in any week since the corresponding period of last year; 10 occurred in London, and 2 in Preston. Of the 34 fatal cases of small-pox, 28 occurred in London (exclusive, however, of 22 deaths of London residents from this disease which were registered in the Metropolitan Asylum Hospitals situated outside registration London), 2 in Manchester, 2 in Sheffield, 1 in Sunderland, and 1 in Hull. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had risen in the three preceding weeks from 1,034 to 1,364, further increased to 1,374 on Saturday last; the admissions during the week were 282, against 354, 315, and 211 in the three preceding weeks. The death-rate from diseases of the respiratory organs in London was equal to 3.8 per 1,000, and was slightly below the average. The causes of 62, or 1.7 per cent., of the 3,594 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

In the eight principal Scotch towns, having an estimated population of 1,254,607 persons, 912 births and 504 deaths were registered during the week ending May 9th. The annual rate of mortality, which had declined in the five preceding weeks from 25.0 to 22.4 per 1,000, further fell to 20.6 on May 9th, and slightly exceeded the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 12.9 in Leith, 15.7 in Dundee, 16.6 in Perth, 18.0 in Edinburgh, 19.8 in Aberdeen, 21.9 in Greenock, 23.7 in Paisley, and 24.3 in Glasgow. The 504 deaths registered in these towns, included 55 which were referred to the principal zymotic diseases, against 8 and 64 in the two preceding weeks; of these, 25 resulted from whooping-cough, 13 from measles, 6 from diarrhœa, 5 from diphtheria, 3 from scarlet fever, 3 from "fever" (principally enteric), and not one from small-pox. These 55 deaths were equal to an annual rate of 2.3 per 1,000, which was 0.5 below the average zymotic death-rate in the large English towns. The highest zymotic death-rates

in the Scotch towns last week were recorded in Paisley and Greenock. The deaths from whooping-cough, which had been 30 and 27 in the two previous weeks, further declined to 25, and included 12 in Glasgow, and 6 in Edinburgh. The fatal cases of measles, which had fallen in the three preceding weeks from 24 to 14, were 13 last week, of which 11 occurred in Glasgow, and 2 in Greenock. The 6 deaths from diarrhœal diseases were less than half the number returned in the corresponding week of last year. The 5 fatal cases of diphtheria exceeded the number in any recent week, and included 3 in Glasgow. The 3 deaths from "fever" showed a further decline; 2 occurred in Paisley. Of the 3 fatal cases of scarlet fever, 2 were returned in Glasgow. The death-rate from diseases of the respiratory organs in these Scotch towns was equal to 4.8 per 1,000, against 3.7 in London. As many as 79, or 15.7 per cent., of the 504 deaths registered during the week in these Scotch towns were uncertified.

During the week ending the 16th instant, 927 births and 570 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had declined from 25.0 to 20.6 per 1,000 in the six preceding weeks, rose again to 23.4, and exceeded by 3.0 per 1,000 the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns the rate was equal to 17.2 in Edinburgh, 17.5 in Leith, 18.8 in Aberdeen, 19.0 in Greenock, 19.7 in Dundee, 19.9 in Perth, 25.5 in Paisley, and 29.7 in Glasgow. The 570 deaths registered during last week in these towns included 79 which were referred to the principal zymotic diseases, against 81, 64, and 55 in the three preceding weeks; of these, 24 resulted from whooping-cough, 19 from measles, 19 from diarrhœa, 8 from "fever" (principally enteric), 5 from diphtheria, 4 from scarlet fever, and not one from small-pox. These 79 deaths were equal to an annual rate of 3.2 per 1,000, which exceeded by 0.5 the average zymotic death-rate in the twenty-eight large English towns. The highest zymotic death-rates in the Scotch towns during the week were recorded in Perth, Greenock, and Glasgow. The 24 deaths from whooping-cough showed a slight further decline from the numbers returned in recent weeks, and included 9 in Glasgow, and 6 in Dundee. The fatal cases of measles, which had fallen from 24 to 13 in the four preceding weeks, rose again to 19, of which no fewer than 18 occurred in Glasgow. The 8 deaths from "fever" exceeded by 5 the number in the previous week, and included 6 in Glasgow. The 5 fatal cases of diphtheria corresponded with the number recorded in the preceding week; 4 occurred in Glasgow, where all the 4 deaths from scarlet fever were also returned. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 3.9 per 1,000, against 3.7 in London. As many as 82, or 14.4 per cent., of the 570 deaths registered during the week in these Scotch towns were uncertified.

In the eight principal Scotch towns, having an estimated population of 1,254,607 persons, 780 births and 517 deaths were registered during the week ending May 23rd. The annual rate of mortality, which had been 20.6 and 23.4 per 1,000 in the two preceding weeks, declined again during the week to 21.2, and almost corresponded with the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 10.6 in Leith, 18.0 in Edinburgh, 18.3 in Perth, 19.4 in Dundee, 20.7 in Aberdeen, 21.2 in Greenock, 22.9 in Paisley, and 24.7 in Glasgow. The 517 deaths registered during the week in these towns included 67, which were referred to the principal zymotic diseases, against 55 and 79 in the two preceding weeks; of these, 22 resulted from whooping-cough, 16 from diarrhœa, 15 from measles, 8 from "fever" (principally enteric), 3 from diphtheria, 3 from scarlet fever, and not 1 from small-pox. These 67 deaths were equal to an annual rate of 2.7 per 1,000, which was slightly below the average zymotic death-rate for the same period in the large English towns. The highest zymotic death-rates in the Scotch towns during the week were recorded in Greenock, Glasgow, and Paisley. The deaths from whooping-cough, which had declined from 30 to 24 in the four preceding weeks, further fell to 22, and included 12 in Glasgow, 4 in Dundee, and 3 in Edinburgh. The 15 fatal cases of measles were within 4 of the number in the previous week, and were all recorded in Glasgow. The 16 deaths from diarrhœal diseases considerably exceeded those recorded in the corresponding week of the preceding year. The 8 fatal cases of "fever" corresponded with the number in the previous week; 5 occurred in Glasgow, and 3 in Edinburgh. Of the 3 deaths from scarlet fever, 2 were returned in Glasgow, where 2 fatal cases of diphtheria were also recorded. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 4.4 per 1,000, against 3.8 in London. As many as 76, or 14.7 per cent., of the 517 deaths registered during the week in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS.

In the week ending April 18th, the number of deaths registered was 521, giving an average annual death-rate of 31.4 per 1,000. The deaths registered in the several towns corresponded to the following annual rates per 1,000. Armagh, 20.7; Belfast, 36.4; Cork, 26.6; Drogheda, 29.6; Dublin, 31.9; Dundalk, 30.6; Galway, 20.2; Kilkenny, 38.1; Limerick, 24.3; Lisburn, 29.0; Londonderry, 32.1; Lurgan, 25.7; Newry, 17.6; Sligo, 4.8; Waterford, 44.0; Wexford, 25.7. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 4.8 per 1,000, the rates varying from 0.0 in Londonderry, Newry, Kilkenny, Wexford, Dundalk, Sligo, and Armagh, to 9.3 in Waterford; the 19 deaths from all causes registered in the last-named district comprising 4 from measles. Among the 153 deaths registered in Belfast were 26 from measles, 2 from scarlatina, 2 from enteric fever, and 7 from diarrhœa. In the Dublin registration district the deaths registered during the week amounted to 228. Thirty deaths from zymotic diseases were registered: they comprised 15 from measles, 3 from scarlet fever, 4 from typhus, 2 from whooping-cough, 3 from enteric fever. Fifty-two deaths from diseases of the respiratory system (including 33 from bronchitis and 12 from pneumonia) were registered. The deaths of 14 children under 5 years of age (including 6 infants under one year old) were ascribed to convulsions. Four deaths were caused by apoplexy, 3 by epilepsy, and 9 by diseases of the circulatory system. Phthisis caused 37 deaths, mesenteric disease 4, and cancer 5.

In the week ending April 25th, the number of deaths registered was 488, the average annual death-rate being 29.5 per 1,000. The deaths registered in the several towns corresponded to the following annual rates per 1,000: Armagh, 5.2; Belfast, 31.2; Cork, 29.9; Drogheda, 12.7; Dublin, 33.1; Dundalk, 4.4; Galway, 13.4; Kilkenny, 21.1; Limerick, 22.9; Lisburn, 19.3; Londonderry, 23.2; Lurgan, 20.5; Newry, 42.1; Sligo, 14.4; Waterford, 37.0; Wexford, 17.1. The deaths from the principal zymotic diseases in the 16 districts were equal to an annual rate of 4.2 per 1,000, the rates varying from 0.0 in Galway, Newry, Kilkenny, Wexford, Sligo, Lisburn, and Armagh, to 7.8 in Belfast; the 131 deaths from all causes registered in the last-named district comprising 25 from measles, 3 from scarlatina, 2 from whooping-cough, and 2 from enteric fever. There was but 1 death from measles registered in Waterford during the week, against 4, 5, and 5 respectively in the three preceding weeks. In the Dublin registration district, the deaths registered during the week amounted to 230. Thirty-five deaths from zymotic diseases were registered; they comprised 15 from measles, 3 from scarlet fever, 2 from typhus, 2 from whooping-cough, 2 from cerebro-spinal fever, 2 from enteric fever, 3 from diarrhœa. Forty-eight deaths from diseases of the respiratory system were registered; they comprised 31 from bronchitis, 9 from pneumonia, and 3 from croup. The deaths of 13 children (including 8 infants under one year old) were ascribed to convulsions. Seventeen deaths were caused by diseases of the brain and nervous system (exclusive of convulsions), and 13 by diseases of the circulatory system. Phthisis caused 32 deaths, mesenteric disease 3, and cancer 5.

In the week ending May 2nd, the total number of deaths registered was 517, giving an average annual death-rate of 31.2 per 1,000 of the population. The deaths registered in the several towns corresponded to the following annual rates per 1,000: Armagh, 25.8; Belfast, 41.4; Cork, 23.4; Drogheda, 21.1; Dublin, 32.8; Dundalk, 13.1; Galway, 13.4; Kilkenny, 8.5; Limerick, 31.0; Lisburn, 19.3; Londonderry, 17.8; Lurgan, 30.8; Newry, 17.6; Sligo, 9.6; Waterford, 27.8; Wexford, 17.1. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 5.7 per 1,000, the rates varying from 0.0 in ten of the districts to 12.1 in Belfast; the 174 deaths from all causes registered in that district comprising 38 from measles, 3 from scarlatina, 5 from whooping-cough, 2 from enteric fever, and 2 from diarrhœa. In the Dublin registration district, the deaths registered during the week amounted to 227. Forty-four deaths from zymotic diseases were registered, comprising 17 from measles, 5 from scarlet fever, 3 from typhus, 4 from whooping-cough, 5 from enteric fever, 4 from diarrhœa, etc. From diseases of the respiratory system, the number of deaths registered during the week was 40; of these, 19 were from bronchitis, and 8 from pneumonia. The deaths of 18 children under five years of age (including 13 infants under one year old) were ascribed to convulsions. Three deaths were caused by apoplexy, 9 by other diseases of the brain and nervous system (exclusive of convulsions), and 11 by diseases of the circulatory system. Phthisis caused 30 deaths, mesenteric disease 10, and cancer 4.

In the week ending May 9th, the number of deaths registered in the sixteen principal town-districts of Ireland was 481. The average annual death-rate represented by the deaths registered was 29.1 per 1,000. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000. Armagh, 25.8; Belfast, 37.8; Cork, 35.0; Drogheda, 16.9; Dublin, 27.6; Dundalk, 34.9; Galway, 20.2; Kilkenny, 33.8; Limerick, 21.6; Lisburn, 9.7; Londonderry, 17.8; Lurgan, 10.3; Newry, 14.0; Sligo, 4.8; Waterford, 18.5; Wexford, 29.9. The deaths from the principal zymotic diseases in the 16 districts were equal to an annual rate of 4.6 per 1,000; the rates varying from 0.0 in Londonderry, Galway, Newry, Drogheda, Wexford, Dundalk, Sligo, Lisburn, and Armagh, to 11.4 in Belfast; the 159 deaths from all causes registered in the last named district comprising 41 from measles, 2 from scarlatina, and 3 from whooping-cough. In the Dublin Registration District, the deaths registered during the week amounted to 193. Twenty-four deaths from zymotic diseases were registered. They consisted of 12 from measles, 1 from scarlet fever, 4 from whooping-cough, 1 from diphtheria, 2 from cerebro-spinal fever, 2 from enteric fever, and 2 from diarrhœa. Forty-four deaths from diseases of the respiratory system were registered; they comprised 26 from bronchitis, and 14 from pneumonia. The deaths of 12 children (including 9 infants under one year old) were ascribed to convulsions. Six deaths were caused by apoplexy, 2 by epilepsy, 9 by other diseases of the brain and nervous system (exclusive of convulsions), and 8 by diseases of the circulatory system. Phthisis caused 30 deaths, mesenteric disease 2, and cancer 3.

HEALTH OF FOREIGN CITIES.

It appears from statistics published in the Registrar-General's return for the week ending May 2nd, that the death-rate recently averaged 31.7 per 1,000 in the three principal Indian cities. It was 25.4 in Bombay, 30.1 in Calcutta, and 40.7 in Madras. Cholera caused 8 deaths in Madras, 17 in Bombay, and 46 in Calcutta; 4 deaths from small-pox were reported in Calcutta, and the deaths from "fever" showed the largest excess in Madras. According to the most recently received weekly returns, the annual death-rate per 1,000 persons estimated to be living in nineteen of the largest European cities averaged 29.5, and exceeded by 8.4 the mean rate last week in the twenty-eight large English towns. The death-rate in St. Petersburg was 38.3, and showed but a slight decline from the high rate in the previous week; the 682 deaths included 21 from "fever," 10 from measles, and 8 from diphtheria. In three other northern cities—Copenhagen, Christiania, and Stockholm—the death-rate averaged 29.4, and ranged from 24.4 in Christiania to 33.3 in Stockholm; measles caused 21 deaths in Stockholm, and diphtheria and croup 8 both in Stockholm and in Christiania. In Paris, the death-rate was 27.3, but showed a further decline from still higher rates in the two previous weeks; the deaths included 47 from measles, and 34 from diphtheria and croup. The 189 deaths in Brussels included 5 from measles, and 3 from "fever," and were equal to a rate of 24.3. In Geneva, the 29 deaths gave a rate of 21.2. The usual return from the Dutch cities does not appear to have come to hand. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 32.6, and ranged from 23.7 in Dresden and 24.6 in Berlin, to 36.4 in Munich and 37.7 in Prague. Small-pox caused 23 deaths in Vienna, and 5 in Trieste; diphtheria showed the largest mortality in Berlin, Hamburg, and Dresden. The mean death-rate in three of the principal Italian cities was 28.6, the rate being 26.4 in Rome, 28.9 in Turin, and 32.8 in Venice. Small-pox caused 12 deaths in Rome, 4 in Turin, and 2 in Venice: 6 deaths from typhoid fever occurred in Turin, 4 in Venice, and 2 in Rome. No returns have been received from Madrid or Lisbon for some weeks. The 157 deaths in Alexandria were equal to a rate of 38.6, and included 4 from whooping-cough, and 3 from "fever." In four of the largest American cities, the recorded death-rate averaged 25.9, ranging from 19.5 in Baltimore to 30.4 in New York; diphtheria and scarlet fever showed more or less fatal prevalence in all these American cities; and typhoid fever caused 6 deaths in Philadelphia, and 4 in Baltimore.

It appears from statistics published in the Registrar-General's return for the week ending May 9th, that the annual death-rate recently averaged 33.4 per 1,000 in the three principal Indian cities: it was 27.3 in Bombay, 35.6 in Calcutta, and 37.5 in Madras. Cholera caused 32 deaths in Bombay, and 87 in Calcutta; 8 deaths from small-pox were reported in Calcutta, and "fever" mortality was markedly excessive in each of these Indian cities. According to the most recently received weekly returns, the annual death-rate averaged 28.1 per 1,000 persons estimated to be living in twenty-one of the largest European cities, and was no less than 8.0 above the mean rate during the week

in the twenty-eight large English towns. The death-rate in St. Petersburg was equal to 34.1, and showed a considerable decline from the still higher rate in the previous week; the deaths included 15 from "fever" and 8 from diphtheria. In two other northern cities, the rate was equal to 18.7 in Christiania, and 32.2 in Stockholm; measles caused 8 and diphtheria 7 deaths in Stockholm, while the 46 deaths in Christiania included 9 from diphtheria and croup, and 3 from scarlet fever. In Paris the death-rate was 26.5, and showed a further decline from the rates in previous weeks; the deaths included 47 from measles, 37 from diphtheria and croup, and 28 from typhoid fever. The 176 deaths in Brussels included 9 from diphtheria and croup, and 7 from scarlet fever, and were equal to a rate of 21.0. The rate in Geneva was 21.2, the 29 deaths including 2 from diphtheria and one from small-pox. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 20.4, the highest rate being 23.6 in the Hague; measles caused 6 deaths in Amsterdam, and scarlet fever 2 in Rotterdam. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 28.9, and ranged from 21.6 in Berlin, and 23.5 in Trieste to 35.7 in Vienna and 42.2 in Prague. Small-pox caused 19 deaths in Vienna and 6 in Trieste; diphtheria showed the greatest mortality in Berlin and Dresden, and measles caused 20 deaths in Vienna. The death-rate averaged 28.2 in three of the principal Italian cities, being equal to 26.9 in Turin, 29.1 in Rome, and 29.9 in Venice. Small-pox caused 12 deaths in Rome, and 2 in Venice, and 6 deaths from typhoid fever were returned in Turin. The 164 deaths in Alexandria, including 5 from whooping-cough and 2 from small-pox, were equal to a rate of 36.9. In four of the largest American cities the rate averaged 25.9, and ranged from 21.5 in Baltimore to 28.5 in New York. Diphtheria caused considerable mortality in New York and Philadelphia, and measles in New York and Brooklyn; 7 deaths from typhoid fever were returned in Philadelphia.

It appears, from statistics published in the Registrar-General's return for the week ending May 16th, that the annual death-rate recently averaged 32.1 per 1,000 in the three principal Indian cities; it was 27.8 in Bombay, 28.4 in Madras, and 38.5 in Calcutta. Cholera caused 101 deaths in Calcutta and 25 in Bombay, and diarrhœa and dysentery 44 in Madras; 11 deaths from small-pox occurred in Calcutta, and "fever" mortality showed the usual excess in each of those three cities. According to the most recently received weekly returns, the annual death-rate averaged 28.0 per 1,000 persons estimated to be living in twenty-one of the largest European cities, and was no less than 7.6 above the mean rate during the week in the twenty-eight English towns. The death-rate in St. Petersburg was 34.7, and showed a slight increase upon the rate in the previous week; the 618 deaths included 26 from "fever," and 12 from measles. In three other northern cities—Copenhagen, Christiania, and Stockholm—the death-rate averaged 23.2, and ranged from 20.3 in Christiania, to 25.6 in Stockholm; measles caused 12 deaths in Stockholm, and diphtheria and croup 9 in Christiania and 6 in Copenhagen. In Paris, the death-rate was 25.1, showing a decline from still higher rates in recent weeks; the deaths included 40 from measles, 35 from diphtheria and croup, and 13 from typhoid fever. The 163 deaths in Brussels, including 7 from croup and 2 from scarlet fever, were equal to a rate of 21.2. In Geneva, the 35 deaths gave a rate of 25.6. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean rate was 23.1, the highest rate being 23.6 in Rotterdam; 3 deaths from whooping-cough, and 2 from measles, were returned in Amsterdam. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 29.2, and ranged from 23.0 in Dresden and 24.6 in Berlin, to 34.1 in Prague and 34.5 in Breslau. Small-pox caused 17 deaths in Vienna, and 4 in Trieste; and diphtheria showed the greatest mortality in Hamburg, Trieste, Buda-Pesth, and Berlin. The death-rate was equal to 25.1 in Rome, and 30.6 in Venice; small-pox caused 7 deaths in Rome, and 5 in Venice, and typhoid fever 3 in each of these cities. The 130 deaths in Alexandria, including 6 fatal cases of "fever," gave a rate of 29.3. In four of the largest American cities, the recorded death-rate averaged 24.3, and ranged from 19.4 in Baltimore, to 26.8 in New York. Diphtheria and scarlet fever caused a considerable mortality in New York, Brooklyn, and Philadelphia; and 7 deaths from typhoid fever were reported in the last-mentioned city.

It appears from statistics published in the Registrar-General's return for the week ending May 23rd, that the annual death-rate recently averaged 35.4 per 1,000 in the three principal Indian cities: it was equal to 29.0 in Bombay, 36.1 in Madras, and 41.0 in Calcutta. Cholera caused 96 deaths in Calcutta and 27 in Bombay, and in Madras 45 deaths were referred to diarrhœa and dysentery, these numbers showing an increase upon those returned in recent weeks; "fever" showed the usual excess in each of these three cities. According to the most recently received weekly returns, the annual rate per 1,000 in twenty-two of the largest European cities averaged 25.6, and was above the mean rate during last week in the twenty-eight large English towns. The death-rate in St. Petersburg was 31.8, and showed a decline from the rates in previous weeks; the 566 deaths included 21 from "fever," and 16 from measles. In three other northern cities—Copenhagen, Christiania, and Stockholm—the death-rate averaged 20.7, and ranged from 17.8 in Copenhagen to 24.7 in Stockholm; the 95 deaths in Stockholm included 12 from measles, and 6 from diphtheria and croup. In Paris, the death-rate was 23.9, showing a considerable further decline from the rates in recent weeks; 44 fatal cases of measles, 39 of diphtheria and croup, and 11 of typhoid fever, were reported. The 188 deaths in Brussels were equal to a rate of 22.2, and included 6 from measles, 5 from scarlet fever, and 5 from "fever." The 24 deaths in Geneva, of which one resulted from typhus, gave a rate of 17.5. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean rate was 23.5, and the rate ranged from 21.2 in Rotterdam, to 24.2 in Amsterdam; scarlet fever caused 3 deaths both in Amsterdam and in Rotterdam. The Registrar-General's table included nine German and Austrian cities, in which the death-rate averaged 28.9, and ranged from 23.0 and 23.9 in Dresden and Berlin, to 33.6 in Vienna, and 34.5 in Breslau. Small-pox caused 26 deaths in Vienna, and typhus 5 in Hamburg; diphtheria showed the greatest mortality in Berlin, Hamburg, Dresden, and Trieste; and 13 deaths resulted from diarrhœal diseases in Buda-Pesth. In three of the principal Italian cities, the death-rate averaged 25.7, and was equal to 19.2 in Venice, 25.6 in Rome, and 38.0 in Turin; small-pox caused 4 deaths in Rome, 3 in Turin, and 2 in Venice. No returns have recently been received either from Madrid or Lisbon. The 132 deaths in Alexandria were equal to a rate of 29.7, and included 5 from "fever," and 5 from whooping-cough. In four of the largest American cities, the recorded death-rate averaged 24.5, and ranged from 16.1 in Baltimore, to 27.4 in New York. Scarlet fever, diphtheria, and measles, were all somewhat fatally prevalent in New York and Brooklyn; diphtheria and croup caused 22 deaths in Philadelphia, and typhoid fever 3 in Baltimore.

THE Marquis of Cholmondeley has bequeathed £500 to the Hospital for Women.

MEDICAL NEWS.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The examinations for the triple qualification of these bodies in Edinburgh were held in April and May, when the following candidates passed.

First Examination.—J. Anderson, Chelmsford; W. Bell, Dumfries; S. L. Anthonisz, Ceylon; W. C. Carnegie, Dublin; T. Cussen, County Limerick; F. W. Browning, Abergavenny; H. W. Bailie, County Down; A. W. Douglas, Aldershot; W. A. Gibson, County Dublin; W. F. Elliott, Armagh; C. F. Eddowes, London; I. H. Davies, Cymmer; J. S. Fallon, London; E. Gray, Kirkcaldy: A. J. Hamilton, Omagh; D. Henderson, County Armagh; J. Gordon, County Down; C. R. Hailes, Mangalore; O. Gilmore, County Down; W. M. Mackay, Caithness; T. L. Jones, Flintshire; B. MacDonogh, Surrey; E. Mills, Gloucestershire; H. Macpherson, Gloucestershire; H. O. Mill, Devonshire; J. S. Macpherson, Sutherlandshire; J. McCaa, Glasgow; J. McElfatrick, Londonderry; W. R. McMaster, Omagh; K. B. Narayan, Cooch Behar, India; A. W. Marwood, Melbourne; R. Owen, North Wales; J. C. Reid, Edinburgh; G. H. Rutter, Kent; P. O'Sullivan, County Clare: R. C. Richards, Wales; C. F. Sixsmith, Cavan, Ireland; T. Sheedy, County Clare; J. C. Scotchburn, Driffield; P. Sturrock, Pitlochrie; P. C. P. Taylor, Weston-super-Mare; F. F. Thorne, Lee, Kent; H. de C. Woodcock, Sheffield; W. J. Anderson, Toronto; and G. Gibson, Northwich, Cheshire.

Second Examination.—G. S. Barstow, Pontefract; J. Doyle, Manchester; G. W. K. Hector, Aberdeen; C. E. Hollings, Farsley, near Leeds; A. G. Laidler, Barnard Castle; J. G. Mackay, Inverness; L. Birch, Manchester; G. T. Birkett, Egremont; S. L. Anthonisz, Ceylon; J. Anderson, Chelmsford; G. A. Armstrong, Ireland; H. Grant, Edinburgh; J. G. Holmes, Leeds; T. S. Davies, Monmouthshire; F. H. Gaunson, Melbourne; F. J. Kenay, Calcutta: I. H. Davies, Cymmer; H. de C. Woodcock, Sheffield.

Third Examination, and admitted L.R.C.P.Edinburgh, L.R.C.S.Edinburgh, and L.F.P. & S.Glasgow.—G. L. Bonnar, Cupar-Fife; W. G. Axford, London; G. S. Barstow, Pontefract; C. E. Hollings, Farsley, near Leeds; E. M. Inglis, Melbourne; D. J. Mason, Edinburgh; S. Partridge, Darlaston; J. M. Pickthall, Suffolk; J. Sheedy, County Clare; P. H. Salter, Ottawa; H. E. Shadwell, Norwood; H. P. Shuttleworth, London; E. R. F. Taylor, Richmond; and F. G. Westenra, New Zealand.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH.—*Double Qualification.*—During the recent sittings of the Examiners, the following gentlemen passed their first professional examination.

T. J. Connolly, Limerick; E. A. Simeon, Delhi; H. D. Alleyne, Barbadoes; A. R. French, Bandon, County Cork; T. E. Moore, Dungiven, County Derry; C. L. Gabriel, Sydney, N.S.W.; A. Smith, Waterfall, County Cork; and J. C. Woods, Dromore, County Down.

The following gentlemen passed their final examination, and were admitted L.R.C.P.Edinburgh and L.R.C.S.Edinburgh.

C. W. H. Abrahall, London; R. Adams, Rokeel; B. N. Basu, Ishapur, Bengal; E. G. Byrne, Cork; J. Davies, Liverpool; C. L. Fraser, Montrose; W. P. B. Goodridge, Childe Okeford, Dorset; R. D. Hartland, Lough View, Cork; A. M. Fraser, Colchester; D. Hassett, Knockaturney; M. M. Hailey, Bedfordshire; A. O. Honnywill, Rochester; L. E. Portal, Mauritius; R. H. Parry, Llandagla, Wales; T. Roberts, County Cork; W. V. Roberts, North Wales; R. A. Scott, Yorkshire; A. E. Tunstall, Darlington; H. P. Huybertsz, Ceylon; A. R. Steele, Aldershot; T. Weir, Rutherglen; J. H. Caird, Stirling; and P. Walsh, County Cork.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—The following Licentiates in Medicine of the College, having complied with the by-laws relating to membership, pursuant to the provisions of the Supplemental Charter of December 12th, 1878, have been duly enrolled Members of the College.

S. Hamilton, Lic. Med. 1867, Falkland Islands; J. Ellis, Lic. Med. 1865, London.

At a special First Professional Examination, held on Monday, May 4th, and following days, the undermentioned candidate was successful.

J. N. Robson.

At the ordinary monthly examinations for the Licences in Medicine and Midwifery, held on Monday, Tuesday, Wednesday, and Thursday, May 4th, 5th, 6th, and 7th, the following candidates were successful.

For the Licences to practise Medicine and Midwifery.—E. Bielby, M.D., Berne; T. D. Browne; F. R. A. Evans; G. E. J. Greene; H. Stoker; M. A. Wade, Balbriggan, co. Dublin; J. T. Weston.

For the Licence to practise Medicine only.—W. M. Nugent.

For the Licence to practise Midwifery only.—T. J. Dillon, S. Horneck, G. S. Tate, M.D.

ROYAL UNIVERSITY OF IRELAND.—M.B. Examination, May 1885.—The following candidates have passed the examination.

S. Alexander, Belfast; J. Barron, Belfast; J. R. Burrowes, Belfast; A. Corry, Belfast; *G. B. Crawford, Belfast; M. H. Curtin, Cork; T. W. Dwyer, Cork; R. English, Belfast; G. H. Foot, Cork; R. E. Foot, Cork; R. M. Griffin, Ledwich School of Medicine; M. H. Hannegan, Catholic University School of Medicine; W. R. Hawkins. Cork; D. Hennessy, Cork; W. J. Loughrey, Belfast; J. M'Aleer, Galway, and Catholic University School of Medicine; M. M'Carthy, Cork; W. R. B. M'Wha, Belfast; G. F. H. Marks,

Cork: J. Meenan, Carmichael College of Medicine; *J. Musgrave, Cork; J. J. Nagle, Cork; J. J. O'Brien, Cork; J. P. O'Byrne, Catholic University School of Medicine; R. Petticrew, Belfast; *E. L. Pooler, Belfast; *J. Ryan, Galway, and Catholic University School of Medicine; J. M. Savage, Belfast; W. Sexton, Galway; J. H. Sharpe, Carmichael College of Medicine; N. Smyth, Belfast; *R. Thomson, Belfast; *F. J. Tresilian, Cork; J. J. Walsh, Royal College of Surgeons, and Ledwich School of Medicine; M. J. Whitty, Cork, and Catholic University School of Medicine; S. Wilson, Belfast.

Those marked with an asterisk will be allowed to present themselves for a further examination for honours.

UNIVERSITY OF BRUSSELS.—At the May examinations for the degree of M.D., eleven English candidates presented themselves, of whom the following five were successful.

W. Budd, H. Fenton (distinction in Anatomy), H. Spencer (distinction in Medicine and Surgery), G. W. Steeves, C. R. Walker.

SOCIETY OF APOTHECARIES, LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 21st, 1885.

Jones, Oliver Wentworth, Madras Medical College.
Roberts, Hugh Jones, Guy's Hospital.

The following gentleman passed his examination in the science and practice of Medicine, Surgery, and Midwifery, and received a certificate to practise on the same date.

Mallet, Thomas Charles, St. George's Hospital.

MEDICAL VACANCIES.

The following vacancies are announced.

CELBRIDGE UNION.—Medical Officer, Rathcoole Dispensary. Salary, £115 per annum. and fees. Applications to Joseph Stacey, Honorary Secretary, up to May 30th. Election on June 1st.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Assistant-Physician. Applications by May 30th.

CHESTER GENERAL INFIRMARY.—Honorary Ophthalmic Surgeon. Applications by May 30th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Dental Surgeon. Applications by June 8th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by June 13th.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—Resident Medical Officer. Salary, £50 per annum. Applications by June 1st.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Junior Resident Medical Officer. Salary, £50 per annum. Applications by June 3rd.

INVERNESS DISTRICT ASYLUM.—Assistant Medical Officer. Salary, £80 per annum. Applications to Dr. Aitken, Medical Superintendent, by June 17th.

KENSINGTON DISPENSARY.—Dispenser. Salary, £70 per annum. Applications to F. Leach, Esq., 26, Stanford Road, Kensington Square, by June 1st.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.—Honorary Assistant-Physician. Applications by May 30th.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT.—Resident Medical Officer. Salary, £40 per annum. Applications by May 30th.

MIDDLESEX HOSPITAL, W.—Second Chloroformist. Applications to the Secretary-Superintendent on June 5th.

NEWARK HOSPITAL AND DISPENSARY.—House-Surgeon and Secretary. Salary, £100 per annum. Applications by June 1st.

NEWCASTLE-UPON-TYNE INFIRMARY.—House-Surgeon. Salary, £50 per annum. Applications to the Chairman of the House Committee by June 15th.

PAROCHIAL BOARD OF STRONSAY.—Medical Officer and Public Vaccinator. Salary, £70 per annum. Applications to Mr. Learmonth, Inspector of Poor, Stronsay, Orkney, by June 4th.

PLYMOUTH PUBLIC DISPENSARY.—Second Honorary Physician. Applications by June 8th.

ST. BARTHOLOMEW'S HOSPITAL.—Two Casualty Physicians. Applications by June 5th.

ST. HELEN'S FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.—Medical Officer. Applications to Mr. E. Fidler, Boundary Road, by June 20th.

WEST BROMWICH FRIENDLY SOCIETIES' MEDICAL ALLIANCE.—Resident Medical Officer. Salary, £200 per annum. Applications to Mr. G. Abbott, 9, St. James Road, Sheffield.

MEDICAL APPOINTMENTS.

BAILEY, T. Ridley, M.B.Edin., appointed Medical Officer of Health for Bilston, *vice* S. G. Gilbert, M.R.C.S.Eng., deceased.

BEDDOES, T. P., M.R.C.S., appointed Clinical Assistant in the Throat Department at St. Thomas's Hospital.

BRIGGS, Henry, M.B., F.R.C.S.E., appointed Surgical Tutor at the Liverpool Royal Infirmary, *vice* F. T. Paul, F.R.C.S.E., resigned.

ELDER, George, M.D., appointed Surgeon to the Samaritan Hospital for Women, Nottingham.

GORDON, T. E., M.B.Dur., M.R.C.S.Eng., appointed Resident Surgeon at the Birmingham General Dispensary, *vice* H. Shillito, M.B.Lond., M.R.C.S.Eng., resigned.

GREEN, C. D., M.B., L.R.C.P., M.R.C.S., appointed House-Surgeon (extra) to St Thomas's Hospital.

HULL, Walter, M.B., L.R.C.P., M.R.C.S., L.S.A., appointed House-Surgeon (extra) to St. Thomas's Hospital.

JOHNSTON, G. D., L.R.C.P., M.R.C.S., appointed Ophthalmic Clinical Assistant to St. Thomas's Hospital.

KIDD, H. Cameron, L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Ear Department at St. Thomas's Hospital.

LYON, T. Glover, M.A., M.B., L.R.C.P., M.R.C.S., appointed non-resident House-Physician to St. Thomas's Hospital.

MACDOUGALL, Aymer R., M.B.Ed., M.R.C.S.E., appointed Surgeon to the Chesterfield and North Derbyshire Hospital.

MILLER, Joseph Emery, A.B. and M.B., appointed House-Surgeon to the Chester General Infirmary, *vice* A. Macpherson, M.B., resigned.

MORGAN, E. Rice, M.R.C.S.Eng., L.S.A., appointed Certifying Factory Surgeon for the Norriston District, *vice* Henry Davies, L.R.C.P.Lond., etc., deceased.

RITCHIE, E. D., B.C., M.R.C.S., L.S.A., appointed Assistant House-Surgeon to St. Thomas's Hospital.

ROUSE, Rolla E., M.B., M.R.C.S., L.S.A., appointed Resident Accoucheur to St. Thomas's Hospital.

SALTER, Francis J., L.R.C.P. and L.R.C.S.Edin., appointed House-Surgeon to the Devonshire Hospital, Buxton, *vice* A. M. Jackson, M.B., resigned.

SANEYOSHI, Y., L.R.C.P., M.R.C.S., appointed non-resident House-Physician to St. Thomas's Hospital.

SELLICK, J. Henderson, M.R.C.S., appointed House-Surgeon to the North-West London Hospital, Kentish Town Road.

SHEWEN, Alfred, M.D.Lond., appointed Joint Lecturer on Clinical Medicine in the University of Sydney.

STADDON, J. R., L.R.C.P., M.R.C.S., appointed Assistant House-Physician to St. Thomas's Hospital.

WILLIAMS, R. M., L.R.C.P., M.R.C.S., L.S.A., appointed Resident House-Physician to St. Thomas's Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTH.

HINE.—On May 16th, at South Cave, East Yorkshire, the wife of Harry Hine, M.R.C.S., L.R.C.P.Lond., of a son.

DEATHS.

BUDD.—On May 21st, at his residence, 20, Southernhay, Exeter, Samuel Budd, M.D., M.R.C.P., J.P., in his 79th year.

THORBURN.—On May 26th, at his residence, Moss House, Rusholme, aged 51, John Thorburn, M.D., Professor of Obstetric Medicine in the Owens College, Victoria University, Manchester.

WALKER.—At Peterborough, on May 25th, Mary Christina (May), fourth daughter of T. J. Walker, M.D., aged 4 years and 11 months.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Odontological Society of Great Britain, 8 P.M. Casual communications by Messrs. W. St. George Elliott, C. W. Dunn of Florence, S. J. Hutchinson, A. Meggs, and F. Curtis. Mr. C. S. Tomes: On Experiments on Amalgam-Fillings. Dr. G. Field: On Pivot-Teeth attached by Cohesive Gold.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown. Dr. John Williams: Serous Perimetritis. Dr. Matthews Duncan: The Hypertrophies of Lupus of the Female Pudendum. Mr. W. S. A. Griffith: Notes on a Specimen of the Pseudo-Osteo-malacic Pelvis of Naegele.

THURSDAY.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Living specimens at 8 P.M. Adjourned discussion on the President's paper, On Reflex Ophthalmitis. Mr. Spencer Watson: Intra-ocular Gumma in a Child the Subject of Inherited Syphilis. Mr. T. B. Lawford: Tubercle of Choroid. Dr. W. A. Brailey: Double Retinal Glioma, resulting in the Shrinking of one Eye and the Perforation of the other by a Large Growth from within. Communicated by Mr. G. A. Critchett: Case of Extreme Retinal Irritability, with Abnormal Visual Phenomena.

FRIDAY.—West London Medico-Chirurgical Society, 8 P.M. The Cavendish Lecture will be delivered by Dr. J. Syer Bristowe, F.R.S., On Hysteria, and its Counterfeit Presentments.

BRISTOL MEDICAL SCHOOL.—On Monday, May 18th, Dr. J. Russell Reynolds distributed the prizes to the students of the Bristol Medical School in the theatre of the museum, when a large number of members of the profession were present. Dr. Markham Skerritt (Dean of the Faculty of the Medical School) read the report, which showed that, during the year, the number of new entries had been 23; the total number on the books being 96; it also spoke of the excellent character of the work done by them during the year. Attention was drawn to the inconvenience resulting from the want of more adequate accommodation than was afforded by the present temporary buildings, and the hope expressed that the Council of the College would shortly be able to provide for the urgent requirements of the medical department. Dr. J. Russell Reynolds, having presented the prizes, gave an address to the students, which was received with great appreciation.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.— Samaritan Free Hospital for Women and Children, 2.30 P.M.— Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.— Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.— Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 1.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S. 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S, 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CONVERSION OF ENGLISH MEASURES IN A PRESCRIPTION INTO FRENCH WEIGHTS.

SIR,—Having needed some medicine while in a small remote town in France, I found considerable difficulty in getting it made up. There was only one apothecary in the place, and he was absent; and his wife, who was left in charge, knew nothing of dispensing. I told her I was an English doctor, and she was at once most polite and obliging, and allowed me literally to take the matter into my own hands, finding me the bottles for which I asked; but I was made practically alive to the fact that the French have no glass measures for small quantities of liquids; these, as well as solids, are all weighed. My difficulty, then, was to translate our measures of capacity into metrical weights; and I found that practically the readiest way was to guess at my quantities, which I accordingly did, much to the kind lady's alarm. I ought to add that she was most unwilling to take any payment for the medicines.

Will any friend be kind enough to write me the following simple prescription so that a French dispenser could make it up, bearing in mind the difference of the French and English *Pharmacopœias*, and sometimes the difference in the name of the same drug? ℞ Acidi nitrici dil. 3iij; sp. chloroformi 3iij; aquæ menthæ pip. ʒviij.—I am, etc., C. A.

*** The following will approximately be the equivalents in metric weights: Prenez: Chloroforme, 80 centigrammes; alcool @ 80°, 8.5 grammes; acide azotique, 4 grammes; eau de menthe poivrée, 250 grammes.

INCONTINENCE OF FÆCES AND URINE.

SIR,—Will you, or one of your readers, kindly give me advice in the following case? A boy, aged 5, of fair complexion and highly nervous temperament, has not proper control over his rectum and bladder. He wets the bed and his clothes frequently. His urine is healthy; the bowels act on the least mental excitement. I have already administered belladonna to the extent of producing dilatations of the pupils and dryness of the throat, and am now giving twenty minims of Easton's syrup thrice daily, but, so far, with scarcely any improvement. No worms have ever been observed.—Yours, etc., M.B., C.M.

CLUB-PRACTICE.

JUNIOR PRACTITIONER.—"Club-practice," so called, is, we think it well to note, regarded by many practically conversant with the subject as undesirable, and better avoided by young practitioners to whom the comparative pittance is not a necessity. Why "Junior Member," after his past unsatisfactory experience in the matter, should wish to renew it, and, with that view, seek our advice, we fail to appreciate. Should he, however, finally so determine, we would counsel him not to undertake the duties of "club-doctor" for less than five shillings *per annum* for each adult member, and three shillings and sixpence for children; and, at the same time, to strictly limit the class of people who shall be entitled to receive medical attendance, in contradistinction to the ordinary club benefits.

In reply to his second query, we may remark that, although the conduct of his "two brother practitioners" cannot, strictly speaking, be regarded as unprofessional, it is not to be commended, and especially in the absence of an actual vacancy. At the same time, if his deputed services have been satisfactorily fulfilled during the eight years alluded to, our correspondent, we think, need scarcely fear not being elected to the coveted office on the resignation of his father.

A CASE OF SUPERFŒTATION.

SIR,—Authenticated cases of superfœtation being rare, I think it well that the following should be recorded.

On May 20th, at 5 A.M., I was sent for to attend a Mrs. H., a primipara, aged 27. On my arrival, I found her in considerable pain, but the os uteri was firmly closed, with difficulty admitting the tip of one finger. I ascertained that the presentation was a normal one, and, after prescribing an anodyne mixture, left her, giving directions that I should be sent for when the pains were more frequent. I heard no more of the case till 12 P.M., when the husband came for me in a great hurry, saying the child was born. I went back with him, and, going upstairs, found the patient on the bed. On examination, I found a still-born fœtus of about eight months, and, by the side of it, a fœtus of about four and a half months' duration; the latter was in a state of desquamation; the other had apparently been dead only a few hours. The placentæ were quite separate and distinct, the smaller one breaking down under the touch, while the larger was normal. There was no history of anything unusual during the pregnancy.—I remain, yours truly,

GORDON NICHOLLS, L.R.C.P.Edin.

The Hollies, Summer Hill, Birmingham.

SCARLET FEVER: PREVENTION OF INFECTION.

SIR,—If you, or any of your readers, can give me some information on the following points in reference to scarlet fever, I should be much obliged.

1. What are the best means to be adopted by the general practitioner, when attending a case of scarlet fever, to avoid carrying the infection to his other patients and his own children?

2. Is there any way of hastening desquamation? In many cases, after all the rest of the body has peeled, there remains a hard patch on the hands or feet, which takes a long time to come off. Would a blister be of any use, and is it safe practice?

3. In the event of a patient, who has recently had an attack of scarlet fever, wilfully exposing himself in the street before desquamation is complete, what ought one to do? Such a case has recently occurred to me, and of course I have declined to give any further professional attendance. What is my duty with regard to the prosecution of the individual?—I am, sir, yours faithfully,

JUNIOR MEMBER.

WHERE TO PLACE A LUNATIC?

SIR,—I shall feel very grateful to any of your readers who can advise me as to where I can place a male lunatic, who is at present in a pauper asylum, but whose friends object to him remaining a "county pauper" lunatic. The patient was originally a farmer; and, his friends being very badly off, it is necessary that the expense incurred shall be as little as possible. There is no apparent chance of recovery.—Faithfully yours, F.R.C.S.

CREDENTIA.—The question should be submitted to a medical agent accustomed to deal with such cases.

A New Suspender.

SIR,—I am anxious to call the attention of the profession, as well as the public generally, to a new kind of suspender, which I think possesses advantages which will commend it to general use. Its appearance is that of a pair of drawers cut short in the leg; it is adaptable to almost every sized person; it is made of a washable material, and is specially adapted for warm weather and the Indian climate. Surgeons would find it extremely useful in retaining dressings or other applications *in situ*. It is the invention of Colonel Thornhill, R.A., who has patented it, and has named it the "Bien-aisé Drawer and Support." The inventor claims that its merits are, 1, its adaptability to the movements of the body, whilst giving effective support. 2. That, whereas ordinary suspensory bandages are difficult to keep on in many positions—for example, riding, mounting, and dismounting—the "Bien-aisé" always retains its position, and is so comfortable that the wearer forgets he has it on. 3. In hot and damp climates, where eczema supervenes from chafing, it is actually a preventative. 4. It takes the place of the usual summer drawers, and at the same time acts as a suspensory bandage. 5. It should be worn over the shirt, which should be tucked in in the usual manner, and it attracts no attention in the wardrobe of which it forms a part. It is made by Hayward, of Nottingham, and sold also by Whitelock and Co., 84, Charing Cross, S.W.—I am, etc., J. McK., M.D.

The Causes of Hæmorrhoids.

SIR,—Seeing, in a recent number of the JOURNAL, damp seats referred to, I should like to know whether the use, by those accustomed to cushioned seats, of bare cane-bottomed chairs is not probably (in conjunction, of course, with the producers of portal congestion) a more frequent cause of hæmorrhoids. Whilst the body is erect, the anus is protected by about an inch of buttock on each side, and by a more or less extensive bag of warm air, formed by the clothing. But when the individual (I speak more especially of the male sex) is seated on a cane-bottomed chair, the intervening cushion of air is reduced a minimum, and, the perinæum being stretched, the anus is brought into close proximity with a surface of clothing that is constantly being subjected to a cooling process, which, though refreshing, is none the less dangerous. Moreover, a springy cane-bottomed chair is peculiarly adapted to exercise lateral traction upon the perinæum, and thus to cause eversion of the mucous lining of the bowel, with consequent constriction of its blood-vessels by the sphincter ani, as well as exposure of it to friction and cold. (Badly made seats to water-closets have a similar effect.) There is little doubt that the best seat for ordinary use is a well shaped Wycombe chair, which supports the perinæum without putting it on the stretch, and which needs no cushion to add to the comfort of it.—I am, sir, yours faithfully, D. BIDDLE, M.R.C.S.Eng.

Gough House, Kingston-on-Thames.

Cremation in Practical Operation.

SIR,—I was much gratified, on perusing the JOURNAL of May 2nd, to find the subject of cremation so ably discussed by Sir Spencer Wells, who is so warm an advocate for its general adoption throughout the country—a subject in which I claim some personal interest, from deep investigation into its sanitary and other advantages, which I illustrated in my paper on cremation designed to be read at the Liverpool meeting of the British Medical Association, but which, owing to restricted time, was taken as read at that meeting. While fully endorsing Sir S. Wells's opinion that the religious objections, and also the forensic apprehensions as to its facilitating crime by poisoning, have been satisfactorily dispelled, I cannot help pointing out that a vast amount of prejudice still remains to be cleared from its progressive path, which, like all prejudices, cannot be removed by sudden legal enactments, only by slow persistent action on public opinion. Nothing ought, therefore, to be left overlooked which may tend to gradually open the eyes of the public to its practical utility, while insensibly accustoming people to its practice. All persons connected with medical studies are acquainted with the method in which the human remains resulting from dissection are finally disposed of. The fragments of perhaps half-a-dozen different subjects are thrust indiscriminately into the same coffin, possibly filled up with the remains of dissected animals. It is true that a religious burial is collectively granted to these poor remains of humanity; but would it not be quite as practical, and also far more decent and conducive to public health, to cremate these mortal remains, instead of burying them in this rough-and-ready fashion, provided, of course, every requirement of religion and decency be enforced? The present useless addition to burial-space in our overcrowded island would be at least diminished to some little extent; and the practice would thus be inaugurated as a regular custom. Men's minds would little by little get used to it, and its use gradually be extended year by year, till its practice finally became universal. After Sir Spencer Wells's admirable lecture, it seems useless to add further reflections, except that the adoption of cremation, necessitating greater strictures in granting burial-certificates, and greater stringency thereby into the causes of death, will tend to facilitate the detection of crime to a notable extent. —I remain, sir, yours truly,

J. BRINDLEY JAMES, F.S.A., A.K.C., M.R.C.S.Eng.

Royal College of Surgeons of England.

THE following were the questions in Anatomy and Physiology submitted to the candidates at the primary examination on May 15th. Four questions in each division were required to be answered. *Anatomy.*—1. Describe the dissection of the Ischio-rectal Fossa, and give its boundaries. 2. Describe the posterior surface of the Tibia, and indicate the attachments of the various muscles to it. 3. Give the attachments of the Constrictors of the Pharynx, and their nerve-supply. 4. Describe the Ligaments of the Sterno-Clavicular articulation. 5. Describe the origin, course, and termination of (*a*) the Inferior Mesenteric Artery; (*b*) the Inferior Mesenteric Vein. 6. Describe the course and relations of the Median Nerve and its branches in the forearm.—*Physiology.*—1. Describe the characters of Gastric Juice; its effect upon albumen, the conditions of its action, and the products formed. 2. Draw and explain the curve of a single Muscular Contraction, and compare it with that of Tetanus. 3. Describe the minute structure of a Lobule of the Liver. 4. Describe the reflex actions which affect the Eye, starting from excitation of the Conjunctiva and of the Retina respectively. 5. Explain the influence of the Respiratory Movements upon the Systemic Circulation. 6. Give an example of each of the three kinds of Lever in the human body. Arrange in the order of their elasticity the following tissues: Hyaline Cartilage, Ligament, Vocal Cords, Blood, Muscle, Dentine, Aorta, Vein.

MEMBER B.M.A. (Ballymena).—Calf-lymph may be obtained gratis on written or personal application at the National Vaccine Establishment, Local Government Board, Whitehall, S.W.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. Alex. Anderson, Mirfield; Dr. E. Mackey, Brighton; Mr. G. Cecil Dickson, Carnoustie; The Secretary of the Sanitary Commission Office, Punjab; Mr. Hodgson, Brighton; Dr. H. Browne, Manchester; Mr. F. R. Humphreys, London; Mr. C. W. Purdy, Chicago, U.S.A.; Dr. Savage, London; Mr. J. Hutchinson, London; Mr. Watson Cheyne, London; Mr. Wm. Duncan, Ottery St. Mary; Our Dublin Correspondent; Dr. Dolan, Halifax; Dr. Smythe, Abergavenny; Mr. A. E. Brooks, London; Mr. E. White Wallis, London; Dr. J. M. McDonagh, London; Dr. Alder Smith, London; Dr. Andrew Duncan, Bombay; Mr. G. T. Coleman, Cardiff; Dr. Sutherland, London; Dr. Hawksley, London; Messrs. Oliver and Atcherley, Manchester; Mr. Balmanno Squire, London; Dr. Illingworth, Accrington; Mr. G. Rendle, London; Mr. John Wood, London; Mr. W. Spencer Watson, London; Mr. H. Percy Dunn, London; Mr. Gordon Nicholls, Birmingham; Dr. Lee, London; Dr. W. Ewart, London; The Secretary of the Society for Training Teachers of the Deaf; Mr. H. Holberton, East Moulsey; Mr. Major Greenwood, jun., London; Dr. Maxwell, Woolwich; Dr. J. Davies Thomas, London; Mr. A. W. Sinclair, Selangor; L.R.C.P.; Mr. L'Estrange Isdell, Gillingham; Dr. Joseph Rogers, London; Mr. T. H. Sawtell, London; Dr. Handford, Nottingham; Mr. Alfred J. H. Crespi, Wimborne; Mr. Arthur H. Benson, Dublin; Mr. T. M. Kendall, Sydney; Dr. Budd, Exeter; Dr. J. Ashburton Thompson, Sydney; Mr. J. W. Fry, Wateringbury; Mr. Lawson Tait, Birmingham; Dr. W. Sinclair Thomson, London; Mr. F. A. Southam, Manchester; Dr. Gray, Atlanta, Georgia; Dr. J. T. Duncan, Toronto; Dr. Allen, Napier; Dr. J. C. Waddell, Longton; Mr. A. R. Macdougall, Chesterfield; Dr. George Elder, Nottingham; Dr. Bernard O'Connor, London; Our Birmingham Correspondent; Dr. Churton, Leeds; Dr. Collingridge, Greenwich; Mr. J. Greig Smith, Clifton; M.B., M.A.; Dr. Stevenson, London; Mr. Foreman, Manchester; Mr. C. H. Taylor, Bradford; Dr. B. Foster, Birmingham; Our Aberdeen Correspondent; Mr. G. E. F. Nixon, Shrivenham; Mr. J. Neville Porter, London; Mr. E. Thompson, Omagh; Sir J. E. Eardley Wilmot, M.P., London; Mr. Booth Clarkson, Liverpool; The Manager of the *Chronicle* Office, Bishop Auckland; Mr. H. R. Greene, Cairo; Mr. Herbert Milton, Cairo; Dr. T. Robinson, London; Miss Williams, Dublin; Mr. J. E. Edward, Chester; Mr. R. H. Woodhouse, London; Mr. Jabez Hogg, London; Dr. Glascott, Manchester; Dr. Murray, Stranraer; Mr. G. Eastes, London; Our Manchester Correspondent; Our Berlin Correspondent; Mr. A. Jackson, Sheffield; Dr. H. Campbell Pope, London; Mr. A. B. Squire, London; Our Liverpool Correspondent; Mr. R. W. Leeming, Kendal; Our Edinburgh Correspondent; Dr. Strahan, Belfast; Dr. Thomas, London; Dr. W. H. Kesteven, London; Dr. Norman Kerr, London; Dr. Farquharson, M.P., London; Mr. Thomas Greenish, London; Dr. J. Fourness-Brice, Oxton, Cheshire; Dr. W. Sinclair Thomson, London; Mr. R. de Courteney Welch, London; Dr. C. Parsons, Dover; Dr. Macdonald, Liverpool; Mr. C. T. Griffiths, London; Messrs. Trübner and Co., London; Brigade-Surgeon R. J. W. Orton, Newcastle-under-Lyme; Dr. Macewen, Glasgow; Dr. Goodridge, Bath, etc.

BOOKS, ETC., RECEIVED.

A Manual of Science. By A. Wilson, F.R.S.E., F.L.S. London: Longmans, Green, and Co. 1885.

The Regimen to be Adopted in Cases of Gout. By Dr. W. Ebstein. Translated by J. Scott, M.A., M.B. London: J. and A. Churchill. 1885.

Von Ziemssen's Handbook of General Therapeutics. Introduction by Professor H. Von Ziemssen. On the Koumiss Cure. By Dr. Stange. London: Smith, Elder, and Co. 1885.

A Lecture on a Healthy Skin. By James Startin. London: Harrison and Sons 1885.

The Oleates. By J. V. Shoemaker. Philadelphia: F. A. Davis.

Ambulance Lectures on Home Nursing and Hygiene. By S. Osborn, F.R.C.S. London: H. K. Lewis. 1885.

What shall be my Practice? By E. Diver, M.D. London: Smith, Elder, and Co. 1885.

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ABSTRACT OF LECTURES
ON
SOME OF THE INJURIES AND DISEASES OF THE HEAD AND NECK, THE GENITO-URINARY ORGANS, AND THE RECTUM.

Delivered at the Royal College of Surgeons of England.

By EDWARD LUND, F.R.C.S.,
Professor of Surgery, Victoria University, Manchester; Consulting Surgeon, Manchester Royal Infirmary, etc.

LECTURE I.—WOUNDS ON THE FACE. CICATRICES ADHERENT TO BONE. SINUSES IN THE CUTANEOUS TISSUES. SCALDS AND BURNS. NÆVI. HARE-LIP. CLEFT PALATE. ARTIFICIAL TEETH IN THE PHARYNX. REMOVAL OF THE TONGUE.

THE lecturer stated, in the course of some brief preliminary observations, that he was constrained to give his subject matter a very general character, and to approach its details by addressing himself chiefly to the members of the College, those who, busily engaged in practice, have frequently to deal with difficult points of diagnosis, or obscure and doubtful cases for treatment, presenting problems of great interest, upon the correct and ready solution of which success or failure may depend.

Mr. Lund first invited the attention of his audience to the consideration of cases of slight scars or injuries of the face which may or can lead to permanent and conspicuous deformity. He was requested, more than twenty years ago, to attend a little boy, four or five years of age, who had, a short time previously, while running about a dining-room, fallen violently against a sharp projecting portion of furniture, producing a laceration of the skin and subjacent tissues on one side of the face, just above the malar bone. There was not much hæmorrhage, the wound being a lacerated one, and not much contusion, and it seemed more like an incised than a lacerated wound, it had been made so quickly and so cleanly. Mr. Lund proceeded at once to replace the flap of skin, and to adjust the edges of the cut as completely as he could with strips of plaster carefully and accurately applied. The whole was fixed with a pad of lint and a light bandage. On the third or fourth day the dressings were removed. Spasmodic action in the marginal fibres of the orbicularis palpebrarum muscle had been at work, and drawn the edges of the wound apart; so that, although healing was far advanced, there was still a granulating surface in the centre between the retracted lips of the wound. It was not long before perfect cicatrisation was accomplished; but there was a scar, which it was too late to prevent, and which became permanent. Time has shown that, as Sir James Paget once said, a scar in a child, of the length of its little finger, may grow as the child grows, and eventually equal in length the little finger when he is an adult. Had the lecturer remembered, at the time of the primary treatment of this wound, how intimately the muscles of the face are blended with the skin, in which are truly their points of insertion, he would have done then what he has done ever since under similar circumstances, namely, close wounds upon the face with fine silken sutures, not sparingly, but abundantly inserted, and retained just so long as may be needful to fix the flaps of the wound to the deeper tissues, and keep the edges of the wound as nearly as possible in contact.

In contused wounds of the face it is very needful, in order to avoid permanent marking, to search with great care for, and remove from the wound, any foreign matter, if there be even the smallest breach of surface. A little boy, running out of the garden into a paved court, fell suddenly, and was found a moment afterwards lying flat upon his face, screaming lustily. He was taken into the house, and it was found that he had struck his forehead against the flat stone or flag upon which he had fallen, and thus produced a bruised spot exactly in the middle, just, as it would seem, over the frontal vein. The boy had some slight symptoms of concussion of the brain. He vomited, and afterwards became drowsy and indifferent to what was passing. When Mr. Lund saw him, the contused part was raised and much discoloured, as if blood were effused beneath the skin, particularly in the centre of the swelling, where the cuticle was slightly abraded. This was all that was then noticed. An evaporating lotion was applied to the forehead, and, with care as to quiet and regimen, in a few days the little fellow was well, except that the skin was discoloured, and that there was an unusual prominence at the seat of injury, apparently caused by effusion of blood. A lotion of lead and opium was applied, not as an evaporant, but by covering the lint with which it was wetted with oiled silk, to cause it to bring about a softening of the tissues, and, as was intended, to hasten the absorption, or else the breaking down, of the clot. About ten days from the date of the accident, the lecturer examined the skin very minutely, to see if he could discover any actual wound which might have healed prematurely, but without success. A small vertical incision was made into the part with a tenotomy-knife, and out dropped, or rather, he pressed out, with some difficulty, a piece of gravel of considerable size. The swelling subsided, absorption of effused blood and lymph went on, and all did well.

That case showed two points of interest. It proved how a small wound may be made in the skin by the rapid transit of a hard resisting body, by reason of the elastic skin yielding to, then closing over, its passage, like the smallness of the aperture of entrance of a bullet of high velocity. It also showed how, where foreign bodies from without are either forced into the interior of the body, or become embedded in any of the tissues, the effect of the presence of a body so impacted will depend entirely on its physical composition. If it be porous, so that it can absorb the fluids—the serum, for example—of the part, it will doubtless have already within its pores a factor of putrefactive change; and thus a septic state of the surrounding tissues is almost sure to result; whereas, if it be solid and non-porous, as in this instance, it may remain dormant and harmless for an indefinite period. Such is often the case if a small shot penetrate the face or other exposed part of the body, and even with a bullet of large size. But, in such cases, most probably the bullet or the shot travelled alone, and in its progress did not carry with it any porous wadding or other material, and thus it had lain harmless in the wound, so far as causing any local poisonous effects was concerned.

This child fell upon a flat stone, on which there lay, at the spot, a small piece of gravel. It was forced through the skin by stretching it enormously in proportion to its size, and then, slipping within, was buried in the subjacent tissue, and the small wound in the elastic skin closed over it immediately. In a manner somewhat similar, particles of dirt will often be driven deeply into the skin, but not beneath it, and, if not diligently sought for and thoroughly removed, will leave permanent and ugly marks. Grains of gunpowder, when the force of the explosion is not so great as to injure the tissues severely, will thus become fixed in the skin, and produce lasting disfigurement. In this condition of things, the lecturer has succeeded very well in removing such marks by this procedure.

The night before the operation (which is to be performed under chloroform) the skin over each of the black dots or marks, or, at any rate, the most conspicuous of them, is painted with thick green vesicating collodion, which, for these and similar purposes, is an excellent epispastic. This being applied with a camel-hair brush over the marks, the surface is allowed to dry. In ten or twelve hours, the cuticle over the part will be found raised, as an ordinary blister; only with this difference, that the collodion has strengthened and thickened the epidermis, and it can, from this increased thickness, be torn off with forceps from the spots over which it had been painted. The papillary layer of skin so exposed will most probably have embedded in it the foreign matter which is to be removed, and this can be done by means of some small scraping instrument, a Volkmann's spoon in miniature, or a hook or gouge, such as is employed for extricating particles of iron or coke from the surface of the cornea.

In the case of a little girl who fell out of a carriage, face downwards, on to the muddy roadway, and was dragged along a few paces, although every care had been taken to cleanse the wound, a very conspicuous deformity was the result. A number of lines were visible, of a light brown colour, where the face had been scratched; and these the lecturer was able to remove, after an interval of many months from the date of the accident, by first applying the collodion, not in one large patch, but in a number of fine lines over the marks, waiting for the vesication, removing the cuticle, and carefully tearing away each particle of matter such as mud would deposit, a lens being used to aid the sight. The surface was then painted over with dilute carbolated oil, and allowed to heal; and no permanent mark resulted.

The surgeon has occasionally to deal with ugly deformities caused by cicatrices in the face, the result of adhesions over the site of carious or necrosed bone, such as, in the upper jaw, may be found near the orbit

in strumous subjects; or on or about the lower jaw, as sinuses from disease of the fangs of the teeth, after gingival abscesses; or in the neck, as a consequence of abscesses around the glands or within their substance.

It is useless to attempt the cure of such deformities while inflammatory action is still going on at the original seat of the disease. If suppuration around the glands in the neck be still present, some other process must be resorted to; and, if the action be still proceeding in the sinus leading down to a tooth, or to a necrosed or carious bone near the orbit, it is little use to interfere. We must first remove the cause, if possible, and then wait until all destructive inflammatory changes are in abeyance, or perfectly arrested. Then, studying carefully the extent, direction, and depth of the depression, a fine-pointed narrow tenotomy-knife should be passed through the skin at about half an inch from the edge of the depression, carried onwards beneath the skin until it reaches the deepest part, but still with its point beneath the cuticle. In this way, we can divide the cicatricial bands subcutaneously, and the adhesions which fix the skin to the bone without piercing it at the bottom of the depression, or producing any counterpuncture, with the point of the knife. In doing this, blood will escape from the divided capillaries; but, unless a vessel of considerable size should be cut through, the blood so effused will not be excessive; and, the operation being performed very slowly, the blood, as it escapes, will collect beneath, and gradually lift up the skin so as to place it nearly on a level with the surface around.

Much will depend upon dividing the skin only at the point of puncture, all else being done subcutaneously. Collodion may be applied after the knife is removed; but ultimate success will be secured by what has been called "organisation of clot;" and the effused clot will cause the surface of the cavity so produced to inflame and form minute vessels, which will permeate the clot, interlace, and lead to the deposit of fibrous matter, giving consistence to the part. In this way, many of these depressed cicatrices may be successfully dealt with. But it must be assumed that the depression is not very deep, and that the original injury has not occasioned any great loss of tissue.

Sinuses in the cutaneous tissue of the face, as one of the consequences of inflammation of the dental alveoli, with suppuration and perforation of the wall, may exist for many months before they cause ulceration of the skin, and then we may find that the skin is under-burrowed for some distance beyond the orifice of the sinus. Even if the source of the irritation have been got rid of by the extraction of the tooth, the skin over the orifice of the sinus may remain for a long while in a congested and unhealthy condition, and complete cicatrisation cannot be obtained until the skin so undermined has been entirely removed, by clipping it off with scissors, or dividing it with a scalpel.

Sinuses appearing in the neck, among the loose tissues below the jaw, in cases of chronic suppurating glands, require similar treatment. Here the only chance of securing satisfactory healing, is to remove the nearly dead loose skin, which will not adhere by reason of the unhealthy granulation tissue which exists beneath it, or on its under surface. In the progress of an attack of inflammation, its situation is generally in the cellular tissue, which forms the capsule of the gland; so that the suppuration which follows is produced more by a circumglandular than by an intraglandular abscess, although this latter condition does, without doubt, sometimes occur. By reason of the looseness of the tissues in which the glands lie, we get this burrowing and general extension of the ulcerative process some distance around the inflamed gland. The contents of the abscess escape, but the displaced skin will not unite to the subjacent parts by reason of its lowered vitality and insufficient blood-supply, and so it remains non-adherent for weeks and months. If at last it do adhere, it will be so drawn in and puckered as to cause a depressed and irregular cicatrix.

It is always desirable to restrain these morbid changes in the glands where this is possible. Long experience in the use of the iodide of potassium, as an external application in these cases, has only confirmed an opinion already expressed, that the iodide will do all that iodine itself, applied locally, can do, without that excessive action on the skin which the latter produces. In the very earliest stage of congestion of the glands, before inflammation has really set in, the skin over the glands should be painted many times during the twenty-four hours, with an alcoholic solution of the iodide of potassium, with the bromide of ammonium, to which is added just enough glycerine, and no more, to prevent the crystallisation of the salts on the skin. In this way to keep the part thoroughly saturated with the saline matter, is of immense importance in controlling the changes going on in the tissues around the glands, and the congestion of the glands themselves. Where this iodide application has failed, the lecturer has seen excellent results follow the careful use of the emplastrum hydrargyri cum ammoniaco over the enlarged glands before suppuration has commenced. It requires, however, to be used very cautiously, or it may expedite suppuration in place of averting it. In children it is a good plan to apply the plaster only at night, removing it in the morning, and not to continue its use if irritation of the skin be produced. It should be diluted by the addition of one-quarter or one-half of emplastrum saponis. When abscesses form around the inflamed glands of the neck in strumous subjects, the lecturer delays the incision until he is satisfied not only that fluid exists, but that it is at least two-thirds in bulk or quantity of the diseased mass. If done earlier than this, the incision will cause only a slight diminution of the swelling, and the wound thus produced may excite a fresh course of inflammatory action. As to the mode of puncture, the lecturer always uses a very small lancet, with cutting sides. This serves the double purpose of an exploring needle, and allows the incision to be enlarged along the lines of the platysma fibres to any extent. Into the cavity from which the pus has escaped a small coil of thin silk ribbon, moistened with a lotion of nitrate of lead and weak carbolic acid, is inserted, and a part of the ribbon is left projecting beyond the incision, and over all the same lotion, with lint and oiled silk, is laid. If in a few days subsidence of the swelling do not result, the absorption of the lymph with which the part is infiltrated is hastened by each ribbon-tent being moistened with the tincture or the liniment of iodine, or dusted with the powder of precipitated iodoform, pressing the piece of ribbon well down to the bottom of the cavity, yet leaving a portion of it outside the wound.

In scalds and superficial burns upon the face and neck in young children, the application of treacle, or molasses, directly over the surface, as a continuous dressing to the scald or burn, until complete cicatrisation is effected, is an admirable remedy, always handy. The best mode of applying it in scalds and burns upon the face and neck is to take blotting-paper, or soft white-brown paper, torn into pieces, each about half an inch by an inch and a half, and these will have the edges more fluffy and absorbent than if the paper be cut with scissors. Then dip the pieces of paper into the treacle, and so lay them on the part one by one as to cross in every possible direction, that by mutual overlapping and entanglement they may unite and form a closely fitting mask or shield to the part. If the scald or burn be on the face, treacle has this advantage in children that, if a little of it run down into the angles of the mouth, it is not distasteful, but rather agreeable to the little patient; and if it have been applied immediately after the injury, the air and its constituents will not have access to the wound so as to set up septic action in the secretions of the part. If the treacle be in excess of the dressing round the edges, it may be removed by wiping with a dry cloth; and the edges may then be dusted with flour, powdered oxide of zinc, bismuth, or other drying material.

For scalds and burns on larger surfaces than those of the face and neck, the lecturer employs resin-ointment, with oxide of zinc and carbolic acid, in the proportion of a drachm of each of the two latter substances to an ounce of cerate.

As to the effects of burns in regard to the contraction of tissue which follows them, this is very much influenced by the intensity and duration of the inflammatory action which attends upon the injury. Where the effused lymph and the cicatricial tissue which it helps to form are deposited under the conditions of high vascularity and vital action, firm and irresistible contraction of tissue results much more certainly than, *cæteris paribus*, where, from the careful treatment of the wound, the process of repair has been accomplished without much local disturbance, or without intense vascular congestion in the granulations, and, possibly, abundant secretion of pus.

In fact, our treatment of scalds and burns must be conducted in obedience to the laws which regulate the avoidance of septic changes in wounds in general, by whatever cause produced; and we know that this state of things may be secured by various means, and it is not right to limit our definition of the antiseptic treatment of wounds to the exclusive use of the many preparations of carbolic acid.

It has often been noticed by those who are earnest followers of true Listerism that, in their amputation-wounds, and those occasioned by the removal of tumours, the resulting cicatrices are much more pliable and elastic than with other dressings, and the lecturer's observation on the progress of scalds and burns when so treated is quite in accordance with such remarks.

As to the mechanical means by which we may avert the tendency which cicatrices following scalds and burns constantly exhibit to produce permanent deformity by contraction of tissue, there is one cause in action which, if admitted, will guide our treatment under such cir-

cumstances. It is the habitual position assumed by the body during sleep, in children especially. In a child, of course, this means the posture of the body in at least one-third part of the twenty-four hours. It is best observed in the limbs. If the back of the arm or forearm be the possible seat of the cicatrix, it will, by the naturally flexed position of the limbs in sleep, be submitted every night to a certain amount of extension or stretching; and here an apparatus may hardly be needful; but, with an equal extent of injured surface on the palm of the hand, or front of the arm, the parts would be so circumstanced during the hours of repose as to facilitate contraction, which we must, therefore, carefully correct by the use of some extending apparatus at that particular time. The same occurs in the cicatrix resulting from a scald or burn beneath the chin, for example, or on the front of the neck. In a child asleep, the neck is generally bent, and the chin rests on the front of the chest. Here much may be done by the patient wearing at night a collar of leather, or a stiff bandage, on which the chin can rest, and the structures in front of the neck be restrained from undue contraction. It may be prudent, in such a case, to wear the collar constantly day and night; but if relaxation from this be permitted, it is in the night-time rather than the day that it will be found to be the more urgently needful.

Before leaving the subject of the primary treatment of burns, the lecturer mentioned a valuable means of diminishing the irresistible tendency exhibited by the newly formed fibrous tissue to contract, and thus distort the part. It is, as soon as cicatrisation is completed, to apply to the yet tender surface weak mercurial ointment in some of its forms—the mild mercurial ointment, or the ointment of the ammonio-chloride of mercury. In cases of burns on the hand and fingers, this treatment, persevered in for some weeks, has caused the resulting cicatrix to be more yielding to gradual extension, and less firm and rigid.

The two means of cure on which the lecturer relies for small nævi on the face, neck, and neighbouring parts are vaccination, and, failing this, the needle-cautery. To vaccinate over the nævus, as well as to vaccinate the child in three or four spots on the arm, is excellent practice where it can be done. It is prudent to vaccinate the patient on the arm as well as over the nævus, that we may watch, in the usual way, the progress of the local changes there occurring, and reason therefrom how far constitutional results may follow. We vaccinate over the nævus, to set up in the skin and the tissues beneath inflammatory action and effusion of lymph, which, by its contraction, shall strangle the arterioles and capillaries of the growth, and reduce the vascularity of the part to its normal state.

The lecturer has had some very successful cures, but many of them at first—that is, for months after the operation—were disappointing in their progress. The effects of vaccinating a nævus are very gradual. At first the redness of the part seems to be the harbinger of ill, and to forebode a return of all the trouble. But it is well to know that if the action—that is, the pustulation with its attendant inflammation—be well established, sooner or later contraction will result; and with this peculiarity, that, as we see in ordinary vaccination, although the cicatrix or mark is very conspicuous for some years, it has a tendency to fade away by the very slow absorption of the effused lymph-bands within it. This occurred to the lecturer with a large nævus on the upper eyelid and brow of a child nearly four years old, who had never been vaccinated, and in whom, for months after vaccination over the nævus, the part remained red and swollen, and then at last slowly contracted. When he was eight years old, it left so little trace of the deformity, that it was hardly possible to say on which side of the face it had existed.

After this operation, however, it is very desirable to preserve as anhydrous a state of the vaccinated surface as possible; for the only case among many which gave the lecturer trouble in the primary stage of treatment by vaccination, was in a very young infant, with a large veno-cutaneous nævus beneath the chin. It was vaccinated liberally. An abundant crop of pustules formed, which, by careless nursing, were allowed to get wet and sodden by the saliva dribbling from the child's mouth, and the whole became one large suppurating surface, to its great distress. Yet, as time went on, the surface healed, and no scar whatever now exists, and the skin is as healthy there as in the surrounding parts.

In vaccinating over a nævus, a vaccinating-pen is used to tatoo the part with the vaccine-lymph, taken direct from the arm of a healthy child; and the depth of the punctures is regulated by the weight of the pen allowed to fall on the part from a short distance, so as just to penetrate the epidermic layer, and yet not cause bleeding, if possible. When vaccination has already been performed, the needle-cautery is useful for small nævi; the same thing can be done with a galvano-needle puncture, but it is more easy to employ for the obliteration of nævi needles of the ordinary form, heated to a red heat in a spirit-flame. To make the heat more intense and more constant, on each needle a small sphere of steel is fixed, which is placed some distance from the point. While the needle is being heated, the steel ball also becomes hot, and acts as a reservoir of heat, by which the needle does not become so quickly cooled, or, if it have to be again heated by the flame, this can be done more rapidly. To remove oxidation, the needle must be cleaned in emery-dust each time before it is to be re-used. It is better to make too many punctures than too few, so as to have as many lines of contraction as possible along the burned surfaces. It is not needful to carry the needle diametrically through the nævus from one side to the other, but rather to direct each line of puncture from the periphery in a converging direction towards the centre of the nævus, and then to make a few punctures perpendicularly to the surface through the thickness of the nævus. There is rarely any hæmorrhage from the punctures if the needle be not too hastily withdrawn. It should be held steadily in the exact position in which it was introduced until it is evident that all the redness has ceased, when it must be slowly removed by a very gentle rotatory movement, and very gradually. If some of the punctures give trouble, and a slight oozing of arterial blood follow the removal of the needle, the cautery may be rewarmed and again introduced through the same opening, and held as before, in the part, so as more effectually to seal the bleeding points. If the oozing should be specially difficult of control, styptic discs will prove of great efficacy. They are made by soaking a sheet of bibulous paper in a strong alcoholic solution of tannin, 45 grains to each fluid drachm of absolute alcohol, and allowing it to dry; then cutting it in pieces of convenient size. One or two pieces are placed over the nævus, and there fixed by gentle pressure. These tannin discs are exceedingly useful, and, for more trivial accidents, as in a razor-cut in shaving, or in arresting the bleeding from a leech-bite, the lecturer prefers them to the perchloride of iron. Tannin discs are more cleanly, do not excite any ulceration of the part, are not hygrometric or deliquescent, so that they are always ready for use and of constant strength. The effects of the needle-cautery on nævi are not immediately apparent, yet the action is more rapid and direct than when vaccination has been employed.

On the subject of hare-lip, the lecturer referred to cases in which the fissure exists on one side only of the mesial line of the lip, and does not penetrate far upwards into the depth or breadth of the lip—such a case as any tyro in surgery might undertake to treat without the slightest hesitation; and yet such cases, if sought for and watched carefully, years afterwards, as the child grows up, will often disappoint the operator by the reappearance of the notch as the lip developes in the general progress of growth. Two causes conspire to this untoward result. The comparative thickness of the extreme edge of the two sides of the fissure is rarely equal, so that the lip on one side of the resulting cicatrix will be thinner and less actively nourished than the other. And, from the first completion of cohesion after the operation, there will be a tendency in the lineal cicatrix so formed to undergo contraction in a longitudinal direction—that is, upwards towards the nostril. Thus, year by year, from one or both of these causes, an unsightly and conspicuous notch will be formed. To correct this, in paring the edges of the cleft in the lip, the lecturer removes, as far as possible, so much of the edge of the thinner piece as to reach a part of the lip nearly equal in thickness to the other side. This edge is refreshed at the expense of its mucous, rather than its cutaneous, surface, the thicker edge being refreshed in the opposite direction at the expense of the skin-surface. Thus, instead of two square edges being brought into contact, part of the edge of the thicker arm of the cleft lies behind or beneath the thinner, to pack it up and help to thicken it. Then the extreme edge of the lesser arm of the cleft is so refreshed as to affix to it some of the prolabial portion of the other side, crossing the extreme lower end of the cleft, and here for the time producing a very distinct nodule or projection of mucous tissue. This produces a very ugly appearance, not only as soon as the parts are brought together, but for a very long time afterwards. If the friends of the patient protest against the unsightliness of this nodule of mucous tissue projecting on the centre of the prolabium, the lecturer endeavours to allay their fears by assuring them that, if it should become permanent, it can at any time be sliced off, so as to make the whole surface level. But in a number of cases which the lecturer has watched for more than a year, and in one case for four years after the operation, this nodule of mucous tissue remained projecting in a diminishing degree, and serving as a means of blocking up what would otherwise have been a depression in the edge of the lip by the upward linear contraction of the cicatrix itself. The plan, therefore, consists

mainly in leaving untouched this mucous tubercle, and being content to have the abnormal fulness or projection at this part, which, in nearly all of the cases so managed, never requires to be cut off, but, in twelve or eighteen months, slowly contracts up to its proper level. The lecturer does not employ pins, except during the operation, and until all the sutures are duly fixed. Then they are removed, and a few fine sutures placed within the mouth on the mucous surface, to fix the inner flap.

The cases most favourable for closure of the hard palate in childhood or in adolescence, are those in which the bony arch of the palate is high and narrow; and in spite of the clever procedure of Sir William Fergusson to crush in the bony roof of the palate on each side towards the fissure, and so diminish its width, yet the flaps of fibro-mucous membrane which have been detached from it, fall together much more easily, and can more readily be brought into contact from a high, than from a flat or low palate. With regard to the suturing of the sides of a cleft of the soft palate, and the importance of not drawing the sutures too tightly, it had always seemed to the lecturer that, while this was objectionable, from the chance of its producing a strangulation of the part and ulceration of the suture-holes by undue pressure, yet there was another fact to be observed in it of equal importance.

On the surface of the body, where all is clear and visible, we are apt, in tightening up our sutures, to disarrange the relative position of the edges of the wound, and to find that here and there, between the sutures, there is inversion of the skin, by which, two epidermic surfaces coming into contact, union is impossible. This may be due either to tying too tightly, or to mal-apposition. Now, an analogous condition occurs often in the adjustment of the two sides of the refreshed fissure of the soft palate in tying the sutures. What we require to have is the direct apposition of the cut surfaces on the edges of the cleft. What we often have by misadventure is an inversion at one or more points of the mucous aspect, which then lies surface to surface, and can never unite. An adept at this operation will rarely do this. He avoids it instinctively, perhaps without knowing it; but the occasional operator, or he who has not had much operative experience, will often find that the edges of the cleft which he has carefully refreshed, and which he fairly hopes will unite, cannot do so, for the reason stated. We owe very much to Sir Spencer Wells for his valuable discovery of the readiness with which the surfaces, and not the edges, of a divided serous membrane will unite by plastic lymph in an incredibly short time. The same distinguished observer has also shown us that mucous surfaces, when so circumstanced, conduct themselves quite differently. Here the surfaces, when in contact, will not unite, but the cut edges will; so that careful attention to this little matter may prove to be one of the turning points of success.

Lastly, for those whose experience in this operation is not very great, and who desire to secure by every means the greatest amount of rest to the sutured palate, and rapid union, and to minimise the tension on the opposed edges of the wound, of all the methods which seem to the lecturer the most simple and the best, is that practised by Mr. Bryant, which is to make an incision into the pendulous palate, by scissors or otherwise, nearly parallel to each side of the proposed line of union.

Mr. Lund then turned to the subject of cases where artificial teeth have been swallowed, the plate supporting them no longer fitting, through absorption of the alveoli. He related a remarkable case where a plate was believed to have been swallowed. Two years afterwards the patient died of pulmonary disease, and at the necropsy the lecturer laid open the œsophagus, from which the stomach had been cut away, along its entire length, until he could enter the pharynx from below. No sooner had he done this, and introduced his finger from below upwards into the mouth, than he exclaimed, "Here they are, lodged firmly on the front of the pharynx, below the tongue! I can feel the two ends of the narrow plate quite smooth and firm!" Yet it was found that it was not the plate at all. It was the two cornua of the os hyoides, felt from within the pharynx. More minute inspection with the finger, both when introduced through the mouth and carried well backwards and downwards, and then curled forwards, and when passed upwards along the œsophagus, gave quite the impression to the touch of the presence of a foreign body with smooth firm edges. The teeth were never found, and no one knows where or how they went. Not very long afterwards a house-surgeon made a similar mistake in an out-patient, and the lecturer was able to convince him by defining the two cornua, one on each side, with a space between, and also their relations to the larynx, that within this living subject was the *ignis fatuus* of the cornua of the hyoid bone.

In all cases of asserted swallowing of artificial teeth and the plate which supports them, the surgeon must be sure that he can depend upon the declaration of the patient, and that they really have been so swallowed, for the sensation of their changed position in the mouth may be emotional or imaginary.

The lecturer described the case of a young woman who believed she had swallowed a tooth-plate in the night, and after great alarm to herself, and trouble and doubt to her surgeons, it turned out that she had never swallowed it, but mislaid it, which suddenly gave rise to a false impression.

The last subject upon which the lecturer spoke was the operation for the removal of the tongue. He advocated it only for either chronic or subacute enlargement of the tongue, macroglossia, or the early advent of malignant disease.

Severe pain, however, in this complaint can often be relieved, if not destroyed, by section of the gustatory nerve. This is a procedure which may with great propriety be regarded as the rule of practice for this special symptom. But as to the malignancy: if the case have advanced so far that the glands are enlarged, we can never be quite sure whether this is occasioned by simple congestion, by irritation, or by infiltrations of secondary malignant deposit. If the glands be enlarged from the latter cause, although we remove the entire tongue, little ultimate benefit results; seeing that here, as in other malignant growths with secondary gland complication, unless the glands themselves be removed at the same operation, they will enlarge more rapidly afterwards than they would have done if the primary growth itself had not been touched.

It is only in the pre-glandular stage that the lecturer has seen good permanent results from the removal of the entire tongue. We may fail to find the enlarged glands if their natural size is not much augmented. They may not be perceptible to touch when examined externally, either at the side or in the centre of the lower jaw. But by placing one finger within the mouth, beneath the tongue, on the floor of the cavity, and a finger of the other hand opposite to it, on the skin, a diseased condition of the glands may be thus detected which would otherwise have been easily overlooked. In doubtful cases, the best method of investigation is to slice off a portion of the growth, examine it microscopically, and let the histological evidence thus obtained decide its true nature, which the naked eye could never reach.

With regard to the particular operation which we should perform, according as the removal is to be partial or complete, and next how it is to be done, the lecturer adhered to the method suggested by Mr. Walter Whitehead, and greatly simplified in his hands. Here, as in many other operations, the principle upon which an operation is to be conducted being first admitted, next come the details, and these, as laid down by him in this particular operation, should be religiously adhered to.

It is an operation which, more than most operations, must be done slowly, deliberately, and boldly; each stage and step of the operation being completed before the next is entered upon. And then it will be found to be an operation in the performance of which, to use the words of Hilton, we may truly say, "Confiding in your anatomy, you have nothing to fear."

GLYCERINE AGAINST DRY TONGUE AND THIRST.—Surgeon-Major S. K. Cotter, in a recent number of the *Indian Med. Gazette*, relates the case of a patient suffering from enteric fever who was awakened every ten minutes by the dryness of his tongue, which was parched and covered with sordes. The tongue was painted with glycerine frequently, and the result was that at the first trial the patient slept almost comfortably, waking up about every two hours with the tongue feeling dry, but not really dry to the touch; after renewed application of the glycerine he at once slept again. In six other cases it has been tried and found satisfactory. Surgeon-Major Cotter does not attempt to decide whether it acts by increasing secretion from the mucous membrane, dissolving the sordes, or making an artificial coating. But, in whatever way it acts, its benefit is vouched for when the tongue is parched during any disease.

BEQUESTS AND DONATIONS.—Mrs. Mary Ann Richards, of Wood Green, Wednesbury, has bequeathed £1,000 to the West Bromwich District Hospital, and £1,000 to the Walsall Cottage Hospital.—Miss Wilson, of Kendal, has given £200 to the Home for Incurables at Stanwix.—Dr. Arnold Brünn has given £105 to University College Hospital, towards the Jubilee Endowment and Building Fund, and in memory of Lizzie Church, who was for many years a nurse in the Hospital.—University College Hospital has received £52 10s. from the People's Contribution Fund.

HIP-JOINT DISEASE AND ITS EARLY TREATMENT.

Read before the South London District of the Metropolitan Counties Branch.

By JOHN CROFT, F.R.C.S.,
Surgeon to St. Thomas's Hospital.

First I would define the class of hip-disease to which my observations particularly apply. I classify hip-joint disease primarily under two heads, acute and chronic. We meet with acute synovitis and acute arthritis; acute synovitis of simple serous catarrhal character; acute suppurative synovitis; and the infective suppurative inflammations, as the gonorrhœal and pyæmic. I do not refer to any of these. We meet with acute arthritis when other articular structures beyond the synovial membrane are affected. This acute variety commonly ends in acute necrosis of the epiphysis of the femur, or portion of the acetabulum; it is sometimes designated acute epiphysitis. I do not refer specially to this. My observations are limited to the chronic variety of arthritis, and with respect to this I shall confine myself to parts of the subject.

First, with respect to the strumous, or scrofulous, or tubercular variety or forms of the disease, I am quite convinced, by examination of parts removed from my own cases of excision, now amounting to sixty-eight in number, that chronic hip-joint disease in children is met with in three several kinds: 1, simple; 2, strumous or scrofulous, which are synonymous; 3, tuberculous. Each kind may continue distinct from its commencement to its termination, but the second and third may be the sources of other or general tuberculosis.

It is true that scrofulous disease can become the focus from which tubercular inoculation, or tubercularisation, of the system may spread. It is true that primary tubercular disease of the synovial membrane or articular bone is found.

I here remind you that the report of the Committee of the Clinical Society upon hip-joint disease in 1881, stated, "In respect to the question whether hip-disease in childhood is a scrofulous affection, or in what proportion of cases any element of scrofula is present, the Committee have felt themselves unable to offer any decided opinion, since the whole subject of the nature and histological characters of tubercle, and the relation of scrofula to the tubercular diathesis, must be still *sub judice*." They pointed out that of 429 cases, 9 per cent. died of some form of tubercular disease; and they pointed out that of 104 deaths from hip-joint disease, 36 died of tubercular affections, or more than 34, and nearly 35, per cent. These figures include my own clinical facts up to 1880. My experience since is in support of this statement with regard to the tubercular nature of the disease, but it is rather from microscopic examination of parts removed by excision than from deaths.

Since the report referred to, I have had eighteen specimens of joint-disease examined carefully for tubercle, and these have been demonstrated to present tubercle in its generally acknowledged forms. Six of the specimens were exhibited at the Pathological Society in February, 1881, when I read my paper on tubercular disease of joints. The twelve other specimens were examined by the late Dr. Williamson of this hospital in 1882, but have not been publicly exhibited before this evening. Bacilli were not looked for in either set of specimens.

I am not singular in these views of scrofulous and tuberculous disease of joints. Mr. Erichsen, in the excellent new edition of his *Surgery*, by Marcus Beck, recognises tubercular disease of joints, and almost admits primary tuberculosis, without giving any additional facts of his own collecting. Mr. Bryant adheres to his former opinions. Mr. Macnamara has personally convinced himself of the fact of tubercular disease. Mr. Barwell, in an article of this year's date, in Ashhurst's *Encyclopædia of Surgery*, gives an opinion rather in favour of tuberculosis of joints but no facts.

The most recent public utterances on the part of continental surgeons, since those quoted in my paper of February, 1881, were made at the International Congress in Copenhagen, where Ollier, Trélat, and Volkmann, repeated in an emphatic manner their views as to the frequency of the occurrence of tuberculosis of joints. Indeed, I am inclined to imagine that these authorities may be too broad in their statements. Volkmann stated that, in 250 instances of excision of the hip-joint, he had found all but five or six to be tubercular. He had found Koch's bacilli in all. P. Bruns, of Tübingen, is convinced of the tubercular nature of white swellings and fungous gelatinous tissue. König, of Berlin, formerly of Göttingen, in a recent pamphlet on disease of bones and joints, writes more positively than before of the frequency of tubercular disease.

It is not denied that many cases of scrofulous disease of joints recover without any extension of this disease to other parts of the body, as in the history of scrofulous disease elsewhere in the frame. It is not denied that primary tubercular disease of joints is recovered from without operation and without extension of the neoplasm, now called by some infective granuloma. I, however, reassert, from my own knowledge, that primary tubercular disease of joints does occur, and I venture to reassert the truisms, 1, that tubercle is auto-inoculable or infective; and, 2, that scrofulous inflammations predispose to and become the seat of tuberculosis, as these have an important bearing on the early diagnosis and early treatment of this disease of which I am speaking.

Next to this subject of the frequency of the tuberculous form of arthritis at the hip, and intimately connected with the pathology of arthritis, I would direct attention to the frequency of the occurrence of necrosis and sequestra, in the progress of it.

The Committee of the Clinical Society, already quoted, reported that they found nearly 60 per cent. of the specimens presented more or less necrosis, or sequestra of dead bone. In 1880 I had directed attention to the frequency of its occurrence in these chronic cases, having up to that time met with it in 13 of 45 cases of excision. Since then, nearly five years ago, out of 23 additional excisions, I have met with necrosis in 12 of them. This makes a total of 25 instances of necrosis or sequestra in 68 excision cases, a percentage of more than 36.

I believe that this represents more faithfully the percentage of necrosis than the statement of the Committee of the Clinical Society. In their investigation, they had almost exclusively museum specimens, obtained *post mortem*, to see, beyond my own collection of thirty-six specimens removed by excision (out of forty-five specimens) before death.

I bring up this subject again because, as time has gone on, I have become more than before impressed with the significance of the occurrence of those sequestra. I think it is important, both with regard to quite early treatment when the disease is in its infancy, as it were, and it is of yet greater importance to recognise the possibility of its occurrence, or, rather, its having occurred, when abscess has formed. I do not intend to speak of the necrosis as it affects the question of incision or excision; but, when reverting to the early treatment, I shall again refer to this possibility of necrosis. It is obvious that it is most important to prevent it.

The third subject to which I wish to turn attention is that of shortening of the limb as the result of the disease of which I am speaking. Surgeons are only too well acquainted with shortened limbs after the disease has passed beyond the second stage. Dividing the disease into three stages, for the sake of description, the second stage commences with the formation of abscess. When sinus and pathological dislocation occur, the disease has entered its third stage. Surgeons are only too familiar with shortening as the result of these later stages of the disease, but they are not so familiar with shortening as the outcome of the disease when cured in its first stage. It is on shortening in this condition that I wish to remark.

It is my impression, from perusing text-books on this disease, that the practitioner is led to expect cure of the first stage without shortening; at least, this result is omitted. I am not speaking only from my own experience when I state that such an expectation is misleading. Cure of the first stage is a frequent possibility, but it is not always followed by perfect after-growth of the limb. At page 12 of the report of our committee of the Clinical Society, we are informed that in seventeen cases personally examined, and found cured after the first stage, there were twelve good cures, with an average shortening of 1 inch, and three cases which presented 3¼ inches of shortening. These cures had not been attended by the formation of abscess, yet the fifteen cases presented an average shortening of 2⅛ inches.

I look upon this as a very interesting fact, and think it should be more widely recognised than it is. It is a fact well known to me now, from the observation of the cases referred to in the report, and from my own experience. Cases well known to me as cures after the first stage, without suppuration at any period of their history, have resulted in permanent shortening of the limb. When simple synovitis is followed by resolution and cure, no shortening is expected or experienced. When arthritis occurs, and that ends in resolution, even then shortening may ensue; and I believe it mainly depends upon the situation of the bone-inflammation. Acetabular ostitis, ending in resolution and cure, is not likely to be followed by any, or by very trifling, shortening; but when there is primary femoral articular ostitis, and that is followed by resolution and cure, it may be, and certainly will be, followed by shortening, and this will be more or less

in extent as the epiphysal line of the bone has suffered from the inflammation. This consequence of the first stage of hip-joint disease should be fairly faced, and the young practitioner should be warned of its possible occurrence. The percentage of cases not passing beyond the first stage is, according to the report so frequently quoted, 31 per cent. The proportion of such cases known to be cured is given as 48.4 per cent.; the possible percentage may be larger. This is an excellent result, but I believe it may be exceeded in the future. Amongst the classes above the poor hospital-cases, the percentage of cures is still better. The fact, however, remains that shortening does occur. I have briefly indicated the probable explanation of it. The surgeon should warn the friends of a child-patient that the cure of the disease in the first stage may lead to shortening in spite of the best treatment, and we may know that it may be from one inch to three inches and a quarter.

The fourth subject is one which belongs to both the pathology and to the symptomatology of the disease—namely, the contraction and rigidity of muscles about the joint. It is invariably present in the disease under notice. It is found in various degrees, being strongly marked in some cases, feebly marked in others. Its presence is absolutely indicative of the existence of inflammation in the joint; its absence is indicative of the subsidence of inflammation. It is, therefore, one of the most valuable and significant; in my estimation, it is the most significant of all the early symptoms of hip-joint disease. Some authors appear to attach but little importance to the symptom, and content themselves with the mention of it. Mr. Hilton pointed out the explanation of this interesting phenomenon in his *Lectures on Rest and Pain*, in 1860 and following years. In his eighth lecture, he said: "When the interior of the joint is in a state of inflammation or of irritation, the influence of this condition is carried to the spinal cord, and thence reflected to the various muscles of the joint through the medium of the associated motor nerves, the muscles being supplied by the same nerves that supply the interior of the joint." In that beautiful physiological fact lies the explanation of this constant early symptom of hip-joint disease. I speak particularly of it this evening because, first, I have found it one of the most significant of the diagnostic symptoms, and, secondly, because its early total subsidence and disappearance denote that the disease has yielded to the early treatment. To this point, I may again refer when speaking of the early treatment.

Having now very briefly commented on the four allied subjects, (1) of the often tubercular nature of this chronic disease; (2) the frequency of the occurrence of necrosis and sequestra in the later stages of it; (3) the less frequent, but not uncommon, result of shortening of the limb, found in cures in the first stage of the disease; and (4) the too much overlooked symptom of reflex muscular spasm and rigidity; I will turn to the second part of the title of this paper—namely, early treatment.

I am quite in accord with the majority of surgeons in attaching great importance to pure air, particularly sea-coast residence, and such other general remedies as are well known to benefit scrofulous affections. I wish they were more within reach of the poor. The part of the early treatment of the disease which I would advocate now is absolute rest.

I have so frequently observed that the common treatment by rest has fallen short of absolute rest, that, at the risk of wearying some of you, I shall venture to explain what I understand by absolute rest. Simply applying an approved hip-splint for a diseased joint does not ensure complete perfect rest, as probably most hospital surgeons are well aware. If the splint have been applied properly, it prevents all movement of the joint, but it fails to take off the weight of the body from the limb, nor does it necessarily take off the weight of the limb from the pelvis or body. The limb is supported by the splint, that is true; but that is not enough to procure physiological rest. So long as the limb depends from the body, the muscles and ligaments will assist in supporting it; and so long as these structures around the joint are not in absolute rest, the joint is not functionally at rest. Perfect rest is best obtained by the strictly recumbent posture, combined with a long splint, efficiently applied. Several objections have been, and are, raised against this treatment. It is alleged that the confinement entailed by the recumbent posture is injurious to the general health. No doubt it is so when long continued, and in an unwholesome atmosphere, but only when it is practised under these unfavourable conditions. The main objection is to the unwholesome atmosphere, and that is one which may be overcome. The advantages gained by the absolute rest far outweigh any disadvantage from long recumbency, provided it be in a favourable air.

Another objection raised against recumbency and long rest in early treatment is one common to it and rest generally—namely, that ankylosis is likely to be the consequence of it. This objection applies to the treatment of simple synovitis or arthritis, but not to strumous and tubercular forms of chronic arthritis. I am convinced that interruption of absolute rest by passive movements of the diseased joint is very injurious, and an unscientific proceeding. It is as unsound in practice as inefficient rest. I have never seen ill results from properly conducted absolute rest; but I have often witnessed the mischief of interrupting the continuity of absolute rest.

Another and third objection to this kind of rest is one of an opposite kind; namely, that the pressure of the opposed articular surfaces causes ulceration of cartilage, or absorption of cartilage and bone. This objection does not apply to the scrofulous or tuberculous disease. When these morbid processes of ulceration, or caries, and absorption, are observed in strumous and tubercular inflammations, they are the results of the inflammation, and not of the pressure. I cannot admit that this objection is valid. It is as untenable as the previous ones, or less tenable. I am, therefore, an earnest advocate of complete continuous rest in this disease, for it is the most potent preventive element in the early treatment.

The morbid actions and changes which the surgeon should aim at preventing, are progressive inflammation, and the collection of scrofulous or tuberculous inflammation products in the articular structures or cavity. These products are known to be very little capable of undergoing organisation, and, on the other hand, they are too prone to undergo degenerative changes, such as caseation and liquefaction.

Next, I advocate absolute rest with the view of preventing the occurrence of the possible necrosis. The formation of a sequestrum in the acetabular part of the joint, or in the head of the femur, must, at any period of the disease, be a serious complication; serious, I mean, as it entails protracted illness and abscesses, and, probably, such operative treatment as is not uncommonly called for in the later stages. Early check of inflammation may prevent the necrosis. I do not say that it will positively obviate it; I can only say that it may do this. When caseous products of inflammation infiltrate a portion of bone, this, in all probability, will become necrotic or carious. We can say this much, that perfect rest is the treatment best adapted to prevent necrosis, and I have pointed out that sequestra have been found in from thirty-five to sixty per cent. of examined morbid specimens.

Thirdly, I would quote the occurrence of the shortening of the limb, which has been found in not a few cases cured in the first stage, as another reason for observing strict rest in the early treatment. The early reduction of the inflammation, both in its local extent and severity, one would expect to have a material influence over the consequences to the growth of the bones concerned. This applies more particularly to affections of the femoral epiphysis, whether they occur primarily or secondarily.

Fourthly, the connection between early treatment and muscular rigidity or spasm is of a character very different from that of the three preceding subjects. Its presence is to be taken as evidence that inflammation is in progress; its total extinction is to be taken as evidence that inflammation has subsided. When there are no longer any muscular resistance nor pain on flexion of the thigh or the pelvis; in other words, when the thigh can be completely and painlessly flexed on the pelvis, then the inflammation may be said to be cured. This is, in my estimation, the most valuable indication that the case is cured.

I am reluctant to take up your time with remarks on the details of treatment; and, indeed, what I have to add may be condensed into a few words. The rest which is ensured by recumbent posture and the long suitable splint, should be accompanied by a certain amount of extension or traction upon the limb. I say a certain amount, for I do not think the quantity or quality of pain from which the patient is suffering is to be taken as the measure of the extension which is to be made. Some surgeons advise that weight or elastic force should be employed sufficient to neutralise the muscular spasms, and pull out the head of the femur from contact with the acetabulum, and to stop the night-screams; but my experience and reasoning are against the employment of so much force. The ilio-femoral ligament is no more capable of extension in early hip-joint disease than in dorsal dislocation of the femur. Weight, or elastic force sufficient to steady the limb, keep it straight, and prevent shortening, is all that is demanded.

With reference to local applications, my experience is against the employment of irritants, setons, issues, and the like. I have found leeching useful in relieving acute sensitiveness and pain in acute attacks of inflammation, such as we now and then meet with in the course of chronic diseases. In a similar way, poultices and soothing fomentations are occasionally needed. Their habitual use is not desirable. The

whole limb should be kept warm, and scrupulously clean by washing, and it should be systematically rubbed to maintain the suppleness of the muscles and joints below the hip, as this obviates some of the minor ills of long confinement.

The splint which I employ almost exclusively is a modification of Thomas's back-splint for the disease. I found the back-splint was unsuitable for the second and third stages of the disease. It was greatly in the way in dressing abscesses and wounds. In the early treatment, it was less easily managed than an outside splint, and needed much care that it did not cause splint-sores. I prefer the parallel outside splints. These are connected by a chest-girdle of the pattern now exhibited. The long splint on the diseased side should be about six inches longer than the limb, and it should be furnished with a simple contrivance for making extension. A stirrup is applied to the foot and leg, and this stirrup is fixed to the end of the splint by a strong elastic band or cord. When firm points of counter-extension are needed, a pelvis-girdle is added to the splint, and to this girdle the ends of a perineal strap are attached. The girdle is also useful in preventing or correcting tilting of the pelvis. In all cases of tilting, I use the double splint, but, when the disease is not accompanied by this deformity, a single splint is commonly sufficient. These splints are covered in by the bed-clothes, are easily managed by mothers, are portable, that is, patients can be carried in them. The ordinary splints for hospital use are made on the premises here by the assistant surgeryman, at a trifling cost. He can turn out an excellent double splint for 10s. 6d., or a single one at half the cost. Mr. Spratt, of Bond Street, is in the habit now of making the complete double or single splint, and he has kindly lent me one to show, and it is on the table.

Before concluding, gentlemen, I beg your permission to add a few words in reference to the specimens under the microscopes. These are to show tubercle and tubercle of joints. I may divide them into two groups. One small group showing acknowledged typical tubercle, in other structures than articular, namely, tongue and lung. Side by side with this, for the sake of comparison, is a second group, which is subdivided into two sections, one showing tubercle in all stages in synovial membrane (where its presence has been denied or thought very rare, because not looked for); and a second section showing tubercle in all stages in articular bones. These specimens have been mainly prepared from my own cases; but that my specimens may be corroborated, Messrs. Clutton and Makins, and Drs. Acland and Haddon, have kindly lent some of their own preparing. The slides from my own specimens consist of some exhibited by me at the Pathological Society in February, 1881, three years and nine months ago.

I have already referred to some preparations made by Dr. Williamson in 1882. This gentleman, who had been a student here, devoted himself during the early part of that year to the study of tubercular and scrofulous diseases of the hip-joint, and accomplished some excellent work. This was his last task. He caught typhoid fever, and died in Florence. These beautiful specimens, which are shown in public now for the first time, have, therefore, a particular and melancholy interest.

In conclusion, gentlemen, I crave your indulgence for many shortcomings of this paper. It is intentionally of a suggestive and fragmentary character, rather than exhaustive, and yet its parts are more or less mutually coherent. It is the result of an earnest desire to assist in the advancement towards a correct and particular knowledge of the pathology and morbid anatomy of this too common disease; it is in furtherance of a desire to obtain for tubercular disease a recognised position in the classification of diseases of joints in English as in foreign literature; it is an effort to distinguish shortening of a limb after cure in the first stage of the disease, as an event which may have to be reckoned for or with; and, in a similar way, to distinguish necrosis as an event which should influence the surgeon in both the early and later treatment of this disease; and, finally, with respect to early treatment, to express the extreme importance which I attach to efficient practical absolute rest.

THE LATE MR. JOSEPH DIXON.—At the monthly meeting of the Hove Board of Improvement Commissioners, on the 21st May, the following resolution of the Works and Improvement Committee was brought forward and adopted:—"That this Committee have heard with deep regret of the death of Mr. Joseph Dixon, who for upwards of twenty-seven years has faithfully and efficiently fulfilled the duties of police surgeon in this town, and they desire to express to the members of Mr. Dixon's family their sincere sympathy with them in their affliction."

MEDICAL MAGISTRATE.—Dr. Herbert Taylor, of Todmorden, has been placed on the Commission of the Peace for Lancashire.

REMARKS ON A FEW ARTICLES OF THE INDIAN MATERIA MEDICA.

BY EDWARD J. WARING, C.I.E., M.D.,
Retired Surgeon-Major H.M. Indian Army.

WITHIN the last few years, considerable attention has been paid to the subject of the Indian materia medica. The writings of Fleming, Roxburgh, Ainslie, Royle, O'Shaughnessy, Wise, Bidie, Khani Lall Dey, Moodeen Sheriff, and others (amongst whom I think I may venture, without laying myself open to the charge of egotism, to include myself) have succeeded in awaking medical officers and other practitioners in the East to the important fact that around them on every side in the vast Indian continent, from the Himalayas to Cape Comorin, there are available, at almost nominal prices, often at the simple cost of collection, remedies as powerful and efficient as the more costly imported articles, the supply of which, from the very nature of things, is necessarily limited, and at times precarious. The spirit of inquiry thus set on foot resulted in many indigenous drugs being subjected to clinical trials in European hospitals and elsewhere, where their effects could be carefully watched; and, their alleged efficiency having been satisfactorily proved, they in due time were admitted into the officinal list of the *British Pharmacopœia;* of this we have examples in Indian hemp (cannabis sativa), chiretta, hemidesmus Indica, ægle marmelos, and kamela. On satisfactory, though not perhaps on equally conclusive, evidence, no fewer than forty other articles were admitted into the officinal list of the *Indian Pharmacopœia* issued by the Indian Government in 1868. Some of these latter have since found their way into Europe, and are at present under trial in the hands of British and continental practitioners; for example, chaulmoogra-oil, sandalwood oil, gurjun balsam, anacardium (cardol), etc. What the verdict will be, remains to be seen.

To enter on the consideration of Indian materia medica in general is beyond my intention, and, indeed, beyond my powers. All that I purpose to do, on the present occasion, is to offer some brief suggestions on a few articles which appear to me worthy of more attention than has been paid to them, and which seem to hold out the prospect of proving valuable therapeutic agents.

CARUM (PTYCHOTIS) AJOWAN.—The first of these to which I would direct attention is the fruit of carum (ptychotis) ajowan, D.C., an umbelliferous plant common under cultivation throughout India, sold in the bazaars under the name of ajwain or ajvain (Bengal) and o'mam or o'mum (Tamul). Under the name of ajava-seeds, they were brought to the notice of the profession in Europe in 1773 by Dr. Percival (*Essays*, vol. ii, p. 226), but they fell into unmerited neglect. My own impression is that they are the most powerful of all the umbelliferous carminative seeds, and that they may well replace others in practice. Dr. G. Bidie and Mr. J. J. Wood, both of the Madras Medical Service, have borne strong testimony to their value; the latter regarding them as combining the stimulant quality of capsicum or mustard with the bitter property of chiretta and the antispasmodic virtues of assafœtida. An essential oil (of which they contain about 5 per cent.) and a distilled water, are officinal in the *Pharmacopœia of India*. Greatly increased interest attaches to this article from the recently discovered fact that its stearoptene, sold in the bazaars of the Deccan, Scinde, etc., under the Hindústani name of ajwain-ka-pheúl, is identical with thymol, whose claims as an antiseptic and germicide have of late attracted much attention. The fruit, indeed, is now a recognised source of this valuable antiseptic agent. Without attempting to enter upon its therapeutic uses generally, I would point out two diseases in which it seems very desirable that trials should be made to test its powers. 1. *Cholera.* Here Anglo-Indian testimony is already strongly in its favour, but we want more than public opinion; we want facts based on scientific observation, and it is hoped that this may be accorded to it by our professional brethren in the East. The antiseptic properties of its constituent, thymol, conjoined with its powerful diffusible stimulant action, indicate the probability of its proving of the greatest service in this disease. 2. *Dipsomania.* All I desire here is to draw serious attention to the following words of the late Mr. J. J. Wood, with reference to ajvain or o'mam seed. "On account of its bitter, biting, or pungent, yet pleasant, taste, and the sensation of warmth it creates in the stomach, it has been constantly recommended of late years to those afflicted with the desire for alcoholic drinks. It does not, of course, intoxicate, but it is no mean substitute for the ordinary stimulant in removing, almost immediately, the sensation of 'gnaw-

ing' or 'sinking at the pit of the stomach' which the frequent use of spirits invariably brings on. And I have been assured that it has been the means of rescuing many otherwise sensible and useful men from slavery to the habit of spirit-drinking." Sincerely is it to be hoped that those in this country who have charge of inebriates or dipsomaniacs will make trial with this remedy.

PLANTAGO ISPAGHULA.—Another seed commonly met with in all Indian bazaars, which seems to me to merit more attention at the hands of European practitioners than is generally paid to it, is that of plantago ispaghula, roxb, sold under the name of ispaghúl (Hind.), and ishappukól-virai (Tamul). When these seeds are immersed in water, the cells composing the epidermis swell and elongate, and soon burst, leaving only fragments of their walls. On infusion, mucilage is so abundantly yielded by them, that 1 part of them with 20 of water forms a thick tasteless jelly. Fleming, Ainslie, and other early writers on Indian materia medica, spoke of their usefulness as a demulcent in catarrhs, renal affections, dysuria, etc., but it is to their use in intestinal affections that I would particularly direct attention. The late Mr. Twining, in his *Diseases of Bengal* (vol. i, p. 212), speaks highly of them; and in the chronic diarrhœa of Europeans who have been long resident in India, he states that he found ispaghúl seed to answer better than any other remedy. He found that it also sometimes cured the diarrhœa of European and native children after many other medicines had failed. The dose of the seeds for an adult is two and a half drachms, with half a drachm of sugar-candy. They are administered whole, and in their passage through the intestines, they absorb as much fluid as makes them swell; and by the time they reach the central and lower portions of the canal, they give out a large amount of bland mucilage, and this they continue to do until they have passed over the whole of the intestinal tract. If the frequency of the dejections be restrained by anodyne injections, and by using only a small quantity of food, the demulcent action of these seeds is thought to be increased. It is said that a slight degree of astringency, and some tonic property, are imparted to the seeds by subjecting them to a moderate degree of heat, so that they shall be dried and slightly browned. A lady in London, the wife of a retired general officer, shortly since related to me the case of a friend of hers who had been obliged to return home from Bengal for chronic dysenteric diarrhœa. The case was treated by some of the leading men in England without deriving benefit. The lady, remembering her Indian experience, sent out to Calcutta for a supply of ispaghúl seeds, gave them after native fashion, as above, and effected a cure; or, at any rate, the patient recovered. It may, of course, have been merely a coincidence, but, taken in conjunction with the reports of Mr. Twining and others, it is worthy of note.

SCOPOLIA LURIDUS.—The third article to which I would direct attention, is a solanaceous plant of Nepaul and the Himalaya, scopolia luridus *Dunal*, (Anisodus luridus, *Linn.*), which, as a mydriatic, appears to be equal, if not superior, in power to belladonna. It was introduced into Europe in 1824, and is now cultivated there in gardens. The leaves, which are of a pale green colour, emit, especially when bruised, a peculiar tobacco-like odour. A tincture prepared with them, in proportion of one ounce to eight ounces of alcohol, administered to different patients, was found to produce extreme dilatation of the iris, and this, in two instances, to such an extent as to cause blindness, which only disappeared when the medicine was discontinued. The largest dose given was twenty drops of the above tincture during the four-and-twenty hours. (See further details in Vol. ix of Braithwaite's *Retrospect*, p. 119, from *Gaz. Méd.*, November 4th, 1843.) Locally applied, its power as a mydriatic is equally well marked. The late Sir R. Christison (*Indian Medical Gazette*, September, 1868) with that bold self-sacrificing spirit which characterised many of his investigations, made trials with this plant in his own person. He introduced about the fourth of a drop of juice from a leaf-stalk into his left eye, and found that it immediately dilated the pupil with all the energy of belladonna. In forty minutes, the dilatation was complete. This effect passed off more slowly than when produced by belladonna. When he made a similar trial with the root-juice of belladonna, he found that the pupil was restored to its natural size in four days; but the dilatation produced by this plant was still perceptible at the end of eight days. Commenting on these facts, Sir R. Christison naturally asks, why should India depend upon Europe for one of the armamenta chirurgiæ when it has one as good, if not better, of indigenous growth? And he goes on to suggest that trials should be made with it to ascertain whether it would have the same effect as henbane and belladonna in correcting the acrimony of resinous cathartics, and the same singular effects as these drugs when administered in large doses. He concludes by expressing a hope that our brethren in the East will soon settle these points by actual experience, a hope which I beg most emphatically to re-echo.

JATROPHA CURCAS.—Another subject, which appears to me well deserving notice at the hands of the therapeutist, is the styptic or hæmostatic virtue of the milky juice English physic-nut, Jatropha Curcas *Linn.*, a widely distributed plant throughout the tropical portions of both hemispheres. The styptic properties of this juice were first brought to notice by Baboo Udoy Chand Dutt (*Indian Medical Gazette*, October, 1874, page 260) in 1874; and he furnishes two illustrative cases —one, a bleeding vessel within the cavity of an open abscess; the other, hæmorrhage following an incision made for the purpose of extracting a broken piece of bougie from the urethra—in both of which the local application of the fresh juice had the effect of immediately arresting the bleeding, although, in the first case, pressure, alum, turpentine, and perchloride of iron had failed to effect it. He states that "it does not cause pain nor act as a caustic, but that it simply 'curdles' (that is, coagulates) the blood, and covers the bleeding surface with a tenacious fluid." Further evidence of its hæmostatic properties is adduced by Mr. B. Evers (*Indian Medical Gazette*, March, 1875, page 66), of the Bengal Medical Service, who furnishes also a highly interesting account of a pulsating tumour "a varicose aneurysm," situated just above the internal malleolus, which was cured (?) by the subcutaneous injection of a drachm of this juice. The case is so suggestive that I venture to append it, slightly abridged.

Hæmostatic Powers of Jatropha Curcas.—Bugloo, aged 25, was admitted October 3rd, 1874, suffering from a large open abscess in the heel of the right foot, the result of an injury. He did not complain so much of the pain as of frequent hæmorrhage from the abscess. On removing the covering, hæmorrhage (evidently venous) at once occurred. On examination, there was found, immediately above the internal malleolus, a pulsating tumour, about the size of a pigeon's egg. Pressure on the posterior tibial artery at once arrested the bleeding; the superficial veins in the neighbourhood were enlarged, and a faint thrill was detected in them; hence it was diagnosed to be a case of venous aneurysm. Pressure by the tourniquet or otherwise arrested the hæmorrhage temporarily; and, on the 12th, it was determined to make a trial with the milky juice of the jatropha, as advised by Baboo Udoy Chand Dutt. A drachm of the fresh juice was then injected into the tumour by means of the hypodermic syringe, the nozzle of which was allowed to remain in the tumour for about ten minutes; and, on withdrawal, a single drop of blood escaped through the puncture; a small piece of dry lint and sticking-plaster were then applied. No ill effects followed. The result, however, so far as the tumour and hæmorrhage was concerned, is described as astonishing: in twenty minutes, the pulsation was so faint as hardly to be detected, and, by evening, all pulsation had ceased, and a good firm coagulum had formed. Four days subsequently, the patient left the hospital without permission, considering that there was no further need for his staying in hospital; three months afterwards, he was reported to be quite well. This is a single case, it is true, but it is very suggestive. Dr. Evers concludes his remarks by quoting a passage from Holmes's *System of Surgery* (vol. iii, p. 512), as to the importance of the discovery of "a fluid of great coagulating power devoid of irritant properties," applicable to the treatment of aneurysms. Is such a fluid to be found in the fresh milky juice of jatropha curcas?

ANDROMEDA LESCHENAULTII.—The next plant to which I would call attention is one which, as far as I am aware, has no medicinal properties assigned to it by native practitioners, and yet it is probably destined to play an important part in the future of Indian materia medica, namely, Andromeda Leschenaultii *D.C.*, Nat. Ord. Ericaceæ, growing in great abundance on the higher ranges of the Nilgherries. In 1867, Mr. McIvor, of Ootacamund, requested Mr. Broughton, the Government quinologist, to examine an essential oil obtained by him from this plant, and it was pronounced by him to be identical in composition with the Canadian oil of wintergreen, Gaultheria procumbens, *Willd.*; but, as it was found to contain less of the peculiar hydrocarbon oil which forms a natural and considerable constituent of the Canada oil, he was led to recognise it as somewhat superior in quality to the latter. This Andromeda oil, like its Canadian congener, is an impure salicylate of methyl; and Mr. Broughton, acting on his knowledge of the fact that methyl-salicylic acid would, under suitable treatment, yield carbolic acid, instituted a series of experiments which resulted in his preparing considerable quantities of pure carbolic acid, equal to the purest kind obtained from coal-tar. The cost of preparation was from five rupees to seven rupees per pound. Mr. Broughton, in the conclusion of his able report on this subject to the Madras Government (January, 1871), observes that the carbolic acid obtained from this source has certain

advantages over the coal-tar acid, consequent on its extreme purity. It is less deliquescent, and cannot possibly be open to the suspicion of contamination with certain other products of coal-tar, which possess injurious qualities. It would not be advisable, he adds, to prepare carbolic acid from this source, when the comparative cost shows that the gain must be very small or non-existent; but it is well worthy of record that, should circumstances render the supply of the English product difficult, or uncertain, as in the case of war, or increased English price, a practically inexhaustible source exists in this country (India) from which this indispensable substance in its purest state can be obtained at a slight enhancement of the present price.

Interesting and important as this Andromeda oil is as a source of carbolic acid, it is even more so, as the probable source of another valuable therapeutic agent, namely, salicylic acid, of which one of the recognised sources is the winter-green or gaultheria oil, which, as just mentioned, is identical in composition with our present article. On this subject, the following remarks of Mr. Martindale, in his very useful little work, *The Extra Pharmacopœia* (page 25), may not be out of place. "Commercially, the acid prepared from oil of winter-green, the *natural* salicylic acid of Mr. J. Williams, is the purest. Oil of winter-green is an impure salicylate of methyl. When treated with caustic potash-solution, and the volatile matters distilled off, an impure salicylate of potash remains; this is decomposed by hydrochloric acid, and the salicylic acid obtained purified by dissolving, and crystallising finally from weak spirit. It is in crystals resembling those of strychnia, and larger than those prepared from carbolic acid." This process, applied to Andromeda oil, would, in all probability, yield similar results. It is to be hoped that the subject may soon be taken up by the medical authorities in India. In the meanwhile, it seems very desirable that the oil itself should be subjected to trials as a stimulant, carminative, and antiseptic.

Hydrocarpus Inebrians.—Another oil to which I would direct attention is that obtained by expression from the seeds of hydrocarpus inebrians, *Vahl*, a tree, Nat. Ord. Bixiniæ, inhabiting the western coast of the Peninsula. It is the Neeradimootoo of Ainslie (*Mat. Ind.*, vol. ii, p. 235). Botanically, it is closely allied to Gynocardia odorata, *R. Brown*, a tree belonging to the same natural order, inhabiting Northern and Eastern India and the Malayan Peninsula, the seeds of which yield chaulmoogra-oil, lately brought to notice as a remedy in leprosy and skin-diseases. It is in the same class of cases that our present article is most esteemed; indeed, in Travancore it holds a first place, in native opinion, as a remedy in leprosy, and one of the most intelligent native gentlemen I have ever met with (since deceased), himself suffering from leprosy, assured me that he had derived more temporary benefit from Neeradimootoo oil than from any other medicine. Ainslie places the dose at half-a-teaspoonful twice daily; but it would probably be better to commence with a smaller dose, and increase it as the stomach will bear it, for he states that it is apt to nauseate a good deal at first. In Ceylon, where the tree is indigenous, the fruit is said to be used for intoxicating fish: hence probably its specific name.

Saraca Indica.—I take advantage of this opportunity to mention another Indian drug, which, as far as I am aware, has not hitherto been subject to trials by any European practitioner in the East, but which has recently been brought specially to my notice by H.H. the Maharajah of Travancore, F.L.S., himself a most intelligent observer, namely, the bark of Saraca Indica, *Linn.*, the Jontsia Asoka of Roxburgh (Asok, *Hind.*, *Beng.*). He mentions the case of a recurring hæmorrhoidal tumour, in a member of his own family, in which it proved signally successful after European remedies had failed. In his letter, his Highness speaks of it as "specially useful in diseases of women connected with menstrual irregularities;" and he adds: "If you can bring this substance to the notice of the medical profession, you will be doing a real service." The only book in which I can find this drug noticed is Udoy Chand Dutt's *Materia Medica of the Hindus* (page 143), where it is stated that the bark is much used in uterine affections, especially in menorrhagia. It is to be hoped that trials will be made with it to test its alleged efficacy.

Coscinium Fenestratum.—Should it ever be desirable to introduce into European practice an elegant, cheap, and efficient bitter tonic, I can testify from experience that such may be found in the woody stems of Coscinium fenestratum, *Colebrook*, a large menispermaceous climbing-plant, inhabiting the forests of Malabar and Ceylon. It is met with in the bazaars of Southern India under the Tamul name of *Mara Munjil*. It occurs in the form of cylindrical woody stems, of variable length, from one to four inches in diameter, of a bright greenish yellow-colour, and pure bitter taste. Thirty years since, it was imported into England from Ceylon under the name of Calumba-wood, and, analysed by Mr. Perrins (*Pharm. Journ.*, 1853, pp. 180, 500), was found to contain berberine. From my own trials with it at the Trevandrum Charity Hospital, I came to the conclusion that it was a good substitute for calumba, and efficient in all cases requiring a pure bitter tonic. It was prescribed in the form of infusion and tincture, of the same strength as the corresponding preparations of calumba.

Petroleum.—To the indigenous medical products of India, derived from the inorganic kingdom, comparatively little attention has been paid; yet some of them seem well worthy of notice. Foremost amongst these is petroleum, which is met with on the surface of certain lakes in Assam, Burmah, and in the volcanic islands on the Arracan coast. Passing over its alleged successful employment in beri-beri, chronic rheumatism, skin-diseases, etc., I would, in this place, call especial attention to it as an efficient agent in antiseptic surgery. In this character, it was first brought to notice by Sir Joseph Fayrer (*Indian Medical Gazette*, September 1869), who, after trials with it in twenty cases, came to the conclusion that it possesses some, if not all of the advantages assigned to carbolic acid. He used it pure, or diluted with equal parts of glycerine or oil; and he states that, whilst it certainly has some deodorising power, it appears also to have that of limiting suppuration, and of restraining the development of septic miasmata in the discharges. It is to be hoped that Sir Joseph will increase the debt the profession already owes him by continuing his researches, and that others will follow in his wake. I would also venture to suggest that experiments should be made with the Indian petroleum, with the view of ascertaining whether, under suitable treatment, it will not yield vaseline of as pure a quality as that obtained from the American article. Should such prove to be the case, and if it could be manufactured at a small cost, the importance of the fact, in relation to the pharmacy and practical surgery of the East, would be self-evident.

In conclusion, I will only name three inorganic substances, with the chemical nature and medicinal properties of which it is very desirable to become better acquainted: 1, Sendá-lón or sendé-nimak, the rock-salt of the bazaars; 2, Bit-loban or kala-nimak, literally black salt; and 3, Salajet or alum-earth of Nepal. These articles are held in high esteem by native practitioners, and are evidently possessed of no mean medicinal powers. Some particulars with regard to the two latter will be found in a paper by myself in the fourth volume of the *Madras Quarterly Journal of Medicine* (page 239); and others, especially in reference to rock-salt, are given in Moodeen Sherriff's valuable *Supplement to the Pharmacopœia of India* (pp. 71, 216, 107, 354).

Should these crude suggestions lead to any practical result, the object in view will be fully attained.

THE INTRAVENOUS INJECTION OF MILK.

By CHARLES E. JENNINGS, F.R.C.S.Eng.,
Assistant-Surgeon to the Cancer and to the North-West London Hospitals.

Having recently injected milk into the veins of a patient about to die,[1] who survived for some hours after the operation, and believing that this therapeutic measure is one of great value, as a substitute for the transfusion of blood, I have perused most of the literature on the subject, and find that many of the operations have been followed by marked success; in some cases by temporary, and in others by permanent benefit; but sometimes no good has accrued from the injection (when improperly performed, or when performed in unsuitable cases); and the operation appears to have proved fatal in a few instances.

But, the intravenous injection of milk having now been practised under a considerable variety of circumstances, and many of the reports having been drawn up with great accuracy, it may perhaps prove of utility to lay before the profession an outline of the history of this important plan of treatment, which is now seldom resorted to, with the view of showing that the indications for this method of conveying nutrition are generally clear, and that, if properly performed, no harm can follow the operation.

Dr. T. Gaillard Thomas, in a communication to the *New York Medical Journal*, 1878, urges the operation on physiological grounds, and compares the injection of milk into a vein with the normal passage of the chyle into the subclavian vein from the thoracic duct. "Chyle is fat in emulsion in a serous fluid; milk is fat, molecularly divided, and suspended in water with casein and sugar." Dr. Thomas also quotes an instance in which blood, drawn from an apoplectic subject after a heavy meal, yielded a "distinct and voluminous zone of white milky-looking fluid, a fluid which had evidently been previously mixed with the blood, and was now separated from it."

[1] The report of this case will be published in full, in a later communication.

At a meeting of the Société de Biologie, in Paris, Dr. Brown-Séquard gave an account of his experiments on transfusion. He had tried normal blood, defibrinated blood, and milk. In each case the result was the same, save that in the case of milk it was necessary to inject more than of the other fluids. Ninety-five grammes of blood were drawn from a dog, and replaced by 95 grammes of milk. About forty-five minutes afterwards, there was no trace of milk-globules to be found in the blood. The dog continued in excellent health, and was alive at the time of the report (that is, five months ago). M. Malassez found, on examining the blood after the transfusion, a greater quantity of white globules than normal. Dr. Brown-Séquard considered that the liquid injected should be at least of a temperature of 10° to 12° Cent. He preferred injecting into the arteries, and very slowly, to give time for the injected fluid to acquire the temperature of the body (*Lancet*, 1878, vol. ii, p. 641).

Experiments upon dogs have also been conducted by Wulfsberg. He injected about 250 grammes, and examined the blood to determine whether the globules of the milk (as Donné stated in 1884) were converted into white corpuscles. He found that the white corpuscles undoubtedly increased in number, but only after having first taken up—in fact, eaten—the milk-spheres. He could not preserve the life of dogs by this means; their weight diminished; they died without obvious disease, and he found hæmorrhagic infarcts in the lungs. If about .75 per cent. of the estimated weight of the blood were injected, the dogs bore the injection well. Large injections proved rapidly fatal (*Lancet*, 1878, vol. ii, p. 823).

M. Laborde injected milk into the lymph-sac of a frog. The capillary circulation was studied microscopically in the interdigital web, in the tongue and mesentery; fatty globules were noticed to accumulate at the points of bifurcation of the capillaries (BRITISH MEDICAL JOURNAL, 1879, vol. i, p. 557).

The experiments of Drs. Moutard-Martin and Charles Richet show that, in animals killed by the intravenous injection of large quantities of milk or sugar, there is very marked intestinal injection, and sub-endocardiac ecchymoses are of constant occurrence. Death is preceded by polyuria (*Medical Times and Gazette*, 1879, vol. ii, p. 659).

Dr. J. H. Howe experimented on seven dogs, substituting milk for the blood; every dog died. He also tried the lacteal injection upon a man in the third stage of phthisis, in whom death occurred from coma soon afterwards. But Dr. Thomas, having performed the operation on the human subject with success, and having ascertained that the milk employed in Dr. Howe's experiments had been drawn from a cow one or one and a half hour's distance by rail from New York, reaching that city after a lapse of two or three hours, requested Dr. Eugene Dupuy to repeat the experiments upon dogs. Dr. Dupuy's experiments showed, 1, that the intravenous injection of decomposed milk into dogs is uniformly fatal; 2, that the same experiment, if practised with perfectly pure and fresh milk, is entirely innocuous (*New York Medical Journal*, May, 1878).

The experiments of Professor Schäfer also show that the intravenous injection of fresh milk in small quantities, or of milk boiled after standing, is harmless; but that it is most dangerous to employ ordinary milk not so boiled, and the ordinary London milk is especially deleterious (*Journal of the Obstetrical Society*, London, 1879 and 1880, vol. xxi, p. 316).

Turning from experimental to clinical evidence, Dr. Thomas reports (*American Journal of the Medical Sciences*, 1876, p. 61, *et seq.*) a case in which he removed two solid ovarian tumours. Profuse uterine hæmorrhage set in thirty-six hours after the operation, and the bleeding recurred in spite of plugging the vagina. Four days after the operation the temperature was 101°, the pulse 150; there were the Hippocratic countenance, and other signs of impending dissolution. The intravenous injection of milk was decided upon, on the grounds that, in 1850, Dr. E. M. Hodder had injected milk into the veins of three cholera-patients (in one case as much as fourteen ounces at one operation), two of whom, who appeared moribund at the time of the operation, recovered; that Donné had injected milk into the veins of dogs and rabbits without injury; and that the intravenous injection of milk seemed to be surrounded with less difficulties than transfusion of blood. On these grounds, eight and a half ounces of freshly drawn milk were injected into the median basilic vein. After three ounces had been injected, the patient complained that her head would burst, therefore the injection was continued more slowly. An hour later, there was a rigor; the pulse was 150-160 per minute, the temperature 104°. The next day the pulse was 116, the temperature 99.25°. Good recovery followed.

Two further cases are recorded by Thomas (*New York Medical Journal*, May, 1878).

A. S., aged 22; removal of a very large ovarian tumour; many adhesions. Within twenty-four hours from the completion of the operation, acute peritonitis developed. Fourteen days later, a large abdominal abscess discharged itself, and more than one pint of pus escaped. Three days later still, the patient appeared moribund. February 27th, 8 P.M.—Pulse 152, temperature 103.8°. There were mental aberration, and a semi-comatose condition. The injection of milk (the quantity is not stated) was made into the right median basilic vein, through a funnel and tube and very small cannula. A hypodermic injection of brandy and sal volatile was also administered. At 10 P.M. there was a chill; at 11.30 the pulse was much improved; temperature 100.8°. From the 28th, 9 A.M., there was improvement till March 1st. Then, as the strength again failed, a second injection of fifteen ounces of freshly drawn milk was made into the left median basilic vein. The pulse fell fifteen beats, and became stronger. On March 3rd, at midnight, the pulse was 160. Dr. Hunter injected six ounces of milk into another vein. 1 P.M.—Pulse 190, temperature 104°; the patient had a chill. March 4th, 8 A.M.—Temperature 102°, pulse 122. At 3 P.M., eight ounces of milk were injected. At 6 P.M., temperature 103.4°, pulse 152. March 5th, 6 A.M.—Pulse 156, temperature 102.8°. There was diarrhœa. The wound communicated with the intestine. At 11 A.M., eight ounces of milk were injected into the right radial vein. Death occurred at 1 P.M. Altogether, there were five injections of milk.

At the necropsy, there was perforation (1) of the caput cæcum coli; (2) of the sigmoid flexure, at a point twelve inches above the anus. There was peritonitis, etc. The kidneys were large and fatty; their tissue was firm, but not congested; the capsules were not adherent. The pelves and calices contained large flakes of exfoliated epithelium. Scraping the cut surface of the kidneys yielded a thin purulent looking fluid. The spleen was firm and normal; the chest was not examined.

Dr. Thomas also removed another large ovarian tumour, and much hæmorrhage occurred from the breaking down of numerous adhesions. The hæmorrhage was not arrested at the time of the operation, and it persisted internally, after the abdominal wound had been closed. Five ounces of milk were injected into the median basilic vein. Death occurred in fourteen hours. The necropsy showed that more than a pint of blood had been poured out into the peritoneal cavity.

In a communication to the BRITISH MEDICAL JOURNAL (1881, vol. i, p. 228), Dr. Meldon states that he had then performed the operation twenty-five times. Twelve of his cases were phthisical patients, all of whom were moribund, and in all life was prolonged by the injection. In one of these cases of consumption, the patient had apparently only a few hours to live; yet he recovered, and rallied for some months. The operation was repeated, and the patient again rallied; he at last succumbed. The diarrhœa of phthisis was invariably checked by the intravenous injection of milk. The perspiration was first increased, next diminished, by the operation. Cough was always relieved. In phthisis, the improvement is only temporary; the operation lengthens life a few months. Four were cases of pernicious anæmia; all were cured. In one of these cases, the operation was repeated. Two were cases of exhaustion sequent to hæmorrhage (one was uterine hæmorrhage, the other recurrent hæmorrhage from a wound of the palmar arch); both recovered. Two were cases of exhaustion after typhoid fever. Both improved; one recovered; one died.

Dr. Meldon never injected more than six ounces of freshly drawn milk at a time, and added ten grains of carbonate of ammonia to each injection. As already stated, the four cases of progressive anæmia were cured by the nutritive injections; and Dr. Meldon considers that it can be easily understood how, in that disease, a small quantity of corpuscle-supplying fluid might alter the condition of the blood, and thereby effect a cure (*Lancet*, 1880, vol. i, p. 527).

The intravenous injection of milk was first performed in Ireland by Dr. Robert McDonnell, on January 22nd, 1879. The patient was aged 30, and had been under the care of Dr. Meldon since November, 1878, suffering from typhoid fever. There were profuse diarrhœa, which could not be checked by the ordinary remedies, and extreme failure of the digestive powers. Death seemed imminent. Nearly ten ounces of milk, freshly drawn, were injected into the right median basilic vein. The pulse rose, and became comparatively strong. Subsequently, there were great respiratory disturbance and capillary injection. In about two hours, these effects passed away, and the patient rallied wonderfully. The diarrhœa was checked, and six days later the man's condition was most satisfactory (BRITISH MEDICAL JOURNAL, 1879, vol. i, p. 165).

In the *Philadelphia Medical Times* of November, 1878 (BRITISH MEDICAL JOURNAL, 1879, vol. i, p. 557), Dr. W. Pepper gave a careful history of two cases of anæmia treated by the intravenous injection of milk. The first case was that of a woman aged 32. There

were extreme anæmia, intense spinal irritability; no organic disease. No treatment seemed to do good. On June 20th, 1878, some freshly drawn milk (temperature 100°) was injected by Dr. Hunter, by means of a tube and funnel and sharp-pointed cannula, into a vein of the arm. Twenty grains of quinine were administered previously to the operation, with the view of counteracting the effects of chill. The funnel was held twenty inches above the arm. The first effects were violent capillary injection of the face and surface of the body. The eyes were prominent and injected; the lips became turgid, and the whole expression wild and alarming. There was laboured respiration, with intense depression. The patient clutched at her throat in distress. The funnel was therefore lowered; and, when the patient became easier, it was raised again. Eighteen minutes after the operation, urticaria appeared, the wheals being large, and pale-reddish in colour. This disappeared, but reappeared in ten minutes. The pulse at the time of the operation was 108; in five minutes, 150; then it fell to 128, at the time of the appearance of the urticaria. The pulse was 92 twenty minutes later; for several hours it remained at 95. She had a good night. The next day, the woman was in her normal state. The urine was normal. The operation was repeated on June 27th, and again on July 17th, with decided improvement as the result.

The second case was one of progressive anæmia in a sailor, aged 33. The corpuscular richness of the blood (by Malassez's method) was just over 25 per cent. of the normal. The proportion of white to red corpuscles was about 1 to 643, that is, reduced. On June 15th, 1878, at 12.35, six ounces of milk were injected into the left median basilic vein. The first effect was flushing of the face, fulness in the head, vomiting, and a desire to defæcate; breathing was not much embarrassed. At 1.40 there was a chill, lasting twenty minutes. Hot bottles were ordered, and ten grains of quinine, and a fourth of a grain of morphia. At the time of the operation, the temperature was 99.4°, pulse, 104. At 8 P.M., the temperature was 100.4°; the pulse 94, and much fuller. On June 16th, he had slept well and felt stronger; temperature, 99°; pulse, 98. There was no albumen in the urine. He was stronger, and walked about better. On June 20th, at 11.20 A.M., eight ounces of milk were injected into the right median basilic vein, at a temperature of 100° Fahr., twenty grains of quinine having been administered previously. The injection occupied five minutes. The pulse fell from 135 to 114, and became stronger. At 1 P.M., there was a chill, lasting twenty minutes. The temperature rose to 103°. He was ordered ten grains of quinine, and soon the temperature fell. On June 21st, he had an easy night, and was stronger. There was much albumen in the urine, which disappeared the following day. On June 27th, six ounces of milk were injected. The usual train of symptoms followed, and a chill lasting twenty-five minutes, and, for fifteen minutes, absolute blindness. On June 28th, the urine contained albumen and phosphates. Morning temperature, 102° Fahr.; evening, 104° Fahr.; pulse, 120. He was ordered ten grains of salicylic acid, every three hours. On June 29th, he passed ten pints of urine in twenty-four hours (compare the polyuria of Moutard-Martin and Charles Richet); and the urine contained albumen. Death occurred on July 1st. A necropsy showed that the heart was flabby, and presented marked fatty degeneration. The lungs were adherent, and there were cheesy nodules in the apex of the right lung. There were no metastatic abscesses, but the lower lobes of the lungs were congested and œdematous. Small collections of pus were found in the right elbow-joint. The suprarenal capsules were mere sacs. There was slight thickening of the connective tissue of the kidneys. The marrow of the long bones showed alterations of the kind found in medullary anæmatosis. Dr. Pepper concludes that, in "this case of progressive organic anæmia, the intravenous injection of milk did no good. After the first operation, there was temporary improvement, but, after the last, grave symptoms ensued; and it cannot be doubted that the result was hastened by the operation."

From the physiological, experimental, and clinical evidence combined, the following conclusions may be drawn.

1. The intravenous injection of a small quantity of newly drawn milk is harmless.

2. Large injections of milk are fatal, with polyuria as the chief symptom.

3. The employment of impure, or stale milk is most dangerous, on the probability that septicæmia will follow the operation.

4. The operation is to be recommended in the later stages of cholera, enteric fever, phthisis, and pernicious anæmia, as a substitute for the transfusion of blood; and, in short, in all cases where transfusion of blood is indicated on nutritive grounds, but where a blood-donor cannot be procured, or where this operation is, for other reasons, impracticable.

CONSTANT AND INCONSTANT TINCTURES.

By J. WILKIE BURMAN, M.D., Ramsbury, Hungerford, Berks.

In the account (BRITISH MEDICAL JOURNAL, p. 284) of a meeting of the West London Medico-Chirurgical Society, Dr. Thudichum is reported as stating, with regard to the treatment of urethral stricture, that "he did not agree with giving aconite to prevent rigors. Preparations made by the same makers were sometimes seven hundred times as strong as others professing to be of the same strength." Presuming that Dr. Thudichum is correctly reported on this occasion, such an astounding statement of fact, by such an eminent authority, demands, in my humble opinion, more than a passing glance; so much the more so as, in the sixth edition of Ringer's *Therapeutics*, the portion devoted to "Aconite and its Preparation" commences with the statement that "Perhaps no drug is more valuable than aconite." Under these circumstances, one would naturally like to know whether or not the preparations of aconite, referred to by Dr. Thudichum, were obtained from manufacturers of good reputation, as also his experience of others of the more poisonous tinctures in use at the present time. As no one else has since made any remarks on this statement by Dr. Thudichum, with regard to the alarming variability in preparations of aconite, I now venture to draw attention to the subject, because I have had somewhat similar experience with regard to several other inconstant preparations of powerful drugs, which has led me to be very careful, and even sceptical, in the use of preparations of a strength so uncertain with regard to the active principle of the drug therein contained.

In 1872, when acting as deputy medical superintendent of the West Riding Lunatic Asylum, under Dr. Crichton Browne, we had, for two years previously, been largely and successfully using the succus conii in the treatment of cases of acute mania, finding, in accordance with the views of Dr. John Harley (*The Old Vegetable Neurotics*, London, 1869), and of Dr. Neligan, that, excepting the succus, the preparations of conium, in the *British Pharmacopœia*, were quite inert, even in large and extraordinary doses. We used to commence with doses of two fluid-drachms three times daily, gradually increasing the dose according to circumstances. Now, the dose of this preparation of conium, as stated in the *British Pharmacopœia*, is from half to one fluid-drachm; yet, of the best succus conii we then procured, it took no less than a fluid-ounce to have decided physiological effect on myself and some of my colleagues, and I have taken as much as a fluid-ounce and a half of another succus with only slight effect. Under these circumstances, though always commencing with doses of two fluid-drachms, we had gradually to increase them to doses of an ounce and a half and two ounces, three times a day, to get any therapeutic action; and, finding the latter dose ineffectual in some cases, and the variability in the strength of the preparation so considerable, I was induced to seek in conia itself—the alkaloid and active principle of the drug—a more stable and reliable preparation. For the results as to this, I can only here refer to my article "On Conia, and its Use in Subcutaneous Injection," in the *West Riding Lunatic Asylum Medical Reports*, vol. ii, 1872; but I may add that, before we obtained a reliable and stable specimen of conia, after having ten separate lots from six different sources of good reputation (amounting altogether to about four and a half fluid-ounces of the alkaloid), I found that, whilst two minims of one lot had little or no effect on myself when subcutaneously injected (as rendered bland and diluted, in accordance with the formula given in the article referred to), yet half a minim of another lot, similarly injected, caused very serious and alarming symptoms in the case of myself and one of my colleagues—symptoms not truly cicutic, but indicating the presence of other principles difficult to account for. On writing to Messrs. Duncan and Flockhart, of Edinburgh, asking for an explanation of the inefficacy of a second supply from them as compared with the first, they informed me that "both specimens were manufactured by Messrs. Morson and Son, of London, and that the probable cause of the difference between the two lots was the preparing of the second specimen from the cultivated plant, as cultivation completely destroys the medicinal properties of conium." On making further inquiries of Messrs. Morson and Son, they told me that it was possible that Messrs. Duncan and Flockhart had received from them, on one occasion, a specimen of conia not of their own manufacture, when they were themselves out of stock. The three last lots of conia which I received and used, in cases of acute mania, and which I found to be stable and reliable, were had from Messrs. T. and H. Smith, of Edinburgh; and these, they informed

me, were procured from a "reliable source," and prepared from the seeds of the plant.

I have had similar experience of variability of medicinal preparations with regard to the tinctures of hyoscyamus and of cannabis Indica; of the former of which I have, on several occasions, taken myself, in health, two fluid-drachms, without the slightest effect, and have given four fluid-drachms, three times a day and upwards, in asylum-practice, with no beneficial result, though Dr. Lawson used hyoscyamine later on, at the West Riding Asylum, with good effect.

The moral of all this appears to me to be, that we should be very careful in the internal administration of preparations of the more poisonous drugs, of which we have no distinct guarantee as to the amount of the active principle therein contained, and rely more upon the use of stable active principles; whether in the shape of alkaloids or of salts thereof. This variability in the strength of tinctures of drugs, has evidently been noticed by Messrs. Squire and Co., who now introduce to our notice their "constant" tinctures, of which it is stated, in the BRITISH MEDICAL JOURNAL, for February 14th, that "they are preparations likely to prove of great interest to prescribers, and to introduce a *much needed* (the italics are mine) element of *certainty*." With regard to aconite more particularly, would such a proved constant tincture (for internal use) be desirable; because its alkaloid or active principle—aconitia—is both poisonous and costly? Until some such "element of certainty" is introduced, in preparations of valuable though poisonous drugs, we must either play or work in the dark with small doses, or run such risks in the administration of larger doses, as no wise or discreet man would like to do under the circumstances, by using larger doses of preparations of uncertain strength.

With regard to the use of tincture of belladonna in nocturnal incontinence of urine (the dose of which is stated, in the *British Pharmacopœia*, to be from five to twenty minims), I may add, in conclusion, that, during the last six months, I have had under my care two cases of that kind, two little girls, aged 12 and 8 years respectively. In both of these I commenced the treatment (as recommended by Sir Henry Thompson) by prescribing five-minim doses of tincture of belladonna, afternoon and evening, and gradually increasing the dose until I reached doses of sixty minims twice daily in each case, at which I stopped. I will only add that both cases (in which all sources of irritation by worms, etc., have been eliminated by treatment) are still more or less incontinent, though I have found the administration of cod-liver oil, especially when combined with the hypophosphite of lime, to have been of some benefit to them.

Sir Henry Thompson says (Quain's *Dictionary of Medicine*, page 984), with regard to the treatment of such cases by belladonna, that "it must be confessed that a troublesome minority is met with, in which the belladonna has had little or no useful influence. It generally exerts some, however, and it is worth while to be careful that the drug has been well prepared. Thus, the writer has been successful with the belladonna of one chemist, after failure with that of another." Now, the question is, what I ought to do with regard to these cases; and, so far as I can judge at present, I must procure a supply of a constant tincture of belladonna (or try atropia), and gradually increase the dose, instead of suddenly jumping from doses of ten minims of an uncertain preparation to doses of a fluid-drachm, as resorted to by Dr. E. Paget Thurstan, in a case described by him in the BRITISH MEDICAL JOURNAL for February 7th, in which, after giving doses of ten minims of tincture of belladonna, twice daily for six days, with no good results, he ordered doses of one fluid-drachm twice daily, which caused a complete and permanent cure, four months elapsing without any recurrence of the trouble.

TEACHING OF THE DEAF AND DUMB.—The annual meeting of the Society for Training Teachers of the Deaf and Dumb and diffusion of German or pure oral system in the United Kingdom, and public examination of the pupils, took place on Saturday, May 30, under the presidency of Major-General F. C. Cotton, who stated that the report of the Committee was a very satisfactory one. What they required were new premises. By the bazaar held last year and by donations they had raised about £2,300. They wanted £20,000, but if they had £1,000 more than the sum now in hand they would have no hesitation about beginning the new building, and the committee hoped that the necessary amount would soon be raised. The examination of the pupils was then proceeded with. All the questions were put in spoken words, the children reading them from the movement of the lips; the general opinion being that the results shown quite justified Mr. Kinsey in the statement that, once the teachers had established communication with the children by word of mouth they could teach them anything.

VALVULAR DISEASE OF THE HEART, ACCOMPANIED BY RHEUMATIC SUBCUTANEOUS NODULES.

BY JAMES FERGUSON, M.B., C.M., Perth.

THE cases recently reported under the above heading by Dr. Edge and Mr. F. W. Jordan have had a special interest to me, as I have been able to regard them alongside a case meriting the same description, and which has been under my observation for some weeks. As the subject is still one of inquiry, and the example to which I refer controverts certain expressed views as to the characteristics of adult cases, I may be allowed to give the following particulars.

Six weeks ago, I was called in attendance on a series of sore throats in a family which consists of a lady, six children, and a servant. Beginning with a child, within eight days the tonsillitis successively attacked every member of the household save two of the children. The sanitary condition of the house was reported to be good; but this outbreak, and a story of headaches and sickness prevailing for a short time back, directed attention to the drains, when one of these, connected with the house, was found obstructed, with a considerable accumulation of filth in it. The throat-affection in the children and maid was comparatively superficial, and there was only slight constitutional disturbance. In the case, however, of the mother, aged 47, the illness set in with a rigor; deep seated suppuration supervened rapidly, and there was severe prostration. On the third day, an incision into one tonsil gave exit to some pus. Local improvement followed, but considerable fever remained; and, on the seventh day, pains in the elbows, wrists, and knees, and over both tibiæ, were complained of. The joints were somewhat swollen; while over the olecranons, about the edges of both patellæ, and studded along the front of the tibiæ, were a number of independent nodules, varying in size from a large pea downwards. These were movable under the skin to a slight degree; while, in the case of most, the overlying skin was reddened and tender. Only a very few wanted this inflamed covering; these were the most easily defined and most movable, as well as the largest; but they were also slightly tender on pressure. These characteristics were best presented by a body placed a little above the wrist-joint, lying on one of the tendons of the thumb. An examination of the heart at this time revealed a systolic murmur, heard distinctly, though not loudly, at the apex, very obscurely at the base. During the following three weeks, pains kept flitting about the joints, latterly tending to the fingers and toes; and new crops of the subcutaneous bodies kept appearing at intervals, confining themselves to the upper and lower extremities. These were all of the variety accompanied by pain and redness of skin. Though most numerous in the vicinity of joints and tendons, some appeared also over the fleshy portions of the arm and thigh. I was quite sensible of a rise in temperature about the appearance of each new crop (about five or six in all), though, after the first few days, I do not think more than 102° Fahr. was reached. The last joints involved were the metacarpo-phalangeal, and there very small nodules appeared. With the disappearance of the bodies, the skin-spots became bluish, and gradually faded. One day, sharp pain in the cardiac region was complained of; but there were no abnormal physical signs accompanying, save the murmur referred to, and that now presented increased intensity. At this date (thirty-fifth day of illness), the murmur is less obtrusive than at the period just referred to, but more so than when first observed; the joint-pains have been gone for some days; a few obscurely perceptible nodules remain, while the site of others is marked by faintly livid spots; and, generally, the patient is steadily improving.

As regards treatment, it appeared to me that salicylate of soda and the ordinary alkalies had comparatively slight effect upon the symptoms of this case, while they produced unusual depression. Ultimately, I substituted quinine with hydrobromic acid, and improvement set in with the change.

I ought to add that the patient has been hitherto healthy, never previously had rheumatism, and has no rheumatic family-history. There is no suspicion of syphilis.

Dr. Edge, in the interesting remarks in the JOURNAL of April 11th, which prove him to be familiar with the cases already recorded, distinguishes between two classes of this affection, according to its occurrence in children and in adults respectively; and claims for the adult type certain features not found in the other. But the example just reported appears to present a crossing between the two types that has hitherto been unnoticed; and that, I trust, will be sufficient apology for its being placed on record.

COLOUR-BLINDNESS IN THE MERCANTILE MARINE.

By JABEZ HOGG, M.R.C.S.,
Consulting Surgeon to the Royal Westminster Ophthalmic Hospital, etc.

THE honourable member for Oxford University, Mr. Talbot, at my solicitation, moved, just before the close of last session, for a further return of the results of the colour-blind test-examinations of candidates for masters and mates certificates in the Mercantile Marine Service. This return has recently been presented to Parliament. It contains many facts of interest and importance to the public and to the profession. I propose, therefore, to lay before the readers of this JOURNAL some of the more salient points of the report, and the means taken to prevent colour-blind persons, masters and mates, from obtaining certificates of competency to navigate British ships.

The colour-test examination was, on the representation of the profession, established by the Board of Trade eight years ago, in May, 1877. Its value soon became manifest to those in authority, and soon afterwards, in 1880, it was made compulsory upon all masters and mates to undergo an examination, and obtain a certificate of their ability to distinguish colours, before proceeding to the examination in navigation and seamanship. It was further extended to all persons about to enter the Mercantile Marine, as a means of satisfying themselves as to their fitness to enter the service at all; and for the certificate given a small charge of one shilling is made.

The methods of applying colour-tests are, for the most part, of three kinds; coloured cards, wools, and glasses. These have been found, on the whole, sufficient for the purpose, as the examiner has no need to discover and record all the peculiarities of vision, or of the colour-sense, of the candidate, nor of his ability to detect and arrange all the varying tints of the spectrum; his object being to discover whether he can distinguish those colours which enter largely into the combinations of signals used by day and night at sea; that is to say, whether he can clearly see the difference of red from green, and of both from white or black.

Failure to pass in the colour-test was equivalent to that of failure to pass the ordinary examination in navigation and seamanship. That is, it prevented candidates from obtaining the higher certificates of mate and master. This regulation was found to be unduly prejudicial to those who had already been some years in the service; and in March, 1880, a modified mode of procedure was adopted. The candidate already in possession of a certificate of competency of a lower grade, and wishing to procure one of a higher grade, is now permitted to do so; and if not successful, after two or three trials, in passing the colour-test, a certificate is granted, but the examiner writes across it: "the holder has failed to pass the examination in colours." This no doubt often has the effect of preventing the person from obtaining employment, but it is only right and just that shipowners should be in a position to protect themselves in such a case.

But, remarkable enough, although the colour-test examination is obligatory upon all officers, masters, and mates of the mercantile marine, pilots are, by some oversight, altogether exempted from so good a rule. This must be regarded as a serious omission, as there cannot be a doubt that collisions at sea occur more frequently when pilots are in charge, off our coasts, than when ships are out at sea, and in charge of the master or captain. If the compulsory colour-test examination were extended to pilots, a large number would no doubt be found unfit for the service, by reason of their being colour-blind.

As to the results obtained during the past four years to which the return is confined, from the year 1880, when the colour-test was more rigorously enforced, I find there were 85 candidates rejected by the examiner. Of this number, 29 applied to be re-examined under the rule referred to above, and all of these ultimately obtained certificates. Most of them, however, were re-examined in provincial towns, and were certified as able to distinguish between red, and green, and white lights. Besides these 85 failures, there were also 55 failures in examinations for colours only. This I take to mean that a number of persons voluntarily offered themselves for the colour-test certificate before going to sea at all, and paid their shillings to satisfy themselves of their inability to distinguish the colours of the flags and lights in use.

Other questions of interest "to the curious or learned in the matter of colour-blindness" are referred to, but not discussed, in the report. In an appendix, however, many typical cases of complete and incomplete colour-blindness are given. But, by an unaccountable oversight, the proportion or percentage of the colour-blind to the total number of persons examined has been altogether omitted. In the former report, that of 1877 and 1878, it was given at .43, or rather less than half per cent., a much smaller percentage than that of any other class of men, indeed, as small as that of women. The subjoined summary shows the mistakes made by the 86 candidates in naming colours.

Colours of Cards, Wools, or Glasses.	Green.	Red.	Yellow.	Blue.	Other Colours.
Green described as	—	79	16	13	13
Red ,, ,, ...	24	—	3	3	3
Yellow ,, ,, ...	9	38	—	1	2
Blue ,, ,, ...	45	2	1	—	4
Black ,, ,, ...	4	2	—	—	3
White ,, ,, ...	3	1	—	—	

Some amount of trouble was taken by the Board of Trade to determine the practice of foreign countries with reference to their colour-test examinations; and, from the replies received in 1881, we find that the United States of America, in 1879, made the colour-test compulsory upon pilots only, while for masters, mates, and crews it remains voluntary. The daylight colour-tests in use are Holmgren's worsteds, and for night, coloured signal-lights.

With regard to the principal European countries, Austria and the Netherlands are the only nations that have introduced a colour-test into their mercantile marine, while France and four other nations use a colour-test for their state navies only. Belgium has instituted a compulsory examination for persons employed in mail-boats running between Dover and Ostend. In addition to the usual tests, the Flushing pilots are examined by artificial means, different shades of colour being thrown upon a black background. Ostend pilots have a number of pieces of wall-paper, or skeins of wool, placed before them, and these they are directed to group into the colours of the spectrum.

After due consideration of the various modes of conducting the examinations by other nations, the Board of Trade came to the conclusion "that there was nothing in the colour-tests, or mode of applying them, as adopted by other countries, which, for practical purposes, is an improvement upon those in use in this country." But while it is thought to be undesirable to make any alteration in the method of applying the colour-test, or making it more searching or elaborate, in the public interest it is certainly desirable to apply it more generally. It does not admit of a doubt that an examination in colours is needed not only for officers, but for pilots, and for men who are on the "look out." This remark applies with equal force to these officers, masters of ships, who obtained certificates before the colour-test examination was instituted for our mercantile marine, and who, from colour-blindness, may be unwittingly and ignorantly risking the lives of their crews, and yearly adding to the number of lost ships. But for the great apathy displayed by shipowners themselves, this, we learn, would have been done long ago. Shipowners, however, still affect a disbelief in the danger which is associated with colour-blindness. Ignorance and a settled determination to reject all proof in this particular stands, as usual, in the way of adopting preventive measures.

It is known to but comparatively few persons that colour-blindness affects the human race in different degrees, is hereditary, is an incurable physical affection, and is chiefly confined to the male branch of families; the average percentage being 3½ to 4 per cent. of males, and only 0.5 per cent. of females. A selected instance or two will serve to impress this fact upon the memory. In a family of seven children, four sons and three daughters, the eldest and youngest of the sons are colour-blind. The defect is inherited from the grandfather, through the mother, but neither the mother nor any other member of the family is colour-blind. In a family of five, three sons and two daughters, the three sons inherit colour-blindness through their father and grandfather, while the two daughters, and, indeed, the whole of the females of this family, are free from any colour-defect.

The question has been asked, and I believe has not been answered, is colour-blindness likely to increase with age? A few carefully recorded cases lead me to think that age does aggravate the defect, as it does certain other defects of vision. It undoubtedly becomes more pronounced as the near point of vision recedes. In the case of Mr. D. B. C., who, at the early age of 14, went to sea, and who, five or six years afterwards, consulted me before he applied for his certificate as third mate, I pronounced him red colour-blind; nevertheless, he obtained his certificate, and subsequently those of second and third

mate; but when, at the age of 26, he applied for his master's certificate, he was unable to pass the colour-test. At this date, I once more tested him for colour, and on referring back to my notes of an earlier date, I came to the conclusion that his colour-blindness had sensibly increased. Captain F. consulted me for a disturbed state of vision, tobacco amaurosis. His colour-sense was also very imperfect; but, as he soon recovered, I saw no more of him for nine or ten years, when he one morning called upon me, complaining of defective sight, and of an inability to distinguish the ship's light. He was then very uncertain about his greens; dark greens he called black, and dark reds were simply warmer colours than greens. In short, he was colour-blind. Soon afterwards, he retired from the service.

The next case is more strikingly corroborative. H. J., a lad aged 16, myopic, before going to sea, was examined at an ophthalmic hospital, and pronounced free from colour-blindness. On his return home, he passed the colour-test examination, and obtained his certificate. Four years afterwards, his father brought him to me. He was then complaining of his inability to distinguish the colour of the ship's signal-lights, and he often missed the ropes; this he attributed to his short sight. He was unable to select or sort the skeins of coloured wool; in short, he was completely colour-blind. I recommended him not to go up for his second examination. His friends thought otherwise. He was rejected, and his certificate was endorsed "colour-blind." This, of course, put a stop to his further career in the service. The father of this patient was not colour-blind, but he was unable to say whether his father or grandfather had suffered from any defect of vision. The myopia must have been transmitted.

The object I have in view in dwelling upon the hereditary nature of colour-blindness is that of enforcing a duty upon parents—one they owe to themselves and to their children—that of making due inquiry into every peculiarity or defect of sight which may have constituted a family failing, before yielding to the wish of a child for a seafaring life. The inability of a boy to distinguish colours in common use should at once determine the question of his taking to the sea at all.

In conclusion, I would say, in answer to the question put by the Assistant-Secretary of the Marine Department of the Board of Trade, as to what more can the Board do to make the colour-test more efficient than it is at present; make, by all means, the examination compulsory upon all officers, pilots, and men on the "look-out;" if you do not, then, in the event of loss of life and property by collisions at sea, public opinion will naturally condemn the Board for permitting any laxity of the colour-test examination, and which should be more stringently enforced and applied than it is at present.

THE BRITISH MEDICAL TEMPERANCE ASSOCIATION.—The annual general meeting of the British Medical Temperance Association was held on Tuesday, May 26, in the rooms of the Medical Society of London, Chandos Street. Dr. B. W. Richardson, F.R.S., presided. The annual report stated that there were now 309 members and forty-two associates, the former being registered practitioners and the latter students, all personal abstainers. An Irish branch had been successfully established, and a branch for Scotland was just about to be inaugurated. For the 100 guinea prize offered by the Council for the best essay on the physical and moral advantages of total abstinence from intoxicating liquors, thirty-nine essays had been received, which were now in the hands of the judges, namely, the Right Rev. the Lord Bishop of London, Dr. B. W. Richardson, R. Webster, Esq., Q.C., Dr. Norman Kerr, and Dr. J. J. Ridges. It is intended to declare the result and to present the prize at a meeting of medical students in October next. After the usual business Dr. Richardson made a communication on recoveries from alcoholic paralysis under total abstinence, and Dr. C. R. Drysdale read a paper entitled "A Medical Reply to Lord Bramwell," which was followed by a discussion.

BEQUESTS AND DONATIONS.—Mrs. Ann Bell, formerly of Hollins, near Whitehaven, but recently of Rose Hill, Putney Park Avenue, has bequeathed £1,000 to the Whitehaven and West Cumberland Infirmary and Fever Hospital, £1,000 to the Royal Hospital for Incurables at Putney Heath, £500 each to the Royal Infirmary, Liverpool, the Northern Hospital, Liverpool, and the Southern Hospital, Liverpool, and £200 to the Ladies' Charity, Whitehaven.—Mr. Robert Barbour, of Bolesworth Castle, Cheshire, has bequeathed £500 to the Chester General Infirmary.—The Newark Hospital and Dispensary has received £300 under the will of Mrs. Arabella Tatham, of Torquay.—The General Infirmary, Leeds, has received £100 under the will of Miss F. M. Spencer Stanhope, and £100 under that of Miss M. A. Spencer Stanhope, both of Banks Hall, Barnsley.—Miss Mitchell has given £350 to the National Hospital for Consumption at Ventnor, in remembrance of her mother.—The Yorkshire Football Club have given £150 to the General Infirmary, Leeds, and £75 to the Halifax Infirmary.

CLINICAL MEMORANDA.

THE INDUCTION OF PNEUMOTHORAX FOR HÆMOPTYSIS.

IN the report of Dr. Cayley's case, and the discussion which followed at the Clinical Society, in the BRITISH MEDICAL JOURNAL of May 16th, two points escape notice, though, doubtless, they were fully considered by Dr. Cayley in estimating the propriety of the treatment for hæmoptysis employed.

The first is the significance of the degree and character of the pyrexia observed. Although the evening temperature ranged only between 101° and 101.8° Fahr., this, being in association with attacks of hæmorrhage exceptional in their frequency and severity, could not safely be taken as a measure of the activity or extent of the morbid processes in the lungs, as the fever would most likely be modified by the depletion which occurred. The remittent type of pyrexia present, also, was significant rather of progressive tuberculosis than of changes depending on the presence of blood in the alveoli and bronchioles. Hence the fever, though slight, was suggestive of "active development of tubercle in progress."

A more important question, however, in relation to the treatment, was the effect which inducing collapse of one lung would have on the work of the right side of the heart. In the presence of extreme anæmia, associated with pulmonary tuberculosis, the likelihood of the heart-muscle being equal to the increased demand on it, merited as serious consideration as the question of the sufficiency of the residual aerating surface. Had disseminated tuberculosis been suspected, it would no doubt have been regarded as prohibitive of the operation; for, whatever be the explanation, such cases are more apt to end suddenly by cardiac failure than cases of more localised, though apparently greater, lung-affection.

While admitting, then, that the gravity of the patient's condition, and the failure of all ordinary hæmostatics, in Dr. Cayley's case, warranted the consideration of exceptional measures, it cannot be denied that the experience of this case is adverse to the adoption of a similar plan of treatment, under like circumstances, in future.

Ventnor, Isle of Wight. ROBERT ROBERTSON, M.B.

VARICOSITY OF THE LINGUAL VEIN AS A DIAGNOSTIC MARK.

SINCE my article with the above title appeared in the JOURNAL, there have been two communications on the subject which call for notice. The one, by Dr. Whitehouse, related a case where this state was associated with recurrent epistaxis and a history of a paralytic seizure. The other, by Dr. Atkinson, gave objections to this condition being of semeiological value. It was not intended to be deduced from my observations, as has been done in the latter paper, that this appearance implied atheroma. It was, however, inferred that it implied a tendency to stasis in the whole jugular system; and this, existing in the cerebral veins, is one of the factors of thrombosis and hæmorrhage. The facts quoted by Dr. Atkinson—namely, its large size and its feeble support externally—are reasons why this remora should make itself manifest in the lingual veins by varicose dilatation. That it is a condition not confined to them is indicated in Dr. Whitehouse's case, where epistaxis showed a congested nasal mucous membrane; while the frequently co-existing enlarged veinlets in the cheeks and lips show a similar tendency in the branches of the facial veins; and the view that this should coincide with a similar state in the internal veins is supported, along with other facts, by the experiments of Burrows. Such a concomitant change as this must surely be a more delicate indication than the enlargement of the anastomotic veins, which only exists consequent on intracranial venous obstruction, and whose size must always be limited by their respective foramina.

But, if mere argumentation be set aside for clinical observation, it will be found, as a matter of fact, that the lingual veins vary in different individuals of the same age in their size and varicosity. Local muscular pressure cannot thus be explanatory; and some other cause must be looked for, and this will usually be found in a morbid state of the heart-wall or valves. The occurrence of hemiplegia in my reported cases is to be accounted for similarly; for the observations of Portal, Copland, Burrows, and others, have shown this to result frequently from any cardiac cause favouring venous congestion. Varicose linguals and vascular changes in the encephalon are thus associated by their common cardiac cause. I have had, as yet, no opportunity of noting the important evidence which morbid anatomy could produce on this subject. G. CECIL DICKSON.

A SERIES OF CASES OF DIPHTHERIA.

Between April 20th and 30th, diphtheria attacked all the children living in a house in Hornsey Rise, members of two families. The ages were 3¾ years, 4½ years, 3¼ years, 2¾ years, 18 months and 8 months respectively, six in all.

The first patient was moribund when his parents called me in. Chloroform and emetics failing, I did tracheotomy. For twenty hours he breathed well, but died four hours later. The necropsy revealed collapse of both lungs, with non-adherent membrane throughout the trachea and bronchi, the subjacent mucous membrane smooth, slimy, neither tumid nor congested. On the tonsils, the usual diphtheritic appearances were present. He had been ill for nearly four days.

In the second case, the air-passages proper seemed to escape, but the membrane rapidly invested the eyelids, nostrils, mouth, and fauces. All these surfaces bled freely. Hard œdema, with enormous swelling, occupied the whole neck, finally reaching the chest-wall. There was no marked dyspnœa. On the 7th day, stasis and hæmorrhages occurred in the limbs, and the child died quite suddenly from clotting of blood in the heart or great vessels. There was no *post mortem* examination.

The treatment, adopted also in the other four cases, modified as circumstances required, was, brandy very freely, tincture of perchloride of iron in five-minim doses every four hours, frequent emetics, with a diet of milk and egg. While the throat was actively inflamed, I used antimony to produce vomiting, following it with abundant brandy.

The child aged 3¼ years, although exhibiting very acute symptoms, rapidly recovered after three days.

Cases 4, 5, and 6 were very severe, all having malignant symptoms, with epistaxis, etc. After much trouble, however, they escaped. In my judgment, tracheotomy was contra-indicated in all the cases except the first. The interest of these notes lies in the fact that four out of five malignant cases, two of them infants, were treated successfully with abundant brandy, frequent emetics (at first antimonial), and iron, the membrane on the tonsils and pharynx being undisturbed; in fact, the throat was not touched.

T. H. Sawtell, M.B.Lond.

PARASITICIDES IN THE TREATMENT OF PULMONARY CONSUMPTION.

In reference to the communication by Dr. John E. Morgan, of Manchester, under the above title, in the Journal of May 23rd, I wish to state that, on good authority, I have been informed of an interesting experience in the Canadian hospitals, to this effect: that often young native Indians, in robust health, being received in consequence of fractured limbs, during the short time necessary for the reunion of the bones, develop consumption. Hitherto it was supposed that the result was due to the fact of the organism being, for the first time in life, shut up within the enclosure of a large dwelling sheltering many individuals; the young savage never before having lived night and day except in the open air, or in a wigwam. I venture to present this statement to my professional brethren, in the hope that some accurate facts may be gleaned from this field of inquiry. Our Canadian colleagues might, I think, give us much useful information by comparison of the facts regarding the degree of prevalence of consumption in the two races, the one living in houses and the other out of doors, together with any differences in the character and continuance of the disease.

I suppose that the physical conditions of life in a bothy and in a wigwam may be very similar, because, not only is there the same exposure to the atmosphere, but, in addition, the products of burning fuel, with whatever parasiticide powers these products may possess, would probably correspond. If, therefore, there be any comparative immunity from consumption under such conditions, further analysis has to be made to determine whether any such result is due simply to the atmospheric exposure, or to the physiological or parasiticide action of the chemical products of burning bodies.

Thos. Hawksley, M.D.

A CASE OF PERIOSTITIS FOLLOWING TYPHOID FEVER.

Dr. Haywood of Liverpool, Dr. E. Jackson of Manchester, and Dr. Affleck of the Royal Infirmary, Edinburgh, recently reported cases of periostitis following typhoid fever. A case of this kind has recently occurred in University College Hospital.

The patient, a young woman, aged 17, had a moderately severe attack of typhoid fever, with a relapse occurring on the twenty-first day of illness, and before the first attack had subsided. The spots were very numerous, and involved the extremities, being present below both elbows and on the inner part of the thighs. There was constipation throughout; and in the relapse she complained of deafness and pain in the left ear, without any discharge. The pain lasted two days, the deafness four days.

On April 2nd (fortieth day of disease), and after the temperature had been normal for six days, the patient complained of pain over the centre of the right tibia, on its inner surface, and the temperature rose to 99.2°. There were very slight redness, some swelling, and also well marked tenderness. Extract of belladonna, mixed with an equal quantity of glycerine, was smeared on the part, and hot fomentations were applied, which relieved the pain slightly for a time; although, on April 3rd, the swelling had increased in size. Redness now extended over an area of about four square inches. Fluctuation could not be obtained, and the attempt to do so caused intense pain.

On April 6th, the temperature had reached 99.6°; the pain had increased; the tenderness had become excessive; and the swelling had become larger, now measuring 4 inches long by 3½ inches wide. The pain was much worse at night, and kept the patient awake.

An enlarged painful gland was noticed in the right popliteal space on April 9th, and on the following day there was distinct fluctuation over the centre of the swelling. It was opened by a small longitudinal incision, and half a drachm of pus escaped. The temperature came down to normal the next day, and remained so until the discharge of the patient. The pain was at once relieved by the operation.

A careful examination did not show any bare bone. Fomentations were continued until April 14th, when, the wound having commenced to granulate, it was dressed with red wash, and it had entirely healed by April 21st. The swelling had also entirely vanished.

Thomas Preston Gostling, L.R.C.P., M.R.C.S.,
House-Physician at University College Hospital.

THERAPEUTIC MEMORANDA.

THE TREATMENT OF RINGWORM.

The subjoined formula for the local treatment of ringworm is suggested by Dr. Payne's lecture on the treatment of that epiphytic disease. In sending it, I am simply handing down a form received from others, and used in the out-patient practice of the Manchester Infirmary, many years before the publication of the *British Pharmacopœia*.

When the acidum sulphurosum was made officinal, it was used for a time instead, but we had to revert to the old form made up of materials fully recognised and explained in Squire's *Companion*. The form is: ℞. Sodæ hyposulphitis dr.i; solve in aquæ fl.oz.viii; et adde acidi hydrochlorici fl.dr.i; for outward use only. The use of this lotion, as water-dressing covered with oiled silk, and accompanied by daily washing in soft soap and water, has proved as perfectly satisfactory as Dr. Payne says the principle of the treatment of ringworm is perfectly simple. It fulfils Dr. Payne's conditions, and kills the fungus. I presume the sulphurous acid gas acts beyond the limits of the aqueous solution.

Nevertheless, I have an out-door patient, in the form of a double rose-tree infested with aphides, which remains incurable after five years' treatment, illustrating Dr. Payne's second remark, that in some cases the killing of parasites is "one of the most difficult problems of practical therapeutics." How can I get my rose-tree enveloped in an atmosphere of sulphurous acid gas? and then, how soon should I kill my patient?

Henry Browne, M.D.Lond.,
Consulting Physician to the Manchester Royal Infirmary.

Sheffield Medico-Chirurgical Society.—At the annual meeting on April 30th, the following officers were elected:—*President:* Mr. R. J. Pye-Smith. *Vice-President:* Mr. W. A. Garrard. *Treasurer:* Mr. G. S. Taylor. *Secretary:* Mr. Simeon Snell. *Members to complete Committee:* Dr. Law, Dr. Keeling, Dr. Dyson, Dr. Porter, Dr. Martin. *Pathological Committee:* Mr. C. Atkin, Dr. Gwynne, Dr. S. White, and Mr. Baldwin. On May 13th, the annual dinner took place, and was well attended.

The Late Dr. H. Kingsley.—The Committee of Management of the Stratford-upon-Avon Infirmary have opened a subscription-list, limited to one guinea each, for a portrait of the late Dr. Henry Kingsley, to be placed in the board-room of the new Infirmary, in recognition of his valuable services for upwards of thirty years.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

TEIGNMOUTH INFIRMARY.

CARBUNCLE OF THE FACE.

(Under the care of Dr. MAGRATH.)

[Reported by G. S. CARDEW, M.B., C.M.Ed., M.R.C.S.E., House-Surgeon.]

J. A., a domestic servant, unmarried, aged 37, was admitted on February 12th, 1885, complaining of a swelling of the lower lip and right side of the face. She stated that her father died of cancer of the stomach; her mother was still living, but suffered from heart-disease. She had two brothers, both of whom were alive and well; her only sister died of consumption. She had always been strictly temperate, and for some years had had a very comfortable situation as a housemaid.

On February 9th, when apparently in her usual health, she felt a painful hard spot on her lower lip. During the night, the pain increased so much that she was unable to sleep. She had no recollection of having injured her lip in any way. On the two following days, the swelling continued to increase.

When admitted, the patient was thin, with a careworn expression, and cicatrices of former disease of the glands of the neck. The lower lip was much swollen, of a purplish colour, with here and there small pustules. Beyond the lip there was a dusky red hard swelling, extending downwards as far as the prominence of the thyroid cartilage, upwards on the right side of the face to the lower eyelid, on the right side to the posterior margin of the sterno-mastoid, and to the left to the angle of the mouth. The temperature was 103° Fahr.; the pulse was 124 and small. There was no difficulty in swallowing, but mastication was impossible. The appetite was fairly good; the thirst was great. The bowels had not acted for two days. The urine was acid, of specific gravity 1020; it contained no albumen and no sugar. She was ordered beef-tea, milk, eggs, and three ounces of brandy in the twenty-four hours. Sulphide of calcium (one-sixth of a grain) was given every two hours. The whole of the surface over the hardened tissues was painted daily with a pigment, composed of equal parts of linimentum iodi and tinctura iodi, extending one inch beyond the margin of the disease. The lower lip was dressed with carbolic oil, and the mouth was washed out frequently with Condy's fluid.

February 12th. The evening temperature was 103° Fahr.; the pulse was 126.

February 13th. The morning temperature was 104° Fahr.; the pulse, 128; and the respirations, 36. She took her nourishment well. The inflammation had extended on the right side so as to almost completely close the eye; and, on the left side, half way up the cheek. The bowels not having acted, an enema was ordered. The evening temperature was 103.8° Fahr; the pulse, 132; and the respirations, 36.

February 14th. The morning temperature was 103.4° Fahr.; the pulse, 132; and the respirations 40. There was no increase in the extent of the inflammation, and she did not complain of very much pain. The evening temperature was 103.4°; the pulse, 130.

February 15th. The patient was delirious at 3.30 A.M. The pulse at the wrist was imperceptible; the temperature was 101° Fahr. She gradually became quieter, passed into a comatose condition, and died at 7.30 A.M. No *post mortem* examination could be obtained.

REMARKS.—The only apparent cause of the disease was the general debilitated condition of the patient; there was no diabetes, nor any history of injury. The cause of death, do doubt, was the extension of the inflammation along the veins to the brain. This case fully bears out the testimony of others as to the rapidity of the disease; for, from the first symptoms to the fatal termination, only five days and a half elapsed.

NORTH LONDON CONSUMPTION HOSPITAL, HAMPSTEAD.

SEQUEL OF A CASE OF PLEURISY TREATED BY COMPRESSION.

(Under the care of Dr. GODWIN TIMMS.)

ANN H., aged 32, widow, was admitted on April 19th, 1875. Her family history showed no trace of struma in her parents; her father died from the effects of an accident, and her mother was still living, aged 70. She was admitted, in the early part of the year 1871, into a London hospital, suffering from left pleurisy. The left chest was strapped with plaster. After five months, she was discharged. When admitted into the North London Consumption Hospital, she was unable to sit up, and complained of constant dull pain in the left side; the pulse was 144. Cough was frequent, except when she lay almost flat, with the head low and slightly inclined to the healthy side. Expectoration was trifling. The right mamma was fairly developed, but of the left mamma there was no trace but the areolar mark. From midsternum to spine in the nipple-line around the right chest measured 13½ inches; around the left chest, 9½ inches. The heart's apex pulsated between the fifth and sixth ribs in the mid-axilla. There were puerile breathing and over-resonance in the right chest, dulness on percussion, and very faint and short respiration over the whole of the left chest, which was almost immobile. A five-grain blue pill was ordered three times a day, and a small blister over the seat of pain. After four days, the mouth became slightly sore, and the pain was relieved; the pulse fell to 110; the relief was not of long duration. After varying intervals (during which she took iron), sometimes two or three weeks, sometimes two or three months, the pain returned, the pulse rose, and the breathing in the right chest became more puerile. During the next two years, 1875 and 1876, she was slightly salivated, generally at her own request, eleven times; always with relief, cessation of pain, abatement of cough, diminution of puerile breathing of the right side, and of frequency of the pulse.

During 1876, she could sit up, walk out in fine weather, and do needlework.

In May, 1877, she was readmitted into the hospital; and during her two months' stay, she spent most of the time in the grounds. The heart pulsated in its normal situation. The left chest had dilated to an equality with the right; but there were, together with general dulness of the left chest, patches of absolute dulness and almost pectoriloquy. In all the permeable portion of the left lung, rough breathing, *râles*, and bronchial voice were heard.

She passed the winter, a severe one, 1878-79, mostly in bed, and several times had to be treated for bronchitis of the right lung.

In 1879, she was weaker, thinner, and had less appetite. The expectoration had increased, and had become constant and of a fœtid odour. She was re-admitted in October, and improved somewhat by treatment and nursing; but she selected a bright windy day in November to go home, became faint in the cab, was brought back to the hospital, put to bed, and died within an hour.

The necropsy, confined to the thorax, contradicted the diagnosis. The patches of dense dulness with pectoriloquy, which had been diagnosed as superficial cavities or small confined empyemata communicating with bronchi, were found to be due to dilatation of the bronchi alone. The left pleuræ were adherent throughout, and thickened, but there was no deposit between them. The lung-substance was carnified, yet still floated in water. Several bronchi were dilated to the size of a thumb, much thickened, and filled with malodorous pus. The right lung was not diseased, except from bronchitis. The heart was large, the left cavities being filled with black clots. There was not a trace of tubercle.

NEWCASTLE-ON-TYNE INFIRMARY.

JAUNDICE FATAL WITHIN SEVENTY-TWO HOURS.

(Under the care of Dr. PHILIPSON.)

E. H., AGED 51, was admitted on October 25th, 1884, after a week's illness. He could give no account of himself; but, from his friends, it was learned that, while in South Africa, twenty-four months previously, he had an attack of "bush-fever;" sixteen months ago, in London, he had a similar attack; and, at the commencement of the present illness, suffered in the same manner as on the two previous occasions. He had been a heavy drinker at times, and lately had not had much food. The illness began seven days before admission, with pains in the knees, forehead, and back of the neck; after the first day, he could not leave his bed. He vomited, but never any black substance. There had been jerking of the legs, and he could not turn himself in bed. After the second day, he had "wandered" every night.

Several hours after admission, he had a convulsive attack, in which the head was drawn back, and all the limbs relaxed, except the left arm; he was unable to speak, and any movement set up spasm of the cervical muscles; the breathing was noisy, the pupils normal. The temperature was 100° Fahr. In the evening, he was quieter and sensible, but could give no account of himself.

October 26th. He had been restless and delirious during the night. He now lay on his stomach, or curled up on his side, with the head

thrown back; there were clonic spasms of the hands and arms, and slight movement brought on spasmodic contraction of the muscles of the trunk and neck. There was no tenderness over the skull or spine. The teeth were covered with sordes; the tongue was dry, brown, and fissured. The conjunctiva and skin had become jaundiced since the previous day. The liver-dulness measured 4½ inches in the nipple-line, and extended two inches below the top of the xiphoid in the median line. There was tenderness in the epigastrium. The temperature was 98.6°.

October 27th. He was delirious; the urine was passed into the bed; it was slightly acid, of specific gravity 1011, turbid, and it had a distinct green tinge; bile-pigment and bile-acids were present; there were a considerable quantity of albumen, and some hyaline tube-casts. The jaundice was deeper, and evidently accompanied by great itching. There was marked jactitation of arms and legs, and he was only semi-conscious. These symptoms became more marked; and, on October 29th, he became more deeply unconscious, and died quietly.

At the necropsy, the liver projected in the median line three inches below the xiphoid cartilage. It weighed 4 lbs. 3 oz.; the capsule was thin and transparent. The lower margin was sharp and firm; the gall-bladder was moderately distended with mahogany-coloured fluid. The liver was gritty to the knife, and the section was yellow, and fairly firm under the finger. There was no staining with iodine. The hepatic veins were distended, and a considerable quantity of blood could be expressed. The lining membrane of the duodenum was deeply congested and ecchymosed; the opening of the bile-duct was not found, and, though no actual plugging of the duct was found, its walls were swollen. The dura mater was thickened, and at parts adherent; the arachnoid and pia mater were also thickened and opaque. The kidneys appeared normal.

REMARKS BY DR. PHILIPSON.—The interest of this case is its acuteness, the jaundice having appeared on the day after admission, its intensity, and its termination in death within seventy-two hours. From the microscopic examination of a hardened specimen, it would appear to have been a case of acute determination of blood to the liver—the hepatic capillaries being all markedly distended.

SUNDERLAND INFIRMARY.

COMPOUND DEPRESSED FRACTURE OF THE SKULL, WITH LOSS OF CEREBRAL SUBSTANCE: APHASIA.

(Under the care of Mr. MORGAN.)

[Reported by E. F. FLYNN, L.R.C.S.I., etc., late Senior House-Surgeon.]

G. F., a labourer, was admitted on November 8th, 1883. He had received a compound depressed fracture of the left parietal bone, caused by a blow of an iron stanchion. The depressed bone was elevated; in doing this, the superior longitudinal sinus was wounded; from this there was alarming hæmorrhage, which was eventually controlled by a large pad of absorbent wool. On the following day there were right hemiplegia, loss of power over the rectum and bladder, and great pain in the head; the pain was relieved by large doses of potassium-bromide. The wound was dressed on November 10th.

November 12th. At 8 A.M., severe hæmorrhage from the wound was partially controlled by pressure; but oozing of serous fluid, mixed with blood, continued all day. On November 13th, there was complete aphasia; no further hæmorrhage had occurred.

November 16th. The patient was comatose. There was a hernia cerebri. On November 20th he regained consciousness, and asked for what he wanted. The hernia cerebri was unchanged. On the following day there was complete aphasia, but he was conscious, and the wound was healthy.

January 2nd. The right hemiplegia was improving; the wound was nearly granulated over; there was a marked depression from loss of cerebral substance. He was discharged convalescent in January, 1884.

February, 1885. He walked with a hemiplegic gait, but could walk miles; he had very little use of the right arm, and none at all of the right hand; he was quite cheerful, and understood everything said to him. The special senses, hearing, sight, smell, and taste, were in no way interfered with, but he remained completely aphasic. The cicatrix of the wound was two and a half inches in length, half an inch wide, was situated half an inch to the left of the sagittal suture, and a considerable depression remained.

A MEETING on behalf of the Mary Wardell Convalescent Home for Scarlet Fever, Stanmore, will be held at the Mansion House on Wednesday, June 10th, at three o'clock.

DORSET COUNTY HOSPITAL.

(Cases under the care of Mr. F. BAZLEY FISHER.)

[Reported by Mr. MACARTNEY, House-Surgeon.]

1. *Popliteal Aneurysm; Ligature of Femoral Artery; Recovery.*—J. L., a discharged soldier, was admitted on September 2nd, 1884. He had a popliteal aneurysm, with apparently very thin walls. The heart's action was very rapid, with a systolic murmur at the apex. He was placed on reduced diet, and five grains of iodide of potassium, increased to ten grains, were given three times daily, and an elastic bandage was applied from the toes to the middle of the thigh three or four times daily, for about an hour at a time. After three weeks of treatment, the pulsation was very slight, but the patient becoming agitated the pulsation increased, but yielded to continued treatment. This occurred more than once, and, as the tumour appeared to be increasing in size, the femoral artery was ligatured, on December 9th, at the apex of Scarpa's triangle, under carbolic spray, stout carbolised silk being used as a ligature, and both ends cut off short. The wound was closed by carbolised silk suture, and antiseptic dressings applied. Only two other dressings were required, and the patient recovered without a single bad symptom, and was discharged cured January 8th, 1885. The night after the operation the temperature rose to 99°, but never went above normal afterwards. No pulsation could be detected in the tibial arteries at any time after operation.

2. *Osteo-sarcoma of Tibia; Amputation of Thigh.*—M. H., aged 42, was admitted August 25th, 1883, with a large swelling on the left tibia just below the knee. She first noticed it about nine months before admission, but had complained of aching pain in the leg for two years. The tumour had been growing rapidly, and was acutely painful; several loose pieces of bone could be detected in it. On September 11th, 1883, it was laid open under carbolic spray. The bone was found to be hollowed out and greatly expanded. The thigh was amputated in the lower third. A very great quantity of oozing took place from the stump, which required daily dressing, so that antiseptics were abandoned after some time. The stump was not quite healed until December 15th. She went home in January, 1884; and, a year afterwards, was enjoying good health, wearing an artificial leg, and able to work well.

INCREASE OF SALARY.—The Stafford Guardians have, upon the recommendation of a committee, increased the salary of Mr. Charles Henry Greaves, the Medical Officer for the Stafford District and the Workhouse, from £100 to £125 per annum.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The annual general meeting of the Society was held on Wednesday, May 20th, at 5 P.M. Sir James Paget, President, was in the chair. Mr. Lee and Mr. Cooper Forster were elected Vice-Presidents; Mr. Hogg, Dr. Barber, Dr. Roberts, Dr. Broadbent, Dr. Stokes, Mr. Latham, Dr. Ogle, Dr. Duka, Mr. Bennett, and Mr. Smith Turner, Directors. According to the report for 1884, the number of members of the Society was 366, four less than in 1883; thirteen new members had been elected, twelve had died, and five had resigned. The number of widows on the books was sixty-one, showing an increase of four; five fresh cases had been assisted, and one widow had died. The number of orphans had been increased from five to eight. A sum of £2,853 had been given in relief during the year, and the expenses had been £215. A sum of £220 had been invested in the Metropolitan Consolidated Stock. The usual Christmas present had been made last year to the widows and orphans receiving grants. A special grant of £26 *per annum* was made, under By-law 78, to a widow whose husband, owing to the alteration of By-law 67 between his election and death, had not been a member the full time necessary to enable her to receive ordinary grants. A discussion ensued on the best means of extending the operations of the Society by increasing the number of members. Out of over 4,000 medical men residing within the limits of the Society, only 366 at the present time availed themselves of the opportunity to make a provision for their widows and orphans, should sickness, loss of property, or other causes, prevent their doing so. The numerous appeals in the medical journals on behalf of the widows and children of medical men, whose husbands and fathers had died young, and left them totally unprovided for, should lead many to join the Society, by which means they could at least secure a small annual sum for those whom they would otherwise leave destitute. A vote of thanks to the editors of the medical journals for their kindness in assisting, in every way in their power, in making known the benefits conferred by the Society, was carried unanimously; and the proceedings were closed by a vote of thanks to the chairman for his kindness in presiding at the meeting.

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 13TH, 1885.

NORMAN CHEVERS, M.D., C.I.E., President, in the Chair.

Variola and the Varioloid Diseases of Animals.—Dr. E. F. WILLOUGHBY read a paper on this subject. He said that a number of animals, as the sheep, goat, camel, swine, and (according to some) the dog, were subject to diseases resembling small-pox in man. They were all highly infectious to animals of the species to which they belonged, and were attended by high fever, a general vesicular or pustular eruption, and great danger to life; they were not communicable to animals of other species, except by direct inoculation, and then produced a local affection only, with little constitutional disturbance, and no danger to life. One attack, however induced, conferred immunity against the particular disease, but they were not mutually protective. Horse-pox and cow-pox were purely local affections, unattended by much fever or any danger; they were not infectious, but, though said to appear spontaneously in rare instances, were communicable only by inoculation, when they conferred immunity, not only against subsequent inoculations, but also against the infection or inoculation of human small-pox. Though they could be inoculated on any part of the body of horses and cattle, the so-called spontaneous cases always occurred on the heels of horses, the udders of milk-cows, and the lips of sucking calves. On these facts, two opposed theories had been built. One was, that there were two orders of variolæ, in one of which the virus was, as Fleming expressed it, "volatile," and in the other "fixed;" and that, while the former were protective only, each against itself, the latter were not only mutually protective, but conferred immunity against human variola. In other words, while inoculation with small-pox protected man against small-pox, and inoculation with sheep-pox protected the sheep against sheep-pox, though small-pox did not protect againt sheep-pox, nor sheep-pox against small-pox, yet cow-pox and horse-pox conferred immunity not only against one another, but against small-pox. The other view was that, while the variolæ proper were distinct specific diseases, cow-pox and horse-pox were merely instances of the cultivation of human small-pox in the organism of another animal. Since "vaccination" had been proposed as a prophylactic measure against sheep-pox, and other suggestions of a like kind had been made from ignorance of the true relations of these diseases, it was important that the law of immunity should be clearly understood. It might be expressed in four theses. 1. One attack of variola of the kind proper to any animal protected the individual against subsequent infection or inoculation with the same. 2. Inoculation of any animal with the virus of its own variola produced a milder form of the same disease, but afforded a protection similar to that conferred by an attack acquired by ordinary infection. 3. Any variola, inoculated in an animal other than that whose variola it was, gave rise to a peculiarly modified form of the disease, attended by little constitutional disturbance, merely local congestion, and no danger to life; such modified disease being no longer communicable to any other animal of the same or of different species, except by direct inoculation. 4. This modified disease afforded a considerable degree of immunity against infection with the variola whence it was derived, either to the animal whose variola was the original source of it, or to others capable of being infected in any way thereby. These theses were of universal application. Thus, while ovination was attended with the same benefit to the sheep, but the same risks to the individual and to others that attended the practice of small-pox inoculation in man, it was necessary, in order to confer on sheep the benefits of vaccination, to do so, if possible, by passing sheep-pox through some other animal. Inoculation of the calf with human variola was very difficult; and the only result of the first operation was a papule very often without a vesicle, the vesicle, when it did appear, lasting perhaps but a few hours. The lymph obtained from this was too active to be used with safety on man, but, inoculated into a succession of calves, underwent a progressive mitigation, vesicles speedily assuming the appearance of so-called cow-pox. Ceely, Badcock, Thiele, Reiter, and Senft (as well as Gassner and Sondermann, at the beginning of the present century), succeeded in thus obtaining, after several cultivations, vaccine-lymph of the highest quality; but Dr. Martin in America, and Dr. McPherson in India, attempting to repeat Ceely's experiments, propagated ordinary small-pox with disastrous consequences. Chauveau and his school maintained that, though the result of such inoculations was a "bouton abortif," the lymph, if any, was that of unmodified small-pox, and that the vaccinations performed by Ceely, Badcock, Thiele, Reiter, and Senft, were merely favourable examples of small-pox inoculation, as Martin's were of a severe kind. But it was not conceivable that they and their friends could have propagated small-pox through hundreds or thousands of infants, without discovering it or being discovered. Dr. L. Voigt of Hamburg had, within the last three years, repeated these experiments with brilliant success, and placed the matter beyond doubt. The true explanation of Martin's and McPherson's ill success was, that they did not succeed in infecting their cows at all; they put in variolous pus, and after some days took the same pus out again. There was no doubt that every supposed case of spontaneous cow-pox was one of accidental variolation or retrovaccination; as by a woman milking a cow after dressing her vaccinated infant. In pre-vaccination times, when small-pox was everywhere present, horses were probably variolated, and the cows inoculated from them. Two practical questions found a solution in these views of the relation of small-pox and vaccination. One was, whether retrovaccination of the calf might be practised for the purpose of eliminating the possibility of a syphilitic taint; and the other was whether, supposing humanised lymph to have undergone any deterioration by its passage through thousands of infants, it could be revivified by a single transmission through the calf. The first question might be answered in the affirmative; as to the second, it would appear that while, so long as every precaution was observed in the selection and storage of human lymph, there was no reason to believe that it had undergone enfeeblement, it was hard to imagine how it could gain in energy by cultivation in a foreign soil. In what way inoculation differed from aërial infection was not known; but, even in the human subject, small-pox itself was progressively weakened down to a local infection by continuous inoculation.—In the discussion which followed, the President, Drs. Renner, Pringle, Gordon, C.B., Murray, and Mr. Shirley Murphy, took part.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, MAY 21ST, 1885.

THOMAS MORTON, M.D., President, in the Chair.

On Certain Points in the Diagnosis of Cervical Stenosis.—Dr. F. H. CHAMPNEYS described briefly the anatomy and physiology of the cervix uteri; its cavity, its orifices, its secretion. As regards the os internum, it was pointed out that this orifice really belonged to the uterine body; and reasons were given for thinking that its size was variable in the same individual, and that it was not rigid, but underwent spontaneous dilatation, being under the dominion of uterine polarity. Dr. Champneys discussed the diagnosis of stenosis, and showed that no certain inference could be drawn from difficulty in introducing the sound, because it could not be guaranteed that the sound was passed exactly in the calibre of the canal (though this could be assured in the case of the os externum), and because it might catch in a fold of mucous membrane. The diagnosis could, however, be made if difficulty in withdrawing the sound were experienced, because the instrument then travelled of necessity in the right path. The paper concluded with notes of sixteen cases of cervical stenosis observed at St. George's Hospital.—The PRESIDENT, Dr. JOHN PHILLIPS, and Dr. A. ROUTH took part in the discussion.—In answer to questions, Dr. CHAMPNEYS expressed his disapproval of the operation for incision of the os internum, on the grounds of the risk to life which it involved. Vaginal examinations of virgins should be avoided as a rule. Nevertheless, where necessity demanded an examination, the fact of virginity should not be allowed to stand as an obstacle to the patient's chance of recovery. This should specially be borne in mind in connection with dysmenorrhœa, which, in the author's opinion, often laid the foundation of serious pelvic disease.

The Use of the Ophthalmoscope in the Practice of Medicine.—Mr. H. E. JULER read a paper on this subject. Dealing first with the methods of ophthalmoscopic investigation, the author described the three modes of examination known as the direct method, the indirect method, and the shadow-test. Among the ocular affections which constantly occurred in ordinary medical practice, and for the safe diagnosis of which the ophthalmoscope was necessary, Mr. Juler referred to albuminuric retinitis, optic neuritis, retinal hæmorrhage, atrophy, tobacco-amaurosis, and faulty refraction. The subject was illustrated by numerous diagrams, and by the use of artificial models of the eye. The more recent forms of ophthalmoscope were also exhibited, and their use practically demonstrated.—Dr. SANSOM referred to the use of the ophthalmoscope in children's practice. With a little care and patience, it was possible to examine the eyes of most, if not of all, children. Great assistance in matters of diagnosis could thus be obtained. He had frequently been able the recognise the existence

of hypermetropia, of cerebral tumour, and of renal disease. The extended employment of the ophthalmoscope could not be too warmly advocated.—Dr. ALDERSON, Dr. SYDNEY PHILLIPS, and Dr. CULVER JAMES, also took part in the discussion.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, MAY 6TH, 1885.

WALTER WHITEHEAD, F.R.S.E., President, in the Chair.

Ankylosis of the Crico-arytenoid Articulation, the Result of Perichondritis.—Dr. HODGKINSON showed this case. In February, 1881, W. K., commercial traveller, aged 46, complained of pain in his throat on speaking and swallowing, together with frequent paroxyms of violent coughing during eating. He had been suffering for several weeks. On examination, the right arytenoid body was seen to be red and swolien, and abduction and adduction of the corresponding vocal cord was interfered with. The family history was good, and there was no history of syphilis, or of lead or other poisoning. There was no sign of interference with the right recurrent nerve. He was induced to take a voyage to Australia, and, twelve months afterwards, returned completely cured, with the exception of alteration in the tone of his voice. The right arytenoid body was seen to be of normal colour, slightly larger than the left corresponding structure, and altered in form. The right cord was rigidly fixed and atrophied. The power of phonation was secured by the increased range of movement of the left cord during adduction. His condition had remained the same for the last two years.

Apparatus for the Efficient and Economical Use of Cucaine and other Remedies in Throat-Affections.—This was shown by Dr. HODGKINSON. By means of it a single drop of solution might be used with accuracy, and its application to any part of the throat ensured.

Mitral and Tricuspid Disease with Embolism.—Dr. RAILTON read notes of this case. A girl, aged 14, was admitted into the Clinical Hospital for Women and Children in November, 1884. A fortnight after admission, she was suddenly seized with acute pain in the left loin. The urine, only slightly albuminous previously, became loaded with albumen, and the following day the temperature, which had been normal, rose to 103°. Five days later the symptoms of renal embolism subsided, when she had an attack of cerebral embolism, leaving absolute and permanent hemiplegia of the left side. There was no elevation of temperature during the period of softening after the cerebral embolism. At the necropsy, four months later, the heart showed extreme button-hole contraction of the mitral valve, and vegetations with sclerosis of the tricuspid. The remains of infarctions were found in both kidneys, the left one being extremely atrophied, and also in the spleen. The brain showed softening in the region of the right corpus striatum, the disintegration especially involving the internal capsule, and extending upwards towards the cortex. The liver was enlarged and "nutmeg;" the middle lobe of the right lung was hepatised; the rest of the lungs was healthy.

Congenital Malformation of both Hands.—Mr. E. STANMORE BISHOP showed a case of congenital deformity of the upper extremities, in which the right radius and ulna were three-quarters of the natural length; the first metacarpal bone and thumb were entirely wanting; the second and third metacarpal bones, with their digits, were normal; while the fourth and fifth metacarpals were fused, bearing one digit, of which the first phalanx was normal, the second and third were double, but united by skin. On the left arm, the radius and ulna were 3½ inches long. There were two metacarpal bones only, apparently the third and fourth, with which were articulated two digits webbed together, but otherwise normal.

Empyema.—Dr. YEATS made some remarks on the treatment of empyema, and detailed the various operative procedures employed for its cure. He believed that by far the best treatment in all cases was to open the chest by a large free incision in the ninth or tenth intercostal space, to fill the wound with drainage-tubes, and to employ antiseptic precautions throughout. He showed five successive cases that had been so treated, and stated that four of them were cured in less than six weeks, and that the fifth case took three months to recover, owing to the wound having become septic by accident during the treatment.

Tumour of Scalp.—The PRESIDENT showed, after operation, the case of tumour of the scalp exhibited at the previous meeting of the Society.

Antipyretics.—Dr. LEECH made some observations on the more recently introduced antipyretics.

ACADEMY OF MEDICINE IN IRELAND: SURGICAL SECTION.

FRIDAY, APRIL 24TH, 1885.

E. H. BENNETT, M.D., President, in the Chair.

Surgery of the Knee-joint.—Mr. J. K. BARTON said that some points of interest in the surgery of the knee-joint were illustrated by the following six cases: 1, excision for advancing disease; 2, excision for deformity; 3, amputation through the joint; 4, removal of an enlarged bursa patellæ; 5, removal of a loose cartilage from the joint; 6, withdrawal of part of a sewing-needle from the joint. The patients upon whom the first three operations were performed were all present, and exhibited. The first was a sailor-boy, aged 14; the second a girl, aged 8; the third a girl, aged about 12. The first case of excision had suffered from periostitis of the femur, but the result (now more than a year since the operation) was satisfactory, the boy walking nimbly and firmly without a stick or support. The second case was not so far advanced, but there was firm union, allowing the child to walk well, but still with crutches. The third case was one of amputation through the knee-joint, in a case in which the limb from the knee down was rendered useless by paralysis. The cartilages had been left; the stump was excellent. The fourth case was one of enormous enlargement of the bursa patellæ. The operation consisted of the cutting of a very narrow elliptic piece of skin from the front of the tumour, and a similar piece from the front wall of the bursa, after which the contents, which were of the consistence and appearance of boiled sago, were removed; then the sides were laid down, a drainage-tube inserted at each end, and the edges united with carbolic gut suture; the dressing was by sero-sublimate (one per cent.) gauze; there was no suppuration. Two dressings were sufficient to completely heal the wound. In the fifth case, a loose cartilage had been found under the tendon of the extensor, easily pushed out and back. It was removed by a free incision under spray, and the wound was dressed with the sero-sublimate gauze. The highest temperature marked was 101°, on the second night after the operation, after which it speedily became normal; and the patient returned to the country quite well. The last of the series was that of a housemaid, who, in kneeling on the stairs, had got a needle into the knee, which, in endeavouring to extract, she broke. The pointed half was left deeply fixed below the patella and in the fibres of the ligament. A free incision was necessary to find it; it was found directed straight in towards the joint, and safely drawn out.—The PRESIDENT, speaking with reference to the case of amputation, said that, while the author had dwelt on the necessity of the long anterior flap, and such was generally adopted, yet that flap was unsuitable in cases where disease existed on the front of the limb. About two or three years ago, Hardie, of Manchester, published a paper recommending, instead of the long anterior, the oblique circular amputation. In the case of a woman, aged 50, he followed the procedure suggested, with one advantage, that he was not limited in front for coverings by the disease, which was lupus. A plain-cut surface, instead of being at right angles, was sloped at 45°. The procedure was a little more difficult than the usual method, but the covering was perfect. In that case, he left the patella and the cartilages of the tibia in the joint, without any serious consequences from death of the cartilages.—Dr. HAMILTON was puzzled to determine whether there was an absolute necessity for performing the operation so high up. He would himself have hesitated before amputating through the knee-joint, and would probably have been satisfied with amputation below the knee, allowing the patient to rest upon the knee as the natural point of support. He used a back-splint of exceedingly firm material, and he applied to it a very strong bracket, which enabled him to leave the limb perfectly undisturbed, and at the same time to renew the dressing as often as he wished. The splint was made of steel, and sufficiently wide to allow the dressings to be removed without disturbing fixation.—Mr. STOKES, Dr. BALL, and Mr. THOMSON also took part in the discussion.—Mr. BARTON, in reply, said that he used a paraffin bandage, as lighter than plaster, amalgamating the lower part of the limb and the wire-splint, and supporting the splint with sand-bags or a light Liston-like splint placed along from the axilla. This was outside the dressings, and was a supplementary dressing. To his mind, the recommendation of the wire consisted in the point that it was entirely inside the bandage, and the antiseptic dressings went round it. It remained perfectly steady, and the antiseptic dressings were changed without any movement being communicated to the limb. With regard to Mr. Hamilton's remark, his reply was, that there was no power over the limb below the knee-joint. The muscles acting on the tibia and fibula were paralysed; and, therefore, to leave what was no longer under the voluntary control of the patient, would have been a mistake.

Urari in the Treatment of Tetanus.—Mr. McARDLE read the notes of a case of acute traumatic tetanus, in which doses of two-thirds of a grain of urari every fifth hour resulted in a cure, the more remarkable effects produced by the above-named doses being relaxation of the contracted muscles in from six to ten minutes after administration, very rapid and tumultuous action of the heart, cyanosis, laboured breathing, and dilatation of the pupils. Once the patient was sufficiently under the influence of urari, the evacuations from the bowels were regular. Mr. McArdle suggested the combination of urari and pilocarpin, in the hope that the cardiac and respiratory trouble produced by the former might be prevented by the latter. He also showed that urari, to be of service, must be used in large doses, and that the drug was cumulative.

MEDICAL SECTION.

FRIDAY, MAY 1ST, 1885.

F. R. CRUISE, M.D., President, in the Chair.

The Form of Pneumonia prevalent in Dublin.—Dr. JAMES LITTLE detailed thirteen cases of pneumonia which he had seen in private during the past winter. Of these, eight had proved fatal. The author drew attention to the frequency with which pneumonia, as at present epidemic, was accompanied by grave complications. He then invited discussion on the treatment of the disease, and specially on the question whether quinine exercised any beneficial influence.—Dr. J. W. MOORE considered that the treatment of acute pneumonia was very little more within the grasp of the physician than the treatment either of typhus fever or of enteric fever. That treatment resolved itself into dealing with symptoms as they arose. Statistics indicated that acute pneumonia had been very prevalent in Dublin, and, as Dr. Little had observed, the mortality of the present epidemic was exceedingly high. Thus, of 101 cases treated in Cork Street Hospital during the twelve months ending March 31st, 1885, 24 died, or very nearly 24 per cent. It was interesting to note the increase and decrease in the admissions according to the season, the majority of cases being invariably admitted in the months of April, May, and June, inclusive, during the period of transition from the damp cold of winter to the dry cold of spring and early summer. Another feature of interest was the remarkable correlation between acute pneumonia and enteric fever. During the winter, he saw three cases in which the diagnosis of croupous pneumonia was unequivocal; and yet, when the time for resolution of the lung came, the fever ran on, and the cases turned out to be typical instances of enteric fever, with rose-spots, etc. The sequelæ mentioned by Dr. Little as following pneumonia afforded further proof of its specific character.—Dr. FITZPATRICK had had under treatment four cases of croupous pneumonia among the children of one family. His treatment comprised chlorate of potassium and bark and blisters; indeed, he attached great importance to blistering.—Dr. DUFFEY had seen good results follow from the careful and regular administration of opium in cases of croupous pneumonia. When it was given hypodermically, the pain of pleurisy (which was generally associated with pleuro-pneumonia) was relieved. He had been in the habit of using ergot combined with opium. Ergot was a powerful cardiac depressant, besides constricting the blood-vessels. Quinine was useless; he never saw the slightest good resulting from it. Poultices, he thought, did more harm than good. Aconite ought to be looked upon as a cardiac depressant.—Dr. HENRY KENNEDY agreed with Dr. Duffey that quinine was not generally useful. As the result of his experience, he found that quinine did not equal either wine or whisky. He placed reliance on mercury, with which he had treated a number of cases, giving small doses—commonly the blue pill, sometimes even the bichloride of mercury. He had great faith in blistering pneumonic cases, but to be of service the blister should be as large as a page of foolscap-paper. Dr. MORE MADDEN observed that, within the last few months, pneumonia had been unusually prevalent and peculiarly fatal. In one instance he had seen two, and in another three, members of the same family suffering from pneumonia. The cases he had seen recover had been treated with quinine, and poultices had been applied. He had found it necessary to give mercury in combination with quinine and other treatment.—Mr. JOSEPH KENNY observed that in the workhouse-hospital of the North Dublin Union there was an extraordinary prevalence of pneumonia. In connection with the outbreak of the disease, he noticed, either concurrently or immediately before it, the prevalence of erysipelas. In the present epidemic the disease attacked the left lung with greater frequency than the right, and the upper lobes rather than the base. If properly applied, poultices were exceedingly useful. Quinine treatment was what he adopted, but he had combined it with grey powder and digitalis or ipecacuanha, with or without opium, as the case demanded. Blisters, followed by poulticing, he found to be of great use.—Dr. GRIMSHAW (Registrar-General) said that the cases of pneumonia now spoken of were of a more severe character than those with which he was familiar. Some years ago he came to the conclusion that pneumonia was essentially an infective fever.—Mr. ORMSBY said he had performed venesection in a case of croupous pneumonia at the Meath Hospital, with good results.—Dr. HAWTREY BENSON had treated cases with quinine, stimulants, poultices, and blisters.—Dr. FINNY said he had never seen so many cases of pneumonia as within the last six months, and it was different from the pneumonia of former years. A great amount of lung-tissue became involved. In ordinary pneumonia the fever ran to a high pitch, the crisis taking place about the eighth day. But in the present epidemic the temperature rarely passed 103°, or from 103° to 104°, and the crisis occurred about the fifth day. The disease spread from one lung to another, pleurisy being very common. Acute delirium, such as was seen in typhus, was also common. Amongst the physical signs of pneumonia one frequently present was the tympanitic resonant note above the attacked portion of the lung, and this was followed by extension of the disease. The treatment he adopted was exactly the same as for a severe fever. Adapting the treatment to the suffering of the patient, he gave quinine in moderate doses, and morphia or opium internally, and local relief by cupping and poulticing. Stimulants were also necessary. His attention was directed to strengthening the heart and inducing sleep.—Mr. DOYLE said he had in all cases, for the last three or four years, used local lukewarm packing, which he found to relieve the pain quite as effectively as ice-packing did. He would give large doses of quinine once in twenty-four hours to bring down the temperature. In treating pneumonia, the fever must be treated.—Messrs. M'CULLAGH and BURGESS having also spoken, Dr. DUFFEY said the point of his remark on the uselessness of poultices was as regarded the effect of stopping the disease. He frequently used poultices himself, but he preferred cotton-wool.—The PRESIDENT concurred as to the fatality of pneumonia in the present epidemic. With regard to treatment, admitting pneumonia to be a fever, the great object must be to keep the patient alive until the crisis arrived on the seventh, eighth, or ninth day. He believed that quinine was one of the drugs—perhaps the only drug—which in a vast proportion of cases enabled the physician to overtake the disease, or enabled the patient to live till the disease subsided. He had seen valuable results from blisters in moderation, and at the stage when the temperature came down and resolution was hanging fire—just about the same time that one would use mercury and iodide of potassium. On the other hand, he had seen terrible evil, even fatal results, ensue from the application of very large blisters in pneumonia. Feeding and stimulants must occupy a prominent place.—Dr. LITTLE, in replying, said that he could speak in the most confident way as to the value of packing of the chest in croupous or lobar pneumonia. As to blistering, his opinion was in accord with that of the President. In a necropsy, where a man had been extensively blistered, he traced the blisters on the pleural membrane in patches of lymph, so that he avoided applying blisters until the temperature had come down. Leeching or blood-letting averted the tendency to death arising from overloading of the right side of the heart. Hypodermic injections of morphia, when the patient was in a state of dyspnœa with intense pain, induced sleep, and contributed to recovery. There were other ways of securing sleep, stopping nervous disturbance, and averting the tendency to death; but with regard to affecting the disease he was in doubt. He had tried ergot, but he never saw any good effect from it. He had, at the outset, faith in quinine, then he began to lose it, and now his faith was coming back because, in the practice of other physicians, cases did well where quinine was fairly administered.

SUBSECTION OF ANATOMY AND PHYSIOLOGY.

THURSDAY, MAY 7TH, 1885.

D. J. CUNNINGHAM, M.D., President, in the Chair.

Frozen Specimens Illustrative of the Parts concerned in Colotomy.—The PRESIDENT exhibited two frozen sections to illustrate the anatomy of the parts concerned in the operation of colotomy.

Comparative Anatomy of the Chimpanzee.—The PRESIDENT also exhibited a mesial section of a young male chimpanzee, and called attention to some points in which its topographical anatomy resembled that of the human child.

Muscular and Vascular Anomalies.—Dr. HEUSTON read a paper on five muscular and five vascular anomalies which occurred in the Carmichael College dissecting-room during the session 1884-85. The first three muscular ones were examples of anomalous origins of the

biceps. No. 1 presented the usual triple origin of the muscle; No. 2, the triple origin with an insertion into the flexor carpi radialis and pronator radii teres, in addition to its normal insection; No. 3 was an example of quadruple origin, the internal additional head arising between the insertion of the coraco-brachialis and the origin of the brachialis anticus, while the external (which was very well developed) arose from the insertion of the deltoid and adjacent portion of bone between the origins of the triceps and the brachialis anticus. No. 4 and No. 5 were examples occurring in the right and left lower extremities of a female subject of the flexor accessorius longus digitorum. In the left extremity, the muscle arose from the tibia, while in the right extremity it arose from the fibula; there was no fourth tendon to the flexor brevis digitorum in either extremity. The vascular anomalies described were the following. No. 1 was an example of the middle meningeal artery, arising from the ophthalmic, within the orbit, and passing through the sphenoidal fissure to be distributed as usual, while the foramen spinosum was absent on the left side, and on the right side was very badly marked, transmitting a minute artery which united with the abnormal vessel. Nos. 2 and 3 were examples of aberrant arteries, taking origin from the axillary, and uniting, in the case of No. 2, with the radial artery, and in the case of No. 3, passing between the heads of the median artery to unite with a normal radial recurrent artery. No. 4 was an example of a suprascapular artery arising from the axillary artery, which, having passed through the brachial plexus and under the transverse ligament, was distributed normally. No. 5 was an ulnar artery, which, rising at the usual place of division of the brachial, passed superficially to the muscles of the forearm to be distributed normally in the hand. In the forearm it gave off no important branch, while the ulnar recurrents, radial recurrent, comes nervi mediani, and interosseous, arose from a common trunk.

Anomalous Coronary Artery of the Heart.—Dr. BROOKS communicated a case of anomalous coronary artery of the heart, which occurred in a subject in the dissecting-room of Trinity College, towards the close of the winter session, 1884-85. A large branch arose from the right coronary artery, about one-third of an inch from its origin, and passed behind the root of the aorta and pulmonary artery; here it gave off three branches, which ran upwards on the trachea; it then divided into branches which anastomosed in a complex manner with an abnormal branch, which arose from the right anterior sinus of Valsalva of the pulmonary artery. From the anastomosis so formed, two branches ascended in a tortuous manner in front of the bifurcation of the pulmonary artery and the transverse portion of the arch of the aorta, and united into one trunk, which joined an abnormal branch arising from the left subclavian artery near the origin of the vertebral. The three branches mentioned above as ascending on the trachea, after inosculating very freely, gave off a branch to the right bronchus, and then joined a branch arising from the posterior aspect of the arch of the aorta, close to the termination of the transverse portion.—Dr. PURSER said that it was difficult to say how the blood flowed in this complicated arterial arrangement. One thing was clear—that, in a case of direct communication between the pulmonary artery and the aorta, the current must be from the latter into the former.—Dr. HEUSTON thought that the vessel described was a vein conveying the blood back from the junction of the normal and abnormal coronary vessels into the pulmonary artery.

Apparatus for Illustrating Pulse-Waves.—Dr. PURSER exhibited an apparatus for recording the movement of a wave along a tube, being an improvement devised by himself upon the apparatus of which Professor Marey published an account in 1875.

Hermaphroditism in the Goat.—The PRESIDENT made a communication on hermaphroditism in the goat. The external genitals showed merely an imperforate clitoris-like body, and behind this an aperture just large enough to admit a goose-quill, through which the animal micturated. One oval body, which felt like a testicle, was detected in a diminutive scrotum. On opening the abdomen, a large bicornuous uterus was discovered, with a capacious vagina imperfectly marked off from it. This vagina opened into the uro-genital sinus, which in turn opened on the surface at the aperture before mentioned. Two well developed testicles occupied the places of the ovaries in the broad ligament, and each showed a small hydatid of Morgagni and a large organ of Giraldès. The latter had been injected with mercury, and a connection had thus been established between its tubes and those of the globus major and the tubuli seminiferi of the testicular body. The vas deferens ran down in the wall of the uterus (like the duct of Gartner in the sow) and opened into the uro-genital sinus. Embedded also in the wall of the vagina were traces of the vesiculæ seminales. The author regarded it not as a case of true hermaphroditism, but as a case of hypospadias in conjunction with a great development of the vesicula prostatica.—Dr. PURSER suggested that in such cases there should be a complete and thorough microscopic examination. There were some animals in which the genital gland was neither completely male nor completely female, even in animals high in development; for instance, the common toad had in the upper part of the testicle an organ, which was not functionally an ovary, but was structurally an ovary. In amphibious animals, it was by no means uncommon to find in the same animal a more or less developed testicle, and at the same time a well developed oviduct. Again, in some of those cases when the testicles had been cut into, there had been found embedded therein bodies precisely resembling ova. This mixture of the male and female sexual organs was a question very much of degree, and it was not unlikely that it would be found that in the genital glands there were represented both the male and female cells, both ova and spermatozoa.

Anomalies relating to (1) the Thoracic Duct and (2) the Nerve-supply of the Serratus Magnus and Levator Anguli Scapulæ.—The PRESIDENT gave details of two interesting anomalies which had been obtained in the dissecting-room of Trinity College.—Dr. Purser, Dr. H. Kennedy, and Dr. Heuston took part in the discussion which followed.

REVIEWS AND NOTICES.

A TEXT-BOOK OF HYGIENE. By GEO. H. ROHÉ, M.D. 8vo, pp. 324. Baltimore. 1885.

THE aim of the author, as he states it in his very short preface, has been to provide the student, practitioner, and sanitary officer, with a trustworthy guide to the principles and practice of public health from an American point of view. He modestly adds that he "cannot flatter himself that much in the volume is new. He hopes that nothing in it is untrue." He appears to have fairly succeeded in his endeavours, to have read widely, and to have exercised considerable judgment in the collection and compilation of his materials. The bibliographies appended to each chapter will be to advanced students and experts of more value than the text, calling attention, as they do, to the admirable but too little known works of Erismann, Hirt, Soyka, and other pupils of Pettenkofer, in almost every department of hygiene. The earlier chapters are, however, not very satisfactory; with plenty of apt instances quoted in illustration, there is a want of detail and of scientific precision in the enunciation of principles; numerous tables of analyses, but no directions for procedure, and an entire absence of mathematical formulæ or of the application of physical laws to the practice of ventilation and sewerage, together giving the work too much of a merely popular character. There is, too, not a single woodcut or diagram, even in the chapters on sewerage and ventilation—subjects that cannot be taught without the free use of appeals to the eye.

The latter portion of the work is much better, especially the chapters on schools and prisons, and on industrial hygiene. The treatment of the present theories of infection, and the history of epidemics, are admirably done; and many useful hints may be gathered from the chapters on marine hygiene, quarantine, disposal of the dead in war, etc.

The account of vital statistics is extremely meagre; and though the author is quite right in saying that a considerable readiness in mathematics is necessary for a full appreciation of the questions involved, yet, seeing how rife are popular fallacies as to the lessons taught by statistical results, not only among the vulgar, but among those who ought to know better, he certainly should have indicated a few, such as those attaching to the mutual relations of birth-rates and death-rates and longevity. Infant-mortality, its causes and distribution in space and time, are questions that ought never to be ignored. The statistical tables, which he gives under the head of industrial hygiene, suggest several such fallacies as result from overlooking the fact that there are many occupations from which men and women retire early to enter others, and again some which represent the survivors from other spheres of life. Thus it is that soldiers and telegraphic clerks appear to die early, since they cease to be soldiers or find other more lucrative employment after perhaps thirty years; and the age of "gentlemen" at death is greater than that of the professional and commercial classes, because the term is mostly used to describe persons who have retired from other callings. It is absurd to say that judges live longer than barristers, when they are simply barristers already advanced in years, but still vigorous; and the late age at death of timekeepers, etc., is due merely to the fact that they are veterans and pensioners from more laborious occupations.

As a storehouse of facts illustrative of the history of epidemic and

other diseases, and a guide to the most valuable monographs and reports in the sanitary literature of different countries, Dr. ROHÉ's book will, however, be frequently referred to with advantage.

AN INTRODUCTION TO PRACTICAL ORGANIC ANALYSES, adapted to the requirements of the First M.B. Examination. By GEORGE E. R. ELLIS. Longmans. 1885.

THIS little book is, as the author informs us, intended for the use of the medical student; and as Mr. ELLIS states that he is "of University College," and elsewhere speaks of the "preliminary examination," we presume that the special object of the work is to serve as a text-book for the intermediate examination in medicine of the University of London. He adds that, for much that is contained in his book, he is indebted to Professor A. W. Williamson, but we imagine that that veteran teacher is not resposible for much of the teaching that the author has received. To speak plainly, the book is inaccurate and misleading, and shows on nearly every page the marks of haste, want of care in preparation, and lack of precision of thought. A liquid, with no residue on evaporation (no temperature is given, but the student is directed not to "bake" the residue, if any), is stated to indicate, among other things, the presence of glycerine. The student is directed to taste the liquid given him to test, a dangerous proceeding at the early stage of the examination at which this operation is directed to be performed. The presence of organic matter in a liquid, in any case, we are informed, may be shown by its yielding carbonic acid when treated with bichromate of potassium and sulphuric acid in a particular manner, a statement which might lead the operator to an entirely erroneous conclusion. "If a liquid (? sweet) burn with a luminous flame on heating, glycerine is probably present."

It is stated, without reservation, that neutral solutions of acetates give crystalline precipitates with nitrate of silver. On page 40, the reaction of cane-sugar with copper-salts is stated in an entirely misleading form, the student being led to expect that he will get red oxide of copper thrown down on heating cane-sugar with a copper-salt in an acid solution.

Certainly, we cannot recommend this book to the student who desires to meet with success at "the first M.B. examination."

NOTES ON BOOKS.

The Student's Guide to Medical Jurisprudence. By JOHN ABERCROMBIE, M.D.Cantab., M.R.C.P. (London: J. and A. Churchill, 1885.)—Considering the number of manuals on medical jurisprudence, large and small, already before the public, there does not seem much room for the appearance of another; but we venture to think that Dr. Abercrombie's neat little work will meet with a favourable reception. Omitting unnecessary and cumbrous details, it is yet far better than a cram-book, and is written in a sensible and attractive style. Modestly laying no claim to originality, the author candidly acknowledges his indebtedness to the standard works of Casper, Taylor, Guy, and others. But recent cases are also introduced, and the work is brought well up to date. We can cordially recommend the volume for the use of students, though it will scarcely meet the requirements of the practitioner as a work of reference.

Transactions of the Society of Medical Officers of Health. Session 1883-84.—A great deal of very valuable information is locked up in the annual volumes of *Transactions* of this enterprising and flourishing Society. We give from time to time as full abstracts as we can spare space for of the papers read at its sessional gatherings; but obviously many interesting points and details have to be crowded out of our notices. The volume of *Transactions* for the past year is rendered additionally useful, by a reprint of the papers read by the delegates of the Society at the highly successful conference held jointly by the Society, the Sanitary Institute, and the representatives of the Parkes Museum, in June, 1884, at the International Health Exhibition. These papers swell the volume to the unusual size of 218 pages, which might almost have justified the addition of an index to the manifold matters of interest dealt with in the book. We need not here detail the business of the year, or re-chronicle the discussions. The papers read were, as could only be expected, of unequal merit, but the majority of them were well reasoned, cogent, and suggestive. We wish the Society every success in its most useful work.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 6th, 1885.

THE INTERNATIONAL SANITARY CONFERENCE AT ROME.

THERE may be very good reasons why all, or almost all, vessels from Indian ports should undergo five days', or ten, or even more days' quarantine at Suez. Indeed, there must be good reasons, else the majority of the nations represented on the Technical Commission of the International Sanitary Conference, now in progress at Rome, would never have voted for such vexatious delay; but it is well understood that these reasons do not come entirely within the domain of medical science. They appear to belong to the commercial art of competition rather than to the sanitary science of co-operation. As such, we make no pretence of understanding them, and have no intention of discussing them. It is still a question whether the Conference, from which so much has been hoped, may not break up without having materially increased our knowledge of the practical methods for the prevention of epidemic cholera, and the suppression of the disease where it has become endemic. It would be better for England to withdraw its representatives at once, rather than agree to the proposition of MM. Brouardel and Prout. Quarantine will prevent nothing. Sanitary *cordons* will suppress nothing. Even the Commission has agreed that *cordons* and other methods of land-quarantine are worse than useless, and that the spread of cholera through Eastern Russia must be dealt with in some other way. If panic-stricken towns continue to surround their walls with an amateur soldiery, the practice can no longer be carried out in the name of sanitary science, for it has not a single apologist at the Conference. The experience of its disastrous effects last year in northern Italy, and in France, has not yet been forgotten, and will never be repeated with international consent. Unless the report be erroneous, it has been proposed that the very name of quarantine should be abolished. Some affrighted members scared at such a radical measure, declared that the term had a good effect on the minds of the people; but it is not impossible that, when the full reports of the conference are received, it may be found that medical inspection and isolation of the sick have been substituted for quarantine, and that the timid suggestions of the conference of 1874, at Vienna, have been carried to their logical conclusion. Unfortunately, there is still some fear that, while names are altered, the substance will be retained; for determined efforts have been made by some delegates to enforce the herding together of sick

and healthy in the lazarets of Suez. The contention of Dr. Thorne, that the nations had no right to make a pest-house of Egypt, was disregarded, and no reply was given to Professor Lewis's inquiry whether any delegate knew of a single instance of cholera having been imported into Europe by an English ship. Sir William Guyer Hunter's proposal that British ships, whether merchant vessels, troop-ships, postal steamers, or others, shall at all times be permitted to pass through the Suez Canal, as through an arm of the sea, without being subject to medical inspection when they hold no communication with the shore, was utterly scouted by the Technical Commission. And when Sir Joseph Fayrer pointed out that the state of health on such vessels could be telegraphed to the various European Governments, so that, if they thought fit, the ports could be closed against them, much was still made of the danger, and even the veracity of the medical officers and other officials of the vessel was impugned. It was solemnly urged that, if this resolution were adopted, cholera would be imported into Europe by English ships. It would be put on board in India, landed in England, and ferried over to France. But France has never yet pretended that it has been invaded by cholera from England; no English ship has ever landed epidemic cholera in England; and it is seldom that cholera endures for more than a fortnight in a well equipped vessel homeward bound from an Indian port. Not by this route, if it were tried, could a single case of cholera be carried to Paris. And these delegates choose to pretend that medical inspection is merely nominal, and that isolation of the sick is imperfectly carried out. They ignore the care that is taken when passengers and good are shipped in India, the unwearying attention to the sick *in transitu*, and the thorough isolation of all suspected cases, and disinfection of suspected cargoes on arrival in England. Evasion of medical inspection is impossible in English ports, and is not attempted; while the methods by which an impatient traveller escapes quarantine, or an eager merchant gets his suspected goods through a continental port, are notorious. By attempting too much, the continental powers have signally failed to keep out cholera, and have only succeeded in disorganising their trade. As a compromise, it has been proposed that persons having fallen ill on board vessels while passing through the Red Sea shall be isolated, and confined to one place under medical supervision. I only we could be assured of the sanitary condition of these places of isolation, there could be no objection to this resolution, except that of Dr. Thorne, to which we have already alluded. But there is no indication that these new lazarets will materially differ from the old pest-houses, of which so many travellers tell a bitter tale; and, until there is, it must stand condemned as an imperfect and harmful measure.

The question of the management of pilgrim-ships is still untouched. The quarantine restrictions during the last few years have been so arbitrary and uncertain, that most English firms have withdrawn from the traffic, and the trade has fallen into the hands of French and Egyptian firms. What may at least be expected from the conference on this point is, that the restrictions be simple and unvarying. The number of pilgrims passing through the Canal last year was smaller than was ever known before. This may not be a misfortune to Europe, but it is at least good evidence of the harrassing regulations to which they have hitherto been subjected. When the conclusion of the International Conference upon this subject, and upon the various resolutions which have been passed by the Technical Commission, has been announced, it will be possible to judge whether the Conference has been of service to sanitary science, or whether it has been rendered useless by the quarrels of contending interests.

SALINE CATHARTICS.

THE conclusions arrived at by Professor Matthew Hay, as the result of an experimental investigation of the physiological action of certain saline cathartics, are of much interest, and are deserving of careful study and consideration. His experiments were made chiefly with sulphate of soda, sulphate of magnesia being used only occasionally; but these salts are sufficiently typical of the whole group to justify the belief that, had other members been chosen, similar results would have been obtained. In the first place, it was found that a saline purgative always excites more or less secretion from the alimentary canal, depending on the amount of the salt and the strength of the solution employed. This excito-secretory action is probably due to the bitterness as well as to the irritant and specific properties of the salt, and is not simply the result of osmosis. The low diffusibility of the salt impedes the absorption of the secreted fluid, so that, as a result of the stimulated secretion on the one hand, and the impeded absorption on the other, there is an accumulation of fluid in the alimentary canal. This fluid, partly from ordinary dynamical laws, partly, perhaps, from a gentle stimulation of the peristaltic movements excited by distension, reaches the rectum, and so gives rise to purgation.

It is found that purgation will not take place if water be withheld from the diet for one or two days previously to the administration of the salt in a concentrated form. This is due not to the absence of water in the alimentary canal, but to its deficiency in the blood. Under ordinary conditions, with an unrestricted supply of water, the maximal amount of fluid accumulated within the canal corresponds very nearly to the quantity of water required to form a five or six per cent. solution of the amount of salt administered. Consequently, if a solution of this strength be given, it does not increase the bulk. If a solution of greater strength be administered, it rapidly increases in volume until the maximum is attained. After the maximum has been reached, the fluid begins gradually and slowly to diminish in quantity. The more voluminous the solution of the salt administered, the more quickly is the maximum within the canal reached, and the more quickly will purgation follow; a point of considerable practical importance. The secretion excited by saline cathartics is a true *succus entericus*, the fluid being poured out from the intestines, and the bile and pancreatic juice participating to only a very slight extent.

Saline cathartics do not purge when injected into the blood, nor do they purge when injected subcutaneously. Sulphate of soda exhibits no poisonous action when injected into the circulation, but sulphate of magnesia, when so injected, acts as a powerful toxic agent, paralysing first the respiration, and afterwards the heart. Either salt, when administered in the usual way, produces a gradual but well marked increase in the tension of the pulse. As the intestina secretion excited by these salts contains a very small proportion of organic, as compared with inorganic matter, the purgative removes more of the latter than the former from the blood. In some cases

even a large proportion of the salts of the blood may be evacuated in this way. It appears that the amount of the normal constituents of the urine is not affected by the salt. After the administration of sulphate of magnesia, more of the acid than of the base is excreted in the urine. The salts have no specific action in lowering the internal temperature of the body, although they may reduce the absolute amount of heat.

TOXIC NORMAL URINE.

In a recent communication to the Société de Biologie, Professor Bouchard has drawn attention to the poisonous effects that may be produced by normal urine when injected into the blood, even in small quantities. This toxicity has been a disputed question for a long time past, some affirming and others denying it; but the weight of evidence is on the affirmative side, although opinions differ as to the immediate poisonous agent—urea, uric acid, kreatin, and even the urinary potash-salts having in turn been held responsible.

Some years ago, MM. Gautier and Pouchet discovered alkaloids not only in putrid albumens, but also in bile and in normal muscle-juice; and M. Pouchet further discovered a new body in the urine, comporting itself as an alkaloid, and which, in combination with hydrochloric acid, could form double salts with platinum, gold, and mercury. In 1881, MM. Brouardel and Boutmy made known a distinguishing reaction between the vegetable alkaloids and the ptomaines or alkaloids of putrefaction. The ptomaines alone, in presence of potassic ferricyanide and ferric chloride, give the Prussian blue coloration. But the discoveries of Selmi, Gautier, Pouchet, Brouardel, and Boutmy, however useful to legal medicine, shed little or very imperfect light upon human pathology or therapeutics. These alkaloidal matters were merely considered the result either of putrefaction or of the ordinary processes of tissue-life. It was reserved, however, for M. Brouardel to make an important advance in the knowledge of these bodies by demonstrating that, in the living state, alkaloids exist in the bodies of living beings, which have been generated in the alimentary canal, and probably elaborated by the vegetable organisms there present acting as the agents in intestinal putrefactions. The alkaloids of normal urine represent part of these intestinal alkaloids which have been absorbed and further elaborated by the kidneys.

The effects of intravenous injections of urine containing these alkaloids have been studied; and to meet the objection that might be made as to the resulting phenomena being of a mechanical nature, it may be stated that we can inject into an animal, without the least inconvenience, 90 cubic centimètres of water for every kilogramme of its body-weight. In the injections of urine, the quantity used never amounted to the tenth of this amount; the effects were, therefore, not mechanical, but of a true toxic nature. Fifteen to twenty-five drops of normal urine, neutralised or not, injected into the veins of a frog, sufficed to kill it. When rabbits were experimented with, M. Brouardel noted contraction of the pupils, less frequent respiration, loss of muscular tone and of reflex movements, fall of temperature, and finally a state of torpor which quickly terminated in death when the dose was sufficiently great. The animal dies from arrest of respiration, the heart continuing to beat for some time after. The symptoms vary in intensity with the quantity of urine injected. When the animal survives, the muscular resolution persists for some time, and the functions are re-established after an abundant diuresis. The condition here, it may be noted, closely resembles that of many uræmics.

Having thus established the toxicity of urine, M. Bouchard next attempted to determine the toxic agent present. Although Gréhaut and Quinquaud have proved that urea possesses undoubted poisonous properties, yet M. Bouchard has shown that at least 6.66 grammes of it for each kilogramme of body-weight must be injected to cause an animal's death; and that 34 centigrammes of uric acid for each kilogramme of body-weight may likewise be injected with impunity. The kreatin and the other chief extractives were likewise found to be comparatively harmless, while the potash-salts, although undeniably toxic, produced phenomena quite different from those detailed above, besides being present in too small a proportion in the small quantity of urine injected to produce any marked effect. M. Bouchard also finds that, when urine has been filtered through animal charcoal, it has been deprived of some of its toxic properties without losing them entirely. He, therefore, concludes that there are numerous poisonous principles present, which do not reside in one, but in several of the urinary constituents. And that they are not of a volatile nature is proved by the fact that boiling the urine does not lessen its toxic properties, and further, that these latter persist in urinary extracts. The alcoholic extract is toxic, but it does not cause contraction of the pupils; salivation, however, resulting freely. And it may be remarked here in passing that a somewhat similar alkaloidal substance appears to exist in muscle, liver-substance, and blood, which can be extracted by a similar proceeding. If the residue of the urine after it has been extracted with alcohol be dissolved in water and injected into the veins of an animal, much graver symptoms are induced than when the alcoholic extract is injected—such, for example, as lowering of the temperature, contraction of the pupils, and coma. M. Bouchard, moreover, finds that the toxic qualities of urine are much intensified when the individual who has passed it is suffering even from a slight "cold" or catarrh, or from extreme fatigue. And recently it has been demonstrated by MM. Lépine and Guérin that these urinary alkaloids are also increased in different acute diseases, the degree of toxicity varying both qualitatively and quantitatively.

So much has been done, but much more is still to be done. It remains for chemists to solve the nature of these different urinary alkaloids, to make known their properties in the so-called infectious diseases, and to discover reagents which will readily detect their presence. To demonstrate in the urine poisonous substances that have circulated in the organism of a patient, and to recognise, isolate, and study them—is not this the opening up of a way to rational medication, and may we not hope thereby to gain a knowledge of medicines that will act as real antidotes? In attempting the cure of certain septic diseases by the absorption of antiseptic remedies, the reproach has been incurred of killing the patient while attempting to destroy the microbe. But with the discovery of soluble toxic substances in the urine, substances that have circulated through the organism, may we not hope that better results will be obtained by leaving the impalpable microbes alone, and attacking and neutralising the alkaloids generated by their agency?

COLOUR-BLINDNESS IN THE MERCANTILE MARINE.

THE annual report by the Assistant-Secretary of the Marine Department, to the Secretary of the Board of Trade, has recently been made public. It states briefly the methods used in testing the colour-vision, and gives a very short summary of what is done by foreign countries with regard to colour-blindness.

Those examined by the Board of Trade are described as "candidates for masters' and mates' certificates, and others." The last appear to be represented by the few able bodied sailors who, of their own free-will, or possibly by pressure of their captains or owners, come forward to be examined at the small fee of one shilling. The number of these is not stated; but it is, presumably, very small, since not one such person is recorded among those rejected during the five years in which the examination has been in use. Candidates for masters' and mates' certificates, on the other hand, are compelled to present themselves for the test, though failure to pass it does not in the least prevent them from being appointed by any owner to the command of a vessel.

The report, which seems to have been very tardily issued, since the date of the last examination noted in it is April 7th, 1884, records the failure of thirteen candidates during the twelve months dating from May 31st, 1883. As five of these unsuccessful candidates have passed at subsequent attempts, it follows that the number of rejections has been reduced to eight. Since the report does not state the total number of examinations within the year, we cannot arrive at the exact percentage of rejections, but we may assume that it will not be far removed from that of the five years ending May 31st, 1884; namely, 0.56 per cent.; the total number examined being 21,720.

A little study of the recorded cases of failure is not without interest. It will be observed that, though every candidate but one is described as having named the large red card held at arm's length as green, or *vice versâ*, the average service of these men at sea was as much as eight years, and that four of them were, up to the time of examination, serving as officers. And indeed they will probably continue to serve in that capacity, or even in a higher one, unless their owners should be so intelligent and so public-spirited as to relegate them to some work not requiring the recognition of such colours as red and green.

The report goes on to ask what there remains to be done which is within the power of the Board of Trade, in order to apply the test to sailors of any class who may be colour-blind without the knowledge of themselves or their employers. It then proceeds to state, what, indeed, we may well believe, that the time has certainly arrived when the test should be extended to pilots.

It appears that, under the present state of the law, the Board of Trade have no power to apply it compulsorily to seamen other than those presenting themselves for masters' and mates' certificates. Such power should certainly be given to it, but, while awaiting this, it might improve its own department by the employment of competent examiners, and by making the examination itself more effective and more in accordance with ordinary knowledge and with the practical conditions under which the recognition of coloured signals at sea is actually to be made.

To illustrate these defects, we may point out that the examiners are mainly retired ship-captains, and that the candidate is told to name, at three feet distance, a coloured card or glass of about the size of the hand; whereas, at sea, it may involve fatal consequences if he fail to recognise, at a mile distance, a coloured light which is itself not much larger. Moreover, we may mention that four of the candidates who called the green card or glass red subsequently passed the examination successfully, a course of events simply impossible to such candidates with a fair and intelligently conducted examination. Till these defects are remedied, we cannot agree with the paragraph which winds up the report, that "if, in future, any accident arise from colour-blindness on the part of any sailor on board any ship, it cannot be laid to the door of the Board of Trade."

LUNACY TRIALS.

SCARCELY a week seems to pass now, in which the papers do not report one or more trials full of interest and instruction to the members of our profession. These reports, however, even in "the leading journal," must be accepted as abbreviations, on which it would be unsafe to rely as absolute guides, but which do contain for our guidance the leading features in painful histories of domestic troubles, and the legal principles upon which justice has been administered. The case of Price *v.* Price and Hoblyn, tried before Mr. Justice A. L. Smith, and reported in the *Times* of May 14th, 15th, and 18th, appears to illustrate the legal dangers attending the treatment of mental excitement in a man's own home.

The plaintiff, Mr. Edward Thomas Price, a retired Commissary-General, was suffering, in the month of March last year, from mental excitement, the nature of which was not so clearly established by the evidence given at the trial as it might have been. Mr. Hoblyn "considered that the plaintiff was at the time at the verge of delirium tremens—that he was not mad, and that his state was attributable to drink;" and "Dr. Bennett examined the captain in the presence of his wife, and came to the conclusion that he was on the borders of delirium tremens." On the other hand, it was sworn by another witness that, on the morning in question, the plaintiff had taken nothing to drink, and we cannot find that the evidence contains any statement that the plaintiff either was delirious or drunk. The account which the plaintiff gave was, that, his wife having returned from Peckham Lunatic Asylum, where she had been a patient, a quarrel arose between him and his wife on some trifling matter, and he became very excited; that Mr. Hoblyn gave him a draught, which made him worse, and that subsequently two men came to him, and told him that they had come to take care of him, which made him more excited than ever. The two men were two attendants, who had been fetched by Mr. Price's brother, one of the defendants, from Dr. Forbes Winslow's lunatic asylum. One of these men, Joseph Carter, gave evidence that the plaintiff was very excited, used threats to throw the men out, and rushed to get a sword, whereupon the men seized him, and held him down, which was the assault complained of. This witness could not give an opinion respecting the plaintiff's sanity.

Mr. Justice A. L. Smith left to the jury the following questions. Did they believe that the defendants, in what they had done, acted honestly and *bonâ fide* with the intention of protecting life and limb from imminent or threatened danger from the plaintiff? And did such danger exist? Would the one shilling paid into court be sufficient, in case his lordship's ruling on their finding should be overruled in a higher court?

The jury found a verdict generally for the defendants, and Mr. Justice A. L. Smith gave judgment accordingly. Mr. Hoblyn will probably be repaid his taxed costs, though he will scarcely be repaid for the trouble, anxiety, and loss of time which have resulted from his answering to a professional call, and for prescribing a draught. Still, he may be considered to have been very fortunate in having obtained judgment in his favour. The plaintiff admitted in cross-examination that he had been imprisoned in Maidstone Gaol for assaulting his wife; that Mr. Justice Brett had declared that there was no doubt he had broken his wife's ribs; and that he had been bound over to keep the peace for six months. These facts would, no doubt, influence the minds of the jury, as to the main question put to them by the judge, but they could not have been known to Mr. Hoblyn when he prescribed the draught which has been so costly to him, and therefore he may be congratulated as fortunate in the result.

What is a medical man to do, or indeed a man of any other calling, when he finds himself in the presence of a stalwart warrior in his own house who is not insane or delirious, though he may be on the verge of that condition, and who is in a most excited state, dangerous to life and limb? Is he to wait until an assault has been committed, and then call in the police. That, no doubt, is the strictly legal line of conduct, a line, however, which Englishmen are not very likely to follow when women are in peril.

The action of Tennant *v.* Stocker, reported in the *Times* of May 16th and following days, was for the false imprisonment of the plaintiff in the defendant's lunatic asylum of Peckham House. A previous action, Tennant *v.* Tickler, the defendant in which was a medical man who signed a certificate, was compromised, a juror being withdrawn on terms. In the action against Dr. Stocker, evidence was given that the plaintiff was taken to Peckham House Asylum on the 5th of July last year, accompanied by an order which was not dated, and by two certificates identical in terms, and not specifying any definite symptoms of insanity, but only that the plaintiff was in the same unsound condition as he was when an order for his detention was signed on May 20th. Dr. Coombs, who admitted the plaintiff into the asylum, reported the informality to Mr. Brown, who is the co-licensee of Dr. Stocker. On the following day, Mr. Brown sent one of his attendants to the two certifying medical men and to the wife of the plaintiff, with blank forms belonging to the asylum, and directions as to what was to be done. The medical men filled up the new forms, and the wife dated the order. Mr. Brown put the original papers into the waste-paper basket, detaining the plaintiff in his and Dr. Stocker's asylum upon the certificates obtained after the plaintiff's admission, and wrongly dated. Evidence was given, in the first action, by Dr. Reynolds, that the plaintiff was not of unsound mind; but this question was not gone into, as defendants' counsel rested their defence upon the 11th Section of the Lunacy Act of 1853, which provides that orders and certificates may be amended within fourteen days after the reception of the lunatic, with the sanction of one or more of the Commissioners. In this case, it did not appear that the Commissioners had given their sanction, or that they had been asked to do so. The difference in the new certificates would appear to have been the addition of the whole statement as to the facts indicating insanity, and to have been more than could be reasonably described as an amendment.

On the third day of the trial, Mr. Justice Grove having declared his opinion that the certificates were not in accordance with the statutes, and that they could not be amended without the sanction of the Commissioners, the defendants' counsel admitted that the verdict must go for the plaintiff, and addressed the jury on the question of damages, which the jury fixed at £500.

Dr. Stocker gave evidence that he was absent from his asylum when the plaintiff was admitted, and that he had no previous knowledge of his coming. Dr. Stocker is a pluralist, and cannot be at more than one of his asylums at the same time; but, on the legal doctrine that "qui facit per alium facit per se," he has to pay for the civil injuries inflicted by his subordinates, who, on their part, have given evidence against themselves of having knowingly admitted a person into an asylum upon false certificates. It would be interesting to know, were it possible, whether this case is so rare an instance of its kind as the counsel for the plaintiff made it out to be, and to know further what amount of latitude the Commissioners will permit in the amendment of imperfect certificates. It is well known that a large proportion of certificates are amended more or less, and that the Commissioners sometimes require them to be amended by the addition of supplemental facts indicating insanity. But Lord Shaftesbury, in his evidence before the Select Committee in 1877, stated that, out of 185,000 certificates which have passed through the office of the Commissioners in Lunacy, "I do not think that so many as half a dozen had been found defective," and "I am quite certain that out of the 185,000 there was not one who was not shut up upon good fair *primâ facie* evidence that he ought to be under care and treatment' (Q. 11,345). Will the Commissioners be willing to make a return of the number of certificates which have been amended with their sanction, and of the manner in which they have been amended, distinguishing between the correction of mere clerical errors and the addition of substantive and essential matter? and will they also give the public information of the means they employ to distinguish certificates which have been amended without their sanction? Until this has been done, we shall be justified in concluding that Dr. Stockef and his assistants have mainly offended by the too negligent commission of common informalities.

DR. WADE has been appointed Ingleby Lecturer at Queen's College, Birmingham, for the present year.

MR. J. S. CLIFFORD SMITH has resigned the office of Honorary Secretary of the Hospitals Association.

WE understand that Mr. Erichsen and Mr. Timothy Holmes do not intend to stand again for the Council of the College of Surgeons—a circumstance which will be heard with much regret by the Council generally and by many of their friends. Messrs. Gant, Cowell, and Oliver Pemberton are candidates, and Mr. Savory will seek re-election.

AT the meeting of the governors of the Hastings Infirmary, called for the purpose of considering two alternative plans for the erection of a new town hospital, a decision was arrived at which will, it is believed, settle a long-standing question. The designs were by Messrs. Young and Hall, architects, of London, the one being on the old rectangular system, and the other on the circular ward principle. The recommendation of the committee was in favour of the latter, which was supported in a letter from Sir Ughtred Kay Shuttleworth, who is a governor of the institution. Eventually the resolution was agreed to without dissention. The estimated cost is about £13,000.

THE next quarterly meeting of the Society for the Study and Cure of Inebriety will be held on Tuesday, June 9, at four o'clock, in the rooms of the Medical Society of London, 11, Chandos Street, Cavendish Square, when a paper will be read by Dr. J. Muir Howie, of Liverpool, on the treatment of inebriety.

A FESTIVAL dinner in aid of the funds of St. Mary's Hospital Paddington, will be held on Wednesday, June 24th (free of charge) at the Langham Hotel, when Mr. George Palmer, M.P., will preside. A sum of £3,000, we are informed, is required to meet the current expenses for this year.

SURGEON-GENERAL Ross has been appointed Commissioner of the Princess of Wales's Branch of the National Aid Society, with the sanction of the military authorities, for home service, to distribute a certain portion of the funds collected for the use of the soldiers who return sick or wounded from Egypt and the Soudan, and whose condition renders necessary extra comforts and assistance.

BRIDEWELL AND BETHLEM HOSPITALS.

MR. ALFRED JAMES COPELAND, of Watford, has been elected Treasurer of the Royal Hospitals of Bridewell and Bethlem, in the room of Mr. John Baggallay, who has held that appointment since 1870.

THE BRITISH GYNÆCOLOGICAL SOCIETY.

AT the last meeting of the Society the Council appointed a committee to collect evidence and report on, within a year, the subject of menstruation in its physiological and pathological relations. The Council also voted a grant of £50 towards the furtherance of this object—a new departure which this young Society does well to initiate.

MEDICAL RELIEF AND THE FRANCHISE.

IN accordance with the urgent request of agricultural labourers and many leading members of the House of Cemmons, it is stated that, on the reassembling of Parliament, Mr. Jesse Collings, M.P., will introduce a Bill to provide that medical relief shall be no disqualification for the exercise of the franchise.

THE GORDON MEMORIAL.

A MEETING of the General Committee of the Gordon Memorial was held at Marlborough House on Saturday last, the Lord Mayor presiding. The report of the Subcommittee recommended that the Port Said Hospital scheme should be no longer entertained, and a motion approving of the report was moved by Sir John Cowell, and seconded by Sir Henry Acland, and carried. The Prince of Wales and the Duke of Cambridge spoke in favour of the resolution. The fund now amounts to about £16,000.

THE DWELLINGS OF THE POOR OF BIRMINGHAM.

ON June 2nd, the Birmingham Town Council discussed a proposal by the Improvement Committee to expend £20,000 in the erection of blocks of buildings on the flat-system, in order to provide some accommodation for the hundreds of workmen's families whose dwellings have been swept away in carrying out the new improvement-scheme. The council rejected the recommendation of the committee.

THE BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.

THE annual meeting of the Birmingham Medical Benevolent Society was held on May 29th, under the presidency of Mr. Sampson Gamgee. The sixty-third annual report showed that fifteen annuitants had received grants during the year, and the yearly value of the grants had ranged between £10 and £40. The treasurer's report showed that the funds of the Society had increased during the year from £10,515 to £11,152, and that there had been an expenditure of £446 (£385 in grants), leaving a balance of £10,705. Mr. Newnham, of Wolverham pton, was appointed president, and Dr. Johnston president-elect. Messrs. H. May and R. Wagstaffe Smith were elected vice-presidents; Mr. Bartleet and Dr. Sawyer were re-appointed treasurers, and Dr. Savage honorary secretary. Dr. Tibbits, of Warwick, was chosen a director in the place of the late Dr. R. L. Baker. Mr. Vose Solomon was elected a trustee in succession to Dr. Foster, who resigned office.

THE REDE LECTURE AT CAMBRIDGE.

THE Rede Lecture, founded by Sir Robert Rede, Lord Chief Justice of the Common Pleas in the reign of Henry VIII, has for many years past been utilised for the purpose of enabling the most distinguished men in science and literature, irrespective of their being members of the University, to place their views before the University of Cambridge. The lecturer this year was Mr. G. J. Romanes, F.R.S., a distinguished member of the modern school of Cambridge scientists. The subject of the lecture was "Mind and Motion."

DEATH OF MR. J. M. ARNOTT.

THE veteran surgeon, James Moncrieff Arnott, died in London on May 27, at the age of 91. Mr. Arnott, who had retired from practice for several years, was for many years surgeon to the Middlesex Hospital, having previously held the offices of Professor of Surgery in University and King's Colleges, and of surgeon to University College Hospital. He was also at one time a member of the Council and Court of Examiners of the Royal College of Surgeons of England, and a representative of that body in the General Medical Council. Mr. Arnott also held the appointment of Surgeon Extraordinary to the Queen. He was the author of several papers in the *Transactions* of the Royal Medical and Chirurgical Society.

GREENWICH HOSPITAL.

IN consequence of the condemnation of the sanitary arrangements of the portion of Greenwich Hospital granted to the Seamen's Hospital Society, the Lords of the Admiralty, as the landlords of the property, have contributed £1,500 towards the cost of alterations. In consequence of the value of the building being greatly enhanced by the alterations and additions, application has been made to the Admiralty to give the Society a more permanent holding; but the Lords Commissioners have replied that, as the building may be again required for Imperial purposes, the tenure of the premises must remain conditional on their being given up at any time, subject to receiving six months' notice that they are required for national purposes. In the event of this, the Admiralty would recoup the Society the cost of the structural alterations, less five per cent. per annum for depreciation.

POISONING BY BELLADONNA.

THE following particulars of cases of poisoning of four children by belladonna have been furnished us by the house-physician of St. Thomas's Hospital. About 2.30 last Friday afternoon four children were brought to that Hospital, with symptoms of poisoning by belladonna. Their names and ages were as follows: Charles Day, 6; Charles Dowding, 9; Thomas Doel, 9; and Edwin Powell, 7. From the children themselves it was afterwards elicited that they had taken, about an hour before coming to the hospital, a blackish liquid offered to them by a boy, who called it "Spanish," of which he only permitted them to take a very small quantity. Two other children were also brought to the hospital later, but with apparently nothing the matter with them except dilated pupils. The symptoms in all the cases were more or less similar; but in two of them, Powell and Day, they were more marked. The case of the former is that detailed below. When first seen the boy was wild and excited, but conscious of where he was, with widely dilated pupils, flushed face, and quick pulse. An emetic was promptly given, when a quantity of a brownish black fluid

mixed with food, was vomited; his stomach was then well washed out. He still had attacks of wild excitement, tossing himself about, with pulse very rapid, but breathing good; between these attacks his limbs were quite rigid. A quarter of a grain of morphia was given subcutaneously, after which he became quieter. When put on the floor he was unable to stand. About 6 p.m. he was much better, could stand and walk about with help, but was still very dazed, and did not seem to realise where he was or what he was doing. An enema of strong coffee was given *per rectum*, as he would not swallow it. During the evening he became much more sensible, but had hallucinations, seeing spectres of animals running about the ward, and trying to pick up imaginary bodies from the floor. Marked diuresis now came on, which continued until the following morning. He could now stand quite well, but if not closely watched he placed his feet together, moved his head slowly backwards, and fell upon the floor. His pupils were still very dilated, and pulse rapid, but breathing good. He by degrees became more sensible, and at 4 a.m. he fell into a sound sleep, in which he perspired profusely. About eight he woke, was quiet, and appeared rather dreamy; but after a hot bath he seemed all right, complaining of nothing except some dryness of the throat and dimness of vision. Later in the day slight redness appeared on the chest and legs, which soon passed off. In the case of Day there was double vision, but not in the others. Morphia was given in all these four cases, and although it masked the symptoms somewhat, it is doubtful whether it was of any material benefit.

THE DRY SYSTEM OF EXCREMENT-REMOVAL.

WATER-CARRIAGE may be, and doubtless is, the most expeditious, and, to the individual, the least troublesome way of disposing of excreta; but it is terribly expensive, and has special dangers of its own. Theoretically the principle of earth to earth is the correct one; but it may be doubted how far the dry system of sewage-disposal is applicable to the circumstances of large and crowded towns. Dr. Thomas Hawksley, of Brighton, has, however, come forward with a "proposal for the abolition of water-carriage in the removal of effete organic matter from towns," in which he describes an earth-closet and conduit which he has devised "in the hope of supplying all the advantages of the water-system as regards purity, promptitude, and convenience in the house, but without any of the evils inevitable to to the same." With every desire to assist Dr. Hawksley's laudable attempt to reform our present extravagant dealing with dejecta, we confess we cannot quite follow him in thinking that his undoubted success with his apparatus in detail would be repeated in the gross if applied to a large town; but the matter is worth the attention of those who are, or should be, on the watch for new developments in the very ancient but still much vexed question of conservancy.

THE IRISH GRADUATES' ASSOCIATION.

THE Irish Graduates' Association, with Professor Stokes, of Dublin, as its President, and Dr. Balthazar Foster as senior Vice-President, grows, we are glad to see, both in popularity and in numbers. At its meeting held on Saturday last, no less than fifty-seven new members were enrolled. Amongst these were a great many naval and military men, including Sir George H. Porter (Dublin), Deputy Inpector-General George Moore, R.N., Deputy Surgeons-General Sir James A. Hanbury, K.C.B., Nicholas Ffolliott, George Saunders, C.B., Sampson Roch, Richard Wolseley, Fleet-Surgeon William H. Lloyd, Brigade-Surgeons Austin J. Ferguson, Acheson G. Bartley, Surgeons-Major John FitzGerald (H.M.I.A.), Eugene R. O'Brien, John Dallas Edge, William Alexander, James F. Supple, Matthew M. Gallwey, James McNamara, Dr. James A. Eames, Medical Superintendent, County Asylum, Cork (President-elect, Medico-Psychological Association), Dr. Ringrose Atkins, Medical Superintendent, County Asylum, Waterford, and others from various parts of the United Kingdom

INSPECTION OF THE ROYAL VICTORIA HOSPITAL AT SUEZ BY LORD WOLSELEY.

LORD WOLSELEY, accompanied by Major-General McNeil; Captain Lord Charles Beresford, R.N.; Lieut.-Colonel Grove, military secretary; Sir Allan Young; Major Adye, A.D.C., etc., arrived at Suez Docks on May 22nd in the hired transport *Queen*, and disembarked at 7.30 a.m., where he was received by Colonel Smith, A.A.G., commandant, Captain Robbins, D.A.Q.M.G.; Surgeon-Major Gore, sanitary officer; Captain Chichester, R.N., transport officer; Captain Jessop; Veterinary-Surgeon Haslam, Camel Depôt; and the commanders of the gunboats *Isidor* and *Coquette*. Lord Wolseley, entering at once the saloon-carriage in waiting, was conveyed by rail to the Royal Victoria Hospital, situated a mile and a half beyond the town of Suez, on the borders of the desert, and close to the termination of the Sweet Water Canal. At the entrance to the hospital, he was received by the officials of the institution. Lord Wolseley made a very minute inspection of the wards, inquiring into the case of each soldier-patient present, his ailment, age, service, how long he had been in hospital, whether he was getting better, etc. He was accompanied by Brigade-Surgeon Davidge; Surgeons-Major Gore and Bennett; Surgeon Trueman, orderly officer; Mr. Graham, quartermaster, Miss Selby, acting superintendent of nurses; Sergeant-Major Denison, etc. He afterwards inspected the attached depôt of the Shropshire Regiment, and the quarters of the medical staff corps, and on leaving expressed himself as greatly pleased with the result of his visit to this the first of the hospitals opened in connection with the Suakin expedition, saying, "You have a very perfect hospital, most creditable to all concerned." His lordship and suite left at once for Cairo, having spent an hour and a half in their visit. Three hundred and ninety sick and wounded had been admitted up to the 22nd May, with only two deaths among the non-commissioned officers and men, namely, one from pneumonia and another from typhoid fever. Several large batches of sick and wounded have been embarked at the docks from Cairo and the Nile for conveyance to England, without a hitch occurring.

THE DIETARY OF HOSPITAL NURSES.

AT the last meeting of the Hospitals Association, a paper by Miss Louisa Twining, on the diet of nurses in hospitals, raised some old questions, which have hardly yet been satisfactorily settled. The duties of the hospital nurse have decidedly risen in value of late years, in the opinion both of physician and surgeon; they are undertaken, on the whole, by a higher grade of women, and more skilled labour is expected. Many improvements have been made in their condition, and more attention has been paid to their health; still, we cannot help thinking that, in the improvement of their dietary, Miss Twining is right in saying that something still remains to be done. It should never be forgotten that what proves, not immediately but ultimately, the most economical must be carefully considered in the management of large charity hospitals; and it would be quite out of the question to remodel a hospital-kitchen because some ladies accustomed to the comforts of the upper classes have taken up the business of nursing. But monotony of diet, with careless and indifferent cooking, are the chief charges brought against the food of the nurses, and these certainly do not lead, as a rule, to economy. Badly baked shoulders of mutton, with overboiled potatoes, on six days out of the seven, are not a cheap diet. Much more attractive meals, even at a less cost, may be made out of soups, fish, milk-puddings, the great variety of cheap available vegetables, and some of the higher qualities of imported tinned meats. It does not need the genius of a Francatelli to do this, or the taste of a Brillat Savarin to appreciate it. A Restaurant Duval forms a part of the Exhibition of Inventions this year; a faint shadow of the reality, no doubt, but novel in some ways to England, and offering some hints at what is possible with little trouble or expense. And the reason why it is worth while, and, in-

deed, in the long run economical, to take some trouble with the nurses' food is that a hospital-life so often leads to uncertain appetite and a refusal of monotonous and unattractive dishes, and this again to excessive tea-drinking, or even worse, with the many discomforts of malnutrition, and all tend ultimately to what is the main point for the hospital to consider, namely, bad nursing, by women in poor health, and often on the sick-list. It would be quite unfair to attach such blame to all managers of hospital-kitchens; but that there has been, and still is, some want of attention to the matter is a fact of which there is much evidence.

THE ROYAL COMMISSION ON THE HOUSING OF THE POOR.

THE first report of the Royal Commission on the Housing of the Poor went out of print immediately after its appearance. A second edition was thereupon issued by the Stationery Office, and this, we understand, is already wellnigh exhausted. The minutes of evidence as to England and Wales taken before the Commissioners have now appeared as a bulky foolscap Blue Book of 728 double-columned pages. This fresh instalment of the labours of the Commission represents the proceedings at thirty-nine sittings, and includes the evidence given by no fewer than 120 separate witnesses, and the answers to 18,260 questions. No index is presented with these minutes of evidence, and, upon inquiry, we learn that the date of the appearance of the index is quite problematical—three months being mentioned as a not unfrequent interval between the appearance of a Blue Book and its index. This fragmentary method of publication is highly inconvenient and vexatious. There was no such special hurry about the English report that it could not wait for a fortnight or three weeks, until the evidence to which it referred, almost at every line, was ready for publication; and it is difficult to understand why the index—indispensable to a mass of desultory evidence, perpetually shifting from one topic to another—could not be prepared contemporaneously with the printing of the evidence. As it is, the moral effect of the Commissioners' recommendations has been largely spoilt by the confusing way in which they have chosen to make their deliberations public. A report is published which is based upon evidence that is at the time unprocurable, and is not issued until three weeks later. In the interval, a second report on Scotland has been published, which, in the same way, depends for its full comprehension upon evidence that is apparently still in the printer's hands. In any future volumes which may be issued by the Commissioners, it is to be hoped that those inconveniences may be recognised and obviated.

THE DEATH OF DR. NOEL GUENEAU DE MUSSY.

WE deeply regret to learn of the death of Dr. Noel Gueneau de Mussy, whose accomplishments as a physician, and graces of mind and character, had won for him much affection and esteem in this country. This eminent physician, connected with England by ties of marriage, was a frequent visitor to the meetings of the British Medical Association, and an ardent friend of our highest institutions and professional traditions. His reports of the meetings, and his appreciation of the best traits of English character, did much to inform our French brethren of some of the features of British medicine, which are most insular and yet not unworthy of esteem. With ourselves he maintained, up to the last few weeks, a close and affectionate intimacy, sustained by constant correspondence, and by a mutual agreement of social and professional objects. For much that has appeared in our pages of late years on French topics, our readers are indebted to him. It is natural, perhaps, that we should rather overestimate the loss which all suffer in the death of this our warm friend, who stoutly maintained everywhere, as he wrote to us a few weeks ago, that the British Medical Association was the greatest professional body, and the BRITISH MEDICAL JOURNAL the greatest professional journal in the world. But even those who have not the same natural bias of affection and intimacy, will lament the death of the laborious, conscientious, and accomplished clinician, the scrupulous, high minded, and sincerely religious gentleman, the scientist, the philanthropic, the austere, but gentle and cultivated, physician. These were the characteristics of Noel Gueneau de Mussy. He had many points of resemblance to the late Dr. A. P. Stewart, whose devoted friend he was. They were much together when Gueneau De Mussy visited London, and had many common religious aspirations. Both were men whose career in life was stamped by high minded devotion and public energy, founded on a sentiment of religious duty and of the love of humanity. Such men are not too common, and their loss leaves a sensible void in the hearts of those who enjoyed their friendship and intimacy.

OBSTETRICAL SOCIETY OF LONDON.

ON Wednesday evening, June 3rd, at a fully attended meeting of this Society, a very active discussion took place after the reading of a paper by Dr. John Williams on encysted serous perimetritis, and the exhibition of two remarkable specimens by Messrs. W. Griffith and Doran, illustrating the pathology of pelvic peritonitis. Among those who joined in the discussion were Drs. Gervis, Routh, Champneys, Hewitt, Cleveland, Carter, Godson, Matthews Duncan, Galabin, and Herman, and Mr. Knowsley Thornton. An interesting contribution by Mr. W. Griffith, on a specimen of the pseudo-osteo-malacic pelvis of Naegelé, was, unfortunately, rather hurried over through want of time. Any memoir relating to pelvic deformity demands careful consideration and discussion on the part of Fellows, especially when, as in this case, the specimen is exhibited.

THE PARKES MUSEUM OF HYGIENE.

THE Council of the Parkes Museum, believing that many sanitary advantages would arise from a more extended use of gas for domestic purposes, properly applied, propose to hold a series of exhibitions illustrating the use of gas for these purposes. The first exhibition will be opened on Monday next, June 8th; the Council having accepted an offer made by Mr. Fletcher of Warrington, to exhibit apparatus for warming, washing and drying, grilling, baking and roasting, as well as for workshop-appliances, and furnaces for metal-workers. The apparatus will be so fitted that they can be shown in action. Lectures upon cookery and practical cooking lessons, as well as demonstrations of the use of gas for laundry-purposes, will be given daily by a skilled lecturer. The exhibition will remain open until June 27th. Members of the Museum will be admitted free. Tickets of admission for other persons can be obtained, price sixpence, or by payment at the door.

NOVEL FRAUD.

A CASE, which well exemplifies the advisability of medical men viewing the body before giving a certificate of the cause of death, is reported from Flash, near Buxton. A man, named William Mellor, of that place, lately perpetrated a most curious imposition. Having been ill and attended by a medical man, he, upon recovery, shaved off his whiskers and beard, and otherwise so altered his appearance, as to induce the surgeon to believe that he was William Mellor's brother, and that the sick man was dead. Having obtained a certificate, he registered his own death, and drew the burial-money from a Foresters' lodge. Upon the discovery of the fraud, he decamped.

THE BOSTON MIND-CURE MOVEMENT.

THIS fad has now become a recognised method of cure in Boston, U.S.A. Hundreds of wonderful cures, said to have been produced by its agency, are proclaimed. The votaries of the movement call themselves "Christian Scientists;" and a large proportion of the population, even of the better classes, of Boston has joined the ranks of the new organisation. The fundamental idea of this system of mental healing is that there is no such thing as sickness, that disease is an error of the mind, the result of fear. The mental healer must gain

the confidence of the patient, and learn from the patient what he or she considers to be the cause of the ailment. The healer is then to dwell mentally upon the truth and wisdom of God, and thus, "his faith meeting the fear of the patient, produces a chemical change in the fluids of the system which results in health." But, indeed, the theories held by the numerous mental healers in explanation of their alleged cures are as many as the healers, both male and female, themselves; though the curious sophistries with which the deluded disciples of the craft uphold their amazing tenets are altogether unsuited for reproduction in these pages. The history of this craze and its manifold developments will some day form a chapter of sad reading for those who consider that reason should sway the actions of human beings.

PUBLIC LAVATORY ACCOMMODATION.

AMONG the minor evils of town life, few things are occasionally more annoying to the Englishman than the almost complete absence of public lavatory accommodation. He cannot help feeling that the English habits of decency and reserve must either occasionally break down entirely, or else lead to discomfort, sometimes deepening into suffering, and now and then laying the foundation for serious injury to health. There is so much sober truth in this, that there is no excuse for not taking practical action. We have been very glad to see that a Public Lavatory Committee of the Vestry of Paddington, under the presidency of Mr. Mark H. Judge, has presented a report to the vestry on the insufficiency of their public accommodation; "it is exclusively for men, and consists simply of eleven urinals," many of which are very badly placed, in addition to scanty and improper resorts in connection with public-houses. The committee points out that the vestry has the power, under the Paddington Local Act of 1824, to order the keepers of the public-houses to set up such places of convenience as the vestry may direct, and they recommend that each licensed victualler should be required to do so in a proper fashion; and, further, that two public lavatories should be set up at the expense of the vestry, one of which should be adapted in part for women, and have a lavatory-attendant, whose expenses might be defrayed by a very small charge for the use of the closets and wash-basins. That the convenience of the women should not be neglected, is a matter of considerable importance; and we hope it may be duly attended to in any plan which may be carried out, for the management of the matter to such a large extent by the public-houses is certainly not an ideal arrangement for the men, and quite inadmissible for the women, though it may be the one most readily attainable, and much better than nothing.

POOR-LAW MEDICAL RELIEF.

IF it were not so very common an experience, the ignorance of the actual state of the law displayed by most of those who undertake to instruct the public mind on any given subject, through letters in the newspapers, might well excite surprise. We have had excellent examples of the blind leading the blind in the two medico-sanitary discussions in the *Times* with which the tedium of the Whitsuntide vacation has been beguiled. The metropolitan law on the recondite subject of dustbins has been universally misapprehended by the *Times* correspondents, and even by the editor himself, whilst the electoral disqualification implied in the acceptance of medical relief by a voter has been the occasion of much fine writing that is quite beside the mark. We gave last week a complete *conspectus* of the law on the latter subject, so far as the electoral machinery and the alleged disqualification by isolation in infectious hospitals were concerned. There may now be convenience in our setting forth in plain words what is the "medical relief" the acceptance of which will undoubtedly disqualify a voter. The English system of medical relief is based upon the principle that medical aid out of the poor-rates should be provided for all persons who are really destitute, but that such relief should be so safeguarded as to prevent it rom producing or encouraging pauperism, by withholding all motives for applying for or administering it except where the circumstances render it absolutely necessary. The broad and general principle of the English poor-law is that no person has a claim to relief from the rates, except in case of actual destitution; and in a memorandum issued in February, 1878, the Local Government Board emphasised this principle, and pointed out that, to ensure relief being strictly limited to the class for whom it is intended, it was requisite that those who are entrusted with the administration of the law should, by diligent and minute inquiry, ascertain the exact condition and circumstances of each applicant. The distribution of poor-law relief, in which, of course, medical relief is included, is governed mainly by the General Consolidated Orders of the Poor Law Board of the 24th July and 8th December, 1847 (modified as regards London by the Metropolitan Dispensaries Order of 22nd April, 1871). Relief is granted on an order either of the relieving officer or an overseer of the poor, or of the guardians themselves. The relieving officer is naturally the principal channel of distribution of medical as well as of other poor-law relief, and it is his duty in any case of sickness or accident requiring relief by medical atttendance to procure such attendance by giving an order on the district medical officer (or, in the metropolis, an order for medical relief at the dispensary), in the prescribed form, or by such other means as the urgency of the case may require. The powers of an overseer of the poor are more circumscribed. Under 4 and 5 William IV, c. 76, s. 54, he is bound to administer relief in cases of "sudden and urgent necessity," and in pursuance of orders of justices under sec. 27 of that statute; but only in such cases. His order is of equal force with that of the relieving officer. By the qualification, "sudden and urgent necessity," must apparently be understood any case of destitution requiring instant relief, but no general rule has been laid down for the interpretation of the words, further than that the circumstances contemplated must be of an exceptional character. An overseer who has given an order for medical relief is required forthwith to report the circumstances in writing to the relieving officer of the district or to the guardians. The relieving officer is required to report to the guardians at their next ordinary meeting all cases of relief given by an overseer, which may be reported to him by an overseer, and to obey the directions of the guardians with reference to the relief administered in such cases. It is also his duty to visit persons relieved under an overseer's order. Particulars of all applications for medical relief must be punctually entered by the relieving officer in his "Application and Report Book," and a note of the decision or direction of the board of guardians is to be inserted at the meeting of the board, and authenticated by the chairman or clerk. It is from the relieving officer's report book that the fateful list of those to be ruled out of the electoral roll will be compiled. As regards the medical officer, he is required to inform the relieving officer of any poor person whom he may attend without an order, and also to make to the guardians at each ordinary meeting a return of the particulars of such cases.

SCOTLAND.

THE COMBE LECTURES IN GLASGOW.

THE course of lectures on physiology, delivered in Glasgow to students and teachers by Dr. Andrew Wilson, under the auspices of the Combe Trust, has just been concluded; and, as far as the attendance on them was any criterion of success, nothing could have been more satisfactory. The results, too, of the examinations held for the prizes offered by the Combe Trustees were very encouraging. Sixty competitors entered, and Dr. Wilson was able to state that the perusal of the papers had given him a high degree of pleasure, because he had not come across any serious errors. This is the first time that a course of physiological lectures has been given in Glasgow for the benefit of those engaged in the instruction of the young; and, when we consider

the position that the teaching profession holds, and what is demanded of it in the matter of instructing those under its care, in the subject of physiology and its relations to health, we think the Combe Trustees have acted wisely in sanctioning this course of lectures, and in thus enabling teachers to become acquainted with the leading principles of that science.

THE HEALTH OF GLASGOW.

THE severe weather that was experienced during last month has made itself felt in the mortality returns for the fortnight ending May 23rd, there being a marked increase in the deaths from lung and bronchial diseases. From Dr. Russell's report, we gather that an examination of the records of ten years back show no such low temperatures in the middle of May as on the 11th and 12th ultimo, when the lowest night temperature was 30 degrees. The death-rate for the fortnight was 27 per 1,000, in place of 26 in the preceding fortnight. Of the total deaths, 47 per cent. were in children below five years of age, while the deaths from diseases of the lungs numbered 210. No cases of small-pox were registered, but measles were slightly more fatal again.

REMARKABLE LONGEVITY.

THE time is not far distant when the possibility of human life being prolonged in the present day to the age of one hundred years, was denied by some. Satisfactory proofs to the contrary have, however, been frequently furnished; and the return issued last month by the Registrar-General of Scotland for the first quarter of the present year affords further instances, for in it there are recorded the deaths of no fewer than three centenarians. The oldest of these was a man, who died in Nairn at the patriarchal age of 104 years; while the other two were women, aged respectively 102 and 101 years, the elder of the two dying at Kirkintilloch, the younger in the Gairloch district of Ross and Cromarty. Side by side with these well authenticated cases of long life, we find reported from the Glengairn district of Aberdeenshire the deaths of three females, whose united age amounted to 264 years, the oldest of them being aged 98.

LUNACY DISTRICTS BILL.

AN effort is at present being made to introduce into Parliament a Bill with the above title, the object of which is to enable parochial boards in Scotland who have a certain number of lunatics—not fewer than one hundred—chargeable to them, to provide sufficient accommodation for their own lunatics, and to be exempted from the general assessment imposed for lunacy-accommodation by the District Lunacy Board. The parochial boards of Edinburgh, Glasgow, Dundee, Aberdeen, and other large parishes, are furthering the measure, and the draft of the Bill has been already prepared. If it should be carried, it will no doubt work very important alterations in regard to lunacy matters, and must materially affect many of the arrangements that have been entered into by district boards. At the same time, it would go far to relieve that overcrowded condition of many of the asylums which at present exists, as evidenced by Dr. Sibbald's recent report on Woodilee Asylum.

NORTHERN INFIRMARY, INVERNESS.

At a meeting of the managers of the Northern Infirmary, Inverness, held last week, the clerk read an extract from the will of the late General Pope, in which he had bequeathed a sum of £2,000 to the Northern Hospital on certain conditions as to the admission of patients. The clerk, however, informed the meeting that Miss Pope intended contesting the will. Should she be successful, the hospital would only get about £1,000. After a brief discussion, the managers resolved to communicate with the other parties interested in the will, both the trustees, and with Miss Pope, in order that it might be arranged to have a joint case submitted for the opinion of the court.

IRELAND.

SCARLET fever has been very prevalent lately in Dunmanway Union, and almost all the schools in the district have been closed to prevent the disorder spreading.

AMBULANCE LECTURES IN WEST MEATH.

IT is proposed to form a class in connection with the St. John Ambulance Association by Dr. W. H. Middleton, Belsize House, Mullingar, for men and women. The Honorary Secretary is Miss E. T. Reynell, of Killynon, Killucan. A small fee will be charged to defray necessary expenses.

PRESENTATION TO DR. G. P. O'FARRELL.

DR. O'FARRELL, who was recently appointed Local Government Board Inspector for the Cork district, was, on Saturday, presented by a testimonial from his friends in Boyle, as a token of esteem and appreciation of his abilities. Dr. O'Farrell has had an extensive practice in and about Boyle, where his departure is regretted. Colonel King-Harman, on behalf of the subscribers, presented Dr. O'Farrell with a service of plate, value 120 guineas, and an address. Subsequently the members of his profession, residing in North Connaught, presented him with a gold watch, and in the evening he was entertained at a banquet.

THE IRISH MEDICAL ASSOCIATION.

THE annual meeting of this Association took place on Monday last, in the Royal College of Surgeons in Ireland. The President, Dr. Hemphill, of Clonmel, occupied the Chair. Mr. Chapman, honorary secretary, read the annual report of the Council, which was adopted; and several resolutions, relating to the work of the Association in connection with the profession in Ireland, were brought before the meeting and carried. Dr. Edward Hamilton, immediate ex-President of the Dublin Branch of the British Medical Association, was elected President for the ensuing year, and, as such, took the chair at the annual dinner, which was held in the evening in the Albert Hall of the College of Surgeons, and was largely attended. We hope to give a fuller account of the more important proceedings at the meeting in our next issue.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

PURSUANT to charter, the annual meeting of the College for the election of its officers took place on Monday last. One of the newly acquired provisions of the charter that have recently been referred to in the JOURNAL, namely, that of voting by paper, came into force at the election for the first time. Consequently, there was a much smaller attendance than usual of country Fellows on the occasion. There was no contest for either the presidency or vice-presidency; and, in addition to the nineteen outgoing members of Council, all of whom sought re-election, there were only two new candidates, neither of whom, however, were successful. Dr. Charles A. Cameron, Professor of Chemistry in the College, and Medical Officer of Health for Dublin, was elected President, and Mr. William Stokes, Professor of Surgery in the College, was elected Vice-President. This is the first occasion, we believe, upon which a non-practising Fellow has been elected President of the College of Surgeons in Ireland. But Dr. Cameron's public services in connection with the improvement of the health of Dublin, his scientific position, and the interest he has always taken and displayed in the welfare of his College, entitle him to the honour it has now bestowed on him. The following is the list of the new Council:—William Colles, Sir George H. Porter, James H. Wharton, William A. Elliott, George H. Kidd, T. Jolliffe Tufnell, Edward Hamilton, Rawdon Macnamara, Robert M'Donnell, J. Kellock Barton, E. H. Bennett, W. I. Wheeler, Philip Crampton Smyly, Anthony H. Corley, William Stoker, Samuel Chaplin, Austin Meldon, William Carte, and Henry Fitzgibbon.

CHOLERA.

THE CHOLERA IN SPAIN.

Our correspondent at Madrid writes to us from Valencia, under date May 26th :

Immediately on despatching my reply to your inquiries, I put myself in communication with His Excellency the Civil Governor of this province, Señor Botella, through the kindness of Mr. Dart, our esteemed vice-consul, who procured for me the requisite papers for visiting the city of Aleira, the focus of the so-called "enfermedad sospechosa," as well as the grand centre of Ferran's and Pauli's labours in the form of cholera-inoculation. Having obtained "sanitary papers" for myself and man-servant, we started on the morning of May 22nd for the above named city, and, immediately on arrival, presented my official letter to the chief alcalde, who at once summoned six of the principal medical men of the city to visit me at the hotel where I stayed, which they did, ordering them to show me every case in the city under treatment, both private and those in hospital, which they most courteously and willingly did. They were all of the opinion that the disease was cholera morbus.

After lunch at 2 P.M., we visited the Hospital of Sta. Lucia (the only one in the city), which had been cleared of all other patients about two months before, to admit those of the suspected order. There were only three patients in all: a woman and her little daughter, who were quite convalescent or well; the other was a Chinese, who had been living here twenty years, and was a railway-labourer. I examined each most carefully. I was told by the medical chief that they all had every symptom of cholera—violent purging of rice-water stools and vomiting, cramp, cyanosis, suppression of renal function, aphonia, etc.

I examined each most carefully, and remained with them about an hour and a half. The only one really ill was the Chinese, who died the same night, and he had all the symptoms of septicæmia; he had been inoculated by Ferran's method. His whole body was of a light mahogany-colour; temperature, 103.6° Fahr.; pulse, 140, hardly perceptible; his tongue was clean, his skin dry and burning, and there was complete prostration. After this, we visited the only three private cases in the whole city, and they also were the poorest of the poor; not one of the houses was isolated. All presented the same type, prostration, with aphonia, no other choleraic symptom; and, if well and kindly fed, I have no doubt all would recover. The following morning early, I again went to the hospital, being informed that another case had arrived, an old man aged 65. He was simply skin and bone, and had no other symptoms than those already mentioned, so that the disease to me was simply that of famine or starvation-fever, and from my minute search and questioning, everywhere the same answer was given, that not one decent person, that is, one who had food to eat, had been sick or died of the suspected cholera.

I now come to the most painfully interesting part of my letter, referring to the inoculation by Ferran and others, and its results. The landlord of the hotel at which I stayed, brought to me a lady friend of his, aged 34, very stout and robust, who had been re-inoculated, the last time on the 14th May. Her right arm presented a deep erysipelatous circle at least four inches diameter, in the centre of which a huge phlegmon had formed and burst, and had completely tunnelled through the triceps to the bone, discharging copiously a sanious purulent fluid; the bore of the tunnel was nearly half an inch in diameter; she had violent fever. This case I saw twice, and the last time she was in a sorry plight, her whole arm to the shoulder being in great pain and utterly useless.

The second case I saw was the sister of Dr. Serra, chief medical officer of the hospital, brought to me by himself. She had been re-inoculated four days previously, and unbinding the bandage from her painful and useless right arm, I saw, at the bend of the arm, a huge phlegmon, with its large fiery erysipelatous blush, similar to the first case; as yet the phlegmon had not burst.

The third case was a strong healthy woman, who had been re-inoculated, three days previously, in both arms. She was in bed, utterly helpless, with violent fever, both arms enormously swollen, and progressing to suppuration, precisely in the same form and extent as Case 1. I was told of many cases who had been similarly affected, and that several had died. I have heard of great numbers being more or less affected in Valencia, in the same way, after the inoculation.

I will conclude this hurriedly written paper with the authorised statistics of all cases that have occurred in Aleira in the last two months, from March 29th till May 23rd.

	Men.	Women.	Children.
Cases	51	58	46
Deaths	21	27	25
Cured	19	21	16

Cases remaining under treatment ... ... 26.

In a second letter, dated Valencia, June 1st, our correspondent writes as follows.

Hearing last Friday, May 29th, that there were several suspected cases in the town or village of Burjasot, and that several deaths had already taken place, I drove through a dusty road for about three-quarters of an hour, and reached the town, which is a closely built, narrow-streeted, unpaved, dusty place, containing between 600 and 700 inhabitants. I at once called on the "medico titular" of the town, and, after wasting some time, visited the sick in company with him and another young medical man. The first case was that of a well-to-do farmer, a strong, robust, large-framed man, in the last stage of genuine cholera, with low muttering delirium. He was deeply cyanotic, and marked all over the body; he had cold clammy sweat, suppression of urine, violent vomiting, cramps all over, purging, etc. The second case (close by) was that of the wife of a well-to-do carpenter, with the same symptoms as the first case. Her age was 32. She was stout and well nourished. Her child, aged 11, whom she alone tended, died rapidly on May 27th; and she was taken ill three days later. In the next street was a butcher's wife, aged 28, well-to-do, and very stout. She was vomiting and purging, The lips alone were cyanotic; and the rest of the body was pallid, with heavy *warm* perspiration. Her sickness began six hours before I saw her. She was said to have been in good health, and about her duty, in the morning. I saw sides of mutton, etc., in the house, she lying in a room off their shop.

The disease first broke out on May 18th, in some obscure way, and has gone on spreading. The medical officer told me he had sixteen cases the day I was there; but I am inclined to think there were more. While I was with him, on several occasions people came asking him to see persons who were taken ill. Not one case was isolated; people were going out and in to the infected house and crowding the beds of the sick. The two medical men stood at a distance from the sick bed, each smoking his cigar, and no treatment had been attempted in any case. I suggested to them what ought to be done, and they seemed grateful for the hints. I asked the medical officer why he did not prohibit the butcher from selling his meat, and have each house isolated, or have the patients at once removed to an isolated house in the outskirts of the town, and have a staff of sisters of charity to cook for and wait on the sick. He replied, with a grin and shrug of the shoulders: "It is impossible; the people will not do it, and the Government cannot make them, so what can we do?" The following morning, at 7.30, I visited our vice-consul, and requested him to call on the civil governor of the province, and tell him of my visit, and all about it; which he did.

The cause of the outbreak of the disease is not very difficult to get at. Burjasot lies a little to the north-west of Valencia, on rather high ground, and has a canal taken from the Turia, which flows round the north part of the town. This is used as the great washing centre, not only for the town, but for the clothes of the Valencians. Surrounding the town in every direction are piled huge heaps of all sorts of animal and vegetable garbage, the scavenging of Valencia. The wells attached to the houses are deep; the water is bad; stables are in close proximity. The people have not the slightest idea of what water-contamination means. I find it a thankless task, and often a hopeless one, to produce an impression on my most respectable patients. Now that they find the disease is really on them, all is panic, and no doubt this city will be emptied of all the people that can escape.

The *Siglo Medico*, of May 24th, announces that all mystification must cease, and the truth be acknowledged, that the cholera is rife in the province of Valencia. This has been known for some time, but the people are in open rebellion against the harshness of the sanitary measures employed by the Spanish Government, and the medical men dare not confess the truth.

From a telegram to a daily contemporary, we learn that the Royal Commissioners at Valencia have pronounced the epidemic, which has been raging since March in that province to be Asiatic cholera. The Commissioners, after making a careful examination, declare that the microbe, or comma-bacillus, of Dr. Koch, has been found in the stomach and intestines. Several cases have occurred in the villages which they inspected near Valencia, and they declare that four persons have been attacked with cholera in the city of Valencia. On June 2nd, one soldier was attacked in Albacete, several persons in

Castellon, besides others in the villages and small towns already infected. The Government have telegraphed permission for Dr. Ferran to continue his inoculation-experiments. The local authorities have been ordered to take stringent sanitary precautions, to place *cordons* round the places infected, to fumigate the trains, the travellers, and the mails, and to establish a quarantine for arrivals by sea from the coast of Valencia.

THE NEW CLAUSES OF THE LUNACY ACTS AMENDMENT BILL.

THE following is an analysis of the new clauses, as amended in Committee.

Clause II. *Appointment of Justices to make Orders for Reception.*—1. The justices of every county and borough shall appoint, out of their own body, as many fit and proper persons as they may deem necessary to exercise, during the ensuing year, the powers conferred by this Act upon justices of the peace in relation to orders for the reception of lunatics not being paupers. 2. If the justices shall omit to make any such appointments, it shall be lawful for the Lord Chancellor to make the same.

Clause V. *Lunatics not under Proper Control or Care, and Cruelly Treated or Neglected.*—1. Every constable and relieving officer, and every overseer of a parish, who has knowledge that any person within the district, who is not a pauper and not wandering at large, is deemed to be a lunatic, and is not under proper care and control, or is cruelly treated or neglected, by any relative, or other person having the care or charge of him, shall, within three days after obtaining such knowledge, give information thereof, upon oath, to a justice. 2. Any justice, upon such information, or upon the information of any person whomsoever, that any such lunatic is not under proper care and control, or is cruelly treated or neglected, shall direct and authorise any two duly qualified medical practitioners to visit and examine the alleged lunatic, and to certify their opinion as to his mental state, and the justice shall proceed in the same manner as if a petition for an order for his reception as a lunatic had been presented by the person by whom the information with regard to the alleged lunatic has been sworn. 3. If, after such inquiry, the justice is satisfied that the alleged lunatic is a lunatic, and is not under proper care and control, or is cruelly treated or neglected, and that he is a proper person to be detained, the justice may direct the lunatic to be received in any asylum to which he might be sent under the Lunatic Asylums Act, 1853. 4. A justice making such an order may suspend its execution for any period not exceeding fourteen days. 5. If either of the medical practitioners who examine the lunatic certifies that he is not in a fit state to be removed, the removal shall be suspended until the same or some other practitioner certifies that the lunatic is fit to be removed. 6. This section shall not prevent any relation or friend from retaining a lunatic, if he satisfies the justice, or the visitors of any asylum in which the lunatic is or is intended to be placed that he will be properly taken care of.

Clause X. *Lunatics Dangerous to Public Order.*—1. Where a lunatic has been apprehended charged with assault or any other offence, or where a lunatic is dangerous or in a state offensive to public decency, any judge or magistrate in the place where the lunatic is, may, upon application by a relieving officer or other person, accompanied by a certificate of a medical practitioner stating that the lunatic is a lunatic and dangerous, or in a state offensive to public decency, commit the lunatic to some place of custody. Where a lunatic has been so committed, the judge shall, by advertisement in some newspaper circulated in the place, give notice of the committal, and that the condition of the lunatic will be inquired into. Notice of the application shall also be given to a relieving officer of the union, and to such other persons as he judge may think fit. 3. Unless a relieving officer of the union, within twenty-four hours after such notice, undertakes to make arrangements for the safe custody of the lunatic, the judge shall proceed to take evidence of the condition of the lunatic, and shall, upon being satisfied that he is dangerous and offensive, commit him to any asylum. 4. The judge may make an order upon the guardians of the union in which the lunatic was found for payment of the practitioner upon whose certificate the lunatic was committed. Of all the expenses incidental to the inquiry, and of the charges for the maintenance of the lunatic in the asylum, the guardians may recover the sums so paid from the lunatic's estate.

Clause XII. *Removal to Workhouse in Cases of Urgency.*—Where a constable, relieving-officer, or overseer has knowledge that there is within the limits of his jurisdiction a person alleged to be a lunatic, or whose immediate care and maintenance relief appears to be require, or if it be necessary for the public safety that he should be forthwith placed under care and treatment, the constable, relieving-officer, or overseer may remove the alleged lunatic to the workhouse of the union in which the alleged lunatic is, and the master of the workhouse shall relieve and detain him therein; but no person shall be so detained for more than forty-eight hours, unless in the meantime the provisions of this Act relating to the detention of lunatics in workhouses have been complied with.

Clause XXXIV. *Licensed Houses for Idiots.*—In the case of any licensed house used solely for the reception of idiots and imbeciles, not being a public or charitable institution, it shall be lawful for the Commissioners to dispense, during such time and to such extent as they may think fit, with the observance of all or any of the provisions of this or any other Act from which public or charitable institutions are exempted, which they may deem to be unnecessary or unsuitable to be observed as to the idiots and imbeciles in such licensed houses.

Clause XLVIII. *Superannuation to Officer of Hospital.*—The committee of management of any hospital may, out of the surplus profits, grant to any officer or servant who is incapacitated by confirmed illness, age, or infirmity, or who has been in the hospital for not less than fifteen years and is not less than fifty years old, such superannuation-allowance, not exceeding two-thirds of his salary, as the committee may think fit.

Clause LXX. *Saving Clause as to Criminal Lunatics.*—Nothing in this Act contained shall affect the Criminal Lunatics Act, 1884, or of any other Act relating to Criminal Lunatics.

The following are the chief points of interest (in the new clauses only).

Justices may appoint persons out of their own body to exercise the powers of the Act in relation to non-pauper lunatics.

Constables and others may report upon a neglected lunatic to the justices, who may order his removal to an asylum on two medical certificates.

Justices may commit a dangerous or offensive lunatic to some place of custody on one medical certificate.

Constables and others may remove a lunatic to a workhouse, but he may not be detained there more than forty-eight hours, unless proved legally to be insane.

The Commissioners may exempt any private idiot-asylum from the observance of the provisions of any lunacy Act if they think fit.

Any officer or servant of a lunatic hospital may be superannuated, and may receive an allowance.

The Criminal Lunatics Act of 1884 is not to be affected by the present Act.

(A complete analysis of the Bill was published in the BRITISH MEDICAL JOURNAL of the 11th April, 1885.)

THE ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

THE forty-third annual meeting of this Society was held in the Royal College of Surgeons in Ireland, on Monday last; the outgoing President of the College, Dr. E. H. Bennett, being in the chair. Dr. J. W. Moore, one of the honorary secretaries, read the annual report. From this we learn that, during the twelve months ending May 31st, 1885, sums amounting to £1,406 16s. 8d. passed through the treasurer's hands; of this, £142 12s. will be added to the funded property of the Society, in accordance with the wishes of the donors. The sum of £1,272 has been distributed, leaving a balance of £221 6s. 11d. to meet the working expenses, etc. Of the amount distributed during the year, £215 was to medical men; £973 to widows; and £84 to orphans. Ten *ad interim* applications for relief were received since last annual meeting, four of them from medical men; and grants to the amount of £125 were made. One case was refused, and one was postponed to the annual distribution. One hundred and five applications for assistance have been considered by the committee, of which eight were new; and sixteen were refused as not coming within the scope of the Society.

The report also stated that, as the necessity for a more systematic plan of dealing with applications had long been recognised, regulations for the award of the Society's grants had been adopted by the Central Committee. As these regulations are of some importance, and may be of use to similar beneficent societies, we give them in full.

1. The Central and Managing Committees in granting, and the Branch Committees in recommending, aid to medical men, their widows and orphans, should act, as far as possible, upon some general principle in determining the amounts of annual grants.

2. A preference shall, as far as possible, be made in favour of subscribers, and widows and orphans of subscribers; and for this purpose,

"subscriber" shall be taken to mean a person who has contributed to the funds of the Society for three years previous to his disablement or death, or since his obtaining his qualification to practice; or who has been a donor of £5 or upwards. But contributions to the fund give no claim of right to relief.

3. A sum shall be fixed which shall be considered the minimal amount capable of maintaining persons claiming assistance from the fund, and grants shall be made in each case of such amount, if the funds of the Society admit of it, as to raise the grantee's income to the minimum determined.

4. After grants have been made upon this principle, the available balance in the treasurer's hands (if any) shall be apportioned to grantees according to the amounts already allotted.

5. In order to carry out this system, subscribers, before signing applications, are expected to ascertain the income of the applicant during the previous, and the probable income for the present, year.

6. All applications for annual grants shall be laid before the Managing Committee, which shall have power to grant renewals of previous awards without further reference to the Central Committee, provided the circumstances of the applicant remain the same as in previous years. In all other cases, the Managing Committee shall inquire into and report to the Central Committee upon each application, making such recommendation as they may deem expedient.

The auditor's report showed that there was a balance of £1,493 odd in bank, and a sum of £6,140 in Stock of the Bank of Ireland, in the names of the trustees, which, at current rates, represents about £20,640.

The President of the King and Queen's College of Physicians moved, and Mr. William Stokes seconded, the adoption of the annual report. Both speakers animadverted on the apathy shown by the members of the profession in general in not supporting the Society. A suggestion was made by Mr. Tufnell, that the Society should endeavour to obtain the "Carmichael Prize Fund," the interest from which, according to the testator's bequest, should be granted by the Council of the Royal College of Surgeons in Ireland, in two premiums of £200 and £100 respectively, every fourth year, for the best and for the second best essay on subjects connected with the state of the medical profession and of medical education. There has been no competition for these prizes since 1879; and, as now applied, the fund is of little or no utility.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

ANY qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member *by the Council* or by any recognised *Branch Council.*

Meetings of the Council will be held on July 8th, and October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, June 17th, and September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HÆMOGLOBINURIA.
ALBUMINURIA IN THE APPARENTLY HEALTHY.
SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person, if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th, Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—(*a*) The influence of residence and occupation; (*b*) the previous state of the patients' thoracic organs and general health; (*c*) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161a, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary.—J. MAITLAND, M.B., Honorary Secretary, Madras.

EAST ANGLIAN, SOUTH MIDLAND, AND CAMBRIDGE AND HUNTINGDONSHIRE BRANCHES.—A combined meeting of the above Branches will be held in Cambridge on the 12th of June next, under the presidency of Dr. P. W. Latham, Downing Professor of Medicine. Notice of intention of reading papers to be sent, without delay, to one of the Secretaries, W. A. ELLISTON, Ipswich; C. J. EVANS, Northampton; BUSHELL ANNINGSON, Cambridge.

NORTH WALES BRANCH.—The annual meeting will be held at Wrexham in the first week in July. Any member who desires to read a paper should communicate before June 25th with the Honorary Secretary, W. JONES-MORRIS, Portmadoc.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at Leicester, on Thursday, July 9th. Notice of papers, etc., to be sent to the undersigned.—LEWIS W. MARSHALL, M.D., Honorary Secretary and Treasurer, 2, East Circus Street, Nottingham.

SHROPSHIRE AND MID WALES BRANCH.—The annual general meeting of the Branch will be held at the Salop Infirmary, on Tuesday, June 30th, at 2 P.M. Members desirous of reading papers or opening discussions are requested to communicate with the Honorary Secretary.—EDWARD CURETON, Honorary Secretary, Shrewsbury.—May 13th, 1885.

OXFORDSHIRE BRANCH.—The first general meeting of this Branch will be held on Tuesday, June 23rd. Members will receive special notice.—S. D. DARBISHIRE, Honorary Secretary.

YORKSHIRE BRANCH.—The annual meeting of the Branch will be held at the Town Hall, Halifax, on Wednesday, June 24th, at 3 P.M. The members and their friends will dine together at the White Swan, at 5.30 P.M. Members intending to read papers are requested to communicate with the Secretary before June 10th.—ARTHUR JACKSON, Sheffield.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting of the Branch will be held at the Prince of Wales Hotel, Southport, on Wednesday, June 24th, at 2 P.M. Dinner at 5.30 P.M.; tickets, 7s. each, exclusive of wine. Members desirous of reading papers, making communications, or showing cases, are requested to communicate with the Honorary Secretary without delay.—CHARLES ED. GLASCOTT, M.D., 23, St. John Street, Manchester.

BORDER COUNTIES BRANCH.—The eighteenth annual meeting will be held at the County Hotel, Carlisle, on Friday, June 26th. The chair will be taken by the President, Dr. Muir Selkirk, at 3 P.M. Mr. C. S. Hall, Carlisle, will deliver his inaugural address, after the election of office-bearers for the ensuing year. Members intending to read papers, show specimens or patients, are requested to communicate with the Secretary without delay. Dinner at the County Hotel at 6 P.M.—H. A. LEDIARD, 41, Lowther Street, Carlisle.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual meeting of the Branch will be held in the Medical Institute, Edmund Street, Birmingham, on Thursday, June 25th, 1885, at 3.30 P.M. The annual dinner will take place the same evening, at 6 P.M.—ALFRED H. CARTER, M.D., ROBERT SAUNDBY, M.D., Honorary Secretaries.—June 3rd, 1885.

SOUTH-WESTERN BRANCH.—The annual meeting of this Branch will be held at Truro, on Tuesday, June 9th, under the presidency of Edward Sharp, Esq. Programme of Proceedings: 11.45. Meeting of Council at the Infirmary; Annual Meeting in the Board Room of the Infirmary; 1.30. By invitation of the President, a steamer will leave the Town Quay for a trip down the River Fal in Falmouth Harbour; Luncheon on board; 5.30. Annual dinner at the Red Lion Hotel. Communications:—Mr. John R. Rolston: Congenital Incomplete Rectum

Littré's Operation. Mr. E. S. Angove and Mr. J. Elliott Square: Remarks on Collective Investigation. Dr. P. Maury Deas: Specimen of Foreign Body in the Heart.—P. Maury Deas, Honorary Secretary, Wonford House, Exeter.

Southern Branch.—The twelfth annual meeting of this Branch will take place at Ventnor, on Thursday, June 18th. The general meeting will be held at the residence of the President-elect, St. Catharine's House, at half-past 12. Luncheon will be provided between 12 and 1 o'clock. In accordance with the by-laws, two gentlemen will be elected at this meeting as representatives of the Branch on the Council of the Association for the ensuing year. Members desirous of reading papers or other communications are requested to forward at once the titles to the Honorary Secretary. No communications must exceed seven minutes in length, and no subsequent speech must exceed five minutes. The address will be delivered by the President-elect at half-past 2 p.m. During the afternoon, the members will have an opportunity of visiting the Royal National Hospital for Diseases of the Chest. The dinner will take place at the Crab and Lobster Hotel, at 6 p.m. Charge, 5s. 6d., exclusive of wine, etc. The Committee request that those gentlemen who intend to be present at the dinner will send in their names to Mr. W. E. Green, Sandown, on or before Tuesday, the 16th instant.—J. Ward Cousins, Honorary Secretary and Treasurer.

Metropolitan Counties Branch.—The Annual Meeting of this Branch will be held at the Holborn Restaurant, on Tuesday, June 23rd, at 5.30 p.m. President: Charles Macnamara, Esq.; President-elect: Walter Dickson, M.D. Dinner at 7 p.m.; tickets 7s. 6d. each, exclusive of wine.—Alexander Henry, M.D.; W. Chapman Grigg, M.D., Honorary Secretaries.

SOUTH EASTERN BRANCH: EAST SURREY DISTRICT.

A meeting of the above district took place on Thursday, May 14th, at the Greyhound Hotel, Croydon; H. Townsend Whitling, Esq., of Croydon, in the chair.

Next Meeting.—It was unanimously resolved that the next meeting should be held at Reigate the second Thursday in October.

Papers.—The following were read.

1. Dr. E. Diver: A Case of High Temperature after Labour, followed by Puriform Discharge from the Uterus.
2. Mr. Noble Smith: The Progress of Orthopædic Surgery.

Dinner.—Twenty members and visitors remained to dinner, including the president of the South-Eastern Branch, Dr. John H. Galton, of Anerley.

DORSET AND WEST HANTS BRANCH: SPRING MEETING.

The spring meeting of this Branch was held at the White Hart Hotel, Ringwood, on Wednesday, May 27th; Samuel S. Dyer, M.D., President, in the chair. There were also present twenty-three members and visitors.

Vote of Thanks.—A vote of thanks was unanimously accorded to Dr. W. Stewart Falls, of Bournemouth, the retiring President, for his services during the past year.

Branch Council.—Dr. G. H. Batterbury, of Wimborne; Mr. G. W. Daniell, of Blandford; Dr. W. S. Falls, Mr. W. D. Husband, and Dr. W. V. Snow, of Bournemouth; Dr. J. C. Leach, of Sturminster Newton; and Dr. W. H. Williams, of Sherborne, were elected members for the ensuing year.

Representative of the Branch on the Council of the Association.—Dr. W. G. Vawdrey Lush, of Weymouth, was re-elected as representative of this Branch on the Council of the Association for the ensuing year.

New Members.—The following gentlemen were elected: Brigade-Surgeon R. W. Carter, Weymouth; Mr. S. A. Jolly, Puddletown; Surgeon-Major W. McWatters, Dorchester; and Mr. W. Watmough, Christchurch.

Next Meeting.—It was resolved, that the autumn meeting be held at Bridport.

Address.—An excellent address was delivered by the President, on the "Compensating Advantages to the Country Medical Practitioner."

A Discussion on the subject of Ophthalmia Neonatorum was opened by Dr. Dyer; and Mr. Lawton, Dr. Snow, Mr. Parkinson, Mr. Graham, and Dr. Griffin took part in it.

Communications.—The following were read.

1. Dr. Macdonald: Case of Phthisical Mania, with Pulmonary Fistula: Death: Necropsy: Specimen.
2. Mr. Lawton: Case of Hypertrophic Elongation of Cervix Uteri: Operation: Specimen.
3. Dr. Snow: On the Prevalence of Enlarged Thyroid in the District during the Autumn.
4. Surgeon-Major McWatters: Case of Abscess of the Liver: Specimen.

Specimens.—The following were shown.

1. Dr. Macdonald: Cystic Tumour from Subdural Space.
2. Dr. Macdonald: Cancer of the Bladder, involving Rectum.
3. Dr. Macdonald: Gall-Bladder, distended by Small Calculi.
4. Mr. Good: Large Gall-Stone, removed from the Rectum during life.
5. Dr. Macdonald: Fracture of Cervix Femoris.

Dinner.—The members and visitors dined together in the Magistrates' Room, at the Corn Exchange.

Excursion.—After the dinner, the members proceeded to Somerley Park, where, through the kindly courtesy of the Earl of Normanton, the gardens and house, with its magnificent collection of pictures, were open to them. Resuming their drive, they passed through the park to Lea, thence to Harbridge, across the Avon to Ibsley, and, making a detour to Moyle's Court, historically connected with the sad fate of Lady Alice Lisle, returned to Ringwood.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

The Fifty-third Annual Meeting of the British Medical Association will be held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28th, 29th, 30th, and 31st, 1885.

President: James Cuming, M.D., F.K.Q.C.P., Professor of Medicine in Queen's College, and Physician to the Royal Hospital, Belfast.

President-elect: W. T. Edwards, M.D., F.R.C.S., Physician to the Glamorgan and Monmouth Infirmary, Cardiff.

An Address in Therapeutics will be delivered by W. Roberts, M.D., F.R.S., Consulting Physician to the Manchester Royal Infirmary.

An Address in Surgery will be delivered by John Marshall, F.R.C.S., F.R.S., Professor of Surgery in University College, and Senior Surgeon to University College Hospital.

An Address in Public Medicine will be delivered by Thos. Jones Dyke, F.R.C.S., Medical Officer of Health, Merthyr Tydvil.

Section A. Medicine.—*President:* S. Wilks, M.D., F.R.S., London. *Vice-Presidents:* T. D. Griffiths, M.D., Swansea; Byrom Bramwell, M.D., Edinburgh. *Secretaries:* W. Price, M.B., Park Place, Cardiff; E. Markham Skerritt, M.D., Richmond Hill, Clifton.

Section B. Surgery.—*President:* E. H. Bennett, M.D., President of the Royal College of Surgeons in Ireland, Dublin. *Vice-Presidents:* P. R. Cresswell, F.R.C.S., Dowlais; Edmund Owen, F.R.C.S., London. *Secretaries:* G. A. Brown, M.R.C.S., Tredegar. Thomas Jones, F.R.C.S., 96, Mosley Street, Manchester.

Section C. Obstetric Medicine.—*President:* Henry Gervis, M.D., London. *Vice-Presidents:* S. H. Steel, M.B., Abergavenny; W. C. Grigg, M.D., London. *Secretaries:* A. P. Fiddian, M.B., 6, Brighton Terrace, Cardiff; D. Berry Hart, M.D., 65, Frederick Street, Edinburgh.

Section D. Public Medicine.—*President:* D. Davies, M.R.C.S., M.O.H., Bristol. *Vice-Presidents:* E. Davies, M.R.C.S. M.O.H., Swansea; J. Lloyd-Roberts, M.B., Denbigh. *Secretaries:* Edward Rice Morgan, M.R.C.S., Morriston, Swansea; Herbert M. Page, M.D., 16, Prospect Hill, Redditch.

Section E. Psychology.—*President:* D. Yellowlees, M.D., Glasgow. *Vice-Presidents:* G. J. Hearder, M.D., Carmarthen; G. E. Shuttleworth, M.D., Lancaster. *Secretaries:* C. Pegge, M.R.C.S., Vernon House, Briton Ferry, Glamorgan; A. Strange, M.D., County Asylum, Bicton Heath, Shrewsbury.

Section F. Ophthalmology and Otology.—*President:* Henry Power, M.B., F.R.C.S., London. *Vice-Presidents:* E. Woakes, M.D., London; D. C. Lloyd Owen, F.R.C.S., Birmingham. *Secretaries:* J. Milward, M.D., 54, Charles Street, Cardiff; A. Emrys-Jones, M.D., 10, St. John Street, Manchester.

Section G. Pharmacology and Therapeutics.—*President:* T. R. Fraser, M.D., F.R.S., Edinburgh. *Vice-Presidents:* J. Talfourd Jones, M.B., Brecon; W. Murrell, M.D., 38, Weymouth Street, London. *Secretaries:* Evan Jones, M.R.C.S., Ty Mawr, Aberdare; J. H. Wathen, L.R.C.P., Coburg Villa, Richmond Hill, Clifton.

Local Secretaries: Alfred Sheen, M.D., Halswell House, Cardiff; Andrew Davies, M.D., Cadiz House, Cardiff.

Tuesday, July 28th, 1885.

2.30 p.m.—Meeting of 1884-85 Council.
3.30 p.m.—General Meeting. Report of Council and other business. Adjourn at 5 p.m.
8 p.m.—General Meeting. President's Address, and any business adjourned from meeting at 3.30 o'clock.

Wednesday, July 29th, 1885.

9.30 a.m.—Meeting of 1885-86 Council.
11.0 a.m.—Second General Meeting. Address in Therapeutics.
2 to 5 p.m.—Sectional Meetings.
5 to 7 p.m.—Garden Party by the High Sheriff of Glamorgan and Mrs. Hill.
8 p.m.—A *Conversazione* will be given by the President of the Association and the South Wales and Monmouthshire Branch.

THURSDAY, JULY 30TH, 1885.

9.30 A.M.—Meeting of Council.
11 A.M.—Third General Meeting. Address in Surgery.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner.

FRIDAY, JULY 31ST, 1885.

10 A.M.—Address in Public Medicine.
11 A.M.—Sectional Meetings.
2 P.M.—Concluding General Meeting.
8 P.M.—Reception by the Mayor of Cardiff.

SATURDAY, AUGUST 1ST, 1885.

Excursions.

*** *Members intending to visit Cardiff during the Meeting, are requested to send in their names as soon as possible to the Honorary Secretary of the Reception Committee, Dr. Alfred Sheen, Halswell House, Cardiff.*

Members desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read, on or before July 21st.

Notice is hereby given that, at the annual meeting to be held at Cardiff, on Tuesday, the 28th day of July next, a motion will be made on behalf of the Council that, in Articles 13 and 15, the word "fifty" be altered for "one hundred," so as to read as follows, namely:

13. The Council may, whenever they think fit, and they shall, upon a requisition made in writing by any one hundred or more members, convene an extraordinary general meeting.

15. Upon the receipt of such requisition, the Council shall forthwith proceed to convene a general meeting; and if they do not so within twenty-one days from the date of the requisition, any one hundred members may themselves convene a meeting.

SPECIAL CORRESPONDENCE.

ROME.

[FROM OUR OWN CORRESPONDENT.]

International Sanitary Conference: Special Report.

THE Technical Committee of the Sanitary Conference has held daily meetings since its appointment under the presidency of Professor Moleschott, who was selected as being the ablest linguist amongst the Italian delegates, although Professor Baccelli was regarded as the chief medical representative of the Italian Government. In the first day's sitting, the utter uselessness of all land-quarantine and sanitary *cordons* was definitely accepted by the members present, with the exception of the Turkish delegate, who maintains a belief in their efficacy, which is probably only the echo of the orders he has received from his government. Professor Baccelli was not present, but took occasion at the next sitting to excuse his action of last year, which forced the Italian Government to institute land-quarantine against the Italian refugees and travellers from the south of France, by maintaining there were exceptional cases when such land-quarantine and *cordons* might be useful, instancing the protection from cholera of Rome last year, which he attributed to the measures for disinfection and isolation taken at the Rome railway-station, against those coming from Toulon—a perfectly monstrous proposition, as this protection was simply due to the better drainage of Rome, and the impossibility of the contamination of its water by the few imported cases, almost all of which were discovered and isolated on the Aventine Hill, before their evacuations could infect the subsoil of the city, or the aqueduct-supply, in any way.

The next two sittings were devoted to sea-quarantine, and in the beginning a proposal by Dr. Koch to make a difference in such quarantine as applicable to passenger and trading ships, or to transports and vessels carrying emigrants, coolies, and pilgrims, was rejected.

A somewhat academical discussion then took place, the United States delegate maintaining the uselessness of all sea-quarantines, and recommending careful sanitary inspection and isolation of the supposed infected persons, with separation of the sick from the healthy, on the ground of the inhumanity of keeping sick and healthy together in lazarets, as at present practised. In this he was supported by the British and Indian delegates, who pointed out how the simpler system of careful sanitary inspection gave excellent practical results, and how feasible it was to work it when the necessary hospitals were provided, and when care was taken to keep sight of those who had been in contact with the infected. They argued, too, that no direct epidemic importations of cholera into Great Britain, or even into the Mediterranean, by ships coming from India, could be proved. The subject was then dismissed for the time, and at the proposal of M. Brouardel the discussion turned on the practical points, and how information as to infected ports was to be conveyed to the Governments interested, by whom sanitary measures were to be applied, both at the points of departure and arrival and during the transit of vessels and passengers from infected ports, and what were practical methods of disinfection. This third point was at once referred to a small subcommittee of seven members to settle; and, on the first point, the proposal of the American delegate to give the consul of the country to which the vessel was proceeding from an infected port very large powers of control in reference to the sanitary state of the port and ship was rejected, while the modification of the proposal made by the Portuguese delegate, authorising a consul to be present at the rigorous sanitary inspection of a ship about to proceed from an infected port to the country which he represented, was approved.

The most important of the propositions of M. Brouardel, that relating to the persons to whom to entrust the application of the sanitary measures at the ports of departure and arrival and during the transit, was then taken up, one of the French delegates proposing that all passenger vessels passing from a country in which cholera is epidemic to another where it is not should carry a duly qualified surgeon, appointed by the government of the nation to which the vessel belongs, but paid by the owners of the ship. In the discussion which followed, some of the members favoured a modification of the proposal, to the effect that the governments interested should only approve the nomination of the surgeon to such ship, but have powers to cancel the appointment if not satisfactory to them. Sir Joseph Fayrer pointed out that all large passenger-boats from India did carry surgeons, but that, with our existing laws, the British Government had no powers either to nominate, or even to ratify, the appointment of the medical men made by the respective companies. The French proposition was accepted, and the discussion of the sub-paragraph relative to the measures to be taken at the port of embarkation was then proceeded with. Under this heading it was almost unanimously agreed that the surgeon should have the power to examine and reject any passengers presenting themselves from an infected district whom he might suspect. It was also decided that the surgeon should have powers to prevent passengers whom he permitted to embark from bringing with them articles of clothing, bedding, or linen generally, which he might hold to be suspicious, and, on the motion of Dr. Lewis, all articles of clothing and bedding belonging to anyone known to have died of cholera are absolutely to be rejected. A somewhat animated debate then ensued as to whether all articles of clothing and bedding belonging to persons who have died in a country in which cholera is endemic, or proceeding from its ports, should be subjected to disinfection or whether that process should be used only to articles belonging to those who are supposed to have died of a contagious disease, and on this point the practical impossibility of disinfection in all cases having been proved by the Indian delegates, the committee by a majority rejected the amendment that disinfection should be applicable to all articles, whether the owners had died of contagious or non-contagious maladies. Finally, and still referring to the port of embarkation, it was agreed that if cholera cases occurred on board a ship preparing to leave, the patients should at once be sent ashore to hospital, and their clothing and bedding destroyed or disinfected. A long discussion followed on the best and most practical means of disinfecting ships which had thus received cholera patients, and the committee finally decided to refer this point to the disinfectant subcommittee. At the same time it was unanimously agreed that all passenger ships proceeding from infected ports should have separate wardrooms for cholera patients, in which such patients could be at once isolated by the surgeon, and the cabins they had occupied rigorously disinfected and not again used during the passage, remaining as widely open as possible for purposes of ventilation.

The report of the subcommittee as to the measures to be taken in the Red Sea for vessels proceeding from countries beyond then came before the committee, and after the acceptance of a proposal to give the same subcommittee powers to deal with the question of the pilgrimages to Mecca, the discussion on the first part of their report began. The subcommittee proposed that all vessels from the extreme east should undergo a medical inspection in the Red Sea—Dr. Koch pointed out that this ought to be limited to vessels from infected ports, thus excluding Australia and China, where cholera is not endemic. The

English and Indian delegates maintained that such an inspection is not required when the vessels are not landing passengers in the Red Sea or in Egypt, and traverse the canal without any communication with the shore, and Sir Joseph Fayrer particularly urged that he could accept no proposal which would imply any want of confidence in the absolute truthfulness and integrity of the medical officers on board British ships, but their amendment to the subcommittee's proposition was rejected by eighteen votes to two, and two abstentions; and the slightly modified rule of the subcommittee, that all steamboats proceeding from infected ports beyond the Straits of Babelmandeb shall undergo medical inspection was passed, as well as articles approving of these inspections being made by an officer to be appointed by international agreement; that the inspection shall be at Suez for vessels not touching at ports in the Red Sea or in Egypt, and at Babelmandeb and Suez for such as carry passengers for Egypt. In the event of this inspection showing that all the hygienic precautions already discussed had been taken at the ports of embarkation, and during the passage, that no cases of cholera nor deaths from the disease had been noted, and that there were no suspicious cases on board, free *pratique* to the canal is at once to be granted. On the other hand, should any suspicious case have occurred, or exist at the date of inspection, the passengers are to be landed, separated into as many small groups as possible, and kept under observation for five days, while the ship, the clothing, and the bedding of passengers and crew are to be disinfected. This modified form of quarantine was energetically opposed by the British and Indian delegates, although Dr. Koch disclaimed all idea of the five days' observation being looked on as quarantine in disguise, considering it simply an inspection during what he maintained to be the average incubation period; but Dr. Thorne particularly urged the dangers of the disease spreading in the abominable lazarets of Egypt, and of making that country the receptacle of all contagious diseases from the East. It was simply a revival of quarantine under the most unfavourable hygienic conditions, to which the British representatives could never assent. The proposal for five days' observation was accepted, after an amendment of the Spanish delegate that the period should be ten days had been put and lost.

The contention of the representatives of Great Britain and India, that the five days' observation is only quarantine under another name, was fully justified by the evident anxiety shown by the more uncompromising members, and particularly by the Portuguese and Spanish delegates, to substitute the words, "the sick shall be landed and put in quarantine," for the phrase, "the sick shall be landed, isolated, and put under the care and responsibility of the surgeon," which was finally passed.

The Committee then took up the consideration of the recommendations of the subcommittee, on the measures to be adopted in the case of vessels not carrying a surgeon; and the result of their deliberations on this subject may be thus summarised. At the port of departure—an infected port being understood—the captain is to apply to the consul of the country to which his ship is bound, to send a surgeon to inspect the ship, the passengers, and the crew, such inspection to be independent of that of the local sanitary authority. When the ship is bound for the country to which it belongs, the inspection is to be by the local sanitary authority, and also by the same official in the event of there being no consul representing the country to which it is proceeding. The captain is to inscribe in his log the result of this visit, and the measures for cleansing and disinfection prescribed, to prevent any soiled or suspicious articles of clothing or bedding being introduced into the ship, and, during the passage, to provide for the washing and disinfection of the clothes and bed-linen of passengers and crew, to isolate the sick, and to disinfect the cabins and berths they have occupied. To enable him to do so efficiently he is to be provided with an uniform series of sanitary regulations drawn up by the different governments. Ships not carrying surgeons, entering the Red Sea from the Indian Ocean, will be subjected to the same rules of inspection as passenger ships with a medical officer on board, provided they are to touch at ports in the Red Sea or Egypt; but even in the event of their simply passing through, without touching anywhere in the Red Sea or Canal, double inspection is to be required.

Some conversation then followed on the means used to protect Europe from invasion by land and by the Caspian Sea, and it was agreed that Dr. Eck, the Russian delegate, should join the same subcommittee which had reported on the Red Sea, and give it all the information required for its report to the full committee. A proposal has been made, that ships carrying pilgrims from India to Mecca shall be inspected at a port east of Babelmandeb; and that, if clean, they shall be permitted to proceed direct to Jeddah.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The Proceedings of the Histological Laboratory of the Collége de France.—Ranvier on Eleidine.—Malassez and Vignal on Zooglœic Tuberculosis.—Vignal on the Histogenesis of the Spinal Cord.—Malassez on the Camera Lucida in Microscopic Drawing, and on an Improved Form of Roy's Microtome.—Tachard on Touch-Corpuscles.

THE yearly volume of the work done at the histological laboratory of the Collége de France has just appeared. It contains a contribution by M. Ranvier, the learned superintendent of the laboratory, on eleidine, the fatty matter which he recently discovered in the stratum lucidum of the integument. He describes the distribution of this substance in the skin, and in the buccal and œsophageal mucous membrane. Mention is made of the important statement already made by the author that, in epitheliomata and hypertrophied papillæ, eleidine is more abundant than in normal epithelium. When, in consequence of an inflammatory or other morbid process, keratine is no longer found in the epidermis, eleidine is absent.

Messrs. Malassez and Vignal also contribute a memoir on the micro-organism of a special form of tuberculosis, that they described last year under the name of zooglœic tuberculosis. They demonstrated that when, in tuberculous lesions, Koch's bacillus is not discovered, whilst inoculations of the tubercle provoke bacillary tuberculosis in animals, or a disease presenting the features of certain forms of tuberculosis, micrococci are observed in the nodules instead of Koch's bacillus. These micrococci are either arranged in masses or are dispersed among the tissues. M. Malassez and M. Vignal failed to stain successfully these micro-organisms; hence they could not prove that there is any relation between the bacillus of Koch and these micrococci. In their recent memoir, these histologists give careful directions for the preparation of a compound for colouring zooglœic masses, consisting of carbonate of soda, aniline oil, absolute alcohol, and methylene blue. This fluid stains the micro-organisms of zooglœic tuberculosis, and those of glanders, blue, but no other germs. The authors now conclude that the micro-organisms of the zooglœic masses are quite distinct from Koch's bacillus, also that the two forms of tuberculosis are distinct one from the other. These facts explain the absence of Koch's bacillus in many fatal lesions, which present all the naked-eye appearances of tuberculosis. They also prove that the observer must be careful in diagnosing tuberculosis, or in declaring its absence, when neither Koch's bacillus nor the micrococci of Messrs. Malassez and Vignal are detected; for it is very possible that, besides these two kinds of micro-organisms, others exist, though Koch's bacillus is undoubtedly the most frequent.

M. Vignal contributes a paper on the histogenesis of the elements of the spinal cord. The author studies their development in the higher mammals and in man. The earliest stages were studied in sheep's embryos, since human embryos earlier than the sixth month are generally spoiled by prolonged maceration in the uterus. M. Vignal prefers a special preparation of osmic acid to chromium-salts, for hardening sections of embryonic spinal cord. M. Vignal has observed that the elements which exclusively belong to the spinal cord develop quite independently of the mesoblast, and that they proceed solely from the elements of the epiblast which constitute the primitive groove. Grey substance appears in the cord towards the twentieth day of human embryonic life. Primarily, it constitutes two kinds of ridges on each side of the cord; its component cells do not present the characteristics of nerve-cells till about the tenth week of fœtal life. The cells of the anterior horns are the first differentiated; subsequently, those of the posterior; and lastly, the cells on Clarke's columns. Towards the fourth month, the prolongations of Deiters begin to appear distinctly. About the sixth month, the cortical portion of the cells presents a fibrillar aspect. At birth, they are in structure similar to adult cells, but are smaller, and never contain pigmentary granulations, which may be the result of degeneration. M. Vignal believes that the nerve-fibres of the cord are cellular prolongations (the axis-cylinder), covered by cells of a special character, secreting myelin. He considers that neuroglia is composed of the primitive medullary cells; their evolution proceeds in a certain way; the remaining primitive medullary cells develop into nerve-cells. M. Vignal clearly indicates the measures that should be adopted in order to follow step by step the evolution of the primitive cells of the mesoblast into nerve-cells and neuroglia-cells. This memoir is illustrated by eight plates, which represent the gradual transformation of the cord and of its elements.

M. Malassez contributes a memoir on the camera lucida in microscopic drawing. The instrument must fulfil many important condi-

tions. The angle, formed by the ray proceeding from the preparation, and by another ray from the paper used for drawing, is 90° in Wollaston's and Arnici's camera, and from 15° to 18° in Nachet's, Milne-Edwards', etc. When the angle is at 90°, either the microscope or the paper must be placed in a position which renders easy working an impossibility; also a complicated optical instrument must be used, or the image will be considerably magnified. With those of an angle of 15° or 18°, the image is magnified in one particular sense: thus, a square is changed into a trapezium, a circle becomes oval. M. Malassez proposes different methods for remedying these faulty conditions. He advises that the camera in which the reflection falls on a transparent glass should be abandoned, because many luminous rays are lost, and frequently the image is double. M. Malassez also condemns those in which the image is reflected on to a metallic mirror, the reflection is too quickly dimmed. He recommends the exclusive use of a camera made with prisms, and prefers those of Doyère and Milne-Edwards, in which the large prism is movable, and a maximum angle of 45° can be reached; the microscope is bent backwards to a degree of 45°. The image reflected on to the paper, which is placed behind the microscope, preserves its accurate proportions. The position in which the paper and the microscope are placed enable the worker to study without fatigue. In those exceptional cases, where the objects to be drawn float in fluid, and therefore shift about when the microscope is on an incline, the angle of the camera should be made more acute, and reduced to an angle of 15° or 18° (the smallest angle with which reflection can be obtained). The drawing-paper should be placed by the side of the microscope, at the same angle as that of the camera. By adopting these measures, the image reflected is not distorted.

M. Malassez also describes his improved form of Roy's microtome. M. Malassez substitutes methylene chloride for ether generally employed for freezing.

The last paper in the volume is M. Tachard's monograph on the touch-corpuscles in the genitals and conjunctiva. He states that Pacinian corpuscles are present in the conjunctiva of the calf, as most histologists who have studied the question admit. In the human conjunctiva, the corpuscles are rounded like those of Meissner. In the mucous membrane of the human male genital organs, the corpuscles are Meissner's composite form, remarkable for their size, and the network of nerves which terminate in them. The corpuscles in the mucous membrane of the genital organs of the rabbit are prolonged, but apparently belonging to the ordinary type of Meissner's touch-corpuscles. A large number of Pacini's corpuscles, varying in size, are also observed in the mucous membranes of the rabbit's genitals. These different corpuscles can all be ranked among the simple type. Nerves terminate in them according to the general law, by free extremities between the cellular elements. It is well known that, a few days after a nerve has been cut, it loses its motor sensibility. In a dog, this happens four days after section, but it was not known in what progressive proportion this sensibility was lost. This has been determined by M. Quinquaud, who cut the nerve of a limb, and the extremity of the limb was attached to a dynamometer. The nerve was then stimulated by an electrical current, and thus the weight which the limb was capable of lifting was ascertained. M. Quinquaud also observed that the motor force is not lessened until twenty-four hours after the section of the nerve; it then continues to diminish progressively during eighty hours after the section has been made, until the limb can barely lift a weight of five hundred grammes, or even less. M. Quinquaud draws attention to the necessity of appreciating the value of the phenomena involved in the result of these experiments, one proceeding from loss of sensibility in the nerve, the other from loss of muscular force. If the muscle be directly stimulated, it is easily observed that its primary force is lessened. M. Quinquaud has thus ascertained that the motor excitability of the peripheral end of the nerve is not increased immediately after section, but remains normal during twenty-four hours afterwards.

Some Recent Drugs.—Thallin, a new antipyretic, is hydrated parachinaisol. Its chief salts are the vinate, hydrochlorate, and sulphurate. The vinate, in doses of a quarter to half a gramme, lowers the temperature in two or three hours. In one case of pneumonia, a fall of 4.1° Cent. occurred in four hours. Its effect is more evanescent than that of antipyrin, and rigors often succeed. Doliarin, from a species of fig—urostigma doliarium—has an action like that of carica papaya. The plant is a popular vermifuge in Brazil, but is capable also of dissolving muscle. Ziamba is a new narcotic from Angola. It smells like tobacco. Its habitual use is said to cause insanity.

CORRESPONDENCE.

THE ORIGINAL MANUSCRIPT NOTES OF HARVEY'S LECTURES.

Sir,—Early in February of the present year, you were good enough to publish an appeal from me to the medical profession to assist in the reproduction of the original manuscript notes of William Harvey's lectures, delivered in the Royal College of Physicians, in and after 1616. The response to the appeal shows that the subject excites considerable interest, not only on both sides of the Atlantic, but even at the Antipodes. The College of Physicians has, at the last Comitia, appointed a committee, consisting of Dr. Johnson, Dr. Payne, Dr. Norman Moore, Dr. Stone, and myself, to superintend the reproduction of the lectures in autotype, and has guaranteed the cost of one hundred copies. A printed transcript will be furnished with each page of the autotype; the bad handwriting, the curious phraseology, and the abbreviations, used by the great physiologist, rendering some interpretation necessary.

The lectures contain the first suggestions of Harvey's discovery of the circulation, so that this manuscript may be regarded as the most interesting monument of English natural science.

The number of copies to be produced will be limited to 500. Messrs. Churchill have liberally undertaken to publish the work without the usual commission, as soon as 350 copies are subscribed for. At least 200 more subscribers are required before the work can be put in hand.

Dr. Weir Mitchell, of Philadelphia, who already sends the names of ten subscribers, says, energetically, that "the thing must be done." We may now hope, as the Royal College of Physicians has extended its ægis over the undertaking, that, with your further kind aid, we may soon be enabled to say that it will be done.—I beg to remain, sir, faithfully yours, Edward H. Sieveking.

17, Manchester Square, W.

P.S.—Any communications on the subject may be addressed to me, or to Messrs. Churchill, 11, New Burlington Street, London, W. I may add that the cost of each copy, including the transcript, and bound, will be £2 2s. to subscribers, and £2 11s. 6d. after publication.

THE LUNACY ACTS AMENDMENT BILL.

Sir,—I have read with interest the account of the work of the Parliamentary Bills Committee on this Bill, and in connection therewith the legal opinion on the position of medical men who sign lunacy-certificates, from Mr. Vesey Fitzgerald. It seems to me that this simply amounts to the fact that, if medical men as witnesses do not perjure themselves, they cannot be made liable to penalties for signing these certificates. Doubtless, this is the case; but we want more than this; we want security that such action on our part shall not render us liable to having actions brought against us for such expression of opinion; that, in case of the order being given by the magistrate, justice, or judge, no action shall lie against the medical man. If we do not obtain some such security in this new Bill, we shall find ourselves in no better position than we are now; nay, in rather a worse position; for, in case of the certificates being submitted to a nervous or to an ignorant justice, magistrate, or judge, we are liable to be summoned before him and subjected to considerable loss of time.

Is it too late to induce the Lord Chancellor to make some addition or modification of the Bill to the effect that we desire? Cannot some pressure be brought to bear upon the profession as a whole? If it can, the British Medical Association is the body which should do it; and, sir, the initiative of such action might well be assumed by yourself.—Yours, W. Henry Kesteven.

*** The effect of the legal opinion given was that, so long as medical practitioners take care to give their certificates in the manner and form prescribed by the Act, they will be protected. The protection, however, given by law is, and must be, necessarily imperfect. No legislation can prevent paupers from bringing actions on frivolous grounds; and, if such actions be fought out, the defendant, though eventually successful, is put to a good deal of trouble and expense. Recent actions, in which the operation of the existing lunacy-laws was called

in question, show how vexatious to a medical man a plaintiff can make himself; but they also show that certificates have been sometimes filled up without due care. It would be useless to ask Parliament to say that no action shall ever be brought against a man who has given such certificates; and the Bill, which proposes to put the responsibility of shutting up an alleged lunatic on a judicial officer does, according to the opinion given, afford the profession a protection which will be adequate in all cases where due care is used in filling up the certificates.

THE EXPERIMENTAL PRODUCTION OF CHOREA.

SIR,—It was a matter of regret and disappointment to many present on Tuesday, May 26th, at the meeting of the Royal Medical and Chirurgical Society, that the time allotted to the reading of and discussion on Dr. Angel Money's suggestive paper should have been so short as to prevent justice from being done to it. I therefore venture to present to the readers of the account of the proceedings a few facts and considerations, which I should like to have heard more prominently brought forward and fully discussed on that occasion.

1. The first relates to the use of the expression "chorea." We have, it is true, eliminated from its nosological province several types of a different character (the "chorea magna" of the old writers); but, on the other hand, there has been a tendency of late to extend it to equally aberrant manifestations. The pathognomonic symptom of chorea is the want of regularity of its muscular movements. Now to speak of "rhythmical" choreas is a contradiction in terms, which, even when used as a matter of convenience, tends to blur the definiteness of one's conception, and has no more sense than "regular asystolia" would have. Again, discussions on chorea, like that of ataxia, are in a measure complicated by the fact that the word is used in a double sense, to designate in man both a symptom and a disease or clinical type. It is obvious, also, that we use the term chorea, in the case of dogs, very much in the same way as a settler in a new country calls things by names suggested by more or less distant resemblances to familiar objects.

2. Dr. Sturges insisted upon certain clinical facts (race, sex, age, etc.) which militate against the vascular theory of chorea. Weir Mitchell's (*Nervous Diseases*, lecture vii) researches likewise showed that the season of the year has a great influence on the production of the disease. Out of 68 cases, 39 occurred in the spring, when (in Philadelphia) storms are most frequent. It would seem, also, that in countries, like France, where certain neuroses occasionally assume a character of contagiousness by imitation, true chorea makes no exception. Thus, Bricheteau (*Archives Générales*, 1863) relates an instance where, in a ward of the Hôpital Necker, eight patients became choreic within six days of the introduction of a case of the disease.

3. With reference to the "experimental production of chorea" by producing embolism of the nerve-centres by injection of finely granular matter, it is of interest to know what has been already done by previous experimenters, after Flourens and others, and with a view of testing, not the embolic theory of chorea, but the effects of sudden anæmia of the spinal cord.

Vulpian (*Maladies du Système Nerveux*, 1879, p. 99) injected lycopodium-powder into the crural artery towards the heart. He discusses very fully the symptoms due to the embolism of the cord thus produced; but it does not appear that hyperkinesia of any kind played an important part in the phenomena. He refers, however, to Tuckwell's case, in which a young man displayed "choreic" symptoms apparently due to some vascular spinal trouble. Leyden (*Maladies de la Moëlle*, p. 380) refers to Panum's and other experiments on artificial embolism, but throws no further light upon the subject. Referring to the supposed spinal origin of chorea (p. 88), he states, as does also Oniums, that, in "choreic" dogs, the spinal cord is generally free from any appearance of organic lesion.

A more definite experiment was made some years ago in the Pathological Laboratory of Vienna. With a view to producing cerebral embolism, an injection of fine seeds was made into the left internal carotid of a dog which had suffered for some time from choreiform movements in the right anterior limb. After the experiment was made, the dog was unable to rise or change his position. Violent choreic convulsions, however, occurred in the anterior limbs, in the eyelids and tail, and continued for two days until the death of the animal. The *post mortem* examination showed embolism of the left sylvian artery, encephalitis of the left anterior lobe, and softening of the left corpus striatum. Rosenthal (*Klinik der Nervenkrankheiten*, second edition, 1875, p. 579) thinks that the choreiform movements observed after the embolism were due to the removal of the inhibitory influence of the higher centres.—I am, etc.,

A. DE WATTEVILLE.

REFUSAL OF MEDICAL MEN TO CERTIFY CASES OF LUNACY.

SIR,—A few days ago, a lady called upon me in great distress. It appears that she had been to several medical men in this town to ask them to certify that a relative, who was staying in her house, was insane; and they had, one and all, refused her, as they had made up their minds to sign no more certificates, under any circumstances, until the lunacy laws were reformed. I said I would, at all events, go and see the case, and see what could be done. I accordingly went, and found a person suffering from acute mania, undoubtedly dangerous to herself and to those around her. Without more ado, I certified then and there, and immediately set to work to find another medical man to do the same. After a deal of trouble and argument, I prevailed upon a friend to do so, *under protest*.

Now, sir, what I want to know is this: Was our conduct unprofessional in not standing by our colleagues in their decision, or were we justified in helping this poor lady in her distress? I might mention here that I refused to take a fee, under the peculiar circumstances; I do not know what my friend did.

What is to become of all the lunatics, if the medical profession to a man refuse to sign certificates of insanity? How would any medical man like it himself, if a member of his family were to be afflicted with insanity, and his colleagues refused to certify?

I found it exceedingly unpleasant having to do what all the leading men here had refused to do; and, in case of the same thing happening again, I should like to know what is the proper course to adopt.—Your obedient servant,

Lilliput. GULLIVER.

PRIZE FOR A SOUND-DEADENER.

SIR,—In last week's JOURNAL, I notice that a statement is made to the effect that a prize for a "sound-deadener" was not awarded at the meeting of the British Medical Association held at Liverpool nearly two years ago. I beg to state that the prize was awarded to Dr. Ward Cousins.—Your obedient servant, GEORGE P. FIELD,

President of the Otological Section at Liverpool.

THE RATING OF CHARITABLE INSTITUTIONS.

MR. J. S. WOOD, Secretary of the Chelsea Hospital for Women, Fulham Road, writes to a contemporary as follows.

In your issue of Thursday, you report that a protest is being made against the proposed rating by the overseers of the poor of the charitable institutions of Liverpool. From this I infer that hitherto all Liverpool charities have been exempt from poor-rates. If so, they must be thankful for past favours, though none the less energetic in their protest, for in London the great charities never have been exempted from poor and other rates, but the utmost has been exacted from them. There is a popular delusion that it is otherwise, and this delusion is based on common sense. Why tax the sick to keep the poor? When the Chelsea Hospital for Women was erected, near to two other hospitals, a newspaper suggested a local agitation against them, "because of the direct injury felt by all classes of ratepayers in the parishes concerned by the removal of good rate-paying property, for the erection of hospitals which are exempt from rating." It further suggested that a Rating Amendment Act should be passed, so as to compel all institutions to contribute to the rates. As a matter of fact, the property displaced by the building of the Chelsea Hospital for Women was rated at £45 only, while the hospital has been rated at £500. The Brompton Hospital for Consumption, adjoining, is rated at £2,000. A moment's thought will show that rating charitable institutions means, in some cases, double rating. They are supported by free gifts out of incomes of the benevolent, who have already paid taxes upon their incomes; and with these already taxed donations, the sick-poor are maintained. But for the hospitals, the sick would have to be received in the parish infirmaries, and the poor-rates greatly increased in consequence. Yet the sick-poor are taxed in hospitals, to help to keep the sick-poor in infirmaries. There is no disposition to help charitable institutions by lessening these demands, but rather the reverse; and but for the energetic efforts of Sir Sidney Waterlow, charities would now be paying an additional tax. In 1879 a Bill was introduced to provide for the contribution by charities towards the expenses of the Charity Commissioners, by means of a tax of 1 per cent. on their gross incomes, equal to about 2½d. in the pound, or 3d. in the pound, on their net income. In other words, charities would have had £26,000 per annum less with which to carry on their beneficent works. Happily this Bill was not allowed to pass. It is to be hoped that the efforts of the Liverpool institutions to get a short

Act, expressly relieving their charities from liability to rating may be successful, and they should receive immediate and energetic help from London.

MILITARY AND NAVAL MEDICAL SERVICES.

MILITIA SURGEONS.

SIR,—I have been much amused at a letter, signed Bernard O'Connor, which appeared in the JOURNAL of Saturday, May 30th. I presume that he is a civilian, and one to whom this matter of the militia surgeons could have had no interest. However, we must feel much obliged to him for his gratuitous kindness in finding such fault with our want of management, or rather, as he makes out, mismanagement. As you, Sir, have already explained the circumstances attendant on the count out, and the temperament of members generally to snatch a holiday when they can, I will say no more than that this gentleman's remarks as to my not having taken every indispensable precaution to ensure an attendance is at variance with facts, as it was only the evening previously I had the assurance of a very influential member of the Irish party that he would secure a House, especially as it was a motion of Sir E. Wilmot's, who is a great favourite with the Irish members generally; but the desire to be revenged on Mr. Warton was too great, as this gentleman in the early part of the evening moved an amendment to a Bill that had the support of both the Irish and Scotch members, and tired the House with a tedious speech demanding a division, in which he was defeated by two to one, and, as he had the first motion for that evening, the moment he rose it was a signal for the House to clear out.

Dr. B. O'Connor may rest assured that I have left no stone unturned to secure a House, and hope on the 19th inst. we shall succeed in keeping one, as Sir E. Wilmot has secured a night when Supply comes on, and when Government want money they are certain to be in attendance.

In conclusion, I think it would be kinder for Dr. O'Connor to give a subscription or donation to our funds, which require money, or to offer us his valuable experience and aid in securing the attendance of members, as he evidently is better acquainted how to do this than I am, even after twenty years' experience in fighting this question, than for him to find fault, which is very easy to do, especially as it does not cost any money.—Yours obediently,

M. J. MACCORMACK, M.D., Surgeon-Major.

15, Pembridge Place, W.

EXAMINATION OF RECRUITS.

SIR,—Will you kindly answer the following questions?

A. In a district where there is not an army surgeon, has the surgeon to a volunteer battalion a prior claim over civilian practitioners in the examination of recruits for the army and militia?

B. Granted that the volunteer surgeon has no legal right to such an appointment, is it not customary that he should be offered the post?

C. In whom is the power of appointing an examining surgeon vested, supposing that no one had a preferential claim?—Yours truly,

AN OLD MEMBER.

*** The only distinctions which are made in the existing code of Army Medical Regulations as regards medical examiners of recruits are between "military medical officers," "medical officers of militia and yeomanry," and "civilian medical practitioners." Medical officers of volunteer corps are not separately referred to. All appointments connected with the military medical service rest with the Secretary of State for War, who is guided by the advice of the Director-General of the Army Medical Department. It is only reasonable to suppose that a surgeon of a volunteer corps who has given attention to the subject of recruiting, which requires special knowledge, would have precedence given to him as an examining surgeon over another practitioner who has had no practical experience in the subject; but the Army Medical Regulations do not show anywhere that he can claim the appointment as a right under any circumstances.

HONORARY RANK AND TITLES.

SIR,—I read with pleasure a letter in the BRITISH MEDICAL JOURNAL, written by an officer of the Army Medical Staff, in which he points out the injustice of conferring honorary rank and titles on gentleman holding commissions in the commissariat, ordnance-stores, and army pay departments, and, at the same time, denying them to army surgeons.

An army surgeon is a medical man, but he is something more; he is an officer having a body of men under his command, for whose management and discipline he is responsible, and with whom on active service he has often to face the same dangers as combatant officers. Is it unreasonable, then, that he should ask to have the same privileges given to him as are given to gentlemen whose duties can scarcely ever bring them within range of a bullet?

Hoping to see this matter further ventilated in the press, I remain, your obedient servant,

M.R.C.S.

ARMY MEDICAL SERVICE.

SURGEON-MAJOR EDWARD HOPKINS has been granted retired pay, with the honorary rank of Brigade-Surgeon. He entered the service as Assistant-Surgeon April 22nd, 1858; became Surgeon March 1st, 1873; and Surgeon-Major April 1st, 1873. Mr. E. Hopkins (*Hart's Army List* says) served in the Indian Mutiny campaign, including the action of Doadpore and taking of Fort Mudjedea (medal); throughout the Umbeyla campaign of 1863, including the night attack of October 22nd, and attack on the Eagle's Nest Picquet (mentioned in despatches, medal with clasp); and in the Afghan war of 1878-80, during which he accompanied Sir Frederick Roberts in the march to Candahar, and was present at the battle of Candahar (medal with clasp, and bronze decoration). He went to Egypt in the summer of last year.

Surgeon-Major ALEXANDER ALLAN, M.D., has been promoted to be Brigade-Surgeon. He dates as Assistant-Surgeon from January 12th, 1859; as Surgeon from March 1st, 1173; and as Surgeon-Major from April 1st, 1874. He went to Suakin in February last, but otherwise has no war-record.

Surgeon T. F. MACNEECE, serving in Bengal, has been granted leave of absence for six months on medical certificate.

Deputy Inspector-General E. H. BLAKENEY, M.D., F.R.C.S., died at Dorking on the 27th ult., in his 77th year. Dr. Blakeney entered the Army Medical Service as Assistant-Surgeon October 17th, 1834; became Surgeon December 19th, 1845; and Surgeon-Major October 1st, 1858; he retired with the rank of Deputy Inspector-General November 18th, 1859. The Army Lists do not assign him any war-service.

Surgeon J. RAMSAY, 3rd Battalion West Yorkshire Regiment (late the 2nd West York Militia), has been recommended for the rank of Surgeon-Major.

Brigade-Surgeon W. F. RUTTLEDGE, who went on retired pay so recently as the 29th ultimo, has been appointed to take charge of the 1st Infantry Brigade at Aldershot.

Surgeon-General Sir A. HOME, V.C., late Principal Medical Officer in India, has been selected for the position of Principal Medical Officer of the Southern District at Portsmouth.

Surgeons E. H. MYLES, M.B., and E. O. WIGHT, both at present serving in Bengal have been allowed to exchange places on the India roster of service.

INDIAN MEDICAL SERVICE.

DEPUTY SURGEON-GENERAL J. BRAKE, Bengal Establishment, has been appointed to the administrative medical charge of the Presidency District, in the place of Deputy Surgeon-General A. J. Cowie, who has been promoted.

Deputy Surgeon-General J. M. DONNELLY, M.D., Madras Establishment, has been appointed to the administrative medical charge of Her Majesty's Forces in British Burmah.

Surgeons E. P. FRENCHMAN and K. C. SANJANA, Madras Establishment, whose services have been replaced at the disposal of the Military Department, are to do general duty in the Eastern District.

Surgeon J. C. LUCAS, Bombay Establishment, in medical charge of the 23rd N.I., has been permitted to return to duty from furlough granted on March 7th, 1884, for two years.

Surgeon D. G. CRAWFORD, M.B., Bengal Establishment, has been declared by the Board of Examiners at Calcutta to have passed with high proficiency in Hindi.

The furlough to sea granted to Surgeon H. ARMSTRONG, of the Madras Establishment, has been extended to July 18th.

Surgeon H. M. HAKIM, Madras Establishment, has been appointed to the medical charge of the Right Wing of the 23rd Native Infantry at Hoshungabad.

Brigade-Surgeon W. A. E. ALLEN, Bengal Establishment, died very suddenly at Romford, on the 15th ult., in the 51st year of his age. Mr. Allen entered on February 10th, 1859; attained the rank of Surgeon-Major February 10th, 1871, and retired as Honorary Brigade-Surgeon on December 5th last. He had not seen war-service.

NAVAL MEDICAL SERVICE.

THE following appointments have been made at the Admiralty during the past week. T. H. KNOTT, Fleet-Surgeon, to the *Oregon;* F. R. M. LOFTIE, Staff Surgeon, to the *Leander*; L. H. KELLETT and J. McC. MARTIN, Surgeons, to the *Duke of Wellington*, additional; J. W. WHELAN, M.D., Surgeon, to the *Indus*.

INDIA AND THE COLONIES.

INDIA

THE GOVERNMENT OF INDIA AND SURGEON-GENERAL J. M. CUNINGHAM.—The profession will read with pleasure the following graceful tribute to the valuable services of Surgeon-General J. M. Cuningham by the Government of India which appeared in a recent number of its official *Gazette*. "On the retirement of Surgeon-General J. M. Cuningham, Surgeon-General and Sanitary Commissioner with the Government of India, the Governor-General in Council desires to place upon public record his high appreciation of the eminent services rendered to the State by that officer. In the Sanitary Department Dr. Cuningham's services extend over a period of twenty years, during fifteen of which he has been the head of the department. When the scheme for the reorganisation of the Medical Services in India came into operation in March, 1880, Dr. Cuningham was selected to fill the combined office of Surgeon-General and Sanitary Commissioner with the Government of India, the very onerous and responsible duties of which have been discharged to the entire satisfaction of the Government of India. During Dr. Cuningham's Incumbency, the Indian Medical Department has been remodelled in all its branches, with the result that departmental efficiency has been considerably increased while a saving of expense to the State has at the same time been effected. In his capacity as Sanitary Commissioner, Dr. Cuningham

has also been instrumental in introducing many measures of great importance to the well-being of the people, and has afforded material assistance to the Government of India in dealing with many difficult questions which have from time to time come before it in connection with sanitary matters. In his retirement, Dr. Cuningham carries with him the warmest thanks of the Government of India for his long and distinguished services."

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE CONWAY BOARD OF GUARDIANS AND MR. DAVIES, THE MEDICAL OFFICER.

OUR contemporary, the *Liverpool Daily Post*, in its issue of the 30th ultimo, reports the proceedings of the Conway board of guardians, held on the preceding day. It would appear that there was a full attendance, consequent on notice which had been given by the chairman, the Rev. W. V. Williams, that he should call attention to the relations that existed between the board and Mr. Thomas Davies, the medical officer of the Creuddyn district of the union, who, we learn from other sources, had been for some time accused by the chairman of being extravagant in his orders for quinine and cod-liver oil, supplied to the cost of the union. It would further appear that the dispute had been going on for upwards of two years, for it came out that the board had given him notice, at about that time, to terminate his contract, since which period he had been, as alleged, medical officer on sufferance. Mr. Davies having been called in, the chairman informed him "that the board generally were extremely dissatisfied with the enormous quantities of those medicines prescribed by him to the paupers." He quoted figures to show that nearly six ounces of quinine was distributed amongst eighteen patients by Mr. Davies in January, February, and March last, and that the expenditure on drugs found by the guardians had gone up from £15 to £30 a year. Mr. Davies replied that the patients were nearer fifty, and that the extra expense was caused by his having to go also to Llandudno. The chairman then charged Mr. Davies "that he had given these orders in revenge for having received a notice terminating his contract, that he looked upon him now as only an honorary officer;" and the clerk expressed the opinion "that, as the contract between the board and the doctor was not signed," the latter could not claim a cheque from the former. Thereupon, the chairman, to bring the matter to a crisis, moved "that he that quarter's salary be refused," when the clerk explained "that if the pay were refused, the doctor was not bound to attend paupers." The chairman then said: "Then the office will be void." No member of the board showing any disposition to support the chairman's view, the board-room was cleared, and the guardians discussed the question *in camerâ*. Ultimately, the board decided to reinstate the medical officer, on condition that he accepted £10 a year for extra medicines and extra fees, and that he attend the pay-station. A fortnight was given him to consider this offer.

Of all the disputes that have taken place between medical officers and their boards on which we have commented for some years, we question whether we have ever met with anything like this. We would advise Mr. Davies to remain firm; for, unless the board can establish some case of neglect against him, he cannot be disturbed in his office; and as the board has undertaken in the past to supply quinine and cod-liver oil, they must continue to do so; and in reference to extra fees, we further advise that he do not attend any case without an order, and then, if payment be refused, let him summon the chairman for the amount.

CERTIFICATION OF LUNATICS IN WORKHOUSES.

I find it necessary to reply to Dr. Rogers' letter in the JOURNAL of April 4, for more reasons than one. It is true that the case of "Hicks *v.* Bedford" has given rise to much questioning from various sources; and the replies of Government officials to questions on the point put in the House of Commons, show that the verdict for the plaintiff was the result of inadequate observance of the Lunacy Statutes, and the Poor-law orders in combination.

In reply to the third paragraph of Dr. Rogers' letter, I say that the course adopted, after the plaintiff was admitted to the workhouse, was not consistent, inasmuch as the master of the workhouse did not obtain from the medical officer to the workhouse the certificate required by 30 and 31 Vic., Chap. 106, Sect. 22. The judge was quite alive to this, and remarked that, had this certificate existed and been put in evidence, the aspect of the case might have been altered.

I do not wish to take up your space with extracts bearing on the point, but, as Dr. Rogers has shown an interest in the law affecting pauper lunatics, I will refer him to the Twentieth Report of the Lunacy Commissioners, page 20, 1866; twenty-second report of the same body, page 28, 1868; also Article 115 of General Consolidated Orders of the Poor-law Commissioners, July 24th, 1847; and the note to Article 115, Glen's Poor-law Orders.

Dr. Rogers goes on to tell us how he treats cases of puerperal insanity in the workhouse. This is very commendable no doubt, and my philanthropy used to urge me to do the same thing when I was younger, but I would advise Dr. Rogers to be careful. If he wish to treat his cases of puerperal insanity in the workhouse, he had better have them ordered to an asylum by a justice, and then certify that their state of health will not permit their being removed thereto. I do not think the Lunacy Commissioners would hesitate to prosecute even a medical man, if they found him wilfully defying the Lunacy Statutes.

I am glad Dr. Rogers drew attention to a letter from so high an authority as Mr. Vallance in the *Local Government Chronicle* of March 21st. I think, all the same, that the communication is likely to mislead. I would observe that the forcible removal of Hicks to St. Marylebone Workhouse was executed by the patient's friends, not by the relieving officer. This, it will be admitted, is a very material point in the case. Mr. Vallance tells us what course is practised at Whitechapel in dealing with lunatics, and we find that it is just what an intelligent blending of the Lunacy Statutes and the Poor-law Orders would suggest. Mr. Vallance is not quite clear as to what the judge did say in the case under discussion. Mr. Justice Wills was quite alive to the statute requiring a certificate from the workhouse medical officer on admission touching the person's insanity. Mr. Vallance mentions the 25 and 26 Vict., Chap. 3, Section 20. I take it that this does not touch the case of Hicks and Bedford. The law on which this action turned was broken within the first three days of the woman's detention in the workhouse.

I certainly take exception to any inference that a lunatic can be legally brought to a workhouse by a relieving officer, unless found wandering at large, unless it be a case of imbecility or idiocy; but if a lunatic be destitute, and the friends refuse to maintain the person afflicted even for a single day, the relieving officer may give an ordinary order of admission to the workhouse, and let the friends do as they like about taking the case in. If, on the other hand, the friends would object to the lunatic being taken to the workhouse, the relieving officer may place what guard he may think necessary over the lunatic in the private house, until the justice visits the case; or the next morning the case may be taken to the nearest police-court, in company with one or two medical men, according to the requirements of the particular stipendiary.

The remainder of Mr. Vallance's letter is merely an enlightening of the guardians as to the kind of cases of unsound mind that come within a relieving officer's ken, but, on reading it, one is liable to get hold of the notion that, if a person already outside a workhouse be insane, the Poor-law, in that particular case, becomes paralysed.

In conclusion, I wish to say that, the plaintiff Hicks being destitute, the relieving officer was quite right to give an order of admission to the workhouse for the friends to take her in, but before his pen was dry (having Dr. Sims's certificate before him), he should have sent notice to a justice; this he failed to do. He should have also sent at once for a vacancy in an asylum, to use or not as the case turned out.

There can be no doubt that the statutes concerning pauper lunatics are inconvenient; but until they are changed, which they have every prospect of being, we must drive coach and four, not blowing our horn too loudly. I regret exceedingly that some of the officers at St. Marylebone have been mulcted to the extent of £50 damages for doing that which, according to Dr. Rogers, is being done every day in other London workhouses; but the case of Hicks *v.* Bedford will have this benefit, in the fact that it will be the means of making those concerned give some more attention to the Lunacy Statutes and Poor-law Orders combined, Dr. Rogers amongst the number.—I am, sir, yours obediently,

Brewood, near Stafford. J. CORNELIUS GARMAN.

MEDICAL RELIEF IN THE BRIDGNORTH UNION.

SIR,—I am afraid that the conduct of the Bridgnorth guardians in refusing an order for a confinement is by no means an uncommon occurrence, if I may judge by personal experience. I have twice been sent for by the midwife, at a moment's notice, to attend two poor women in their confinements in a neighbouring village. All of these four cases necessitated the use of long forceps, and in one of them I had to perform version previously to the use of the forceps. In none of these cases was an order granted, the guardian, or overseer, of the parish telling the midwife, in one of the instances, "that he could not give an order as it was a £2 case."

I remember, too, a year or two ago, a boy being brought to the surgery with fractured radius and ulna. I set the fracture at once, and told the mother to go as soon as possible to the relieving officer for an order. He would not grant it, but said he would bring the case before the board, where an order was finally refused, although, a few months previously, an order had been given to the mother for one of her other children, who had the whooping-cough.

From a humane point of view, it is impossible for a medical man to refuse to attend an urgent case until an order is first procured, although this conduct of the guardians would almost drive one to it. Individually, the majority of the guardians in this union are amiable and good hearted men, but collectively they do all they can to prevent their medical officers from getting those "medical extras" which are sanctioned by the Local Government Board, and which are, therefore, their right and due.—Yours, etc., W. L'HEUREUX BLENKARNE.

Buckingham.

PORT MEDICAL INSPECTION AND ISOLATION.

THE following regulations have been made by the Port Sanitary Authority for the port of London, and approved by the Local Government Board, for the removal to hospital of persons brought within the port, by any ship or boat, who are infected with a dangerous infectious disorder.

1. In these Regulations, the expression "The Port Sanitary Authority," means the mayor, aldermen, and commons of the city of London, acting as the Port Sanitary Authority of the port of London; the expression, "dangerous infectious disorder," means any one of the following diseases:—Cholera, diphtheria, erysipelas, measles, scarlatina, small-pox, typhoid or enteric fever, and typhus fever. The expression "ship" includes a boat, and the expression "medical officer of health" includes any legally qualified medical practitioner acting for such officer, and any assistant to the medical officer of health. 2. These Regulations shall remain in force until they are revoked by the Port Sanitary Authority, or until fresh regulations, under Section 125 of the Public Health Act, 1875, are made by the Port Sanitary Authority, and approved of by

the Local Government Board. 3. Every master, or other person, having charge of a ship arriving in the port of London with any person on board, whether a passenger or belonging to the ship's crew, suffering from a dangerous infectious disorder, shall stop on arrival off the Custom House at Gravesend, and forthwith send notice to the medical officer of the Port Sanitary Authority stationed at Gravesend, that there is a person on board suffering from such a disorder. 4. The master or other person in charge of the ship, shall cause her to remain off the Custom House until the medical officer of health has boarded her. 5. The medical officer or health, to whom notice is given as aforesaid, shall, as soon as practicable, visit the ship, and ascertain whether the person referred to in the notice is suffering from a dangerous infectious disorder, and if, in the opinion of the medical officer of health, he is, and can properly be removed, and proper accommodation can be provided for him in the hospital of the Port Sanitary Authority at Gravesend, or to some other hospital to which the Port Sanitary Authority are entitled to remove patients, the master or other person having charge of the ship shall forthwith cause such person to be removed to such hospital, according to the directions of the medical officer of health. 6. If any dangerous infectious disorder shall break out on board any ship arriving in the port of London, and after she has passed Gravesend, the master or other person having charge of such ship shall give notice to the medical officer of health of the Port Sanitary Authority, at his office at Greenwich, that there is on board a person suffering from such a disorder, and if, upon examination, the medical officer of health shall find that he is so suffering, the master or other person in charge of such ship shall forthwith cause such person to be removed to a hospital to which the Port Sanitary Authority are entitled to remove patients, as directed by the medical officer of health. 7. Any master or other person, having charge of a ship, arriving in the port of London, and failing to perform any duty imposed on him by these Regulations, shall be liable to a penalty not exceeding £5.

The attention of all shipowners, shipbrokers, and masters of vessels is called to the above Regulations just issued. By their provisions, the master of every vessel is bound to report any case of infectious disease to the medical officer of health at Gravesend, and to remove the case to hospital there under his supervision. It will be noticed that the master or other officer in charge of the vessel is liable to a penalty for non-compliance, and it is therefore necessary that definite instructions to this effect should be given by owners and brokers. The importance of such a measure in the interests of public health is so apparent, that it is only necessary to call attention to it to have it carried out to the letter.

THE CASE OF DR. BERNARD.

SIR,—The medical profession and the friends of Dr. Bernard will share your regret that the Local Government Board, having resolved to amalgamate the Fever and Small-pox Hospitals at Stockwell, have given Dr. Bernard notice that, at the end of three months, they will dispense with his services as medical superintendent, without so much as allowing him any compensation in the shape of a pension, or an offer of another hospital; and this, too, in the face of twelve years' service, seven of which have been devoted to the Small-pox Hospital, without the option of private practice. Knowing, as I do, the superior medical knowledge which Dr. Bernard has brought to bear in the 1,066 cases brought under his care, and in the treatment of those cases and other cases consequent on that disease brought into the hospital, and witnessing, as I have done, the conscientious discharge of duty, the strict economy, the excellent rules laid down in the wards, and the very low rate of mortality of the cases under Dr. Bernard's personal care, I say that anyone, knowing these truths and the facts, must feel surprised and sincerely sorry that Dr. Bernard, after having given the best time of his life to the service of the Local Government Board, should now have to seek a practice in the wide world simply because a fever hospital, in which the greatest mortality takes place among the nurses, and very few medical men escape an attack, is to be united to the Small-pox Hospital.

M.B.

—Yours very faithfully,

HEALTH OF ENGLISH TOWNS.

IN the twenty-eight large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 4,893 births and 3,590 deaths were registered during the week ending May 30th. The annual rate of mortality per 1,000 persons living in these towns, which had risen in the three preceding weeks from 20.2 to 21.1, declined again last week to 21.0. The rates in the several towns, ranged in order from the lowest, were as follow:—Brighton, 14.6; Halifax, 15.5; Derby, 15.7; Salford, 17.9; Bradford, 18.5; Leeds, 19.0; Wolverhampton, 19.1; Bolton, 19.4; London, 19.6; Leicester, 19.9; Birmingham, 20.5; Sunderland, 20.8; Sheffield, 21.2; Norwich, 21.2; Hull, 21.3; Huddersfield, 21.5; Bristol, 21.8; Birkenhead, 22.4; Portsmouth, 22.5; Liverpool, 25.5; Oldham, 26.4; Plymouth, 26.8; Manchester, 27.1; Cardiff, 28.5; Blackburn, 28.7; Newcastle-upon-Tyne, 29.6; and Preston, 34.3. In the twenty-seven provincial towns the death-rate for the week averaged 22.2 per 1,000, and exceeded by 2.6 the rate recorded in London. The 3,590 deaths registered last week in the twenty-eight towns included 174 which resulted from measles, 125 from whooping-cough, 56 from diarrhœa, 43 from small-pox, 32 from "fever" (principally enteric), 31 from diphtheria, and 26 from scarlet fever; in all, 487 deaths were referred to the principal zymotic diseases, against 463 and 510 in the two preceding weeks. These zymotic deaths were equal to an annual rate of 2.9 per 1,000. In London, the zymotic rate was 3.1; while it averaged 2.7 per 1,000 in the twenty-seven provincial towns, among which the zymotic rates ranged from 0.5 in Brighton and in Bolton, to 5.1 in Blackburn, 5.2 in Preston, and 7.0 in Newcastle-upon-Tyne. The deaths referred to measles, which had been 143 and 182 in the two preceding weeks, declined again last week to 174, and caused the largest proportional fatality in Manchester, Birkenhead, and Newcastle-upon-Tyne. The fatal cases of whooping-cough, which in the three previous weeks from 116 to 158, declined to 125 last week; this disease was proportionally most fatal in Oldham, Preston, Cardiff, and Blackburn. The 56 deaths from diarrhœal diseases showed a further increase upon recent weekly numbers. The fatal cases of "fever," which had been 45 and 32 in the two preceding weeks, further declined last week to 32. The 17 deaths from diphtheria considerably exceeded the number returned in the previous week, and included 17 in London, 4 in Newcastle-upon-Tyne, and 3 in Portsmouth. The fatal cases of scarlet fever, which had steadily increased from 32 to 40 in the five preceding weeks, declined to 26, a lower number than has been recorded in any previous week in the twenty-eight towns. Of the 43 deaths from small-pox, 38 occurred in London (exclusive, however, of 17 deaths of London residents from this disease in the Metropolitan Asylum Hospitals situated outside registration London), 1 in Bristol, 1 in Manchester, 1 in Sheffield, 1 in Hull, and 1 in Sunderland. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had increased from 830 to 1,374 in the nine preceding weeks, further rose to 1,389 on Saturday last; 272 new cases were admitted to these hospitals during the week, against 211 and 282 in the two previous weeks. The death-rate from diseases of the respiratory organs in London was equal to 3.9 per 1,000, and slightly exceeded the average. The causes of 86, or 2.4 per cent., of the 3,590 deaths registered last week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

DURING the week ending the 30th ultimo, 807 births and 500 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had been 23.4 and 21.2 per 1,000 in the two preceding weeks, further declined last week to 20.5, and was 0.5 per 1,000 below the average rate for the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 14.8 in Dundee, 16.1 in Aberdeen, 17.5 in Leith, 17.8 in Edinburgh, 18.3 in Perth, 19.8 in Greenock, 22.9 in Paisley, and 24.9 in Glasgow. The 500 deaths registered last week in these towns included 59 which were referred to the principal zymotic diseases, against 79 and 67 in the two preceding weeks; of these, 27 resulted from whooping-cough, 11 from measles, 10 from diarrhœa, 6 from "fever" (principally enteric), 4 from scarlet fever, 1 from diphtheria, and not one from small-pox. These 59 deaths were equal to an annual rate of 2.4 per 1,000, which was 0.5 below the average zymotic death-rate in the twenty-eight large English towns. The highest zymotic rates in the Scotch towns during the week were recorded in Glasgow, Perth, and Leith. The fatal cases of whooping-cough, which had steadily declined in the five preceding weeks from 30 to 22, rose again last week to 27, and included 14 in Glasgow, and 5 in Edinburgh. The 11 deaths from measles showed a further decline from recent weekly numbers; 9 occurred in Glasgow. The 6 fatal cases of "fever" were within 2 of the number in the preceding week, and included 3 in Edinburgh, and 2 in Leith. The 4 deaths from scarlet fever were returned in Glasgow, and the fatal case of diphtheria occurred in Dundee. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 3.6 per 1,000, against 3.9 in London. As many as 68, or 13.6 per cent., of the 500 deaths registered during the week in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS.

IN the week ending May 16th, the number of cases registered in the sixteen principal town districts was 535. The average annual death-rate represented by the deaths registered, was 32.3 per 1,000. The deaths registered in each of the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000. Armagh, 25.8; Belfast, 39.7; Cork, 27.9; Drogheda, 16.9; Dublin, 33.8; Dundalk, 21.8; Galway, 47.1; Kilkenny, 25.4; Limerick, 10.8 (exclusive of No. 3 district); Lisburn, 14.5; Londonderry, 32.1; Lurgan, 30.8; Newry, 24.6; Sligo, 33.7; Waterford, 16.2; Wexford, 25.7. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 5.9 per 1,000, the rates varying from 0.0 in Newry, Kilkenny, Drogheda, Sligo, Lurgan and Armagh, to 11.9 in Belfast; the 167 deaths from all causes registered in the last-named district comprising 40 from measles, 2 from typhus, 2 from whooping-cough, 2 from diphtheria, 2 from enteric fever. Among the 7 deaths in Londonderry, were 4 from scarlatina; and the 7 deaths in Waterford comprised 2 from measles, and 1 from diarrhœa. In the Dublin registration district the deaths registered during the week amounted to 237. Thirty-five deaths from zymotic diseases were registered: they comprised 14 from measles, 4 from scarlet fever, 1 from typhus, 7 from whooping-cough, 1 from diphtheria, 2 from enteric fever, 4 from diarrhœa, 1 from dysentery, and 1 from erysipelas. Forty-six deaths from diseases of the respiratory system (including 26 from bronchitis and 14 from pneumonia) were registered in Dublin. The deaths of 12 children (including infants under one year old) were ascribed to convulsions. Two deaths were caused by apoplexy, 13 by other diseases of the brain and nervous system (exclusive of convulsions), and 17 by diseases of the circulatory system. Phthisis or pulmonary consumption caused 29 deaths, mesenteric disease 4, and cancer 3.

In the week ending May 23rd, the number of deaths registered was 505. The average annual death-rate represented by the deaths registered was 30.5 per 1,000. The deaths registered in the several towns, alphabetically arranged, correspond to the following annual rates per 1,000: Armagh, 36.1; Belfast, 35.7; Cork, 24.0; Drogheda, 38.1; Dublin, 29.8; Dundalk, 13.1; Galway, 10.1; Kilkenny, 25.4; Limerick, 37.8 (including a portion of the deaths in the preceding week); Lisburn, 33.8; Londonderry, 28.5; Lurgan, 25.7; Newry, 14.0; Sligo, 14.4; Waterford, 27.8; Wexford, 55.6. The deaths from the principal zymotic diseases in the 16 districts were equal to an annual rate of 4.8 per 1,000, the rates varying from 0.0 in eleven of the districts to 11.6 in Waterford; the 12 deaths from all causes registered in that district comprising 4 from measles and 1 from diarrhœa. Among the 150 deaths registered in Belfast were 31 from measles, 1 from scarlatina, and 2 from whooping-cough. The 28 deaths in Limerick comprised 1 from whooping-cough, and 4 from diarrhœa. In the Dublin registration district the deaths registered during the week amounted to 211. Forty deaths from zymotic diseases were registered: they comprised 17 from measles, 6 from scarlet fever, 2 from typhus, 2 from whooping-cough, 4 from enteric fever, 5 from erysipelas, etc. There were 47 deaths from diseases of the respiratory system registered; they comprised 26 from bronchitis, and 12 from pneumonia. The deaths of 13 children under 5 years of age (including 10 infants under one year old) were ascribed to convulsions. Nine deaths were caused by diseases of the brain and nervous system (exclusive of convulsions), and 9 by diseases of the circulatory system. Phthisis or pulmonary consumption caused 21 deaths, mesenteric disease 4, tubercular meningitis 9, and cancer 4.

HEALTH OF FOREIGN CITIES.

IT appears from statistics published in the Registrar-General's return for the week ending May 30th, that the annual death-rate recently averaged 32.4 per 1,000 in the three principal Indian cities: it was equal to 29.2 in Bombay, 30.4 in Calcutta, and 37.9 in Madras. Cholera caused 20 deaths in Bombay, and 76 in Calcutta. The fever-mortality showed the greatest excess in Bombay. According to the recently received weekly returns, the annual death-rate per 1,000 in twenty of the largest European cities averaged 27.5, and was 6.5 above the mean during the week in the twenty-eight large English towns. The death-rate

Petersburg was 32.2, and showed a decline from that which prevailed in the previous week; the 572 deaths included 23 from "fever," 5 from small-pox, and 5 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 25.0, and ranged from 24.0 in Christiania to 28.1 in Stockholm; measles caused 13 deaths in Stockholm, and diphtheria and croup 6 in Stockholm, and 9 in Christiania. In Paris, the death-rate was 25.0, and showed a further slight decline from the rates in recent weeks, but exceeded the rate in London by 5.4; the deaths included 44 from measles, 42 from diphtheria and croup, and 19 from typhoid fever. The 191 deaths in Brussels, of which 13 resulted from diphtheria and croup, were equal to a rate of 22.5. In Geneva, the 28 deaths gave a rate of 20.4. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 23.5, the highest rate being 25.1 in Rotterdam; diphtheria and croup caused 5 deaths in Amsterdam and 4 in the Hague, and scarlet fever 3 in Rotterdam. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 28.7, and ranged from 22.2 and 25.4 in Berlin and Dresden, to 37.7 in Munich and 38.5 in Prague. Small-pox caused 29 deaths in Vienna, and 2 in Prague; diphtheria showed the greatest mortality in Berlin, Hamburg, and Munich. In three of the principal Italian cities, the death-rate averaged 22.2, being 22.8 in Rome, 22.0 in Turin, and 21.3 in Venice; small-pox caused 4 deaths both in Rome and in Venice, and 5 deaths from typhoid fever occurred in Turin. No returns were received either from Madrid, Lisbon, or Alexandria. In four of the largest American cities, the recorded death-rate averaged 22.0, and ranged from 24.5 in New York, to 16.5 in Baltimore. Diphtheria showed considerable mortality in each of these American cities; and typhoid fever caused 8 deaths in Philadelphia.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE COLLEGE OF PHYSICIANS AND HOSPITAL OUT-PATIENTS.

SIR,—I enclose a short note from Dr. D., in answer to my request that he would state the circumstances of one case in point for your information. On the same day, two cases similar to this occurred in the same morning's practice; and I have no doubt that a closer inquiry than I have made would prove that such cases are commoner than my letter would lead you to suppose.—Yours obediently,

R. J. L.

"May 22nd.

"Dear Sir,—P. J., aged 4, has been a patient of mine for the last three years. A few days ago, the parents (who are quite in a position to pay a medical practitioner) informed me that they had taken him to the hospital, but that the physician (yourself) very properly declined to prescribe for the child, as he understood their own doctor was in attendance upon him.—Yours very truly, H. D."

AN IMPORTANT ANNOUNCEMENT!

THE subjoined paragraph was, we are informed, placed on the principal page of the *Liverpool Daily Post* of May 21st, just after the foreign news.

"KING OKO JUMBO.—Oko Jumbo, a correspondent writes, has placed himself for the present under the professional care of Dr. Peter Stuart, of 46, Rodney Street, who is treating him for head-symptoms."

C. C.—The special question submitted by "C. C." is one on which it is somewhat difficult to advise; for, although there is not, to our knowledge, any rule which directly condemns such an arrangement as that suggested to, and contemplated by, our correspondent, it would, in our opinion, ill accord with the innate principle of the true professional mind; and, moreover, from one point of view, would contravene the golden rule of doing unto others as we would wish to be done by. We cannot, therefore, advise him to accept the suggestion made by the parties locally interested. The difficulty, however, may, we think, under all the circumstances, be fairly met by the introduction of a *de facto* partner, if such be feasible.

SUCCESSION TO DEATH-VACANCY.

SIR,—I purpose shortly succeeding, by purchase, to a death-vacancy. I would be glad of your opinion on this point: Is it right to introduce myself to the practice by circular to such names and addresses as are found in the books as patients?—Faithfully yours,

A MEMBER.

*** For "A Member" to introduce himself to the patients by circular would, in our opinion, be closely akin to soliciting practice through the medium of a "trade-circular" note, and in direct contravention of the principle laid down in the *Code of Medical Ethics*, page 27, rule 3, in which such and like acts are justly regarded as incompatible with the honoured dignity of the profession.

The introduction should, we think, be given, as far as possible, by the gentleman in charge of the deceased's practice; and, failing that, the widow or other responsible member may write a carefully worded note, simply and courteously announcing to the patients that our correspondent has been accepted by the family as the representative of, or successor to, the late Dr. ——'s practice.

HOSPITAL AND DISPENSARY MANAGEMENT.

BATTERSEA PROVIDENT DISPENSARY.

THE annual report of the Battersea Provident Dispensary, an institution under the presidency of the Rev. Canon Erskine Clarke, has recently been published. It states that there is a steady improvement, as shown by the increased amount of members' payments—there being now 10,150 members entered on the books, of whom it is calculated 7,460 are permanent, and remarks that "This steady advance in the position of an institution, in which the members pay when they are in health for medical care in possible sickness, is the more remarkable and the more creditable to the industrial classes of the district, from the fact that there are on all sides of the Provident Dispensary other largely advertised dispensaries, which offer treatment and medicine to those who are actually sick at an almost nominal fee." The cash receipts include £88 19s. 2d. contributions and donations, £1,327 10s. 11d. benefit members' payments, and £178 10s. confinement-fees, the total income being £1,626 10s. 1d. Of this amount, £734 16s. 1d. was spent in drugs, rent, printing, salaries, &c., and £892 14s. paid to the medical officers, £178 10s. on account of confinements, and £714 4s. for general medical services. In return for these payments, there were 310 confinement cases at an average rate of payment of 11s. 6d. per case, and there were 6,524 distinct cases of illness reported at the dispensary, the payment to the medical officers averaging 2s. 2d. for each case. There were 15,940 visits to patients' houses, and 14,500 attendances by members at the dispensary, exclusive of a large number of cases attended by the medical officers at their own residences. Leaving these out of account altogether, the payment yields an average of about 5½d. per consultation to the medical officers. The report goes to show that if a certain amount of outside support and organising power be forthcoming, such institutions may be placed on a firm footing, especially in localities outside the closer and stronger influence of the large general hospitals; at the same time, the low average payment for medical services and the need for eleemosynary assistance sufficiently demonstrates the necessity for confining such work specially to those whose means are limited, and who have thus some claims to consideration in times of sickness.

MIDLETON WORKHOUSE.

THE Inspector of the Local Government Board, in his half-yearly report on the condition of this workhouse, states that there is not sufficient room in the male hospital, which has accommodation only for sixty-two patients, while there are at present eighty persons receiving hospital treatment, some of whom have to occupy wards in the main house. This arrangement is both inconvenient and objectionable, and the Board suggest that the guardians should consider the necessity for providing increased hospital accommodation. The inspector is of opinion that this can be done by raising the right wing of the male hospital to correspond with the portion raised on the female side to accommodate the nurses. A meeting of the house-committee will be held to consider the advisability of carrying out the proposed extension.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

A FACULTY OF MEDICINE.—An important statute will be promulgated at a congregation to be holden on Tuesday next. The preamble states that it is expedient that the medical studies of the University should be represented by a separate board, and for that purpose to divide the Faculty of Natural Science into a Faculty of Medicine and a Faculty of Natural Science, and to assign certain members, *ex officio*, to the Board of the Faculty of Medicine. The new statute therefore proposes that the Faculty of Natural Science shall be divided into (1) a Faculty of Medicine; (2) a Faculty of Natural Science; and that there shall be a board for each of these faculties. The Faculty of Natural Science is to include the department of Mathematics as well as the department of Natural Science. The regulations for degrees in Medicine have undergone modification. There are to be three examinations for the degree of M.B.; the first in Elementary Anatomy and Physiology, Organic Chemistry, and Materia Medica and Pharmacy; the second in Human Anatomy and Physiology; the third in Medicine, Surgery, Midwifery, Pathology, Pharmacology, and Climatology. The Board of the Faculty of Medicine is to exercise a general control over the examinations, and from time to time to issue notices defining the subjects. The examinations are to be held once yearly, in Trinity Term. Candidates for the first examination must have passed an examination in Mechanics and Physics, and in Chemistry, in the preliminary School of Natural Science, or an examination in one subject approved by the Board of the Faculty of Medicine. An interval of two years must elapse between the second and third examinations.

INCREASE OF SALARY.—The West Bromwich Guardians have increased the salary of the Medical Officer for the Handsworth district from £60 to £90 per annum, in consideration of his attending at Perry-Barr thrice a week for consultation by the pauper patients.

THE Senate of the Aberdeen University have unanimously conferred the degree of LL.D. upon Dr. Walker, Surgeon-General of the North-West Provinces.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology for the Fellowship of the College at the half-yearly meeting of the Board of Examiners on the 25th ult., and, when eligible, will be admitted to the pass examination.

Messrs. E. Vaudry, and A. F. G. Cood, students of St. George's Hospital; J. T. James, of Middlesex Hospital; J. B. Lawford, of the McGill School; H. J. Blokesley, of the Birmingham School; R. Heelis, of St. Thomas's Hospital; H. Littlewood, of University College; and C. S. Blair, of the London Hospital.

Twelve candidates were referred.

The following gentlemen passed on the 26th ult.

Messrs. G. A. Syme, student of the Melbourne School; A. H. Tubby, and A. S. Taylor, of Guy's Hospital; A. W. Collins, of University College; R. T. Kent, and J. W. Smith, of the Edinburgh School; L. A. Bidwell, of St. Thomas's Hospital; A. H. Middleton, of the Dublin School; and H. Smith, of the London Hospital.

Eleven candidates were referred.

The following gentlemen passed on the 27th ult.

Messrs. W. H. B. Brook, and W. Balgarnie, of St. Bartholomew's Hospital; C. W. Jecks, and H. P. Dean, of University College; W. P. Jordan, of the Birmingham School; F. S. Hawkins, and H. E. Crook, of Guy's Hospital; W. H. Tomlinson, of the Manchester School; A. F. Bradbury, of the Newcastle School; W. R. Ackland, of Charing Cross Hospital; and E. Solly, of St. Thomas's Hospital.

Nine candidates were referred.

The following gentlemen passed on the 1st instant.

Messrs. W. F. Dearden, L.S.A., Bolton; J. D. Howe, L.S.A., Manchester; F. W. Stericker, M.A.Cantab., Jersey; H. C. Kidd, L.R.C.P.Lond., Leamington Villas, W.; G. A. Carpenter, L.S.A., Fentiman Road, S.W.

ROYAL UNIVERSITY OF IRELAND.—Spring Examination for Degree of M.A.O., 1885. The following candidates have passed the examination.

M. Connery, M.D., Cork; A. Corry, Belfast; M. H. Hannigan, Catholic University School of Medicine; D. Hennessy, Cork; M. M'Carthy, Cork; M. M'Swiney, M.D., Cork; W. B. R. M'Wha, Belfast; R. Petticrew, Belfast; J. Ryan, Galway, and Catholic University School of Medicine; W. Sexton, Galway; F. J. Tresilian, Cork.

Examination for Degree of M.Ch. The following have passed.

J. Barron, Belfast; W. J. Cowden, M.D., Belfast; G. B. Crawford, Belfast; M. H. Curtin, Cork; T. W. Dwyer, Cork; R. E. Foote, Cork; W. R. Hawkins, Cork; J. M'Aleer, Galway, and Catholic University School of Medicine; M. M'Carthy, Cork; W. B. R. M'Wha, Belfast; G. F. H. Marks, Cork; J. Meenan, Carmichael School of Medicine; J. Moore, M.D., Cork; J. Musgrave, Cork; J. P. O'Byrne, Catholic University School of Medicine; R. Petticrew, Belfast; E. L. Pooler, Belfast; J. Ryan, Galway, and Catholic University School of Medicine; W. Sexton, Galway; N. Smyth, Belfast; R. Thomson, Belfast; F. J. Tresilian, Cork; J. J. Walsh, Royal College of Surgeons, and Ledwich School of Medicine; M. J. Whitty, Cork, and Catholic University School of Medicine.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 28th, 1885.

Beddoes, Thomas Pugh, M.R.C.S., St. Thomas's Hospital.
Carpenter, George Alfred, M.R.C.S., St. Thomas's Hospital.
Howe, Joseph Duncan, M.R.C.S., Guy's Hospital.
Jones, George Selkirk, Charing Cross Hospital.
Winckler, William Joseph, M.R.C.S., University College Hospital.

The following gentleman passed his examination also in Surgery and Midwifery, and received his certificate to practise.

Oliver, Charles Pye, Charing Cross Hospital.

MEDICAL VACANCIES.

The following vacancies are announced.

BURTON-ON-TRENT INFIRMARY.—House-Surgeon. Salary, £130 per annum. Applications by June 17th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Dental Surgeon. Applications by June 8th.

DERBYSHIRE GENERAL INFIRMARY.—Resident Assistant House-Surgeon. Applications to E. C. Green by June 17th.

HARTLEPOOL FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary, £120 per annum. Applications to T. Tweddell, Commercial Terrace, West Hartlepool.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by June 13th.

INVERNESS DISTRICT ASYLUM.—Assistant Medical Officer. Salary, £80 per annum. Applications to Dr. Aitken, Medical Superintendent, by June 17th.

NEWCASTLE-UPON-TYNE INFIRMARY.—House-Surgeon. Salary, £50 per annum. Applications to the Chairman of the House Committee by June 15th.

PLYMOUTH PUBLIC DISPENSARY.—Second Honorary Physician. Applications by June 8th.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House-Surgeon. Applications to the Chairman of the Managing Committee, by June 16th.

ROYAL FREE HOSPITAL, Gray's Inn Road.—Junior Resident Medical Officer Applications by June 17th.

ST. HELEN'S FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.—Medical Officer. Applications to Mr. E. Fidler, Boundary Road, by June 20th.

WEST BROMWICH FRIENDLY SOCIETIES' MEDICAL ALLIANCE.—Resident Medical Officer. Salary, £200 per annum. Applications to Mr. G. Abbott, 9, St. James Road. Sheffield.

WEST LONDON HOSPITAL, Hammersmith.—Physician. Applications by June 29th.

WEST RIDING LUNATIC ASYLUM, Wakefield.—Resident Clinical Assistant. Applications to the Medical Superintendent.

MEDICAL APPOINTMENTS.

BARNARD, Arthur Joynson, M.R.C.S., L.R.C.P., appointed Junior House-Surgeon to the Royal Albert Edward Infirmary, Wigan, Lancashire.

BEDDOES, T. P., M.R.C.S., appointed Clinical Assistant in the Skin Department at St. Thomas's Hospital.

BENNETT, Storer, F.R.C.S.Eng., L.R.C.P.Lond., D.D.S.Eng., appointed Dental Surgeon to the Dental Hospital of London, *vice* S. J. Hutchinson, M.R.C.S., L.D.S., resigned.

CRABB, James, M.A., M.D., C.M., appointed District Medical Officer for St. Mary, Islington.

EVANS, Robert, M.R.C.S., L.R.C.P.Ed., appointed Assistant Medical Superintendent to the Hackney Union Infirmary, *vice* A. Fuller, resigned.

GRIFFITH, A. Hill, M.D.Aberd., appointed Assistant-Surgeon to the Manchester Royal Eye Hospital.

HARRIES, Arthur, M.D., appointed Consulting Physician to the Association for the Supply of Pure Vaccine Lymph.

HODGSON, Gerald G., M.R.C.S., L.S.A., appointed House-Surgeon to the Brighton and Hove Dispensary.

JACKSON, Arthur, M.B., B.A.Oxon., and M.R.C.S.Eng., appointed Assistant Medical Officer in the Surrey County Lunatic Asylum.

LEEMING, Robert W., B.A., M.B.Cantab., M.R.C.S., L.S.A., appointed Medical Officer to the Kendal District Union and Workhouse, and Public Vaccinator to the Kendal District.

LEWERS, A. H. N., M.B.Lond., M.R.C.P.Lond., appointed Assistant Obstetric Physician to the London Hospital.

PHILLIPS, Sidney, M.D.Lond., M.R.C.P., appointed Physician to Out-Patients to the Paddington Green Children's Hospital.

PLOWMAN, S., L.R.C.P., M.R.C.S., L.S.A., appointed Clinical Assistant in the Throat Department at St. Thomas's Hospital.

PRIESTLEY, Joseph, B.A., M.B., M.R.C.S., appointed Resident Medical Officer to the Chelsea Hospital for Women, *vice* James Harper, M.D.Lond.

ROBERTS, Edward, M.R.C.S., L.S.A., appointed House-Surgeon to the Manchester Royal Eye Hospital, *vice* A. Hill Griffiths, M.D.Aberdeen, resigned.

ROBINSON, H. B., L.R.C.P., M.R.C.S.Eng., appointed Resident House-Physician at St. Thomas's Hospital.

VACHELL, H. R., M.D., appointed Out-patient Medical Officer to the Glamorganshire and Monmouthshire Infirmary and Dispensary, *vice* T. Wallace, M.D., resigned.

WALLACE, T., M.D., appointed Surgeon to the Glamorganshire and Monmouthshire Infirmary and Dispensary.

WILLIAMS, George Herbert, M.R.C.S.Eng., L.R.C.P.Edin., appointed House-Surgeon to the North Lonsdale Hospital, Barrow-in-Furness, *vice* J. S. Moreton, M.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTHS.

HOLBERTON.—On the 27th ultimo, at East Moulsey, Surrey, the wife of Henry N. Holberton, M.R.C.S., L.R.C.P., of a son.

WILLIAMS.—On the 2nd instant, at St. Mark's Vicarage, Wolverhampton, the wife of the Rev. Charles L. Williams, M.R.C.S., of a daughter.

DEATHS.

BUNNY.—At Newbury, Joseph Bunny, M.D., aged 86 years.

DICKSON.—Died at South View, St. Helier's, Jersey, on the 26th instant, John Edward Dickson, Esq., M.B., C.M., in his 38th year.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. J. Bland Sutton: Fatty Tumours. Mr. Jonathan Hutchinson: Large Lympho-sarcomatous Tumour of the Tongue; Excision; Return, Two Years afterwards.

WEDNESDAY.—British Gynæcological Society. Specimens will be shown. Dr. Alexander (Liverpool): On the Shortening of the Round Ligaments. Dr. Granville Bantock: On Inversion of the Uterus.

INCREASE OF SALARY.—The Portsea Island Guardians have, upon the recommendation of the Visiting Committee, unanimously increased the salary of Dr. Jacob O'Connor, medical officer to the workhouse, from £350 to £450 per annum, in consequence of the great increase of his duties during the last ten years.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St.Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin, M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S. 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S, 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

HANDBOOKS FOR EXAMINATIONS IN MEDICINE.

SIR,—I have been qualified and in practice nearly ten years, and have a good general knowledge of my profession, but am now intending to go in for the final examination at a Scotch University for the M.B. and C.M. degrees, and feel myself rather green on many subjects on which I will probably be examined.

I have got out of the way of answering questions, and would be glad if you can recommend me good books to study on the following subjects: 1, Practice of Medicine; 2, Pathology; 3, Midwifery; 4, Medical Jurisprudence.

I wish to get small books, with a good deal of knowledge in small bulk, so that I can read them quickly. In other words, I want three good little books for "cramming" these subjects.—I am, yours faithfully, L.R.C.S.Ed.

*** 1. *Elements of Practical Medicine*, by Dr. Alfred Carter (Lewis), will, perhaps, meet our correspondent's wants; but the question is difficult to answer, as much depends on individual idiosyncrasy. 2. Green's *Pathology* (Renshaw), though this is not a book for "cramming." A cram-book on pathology ought to be avoided. Woodhead's *Practical Pathology* (Pentland, Edinburgh) contains coloured plates, which would probably be very useful to a solitary student. 3. Swayne's *Obstetric Aphorisms for Students* (Churchill). Would it not be wise to read through Playfair's *Midwifery* (Smith, Elder, and Co.)? It is in two volumes, it is true, but it is pleasantly and clearly written, and our correspondent will never have cause to regret the time spent in its perusal. 4. Abercrombie's *Student's Guide to Medical Jurisprudence* (Churchill's), recently published. Is our correspondent right in thinking that a small book, "with a good deal of knowledge in small bulk," can be read quickly?

LONDON M.D. EXAMINATION.

M.B. (London), who has been engaged in country practice for ten years, is anxious to take his M.D. degree, and will feel very grateful to any graduate who has taken the same degree under similar circumstances, if he will say whether he found the undertaking a very arduous one, and whether it involved a residence in London for a month or six weeks for hospital-work. Also, what are the best books to read now on medicine, logic, and psychology.

*** On medicine, Roberts' *Theory and Practice of Medicine* (Lewis), or Bristowe's *Theory and Practice of Medicine* (Smith, Elder, and Co.); it is impossible to say which would best suit our correspondent's wants. Dr. Roberts' volumes excel in arrangement and tabulation of detail, while Dr. Bristowe's volume is pleasanter to read. New editions of both have been recently published. With regard to logic, Jevons' *Elementary Logic* (Macmillan) used to be generally read; and, in moral philosophy, Bain's well known work was generally dipped into. The part of Dr. Bastian's *Brain as an Organ of Mind* (Kegan Paul, Trench, and Co.) which dealt with the development of the senses and the constitution of the human mind was very useful. What will be wanted under the new regulations remains to be seen. The examination is not difficult to a practical man who will go through one of the above text-books, and get some practice in writing commentaries on cases. A month or two spent in London attending clinical lectures is, of course, an advantage, but ought not to be a necessity. It is desirable to have some skill with the ophthalmoscope and laryngoscope, and to look up the chemistry of the urine with particular care.

ENTERING FOR LECTURES IN THE SUMMER SESSION.

SIR,—Could you inform me whether there are any advantages to a student entering the hospital at the summer session? I am told there are, but am unable to find out what they are.—Apologising for troubling you, I am, sir, yours truly, E. H. M.

*** If the student have passed his preliminary examination early in the year, there are considerable advantages in entering a medical school in the summer session. He wastes no time, and can clear off his courses of botany and materia medica lectures, and do some practical chemistry. He also can purchase a set of bones and study osteology, with the advantage of having the advice of the demonstrators. He becomes acquainted with the proper manner of getting a "part" for dissection, so that he has a long start of his future fellow-students who enter in October. Above all, when the winter session begins, hospital life will no longer feel strange to him, and he will be all the better able to commence at once his studies in the dissecting-room.

ARREST OF THE LACTEAL SECRETION.

SIR,—Would some member kindly suggest means of stopping the secretion of milk in a lady confined seven weeks ago? She has not nursed the baby. I have tried, without success, strapping and belladonna-liniments, and iodide of potassium in fifteen-grain doses; and I am trying now oxide of zinc in five-grain doses three times a day.—Yours, etc., F. W. JORDAN.

Heaton Chapel, Stockport.

MORPHIA-CRAVING.

SIR,—I should be obliged if some of your readers could inform me in this column the most satisfactory treatment for "hypodermic morphia-craving." I have seen cucaine recommended. How should this be used? and in what doses? I should be grateful for any information which will enable me to cure or alleviate a case of about three years' duration.—I am, sir, yours obediently, M. H.

AGUE AND INSANITY AT SEA.

SIR,—The number of cases of ague and insanity which make their appearance in the emigrant-ships crossing the North Atlantic is simply astonishing. If latent in any individual, they almost always develop themselves at sea; and practitioners on shore do not appear to be aware of the fact, as I find that in nearly every case the patient has been recommended to "try the effect" of a sea-voyage by his medical attendant.—I am, etc.,

J. FOURNESS-BRICE, M.D., M.B.M.Assoc.

The Grove, Wellington Road, Oxton, Cheshire.

MR. ROBERT JACKSON.—Frequent bathing of the parts in a saturated solution of boracic acid has been found beneficial in some cases, and might be tried.

A Case of Superfœtation.

Sir,—The case recorded by Mr. Gordon Nicholl's in the Journal, of May 30th, instead of being an authentic instance of superfœtation, seems to be rather one of twin-fecundation, with the death and arrested development of one fœtus, the other surviving, and apparently dying during the process of parturition. Such cases are by no means unfrequent, and are well described by Drs. Barnes in the first volume of their *Obstetric Medicine and Surgery*, page 256. They state: "It is in a high degree improbable that fecundation can take place through a uterus in the fourth month of gestation, when the decidual cavity is usually closed, and access to the tubal orifices is blocked."—Yours faithfully,

Wimpole Street, W. Arthur W. Edis, M.D., F.R.C.P.

Marital Interference in Obstetric Operations.

Sir,—Will you kindly oblige me by answering the following query?

Is it illegal for a surgeon to use the forceps in an obstetric case, without first consulting and obtaining the consent of the patient's husband? The instrument was used successfuly, to save rupture of the perinæum in a patient aged 43, and a primipara, who has made capital progress since the confinement.

On the sixth day after the confinement, the husband demands to know why those "devil's instruments" were used, and threatens he would bring an action if the nurse had done her duty, and warned me not to use them. I may say he was perfectly aware that I had my instruments with me when I went to his house with him.—I am, etc., L.F.P.S.

*** "L.F.P.S." was perfectly justified in using the forceps in such a case.

Small-pox and Vaccination in Leicester.

Mr. George Serjeant (Launceston).—A large proportion of children recently born in Leicester are unvaccinated. Three importations of small-pox took place there last year, but the disease did not spread, owing, it is stated, to the vigilant energy of the sanitary department in taking preventive measures. The Health Committee of Leicester, apparently conscious of the special danger which a case of small-pox constitutes amongst their unvaccinated population—a spark amongst tinder—take, it is alleged, stringent precautions for the instant removal to hospital of each case as recognised, as well as for the isolation of all the other inmates of the infected house. But obviously a great risk is being run.

Royal College of Surgeons of England.

The following questions in Physiology and Anatomy were submitted to the candidates at the examination for the Fellowship on May 22nd. *Physiology* (three questions at least to be answered). 1. Describe the development of the large intestine. 2. What views do you entertain concerning the mechanism of the secretion of urine? What objections may be taken to the view that filtration forms a part of the process? 3. Describe a tetanic contraction of a skeletal muscle, and the tracing that may be obtained from it. Discuss the nature of a voluntary movement, and of a single beat of the heart-muscle, giving full reasons for your conclusions. 4. How is the heat of the body generated and regulated? What evidence exists that the production of heat is under the control of the nervous system?—*Anatomy*. 1. Describe the steps of the dissection necessary to expose the whole of the external or convex surface of the spleen, without disturbing the relations of the organ. 2. Describe the sternum, defining the exact muscular attachments to it, and the relations of parts in contact with it. Explain how cleft sternum arises. 3. The gluteus medius; state precisely its origin and insertion; its connections and relations; its vascular and nervous supply; and give its actions. 4. Describe the origin, course, and relations of the vertebral artery, and of its branches in the neck. Mention its chief irregularities.

The Acme Medical Car.

Sir,—I should be glad if any member can give me information, based on actual personal experience, respecting the "Acme" medical car, built by Messrs. Harrison and Brass, a drawing of which is shown in the advertising columns of the Journal of April 25th.—I am, sir, yours faithfully, M.R.C.S.

Mr. J. F. Leeson, 6, St. Aubyns, West Brighton, requests us to say that if a "Surgeon (Leeds)" will communicate with him regarding massage-treatment, he will be able to forward him the required information.

A Question of Treatment.

Sir,—Can you or any of your correspondents assist me with the following case?

A young girl, aged 22, otherwise in perfect health, complains of the involuntary passage of most offensive flatus, from which she has suffered for more than one year. She has been under my care for five weeks, and has not improved. During that time, I have tried aperients (podophyllin, sulphate of magnesia, Carlsbad water, and cascara sagrada), acids, and nux vomica; creasote, capsicum, pancreatinin, euonymin, arsenic, and cod-liver oil. Naturally, I have also attended to the hygiene of life, dieting her carefully, and ordering plenty of exercise, sufficiently rigorous to make the skin act freely.

The only time she really improved was when I took her into a home near my house, and placed her under the care of a nurse, who kept her strictly to milk and almost starvation diet, and gave her large injections of soap and water twice daily. I thought it possibly the case was simply one of hysteria, but the fœtid odour of the motions after the first two injections proved conclusively that there was something more than mere hysteria.

But what is the something more? Is it deficiency in the secretion of liver or pancreas, causing decomposition of food? Is it some abnormal fermentation of the intestinal secretions? Is it some disordered condition of the blood. I enclose my card, and remain, yours faithfully, Alpha.

Simulo in the Treatment of Epilepsy.

In the first number of the *El Boletin Medico*, published at Trujillo, Peru, Dr. Larrea, of Quezada, recommends the treatment of epilepsy by "simulo," which is the fruit of Capparis coriacea, a plant indigenous in Peru. Its medicinal properties have long been known to the Indians of the country. Melochara, a conserve made from another plant belonging to the same natural order, is also used in epilepsy. Forty-five grammes of powdered simulo are mixed with 500 grammes of sweet sacramental wine, and of this a wineglassful is to be taken night and morning. He describes the effect of this treatment in his own case. At the age of 13, he had had fourteen epileptic fits, preceded by a distinct aura, but was completely cured by this remedy. Since he has been in practice, he has used it extensively in epilepsy, in hysteria, and in other nervous diseases.

Member.—It is not usual for medical men to charge for attendance on the wife or children of another medical man, unless at the special request of the person attended; a request, however, the observance of which is sometimes made a condition of accepting such attendance.

Stammering.

A Member of B.M.A. is referred to the British Medical Journal for May 9th, last page.

E. J. G.—We think our correspondent should first ascertain from the gentlemen in question that their names appear in the advertisement with their knowledge and consent.

Mr. Mason might bring the particular cases to which he refers under the notice of the Branch.

Sir,—Kindly inform me, in your correspondence-columns, of any reliable way for removing tattoo-marks.—Yours, M.D. (Liverpool.)

E.C.—By courtesy, an M.B. is often styled Doctor.

L.R.C.P. does not forward his card. The case is one which suggests the propriety of a medical consultation.

COMMUNICATIONS, LETTERS, etc., have been received from:

The Superintendent of the Crystal Palace; Mr. Conner, Manningtree; Our Birmingham Correspondent; Mr. C. T. Griffiths, London; The *Liverpool Journal of Commerce*; Our Aberdeen Correspondent; Mr. Simeon Snell, Sheffield; Dr. A. Oakes, London; Dr. Mulville Thomson, London; Dr. A. W. Edis, London; Dr. Sieveking, London; Mr. H. Vane Stoir, London; Mr. M. Greenwood, jun., London; Mr. George A. J. Simpson, London; Dr. W. H. Middleton, Mullingar; Dr. F. Page, Newcastle-on-Tyne; Dr. A. T. Myers, London; Dr. Maxwell, Woolwich; Mr. Thomas Twyford, Hanley; Dr. Sutherland, London; Messrs. C. Griffin and Co., London; Mr. E. M. Shirtliff, Kingston-on-Thames; The Secretary of the Society for Relief of Widows and Orphans of Medical Men; Dr. B. Foster, Birmingham; Messrs. Burroughs, Wellcome, and Co., London; Dr. W. H. Day, London; Dr. W. Jelly, Valencia, Spain; Mr. D. M. Ross, London; Dr. A. W. Russell, Glasgow; The Secretary of St. Thomas's Hospital; The Rev. C. N. Gray, Helmsley; M. Jules Siegfried, Havre; The Honorary Secretary of the British Medical Temperance Association; Mr. T. Nugent Griffith, Birmingham; Mr. Arthur Cooper, London; Mr. J. W. Gandar, London; Mr. R. Thorn, London; Mr. Joseph H. Dant, Valencia; Mr. Leworthy, Shortlands, Kent; Mr. H. A. Fotherby, London; Dr. J Rogers, London; Mr. W. J. Mackie, Bedford; Dr. T. Savage, Birmingham; Dr. G. A. Gloag, Bristol; Mr. Lawson Tait, Birmingham; Dr. Keser, London; Mr. Thomas Cragoe, Truro; Our Edinburgh Correspondent; Mr. Alfred Smith, Liverpool; Our Berlin Correspondent; Dr. Kelburne King, Hull; The Rev. C. L. Williams, Wolverhampton; Dr. W. Cooper, Aberdeen; Dr. James Stewart, Clifton; Dr. Wyer, Leamington; Mr. C. E. Abbott, Braintree; Mr. T. Holmes, London; Dr. J. W. Watson, Limavady; Mr. A. de Courcy Scanlan, Sandgate; Dr. D. MacAlister, Cambridge; Messrs. Cassell and Co., London; Mr. J. Vesey Fitzgerald, London; Dr. Calantarients, Scarborough; Mr. H. B. Robinson, London; Dr. Deas, Exeter; Mr. Percy Warner, Woodford Green, Essex; Mr. Theodore M. Kendall, Sydney; Dr. Barnardo, London; Dr. J. Strange Biggs, Tooting; Our Paris Correspondent; Mr. E. Crickmay, Laxfield; Dr. E. Paget Thurstan, Southborough; Dr. D. Duncan Main, Hangchow, Shanghai; E. H. M., etc.

BOOKS, etc., RECEIVED.

Ambulance Work. By E. Lawton Roberts, M.D. London: H. K. Lewis. 1885.

A Text-Book of Human Physiology. By Dr. L. Landois and W. Stirling, M.D., D.Sc. Vol. II. London: Griffiths and Co. 1885.

The Essentials of Histology, Descriptive and Practical, for the Use of Students. By E. A. Schäfer, F.R.S. London: Longmans, Green, and Co. 1885.

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LECTURES
ON
HERNIA AND ITS RADICAL CURE.

Delivered at the Royal College of Surgeons of England.

By JOHN WOOD, F.R.S., F.R.C.S.,
Hunterian Professor of Surgery and Pathology.

Lecture I.

Introduction.—Limits of the subject.—Inguinal, Crural, and Umbilical Hernia.—Visceral and Parietal Causes.—Opinons acted on by modern Surgeons.—Structure and Development of the Hernial Areas.—Descent of Testis.—Imperfections of Evolution as Causes of Hernia.—Anatomy of the parts of Inguinal Hernia.—Structure and Mechanism of the Canal and Rings in Health and Disease.—Oblique and direct Hernia.—Congenital, Infantile.—Relation to forms of Hydrocele.

Mr. President and Gentlemen,—In undertaking the duty with which I have had the honour to be entrusted by the Council of this College, my selection of the subject of my lectures was naturally influenced by the fact that, twenty-four years ago, the authorities of this College, in conferring upon me the Jacksonian prize for an essay embodying the results of a new method of operating for the radical cure in sixty cases of inguinal hernia, encouraged me greatly in the investigation of this field of research.

Fully and deeply impressed with the idea that it was only by patient and long sustained efforts that a subject of so much difficulty in obtaining and recording true results, for periods long enough to be worthy of reliance, could be satisfactorily elucidated, I have, during this long interval, continued to modify, to perfect, and to extend, the scope of the method of operating which I then published for the first time.

The attention and efforts of surgeons have been turned in this direction from the earliest ages of surgical art. New methods have continually been brought forward, and old methods resuscitated, wholly or in part, with various degrees of success or failure. In no subject has the plausibility of theory been more contrasted with futility of result. The delimitation between the safety of success, and the fatality of failure, has proved most difficult to determine and to mark out.

Yet, notwithstanding, I think I may now say, with a due regard to scientific exactitude, that operative treatment, with a view to produce a radical cure of hernia, has gained ground in the confidence of the medical profession; and that the disappointing results, and repeated failures, of much-lauded methods, have not entirely established amongst us that despairing condition of opinion of which Lord Bacon says, "that he will not doubt to note as a deficience" in the practitioners of his time, "that they inquire not the perfect cure of many diseases, but, by pronouncing them incurable, do enact a law of neglect, and exempt ignorance from discredit." (*Advancement of Learning*, book ii., p. 43.)

In an age when all things are tested, and brought to proof again and again, no exception can be made in a matter which so seriously affects the welfare of the very large number of our fellow-creatures who suffer and die from hernia.

In the course of the three lectures which are allotted to me, I shall not have more time than barely to deal with my own work in the wide field of hernia. A subject absolutely overloaded with literature and bibliography will not fairly permit of scant notices and mere honourable mentions. To read out the names, and to summarise the work of the labourers in this field only, would probably occupy the whole of the three lectures, and then would only imperfectly do the work of the many excellent text-books and encyclopædias. I shall venture, however, further on, to classify very briefly the varieties of the operative treatment of hernia. I shall confine myself to the more common forms of hernia, the most troublesome, and the most disabling, and, therefore, the more urgently calling for a more complete and satisfactory treatment than constant and, usually, imperfect truss pressure, namely, inguinal, crural, and umbilical hernia.

During the twenty-seven years which have elapsed since my first operation for the radical cure of hernia, I have operated upon 391 cases, namely, 370 inguinal, 16 crural, and 5 umbilical.

In 11 cases the hernia was double, and both sides were operated on. In 12 cases, operations, which at first failed, were repeated (in two cases three times), making a grand total of 414 operations.

Of the 370 cases of inguinal hernia, 219 were found on the right side, 128 on the left side, and 23 on both sides; 10 of them occurred in females; 123 were cases of congenital origin, occurring either in children, or seen in patients above 14 years of age with a history of congenital origin; 114 occurred in males, and 9 in females; of the males, 51 were found on the right side, 41 on the left side, and 13 on both sides. In 9 male cases, one of the testes was undescended, and placed at or above the superficial ring. Six of the undescended testes were on the right side, and 3 on the left. Of the 9 females, 6 occurred on the right side, and 3 on the left.

Of the 15 cases of crural hernia, 10 were found on the right side and 5 on the left; 3 were in males, and 12 in females. The 5 cases of umbilical hernia were all males.

Pathology and Causes of Inguinal Hernia.—In estimating these, we have to consider, first, the contained viscera of the peritoneal cavity, and their action under the influence of the muscles which surround and compress them; and, secondly, the formation of the containing walls, and the reason of their yielding in certain hernial regions. Of the contained viscera, the most likely to become displaced are the omentum and small intestines; the former because of its variable length and the mobility of its attachments to the stomach and colon; and the latter, because of the extensibility of the mesentery, necessitated by the alternating distention and contraction of the muscular tube which it encloses and retains. The colon, although frequently implicated in hernial tumours, especially in the umbilical variety, is less liable, in its ascending and descending portions, to hernial displacement, because of the shortness of the peritoneal processes which attach them to the abdominal walls in the shape of mesocolon. The more solid viscera, both abdominal and pelvic, although sometimes implicated in hernial protrusions, when large and of long duration, seem to be always dragged down, either by adhesions, or by their connections with the looser viscera or peritoneum.

It was held by Richter, Morgagni, and others of the older school of modern surgery, that the immediate and most powerful cause of hernia, especially inguinal, was an elongation of the mesentery, allowing of such an extent of play to the movements of the bowels as to permit protrusion through the weaker parts of the containing walls, and that a mesentery of normal length would not allow of such protrusion. Amongst the many able and experienced of their contemporaries, Scarpa stands eminent for the ability with which he contended against this theory, and maintained that, the elongation of the mesentery does not, in the formation of a hernia, precede the displacement of the intestine, but is simultaneous with it, and caused by the dragging of the already displaced bowel.

And there are many facts which appear to favour this opinion, and the conclusions of Samuel Cooper, in support of the same view of the question.

Distention of the bowels by food or air, and the muscular action upon them, presses the anterior wall of the abdomen forwards, by a simultaneous and equally distributed force in its action and reaction, being equal and similar almost to that of fluid pressure. The same distention tends, by separating the folds of the mesentery, to shorten its hold upon the bowel, and so to prevent its protrusion through the abdominal wall. When the abdominal cavity is opened by a wound, no protrusion occurs unless and until the bowels are distended with food, fluids, or air, and then it occurs freely. And it is common to find in the *post mortem* room a considerable part of the intestines lying in the cavity of the pelvis. If the bowels lie so far down as to rest on the pelvic viscera, which they commonly and normally do, they may certainly reach as far as the groin or deep inguinal and crural hernial apertures, which lie on a superior level. In expiration they are pressed still nearer to the spinal column, close against which, in thin persons, the muscular wall of the abdomen lies. In the normal condition, the mesentery of the jejunum, placed towards the left side, is the longest and loosest portion. At a point between the distance of 6 feet to 11 feet from the duodenum, Mr. Treves has shown that the mesentery attains to from 9 to 10 inches in length, from its root to its attachment to the bowel, the lower part measuring from 8 to 9 inches only. (Hunterian Lectures on the Anatomy of the Intestinal Canal and Peritoneum.)

At the right iliac fossa the lower part on the mesentery measures only about one half of this. The same observer calls attention to the fact that, just after birth, the development of the upper part of the small intestine is much more rapid than that of the lower, or that of the colon, which is comparatively late in its evolution. This depends upon the physiological changes resulting from the first imbibition

of food through the mouth, in the form calculated for easy and rapid and more or less complete absorption, with but little residuum in the shape of fæces. These, by their presence, stimulate the growth and action of the large intestine, heretofore a simple receptacle for the meconium. The cæcum, also, is late in reaching to its final resting place in the right iliac fossa.

The early position of the stomach on the left side, with a more vertical direction than in the adult, tends to place the omentum more on the left side, where in the fœtus and infants it is chiefly aggregated. This is apparently the cause why, in early life, omentum is more frequently and more abundantly found in an inguinal hernia on the left side than on the right. The later descent of the cæcum and ileum on the right side, seems to be more than compensated for by the ultimate downward development of the mesentery and intestines on the right side, inasmuch as inguinal hernia is found much more frequently on the right side than on the left. In my own cases, as before stated numerically, inguinal hernia was found almost twice as frequently on the right side as on the left. The reason of this will be found to lie in causes referring rather to the effect of the evolution of the testicle upon the abdominal wall. In about the same proportion of two to one, this gland was found to be retained in the abdomen or groin more frequently on the right side than on the left.

Again, we do not uncommonly find in the dissecting room very long and lax and fatty polypoidal developments of the mesentery, and a very low attachment of its root to the hinder wall of the abdomen, with the whole of the contents of the lower abdominal regions pushed down as it were by a large liver or a hypertrophic stomach. And yet in such cases it is rare to find a hernia coexistent.

In one case out of 100 examined by Mr. Treves the intestines, in an old woman of seventy, reached as far down out of the belly as eight inches below the anterior superior iliac spine, and yet there was no hernia of any kind. I have myself found many similar cases in my dissecting room experience. On the other hand, in normal instances, as Mr. Birkett has pointed out, and Mr. Treves has verified, the intestines cannot be artificially drawn down below the level of the pubic spine, either into the scrotum or through the crural canal. It is evident, therefore, that in hernial cases, after the bowel or omentum has become engaged in the deep hernial rings, as far as which they normally reach, the omentum and mesentery, or both, must be elongated by a constant dragging pull upon these structures. And in point of fact nothing is more common than to find in hernial cases a long, pointed process of the omentum, more fatty and thicker than the rest, lying in the sac; or a coil of intestine which had been habitually the inmate of a hernial sac, projecting prominently beyond its neighbouring coils, with a longer mesentery than the rest.

The bearing of these considerations upon a proper judgment of the subject of the radical cure of hernia is evident. If the omentum is elongated and so formed as to slip easily and continually into a hernial sac, and keeping it open, or pressing upon the deeper hernial openings, an operation for the radical cure cannot really be sufficiently effective, unless a portion of the omentum be also removed at the same time. Such removal of the omentum I have, in my later operations, always effected when required. Any attempt at shortening of the mesentery seems so far, even in these days of daring abdominal enterprises, to be out of the scope of practical surgery.

The conclusion we may draw from the foregoing observations is that while the condition of disproportionate development in the intestines and abdominal viscera may predispose to, and assist in, the formation of a rupture, the chief causes lie in the imperfection of the structures from delayed evolution in and about the deep hernial apertures. As to the precise determination of the structures in which this deficiency of retaining power resides, there is again much difference of opinion. Before discussing this it will be necessary for us to consider the arrangement of the structures composing the abdominal wall, and their relation to the formation of hernia.

Anatomy of the Parts of Inguinal Hernia.—The more persisting and continuous support is evidently afforded by the strong aponeurotic and tendinous structures, which are thickest and strongest where resistance is most required, viz., in the groins.

Under the subcutaneous and tegumentary layers comes the aponeurotic tendon of the external oblique, passing in parallel fibres obliquely downwards, forwards, and inwards, to be connected, at the linea alba, with the similar ones on the opposite side, and blended more or less with the tendons of the internal oblique and transversalis muscles lying beneath them. The muscular fibres of the external oblique terminate in an elliptical border at the level of the iliac spine. From this point an intimate anterior superior combination of the outermost of the tendinous fibres with the fascia lata of the thigh, under the name of Poupart's ligament, passes across the deeper groin structures, to be implanted upon the pubic spine and pectineal line. The iliac portion of fascia lata is connected with it below, from one point to the other, continuously, and holds it down in such a way that the superficial surface is concave, and forms the hollow of the groin, for the accommodation of the lymphatics and superficial vessels.

At the pectineal line, the deeper fibres are blended with, and help to form, a triangular offset with a lunated border outwards (Gimbernat's ligament), and here the fibres meet, and are united to the pubic portion of fascia lata, to the conjoined tendon, the triangular fascia, and to the deeper fascia, namely, the fascia iliacæ and transversalis, which strongly bind it down, and keep it in its curved shape. These important parts are in relation, therefore, both to inguinal and crural hernia.

Above Poupart's ligament, the tendon of the external oblique is covered by the deep, loose, and movable layer of superficial fascia (Scarpa's fascia), which, giving off a wide elastic process of attachment to it, is itself continuous with the deep layer of superficial fascia of the thigh, and contains between its layers the lymphatic glands, vessels, and nerves before mentioned.

Of these vessels, the only ones that need be considered in relation to our subject are the superficial epigastric, and the superficial and deep external pubic branches of the common femoral. Of these, the first named emerge through the saphenous opening, or near it, pass upwards and inwards over Poupart's ligament, and the deep abdominal ring, indicating the course, tolerably closely, of the deep vessels of the same name which lie on the peritoneum.

The superficial external pubic emerges also through the saphenous opening, and crosses upwards and inwards over the superficial abdominal ring, towards the *mons veneris*, while the deeper ones of the same name emerge through the fascia lata, cross the pubis behind the spermatic cord, to anastomose on the scrotum and penis with other arteries.

The cutaneous nerves in relation with these are the ilio-inguinal, emerging from the superficial ring, to be distributed to the scrotum and lower groin on the thigh. Other small branches of the lower dorsal cutaneous nerves pierce the abdominal aponeurosis at varying distances from the linea alba, with similar branches of the lower intercostal arteries, to anastomose with the superficial epigastric. The genital branch of the genito-crural nerve also emerges upon the spermatic cord or round ligament, through the superficial abdominal ring, to become distributed, in the male, to the cremaster muscle and dartos scroti in the scrotum, while the crural branch of the same nerve pierces the fascia lata below Poupart's ligament, to be distributed on the upper and front part of the thigh, anastomosing with the internal cutaneous branch of the anterior cruræ.

Above Poupart's ligament, the aponeurosis of the external oblique forms an aperture for the transmission of the spermatic cord or round ligament, the superficial (external) abdominal ring. The sides of this opening form, with the pubic crest, an elongated oblique triangle, of which the outer (the external pillar of the ring) lies also inferior, and blends, or is identical with, the lower half of Poupart's ligament.

Flat at its outer half, it becomes rounded and cord-like at the inner or lower part, where it is implanted firmly upon the pubic spine. Outside this insertion it is grooved obliquely for the passage and lodgment of the spermatic cord, which, on emerging from the ring, lies outside the pubic spine, which forms an important internal relation to it, useful in protecting it from injury, and in diagnosis. This groove is found to be continuous with one formed in the canal by the attachment of the fascia transversalis and conjoined tendon to the deep surface of Poupart's ligament, in which the cord rests on its way through the inguinal canal, and which forms the lower boundary of that canal.

The internal pillar of the superficial ring is flat and riband-like, and can be traced downwards to the front of the pubic bone and symphisial ligaments below the pubic crest, forming in the male a part of the ligamentum suspensorium penis. The triangular opening left between the pillars of the superficial ring is converted into an oval opening by the arrangement of some curved cross fibres, in bundles of an inverted arch-shape arciform fibres, closely connected by a thin but dense fascia, and deeply adherent to the tendinous pillars. The arciform fibres arise in a single bundle from the anterior superior iliac spine. They spread out, to be lost in the aponeurotic fascia, over the lower part of the linea alba. Below, the arciform fascia is continued as a sleeve-like investment over the spermatic cord, forming the intercolumnar or external spermatic fascia, which passes down into the scrotum upon the tunica vaginalis, blending with the cremaster fascia, which lies next below it. When the arciform fascia is divided, the pillars of the ring separate under pressure from within, proving that this

fascia forms a barrier against dilatation or separation of the pillars of the ring in the formation of a hernia.

Next in order, under the external oblique aponeurosis, come the internal oblique and transversalis muscles, with the cremasteric fibres, all covered by a thin, but dense, connective tissue layer, which connects the cremasteric fibres in a fascia, the fascia cremasterica.

The lower muscular fibres of the internal oblique arise from the deep surface of Poupart's ligament, as low down, in a well formed subject, as the lower third of Poupart's ligament, covering over the transversalis fibres, and also the deep abdominal ring. In a muscular man, they are frequently arranged in a thicker layer at this point, so as, with the subjacent cremasteric fibres, to form an elevation or swelling, visible externally, so as to resemble a bubonocele somewhat. This swelling may be observed markedly emphasised in the well known athletic statue, the Farnese Hercules. The lower fibres of the muscle arch closely over the cord at the deep ring—blended, more or less, with those of the transversalis muscle which accompany them, reaching nearly as far down, and separated only by the small intercostal vessels and nerves, with the plexus of the ilio inguinal and ilio hypogastric nerves. Inside the canal, they unite in a dense tough fascia to form a conjoined tendon. The outer curved border of this tendon is continuous, and blended with the fascia which covers both the surfaces of the transversalis muscle, especially with the deeper layer called the fascia transversalis. The muscular fibres of the internal oblique are inserted in strong bundles upon its superficial surface, so as to cover it in muscular males.

If the forefinger be carried along the canal in a hernial subject, and passed as far inwards as possible, so as to lift the muscular layers, the conjoined tendon can be raised upon it, along with the combined oblique and transversalis muscles, presenting a salient crescentic margin, easily recognised by the finger.

The cremasteric muscular fibres arise externally from the lower third, or rather more, of the deep surface of Poupart's ligament; the higher fibres passing up behind the internal oblique, and connected with and sometimes receiving fibres from the transversalis muscle.

Below and internally, the fibres spread out in a fan-like way, the upper ones arching over the cord, to be implanted, continuous with those of the internal oblique, into the surface of the conjoined tendon. The lower two-thirds of the fibres pass out through the superficial ring upon the cord, forming a second sleeve-like investment, in combination with the connecting tissue. The inner ones form a more or less perfect series of loops, the recurrent fibres becoming lost in the fascia, about the angle of the pubis; while the outer or lowest are lost upon the fascia investing the tunica vaginalis. When the superjacent fascia intercolumnaris is opened, the finger can easily separate the cremaster fascia from its connections, and invaginate it into the canal as high as the deep ring.

At the outer border of the rectus abdominis muscle, the conjoined tendon splits, a little above the pubis, to form the sheath of that muscle. The separation of the layers is marked externally by a crescentic depression, "the linea semilunaris," reaching from the pubic spine as high as the junction of the eighth and ninth rib cartilages, into which it is implanted. Its posterior layer covers the deep surface of the rectus muscle as far as the linea alba, except at the lower fourth or fifth, where the muscle is in contact with the fascia transversalis.

A curved margin is here seen, called the fold of Douglas, under which the epigastric vessels pass into the rectus muscle. In a perfectly formed subject, the outer border of the rectus muscle forms a deep convex curve outwards, from the crest of the pubis, so as to bring it into pretty close relation to the deep ring, and to form a protection against hernial protrusion in this place. The deep abdominal ring is an oval opening in the fascia transversalis, placed about three-fourths of an inch above the centre of Poupart's ligament, with its longer diameter directed upwards and inwards.

The opening is covered in front by a sleeve-like prolongation of the fascia transversalis, the borders of which give off over the cord a close investment of fascia, the fascia spermatica interna, or infundibuliform fascia, the latter name from its funnel-shaped appearance. Like the upper opening of a coat-sleeve, the aperture of the deep ring is seen only from its internal or deep aspect, presenting, when the peritoneum is stripped off, a sharp crescentic margin internally, over which the spermatic duct can be seen to curve acutely. At this point, the spermatic vessels, lymphatics, and vaso-motor nerves first join in the duct, lying on its outer and upper side, and bound to it by a connective tissue, the remains of the funicular prolongation of the peritoneum, which forms in early fœtal life the continuation of the tube of the tunica vaginalis. It is lost below on the outer surface of the tunica vaginalis when completely shut off from the peritoneum.

When this has occurred, after the complete descent of the testicle, about the eighth month of intrauterine life, the connective tissue becomes strengthened and connected with the subperitoneal fascia—a cicatricial dimple on the peritoneal surface, forming a strong resisting barrier against the first protrusion of a rupture into the inguinal canal. On this aspect of the hinder wall of the canal is seen, in the subperitoneal fascia, a tolerably sized artery, given off from the external iliac just above Poupart's ligament, the deep epigastric artery. It passes upwards and inwards, to enter the sheath of the rectus at the outer part of the fold of Douglas, accompanied by two veins, one on each side, which join before they open into the external iliac vein. Between these vessels and the outer edge of the rectus is formed a triangular space, with its base towards the inner third of Poupart's ligament, the triangle of Hesselbach. This is covered by the fascia transversalis, closely adherent to the deep surface of the conjoined tendon of the internal oblique and transversalis muscles. In front of the latter, at the lower and inner angle of the aforesaid triangle of Hesselbach, can be seen a triangular arrangement of tendinous fibres, which can be traced from the internal pillar of the superficial ring of the opposite side of the body, across the median line or linea alba, downwards and outwards to the inner fourth of Poupart's ligament, with which, and with the conjoined tendon, it is intimately blended at the rectineal line.

Across the triangle of Hesselbach, on the deep or peritoneal surface, the obliterated hypogastric artery, forming part of the superior false ligament of the bladder, is seen to cross upwards and inwards towards the umbilicus. On each side of it is a loose pouch of peritoneum, which in direct inguinal hernia forms a sac for the rupture, and also affords material for the enlargement of the sac in the oblique variety.

The inguinal canal is a passage from the deep to the superficial ring, one inch and a half to two inches in length, and directed obliquely in a double sense, viz., oblique from above, downwards, and inwards, and oblique also from the deep to the superficial opening. It is closed in a valvular way by the close apposition and areolar connection of the deep and superficial walls or boundaries. This adhesion by connective tissue is torn or stretched in the formation of a hernia, or prevented altogether by the persistence of the funicular process of peritoneum in infancy, and it is one of the most important objects of a radical cure of hernia to restore this adhesion and reinstate the valvular action of the walls of the canal, if possible.

The deep wall is formed by the apposition and union of the layers of aponeurotic fascia—namely, the fascia transversalis blended with the conjoined tendon of the internal oblique and transversalis muscles, and, at the lower third, with the fascia triangularis, passing from the external oblique of the opposite side to the lower third of Poupart's ligament, and covering the lower tendinous origins of the rectus abdominis muscle.

The anterior wall is composed mainly of the aponeurosis of the external oblique muscle, where it forms the outer pillar of the superficial ring. At the outer two-thirds, beneath this, are the muscular fibres of origin of the internal oblique muscle, arching over the canal to unite with the edge of the conjoined tendon. Closely skirting the deep ring beneath this are the lower fibres of the transversalis muscle, connected with it by a tough fascia. At the inner or lower half are the fibres of the cremaster muscle, also closely attached, by its connecting fascia, to the conjoined tendon and fascia triangularis.

Below the canal is the grooved upper edge of Poupart's ligament, and above it are the arching fibres of the internal oblique and transversalis muscles. When pressure from within is made by the viscera, the hinder wall is pressed forwards against the front wall, and the passage is thus fortified against dilatation. At the same time, the elastic peritoneum and its fascia, closing strongly the deep ring, prevents the omentum or bowel from forming a depression, which would give it a hold and purchase wherewith to dilate the opening and canal.

Formation of Oblique Inguinal Hernia.—If this closed ring yield from imperfect formation, or want of tensile power, a depression is formed outside the epigastric vessels. This affords a prominent and resisting line or border, so that a hernial dimple or shallow sac is formed, permitting the viscera to protrude and press against the internal and external oblique fibres, and to bulge forward the anterior wall of the canal. Thus, a hernial protrusion is commenced (bubonocele), which speedily, under muscular effort, turns downwards along the canal, rips up and stretches the connective tissue binding the walls together.

When, by a late and imperfect development of the gubernaculum or other causes, the testis has not descended in the eighth month of fœtal life, a sac is already formed by the funicular process of peritoneum.

In these cases, the internal oblique and transversalis muscles, as well as the cremasteric fibres, are weak and improperly formed; and the former does not extend at its origin so far down as it ought, sometimes occupying only the outer third of Poupart's ligament. Thus, but a feeble resistance is afforded to the descent of a hernia at the moment of the greatest tension. At the same time, the superficial ring may be larger than usual, in consequence of being occupied by the testis in its slow and delayed descent. The intercolumnar fibres are feeble and yielding, and afford but little resistance to the separation of the pillars of the ring. The external aspect of the patient's groin in these cases is weak and bulgy, and the deficiency of development of the muscular fibres sufficiently evident. The rectus muscle is narrow, and does not arch boldly outwards to close up and protect the groin-area.

The testis may be in the deep ring or the canal, in the superficial ring, or just upon the pubic angle. In such cases, a hernia almost invariably follows the descent of the testis. When the gland is adherent in the canal, the epididymis may be drawn out and stretched, so as to be altogether below the testicle, with a pouch of peritoneum (the aborted tunica vaginalis) quite below both, and simulating the testis externally to the eye of the surgeon. The contour of the external genital organs in these patients is usually rounded and infantile, sometimes stunted.

The persistence of a small funicular process of peritoneum in the canal may result, even later than the infantile period of life, in a hernia; first the omentum, and then the bowel, dilating the canal down to its imperfect closure at some point above the testicle, where it forms a large tunica vaginalis. In children, such cases may thus have the fundus of the hernial sac invaginated into the large tunica vaginalis, giving a double serous covering or sac to a hernia. This is described in text-books as an infantile hernia, and is characterised as presenting three layers of serous membrane for division before the contents of the sac are reached. It must be considered as simply a variety of congenital hernia, in which the funicular offset of the peritoneum is not closed up at all, but the hernial contents descend and lie directly upon, and may reach beyond, the testicle. Such a hernia is characterised by its rapid progress downwards into the scrotum, having only to dilate the funicular tube of serous membrane, and to overcome but little resistance from the already open inguinal canal.

It is to a late descent of the testis, to an imperfect closure or a mere narrowing of the funicular process, and to the rapid development of the small intestine and omentum, that I attribute the occurrence of inguinal hernia in infants and young children. In adult cases, also, there is frequently a history of some sort of a swelling about the scrotum in childhood.

We have seen that, out of 370 cases of inguinal hernia, as many as 123 could be traced to a congenital origin. In a great proportion of these, ruptures had been present in the males of the family—in the fathers, uncles, or grandfathers—showing the hereditary nature of the cause. In many instances, there were open rings and a bulgy loose formation of the groin where no actual rupture was present, revealing the imperfect development of the muscular apparatus and surroundings of the spermatic cord. In many others, also, there was an imperfect development of the testicle on one or both sides, most frequently on the right side. The majority of cases of inguinal hernia being also on that side, tends to prove that the cause of this variety of hernia here assigned is the true one.

When the abnormally feeble barrier at the deep ring has once begun to yield, other agents tend to promote the formation of a complete hernia. The bubonocele pushes forward the anterior wall opposite the deep ring, weakened by the want of formation of the lower part of the internal oblique and transversalis muscles. The continued action of the latter muscle, forming a horizontal muscular constriction on the abdomen, forces the intestines down upon the weakened ring. At the same time, the contraction of the recti muscles keeps them in the same position, and, by the backward pressure upon the sheath, forces the deep wall of the inguinal canal backward, and tends to open up the valve of the canal, while the sac finally slips down and emerges through the imperfectly closed superficial ring, and then opens up the channel of the spermatic cord down into the scrotum, distending the dartoid pouch-like investment.

In a condition of oblique inguinal hernia, the cord lies first below and to the inner side of the neck of the sack, the fundus of which is lodged, in the earlier stages of bubonocele, in a deep groove behind the outer pillar of the superficial ring, and above Poupart's ligament. As it proceeds along the canal, the cord crosses obliquely behind the sac of the hernia, and finally lies behind and to the outside of the complete hernia, in the groove on the outer pillar of the ring, external to the pubic spine. The sac, when distended, fills up the canal, adapting itself to the shape of the passage, so that there are usually found three slight constrictions, namely, one at the neck of the sac, one at the lower margin of the internal oblique, and one at the superficial ring. The first is usually the most marked, and is often attended with a thickening of the neck of the sac itself, which may constitute the strangulating portion of a hernia. The constriction may be at any of the three points indicated, but is most common at the first.

In the formation of a direct inguinal hernia, much less common, the deep ring has no share. It resists the applied force, while the conjoined tendon and the other layers of the hinder wall of the canal below the epigastric vessels, and between them and the hypogastric cord, yield before the loose peritoneal protrusion, or are, less commonly, split and really ruptured by the muscular force applied above. Pushed before the intestines, the loose and yielding peritoneal sac passes between those vessels, or internal to both of them. The spermatic cord usually lies to the outer side of the sac of a direct hernia, all the way along the canal.

Not unfrequently it was found, when operating to remove the sac, that the constituents of the cord were pushed in front of the sac, and sometimes spread out and separated from each other, and were even projecting into the cavity of the sac.

This constitutes a dangerous and perplexing condition to the operator when removing the sac of a large hernia. The distinction usually drawn between the direct or internal and oblique or external hernia from the relative position of the epigastric artery to the neck of the sac, is difficult or impossible to detect in the operation for the radical cure; and even in that for strangulation, it rarely affords any guide to the operator, to lead him to depart from the rule of cutting upwards. An oblique hernia of old standing may present the appearance of a direct one from the rings being drawn nearer to one another by the enlargement of the deep ring, and the neck of the sac may be in close contact with the edge of the rectus muscle. No trouble has ever been caused in any of my operations by the epigastric vessels, and no hæmorrhage has ever followed the operation.

The structures which the surgeon must divide to reach the sac of the oblique variety, outside the superficial ring, are as follows, namely, the integuments, including skin and two layers of superficial fascia, with the small cutaneous vessels and nerves; the fascia intercolumnaris; the cremasteric fascia, recognised by the presence of muscular loops, with the cremasteric nerve-vessels; the fascia infundibuliformis *vel* fascia propria; and then covered by a little adipose connective tissue, fascia subperitonalis, to the sac of the hernia.

The structures divided in cutting down to a direct hernia proper are the same, with the substitution of the fascia transversalis for the infundibuliform, and the conjoined tendon for the cremasteric fascia. The conjoined tendon is sometimes split by the hernial sac, and does not cover it. A few cremasteric fibres may, however, be seen in muscular subjects lying over the direct hernial sac, when this is placed close internal to the epigastric artery.

The occurrence of a double sac, one through the deep ring, and another through the conjoined tendon, is rare, but must be kept in mind.

A direct hernia is more commonly the consequence of an overpowering muscular force, rapid in its action and effects, and resulting in a distinct tear or rupture of fibres, than the other form of inguinal hernia, which is the result of gradual yielding. It is most frequent in adults whose muscular power is disproportionate to the existing strength of the fibrous structures. The neck of the sac lies close to the edge of the rectus, and there is no oblique valve-action capable of being restored by operation. Sometimes the hernial sac emerges from the canal by splitting the fibres of the outer or inner pillar of the superficial rin , and may thus, in the former case, be placed in close proximity to the femoral vessels.

Industrial and gymnastic exercises favourable to the prevention and cure of hernia are those which tend to strengthen the abdominal muscles and fascia, such as hanging and swinging by the hands upon the trapeze, swaying from one hand to the other, swarming up a pole, or up a rope or rope-ladder by the hands, or any motion or posture which stretches out the body and increases the tension of Poupart's ligament.

But force applied with the legs bent on the body, and the groin-structures relaxed, is injurious, and productive of rupture; as in rowing, tricycling, lifting heavy weights, and straining with the diaphragm. In all these, Poupart's ligament and the structures connected with it are relaxed; while the transversalis muscles exercise a constricting power upon the abdominal viscera, forcing them downwards upon the relaxed groin-structures, which give way before the force, and produce rupture. The rectus, also, when contracting, presses backwards its sheath and conjoined tendon, and so tends to open up the canal.

The contents of an inguinal hernial sac vary very much, and some-

times perplex the surgeon, both in diagnosis and operation. The funicular process may be patulous throughout, though too narrow to admit of either bowel or omentum. A serous effusion may be present, which forms a translucent tumour like hydrocele. This may disappear on the patient lying down, and may be reduced by gentle pressure more or less slowly, according to the size of the tube communicating with the peritoneum. This has been called a diffused hydrocele of the tunica vaginalis. It is usually present in children. Before it becomes absorbed, the canal of the funicular prucess may become closed at some point in the canal; and a doughy loosely fluctuating scrotal tumour may be present, which does not disappear on pressure or lying down. This is sometimes called a windy rupture; neither bowel nor omentum can be detected.

When the canal is closed up imperfectly in two places or more, a tumour may be formed on the cord, elastic and irreducible, from fluid effusion into the canal between the obstructed points, and the complaint then constitutes one form of encysted hydrocele of the cord. At the same time a pouch may exist at the deep ring, forming a true hernial protrusion.

Occasionally I have found in a hernial sac one or more of the bodies known as peritoneal concretions. Round as a billiard-ball, and sometimes of considerable size, such concretions seem to be formed by a deposit of albumen in layers around a detached appendix epiploica, and may slip up and down from the sac to the abdomen.

The hernia may be irreducible from enlargement by fatty or fibroid deposits in the omentum, constituting one form of incarcerated omentum.

Or the omentum may be adherent to the bowel, or one or both of these to the sac. If such adhesions be recent and not extensive they may be detached in an operation for cure, the omentum removed, and the bowel returned, all bleeding points being carefully ligatured. Sometimes I have found a secondary smaller sac budding from the primary hernial one, and filled with a hard and convoluted mass of adherent omentum. In some cases these have been found which in size and shape feel like a testicle, the real gland being obscured by the mass. They have not, of course, the testicular feel to the patient on pressure, and this forms something of a guide when the patient can be trusted to help in the diagnosis. Lastly, there may be present in an old and large rupture, on either side, a portion of large intestine, the caput cæcum coli, a part of the bladder, uterus, and ovaries. I have never found either stomach, spleen, or kidneys in a hernial sac of any kind.

Adhesions and constrictions of the sac or contents of a hernia may give rise to strangulation, which illustrates the propriety of always, as a rule of operation on strangulated hernia, opening and examining the interior of the sac. This is still more forcibly inculcated when ulceration or sphacelus, or fæcal extravasation might be present.

The sac of the hernia may be so thin and delicate that the necessity for removing it is not apparent. Twisting and stitching up the neck along its whole length, together with the parietes and openings of the canal, have, in 261 cases out of 305, been found sufficient to cure cases of reducible hernia, operated on when none but reducible cases were judged proper for the radical cure. In the other cases, the sac was removed.

CONTINENTAL UNIVERSITIES.—According to the German University Calendar, the numbers of students in the medical faculties of the universities of Germany, Austria, and Switzerland, during the winter session 1884-85, have been: Vienna, 2,291; Berlin, 1,133; Munich, 874; Würzburg, 791; Leipsic, 695; Greifswald, 408; Breslau, 370; Grätz, 369; Freiburg, 307; Halle, 296; Bonn, 251; Königsberg, 247; Erlangen, 222; Heidelberg, 210; Marburg, 206; Strassburg, 304; Zürich, 199; Göttingen, 190; Tübingen, 185; Bern, 184; Kiel, 174; Jena, 155; Geneva, 144; Giessen, 135; Basle, 113; Rostock, 87.

AT a special meeting of the Wenlock Town Council, on Monday, May 18th, upon the reading of a letter from Mr. Edward Glover Bartlam, resigning the office of borough coroner, a resolution "that Mr. Bartlam's resignation be accepted, and that, in accepting with regret such resignation, this council wish to express their thanks to him for the able and upright manner in which he has discharged the duties of borough coroner for the last forty years," was carried unanimously, and the town clerk was instructed to send a copy of the resolution to Mr. Bartlam.

THE Prince of Wales has fixed Saturday, July 4th, for the ceremony of opening the Albany Memorial and other buildings of the National Hospital for the Paralysed and Epileptic, Queen Square, Bloomsbury. The Prince and Princess Christian have signified their intention to be present, and the Archbishop of Canterbury will take part in the proceedings.

ABSTRACT FROM A CLINICAL LECTURE ON FIVE CASES OF LAPAROTOMY FOR INTESTINAL OBSTRUCTION: THE MODE OF OPERATING.

BY J. GREIG SMITH, M.A., F.R.S.E.,
Surgeon to the Bristol Royal Infirmary.

AN abdominal section for obstruction of the bowels is usually a very different proceeding from one for removal of a tumour. In the former case, the abdominal walls will be hard, tense, and unyielding, and the intestines will be full of fluid and gas under considerable pressure. When the abdomen is opened, and pressure is partly removed, the gas expands, dilating the bowels, and forcing them through the wound. In ordinary cases of laparotomy, where the gut is flaccid and empty, it is easy enough to isolate and run our fingers along it for a considerable distance; in cases of obstruction, this is a matter of great difficulty. The gut, when distended, is too large to be easily grasped between the fingers; its walls are too thin and impalpable to be isolated by mere touch; and, if any degree of peritonitis be present, it will inconveniently stick to the fingers. The exploring hand at every step is caught in the loops of distended bowel, which wind about in most confusing manner inside the abdominal cavity. In fact, it is just when the physical conditions are most strongly against us, that we have to look for the cause of an intestinal obstruction inside the abdomen.

A course of procedure has been laid down for our guidance in such cases, and it will be well for you always to follow this course. Though I have not yet derived any help from it, it is not unlikely to be of good service in leading us to the seat of obstruction. The plan is as follows. First carry the hand to the cæcum; if it be found distended, the obstructing cause will probably be somewhere in the large bowel below this, and the hand is carried up the ascending colon, across the transverse colon, and down the descending colon as far as the sigmoid flexure, seeking for the stricture all the way. If the cause be not here, we are then told to carry the hand from left to right under the distended coils, seek for collapsed bowel, and follow it up till we meet with distension, when we shall probably find the cause. Now, it is much easier to lay down these directions than to put them into practice. If the small intestine be much distended with gas, we may have the transverse colon pushed up under the ribs; and to reach it there over coils of dilated gut, under hard brawny abdominal walls, and, more than this, to isolate it and diagnose its condition, is an undertaking, to say the least of it, of very considerable difficulty. If we can find undilated bowel, we may follow it up readily enough; but how often do we expect to find empty bowel in these cases? I have not yet met with it. We must be prepared to find the bowel dilated everywhere, at some parts more than others, but nowhere collapsed; and we must be prepared to look for the obstruction amid the endless contortions of these soft, sticky, and dilated coils.

As I have said, I have always observed these directions, but only to find the observance so much valuable time wasted. To proceed to examine, inch by inch, the whole length of bowel, will undoubtedly be successful as far as the discovery of the site of obstruction is concerned; but not probably so as regards saving the life of the patient. In such a procedure, the amount of rough handling, and the length of time spent over it, must tell seriously against the chances of recovery.

The plan I would recommend to you is this. The most distended portions of bowel are usually nearest to the surface; move these about gently, and fix upon any part that appears to be more congested than another. Follow this part in the direction of increasing congestion down into the cavity, wherever it may lead. If now the cause be discovered, it may be at once treated. If not, I would then recommend a plan which has been almost universally condemned; that is, to permit the bowel to extrude. The wound is covered with some layers of fine cloth, or better still, by a large flat sponge wrung out of warm carbolic or boracic lotion, and covered with gutta-percha tissue to prevent evaporation and cooling; and the most distended coils are coaxed out under this covering. Carefully watch the gut as it comes out. One end of the coil will be more distended than the other, and

will come out less readily, and this end will probably be more injected. As they continue to extrude, these differences will be more marked, and we will be able satisfactorily to decide that one end of the coil is nearest the cause of the obstruction. We follow this end wherever it leads; it will certainly lead us to our goal. I have three times followed this course, and have been charmed with its simplicity and efficiency.

Turning to the extruded coils of bowel, the bulk that they assume may look somewhat alarming. If the distention be not very great, you may try to return them. Spread the hands over the warm antiseptic covering, gather the bowels together, and, by steady gentle equable pressure, send their contents into the bowels that lie inside the abdomen. When they are nearly emptied, and occupy about one-fourth of their previous bulk, they may be slipped through the wound, while an assistant, with finger hooked in at each extremity, pulls the opening forwards. The abdominal wall is, so to speak, pulled up over the bowels. A flat sponge is now laid over them to protect them and keep them in position while the wound is stitched up.

But it is by no means certain that we are always right in thus closing up an abdominal wound over distended bowels. In fact, I believe that, in doing so, we are nearly always wrong. I believe that this distention with fluid and gas is in itself a serious factor in the malady. It certainly acts as an obstruction. I place before you these coils of intestine, with the mesentery attached, just removed from a dead body. They are filled to distention with fluid, and confined within the walls of this dish. You notice that the gut forms acute flexures, and that, at each of these, the mesenteric side of the bowel is pushed in, and acts as a sort of valve, blocking the calibre of the gut. As with any other tube, if you bend the bowel acutely enough, you will block its passage. Inside the abdominal cavity, where the confinement is greater, the flexures are more numerous and more acute than those on the table, and you may easily satisfy yourself by experiment that the passage of its contents is even more difficult. Practically, this fact explains why we are so often disappointed with the effect of tapping the bowel to permit the escape of gas or fluid. We empty it down to the first or second flexure, and no further.

Such distention also has an injurious effect on the bowels themselves. An intestine that has been overdilated for hours or perhaps days, and that is probably partly paralysed by opium, we should expect to contract on its contents no more than a dilated bladder under the same circumstances. If it cannot pass its contents along, the obstruction is to all intents and purposes unrelieved. We know that such increase of pressure inside the abdomen is, partly from its physical effects on the diaphragm, and partly, no doubt, through injury to the sympathetic ganglia, a cause of serious illness. When added to the effects of intestinal obstruction, its gravity is increased tenfold.

Now it is a matter of constant experience that free vomiting greatly relieves the patient. I am one of those who do not lightly regard the experiences of our forefathers; and I cannot believe that the very general esteem in which, from the days of Hippocrates and Praxagoras, they held the use of emetics in obstruction, was utterly misplaced. And quite recently we have had recommended strongly by Kussmaul, the removal of intestinal gases and fluids in these cases by the use of the stomach-pump. Relief is always claimed for this procedure; and, in not a few cases, positive cure.

I certainly consider the removal of this fluid and gas from the bowels, after relief of the constriction, as the most important detail in treatment. If it is to be done it must be done rapidly, for no time must be wasted in these operations. Tapping will not do, for the flow through such a trocar as we should dare to push through the intestinal wall, would be far too slow. We must incise the bowel. The blade of an ordinary scalpel, making a wound about one-third of an inch in length, is pushed through the bowel transversely, at the point furthest removed from the mesentery; and, while you hold the opening, removed as far as possible from the wound, over a receiver, an assistant presses the sides of the abdomen, and squeezes out the intestinal contents. At first, probably, there will be a rush of gas, and then fluid will follow, watery or fæcal, as the case may be. When the abdominal walls are flaccid and the intestines are nearly emptied, we may stitch up the wound in the bowel, return it, and close the abdomen.

You have just seen this proceeding carried out in one case. The patient was in about as bad a condition as one ever sees upon an operating table. His pulse could scarcely be felt, and certainly could not be counted. His intestines were everywhere of a bright rosy red, covered in many places with patches of yellow lymph, and everywhere fully distended. Semi-purulent fluid flowed from the abdomen when the incision was made, and a good deal more was mopped out. The constriction, a mesenteric band, was discovered in the way described, and easily divided. The bowel was incised, and through the opening, while the abdomen was being kneaded, large quantities of gas and fluid escaped. A continuous suture of fine catgut accurately closed this opening; the bowel was easily returned; the abdominal cavity was mopped out, and the wound sutured in flaccid abdominal walls. You have seen the case recover with no more trouble than any other abdominal section; with less trouble certainly than most cases of herniotomy. One example may be more impressive than much advice. I am sure you will not soon forget the lessons which this case has taught us.

In conclusion, I venture to submit to you these rules, for your guidance, in opening the abdomen for the relief of acute intestinal obstruction.

1. Make the incision in the middle line below the umbilicus.
2. Fix upon the most dilated or the most congested part of the bowel that lies near the surface, and follow it with the fingers, as a guide to the seat of obstruction.
3. If this fail, insert the hand, and carry it successively to the cæcum, the umbilicus, and the promontory of the sacrum.
4. If this again fail, draw the intestine out of the wound, carefully covering it, until increase of distention on congestion, or both in one of the coils, gives an indication that the stricture lies near.
5. If there be considerable distention of the intestines, evacuate their contents by incision, and suture the wound. Never consider an operation for intestinal obstruction inside the abdomen finished, until the bowels are relieved from overdistention.
6. Be expeditious, for such cases suffer seriously from shock. The whole operation ought to be concluded in half an hour.

REMARKS
ON
EXCISION OF BOTH BREASTS AT THE SAME TIME.

By JONATHAN HUTCHINSON, F.R.S.,
Emeritus Professor of Surgery to the London Hospital College.

Thanks to antiseptic surgery, the removal of the breast has come to be such a slight affair, that we now without hesitation resort to it in many cases in which formerly we should have felt bound either to wait or even to decline it. The doctrine of the pre-cancerous stage of cancer has also spread, and had its influence. We have left behind the futile logomachy as to whether cancer is a constitutional or a local disease; and, whilst not denying the existence of family and individual proclivities, we now recognise clearly that, for practical purposes, t is, in nineteen cases out of twenty, local up to a certain stage. Hence we are zealous for early operations, and no longer delay until the tumour, by its size, its hardness, or even its gland-complications, has taken on features which are not to be mistaken.

Problems of diagnosis present themselves to us which our forefathers would simply have shirked by waiting. We dare not do so, for we know that, whilst we are delaying in order to feel sure, the patient's sole chance of permanent recovery, or even of prolonged interval of immunity, is steadily vanishing. Thus we deliberately prefer to run some risk of operating needlessly where certainty is unattainable, rather than encounter the far greater evil of delay.

I make the above remarks as introductory to the consideration of the question, as to whether there are any cases in which it may be desirable to remove both breasts at once. At first sight, it may seem that, when cancer is symmetrical, the proof of constitutional tendency is so strong, or even the probability of other growths being present so great, that it is not worth while to operate. Many cases have occurred in which, after good recovery from one operation and no recurrence on that side, the surgeon has felt justified, at a subsequent period, in removing the other gland on account of an independent growth in it. The removal of both at once has, I believe, been but very rarely done, and is as yet, if I may judge by the remarks of some of my friends, looked on with disfavour by some of our best surgeons. If I mistake not, however, the time will come when, under the combined influence of the arguments to which I have just adverted, it will become a well esteemed procedure. The circumstances under which it is desirable will probably be chiefly those in which there is certainty of malignant growth in one breast and suspicion of it in the

other, or in which, with a bad family history, there is strong suspicion as regards both, without certainty in either. It is clear that the surgeon can, during the operation, always make himself fairly certain as regards one. He can cut across the induration in the breast first removed, and inspect it, before proceeding with the other. There are, however, cases in which the surgeon cannot form a positive opinion until the microscope is used. All who have had much to do with breast-cases will, I think, admit that there are many cases in which the diagnosis is to the last a doubtful matter. It is only those who wait who never make mistakes. All of experience will also, I expect, be willing to admit that, even after diagnosis has been made certain, prognosis remains difficult, and that sometimes cases which have seemed most unhopeful prove the best.

I have seen a certain number of cases of cancer in both breasts, but usually at a stage in which operation seemed out of the question. In two or three, the propriety of a double operation has been discussed, but finally negatived. I have never actually resorted to it until the other day, in the case which I am about to record.

Miss G., a lady aged 46, was sent to me by Mr. Keele of Highbury, in April. She was of spare habit, but in good health, and her history was that three aunts had died of cancer. She came on account of a lump in the left breast, and did not know that there was anything amiss with the other. I found some knotted lumps in the middle of the gland, concerning the nature of which it was impossible to feel certain. There were several of them, but one was larger and harder than the rest. On examining the other breast, according to rule, I found exactly the same state of things in it, though less advanced. There was no gland-disease in either axilla. The mammæ were wasted, but they had formerly been large ones, and they still covered large areas. There was enough of suspicion about the conditions to make me feel sure that, had only one breast been affected, I should have advised its removal, especially with such a bad family history; and, on thinking the matter over, I could not see any reason why, if one were taken, the other should not be also. I therefore determined to excise one, and examine it, and, if the conditions found were what I suspected, to remove the other also.

At the time of operation, before proceeding, I punctured one of the largest lumps, feeling a suspicion that it might prove to be a cyst. No fluid was obtained. After excising the gland, we found that it contained numerous small cysts, from the size of a pea to that of a hazel-nut, which contained a greenish glairy fluid. In addition to them, there were, however, several solid knots of new growth, which looked like scirrhus. This decided me to remove the other gland, and, on examination of it, precisely similar conditions were discovered. I had been very particular to remove on both sides every portion of gland-tissue, and the wounds were necessarily very large. The incisions from the two sides very nearly met on the sternum. The skin left was exceedingly thin.

The operation had been conducted, as usual, with Lister's full precautions. I only dressed the wounds twice afterwards, and on the eighth day took leave of my patient, healing being quite complete. On account of the thinness of the skin, I removed the drainage-tubes on the second day, and after that did not look at the wounds till the sixth. There had never been a single drop of discharge. Thus it may be said that the patient did not feel the shock of the double operation at all more than if it had been a single one, and that she recovered as well as she could possibly have done.

I will leave for the present the discussion of the precise nature of the solid growths in these breasts. They have been carefully examined, and, although in all probability cancer, they will require minute description. It will suffice for my present purpose to repeat that, by the unassisted eye, it was impossible to distinguish them from scirrhus. It was this fact which was held to justify the removal of the other gland, and would have justified it, independently of the verdict of the microscope. At some future time, when the facts as to recurrence or exemption are before us, it will be of interest to recur to the question as to their precise histological characters.

It may, I think, be held to be sound surgery to remove both breasts whenever suspicious conditions exist in both in an early stage. By adopting such a rule, we should probably save a certain number from ever becoming the subjects of declared cancer. I am not sure that we might not suitably extend that rule, and hold that, whenever the local conditions are favourable for operation if the disease be on one side only, the fact that it is on both ought not to deter us. Probably the double operation is only by very little more dangerous than the single one; and under modern plans of dressing there are but very few cases in which the patient is not, to some extent, a gainer by the removal of a cancerous breast. Whether one or both glands are concerned, our practice should, I think, be to operate when in doubt. No means should be omitted to clear up the diagnosis; but if, after all such have carefully been used, doubt remains, then we allow our patients to run needless risks if we encourage waiting. Amongst these means, there is none more frequently valuable in correcting erroneous impressions than the exploring trocar. The cases which it clears up are not, however, those which puzzle us most. Nor in all cases does the difficulty vanish even when fluid has been obtained. For there are not a few cases in which cancer exists, either in conjunction with numerous small cysts, or in which it follows on such formations. It is in this class of cases especially, of which the above is one, that double operations may be called for.

If it be asked whether, in cases of double disease, it is better to remove the two breasts by a single or by separate operations, I would venture, without hesitation, to recommend a single one, as probably involving both less risk and less inconvenience to the patient.

OPERATION FOR THE CURE OF STERILITY IN CASES OF CONICAL CERVIX WITH FLEXION OF THE CERVIX UTERI.

By GRAILY HEWITT, M.D., F.R.C.P.,
Professor of Obstetric Medicine in University College; Obstetric Physician to the Hospital.

One of the rather common causes of sterility in women is the presence of what is termed "conical" cervix. This term expresses, however, only imperfectly the real explanation of the difficulty. More generally the vaginal portion of the cervix is elongated, as well as conical, and the whole of the cervical canal is also, in the majority of cases, much curved. These are the cases *par excellence* which have been termed by Emmet "flexion of the cervix." In such cases, the uterus appears to have gone through a series of changes subsequently to arrival at puberty, namely, (1) imperfect nutrition; (2) softness and want of tone; (3) gradual acquirement of anteflexed shape, mainly as a consequence of the imperfect nutrition and softness of the uterus; and (4) a further and exaggerated condition of flexion of the cervix of the uterus. Resting on the floor of the vagina, the vaginal part of the cervix becomes, as it were, doubled up, so that the os uteri looks upwards and forwards. The condition of the uterus thus associated with conical cervix constitutes one very difficult to deal with, especially if, as sometimes happens, the uterus, as a whole, be tilted backwards, constituting retroversion, conjoined with extreme anteflexion.

Thus, the vaginal cervix is not only too long, but it is sharply curved, and the combination appears to be a great obstacle to conception.

Two principal methods have been heretofore recommended, namely, (1) amputation of a portion of the cervix; and (2) opening out the cavity of the cervix by a median incision through its posterior wall, as recommended by Emmet and Sims. Another method of treatment would be the use of an intra-uterine stem.

A short time since, a patient, with a very decidedly curved and elongated cervix, was sent to me by Dr. Kerans, of Northwich. The patient was very anxious to have a family, and suffered much from disturbance of micturition, and difficulty and pain in walking, due to the anteflexed uterus. She had been married four years. She was treated by means of a cradle-pessary, modified to suit the case, with success as regards general comfort, but the sterility remained. Last year, I performed an operation on this patient, which I now describe, and which seems to me worthy of further trial in such cases. My object was to straighten, as well as shorten, the cervical canal as regards its vaginal portion.

Having drawn down the cervix, I removed from its posterior aspect, in the median line, a portion of mucous membrane, nearly an inch in length vertically and half an inch wide, and, having done this, stitched the upper and lower margins together; the effect of the procedure being to shorten the vaginal cervix on its posterior aspect, to draw the os uteri backwards, and thus straighten the vaginal cervix and increase its patency. When the stitches, three in number, were tightened, the vaginal cervix was made to look downwards, instead of upwards. The figures annexed will render this explanation more intelligible. Fig. 1 gives a lateral view of the uterus and cervix before the operation, and shows the part from which the mucous membrane was removed; also (*a a*) the position of the sutures. Fig. 2 shows the condition after tightening the sutures. The sutures were removed after a few days. The operation was done at the beginning of the

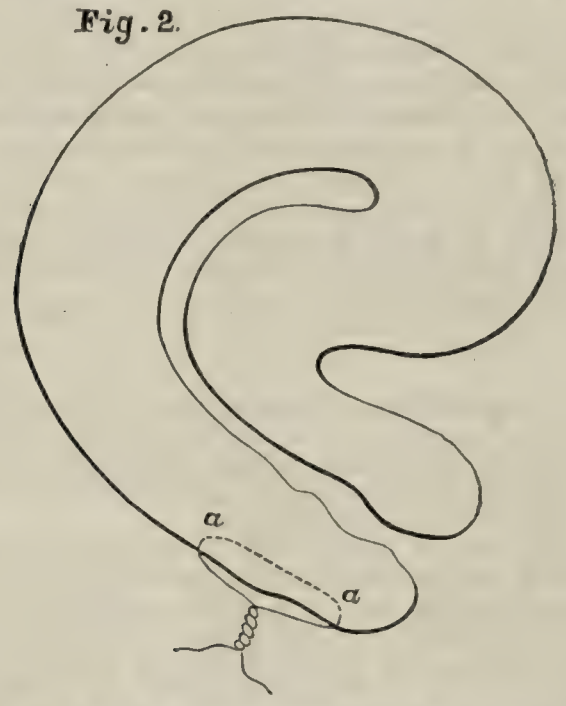
year 1884, and the patient informed me recently that she expected her confinement in the beginning of May.

Fig. 1.



I consider the above a better procedure than amputation of the vaginal portion, because it leaves the os uteri in a natural state; and I think it preferable to Emmet's operation, because it leaves the cervical canal intact. The uterus, as a whole, is less mutilated by this procedure; and, presumably, its functions may be supposed to be

Fig. 2.



better exercised when the cervical canal and the os uteri externum are preserved. It may be remarked that the use of the stem is less likely to be attended with benefit in these particular cases; for the vaginal portion is too long, and something must be done to shorten it, although the use of a stem might be useful, in order to further improve the patency of the cervical canal, after the vaginal portion has been shortened by the procedure above described. In the case related, however, the operation alone appeared to produce satisfactory results.

DONATIONS.—The Mercers' Company have given £210 additional to the National Hospital for Consumption at Ventnor, and £157 10s. to the Metropolitan Convalescent Institution, £105 to the Walton and Kingston Homes, and £52 10s. to the Seaside Branch.—"LL.D., London," has given £100 to St. Mary's Hospital, Manchester.—Miss de Costa has given £100 additional to the Sussex County Hospital, Brighton.—"A Friend" (per Mr. D. Clewin Griffith) has given £50 to the Middlesex Hospital.—Lord Colville has given £50 to the Great Northern Central Hospital.

OBSERVATIONS ON TWO CASES OF SUDDEN AND EXTREME LOSS OF HEARING, ON BOTH SIDES, OWING TO DISEASE OF THE NERVOUS STRUCTURES OF THE EAR; MATERIALLY IMPROVED AFTER THE HYPODERMIC USE OF PILOCARPINE.

BY THOMAS BARR, M.D.,

Surgeon to Glasgow Ear Hospital; Lecturer on Aural Surgery, Anderson's College, Glasgow, etc.

DISEASE of the nervous apparatus of the ear is usually so hopeless, and so little affected by remedies, that cases, such as the following, in which favourable results are obtained by treatment, seem worthy of being brought before the profession.

CASE I.—J. M., a ship-steward, aged 22, presented himself for treatment at the Glasgow Ear Hospital, on August 25th, 1884, suffering from almost total deafness. He was a man of pale and unhealthy aspect. Six months before, he contracted syphilis, followed by secondary symptoms; for which, however, he was successfully treated. He was also somewhat addicted to alcoholic indulgence. One of his sisters suffered from phthisis pulmonalis, but the other members of a pretty large family were quite healthy.

Inquiry elicited from him the following account of the origin and course of the disease. About six weeks previously, while crossing the Atlantic on the voyage out to Montreal, he was seized with great nausea, vomiting, and severe giddiness. Accustomed to sea-life, he knew that he was not liable in the least to sea-sickness. By the time the ship arrived at Montreal, the sickness had passed away, and the giddiness had become much less. On the afternoon of his arrival, however, while walking in one of the streets of Montreal, the weather being extremely hot, he was suddenly seized with giddiness so extreme that he staggered and fell to the ground, without losing consciousness. After a short time, he recovered sufficiently to make his way with assistance to the ship. He was put in bed, and the surgeon of the ship prescribed some form of pills.

Up till this time, his hearing was unaffected; and, indeed, at no time during his past life had there been to his knowledge any dulness or other disturbance of the hearing on either side. On the following morning, however, he awoke from sleep finding that his left ear was apparently totally deaf. As he lay with the right side of his head on the pillow, he could not hear what was said by a man speaking close beside him. But now a loud noise, like the rush of water, was constantly present in the deaf ear, as well as through the head. Towards night, the hearing of the opposite or right ear seemed also to be passing away, and next morning found him absolutely deaf on both sides, so that the loud shouting of his mates close to his head was by him quite unperceived. The extreme giddiness continued, and the loud rushing noise filled his head.

During the whole of the voyage back to Liverpool, he lay in bed in a condition of great giddiness, nausea, and total deafness. When he attempted to walk, his movements were like those of a drunken man; he kept in a straight line for a few steps, and then reeled from side to side. Up till his arrival in Liverpool, there had been little, if any, pain in his head; but, while in the steamer from Liverpool to Glasgow, he became affected with severe pain in the back of his head, and very especially in the region behind his ears.

In Glasgow, he was placed under the care of Dr. Halket, who shaved the head, and applied a cantharides plaster on the surface behind each ear. These were repeated two or three nights afterwards. There was also prescribed by Dr. Halket a mixture containing iodide of potassium chiefly, with good effect, "clearing the head and helping the stomach," as the patient expressed it.

One morning, shortly after his arrival in Glasgow, when he awoke from sleep, he experienced a sensation of stiffness in one cheek; and on examination, with the aid of a mirror, he found his face drawn to the left side. The odd appearance which he presented, with shaven head and twisted face, constrained him, even in his sad condition, to smile; this facial movement rendered, of course, the twisted appearance still more striking. In attempting to drink tea or water, the liquid tended to trickle out of his mouth. This facial paralysis of the right side was of short duration, passing away in the course of the same evening.

About this stage of the illness, a consulting physician saw the patient, and expressed an unfavourable prognosis. His state, nevertheless, began to improve. Under treatment by iodide of potassium

the pain in the head diminished, and the giddiness became much less, although some tendency to stagger still continued. The deafness, however, remained unaltered; and, as soon as it was practicable, about seven weeks after the beginning of the illness, Dr. Halket sent him to the Ear Hospital for treatment.

On admission, I found his hearing by both aërial and osseous conduction almost quite abolished. Words spoken very loudly into his ears could not be understood by him. In the right ear, however, the voice was heard, although the individual words could not be distinguished. He was unable to hear the loud tick of a watch on either side, pressed firmly on the auricle or on the bones of the head. The sound of a vibrating tuning-fork applied to the bones of the head was also unperceived. Objective examination of the outer and middle ears yielded negative results; on both sides the tympanic membranes presented quite a normal appearance, while the Eustachian tubes were permeable. He did not now complain of the subjective sounds. The vertigo was much less than at an earlier stage of the illness; but there was still a disposition to stagger in walking. The pain in the head was at times quite absent, but now and then it returned in severe paroxysms.

The digestive functions seemed to be much disturbed; the tongue was thickly coated with a yellowish brown fur, the bowels were persistently constipated, while an extremely foul odour was exhaled by the breath.

He was admitted to the indoor department of the hospital, and at once treated by pilocarpine injections. One of Wyeth's tablets, containing a third of a grain of the drug, was dissolved in six minims of water, and injected underneath the skin of the shoulder every second day for six days, and then every third day for nine days. Copious perspiration followed every application of the remedy. The first produced very considerable sickness and vomiting; on every subsequent occasion there was some nausea excited, but it was much less than after the first. The patient always remained in bed for a few hours after the use of the remedy.

Improvement in the hearing almost immediately manifested itself. A day or so after the first injection the patient noticed some improvement in the right ear, and this improvement seemed to go on gradually almost day by day. In three weeks after admission, he could hear and understand, with the right ear, conversation in a voice only slightly elevated above ordinary speech. In other respects also his condition improved. He soon afterwards resumed his occupation of steward on board a steamer.

On the 18th April, 1885, about nine months after the seizure, his state was as follows. On the right side a watch whose normal hearing distance is forty inches, was heard eight inches. On the left it was not heard even on pressure. This does not, however, truly represent his power of hearing speech, which was so good that persons conversing with him did not detect any dulness of hearing. A vibrating tuning fork applied to the middle line of the head was heard better in the right ear.

There were no subjective sounds in the ear or head. The tendency to stagger, which had continued for a considerable time, while in the dark, had passed completely away. The complexion was much healthier looking, the tongue was clean, and the breath was free from the foul odour.

Case II.—R. McG., a labourer, aged 54, was admitted to the Ear Hospital on the 20th February, 1885. He stated that he had been suddenly affected a fortnight before admission with total deafness while in the act of stooping at his work. He had been out of work for some months, and this sudden loss of hearing occurred just on the morning of his return to work. His bodily health had suffered from the poverty due to the enforced idleness, while his mental condition was depressed, owing to the conduct of a reprobate son. No hereditary tendency to ear-disease, and no syphilitic origin, could be traced. The shock of deafness, he said, was signalised by a sensation as if a pistol had been discharged in the interior of his head, and immediately afterwards he ceased to hear the noises in the ship-building yard where he was employed, or the voices of the workmen. This was followed by severe pain affecting the whole head, but especially the vertex, and by a sensation in his right ear, "just as if a clock were working inside." There was also slight giddiness.

On admission, it was found that a watch with a loud tick could not be heard on pressure in either ear. The voice could not be heard, although loudly spoken into the right ear; in the left it was heard, but only partially understood. Osseous conduction by the tuning-fork was faint, and the duration of the perception was short. Objective examination of the ear showed a small oval calcareous patch, evidently of long standing, on each tympanic membrane, behind the handle of the malleus. These were probably the results of old catarrhal affections in the middle ears, and had no connection with this attack. Inflation of the middle ears had no effect upon the deafness. A cantharides plaster was first applied behind each ear, without, however, yielding any good result.

Subcutaneous injections of a solution of pilocarpine were then employed. The solution contained at first only one-twelfth of a grain of the pilocarpine; but it was increased, after three or four injections, to one-third of a grain. In the weaker form, they were employed daily; but the stronger solutions were only used every third day. In all, eight injections were employed. The patient remained in bed for six hours after each injection, and free diaphoresis always followed. Slight sickness was excited by the strong solutions. Improvement in the hearing of speech was observed when two injections had been used, and after that there was gradual but steady improvement in the hearing, with disappearance of the subjective sounds.

On April 13th, 1885, two months after the seizure, the condition was as follows. The tick of a watch heard, in normal hearing, forty inches from the ear, was heard eight inches on the right side, and one inch on the left. Conversation in an ordinary tone of voice was understood without any difficulty. The osseous conduction of sound by the tuning-fork was heard rather better than the aerial—a circumstance which was probably due to the existence of the old catarrhal affection of the middle ear. The subjective sound had completely disappeared.

Observations.—There can be little doubt that, in the two cases here described, the seat of the mischief was in the nervous apparatus of hearing. It is, however, not possible to determine with certainty in what part of the auditory nerve the lesion existed—whether in its roots in the brain, in its stem, or in its complex terminal expansion in the labyrinth.

In the first case, which was clearly due to syphilis, the gravity of the symptoms seems to indicate that the mischief was intracranial. The premonitory symptoms of nausea and vomiting, the pronounced vertigo and staggering, the severe pain in the back of the head, and the temporary affection of the facial nerve, seem to point to the auditory centres in the cerebellum as the probable seat of syphilitic exudation. On the other hand, in the second case, the lesion was probably labyrinthine and apoplectiform in character (apoplectiform deafness of Knapp), and of the nature of rupture of a small vessel simultaneously in both labyrinths, excited by the stooping posture, and predisposed by a generally enfeebled state of the system. The absence of marked vertigo is a somewhat noteworthy peculiarity of this case, and suggests that the lesion was more probably in the cochlea than in the semicircular canals.

When we consider the generally hopeless character of lesions of the nervous structures of the ear, it can hardly be denied that the favourable terminations in both of these cases were due to the action of the pilocarpine. Politzer, who was the first to propose this remedy in ear-disease, believed it to be serviceable chiefly in cases of labyrinthine disease of recent and sudden occurrence, and especially in those of syphilitic origin. My experience, as shown in these two cases, seems to confirm this view of the value of pilocarpine. In several instances of labyrinthine mischief gradually coming on in the course of chronic middle-ear disease, where I have used this remedy, there seemed to be no effect produced. As to the explanation of the therapeutic action of pilocarpine, we can only assume that it has an especial power of stimulating the absorbents in contact with the effused products before these have become organised, and that this resorbent effect has also some connection with its remarkable powers of exciting the cutaneous secretion. It seems to have a more decided action upon the intracranial absorbents; and the vascular and lymphatic supply of the labyrinth is in reality the same as that of the interior of the cranium. If this view of its action be correct, it would be reasonable to employ this method of treatment more generally in cases of cerebral apoplexy.

A Physical Test for Butter.—According to M. Rabot, all the chemical processes of ascertaining the falsification of butter are unsatisfactory, excepting that of a thorough analysis, which is a long and delicate process. He calls attention to a special physical character which enables the observer in a few minutes to distinguish pure butter. The crystals of solid fatty acids depolarise the sun's rays. These crystals are not found in natural unadulterated butter; they belong to more solid acids; they are luminous, and are distinguished from the surrounding substance, which is non-luminous. When butter becomes rancid, it contains butyric acid, which has no influence on polarised light. Chemical analysis is now necessary only to determine the extent of adulteration.

AN ACCOUNT OF A SPECIMEN CONSISTING OF THE WHOLE BONY LABYRINTH, SEPARATED BY NECROSIS, AND REMOVED AS A SEQUESTRUM FROM A CHILD: WITH REMARKS UPON SIMILAR CASES.

Read before the Medical Society of London.

By WALTER PYE, F.R.C.S.,
Surgeon to St. Mary's Hospital.

The specimen here shown is one which I lately presented to the Museum of the Royal College of Surgeons, and I have to thank the Curator for his permission to exhibit it. It is, I think, of interest in other ways besides the mere fact of its rarity, although it does not appear that any metropolitan museum now contains a similar or parallel specimen.

A moment's inspection of the preparation (Figs. 1 and 1A) will enable it to be recognised as consisting of almost the whole of the left labyrinth, and of the labyrinth only. The tympanic cavity, the three semicircular canals, and the cochlea, are present in almost their whole extent, and with a lens the details of the scalæ, the lamina spiralis, etc., can be very beautifully seen.

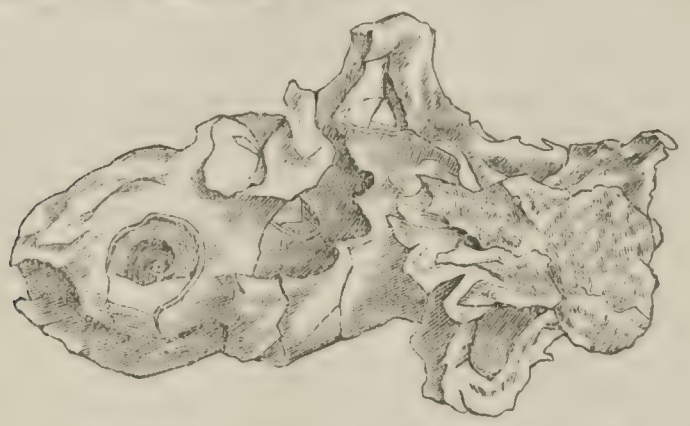


Fig. 1.—Specimen of labyrinth, including the vestibule, cochlea, and semicircular canals, removed as a sequestrum, September 1883 (enlarged). A, Cochlea. B, Upper semicircular canal.



Fig. 1A.—Outline of Fig. 1 (natural size).

The history of the case of the child from whom this sequestrum was removed, may be very briefly told. She was 4½ years of age on her admission into the Victoria Hospital for Children, and then presented the usual appearance of abscess beneath the periosteum of the mastoid process, with probable suppuration within the mastoid cells, and superficial necrosis of the bone. The pus had made its way into the meatus, and also discharged through an opening on to the skin, at the bottom of which, rough bare bone could be felt with a probe. There was absolute deafness on the affected side, the hearing on the right side being normal. The above symptoms dated from an attack of scarlet fever, eighteen months previously. Shortly before admission, she developed the symptoms of left facial paralysis, which very quickly became complete, and was not attended with pain or any cerebral symptom. The paralysis extended to all the muscles supplied by the portio dura, including those of the tongue, and was associated with irritation of the cornea. On September 22nd, 1883, as the discharge had continued unabated for about three months, I decided to enlarge the external opening and determine whether there was any sequestrum loose enough to be removed. Accordingly, a semicircular incision was made behind the ear; and, on exposing the bone, a ragged opening in it was found, nearly half an inch behind, and on a level with, the auditory meatus. This led directly inwards, and, at the depth of about an inch, a loose irregular shaped sequestrum could be felt with a probe, but it could not be removed through the surface-opening. This was consequently considerably enlarged with a gouge, and the specimen now shown was then extracted in its present condition. The cavity in which it lay was smooth, and felt like the ordinary bony chamber of a sequestrum, except in its upper part, where it was soft and bulging; but to the finger the impression of depth was very striking, it being difficult at first to believe that it (the finger) was still within the boundary of the petrous bone, and was not engaged in one of the central cavities of the brain.

There was no bleeding, and the after-treatment was perfectly simple; the child had no bad symptoms from first to last, the wound healing quickly and soundly, and the discharge from the ear ceasing in about a week.

The course of the facial paralysis is more noteworthy. This was noticed to improve very soon after the operation (about ten days probably, but the exact date is not noted), and at the end of two months was obviously much diminished.

On referring to Toynbee's *Diseases of the Ear*, on page 374, it is stated that examples of disease advancing from the tympanum in the direction of the labyrinth, and involving the latter, are very rare, a statement confirmed by Wilde (*Aural Surgery*, 1853), and Politzer (*Text-book of Diseases of the Ear*, Eng. Translation, 1883). Toynbee then goes on to mention three illustrative cases, the second of which is in exact accordance with my own, and has a somewhat similar history. In the first case, the entire cochlea, and the cochlea only, was discharged from the ear of a patient of Mr. Hinton's, after a purulent discharge continuing for some years. The specimen was added to Toynbee's collection, but I cannot find it now at the College, nor is there any similar sequestrum there; a fact the more curious, inasmuch as Toynbee himself pointed out, subsequently to the appearance of his book, that the cochlea forms sequestra far more frequently than any other part of the labyrinth (*Chicago Medical Journal*, vol. xxvi; see also Politzer, p. 525).

The account of the second case is taken from the *Pathological Society's Transactions*, vol. viii. The account is a full one, but may be thus summarised.

The patient, aged 7, was admitted into the Middlesex Hospital, under Mr. Shaw, July 31st, 1855. Double otorrhœa had commenced after scarlet fever two and a half years previously. In the left ear, a piece of dead bone protruded into cochlea. There was left facial paralysis and complete deafness. The protruding dead bone being taken away, a cavity was exposed in which another loose piece of bone could be felt rolling about (compare my own case), and was, with some little difficulty, seized and removed. The patient made a good recovery, but the paralysis was apparently permanent.

This sequestrum is described in the *Transactions* at considerable length, but it may shortly be stated that it turned out to be so much of the petrous bone as included the tympanic cavity, showing the fenestræ ovalis and rotunda, the promontory, etc., and, leading from that chamber, the vestibule, cochlea, and "portions of the semicircular canals, broken off near their junction with the vestibule."

It will be seen that, in its causation (being a sequela of scarlet fever), in the accompanying facial paralysis, and, indeed, generally, the case here quoted is practically a parallel one to that I am now describing, with the exception of the manner of removal, that is, through the meatus instead of by an incision behind. It would have been interesting to have compared these two specimens; but, unfortunately, Mr. Shaw's sequestrum has somewhat mysteriously disappeared. It seems that it originally belonged, as naturally would be the case, to the Middlesex Hospital Museum; but, by some means or another, it came to be placed among the specimens presented by Mr. Toynbee to the College of Surgeons' Museum. It was there recognised by Professor Flower (then Curator) as not rightfully part of the collection or the property of the College, and it was restored to the Middlesex Hospital; but a long search made recently failed to discover it there, nor does any entry appear as to its presentation or restoration, either in the old manuscript catalogue of the museum, or in the one just published under the direction of Dr. Kingston Fowler.

It is, however, a matter of such frequent occurrence for the treasures of a museum to become temporarily mislaid, or forgotten, or overlooked, that it may be hoped that this interesting specimen will yet be found. This is the more desirable, in that no drawing of it appears to have been made.

The third example of this necrosis quoted by Toynbee, is one described and figured by Wilde (*Aural Surgery*, p. 377); and a reference to the accompanying figures (Figs. 2 and 2A) will show that the specimen is almost identical with that now being considered, save that it is far less perfect, especially with regard to the completeness of the semicircular canals. Nevertheless, Wilde holds the specimen to be of such rarity and perfection, that he thus (*loc. cit.*) describes it.

"I am indebted to Sir Philip Crampton for an examination of one of the most extraordinary pathological dissections of diseased bone, perhaps, in existence, consisting of the entire internal ear, cochlea, vestibulum, and semicircular canals, from the meatus of a lady, who, after the most urgent symptoms of inflammation of the brain, with paralysis of the face, arm, and leg, with total deafness of one side, recovered from the head-symptoms and the paralysis of the extremi-

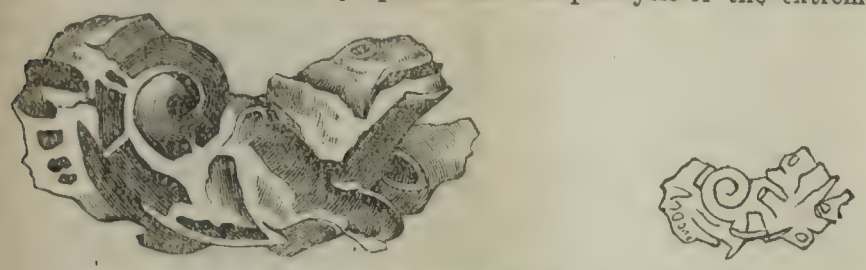


FIG. 2.—Wilde's sequestrum (enlarged on the same scale as Fig. 1).
FIG. 2A.—Outline of Fig. 2 (natural size).

ties, after a copious discharge of matter from the ear. The discharge continued until Sir Philip, perceiving a portion of loose bone lying deep in the meatus, drew forth the specimen from which this illustration has been made. In this, it does not appear that the hard external enamel of the bone was affected, but the scala cochleæ is far more beautifully displayed than could possibly have been done by art."

This case differs obviously from Shaw's and Hinton's, and from the present one, in the severity of the constitutional symptoms; and the unilateral paralysis is noteworthy. Politzer, commenting on this case, reads that this disappeared after the removal of the sequestrum; but it will be seen that Wilde's language is not clear on this point, for the statement would apply equally well to the deafness, from which the patient can hardly have recovered.

In addition to these cases, one or two more of sequestra of nearly all the labyrinth, but probably not including the semicircular canals, and a few more of the removal of fragments of the organ, may be found among the records of otology,[1] but Shaw's and Sir Philip Crampton's cases appear to be always quoted as the most complete and illustrative ones of this pathological condition; and, inasmuch as neither specimen appears to be accessible at the present time to aural surgeons, I have thought it worth while to present my own specimen to the Hunterian Museum, and to direct the attention of the Fellows of the Medical Society to it.

But little difficulty will be experienced in recognising the various parts of the specimen now shown, suspended as it is in nearly its natural position in the body, by the superior transverse vertical semicircular canal, which is almost perfect, and within which a trace of the membranous canal may be seen with a lens. The other two canals will also be seen to be hardly less perfect than the upper one. The common opening of the inner extremities of the longitudinal and transverse canals is well shown, as is also the outer ampullary dilatation of the former. The cavity of the vestibule is displayed on the outer side, about the centre of the specimen; and the terminations of the internal auditory meatus and of the aquæductus vestibuli (?) are similarly to be seen on its internal aspect. The remains of the round and oval fenestræ are with less certainty recognised. The anterior extremity of the specimen shows upon its outer side the cochlea opened, just below its apex, exposing the spiral lamina, modiolus, etc.; and upon the inner side a small part of the interior of the tympanic cavity and the canal for the tensor tympani are seen. The posterior part of the specimen consists of an irregular portion of the mastoid cells.

With regard to the clinical aspect of the case, also, but little need be said. The implication of the portio dura is only what might be expected, and what almost invariably seems to happen; but the partial recovery is interesting, as illustrating the great resisting power which nerve-cords possess against inflammatory disintegration.

The fact that the brain was seemingly not at all disturbed by the near presence of this severe necrosis is also noteworthy. The frequent absence of cerebral complications has been commented upon by Toynbee and Politzer, and is doubtless due, as the latter states, to a conservative proliferation of the connective tissues in the outer lamellæ of the dura mater.

But, perhaps, the most interesting point about all these cases of sequestra, consisting of the whole, or of portions of the labyrinth, is the fact that we have here the inflammatory process acting as the anatomist of by-gone days, fashioning out of the various component parts of the periotic capsule that artificial creation "the bony labyrinth"; as if it, indeed, were a separate irregular eburnated sac, embedded in the petrous bone, like a fly in amber; in it, but not of it.

That such a conception is erroneous, is, of course, now well recognised, for the investigation of the mode of development of the parts in connection with the organ of hearing shows that the auditory capsule, or sac of the membranous labyrinth is surrounded by and enclosed in the cartilaginous segments of the periotic capsule, which latter ossify around this labyrinth, forming the petrous and squamous bones, and having large lymphatic spaces intervening, within which the perilymph collects.

The greater density of those portions of the three original periotic bones which are next to these perilymphatic spaces, gives the appearance as of a structure embedded in, and differing from the rest of the petrous bone; and, no doubt, from this same cause, the general progress of the disintegration by necrosis of the petrous bone, was arrested, in the specimen here exhibited, so that the appearance is presented of a "bony labyrinth," dug out, as it were, from the rest of the bone to which it properly belongs.

[1] Thus Voltolini has extracted the whole labyrinth by the meatus in a child, and describes a similar case in the practice of Jacobi (*M. für Ohrenheilk.* 1870). Delstanene fils removed the labyrinth, with the exception of one semicircular canal. There was also necrosis of the external meatus (*Arch. für Ohrenheilk.*, vol. x). Gottstein showed, at the meeting of the Congress at Milan in 1880, a sequestrum of a portion of the labyrinth only (*Arch. für Ohrenheilk.*, vol. xvii). Moos (quoted by Politzer, *loc. cit.*) records a case where severe cerebral symptoms, existing only a week or two, disappeared on the removal of the necrosed semicircular canals. Again, sequestra of portions of the labyrinth may remain *in situ*, and be found on *post mortem* examination. Toynbee (*op. cit.*), Troltsch (Virchow, *Arch.*, vol. xvii), and Politzer (*op. cit.*).

A CASE OF STRANGULATED HERNIA INTO THE FOSSA INTERSIGMOIDEA.

By FREDERIC S. EVE, F.R.C.S.,
Assistant-Surgeon to the London Hospital; Pathological Curator in the Museum of the Royal College of Surgeons.

IN his very valuable lectures on the Anatomy of the Intestinal Canal and Peritoneum in Man, Mr. Treves refers to (BRITISH MEDICAL JOURNAL, March 31st, 1885, p. 583) a case of hernia into the fossa intersigmoidea, which I narrated in some lectures (*Illustrations of Intestinal Obstruction*) given at the Royal College of Surgeons in February, 1884. This fossa, first described by Hensing, is met with as a pouch or depression of the peritoneum, forming the left or under layer of the meso-sigmoidea passing to the upper part of the sigmoid flexure. For details of its position and relations, reference may be made to Mr. Treves's lectures, to the classical monograph of Treitz (*Hernia Retro-peritonealis*, Prag, 1857), or to a later summary of the subject by Waldeyer (Virchow's *Archiv*, Band lx, s. 66).

Augusta H., a dressmaker, aged 63, was admitted to St. Bartholomew's Hospital, under the care of Dr. Southey, on December 30th, 1882. She stated that she had been in good health until December 26th, at 10 A.M., when she was suddenly seized with violent constricting pain around the abdomen in the region of the epigastrium, was immediately violently sick, and passed a large loose motion. She had sometimes suffered with indigestion, with a similar tightness across the epigastrium to that she now experienced, but was relieved by purgatives. Her bowels had always been regular. On the 27th, she passed a very small motion, with a little slime and blood. After the onset of the attack, she vomited all food. The vomit was at first bilious, but on the 28th it became brown, and smelt like a motion. She had noticed that she had passed much less urine than usual.

When admitted on December 30th, her expression was anxious; pulse 84; temperature subnormal; respirations 20. She complained of slight pain in the abdomen, which was largely, uniformly, but not tensely, distended, and showed, through its walls, vermicular movements of the coils of intestine. The tongue was furred, but moist. There was incessant retching, but no vomiting. The rectum was free, and an enema of three-quarters of a pint of warm water returned, with small soft masses of fæces and blood-stained mucus. During the first eighteen hours after admission, she voided eleven ounces of urine, of specific gravity 1022. She passed a restless night, and at 1 A.M. on December 31st vomited for the first time, the vomited matter being fæculent. Five minims of tincture of opium were given every four hours.

January 1st, 10 A.M. There had been slight vomiting in the night, but none since then. She had less pain, but prostration was greater. Pulse 108; temperature 97.8°; respiration 20. The tongue was moist, with a thick brown fur.

January 2nd. After a consultation, Mr. T. Smith performed the operation for right lumbar colotomy. A portion of intestine was opened, and much fæcal matter evacuated.

January 3rd.—A copious discharge of fæces had taken place through the wound, and she had not vomited since the operation, but still complained of pain in the abdomen. Morning temperature, 99°; evening, 99.6°.

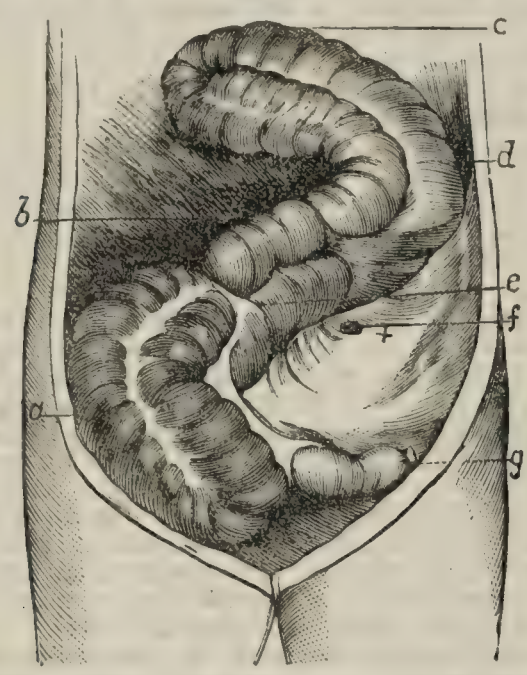
January 4th.—She appeared to be in much the same condition. Pulse 120; temperature 98°.

Early on the morning of the 5th collapse suddenly supervened, followed rapidly by insensibility and death.

Necropsy.—On opening the abdomen, I found the following condition. The intestines were injected and distended with flatus, but there was no effusion of lymph. On moving them aside to the right, it was observed that the sigmoid flexure was displaced towards the middle line; and, extending from its posterior surface towards the left iliac fossa, was a sheet of peritoneum through an opening in which a knuckle of small intestine passed. The protruded intestine was withdrawn without the least resistance, and proved to be a portion, about six inches in length, of the lower end of the ileum. It was moderately congested, and was marked at each end by a slight constriction.

The opening in the peritoneum (see Fig. *f*) was oval, and its long diameter measured half an inch. It was situated close to the left side of the sigmoid flexure, its lower margin being from an inch to an inch and a half above and to the outer side of the sacro-iliac synchondrosis, and an inch from the ovary. On dissecting up the peritoneum from the subjacent muscles, the opening was found to lead into a sac of peritoneum having very thin walls, which were attached to, or continuous with, the margins of the opening. The sac was pyriform, measured three inches in its long diameter, and extended upwards and backwards beneath the large intestine. Its posterior surface, in contact with the iliacus and lumbar muscles, was easily dissected from its connections, but its anterior surface was so closely connected with the peritoneum and posterior surface of the large bowel, that its continuity, in parts, could not be established.

The sigmoid flexure was nearly surrounded by peritoneum, but had not a distinct mesentery, the two layers of peritoneum reflected from it being nowhere in contact. Above the opening of the hernia, the flexure was bound down to the iliac fossa by three bands of thickened peritoneum. The much distended cæcum (*a*) occupied a position immediately to the right of the middle line.



A cæcum, turned forwards; *b*, ascending colon; *c*, continuation of colon, bent on itself; *d*, descending colon; *e*, band of adhesion; *f*, fossa intersigmoidea; *g*, end of ileum.

The ascending colon (*b*) took a course obliquely across the abdomen to the left hypochondrium, where it turned sharply to the right, and followed the curve of the diaphragm until it reached the middle line; here it became suddenly bent upon itself and returned, above and parallel to its previous course (*c*) to the lower edge of the spleen; thence it took the normal direction to the sigmoid flexure. Both the ascending and descending portions of the large intestine were closely united, and almost surrounded by a single layer of peritoneum. A transverse colon, it need scarcely be said, did not exist.

Just above the cæcum, the ascending colon and adjacent curve of the sigmoid flexure were bound together by a ribbon-like band of fibrous tissue (*e*) three-quarters of an inch in breadth and half an inch in length; the adhesion to the flexure was two inches below the level of the hernial opening. The ascending colon was slightly narrowed by the tension to which the band gave rise, but the calibre of the lower bowel was unaltered, and, with the other large intestine, was of the usual dimensions.

The upper end of the misplaced colon was connected by the great omentum to the great curvature of the stomach. In front of the sharp bend of the ascending colon at the middle line was a funnel-shaped pocket or *cul-de-sac*, three inches in length, which was formed by a depression or involution of peritoneum between the parallel running folds of large intestine.

Part of the jejunum occupied the usual position of the ascending colon, and at a point two feet below the pyloric orifice had been opened and attached to the wound in the right loin, at which it presented during the operation.

The condition of the large intestine offers some points of development and anatomical interest, which centre about the band of adhesion between the ascending colon and the sigmoid flexure. Presuming, as its appearance justifies, that this band was an adhesion formed at an early stage of development, the peculiar position of the large intestine becomes readily intelligible. The commencement of the ascending colon being tied to the lower part of the large bowel—which throughout development nearly retains its original position—the cæcum would be prevented from taking its usual course from the left hypochondrium to the right, and thence down to the right iliac fossa. Instead, it appears to have taken a direct path from the left hypochrondrium, obliquely across the abdomen to the right iliac fossa, carrying after it the ascending colon, which thus remained in close contact with the descending colon. The band appears likewise to have induced conditions favourable to the occurrence of hernia into the fossa intersigmoidea, in the following manner. The left layer of the meso-sigmoidea being put upon the stretch by the displacement of the flexure towards the middle line, the orifice of the fossa would be rendered firm and immovable, and, further, may have been enlarged by the tension on the peritoneum around it. The importance of these collateral conditions is rendered forcibly apparent, when the paucity of cases of intersigmoid hernia is contrasted with the constancy and occasionally large size of the fossa. Treves found a perfect fossa in 52, and a funnel-shaped depression in 13 per cent., making a total of 65 per cent. of the bodies examined. By Waldeyer it was observed in 84 or 85 per cent. of subjects; but as he points out, there are various conditions tending to prevent the occurrence of hernia within it. Of these the chief are, that in the normal position of the flexure its orifice is turned away from the small intestine, is fairly movable, flaccid, and its upper margin occasionally covers it like a valve.

Considering the peculiar combination of conditions which, in the case related, led to the patency of the opening, and thus directly contributed to the occurrence of the hernia, it is not surprising that details of no authentic case of hernia into the fossa intersigmoidea have before been published.

Sir William Lawrence met with a case, as would appear from the following sentence (*On Ruptures*, p. 630). "Sacs are sometimes formed in these processes of peritoneum, which consist of two layers; as the mesentery, meso-colon, the process belonging to the ligamentum latum uteri. Of the two latter, I have myself seen examples." I have been unable to find any published details of the case to which he refers.

De Haen (*Ratio Medendi*, Pars xi; *De Ileo Morbo*, p. 103) has described a case of hernia of intestine through an opening in the meso-sigmoidea, of which Treitz (*Op. cit.*, p. 106) gives the following notice: "In the year 1766, he observed, in a woman aged 57, a hernia into the meso-colon of the sigmoid flexure, in which a loop of the lower part of the ileum was incarcerated. Almost periodical abdominal pains, of varying intensity, lasted for three years; with them, tympanitis was always predominant. Finally, the whole cycle of incarceration-symptoms set in with such severity, that death followed within five days."

De Haen refers to three drawings representing portions of the abdominal viscera detached from the body, but gives no descriptive details of the parts involved in the strangulation. The drawings, which are fragmentary and ill arranged, certainly show the intestine protruding through an opening in the *upper* layer of the meso-sigmoidea—that is, the layer passing upwards and towards the middle line, and not the lower or under layer, in which the fossa intersigmoidea is situated; we must, therefore, accept this to have been the case, whatever doubts, based on likelihood, we may have to the contrary.

It would be useless to attempt to frame rules for the diagnosis of this form of hernia, which the next case would falsify; but it may be remarked that the symptoms probably would resemble those of acute internal strangulation, with the additional circumstance that localised pain and tenderness, if present, would be in the left iliac region, and not in the right, as is commonly the case in strangulation from bands and diverticula, etc.

The coincidence that, both in the case related above and in De Haen's case, the patient was periodically subject to abdominal pains, associated in the first with a constricting sensation, in the second with tympanites, may be noted as, perhaps, indicating that the intestine had not unfrequently slipped into the opening before the fatal incarceration took place. I am indebted to Mr. T. Smith for his kind permission to publish the case.

CUCAINE IN ACUTE AFFECTIONS OF THE UPPER RESPIRATORY PASSAGES.

By J. STRAHAN, M.D.,
Formerly Medical Officer to the Belfast Dispensary.

The fact that Jellinek has produced complete anæsthesia of the larynx by the application of cucaine, points to a vast field of usefulness for that drug, not hitherto explored. To secure anæsthesia of the larynx, epiglottis, palate, and pharynx, must prove an invaluable boon to the profession and the patient, in the immediate future. Even the action of carbolic lotion or lozenge in throat-affections, as an anæsthetic, is by no means to be despised; so that we can easily imagine the comfort, relief of pain, and even avoidance of danger to life in cases of spasm of the glottis, likely to result from the use of cucaine. It has been used with perfect success in operative procedures about the larynx, but has not yet been tried for either diphtheria or croup. It is obvious what a boon the addition of cucaine applications would be to any plan of treatment. It could be applied either by ordinary swabbing with a four per cent. solution, or by insufflation with the dry powder; or the solution could be sprayed when we wished to reach far down. Even if the applications had to be made as often as every half-hour, for a little, the trouble would be as nothing compared with the ease and safety of the patient. In case of necessity, the nurse could apply it perfectly well in any form, if taught. The addition of a couple of drops of chloroform (a solvent of cucaine), to the ounce, would prevent the formation of fungus in the solution, as it does in the case of solutions of atropia, morphia, strychnia, tartarated antimony, and indeed all solutions usually spoiled by fungi. This would conduce to economy, as the solution without any preservative soon spoils, and is then liable to excite acute inflammation in mucous membranes instead of curing it. Of course the chloroform must be dissolved in the alkaloidal solution, by agitation in a bottle not more than three quarters full. This amount of chloroform causes no irritation, even in the eye, as I constantly use preserved solution of atropia, without causing the slightest pain.

We have now evidence that a four per cent. solution of cucaine painted on the nasal mucous membrane, besides causing anæsthesia, contracts the capillaries, drives out the blood, and causes a membrane swollen and red to become shrunken and pale. In coryza, even where the nares are obstructed by swelling, a strip of lint, soaked in the solution and pushed into the anterior nares, speedily removes the swelling, permits the passage of the breath, and, repeated once or twice, even permanently cures the disease. From these considerations, it seems to me that cucaine is destined to become an indispensable aid in all acute inflammatory diseases of the upper respiratory passages. In laryngitis, croup, diphtheria, scald of the larynx, simple or reflex spasm of the glottis, and even in chronic laryngeal affections, life often depends on the absence of fits of spasm; and the only remedy, when it occurs often enough or severely enough to threaten life, is tracheotomy. If cucaine, by inducing complete anæsthesia of the parts, prevents these spasms even in part, it will be an invaluable addition to the treatment of these diseases. We have some evidence that it will do so, from the fact that the imperfect means on which we have hitherto had to rely for anæsthetising the larynx, pharynx, etc.—namely, bromides and chloral—do very markedly diminish the tendency to spasm of the glottis in croup, for instance. For that reason among others, I am of opinion that a combination of bromide of potassium and hydrate of chloral constitutes the very best treatment for croup—at least, so far as systemic remedies go. The bromide diminishes the number and intensity of the laryngeal spasms. The chloral, in addition, acts as perhaps the most powerful antiphlogistic we have in such cases; it greatly reduces arterial blood-pressure, diminishes body-temperature, and acts as a powerful germicide, both generally and locally. The local use of cucaine, and the constant inhalation of some efficient antiseptic vapour, such as that of eucalyptus-oil, or of turpentine and tar, in addition to the internal treatment described, and with proper attention to alimentation, would seem to me to be an almost perfect therapeutic plan for diphtheria, croup, and many other diseases of the respiratory passages.

RESULT OF ENTEROTOMY IN A CASE OF INTESTINAL OBSTRUCTION.

By W. W. WAGSTAFFE, F.R.C.S., Sevenoaks.

I have recently become acquainted with the termination of a case, in which I opened the intestine in the right groin for intestinal obstruction, ten years ago, and which was reported at the time; and I think it a duty to complete the narration, when possible, of any case which has been of sufficient importance to attract attention.

Shortly given, the case was one of intestinal obstruction in a woman, aged 30, and the obstruction appeared to be caused by a pedunculated growth, springing from about the left sacro-iliac joint. But the hand could be passed into the bowel, and found the mucous membrane involved to some extent, though the real seat of obstruction was above the reach of the hand; for the bowel was empty immediately above the nodular mass, which could be explored by the hand passed into the rectum. Complete obstruction had lasted seventeen days, and the patient was emaciated and sinking, with the ordinary symptoms of obstruction, so I opened the bowel in the right groin, and relief immediately followed. She left St. Thomas's Hospital about a month later, with an artificial anus in the groin, but the evacuation of the contents of the bowel was taking place to some extent from the rectum.

Since that time, I have lost sight of her; but I have occasionally heard of the patient from Dr. Coates, an old pupil, under whose care she has been from time to time. She improved greatly in health and strength; and the opening in the groin, which gave some trouble at first from protrusion of the gut, gradually diminished in size, and was not a serious inconvenience to her. The motions were passed more and more by the rectum until very little escaped from the opening in the groin. She was able to undertake housework, and could walk three or four miles without trouble, and she felt that she was in no way seriously affected by the artificial anus.

Things remained thus for about two-and-a-half years, when I learn that she died from peritonitis, after about a week's illness. I hear that this peritonitis was not associated with further obstruction; but, unfortunately, no *post mortem* examination was made.

The case is, therefore, incomplete; but, such as it is, it is worth while recording for the evidence it gives of more than two years' comfort and life by operation for intestinal obstruction, which was threatening to be fatal. The cause of the obstruction was not one to be removed by ordinary means, and the result as regards relief was as much as, or even more, than might have been expected. It differed from those cases of twist, displacement, invagination, band, etc., where the mechanical obstruction can be removed by operation, and it was only the urgent symptoms due to the blockage that could be relieved. Yet, with relief to these, by opening freely above the obstruction, there was gradual restoration of the natural course of the evacuations; and the patient passed two years of comfort, and was able to perform her household duties and walk without inconvenience. It is also of interest to notice that, after a time, the opening in the groin gave rise to little inconvenience, either from protrusion or from the passage of fæces, and this is a matter of great practical importance to a patient who has to be actively employed.

In the absence of *post mortem* examination, I feel hesitation now in recording the case as one of opening the small intestine, as I would mean by enterotomy; but my impression at the time of operation was that the small intestine was opened, and not any part of the large intestine, which, I am ready to allow, might as easily have occupied the right side of the abdomen towards the groin.

THE TREATMENT OF BILHARZIA DISEASE.

By P. SONSINO, M.D., Pisa, Italy.

No doubt Bilharzia infects indifferently robust and feeble subjects; and subjects with Bilharzia, in some cases, do not appear to suffer much, as Dr. John Harley said in the recent discussion at the Royal Medical and Chirurgical Society (May 26th); but when the infection is of long standing, and the number of the worms is great, we have then always signs of anæmia and feebleness, and then it becomes necessary to sustain the organism with tonics, iron, and good nourishment, as recommended by Dr. Cobbold. This last treatment certainly does not prevent one from catching the worm, but it is required by the bad state of the patient, in consequence of the infection.

I know that, in Egypt, there are now some practitioners who profess to cure hæmaturia arising from Bilharzia with medicated injections

(perchloride of mercury and other substances), but I am convinced, as is also Dr. Cobbold, that this is a mere delusion; because it is not possible to reach and kill with these injections the worms which live principally in the different branches of the portal system. The natural course of hæmaturia is not continuous; the cessation of it for some time is not cure; and it is not possible to obtain really a cure without getting rid of the worms from the organism. I do not say that it is impossible that we may find a substance that, introduced into the blood, may kill the worm without endangering the life of the host; yet I entertain the belief, expressed long ago, that the worms circulating with the blood, when dead, may prove more dangerous than when alive, as they may become more easily the point of formation of clots and embolisms. But, apart from this, no substance can be of avail if it be not absorbed and diffused through the blood; and that very probably is not the case with substances introduced through the urinary bladder.

Whoever has seen the *post mortem* alterations often produced in the walls of the bladder by the dispersion of the ova in their tissues, cannot believe in the usefulness of medicated injections to cure them. Medicated injections, and above all washing out the bladder, can be only useful in certain cases to alleviate the complicating catarrh of the bladder and prostate; that is all. Medicated injections, it is true, may kill the embryos in the ova poured into the cavity of the bladder; but that has no real importance, because the embryos, when free, soon die by themselves, not being able to live long in the urine. Surgical measures may, in certain cases, be required by alterations of the bladder consequent on infection by Bilharzia, such as growths like papilloma, or incrustations on the mucous membrane; but by surgical measures we cannot deal directly and radically with the infection.

I, therefore, think that, as yet, we have no means of curing the infection of Bilharzia better than is done by nature. The best thing of all is to avoid receiving the worm into the body, and for this I think I have been the first to have indicated the true prophylaxis in suggesting that only well filtered water should be drunk. I have the conviction that the larval form of the worm enters the human organism generally with drinking water, and, being too large, cannot pass with filtered water.

June 1885.

AN INSTRUMENT FOR THE TRANSFUSION OF DEFIBRINATED BLOOD.[1]

By T. W. CARMALT JONES, M.A., F.R.C.S.Edin.

This instrument is intended to be used for transfusing defibrinated blood. It could be equally well used for injecting milk or any other fluid into a vein. It consists of a holder (A), into which the defibrinated blood is to be poured; a tightly-fitting metal cap (L), in the centre of which is a hole; a pipe leading from this hole communicates, by means of an India-rubber tube, with a valved hand-ball (T). When the cap is in position on A, air can pass easily to A; but pressure on the hand-ball will force air into A, and compress it on the surface of the fluid in A. At the lower end of A is a piece of India-rubber tubing (B), which can be compressed by the clip (D); and at the other end of the tubing is a hollow coned metal plug (C), which fits into the silver nozzle (M). The instrument, with its accessories, as supplied in the case, provides all that is required for the performance of the operation of transfusion of defibrinated blood, with the exception of a clean ordinary tumbler, or, preferably, a small milk-jug, and a basin of hot water.

The steps of the operation are as follows.

1. Bleed the donor, in an adjoining room, if possible, to five or six ounces, into the measured vessel (H).

2. Whip the blood with the whip (P), and strain through the strainer (F) into the tumbler or milk-jug.

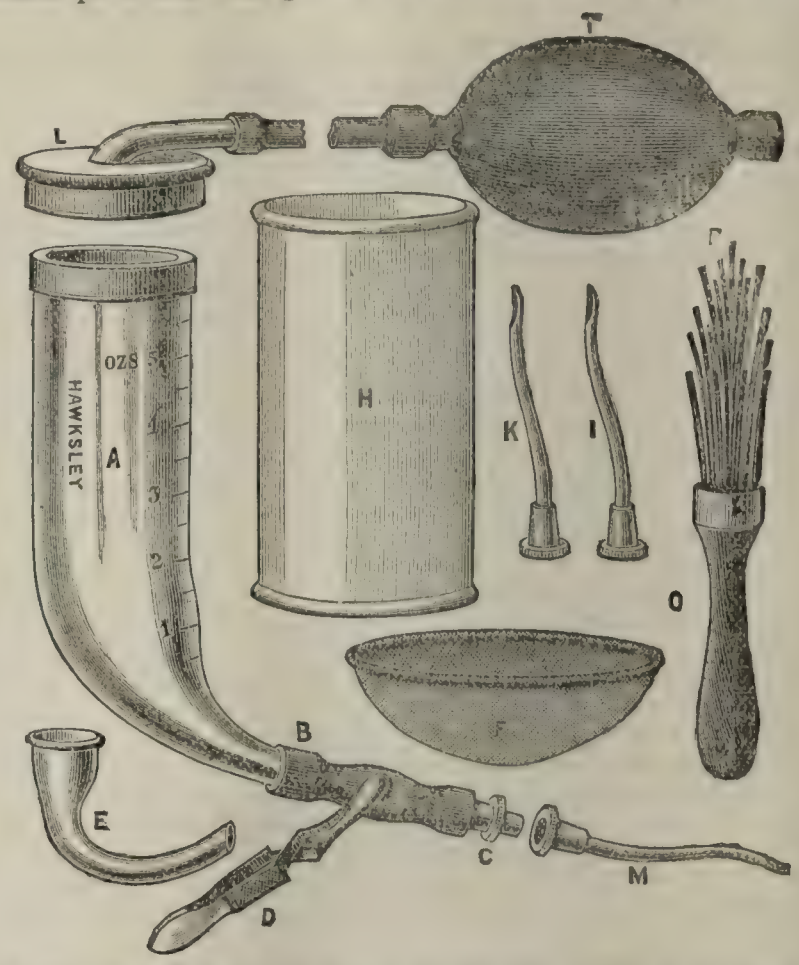
3. See that the India-rubber tube (B), plug (C), and clip (D), are in place. Pour the defibrinated fluid into the holder (A), and put the cap (L) on firmly; then place the holder in the basin of water at 100° Fahr.

4. Open a vein in the patient's arm, and insert the silver nozzle (M, K, or I)—three sizes of nozzles are provided; and block up the open end of the nozzle with the finger.

5. Have the holder brought to you; ease the clip until the fluid flows out of the plug; then tighten the clip again. Take the finger away from the end of the nozzle, and insert the plug, and remove the clip. Note the height of the fluid in A. The fluid in the holder is now in free and direct communication with the blood in the patient's vein. If any force is required, squeeze the hand-ball gently.

6. After the operation is over, again note the height of the fluid in A, remove the short piece of India-rubber tubing (B), and burn it. The other parts can then be easily and thoroughly cleansed.

The instrument is very simple in action; has no delicate or complicated parts that can get out of order, so as to cripple it; has



H Vessel marked in ounces for donor to be bled into. P Whip to be used in H. F Strainer of lawn muslin on wire frame. A Holder to receive defibrinated fluid. B India-rubber tube about three inches long. C Coned plug (hollow). D Clip. L metal cap for A. T Hand-ball. M Nozzle. K I Additional nozzles. E Blood-director.

no taps to puzzle the operator; and can be thoroughly cleaned and inspected. Supposing anything were to happen to the hand-ball, an assistant could supply all the force required by blowing, though not so conveniently as the hand-ball.

The piece of India-rubber tubing at B is to be a clean new piece each time the instrument is used, and is to be burnt directly after use, so that no danger may arise from dried blood not removed after previous use. The inside of India-rubber tubing is rough, and not easily cleansed, and cannot be inspected to see if it is clean. This piece of tubing allows sufficient play, and breaks the rigidity, but is purposely kept short. The amount of blood taken from the donor, and the exact amount injected into the patient, will be known.

The instrument is made for me by Mr. Hawksley, of Oxford Street, to whom I am indebted for several practical suggestions.

[1] Read before the Harveian Society of London.

ON A NEW METHOD OF TESTING FOR ALBUMEN IN URINE.[1]

By G. P. BEST, B.A., M.B., Cantab.

I need not dwell at length on the ordinary methods of testing for albumen. Suffice it to refer to the observations of an expert in this line, who sums up all that I need insist upon. Speaking of the diagnosis of granular kidney—the disease in which this matter of the contents of the urine is most veiled and most important—he urges what every one will admit, "the great importance of the early detection of the disease," and further, the fact of which every one is aware, that its only certain pathognomonic sign is the "constant slightly albuminous" character of the urine. (*Clinical Reports on Renal and Urinary Diseases*, by Wm. Carter, M.B. London: J. and A. Churchill. 1878.)

[1] From a paper read before the Midland Medical Society.

He continues. "It becomes therefore a matter of extreme importance to recognise it. Yet I need not say I believe, because I have several times had absolute proof, that it may not be recognised.

"I have seen it overlooked under the following circumstances. The urine, when heated, has become opalescent, owing to the separation of earthy phosphates. A few drops of nitric acid have however instantly dissolved these, and produced a perfectly transparent solution; and on the strength of this it has not unnaturally been concluded that no albumen was present. But if this same urine, instead of being put hastily aside, be watched for five or six minutes, or until it has become nearly cold, a turbidity will again appear, commencing usually at the bottom, and spreading thence throughout, which turbidity neither heat nor more nitric acid will dissipate.

"But I am sure that such a separation of earthy phosphates in the earlier stages of this disease is not uncommon, even though the reaction of the urine, after having been heated, remains distinctly acid. Why it is that when they are thus diffused through the urine by boiling it albumen is very slow to make its appearance in a coagulated form on the addition of nitric acid I cannot say; but I am sure that such is the case, and that it sometimes leads to mistakes."

Coming to the practical part, he says: "But, to avoid the delay which the process ordinarily followed entails under the circumstances alluded to, and to attain an occuracy which is not so attainable by it, I now always employ the method recommended by Hellor, and quoted in pp. 68 and 69 of Neubauer and Vogel's work on the urine (Sydenham Society's translation, 4th edition). This is effected by pouring one to two drachms of nitric acid into a cone-shaped urine-glass, and then allowing the urine, filtered, if necessary, to trickle down the side of the glass, so as to float on the acid. If albumen be present, a gradually deepening opalescent layer will appear immediately above the acid, undissolved by warming the side of the glass, and quite incapable of being confounded with anything else. The cases alluded to above gave instantly evidence of the presence of albumen when this method of applying the test was employed; and, as it is not always convenient to wait eight or ten minutes over a case of urine-examination, it is always safer to employ the test in the manner just indicated. It is as well also to employ a filtering paper, whether there be turbidity or not, for, by inclining the paper, so that its point shall rest against the side of the glass, and then by gently inclining the glass itself, the urine flows so gently down as not to disturb the surface of the nitric acid, an effect which it is difficult to avoid, even by the careful pouring from a pipette."

It will thus be seen that, while one of the methods employed takes a considerable time (about eight or ten minutes), and the other, to say the least, is somewhat elaborate, the very recommendation of this last by such experts as Neubauer and Vogel proclaims a necessity which is not met by rougher and more offhand methods. It is to meet such a necessity, without incurring the loss of time on the one hand, or too great an apparatus on the other, that I was led to devise the method I now propose; and I may say, in passing, that what suggested the idea to my mind was nothing more nor less than the very passages I have read to you. This method consists simply in the use of the syringe for the purpose of effecting that apposition (without intermixture) of the layers of urine and nitric acid which every method seeks to accomplish. So much for the general principle, which wants no further elucidation; but I will note its application in two particulars.

It is a well known fact—owing, doubtless, to our more accurate methods—that we are apt to neglect that examination in bulk of the excreta from which practitioners of old derived all their information concerning them. How often does the inspection of the stools throw a flood of light on the nature (and, by consequence, the treatment) of a case which had till then remained obscure. In our hospitals, we see the urines of patients neatly decanted off into long glasses or test-tubes; but it seems to me that both physicians and students might sometimes be gainers by seeing the urine as it is in the pot.

The other point which I wish to note is the convenience of my method for house-to-house visitation. With a syringe, it is easy to draw up a few drops of urine from the most unhandy pot, and the test-fluid after it.

Instead of nitric acid, I find it more convenient to substitute Dr. Roberts's hydrochloric solution of common salt, the suggestion of which disposes of the difficulty of arranging for the portability of nitric acid.

I have here a specimen of urine, which I have selected as being but slightly albuminous. Making sure that the piston of the syringe fits air-tightly, I just dip the end of the nozzle below the surface of the urine, and draw up a little. I now transfer it to the test-solution, of which I also suck in a small quantity; and you see how sharply this underlies the urine, producing in its lowermost part a narrow but well defined cloud, which witnesses to the presence of albumen.

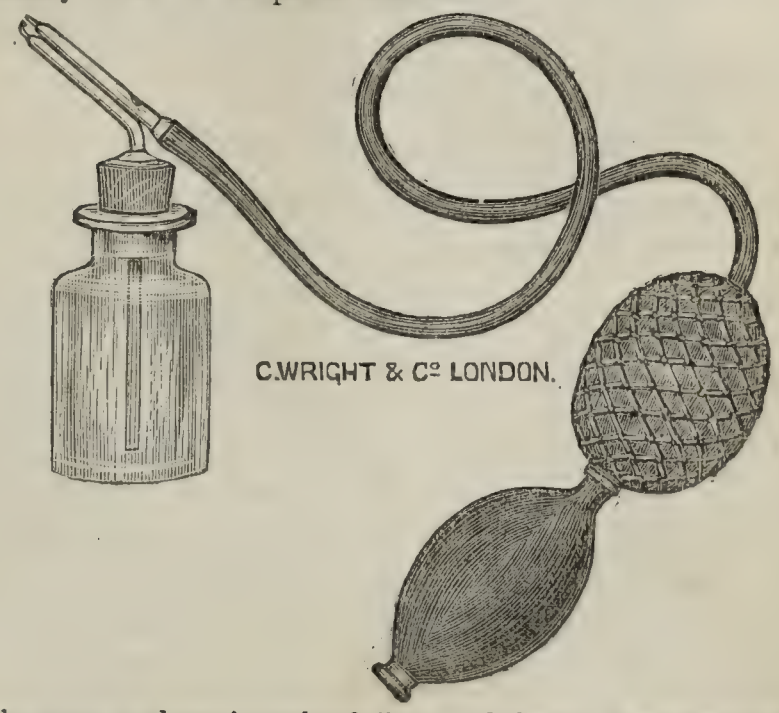
THERAPEUTIC MEMORANDA.

A CUCAINE SPRAY-PRODUCER.

As the use of a spray-producer undoubtedly commends itself in regard to the employment of cucaine in surgery, I have devised an apparatus which, by the introduction of certain modifications upon the usual type, will be found to meet the requirements of the case in question.

On account of its expensive nature, every drop of cucaine-solution has some significant value, from more than one point of view; and when used in the form of spray, its mission is quite different from that of carbolic acid administered in the same manner; hence the carbolic spray-producer is quite unsuited for the administration of cucaine as a local anæsthetic.

The accompanying illustration will explain the general appearance of the apparatus for producing cucaine-spray, and it is therefore only necessary to refer to its special features.



The spray-producer is made of silver, and the jet is as fine as can possibly be produced; it plays softly over a part without spluttering, and is so constructed as to act upon the eye-ball without inconvenience to the patient. In the ordinary spray, the air contained in the reservoir has only one means of exit; namely, through the jet. This causes a waste of some of the solution, since the spray continues to act until the air is exhausted in the reservoir. To counteract this waste, particularly serious in the case of cucaine, a small aperture has been made in the air-tube, which, while the spray is in use, can be kept covered with the thumb. When the spray is no longer required, the thumb may be removed, the air at once escapes through this opening, and simultaneously the jet is arrested. This contrivance prevents all dropping of the solution, and also it regulates its action with great precision.

The cucaine-spray has proved useful in all operations on the eye, and on mucous surfaces. In the removal of hæmorrhoids, for instance, the assistant is enabled to keep the part in an anæsthetic condition by an occasional spray, whilst the surgeon may carry out, uninterruptedly, the various details of the operation. In general surgery it is often equally useful, especially in herniotomy and ligature of arteries. There is, of necessity, a little difficulty in preventing pain, during the first incision through the skin. This having been, if possible, overcome, a sufficiently strong solution of cucaine-spray, turned on to the exposed surface of the subcutaneous tissue, will render the operation painless throughout the rest of its course, and for this reason practicable without the employment of a general anæsthetic.

The spray-producer can be procured of Messrs. Wright and Co., 108, New Bond Street, London, who have made it at my suggestion; and I am glad to take this opportunity of thanking them for their assistance, and for the trouble they have taken in the matter.

H. Percy Dunn, F.R.C.S., Assistant Ophthalmic Surgeon and Pathologist to the West London Hospital, etc.

BICARBONATE OF SODA IN TONSILLITIS.

In a recent number of the British Medical Journal I noticed a short paragraph setting forth the valuable properties of bicarbonate of soda in the treatment of tonsillitis. I can myself bear testimony to the good results obtained by using this simple and effective drug. I have been in the habit of using it for the last four years, and I have never had a failure with it. The remedy was introduced to the profession some years ago by a French practitioner, M. Gaie, who alleged that he was able to arrest, by means of this remedy, an attack of tonsillitis in twenty-four hours. I have never been able to obtain so rapid a result, but I have found the drug equally sure and effective. I subjoin a list of cases treated by this method.

100 Cases Treated with Bicarbonate of Soda.

Age.	Duration of Disease.	Cases
18 to 24 years	36 hours	20
18 to 24 ,, ...	48 ,, ...	42
24 to 48 ,, ...	48 ,, ...	20
24 to 48 ,, ...	5 days	15
24 to 48 ,, ...	6 ,, ...	3

Theo. M. Kendall, B.A. Sydney, L.R.C.S.E., L.R.C.P.E., L.M.
50, Macleay Street, Pott's Point, Sydney, N.S.W.,

OBSTETRIC MEMORANDA.

A CASE OF RETROVERSION OF THE GRAVID UTERUS.

The following states the case of Mrs. B., aged 34, who has had four children and one abortion, with "falling down" of the womb since the birth of the first child eleven years ago, and is now between three and four months pregnant, whom I saw at 11 A.M. on May 24th. Some hypogastric pain was felt, and she had not micturated for twenty-nine hours. I explained my opinion, but she preferred to wait events a little before examination. Urgently sent for ten hours later, I found that a pint of urine had been passed; but distension of the bladder was evident, even externally. Examination showed the usual dull, fluctuating, secondary prominence, rising an inch above the umbilicus. The fundus uteri was mesially in Douglas's pouch; the os was opposite the upper margin of the symphysis pubis. The fact of urination, and the pelvic space remaining unoccupied, gave the impression of ease in treatment. With a gum-elastic catheter, eighty ounces of urine were drawn off; after which I gave an ordinary three-pint enema. An interval elapsed, and, when I proceeded to replace the uterus, I found it already in perfect position from the withdrawal of front pressure, probably assisted by the semi-prone position and push of the nozzle of the enema-syringe and stream in the rectum. Bimanually, the uterus was of about three months' size and contour. Afterwards I completed matters by a Hodge's pessary as usual. Paresis from over-distension did not follow, and the patient resumed her ordinary duties.

Archibald D. Macdonald, M.D.Edin.,
26, Spellow Lane, Liverpool.

CONCEPTION WITHOUT THE APPEARANCE OF THE MENSTRUAL FLOW.

I desire to bring under the notice of the profession a well-authenticated case of conception having taken place on three different occasions without any appearance of the menstrual flow.

Mrs. ——, aged about 30. married about six years, has been delivered at full time of three healthy children, and is now pregnant with a fourth. She menstruated quite regularly and naturally before her marriage, and for a few periods after. Since then she has had no menstrual discharge whatsoever, nor, indeed, any appreciable discharge of any kind from the vagina, except the lochia, which were natural in quantity and duration. She had no connection with her husband for some weeks after the cessation of the lochia. Her first child was born about twelve months after marriage, and she suckled it until it was fifteen months old, until, as she says herself, she felt sick in the morning and knew she was pregnant again. The same thing has occurred with each child, menstruation never having been re-established since she was pregnant with the first. Having questioned and observed the woman very closely, I think it impossible to entertain any doubt of the correctness of her statement. A well authenticated case, such as I consider this to be, shows pretty clearly that there cannot be that intimate relation between ovulation and menstruation that some authors seem to think. Ovulation can undoubtedly occur without menstruation (as in this case), and we know the menstrual flow does occur without ovulation, as in cases where menstruation has occurred after amputation of both ovaries.

Arthur Oakes, M.D., L.R.C.P.,Edin.,
99, Priory Road, West Hampstead, N.W.

CLINICAL MEMORANDA.

ACUTE MENINGITIS IN CONNECTION WITH INTRANASAL DISEASE.

On May 25th, I was called in to see a gardener, aged 33. He was suffering from intense headache, with great restlessness; temperature 103° Fahr.; pulse 80. His illness began the evening before, with severe frontal headache, soon extending all over the head. He vomited twice during the night, and did not sleep at all. I saw him again at 6 P.M., when he was in a very similar condition, except that he became semicomatose at times. At 11 P.M. he was perfectly comatose, and had had convulsions just before I arrived, and was still very restless, frequently throwing himself about in bed. He remained comatose until death, which occurred at 11 A.M. the next day.

There was no history of any recent injury to the head, but when young he had a severe fall, followed by insensibility for some hours, and since then he had been subject to severe headache. He was deaf in the right ear, but had not had any discharge from it.

The necropsy, on the same day, revealed acute meningitis all over both hemispheres; the lateral ventricles contained a considerable quantity of purulent fluid, and their lining membrane was rough. The dura mater of the base was healthy, except over the orbital plates of the frontal bone, where it was thickened and easily separated from the bone. The cribriform plate of the ethmoid bone was covered with lymph. On cutting through the bone, the frontal sinuses were found full of a muco-purulent fluid. The mucous membrane of the infundibula, nasal cavities, and ethmoidal cells, was soft and swollen, and covered with semi-fluid lymph, which was very offensive. There was no diseased bone. The other organs were not examined.

On inquiry afterwards, it was found that his wife had noticed that his breath was offensive for the last few days, but there was no excessive secretion from the nose. The case illustrates the fact which Mr. Spencer Watson pointed out in the Journal of May 30th; namely, that the intranasal disease may be easily overlooked.

Percy Warner, Rydal, Woodford Green, Essex.

THE ASSOCIATION OF TONSILLITIS AND FOLLICULAR PHARYNGITIS WITH THE RHEUMATIC DIATHESIS.

I have for some time past been struck by the frequency with which tonsillitis and a hyperæmic condition of the pharynx occur in patients of a rheumatic taint. That there is such an association of these two diseases many admit, but I have hitherto failed to find any pathological reason for it. Out of 100 cases of rheumatism (in all its forms), I have seen this affection in between fifty and sixty patients. The only reasons I can advance for it are these.

1. The white fibrous tissues and fibro-serous membranes, having by preference been attacked by the *causa morbi* of rheumatism (lactic acid), become saturated or so inoculated, so to speak, that they are protected from further injury, the result being that the lactic acid next attacks that for which it has the next greatest affinity, namely, the fibro-muscular walls of the pharynx.

2. If, as is supposed, lactic acid be formed from the starchy constituents of the food, would any material amount be formed chemically during deglutition, and, carried into the tonsillar orifices, or absorbed by the pharyngeal glands, exert a local toxic effect upon the surrounding tissues, this effect being regulated in intensity or character by pre-existing rheumatism?

3. On account of the frequency of pericarditis in rheumatism—*a priori*—myocarditis, is it unreasonable to suppose that the muscular structure of the heart, morbidly affected as in myocarditis, would have the effect of producing the local symptoms in the pharynx, through the sympathetic and pharyngeal plexus?

That salicylate of soda and guaiacum relieve the symptoms so readily is, I take it, a strong support to the theory of the connection of the diseases.

Charles T. Griffiths, L.R.C.P.,
15, Cathcart Road, London, S.W.

It has been decided to rebuild the Bideford Dispensary and Infirmary upon a new site, at a cost of £1,350, of which upwards of £650 has been given or promised.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

FŒTAL PERITONITIS; CONSTRICTION OF ILEUM; INTESTINAL OBSTRUCTION; ENTEROTOMY; DEATH.

(Under the care of Mr. EDMUND OWEN.)

[From notes taken by Dr. CHAFFEY.]

THE patient, a female, was born on the morning of April 11th, 1885, and appeared to be healthy. In the afternoon of the same day, she was given some milk and water.

At midnight she began to vomit a brownish yellow fluid. Next morning some castor-oil was administered; this apparently increased the vomiting.

The infant was admitted on April 13th. Up to that time nothing had been passed *per anum*. Dr. Thomson, the house-surgeon, examined the child, and noted that it was well formed; that the skin was rather dusky and somewhat yellowish; and that the abdomen was distended and tympanitic. There was nothing unusual about the umbilicus; the heart's sounds were normal; the anus was small, and the rectum narrow; a probe passed up easily for three inches. In the afternoon the patient vomited meconium frequently, and at 5 p.m. about one teaspoonful of dark green slimy matter was passed *per anum*.

At 5.30 p.m. Mr. Owen saw the child, and introduced his little finger into the rectum, under chloroform. So far as could be ascertained, the lower bowel was perfectly developed. Immediately after this examination, a small amount of meconium was voided *per anum*, Mr. Owen therefore determined to see what might be the effect of a simple enema, together with the administration of minute doses of opium, before having recourse to laparotomy. A soap-and-water injection was administered, but it was returned without bringing away anything.

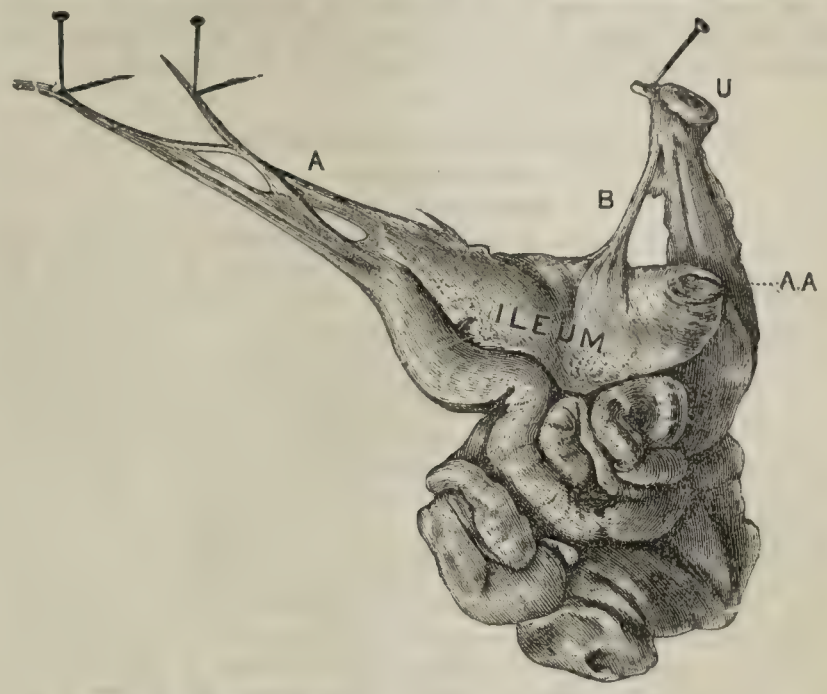
April 14th. The patient had vomited frequently during the night; nothing more had been passed *per anum*, and another enema had failed to have any effect. During the day the child's condition remained unchanged. Accordingly, at 5.30 p.m., Mr. Owen proceeded to perform enterotomy. An oblique incision, two-and-a-half inches in length, was made through the abdominal wall on the right side, at right angles to a line joining the anterior superior spine of the ilium with the navel, and about one-third nearer the iliac crest. The piece of the small bowel which presented itself was drawn out and incised, and the edges stitched to the margins of the wound in the abdominal wall. Carbolised silk sutures were used. During the operation, some adhesions of the bowel in the vicinity of the wound were broken down, but it was not thought advisable to extend the search for the exact cause of the obstruction. Antiseptic precautions were adopted during the operation, but the use of the spray was dispensed with. The temperature that evening was 102° Fahr. Since admission the temperature had not previously risen above 96° Fahr.

April 15th. The patient was drowsy from the administration of hourly doses of one-fifth of a minim of tincture of opium. There had been slight tonic contractions of the extremities during the night; the pulse was very feeble; the temperature was 101° Fahr. Since the operation the vomiting had ceased. Light yellow semi-fæcal matter was being passed freely by the opening.

April 18th. The distension of the abdomen had disappeared, and the infant seemed in comparative ease. It had taken food yesterday and to-day, with only slight inclination to vomit. The temperature was normal; and it had passed urine naturally. On the two following days, however, it gradually lost strength, became more collapsed, and died six days after the operation and nine days after birth.

NECROPSY.—The examination was made seven hours after death. The weight of the body was 4¾ pounds. The face and neck were livid. There was some deposit of lympho-pus between the layers of muscles in the vicinity of the wound. The gut had contracted plastic adhesions to the abdominal wall. It had been opened about 12 inches above the ileo-cæcal valve. In the vicinity of the wound, the coats of the gut were greatly œdematous, and highly injected. Some old and firm adhesions had been broken down at the time of the operation, as some portions of them remained along the free margin of the gut near the wound.

An inch and a half above the operation-wound, there was a tough fibrous band (B), 3 inches in length, expanded where it was connected with the ileum, and cord-like where it joined with other structures at the umbilicus (U). The upper border of this band was free, whilst its lower border was joined by rather firm and evidently old adhesions. The bowel was grooved transversely opposite the attachment of this band, as if constricted. The lumen



A. Old adhesions.
A A. Artificial anus.
B. Band.
U. Umbilicus.

of the gut was considerably increased immediately above that point, and gradually diminished below it towards the opening in the bowel. The rest of the ileum and jejunum was considerably distended with partially digested food and gas. The lowermost twelve inches of the ileum, together with the cæcum and the whole of the colon and rectum, were empty and contracted. By the traction of the band just mentioned, a twisting of the lowermost portion of the ileum and the mesentery had been caused, so that the ileum was crossed from left to right, by a coil as it proceeded to the cæcum, which was normally situated. There were some old adhesions (A), causing traction on the bowel in an upward direction, and adding to the constricting power of the band B. Some recent plastic adhesions had formed about the pelvic organs. The liver weighed 4½ ounces. The spleen was rather large and soft, and weighed ¼ ounce. The kidneys (together) weighed 1 ounce; their cortices were rather pale, and apparently somewhat swollen and soft. The heart weighed ¾ ounce; its structure was normal; the foramen ovale was closed. The lungs showed patches of commencing broncho-pneumonia.

REMARKS BY MR. OWEN.—The commonest cause of intestinal obstruction in newly born infants is imperfect development of the anal or pelvic piece of the lower bowel; the diagnosis in such a case is cleared up by digital exploration, the treatment demanded being left inguinal colotomy. (BRITISH MEDICAL JOURNAL, March 6, 1880). In the case in question, though peritonitis and other signs of obstruction were severe, it was thought that the closure of the lumen of the bowel was not complete, and that, by opening the peritoneal cavity in the right iliac fossa, and securing the first piece of the small intestine that presented itself—this would probably be a piece of the distended ileum—relief might be afforded to the urgent symptoms, and that, matters having righted themselves, the artificial anus might eventually be closed. The nature of the obstruction was obscure: if it were in connection with the ileo-cæcal valve, this might probably be dealt with through the wound. As soon as the peritoneal cavity was opened, a greatly distended, inflamed, and discoloured piece of intestine appeared; but before it was opened the finger was passed into the abdomen, and search made for any definite cause of obstruction. Somewhat firm bands of adhesion about the small intestines were detected and disturbed, but the operation was completed by the formation of the artificial anus. Abundant escape of intestinal contents promised immediate relief to the urgent symptoms. As regards the exact nature of the band (B), the question is, was it a membranous cord organised out of inflammatory adhesion by the withdrawal of the ileum from the neighbourhood of the umbilicus whereto it had been temporarily glued; or was it a Meckel's diverticulum whose presence had been the head and front of the offending? Probably the former hypothesis is

the correct one, for in its appearance and structure the band was exactly similar to the other adhesions (A), which were evidently the result of intra-uterine peritonitis. Moreover, the intestinal attachment of the band was frayed out and spread around the serous coat of the bowel, and contained no trace of a tubular outgrowth, or even of any definite fibrous cord, into which a Meckel's diverticulum might have degenerated. Lastly, had the band (B) been the cause of the peritonitis and not the result of it, the chief part of the pathological changes would have been concentrated near its attachment to the bowel, but, as is shown by Dr. Thomson's excellent sketch, this was not so.

ST. BARTHOLOMEW'S HOSPITAL.

CONSULTATIONS.

JUNE 4TH, 1885.

Disease of Knee-joint.—A man, aged 30, had been admitted, under the care of Mr. Savory, on April 25th, on account of disease of the right knee-joint, which had commenced about fifteen months earlier with slight pain, but without any assignable cause. There was no family history of phthisis or struma; the patient had had gonorrhœa "years ago," but not syphilis. His health had been good until the symptoms of disease of the joint commenced. After his admission, the limb was kept at rest on a back-splint, and blistering fluid was applied on one occasion. No improvement resulted; and, on May 19th, he first experienced starting of the limb at night. The patient was slightly built, and not of robust aspect. The pulmonary physical signs suggested the suspicion that there might probably be some commencing phthisical disease. The right knee was a little hot, slightly tender, stiff, and measured fourteen and a half inches in circumference. The left knee measured thirteen and a half inches in circumference.—Mr. SAVORY said that, in his opinion, the knee was in that condition first described by Brodie under the name of pulpy disease of the synovial membrane. Without entering into the question whether this condition was essentially tubercular, he felt compelled, taking into consideration the disorganised state of the joint, the fact that the tibia and fibula were apparently secondarily involved, and the unfavourable state of the man's general health, to advise amputation.—Mr. T. SMITH thought Mr. Savory's diagnosis was probably correct, but could not altogether exclude the possibility of a new growth. In either case, amputation was the only treatment.—From the indolent character of the swelling, its painlessness, the enlargement of the heads of the bones of the leg, and the presence of hard glands in the groin, Mr. WILLETT inclined to the diagnosis of malignant disease.—Mr. LANGTON, on the other hand, thought all the physical signs might be explained on the supposition that the disease was inflammatory; he agreed with Mr. Savory's diagnosis, as did the other surgeons present, Mr. HARRISON CRIPPS further observing that the joint distinctly contained fluid.

Exostosis of Mastoid.—Mr. MORRANT BAKER showed a young woman with a small tumour growing from the base of the mastoid process; he expressed the opinion that it was probably an ivory exostosis, but that it should be left undisturbed unless the patient, who alleged that it caused her pain, persisted in desiring an operation to be undertaken.—Mr. SAVORY agreed with Mr. Baker, and remarked that a history of local injury was, as in this case, often to be obtained in cases of ivory exostosis.—Mr. LANGTON suggested that there might be less difficulty in removing it than appeared at first sight probable, as ivory exostoses were frequently mushroom-shaped, with a narrow pedicle.—Mr. HOWARD MARSH thought an exostosis in that situation was more likely to be cancellous; and Mr. HARRISON CRIPPS observed that, even if it were an ivory exostosis, there would probably be no great difficulty in removing it with a "dental engine;" in this opinion, Mr. BRUCE CLARKE coincided.

MEDICAL WOMEN IN AMERICA.—The *New York Medical Record* says that it is to be regretted that a very large proportion of the women who seek to enter the medical profession in the United States, do so through irregular schools, where the course of instruction is inefficient; and that, once in the profession, they are much given to advertising in the public press. It ends by stating that "it appears beyond question" that the "medical education of women is really adding disproportionately and dangerously to the number of quacks and incompetent practitioners."

FALSIFICATION OF TOMATOES.—Three Parisian manufacturers, in order to make tomatoes apper redder than Nature has made them, varnished them with a chemical compound, and called them "the best quality tomatoes." They have been condemned to pay a fine of one franc (10d.).

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 9TH, 1885.

GEORGE JOHNSON, M.D., F.R.S., President, in the Chair.

Fatty Tumours. By J. BLAND SUTTON, F.R.C.S.—The object of this paper was to endeavour to point out the probable origin of certain forms of fatty tumours which had occurred in unusual situations. The author had removed the biceps cubiti muscle of an old woman, a dissecting-room subject, the upper part of which had become metamorphosed into a lobulated fatty tumour; not merely an example of fatty degeneration of a disused muscle, but a genuine lipoma. Mr. Pearce Gould had removed a congenital fatty tumour from the clavicle of a child, the base of which contained striated muscle-fibre. Mr. Butlin had reported a similar case in the Pathological Society's *Transactions*, vol. xxviii. The patient, a girl, seven years old, had been operated on by Mr. Thomas Smith for a fatty tumour growing among the deep muscles of the calf. It contained striated muscle-fibre. In a fibro-muscular tumour of the uterus removed by Sir James Paget, and reported in the Pathological Society's *Transactions*, vol. xii, by Mr. Thomas Smith, a fatty tumour had been found of the size of a pigeon's egg. These four cases seemed to favour the view that the muscle-tissue had suffered fatty degeneration, and the retrograded elements had acquired, or assumed, an independence and grown into a tumour. Muscles did not stand alone in this respect. Inflammatory new formations might degenerate into fat, and become veritable fatty tumours. Dr. Norman Moore had presented to the Museum of the Royal College of Surgeons an ureter surrounded by a "fatty tumour." The ureter contained a calculus, and in the Catalogue was printed the following noteworthy explanation: "The fat was probably produced by fatty degeneration of newly formed fibrous tissue (inflammatory new formation) occasioned by irritation of the calculus." The Museum of the Middlesex Hospital contained a specimen illustrating syphilitic stricture of the rectum; the pelvic organs were embedded in a mass of fat; tunnelled with sinuses from the bowel. Possibly the stricture and the passage of fæcal matter outside the bowel had acted as irritants, leading to increased activity in the parts surrounding the gut, which had fallen just short of inflammation, and led to overgrowth of fat; or in the early stage of the stricture inflammatory products had been exuded, which later had retrograded into fat and taken on independent growth. Dr. J. K. Fowler had pointed out the condition to the author, and had stated that it occurred in many cases of long-standing stricture of the rectum. In November, 1876, Mr. Henry Morris had removed from the buttock of a man a fatty tumour containing a shapeless mass of bone. Careful examination of this and similar tumours, particularly a case described in the Pathological Society's *Transactions*, vol. xxxiii, by Mr. F. Treves, lent support to the notion that congenital fatty tumours containing bone were really examples of "parasitic fœtuses whose soft parts had retrograded wholly or partially into fat." The hypothesis was also borne out by numerous examples in pathology and comparative anatomy. The fatty contents of dermoid cysts might be explained in the same way, namely, by degeneration of the higher tissues of which they were originally composed. The "lipoma arborescens" of Müller doubtless arose by fatty retrogression of the villous processes, which were common in joints affected with chronic disease. Evidence, in many ways, was adduced in the paper to prove that any of the soft tissues of the body, normal or pathological, might degenerate into fat, and that this retrograded tissue did, in some instances, assume an autonomy and grow into a veritable fatty tumour.—Mr. BUTLIN was glad to hear the opinion to which Mr. Sutton had come. He had himself thought that the fatty tumours which he had observed in infancy and childhood had originally been fibrous; Mr. Sutton had gone further than he had ventured to do, and with a very considerable show of truth.—Dr. C. CREIGHTON objected to some of Mr. Sutton's statements as irrelevant, and could not bring himself to think the evidence sufficient to show that the tumour on the buttock had been really a parasitic fœtus. In dermoid cysts it was common to find a greasy matter, but he considered that this was derived from the many sebaceous glands in their walls, and not from any process of degeneration. His principal objection, however, was to speaking of fat always as a degenerate tissue. The fatty tumour in the biceps muscle was especially interesting, and he regretted that Mr. Sutton had given no details of its position and attachments, and no description of the histological process which had ended in its conversion into fat. The presence of fat round the intestine in cases such as an old hernia was well known; and such deposits of fat round cancerous or

syphilitic stricture he had himself examined, and found it as perfect in its type as fat in any other position, and without any sign of degeneration. He did not agree with Mr. Sutton in thinking that there was in these cases any inflammatory tissue at all, or that it had degenerated into fat.—Mr. SUTTON pointed out that a parasitic fœtus might remain attached as long as thirty years, and might even then move its limbs, showing itself thereby as certainly a rudimentary fœtus enjoying life. In dermoid cysts, he was well aware that there was often sebaceous matter secreted by the glands in the cyst; but he had observed also a different tissue, namely, genuine fat, which he regarded as due to the degeneration of other tissues.

A Case of Large Lympho-sarcomatous Tumour of the Tongue. By JONATHAN HUTCHINSON, F.R.S.—The paper consisted chiefly in the narrative of a case in which a tumour, beginning in early life in the substance of the tongue, had required removal on account of its large size. It had grown until it completely filled the mouth, and obstructed deglutition and respiration. It weighed, after removal, seven ounces, and was probably the largest tumour of the tongue on record. The operation had necessitated a preliminary tracheotomy and section of the lower jaw at the symphysis, since it was quite impossible to get at the mass from the mouth. The patient was a medical student, aged 22, and the tumour had been growing for twelve years, or possibly much longer; it was painless, and of almost stony hardness. Its surface at one part was covered with papillary outgrowths, but there was not the least tendency to ulceration. There was no gland-disease. The patient was in good health, and the inconvenience caused by the size of the tumour was the only reason for its removal. Careful microscopic examination had been made by Mr. Eve, Dr. Klein, and others, with the result that the tumour was declared to be of a sarcomatous or lympho-sarcomatous nature. This verdict had unfortunately been supported by the final result, for, after about two years of good health without the slightest symptom of recurrence, a new growth had suddenly developed in the scar, and, increasing very rapidly, had brought about the patient's death. The author, whilst admitting that the tumour, in its final development, was of a malignant or sarcomatous character, drew attention to certain clinical features which were different from those common to such growths. If not actually congenital, it had begun in very early life, and its growth had been very slow and absolutely painless. The development of coarse papillæ on its surface, without any tendency to ulcerate or fungate, was another feature of peculiarity. He had not been able to find on record any case which corresponded with his own in all its characters, but had met with several which resembled it in its early stages. In one of these, of which a portrait was shown, the appearances on the surface were exactly similar; but in this no tendency to persistent growth was shown, and the patient, a railway-porter, aged 23, was still free from any material inconvenience. This, and some other cases, had led the author to believe that the starting point had been of the nature of a congenital mole, in which other morbid tendencies had been developed later on. The paper was illustrated by a series of drawings, and by the preparation itself, which had been preserved in the museum of the College of Surgeons. The railway-porter also was shown, and attention was called to the coarse papillary growth on both the upper and under surfaces of the tongue. In this, it was thought probable that there was some nævoid growth, though very little could be seen. Twelve years ago it was considered to be increasing, but since then there had actually been rather diminution than increase. Mr. Jonathan Hutchinson asked to be allowed to add a few words in explanation of the operation. He had had the kind assistance, in consultation, of Sir James Paget, Mr. Savory, and others, and in the operation, of Mr. Waren Tay and Mr. Rushton Parker. The size of the tumour had made operation difficult, and he had begun by a preliminary tracheotomy, which had proved dangerous, and which in any subsequent similar case he should not adopt. Whilst engaged in the tracheotomy the large mass of the tongue had fallen back into the pharynx, and it had been impossible to draw it forwards, so that it had been necessary to rapidly complete the tracheotomy, and resort for some time to artificial respiration before going further. The symphysis of the lower jaw had then been easily divided, and the tumour reached in that way; the subsequent steps were not so difficult, and the wound had healed well.—Mr. BUTLIN expressed his thanks to Mr. Hutchinson, and acknowledged the great interest of the specimens shown. He had looked up cases of sarcoma of the tongue, and had only been able to find one, besides that which Mr. Barker had incorporated in his article in Mr. Holmes's *System of Surgery*. This condition of coarse papillary growth he had seen two or three times, and in one case which he had only seen on one occasion he had fortunately had a picture taken. He found that Mr. Bryant, in the last volume of the *Guy's Hospital Reports*, had described the condition, and had attributed it to the degeneration of a nævus, for which he had the very best evidence, as he had actually seen the degeneration in progress. The same had happened, he supposed, in the case of the railway-porter whom Mr. Hutchinson had shown them. In a case which Mr. Marsh had very kindly put under his care, he had found in removal of the growth that there was very copious and dangerous bleeding, which had strengthened his impression of its nævoid origin.—Mr. HOWARD MARSH said he had seen three cases of nævus of the tongue in infants. In one, which was only two or three months old, he had operated, and met with profuse hæmorrhage. In that case he had observed a rough papillary growth.—Mr. BARKER had seen a case in a girl about 20 years of age, in which some nævoid tissue was present, but the larger part of the tumour consisted of coarse papillary growth, such as was seen in the case which Mr. Hutchinson had brought forward. Part also was made up of saccules, which afforded abundant serous fluid, so that he considered that it was a mixture of lymphangiectasis with nævus. It was a curious fact that the two structures ran into each other, so that the lymphatic spaces could be injected from the veins, and, *vice versâ*, the veins from the lymphatic spaces. Before it came under his care, it had been treated in a rather old-fashioned manner by insertion of setons, which had led to glossitis, so that he had thought it best to incise the tongue. This produced considerable bleeding, but not so much as he should have expected if the growth had been all nævoid; and besides the blood, much serous fluid had escaped, which testified to the lymphangiectasis.—Mr. HUTCHINSON had little to add beyond thanking Mr. Butlin and Mr. Barker for the additional information they had contributed. He declined to accept nævus as an accurate term applying to these cases, and preferred to call it a mole, which he understood as a structure involving many tissues. In the case formerly described by Mr. Arnott, there was hypertrophy of other tissues besides the vessels. He had thought at first that the tumour in his own case was probably erectile, but, on further observation, had found that this was not the case. He was inclined to class it in a group of cases which did not all begin as nævus, but some as vascular, some as lymphatic, and some as solid tissues.—The PRESIDENT, at the close of the meeting, announced that it would be the last of the session, and held out hopes that, when the members reassembled in October, some better ventilation of the room would have been completed.

BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, MAY 27TH, 1885.

ALFRED MEADOWS, M.D., F.R.C.P., President, in the Chair.

Double Pyosalpinx.—Mr. LAWSON TAIT showed specimens of ten cases of double pyosalpinx. All the patients had recovered.

Renal Calculus.—Mr. LAWSON TAIT showed a renal calculus which he had removed from a young lady from South Africa. The symptoms had consisted of blood in the urine and pain, both intensified by horseback-exercise, to which the patient was very much addicted. She made an easy and rapid recovery.

New Vaginal Speculum.—Dr. MORE MADDEN showed, for Dr. Duke, a new form of speculum, with the blades opening parallel, one of which could be made to divaricate so as to stretch the vaginal roof and open the os, if necessary. The instrument was self-retaining. (*See* page 1205.)

Uterine Fibroma.—Dr. BANTOCK exhibited specimens of uterine tumours, six being cases of supravaginal hysterectomy, and two having been removed by abdominal section and enucleation.

Wood-Wool Diapers.—Dr. MANSELL MOULLIN showed the wood-wool diapers of Messrs. Hartmann.

Discussion on Uterine Fibro-myomata.—Mr. LAWSON TAIT said he differed almost entirely on every point in Dr. More Madden's paper. Dr. More Madden, in deprecating operations through the abdomen in fibroid uterine tumours, represented the case as it stood three or four years ago. The conditions were now very much altered, and we were being obliged to alter our views day by day. Uterine myoma was by no means the harmless and non-fatal disease which Dr. More Madden endeavoured to make out. He knew, at the present time, thirteen women who were dying of uterine myomata. He would not go into the medical treatment, because it was a myth. Dr. Madden praised the treatment of tumours by hypodermic injection of ergotine; and it was perfectly well known that, as long as the patient would submit to the risk, pain, and suppuration which followed hypodermic injections, the hæmorrhage was to some extent arrested; but the moment the treatment ceased the hæmorrhage returned as violently as ever. The moment a patient under 40 was found to have myoma,

the uterine appendages should be removed. The more he studied the question, the more certain he was that oöphorectomy was the proper treatment for the early stages of these cases. The risk was none, or as small as could ever be hoped for in any surgical operation. With regard to sterility, the woman was sterile already. She would never bear any more children; and, if she became pregnant, would have the prospect of Porro's operation before her.—Dr. BANTOCK entirely concurred with the remarks which had fallen from Mr. Lawson Tait. The surgical treatment of fibroid tumours was still in its infancy. This arose as much from the protean and uncertain nature of the disease as from the difficulties which beset the surgeon; for to determine when to operate was as difficult as, and sometimes even more difficult than, to do the operation itself. He said Dr. Madden's pathology of fibroma was as peculiar as it was incorrect. It was a peculiar pathology which described "every growth of this kind as being primarily an interstitial myoma, which became more or less fibrous in structure by the development of its fibrous tissue," and it was an incorrect pathology which described these tumours as eventually "becoming, by gradual increase in size, either subperitoneal or submucous." Every fibroid tumour was not primarily interstitial. According to Dr. Bantock's observation, the site of origin determined the future character of the tumour. He regarded the operation of enucleation as simple when applied to a small submucous tumour, but not so with large tumours weighing several pounds. With regard to hysterectomy, whilst endorsing Mr. Tait's approval of the operation in suitable cases, Dr. Bantock wished to say that he never approached even the contemplation of this operation without the most anxious and serious consideration. Looking back on his cases, he was unable to reproach himself with having done a single case too soon; on the contrary, he had to regret that he had not operated soon enough.—Dr. MEADOWS thought the subject of such importance, and knew that so many other Fellows wished to join in the discussion, that he proposed that the discussion should be resumed at the second meeting of the Society in June.—Dr. MACAN (Dublin) said the higher a tumour rose in the vagina, the greater became the difficulties of dealing with it. He drew attention to the method practised in Berlin by Professors Schroeder and Martin.—Dr. MORE MADDEN (Dublin) trusted the subject would be still further discussed. He failed to see that the warmth and enthusiasm with which hysterectomy had been taken up were justified by the results obtained. Mr. Tait's early mortality had been 35.7 per cent.; and even if it were only half that, he should not approve the operation. Dr. McClintock had said that, although he had seen a large number of uterine tumours, he had never seen one woman die from uterine fibroma. He did not think surgeons were justified in exposing a patient's life, if the mortality of the operation were greater than that of the disease. He preferred the operation of enucleation.

REVIEWS AND NOTICES.

DIAGNOSIS AND SURGICAL TREATMENT OF ABDOMINAL TUMOURS. By Sir SPENCER WELLS, Bart., late President of the Royal College of Surgeons of England. London: J. and A. Churchill. 1885.

THE facilities for the dissemination of cheap literature which English laws within the present century have afforded to journalists and authors, have brought to the public far more advantages than evils. When the words and works of authorities only are in question, there is nothing but advantage in their being presented to purchasers in the cheapest possible form. In this country, there are prejudices as well as obstructive laws to be overcome when reform is sought, and these prejudices never fail to involve anomalies and absurdities. Thus it is still considered dignified for a leader in medicine to extend the letterpress of his book over two or three hundred pages at least, and to have it published in an expensive form, the expense not always including good strong binding. Yet, at the same time, every line of any value has probably appeared already in the medical press, and often the gist of the entire work lies in three or six lectures contained in as many numbers of a medical paper, and purchasable in that form at a cost of eighteenpence or three shillings. Many standard works are essentially original, but also essentially special, yet entail much that the general physician or surgeon ought to study. As long as such publications are high-priced, many who are not specialists will refrain from purchasing them, and thus much useful information is lost to the profession. Especially is this the case with the work under consideration, which should be in every practitioner's and hospital-officer's hands, for it includes observations on the entire range of abdominal surgery and medicine.

The author has carried out, in this case, his usual plan of enlarging the scope of his new edition, so that it is, practically, a new work. Most of the pathological passages have been removed; Sir SPENCER WELLS' experience as an ovariotomist is brought down to the present date, and nearly eighty pages are devoted to "Uterine and other Abdominal Tumours." Of the author's views on ovariotomy, it is needless to speak. In the chapter on uterine tumours are some valuable clinical reports, illustrated by an original series of woodcuts. The author inclines to supravaginal amputation of the uterus, without opening the cavity, in all cases of uterine fibro-myoma where such an operation is possible, and describes seven cases, five of which recovered. In four of the successful cases, complete intraperitoneal ligature was adopted; in the fifth, the stump was fixed in the lower angle of the wound, and constricted by a wire compressor; the after-treatment "made a very tedious contrast with cases treated intraperitoneally." In one of the fatal cases, the stump was secured externally by pins and an India-rubber ligature; in the second, the treatment of the pedicle is not stated, and the operator believes that the patient was injuriously affected by the cooling influence of the spray. Sir Spencer Wells certainly appears to favour intraperitoneal treatment; but what he observes about the clamp being the simplest method for an inexperienced operator in the case of ovariotomy, applies with greater force to operations on uterine tumours, for it is exceedingly difficult to calculate how firmly the tissues of the uterus should be ligatured if the opposite system of returning the pedicle into the peritoneal cavity be adopted.

The chapter on tumours of the Fallopian tubes will be read with interest. The author has had one very unique case of papilloma of the tube in his experience, the symptoms being anomalous. His views on a class of operation which has been recently brought into great prominence by another distinguished operator, are expressed in a brief, but by no means ambiguous paragraph.

"No doubt the tube occasionally becomes the seat of gonorrhœal inflammation, but, whatever may be the experience of others, my own observation would lead me to believe that these and other cases of so-called salpingitis or pyosalpinx, usually recover under ordinary care and rest, without surgical treatment, It would appear to me as rational to perform castration in every case of gonorrhœal orchitis, as to remove the Fallopian tubes simply because they are inflamed, or the seat of suppuration."

Sir Spencer Wells speaks in high favour of Porro's operation, making free reference to the admirable monograph by Dr. Godson, which was published last year in the JOURNAL. The author, noting that Dr. Godson's aphorisms, at the conclusion of his paper, assume that the uterine stump is fixed outside, expresses his opinion that complete intraperitoneal ligature may yet prove to be a superior method. He adds that, whether the necessary experimental trials of both methods are, in this country, to be made on women only, or upon females of some of the lower animals, must depend upon the degree in which British physiologists are hampered by the Vivisection Act.

The concluding chapters include the author's opinions upon the operative surgery of the kidney, liver, mesentery, pancreas, stomach, and intestines, which will, of course, well repay perusal, but their subject is too wide for purposes of review.

Consistently with the opinions expressed at the beginning of this criticism, we trust that all authors of standard medical works will imitate the example of Sir Henry Thompson and Sir Spencer Wells, and issue new editions in a cheap form. It may, unkindly, be objected that many writers who hardly come under the category of "standard," might follow suit; but this evil is unsubstantial, since the public cannot be wronged by the issue of a host of books that they are neither bound nor likely to read. Moreover, it is surely better that an inferior work, with a line worth reading amongst its pages, should be cheap rather than dear.

THE ASCLEPIAD. By B. W. RICHARDSON, M.D., F.R.S. London: Longmans, Green and Co. 1885.

THREE other numbers of this quarterly journal have appeared since, on November 1st of last year, we noticed the first three of the series. The high standard of those earlier numbers has been since maintained. The following are some of the articles appearing in these three later publications. In the first are the Mental Phenomena of Enteric Fever; a Suggestion for Diagnosis; a Spontaneous Cure of Extreme Portal Congestion by copious accidental hæmorrhage; a personal recollection of a great medical reformer, Thomas Wakley, M.P., an article which is well worthy of perusal; Disease from Bichromate of Potash, described as a study in industrial pathology; and Schools of Physic, past and

present. The last *Asclepiad* but one begins with an article on Local Syncope, or suspended life in local surfaces. It contains other articles on the Treatment of Cholera, sanitary, dietetic, curative, which is full of useful hints and reflections; another on the influence of Extreme Cold on Nervous Fibre; a sketch (with portrait) of Benjamin Rush, M.D., whom the author styles the American Sydenham; and further researches on Euthanasia for the Lower Creation, in which death by carbonic oxide, chloroform, carbon-bisulphide, and common coal-gas, and also by electric shock, are discussed. The most recent *Asclepiad* contains articles on the following subjects: the Hygienic Treatment of Pulmonary Consumption; Measures of Vital Tenacity; Vesalius and the birth of anatomy, a biographical sketch at which the learned author evidently worked *con amore*. He has enriched his pages with an excellent portrait of Vesalius, copied by the autotype process from a likeness published in one of his books printed on vellum at Basle, 1543, and now preserved in the British Museum. Other articles contained in this last *Asclepiad* are, the prescription of Alcohol in Disease, and researches on Resuscitation from some states of suspended life, by the process of artificial circulation. All these three numbers of the *Asclepiad* contain, too, "opuscula practica," useful notes for busy practitioners, and several pages devoted to contemporary practice and literature.

Thus, it will be seen, the author provides dishes to suit all tastes, scientific, biographical, medico-political, speculative, and practical; and composes them of such good solid stuff, with garnishings to correspond, that all professional readers are sure to find therein much to instruct and interest them.

NOTES ON BOOKS.

Intermittent Filtration. Ten Years' Experience (now Fourteen Years) in Works of Intermittent Downward Filtration, separately and in combination with Surface-Irrigation. With notes on the Practice and Results of Sewage-Farming. By J. Bailey Denton. Second Edition. (London: E. and F. N. Spon. 1885.)—Probably the object and scope of this work is detailed with sufficient fulness in its title. Mr. Bailey Denton has had his favourite plan of the intermittent filtration of sewage attacked with all the virulence which scientific rivals are apt to display; and he may be pardoned, therefore, if he brings out this second edition of his book of 1880, partly because the first edition is out of print, but more importantly, perhaps, because his plan "has been somewhat prominently referred to in terms of approval by the Royal Commission on Metropolitan Sewage Discharge." This is not the place to discuss the merits of Mr. Bailey Benton's system, which is now in working order in a considerable number of places, and must be judged on its merits by personal inspection. But it certainly seems to be based upon right principles, whatever the validity of the objections as to its cost and workability. The credit of inventing the plan of "intermittent filtration" no doubt belongs to Dr. Frankland, though Mr. Bailey Denton was the first to carry it into commercial practice. Dr. Frankland established the fact that, by passing sewage through a suitably porous soil, not constantly, but intermittently, a high degree of purification could be ensured. The object of the intermittence is, of course, to aërate the earth acting as the filter, and so give an opportunity for the purifying action of oxygen upon the sewage. This hint was not lost upon Mr. Bailey Denton, who applied the system in 1871 to the sewage of Merthyr Tydfil. It is natural that his own opinion of it should be of the highest; and the results of fourteen years' working, which he adduces, certainly appear to show that its ultimate effect is good, even though the expense be disproportionate.

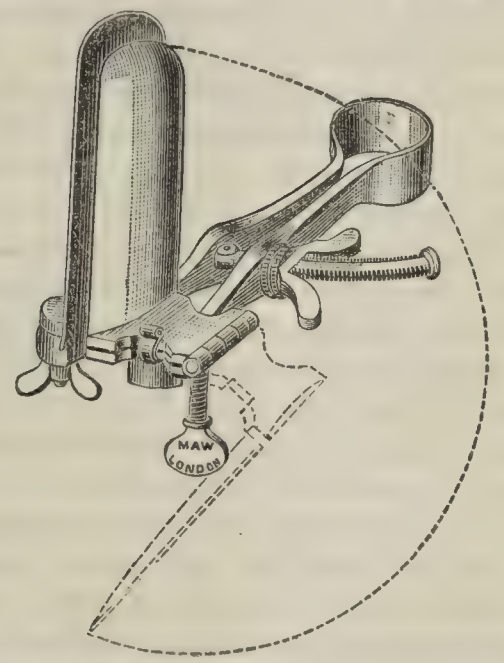
The Elements of Pathology. By Edward Rindfleisch, M.D., Professor of Pathological Anatomy in the University of Wurzburg. Translated from the first German edition by Wm. H. Mercur, M.D. (Penña). Revised by James Tyson, M.D., Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania. (London: Henry Kimpton. 1885.)—This volume is very unequal, and on the whole disappointing. It does not pretend, says Professor Rindfleisch, to be a text-book, but is addressed to readers already conversant with the subjects treated. Here and there subjects are handled in a suggestive and thorough manner, which leaves little to be desired. The treatment of embolism of fever, and of anæmia, may be mentioned as examples of the book at its best. The sections on nervous disturbances and on parasitic diseases fall however, far below this level; the pages devoted to pathogenic micro-organisms, indeed, contain so many misleading and inaccurate statements, and so much loose reasoning, that they had better have been omitted altogether. Certain parts of the work are undoubtedly well worth reading, and the general conception and plan of excluding all discussion of anatomical changes is excellent and well worthy of imitation. Dr. Mercur's translation appears to be careful and painstaking, but in not a few places he has added to the obscurities of his text.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

OPERATION SPECULUM.

The woodcut represents an instrument designed for use in operations on the vaginal walls, os, and cervix uteri. It is the only bivalve speculum with which I am acquainted which will give as much room at the vaginal outlet as at the vaginal roof, and allow the operator to both touch and see the os and cervix.

The blades being arranged at right angles with the handle (which opens by spring action, released by screw), the exact amount of expansion necessary to expose the os and cervix can be attained without pain to the patient, the blades lying parallel in the passage, one of which can be made to divaricate, so as to compensate for the pressure of the vaginal walls above, and, if necessary, stretch the vaginal roof to its full extent, and give an insight into the os itself.



The divaricating blade makes the instrument self-retaining; and, as both blades rotate, it can be introduced and fixed in any position in the vagina, either antero-posteriorly or laterally.

For portability of carriage, one blade can be removed, and the other folded over on handle, so that a small box will contain all. The makers are Messrs. Maw, Son, and Thompson, Aldersgate Street.

Alexander Duke, M.K.Q.C.P.I., etc.,
Ex-Associate Physician, Rotunda Hospital; Obstetric Physician, Steevens's Hospital, Dublin.

BUNION-SPLINTS.

Sir,—Mr. Edmund J. Spitta, in the British Medical Journal, page 1110, calls attention to the difficulty experienced in retaining the great toe in its natural position, without which any attempt to cure bunions must end in failure, and explains a very efficient mode to accomplish this object.

Having met with several troublesome cases during the last few years, and having adopted various means, I have found none so effective and simple as that suggested by Dr. Turley, *vide Medical Digest*, Section 1781: 1, and detailed in the *Medical Times and Gazette* thirty-three years ago. Dr. Turley cut a tin plate, the size of the foot and its natural shape; slots were cut between the toes to retain them, by means of a tape threaded through, in their proper positions. This plate was riveted on to a cork sole, in which corresponding slots were cut. The sole can be worn without any discomfort, and can be obtained at a cost within the limits of the poorest patient.—I am, etc.,

Richard Neale, M.D.Lond.
60, Boundary Road, South Hampstead, N.W.

The Secretary of State for War has appointed Howard W. Hunt, Esq., M.R.C.S.E., to be Visiting Surgeon for Shorncliffe, under the Contagious Diseases Acts, in the place of J. W. Howard, deceased.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 13th, 1885.

THE FORTHCOMING ANNUAL MEETING AT CARDIFF.

IT is thirty-two years since the British Medical Association, then called the Provincial Medical and Surgical Association, met in South Wales. That meeting was held at Swansea, under the genial presidency of the late Dr. Gwynne Bird, with the present eminent Queen's Counsel, Mr. Michael, then an active and energetic member of the medical profession in Swansea, as Secretary. It occupied two days; and it is curious to note that a resolution to appoint a committee for the revision of the laws of the Association, having, as its main point, a governing body or Council, consisting mainly of representatives elected by the Branches, was brought forward by Dr. John Rose Cormack, then the able editor of the Association JOURNAL, and had to be postponed for want of time. The South Wales and Monmouthshire Branch, in recent years, took an active part in bringing about this very alteration of the constitution of the Council.

Cardiff in those days was but a small place, its population in 1851 being under 19,000; whilst, in this present year of grace, it is estimated as upwards of 100,000! Cardiff owes its present important position as one of the chief export towns in the kingdom, in the first instance, to the enterprise of the late Lord Bute, and the energy of his advisers and trustees. It is most favourably situated for conducting a large export and import trade. It is also convenient of access from all parts of the United Kingdom. For the amount of shipping cleared, it ranks as the third port in the United Kingdom. Its docks rank amongst the finest to be seen anywhere; and when the new dock, now in process of construction, and which will accommodate some of the largest steamers afloat, is completed, there will be an area of many acres covered by docks. The Penarth Dock, a short distance off, is also connected with the Port of Cardiff. The new Barry Dock, seven miles away, now being constructed, will occupy an area of forty acres. The railways are the Great Western, the Taff Vale, and the Rhymney, the latter being connected with the London and North Western Railway.

In the centre of the town is Cardiff Castle, one of the residences of the Marquess of Bute. This Castle is being nobly restored by its owner; it and the Castle grounds will be thrown open to members of the Association, and will well repay a visit. A short distance away is the ancient city of Llandaff, which, with its beautifully restored Cathedral, presents many sources of interest and attraction to lovers of olden times. Amongst the churches in Cardiff, those most worthy of notice are the parish church of St. John the Baptist, built in the fifteenth century, with its noble perpendicular tower; St. Margaret's Church, at Roath, a small but beautiful edifice on the outskirts of the town; and St. German's Church, in the same parish, a magnificen building, the creation of Mr. Bodley, the eminent ecclesiastical architect. There are many other public buildings, recently erected, worthy of notice; chief amongst which are the Infirmary, the Science and Art School and Museum, University College, Howell's Schools, the Workhouse, Hospital, etc.

Penarth, a favourite seaside resort in the neighbourhood, is practically a suburb of Cardiff. There are constant trains to and fro, and a visit to it will be enjoyable.

We turn now to the business part of the meeting. The post of President will be occupied by the head of the profession in Cardiff, Dr. William Thomas Edwards, Senior Physician to the Glamorgan and Monmouthshire Infirmary. There will be three addresses: one in Therapeutics, by Dr. Roberts, Professor of Medicine in Owens College, Manchester; one in Surgery, by Mr. John Marshall, lately Professor of Surgery in University College, London; and one in Public Medicine, by Mr. Thomas Jones Dyke, Medical Officer of Health for Merthyr Tydvil, one who holds a high place in the estimation of this branch of the profession.

The Section of Medicine will be presided over by Dr. Samuel Wilks Physician to Guy's Hospital. In this Section, there will be discussions on the Clinical Aspect of Glycosuria, introduced by Dr. F. W. Pavy, of London; and on the Treatment of Acute Rheumatism, introduced by Dr. Bristowe, of London.

The Section of Surgery will be presided over by Professor Bennett, President of the Royal College of Surgeons in Ireland. In this section there will be discussions (1) on the subject of Operative Interference in Intestinal Obstruction, introduced by Mr. Treves, of London; and (2) on Bladder Tumours, their diagnosis and treatment introduced by Mr. Reginald Harrison of Liverpool.

In the Section of Obstetric Medicine, Dr. Gervis, of London, will be President. The subjects for special discussion are (1) the Mechanism and Management of the third stage of Labour, introduced by Dr. Berry Hart, of Edinburgh; and (2) the proper sphere of constitutional and topical treatment in certain forms of Uterine Diseases, introduced by Dr. Playfair, of London.

The Section of Public Medicine will be presided over by Mr. D. Davies, Medical Officer of Health for Bristol, and the subjects proposed for discussion are four, namely, (1) Cholera: preventive measures as affecting the locality; measures during an outbreak; (2) the Dry Earth System, and other means of disposing of excrement; (3) Summer Diarrhœa in Children; (4) Legal Impediments to sanitary work and aims.

In the Section of Psychology, Dr. Yellowlees, of Glasgow, will preside. The subjects selected for discussion are: Treatment of Maniacal Excitement; Lunacy Legislation; Marriages of Consanguinity in relation to unsoundness of mind; Suicidal Insanity.

In the Section of Ophthalmology and Otology, the post of President will be occupied by Mr. Henry Power, of London. Several interesting communications have already been promised for this section.

The Section of Pharmacology and Therapeutics will be presided over by Dr. Thomas R. Fraser, of Edinburgh. In this section, which, owing to the energy of its officers, promises to be one of the best sections of of the meeting, the following subjects are proposed for special discus-

sion: Anæsthesia, local and general; Diuretics; the Digitalis Group; the Duration and Action of Drugs, as shown by the sphygmograph, on Tensor excitants and depressants; Hypodermic Medication; Demonstrations.

This programme, together with the numerous papers which will no doubt be forthcoming on general subjects, promises well for the success of the meeting from a scientific point of view.

To turn now to the social aspect of the coming meeting, we are pleased to note that our caterers have been no less energetic in their endeavours to provide for the amusement of members who may be present. The High Sheriff and Mrs. Hill give a garden-party on Wednesday afternoon, and the Windsor gardens at Penarth will be thrown open to members and their lady friends on Friday afternoon, when music and refreshments will be kindly provided by Lord Windsor. These entertainments, should the weather prove propitious, will be most enjoyable. Besides the public dinner on Thursday, July 30th to which it is proposed to admit ladies, there will be the soirée of the President and Reception Committee on the previous day, and the reception by the Mayor of Cardiff on the Friday, one or both of which entertainments will conclude with a ball.

The Bute Docks, Tharsis Copper Works, Ely Paper Mills (where the paper is made from Esparto grass), Flour and Biscuit Mills, are some of the local industries which will be open to the inspection of members. The County Asylum is at Bridgend, twenty miles away.

Saturday, as usual, will be devoted to excursions. These seem to have been admirably arranged, and will tend to add to the enjoyment of members. The arrangements are not yet complete; but we are enabled to state that there will be excursions to (1) Tintern Abbey and Raglan Castle; (2) Glastonbury Abbey and Wells Cathedral; (3) Trip by the Taff Vale Railway to Dowlais Iron Works, and thence to Caerphilly Castle, where refreshments will be provided by the kindness of Lord Bute; (4) Symonds Yat and Speech House; (5) Severn Tunnel, by invitation of Mr. T. A. Walker.

The museum will be a prominent attraction. In addition to the usual articles, it is proposed to have as large a sanitary department as possible, which will be thrown open to the public free of charge, beyond the cost of a catalogue.

Altogether, we think that our readers will agree with us that the Cardiff meeting promises to be not one of the least interesting of our annual gatherings.

A DOMESTIC PROBLEM IN PUBLIC HEALTH.

With the advent of warm weather arises the usual outcry about the dust-bin nuisance, and well, indeed, it may. In sanitary matters, England claims to be ahead of all Continental nations, but London is certainly immeasurably behind many European capitals in this one important sanitary detail. In Paris, Madrid, and many other large towns there are excellent services for the daily collection of house-refuse; while, in London, the practical English people spend large sums in perfecting the plumbing and drainage arrangements of their houses, but, at the same time, they hoard up their putrefying kitchen-refuse for various periods of time, dictated to them by the crass immovability of the local authorities, aggravated occasionally by the playful independence of the scavengers themselves. The crusade against this foul but fondly cherished institution has this year taken shape in a prolonged correspondence in the columns of the *Times*, and it may be well to consider the principal suggestions, many of which have been ably advocated. These may be divided as follows. 1. The householder should diminish the amount of refuse (*a*) by burning the ordinary kitchen-refuse; (*b*) by removing, at his own expense, garden-clippings, and materials not properly included in the term "house-refuse." 2. The scavenger should call more frequently, and at fixed periods, well known to the householders. 3. The brick-built dust-hole should be abolished, and an iron receptacle provided in its place. As to the first suggestion (1, *a*), many persons are content to point out that, if all the kitchen-refuse were consumed in a closed kitchener, the dust-bin would become the receptacle for ashes only, and the nuisance complained of would disappear. This idea, of course, has been advocated for many years; and in small households, where coal-fires are used for cooking, it answers well enough. But, in large households, the waste is often of such extent, and so troublesome to dispose of, that it is almost impossible to obtain servants sufficiently enlightened to carry out this plan. And, further, it must be noticed that, year by year, the number of persons who cook entirely by gas, and more especially the number of those who cook during the summer months by gas only, increases steadily, aided as the movement is by the facilities which the gas-companies are giving in this direction. With a gas cooking-stove, then, how can one consume the kitchen-waste without poisoning the household? A householder who has adopted this admirable system of cooking is forced to place his waste in the dust-bin, and, moreover, he has no ashes to place with them, and so aid, however imperfectly, in their oxidisation. As to the latter division of this suggestion (1, *b*), it would appear unnecessarily hard to expect each householder to institute a separate service for the removal of such refuse as may not be technically included in the term "house-refuse," while it would probably be only reasonable to make a small charge upon every householder who makes use of the dust-carts for the removal of such waste. Regarding the second suggestion (2), all must agree that, the removal of refuse having once been undertaken by the local authority, it should be effected often and regularly. In London, many vestries do literally flatter themselves that they have done a meritorious work when they institute a nominally weekly collection of dust. Why should there not be a daily collection? This is carried out not only abroad, as we have said, but also in several towns in England. In Edinburgh, for instance, an excellent nightly service works with great success. In the London district of Poplar, where the pail-system has been introduced (to the great credit of the Local Board) the pails are emptied regularly three times a week. This arrangemeut is greatly in advance of what is usually found, but nevertheless we can see no valid reason why the collection should not be carried out every day. The last suggestion (3) will commend itself to most persons. A galvanised iron receptacle, with a cover, standing in the open, and of such a size that when full it can be readily carried to the dust-cart, is surely a great improvement upon the foul brick dust-bin almost impossible to keep clean. Several minor suggestions have been made, having more or less connection with our subject-matter; perhaps the most valuable is the proposal that dust-carts should be covered over. It is evident that the dust, etc., having once been placed by the scavengers in the carts, it should be retained there until its final destination is reached, and not distributed by gusty breezes in the faces of the passers-by, to litter the roads, and perchance to find its way through open windows,

and sow in unsuspecting households the germs of zymotic diseases. One correspondent says: "The other day, while walking in a leading thoroughfare, I saw the upper stratum of a heavily laden cart—a very bumper—blown straight into a carriage full of ladies; so that, unlike that flower that 'wastes its sweetness on the desert air,' our open dust-carts may be said to 'lavish their filth on all that's fresh and fair.'" To obviate these evils, some parishes have supplied tarpaulins to be laid over the loads; but the men do not relish the extra trouble involved; and at the most this protection is only brought into use when the load is finally made up. The proposal therefore is, that the carts should have some fixed cover with movable lids, to be opened during the process of filling and emptying only. Any active and intelligent authority can at once gain the gratitude of its district, and solve the great dust-bin problem within its limits, by instituting the pail-system with a regular daily collection.

PRACTICAL CLASSES IN THE SCOTTISH UNIVERSITIES.

THE Edinburgh Medical School early recognised the importance of practical instruction in the scientific part of the medical curriculum; and there can be no doubt that the efficient manner in which these practical classes were taught has greatly conduced to the success of that school. Practical physiology was instituted and fostered by Bennett, and soon new developments of this and kindred subjects took place, so that each systematic course had its necessary corollary in the form of a practical class. This system is now adopted everywhere, and its good results are already apparent; but the full advantage cannot accrue until attendance upon such eminently useful classes as practical physiology and pathology are made compulsory. Until now, most of the Scottish schools have been behind the Royal College of Surgeons of England in this respect at least, that the College requires attendance upon practical physiology. The only Scottish school where an approach was made to this is Glasgow, where an examination in practical physiology is compulsory.

The University of Edinburgh has lately obtained permission to require attendance upon a course of practical physiology and one of practical pathology, as well as practical pharmacy. This is as it ought to be; and, although this was opposed by the other Scotch universities at the time, we ventured to predict that Edinburgh, being in the right, would carry her point. We are glad she has done so, and it is not creditable that, in some of the subjects on which the Scottish universities pride themselves on being efficient, their requirements for graduation are behind those necessary for the diploma of the Royal College of Surgeons of England. Practical physiology and pathology are not compulsory in Aberdeen, nor is the latter in Glasgow at present; and we trust that these universities will soon take steps to ensure that all their graduates are well grounded in such fundamental subjects. To be sure, in Edinburgh most of the students attend both classes; in Glasgow, most of the men also attend, while we believe that, in Aberdeen, only a certain number do so. Practical instruction in physiology in Aberdeen was instituted by the present professor, and a similar course in practical pathology was instituted by the professor of pathology, so that there is no excuse for men not attending and taking advantage of such valuable opportunities. The time will soon come when medical men in quest of assistants will make it a *sine quâ non* that aspirants to these offices shall be able to offer evidence of having undergone a thorough training in these practical subjects.

We heartily congratulate Edinburgh University on the step she has taken, and we hope it will not be long before the other Scottish universities follow her lead. Attendance on, and a practical examination in, such subjects as practical physiology and pathology, are just as necessary as, if not more so than, on anatomy, chemistry, and pharmacy.

Apart altogether from the direct advantage that these courses afford to the student, there is another aspect of the subject that is important. By this new arrangement, it will be possible for the Professors of Physiology and Pathology in Edinburgh to eliminate much matter from their lectures, which can be more suitably dealt with in a practical class, but which at present they are compelled to treat of in their systematic course. In this way, these professors will be enabled to lecture upon and expound the higher problems in physiology and pathology which, previously, they had either to omit, or treat of but inadequately. Thus, the new ordinance opens up great possibilities for the higher teaching of physiology and pathology in the University of Edinburgh.

MEDICAL PROVIDENCE AND ASSURANCE.

THE favourable progress of the Medical Sickness, Annuity, and Life Assurance Society, of which notice is made in another column, is a source of much satisfaction, and must confer an immense boon. By its operations a large number of medical men are already, by relatively small quarterly payments, providing against the disabilities and loss of income arising from accident and disease, and making some provision, on a modest scale, against old age. There are nearly 700 members, and a reserve fund of £6,000, accumulated in twelve months. The cost of working is kept down below even the very modest allowance which the actuary, under the circumstances, felt justified in putting at a very reduced standard. The tables have proved correct, and the claims are well within the estimated datum. An average of fourteen claims arise weekly, which are promptly met, and thus a great step has been made towards that providence and independence which we are always preaching to the working classes, and ought to practise ourselves. It may be hoped that the lamentable pressure on our medical benevolent societies may eventually decrease, as the Society prospers and extends.

THE REGAINED MEDICAL SCHOOL.

AT last we are able to change the mournful heading with which, for some years, we had to head the lamentations, remonstrances, and exhortations which it has been our duty to address to the profession and to the powers that be at Oxford, concerning the lost medical school. The spirit of Ray Lankester, the energy of Burdon Sanderson and Moseley, and of their sympathisers among the laymen of the University, have succeeded in bringing the work of organisation and construction into a hopeful position; and, as will be seen by the report of the proceedings of Convocation, steps are in progress which will restore the Medical Faculty, arrange the classes necessary for the first two years of medical and scientific subjects in the curriculum, and provide reasonable regulations for examination for the titles of M.B. and M.D. At the last, however, a peculiar, and indeed incomprehensible, proceeding of Sir Henry Acland has thrown confusion into the ranks. For some inexplicable

reason, he wished to force the University to declare that the passing of the new (and temporary) conjoint examinations of the London Colleges of Physicians and Surgeons should be an essential preliminary to Oxford degrees. The decree had actually got through when the Vice-Chancellor was awakened to its meaning, and wisely put his veto on it. The proceeding evoked so much indignation, that a quite groundless distrust and opposition have been aroused to the exceedingly reasonable, and indeed indispensable, provisions of the statute on Tuesday submitted to Convocation. We regret that the "foxes whose tails have been cut off," the men who had to spend eight or nine years in getting their degree of medicine from the University, under the old and happily expiring *régime*, are desirous to clip the tails of their successors to a beautiful uniformity, and to persuade the University to interpose excessive delays and protracted periods of study. Five years is a full academic minimum term of study for graduation as M.D., consecrated by the practice of every university in Great Britain, or indeed in Europe. The last kick of the expiring party of obstruction is to try to extend and protract it at Oxford. Oxford, however, has entered once more the circle of universities which accepts a medical faculty as part of their constitution, and medical sciences are no longer to be exiled. Reasonable regulations for study and examination become then a matter of course. They may be delayed and the success of the work of Sanderson and Horsley and their colleagues injured and obstructed, but such a victory can only be temporary, and the obvious injustice and injury to the general interests of the University and of medical education will be so apparent when the facts are explained, that common sense must triumph. We congratulate the University and the profession on the acceptance by Congregation of the principle of this statute, and on all that it means of progress and culture.

THE GENERAL MEDICAL COUNCIL AND THE PROFESSION.

We publish in another column a correspondence of much interest between Mr. R. H. S. Carpenter, on behalf of the Medical Alliance, and the authorities of the General Medical Council. It cannot be said that the latter show to any advantage. The Council is embarrassed by excess of funds still remaining after years of costly loquacity and an enormous expenditure of thousands, which it would be rash to attempt to number, on verbose debates at a guinea a minute, lasting for ten days or a fortnight at a time. Nevertheless, it declines to fulfil its obvious duty of protecting the public and the profession against the illegal and fraudulent proceedings of those who falsely assume medical titles, or who practise without qualification while pretending to be qualified. At the outset, the Council declined to undertake this duty from want of funds. The preamble of the Act, however, defines the protective duty of the Council so strongly, that there can be no sound pretext other than that of apathy and unwillingness to undertake an obvious duty, now that their coffers are replete with funds. The Council is overwhelmingly impressed with its own dignity, and terribly afraid of coming into contact with the practical questions with which it was created to grapple. The Act positively gave them the penalties recovered; no trifling indication of the intention that they should enforce the law. They decline, in this correspondence, even to act upon information given to them. The whole matter is of a piece with the past history of the Council, and its determination to rest as much as possible in the clouds, and to leave all the troublesome work to volunteers. Under such circumstances, the excuse for exacting a registration-fee is very slight; and their right to deal with the surplus funds from registration by donations to scientific objects more than dubious.

The festival dinner of the London Fever Hospital will be held Willis's Rooms on Tuesday, June 23rd, the Lord Mayor in the Chair.

The President and Fellows of the Royal College of Physicians have issued cards for a *conversazione* at the College on Wednesday evening, July 1st at 9 o'clock.

Our Paris correspondent writes: A ministerial decree ordains that professors in the French colleges, faculties, and higher schools, are to retain half of their professional income when, in consequence of ill health, they are temporarily replaced.

Dr. Walter Dickson, retired Staff-Surgeon Royal Navy, and Medical Inspector to the Honourable Board of Customs, has been appointed President for the ensuing year of the Epidemiological Society. Dr. Dickson is also the Presidsnt-elect of the Metropolitan Counties Branch, and will enter on his duties as President on the 23rd instant.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Mr. George Pollock, Honorary Secretary of the Association of Fellows of the Royal College of Surgeons, has received a communication from the Privy Council, stating that the letter of the 19th ult., addressed by that body to the Secretary of State for the Home Department, respecting the grant of a supplementary charter to the Royal College of Surgeons, had been forwarded to the Lord President of the Privy Council; and adds that no petition for a grant of a supplementary charter, such as is referred to in their letter, has yet been received at the Privy Council Office.

UNIVERSITY COLLEGE.

The vacancy in the post of teacher of operative and practical surgery in University College, London, caused by the election of Mr. Marcus Beck to the chair of Surgery, has been filled by the appointment of Mr. Rickman J. Godlee, one of the assistant-surgeons to the hospital, to that post. Mr. Victor Horsley, Professor-Superintendent of the Brown Laboratory, has been appointed an additional assistant-surgeon to the hospital.

VARIOLA AT BURSLEM.

Since December, 1884, small-pox has been prevalent in the borough of Burslem, a town in the potteries' district of Staffordshire, of about 27,000 inhabitants. The epidemic appeared for a time to be diminishing, but during the month of May it has extended, and many of the cases have been of a severe type. The local authorities are about to establish a temporary hospital for isolation purposes.

INQUEST ON A MEDICAL PRACTITIONER.

An inquest was concluded on April 24th, at Toft Hill, near Bishop Auckland, touching the death of the late Mr. C. Alworthy. The deceased had been attended by Mr. Rodway, and subsequently by Mr. Ellis, and had been ill for about six weeks. The symptoms were those of irritation of the stomach, and a *post mortem* examination appears to have given rise to a suspicion of irritant poisoning. An analysis of the viscera gave, however, negative results; and a verdict of death from natural causes was returned.

MEASLES AT CHESTER.

A SEVERE epidemic of measles is prevalent at Chester. Last week twelve deaths from rubeola were registered. It is stated that in one quarter of the city the epidemic has been so serious that the number of deaths represent a death-rate, from measles alone, of 17 per 1,000 of the population.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.

THE Senior Surgeon of the Hospital, Mr. George Cowell, has been appointed to deliver the Introductory Lecture on October 1st, the occasion of the opening of the new Medical School Buildings in Caxton Street, now approaching completion.

MARRIAGE AND SUICIDE.

A CURIOUS incident is noted in respect to the young woman who, being disappointed in love, jumped from the Suspension Bridge at Clifton (the highest bridge in England) into the bed of the river Avon, and escaped with very slight injury. Her case, which is of surgical interest, has in this a psychological bearing, for we are informed that, before she left the infirmary, she received three offers of marriage.

PRIZE SUBJECTS AT THE UNIVERSITY OF AMSTERDAM.

THE Faculty of Medicine of the University of Amsterdam has named as the subject of the prize-dissertation next year "The Therapeutics of Iron and the Absorption of Iron Sutures." The essays are to be delivered to the Secretary of the Senate by May, 1886, and the judgment of the faculty will be publicly announced, and the gold medal awarded to the author of the most complete research, on the third Wednesday in September, 1886.

CONVERSAZIONE AT THE ROYAL COLLEGE OF SURGEONS.

ON Tuesday evening, June 9th, a *conversazione* was given by the President of the Royal College of Surgeons and Mrs. Cooper Forster. Twelve hundred guests were present, including many distinguished members of the liberal professions. The string band of the Royal Artillery played in the Museum, which was illuminated by the electric light, and Mr. Corney Grain amused the guests with a diverting musical entertainment in the library.

PRIZE ESSAY ON DIPHTHERIA.

OUR Paris correspondent writes: M. and Madame Victor Saint-Paul have given 25,000 francs to the Académie de Médecine, to be awarded as a prize to any one who can discover a remedy, to be recognised by the Académie, as efficacious in diphtheria. Until the remedy is found, the interest paid on the money is to be awarded every two years to those whose works and researches on diphtheria are recognised by the Académie as the best. This prize is open to competitors of all nations.

ACCIDENTS IN FACTORIES.

THE indefatigable Mr. Broadhurst, who has approved himself a real Parliamentary champion of the working classes, seized the opportunity which the Civil Service Estimates afforded him on Thursday week to draw attention to the lamentable number of accidents in factories, and the need for a large increase in the present staff of inspectors. Whether the smallness of the latter has any relation to the largeness of the former may, perhaps, be questioned; but, in any event, it is beyond doubt that some legislative action must be taken for bringing factory-owners more to account for the accidents to their servants in the workshops. As we indicated a week or two ago, in a review of the Chief Factory Inspector's last report, such accidents are not always the result of employers' neglect to provide the needful fencing for the machinery, but are often due to the carelessness or impatience of the workpeople themselves. However, the fact that, in the year ending October, 1884, there were 8,904 serious accidents in the factories and workshops of Great Britain, cannot be passed over in silence. No fewer than 403 lives were lost; 61 persons lost right hand or arm, 50 left hand or arm, 617 part of the right hand, 568 part of the left hand, and 44 part of leg or foot. These figures indicate the necessity for the adoption, by the factory inspectors, of a tone more minatory and less recommendatory than they have been prone to adopt in the past as to the precautionary measures that should be carried out by the employers, and the necessity for the framing and enforcement of much more stringent by-laws for the protection of employees from the consequences of the carelessness and recklessness of themselves and others.

DEBATE ON ANÆSTHETICS.

AT the annual meeting of the Association at Cardiff this year, in connection with the Section of Pharmacology and Therapeutics, there will be a special debate on Anæsthetics, in which Dr. Dujardin-Beaumetz (Paris), Professor John Chiene (Edinburgh), Dr. Dudley Buxton, Mr. Woodhouse Braine, Mr. Bailey, Mr. Marcus Gunn, and others, will take part. There will be an exhibition of apparatus, and Dr. Buxton and Dr. Stockman (Edinburgh) will illustrate the action of the various drugs on the frog's heart. It is hoped that an opportunity will be afforded of demonstrating clinically the methods employed by the various speakers. The subject of local anæsthesia will be discussed; and Dr. Karl Koller (Vienna), the introducer of cucaine, has promised to attend.

AMBULANCE TRAINING AMONG THE POLICE.

AN illustration of the value of ambulance training among the police was shown on Tuesday last, when, shortly after five o'clock, Police-constable Day, 166 L, who was on duty in the Kennington-park-road, had his attention attracted to a woman who was lying on the foot-path in a pool of blood. He found that a varicose vein in her leg had burst. The officer, who holds a certificate from the Order of St. John of Jerusalem Ambulance Society, immediately placed a compress on the wound, and, having bandaged the leg up, put the woman in a cab and conveyed her to an hospital. The house-surgeon expressed an opinion that had it not been for the prompt attention of the police-constable the woman must have died on the way.

SOCIETY FOR THE STUDY AND CURE OF INEBRIETY.

A QUARTERLY meeting was held at the rooms of the Medical Society on Tuesday last; the President, Dr. Norman Kerr, in the chair. A paper was read by Dr. J. Muir Howie, Liverpool, "On the Treatment of Inebriety." The reader treated of (1) deliberate drunkards; (2) feeble drunkards; and (3) automatic drunkards. He pointed out the futility of attempting to cure the inebriate by mere lectures on temperance; medical treatment of the diseased condition in inebriety was essential. Sir Edwin Saunders, Dr. Bridgwater, Dr. Longhurst, Mr. H. R. Ker, and Mr. F. J. Gray took part in the discussion which followed.

INDEX TO THE ST. BARTHOLOMEW'S HOSPITAL REPORTS.

WE have often urgently advocated the compilation of catalogues for museums, and indexes for archives and serial works, without which pathological storehouses and collections of medical lore lose more than half their value. It is, therefore, a subject of congratulation for us to find that Dr. Church's recently published *General Index to the First Twenty Volumes of the St. Bartholomew's Hospital Reports, from 1865 to 1884*, is a worthy example of its kind, and a valuable addition to medical literature. It cannot be expected that every private professional library should possess a complete series of the *Reports;* but the record of twenty years' work at a great metropolitan hospital must of necessity include valuable information on every branch of medical science, written in our own epoch; so that the possessor of the *Index* may always know where such information is to be found. It serves the same purpose as the *Catalogue* of the Royal Medical and Chirurgical Society's library, and Dr. Neale's *Medical Digest*, but is made up of references of a class not included in either of those important pub-

lications. It shows that imbedded in the *Reports* are a large number of interesting contributions on visceral diseases, fractures and dislocations, aneurysms, cleft palate, tracheotomy, tumours, and many other subjects. Especially valuable are the references to abnormalities in the muscular and vascular systems, discovered and published year by year as the result of work in the dissecting-room. The *Index* alone can utilise labours of this kind. Every medical writer should feel grateful to Dr. Church, just as he is already indebted to Drs. Neale and Peacock, and to Mr. Whateley.

THE DARWIN MEMORIAL.

A MEMORIAL statue of Charles Darwin, designed by Mr. Boehm, R.A., was unveiled on Tuesday by Professor Huxley, in the great hall of the Natural History Museum, on the occasion of its presentation, as a national monument, to the British Museum, in the presence of the Prince of Wales and a large assemblage of prominent scientific men. The Prince of Wales received the statue on behalf of the trustees of the Museum. Professor Huxley said that, in requesting his Royal Highness to accept this statue of Charles Darwin, he did not make the request for the mere sake of perpetuating a memory; for so long as men occupied themselves with the pursuit of truth, the name of Darwin ran no more risk of oblivion than did that of Copernicus or that of Harvey. Nor did they ask its preservation in its cynosural position as evidence that Mr. Darwin's views had received official sanction; for science did not recognise such sanctions, and committed suicide when it adopted a creed. They begged that it might be cherished as a symbol by which generation after generation of students of Nature would be reminded of the ideal according to which they must shape their lives, if they would turn to the best account the opportunities offered by the great institution under the trustees' charge.

VIVISECTION.

THE usual annual reports showing the number of experiments performed on living animals in Great Britain and Ireland during the year 1884 were issued on the 6th inst. Out of a total of 454 experiments, 170 were merely inoculations; of these inoculations, 24 were performed for the purpose of medico-legal enquiries, and involved the death of three frogs and six mice by strychnine; in ten other cases the experiments were made in order to infect fish with a species of fungus very fatal in certain streams, and five experiments led to the death of about thirty minnows and sticklebacks, which died when placed in distilled water. In forty-seven other experiments in which the animal operated on was allowed to recover from the effects of the anæsthetic, the animals subsequently suffered from partial paralysis unattended by actual pain. In 220 other cases, the animal was not allowed to recover consciousness. Mr. Busk concludes his report by stating "that the amount of direct or indirect actual suffering, as the result of physiological and therapeutical experiments performed in England and Scotland, under the Act, in the year 1884, was wholly insignificant." The same remark may be applied with equal or greater force to Ireland.

THE LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

MR. LUND'S course of lectures have come to a close; an abstract of the first appeared in the JOURNAL last week, and the two others will shortly be published. They contained matter of considerable interest to the general surgeon and practitioner. It has already been observed that distinguished hospital-surgeons do not often trouble about minor surgery; so that whilst students are taught the latest improvements in operations for aneurysm, and similar important subjects, they continue to persist in antiquated practices in the hospital-surgery. Mr. Lund's first lecture contained observations on the treatment of cicatrices, burns, scalds, etc., that are often overlooked, yet are of greater practical value to the practitioner than discourses on abdominal section or antiseptic theories. Mr. Wood's lectures will probably constitute a classical volume of the immediate future, for they form a monograph on an important subject, on which he is recognised all over the world as a high authority. The first is published in this week's JOURNAL; and at the second, delivered last Wednesday, a number of patients were exhibited. In the first, a robust young man, there had been arrest of one testicle in the inguinal canal, with a hernia behind it; a truss could not be worn, on account of the tenderness of the testicle. That gland was drawn down so as to depend about an inch below the external ring, the shortness of the spermatic cord preventing it from being pulled into the scrotum; lastly, radical cure of the hernia had been performed. In a second case, the latter operation had been practised where there was hernia with deficient development of the abdominal walls towards the groin. The third had undergone Wützer's operation in India, but hernia had returned during a fit of vomiting; then the radical operation had been done, without removal of the sac, but the rupture reappeared after violent exercise on a donkey; the same operation was repeated, and the rupture had not recurred for several years. The fourth case was an instance of perfect cure, the operation having been performed twenty-five years ago. In the fifth, a man aged 28, the patient underwent radical cure when 8 years old, and operation for varicocele when 18. The sixth case was a boy, on whom the radical operation had been performed in November last, the sac being removed. A patient of Mr. Berkeley Hill's was also exhibited. In this case, the testicles, well formed, lay immediately external to the external rings, and there was double inguinal hernia, as usual. The patient suffered frequent pain from spasms of the cremasters, which drew the testicles into the canals. Mr. Wood demonstrated his operation on a dissection. The lectures were remarkably well attended.

AUTUMN CONGRESS OF THE SANITARY INSTITUTE.

THE Sanitary Institute of Great Britain announces its Autumn Congress arrangements at Leicester from September 22nd to September 26th, 1885. The Health Exhibition, including sanitary apparatus and appliances in connection with the Congress, will be held in the Floral Hall from September 22nd to October 10th. The opening address will be delivered by Professor De Chaumont, F.R.S., at the great general meeting on Monday, at 8 P.M. An address will be delivered by Dr. Ransome, F.R.S., on Sanitary Science and Preventive Medicine, on Wednesday, September 23rd. The lecture to the Congress on Thursday evening, at 8, will be delivered by Mr. Ernest Hart. An address on the Section of Chemistry and Meteorology will be given by Dr. March on Friday, at 10.30. A lecture will be delivered to the working classes on Saturday evening. Dinners, *conversazione*, visits to public buildings, and excursions will enliven the proceedings.

A WORSTED TRUSS FOR INFANTS.

MR. LUND, in his second lecture, recently delivered at the Royal College of Surgeons, referred to a form of truss which is free from many of the disadvantages inseparable from the usual form of instrument when applied to a very young patient. He observed: "The truss, or the mechanical appliance which I would specially recommend for the relief of inguinal hernia in the infant, is certainly the worsted truss, a mode of treatment little known, I have reason to believe, but yet very simple and effective. It is described in Ranking's *Abstract* (Vol. ix, p. 131). I have used it in several cases where I have been consulted on the subject of the early appearance of inguinal hernia in young infants. A skein of worsted, known as 'Berlin wool,' tied together as you now see, is applied around the pelvis and across the front of the abdomen after this plan. One end or loop of the worsted is placed directly over the outer abdominal ring through which the protrusion of the hernia is likely to take place; or, if the hernia have already become scrotal, it must be first reduced, and pressure made over the spot, if the child should cry or struggle much. The folded worsted is passed horizontally across the abdomen, just above the line of the crest of the pubes, to the opposite side, round the hip behind the

pelvis, and over the hip of the side of the hernia. The folded end is then passed through the loop of the skein, and will here form a knot or bulged portion, which must be carefully adjusted, so as to lie against the hernial opening; and, being carried down the upper part of the thigh, between it and the scrotum, if it be a male child, it is brought round the external side of the thigh, near to the top of the great trochanter, and there tied or fixed with a safety pin to the band of worsted already round the pelvis. With a little care, this arrangement of the worsted may be used as an excellent defence against the distension of the weak inguinal canal, and the descent of a hernia into the scrotum. It is not powerful enough, nor could it easily be kept in position, when the child is old enough to run about; but on the principle that prevention is better than cure, it is a means of relief to which we can have recourse at a very early date, certainly before we could expose the infant to the torture of an ordinary hernia truss, however weak the spring might be. It has this advantage, that the infant can be washed with the truss still in its place; a fresh one can be then applied, and the old one cleansed and used again."

POISONING BY VANILLA SANDWICHES.

A YOUNG girl is reported to have died a few days ago at Harrogate in consequence of eating vanilla sandwiches. Several members of the family who also partook of the sandwiches have been simultaneously ill, but so far without a fatal result. It is difficult to see in what, if not in the flavouring ingredients, any poisonous material could have existed. At the same time it must be admitted that vanilla, derived from the aromatic orchid family, and used with considerable freedom in confectionery and in chocolate manufacture, does not fairly come within the list of dangerous essences. Perhaps another substance besides vanilla supplied the noxious body—ratafia, for example. Such cases are unfortunately not isolated, and there is the more need why they should not be allowed to pass without due investigation and analysis by the sanitary authorities.

MR. HUGH OWEN, C.B.

WE are glad to be able to congratulate this well known and popular servant of the Crown upon the mark of Royal favour which was announced in Saturday's papers. Mr. Owen's services in the Local Government Department have been remarkable in more respects than one. Coming to the office of the Poor-law Board in the year 1849, as a lad in a round collar, he has worked his way steadily up each rung of the official ladder. When Sir John Lambert retired, a year or two ago, Mr. Owen was at once marked out as his successor in the onerous and responsible office of Permanent Secretary of the Local Government Board. He has since accomplished, with conspicuous success, the difficult task of administering the great department placed under his charge, which, indeed, under its present (or, ought we to say, late?) active President, has forged ahead to an extent quite surprising to its former critics.

THE ANNUAL ARMY MEDICAL DINNER.

THE army medical officers' dinner on Monday evening, under the presidency of the Director-General, Dr. Crawford, was a perfect success. This is the second of what promises to be an annual institution of great value and interest. It is delightful to see how much the service has grown in intellectual, moral, and professional stature of late years—how much unity of feeling there is, how high a general standard of culture, how warm a sentiment of attachment to the profession as a profession, and how close a sympathy with the general objects of the civil profession. The three invited civilian guests of last year were Sir William Jenner, the President of the College of Physicians; Sir William Mac Cormac, the civil surgeon most nearly identified with the duties, labours, and public relations of military surgeons; and Mr. Ernest Hart. This year, Sir William Jenner was unfortunately prevented from attending; but the references, both in the speeches and responses to the health of the guests, which excited the most demonstrative enthusiasm, were those which spoke of the profound sympathy and close identification in object and in public and professional interests of the civil and military branches of the profession, and which referred to the desire of the Royal Colleges and of the British Medical Association to consider them, not as two professions or two bodies, but as one, and to interchange good offices and mutual aid on every occasion.

LORD WOLSELEY ON THE ARMY MEDICAL HOSPITALS IN EGYPT.

IN the course of his speech at the Army Medical dinner, Dr. Crawford, the Director-General, referred to a private communication of Lord Wolseley's, which expressed the highest possible satisfaction with the admirable results of the working of the Army Medical Department in Egypt, and the highly efficient state of the hospitals and ambulances. This is the more satisfactory, because this is the first occasion on which the Army Medical Department has had a free hand, and has been allowed to make unfettered the arrangements which it considered necessary. No doubt, more detailed and formal expression will be given by Lord Wolseley, before the close of his despatches, to the views which he has thus formed of the efficiency of the work of the Army Medical Department in the Egyptian Expedition.

THE INFLUENCE OF SEA-VOYAGING UPON WOMEN.

OF all the methods of treating illness by change of habits, none has received a higher approbation than a sea-voyage. Yet the physiological basis for this kind of treatment has never been quite adequately explained. It is very difficult for anyone on board-ship, without a previous or subsequent knowledge of his patients, to judge exactly what effect the sea-influences have brought about, and a ship-surgeon may not always be a most skilful observer. We are very glad to notice a paper recently read by Dr. J. A. Irwin, in New York, and now issued in the form of a pamphlet, which embodies his experience during the last six years, of which the greater part was spent at sea, and during which he had altogether fifteen thousand people in charge. He has confined himself to the study of the genito-uterine functions, and brings forward some conclusions worthy of attention. Many of the more considerable changes in habits of life alter the methods of menstruation. This is especially the case during a sea-voyage. Dr. Irwin finds that the customary discomforts and the frequency of the catamenia are greatly increased at sea. This phenomenon is much less marked, as we might expect, among the steerage-passengers, who are less easily affected. These results he attributes entirely to the motion of the vessel, which induces congestion of the pelvic viscera. He throws in a pathological explanation of "the initial lesion," which "takes place within the semicircular canals of the internal ear, where the endolymph and the otoliths, following the irregular movements of the vessel, convey to the sensorium erroneous impressions of the position of the head in space." Such explanations are beyond the field of profitable study, but the facts seem well established by Dr. Irwin's observations, and are recognised by such authorities as Dr. Fordyce Barker. Dr. T. G. Thomas, however, and Dr. Tyler Smith, hardly agree; and there is undoubtedly room for farther observation, and "the initial lesion" may, for a time, be left in the background. The second conclusion of Dr. Irwin is that sea-sickness tends to abortion or premature delivery. The sickness of kinetia, as he calls it, has a very different result from the sickness of pregnancy, and is dangerous for the early months, and, in a less degree, for all except the sixth and seventh. Here, again, those who have studied the results of the Atlantic passage most carefully are not unanimous in agreement with Dr. Irwin. The French writers all agree with him, but have far less experience. The whole subject, indeed, needs a wider collection of facts from which to draw any sure conclusions; and, as a step towards such a collection, we feel indebted to Dr. Irwin's pamphlet.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

In addition to the candidates mentioned last week, we understand that Mr. Macnamara, of the Westminster Hospital, Mr. Francis Mason, of St. Thomas's, and Mr. Rouse, of St. George's Hospital, will also be candidates at the ensuing election of the Council of the College of Surgeons. The list, therefore, at present stands thus, the candidates being placed in order of their seniority as Fellows: Mr. Savory (Fellow in 1852), Mr. Gant (1861), Mr. Francis Mason (1862), Mr. Rouse (1863), Mr. Cowell (1867), Mr. Macnamara (1875), and Mr. Oliver Pemberton, elected Fellow in 1878. Thus Mr. Savory, who has been a member of the Council since 1877, and is at present the senior Vice-President, is a candidate for a further continuance of collegiate honours. Mr. Macnamara, whose long experience, administrative power, and energetic interest in the public affairs of the profession, have raised him to a high position in the metropolis, comparable to that which he for many years occupied in India, is a member of the Council of the new Association of Fellows. Mr. Macnamara is also Treasurer of the British Medical Association, and President of the Metropolitan Counties Branch. In all these capacities, he has taken so active a part in forwarding the higher interests of the profession, and shown such a combination of energy, firmness, and conciliatory character, that his candidature will undoubtedly and deservedly command a large amount of support from all parties in the profession. All the other candidates are members of the Association of Fellows. Mr. Oliver Pemberton received large support last year; he is a prominent representative of the country Fellows, and holds a very leading position among provincial surgeons. This must have a considerable amount of weight in determining the selection of candidates on the Council. It is always desirable, and perhaps especially at the present moment, that provincial interests should be adequately represented; yet at present there are but two members of Council, namely, Mr. Cadge and Mr. Lund, who are not metropolitan surgeons.

SMALL-POX HOSPITAL-SHIPS.

The medical superintendent of the hospital-ships, the *Atlas* and *Castalia*, lying in Long Reach, between Dartford on the south, and Purfleet on the north, to which the *Endymion* is the administrative vessel, has made a report regarding the work carried out on these ships in the treatment of the small-pox patients of the metropolis. The work done on these ships had excited so much interest in other countries that the Governments of France, Italy, and Sweden had commissioned officers to visit the ships. Sir Charles Dilke, the President of the Local Government Board, visited the ships in August last, and was accompanied by several members of the Asylums Board, all of whom examined the wards occupied by the patients. The *Atlas* was opened in February of last year, and the *Castalia* in July of last year; and, in all, 5,074 cases, taken out of homes in London—most of these homes being in the most crowded and unsanitary parts of London—were treated up to the end of December. The largest number of admissions was in June, when, in the course of the month, 862 patients were admitted. Great changes have been made on the *Atlas*, which has been greatly improved in a sanitary point of view, as well as in other respects. The ventilation system of the *Castalia* is described as fully realising the expectations formed. The heating of the *Castalia* is controlled with the greatest nicety. A child was born on the ship *Castalia* of a mother suffering from confluent small-pox; it was vaccinated when three hours old, and revaccinated when three days old. The child had a slight attack of small-pox and recovered. It had received the name of the ship. The report stated in detail the steps taken to prevent the contact of infected with uninfected material, and to prevent the nurses, officers, and others who visited the ships, from spreading the contagion. The health of the staff has been good. In the summer and autumn, during the very hot weather, the river stank; febrile sore-throat was prevalent, and incapacitated several; and foul gases used to rise from the river, giving off nauseous odours, decomposing food, and spoiling appetite. The medical superintendent speaks of the difficulty of getting good nurses, and concludes thus: "Of the way the work has been done, I speak in the highest terms. Nurses have been kind and attentive; ward-servants have been indefatigable. The heavy duties of the kitchen and laundry have been cheerfully and well done. The men have given every satisfaction. I have to thank the matron, Miss H. Wacher, for the zeal she has displayed, and for the efficiency of every department under her, more especially the cleanliness of the hospital, an important factor in treatment."

POISONING BY ICE-CREAMS.

On Sunday last a large number of persons, probably between thirty and forty, experienced violent symptoms of irritant poisoning, shortly after eating "yellow ice-creams," sold by an Italian, who had long kept a stall in Lambeth Road. Thirteen cases were taken to St. Thomas's Hospital, where they were seen by Mr. Williams, the house-physician on duty, who has informed us that the patients all presented the same symptoms; all had taken the same yellow ice-cream, and all were seized with sudden vomiting, about two hours later; colic, diarrhœa, and dryness of the mouth and fauces were subsequently noticed in all the cases; two patients passed into a condition of collapse, and during reaction from this there was considerable pyrexia. In the matter vomited after admission no metallic poison was found, but all the patients had previously vomited copiously. The symptoms are suspiciously like those produced by a moderate toxic dose of arsenic, and it appears quite possible that, by some mischance, orpiment (arsenious sesquisulphide), anciently called *auri pigmentum*, may have been used, either alone, or mixed with arsenious sesquioxide, in the so-called "king's yellow," as the colouring matter of the "ice-cream." No death has resulted, and all the patients are now out of danger. In the absence of an analyst's report, one is driven to seek for some rational theory which will explain the treacherous action of the common and often harmless luxury too trustfully enjoyed on this occasion. There are several ways in which an ice-cream might act as a poisonous body; firstly from its containing in its colouring or flavouring material an active extraneous poison; and secondly, from putrescence or souring of the cream of which it is made. Either fault is quite likely to have existed in the ices in question. Sweetmeats have already been known to be coloured with aniline dyes, which, from the manner of their preparation, are often strongly poisonous. Perhaps the offending ices owed their hurtful qualities to some such experiment in coloration. As bearing on the question of poison in the flavouring, we note elsewhere a case of fatal illness attributed to this cause. It may be, on the other hand, that the cream, acted on by the heat of summer, or, as in a recent epidemic of typhoid fever, the water used for washing utensils, was in fault. Judicial investigation has perhaps come too late to reveal the true cause, but the evident fact remains that the ices were in some way accountable. It is unnecessary for us to do more by way of warning the public against such questionable delicacies than to expose this occurrence. Though all penny ices are not necessarily injurious, there is no guarantee that any one is not. The fact that various methods of preparation are practised renders it likely that unscrupulous novelties are not uncommon. There is a certain risk, moreover, in the usual custom of eating directly from the cup. The vessel may have been thoroughly cleansed after the last consumer, or it may not. Unless it has, there is nothing to prevent the conveyance of disease between two persons by means of the saliva, an accident which has actually occurred in cases where the same tobacco pipe has been used by different smokers in succession.

NATIONAL HEALTH SOCIETY'S LECTURES.

During the past season, Dr. Rice Oxley has conducted, under the auspices of the National Health Society, a most successful course of "Health Lectures." The attendance of ladies has ranged from 130 to 150. At the *conversazione* which closed the course, Sir Andrew

Clark addressed the class, complimenting both Dr. Oxley and his class on their work and on the papers that had been given in. Canon Carver, in the name of the Ladies' Committee, presented Dr. Oxley with a very handsome and valuable microscope.

DEGREES FOR LONDON MEDICAL STUDENTS.

THE Senate of the University of London, at its last meeting, appointed a small Committee to confer with the Council of the Metropolitan Counties Branch on the subject of the alterations proposed by the deputation of the Branch which waited upon the Senate on April 29th. The Council of the Branch has been asked to appoint a small committee to meet the Committee of the Senate on July 1st. Though few would have the temerity, at the present moment, to venture to foretell which of the various proposals that have been put forward may be found the most practicable, or the precise form under which the boon may be obtained, yet all who have watched the development of the question will readily admit that the demand made on behalf of the majority of medical students in London, that reasonable facilities should be granted for obtaining degrees, is in a fair way to be satisfied. Very great progress has been made since the commencement of the last winter session. The Association for Promoting a Teaching University in London has done good work, by drawing a large share of public attention to the unfortunate position in which teaching-bodies of the first class in London are placed, owing to the existing University being designed not to meet their wants, but to cater for the whole British empire. The Royal Colleges of Physicians and Surgeons are also in motion to obtain the right to give to persons who have satisfied the conjoint Board of Examiners the title of M.D.; and, finally, the graduates of the University of London have taken advantage of these evidences of a strong opinion out of doors to urge upon the Senate of their University the necessity for making an alteration in the regulations. A very strong committee was appointed, and we understand that the reforms which this committee will probably recommend will go to the root of the evil. It is felt that the Senate of the University must be really representative, and that in place of the large majority of the Senate being Crown-nominees, a majority ought to be elected by the various affiliated colleges and teaching bodies, and that the regulation of examinations should be in the hands of Boards of Studies, consisting of men practically engaged in the work of teaching.

THE HOLLOWAY SANATORIUM.

HIS Royal Highness the Prince of Wales has announced his intention to open, on Monday, June 15th, the establishment on the estate known as St. Ann's Heath, near Virginia Water, designed for the care and treatment of the mentally afflicted of the middle classes. This institution has been erected at the cost of the late Mr. Holloway, the well known patent medicine vendor. It is an imposing edifice of red brick, faced with white stone, and built by Mr. W. H. Crossland, of London, in the Early English Renaissance style, recent additions having been made by Mr. C. Dorman, of Northampton. It stands on an elevated piece of ground close to Virginia Water Station, and has accommodation for two hundred patients. Several cottage residences lie in the immediate vicinity, being erected for single patients; two are already in use. Mr. R. B. Stirrat, engineer, of London, has constructed the drainage, as well as the gasworks which light the main building, and are utilised for cooking purposes. The water-supply is from the works of the Staines, Egham, and Ascot Company, as well as from an artesian well over eight hundred feet deep. The sanatorium will be self-supporting, and the managers will endeavour to facilitate the admittance of patients of the professional classes who are unable to afford the ordinary charges. The medical superintendent is Dr. Sutherland Rees Philipps, who was appointed, as we announced, last June, and has, since that date, been constantly employed in directing the technical arrangements within the building. Dr. Philipps was formerly honorary secretary of the South-Western Branch of the Association, and has had considerable experience in the management of institutions for the insane, having been assistant medical officer to the Arlesey (Beds) Three Counties Asylum and the Devon County Asylum, and also for five years medical superintendent to Wonford House Hospital for the Insane, an institution which has greatly improved under his management, and is precisely similar to the Holloway Sanatorium.

INOCULATION FOR CHOLERA.

IT was hardly to be expected that the Local Government Board would favour the proposal to despatch a commission to Spain to study Dr. Ferran's method of inoculation for cholera. The prohibition imposed by the Spanish Government on the further continuance of the inoculation of human beings, temporarily removed, has been reimposed so far as concerns provinces in which cholera does not now exist. The opinion of the Royal Spanish Commission will probably not be so favourable as that of the Commission appointed by the Academy of Medicine, but, as we have observed, even the report of the first commission, published in the BRITISH MEDICAL JOURNAL on May 30th, and quoted by Dr. Cameron in the House of Commons, clearly showed that the statement therein contained, that "a means of averting cholera had been discovered," rested on insufficient evidence. It would appear that persons inoculated with cultivation-fluids containing various bacilli and micrococci, including the comma-bacillus of Koch, have experienced symptoms resembling those of septicæmia, but have not, subsequently, contracted cholera in as large proportion as the rest of the population. Cholera, however, is so capricious in its spread, and in the choice of its victims, that the smaller number of cases among the inoculated proves nothing. The inoculation would undoubtedly remove one most potent factor in the causation of cholera—fear; and this fact alone may account for the apparent success of the method. Dr. Gubbins, of the Army Medical Staff, has devoted a period of leave to an unofficial visit to the district infected by cholera.

SCOTLAND.

MEASLES are at present very prevalent at Greenock, but, as yet, it has not been decided to close the public schools.

SMALL-POX is reported to have broken out in Arbroath, and, as the persons affected recently arrived from Shanghai, it is thought the infection has been brought with them.

THE cold, wet days of May, with their frequent showers of hail, sleet and snow, and frosty nights, have been replaced by bright, warm, genial weather, and already the agricultural prospects are better.

HOSPITAL FOR SICK CHILDREN, GLASGOW.

THIS hospital is available for clinical work, and has been attended during the present summer session by a few students. In addition to the regular visits, Dr. Finlayson has just completed a short course of demonstrations, at which several cases of nervous disease were shown. Besides illustrations of tumour of the brain and cerebellum, there was a remarkable case of paralysis of the sixth and seventh nerves on *both* sides, with loss of sensibility of the palate, dribbling of saliva, affection of speech, &c., apparently due to bulbar paralysis. The demonstrations, which were open to all medical students, were well attended.

GLASGOW DEAF AND DUMB INSTITUTION.

THIS institution has just concluded another year of useful work, as brought out in the report presented to the recent meeting of its friends and supporters. The number under instruction during the year was 145, of whom twenty were new pupils, and the educational results obtained were very satisfactory. For those who quitted the

institution at the last vacation suitable employment was readily found, the more intelligent boys being now occupied as draughtsmen, engravers, lithographic artists, and commercial clerks. The combined system of education which has all along been pursued is the method still advocated by the directors as giving the best results in practice, and this view is supported by the fact just mentioned, that last year's pupils all found employment on completing their educational period. The financial position of the asylum is good, the year's transactions showing a balance in hand of £862, while the capital account stands at £28,000. Under these circumstances, the directors have very properly decided to provide a separate building for any of the inmates suffering from infectious illnesses, so as to be independent of Belvidere Hospital, and to have the means of at once checking any threatened epidemic, such as that of measles, with which the children were attacked last year.

GLASGOW UNIVERSITY.

THE clinical examinations for the final professional examination commenced this week. The number of candidates presenting themselves for examination is considerably over one hundred. The summer classes in the medical faculty have been exceptionally large this summer, and the growing tendency seems to be in favour of attendance on practical classes, so that in some subjects, such as physiology, the difficulty of the numbers can only be overcome by relays of classes at different hours. The alterations proposed by the University Court as to the position of pathology aod therapeutics in the examinations for graduation in medicine, have received the sanction of Her Majesty's Privy Council, and will now come into force.

SICK CHILDREN'S HOSPITAL, EDINBURGH.

DURING the month of May, there were treated in the wards of the Royal Hospital for Sick Children, Edinburgh, 113 cases, of which 54 were in the hospital on May 1st, while 59 were admitted during the month. Of the cases dismissed, 38 were cured, or had recovered, and 9 were relieved. The average daily number of in-door patients was 60. In the dispensary department, 513 out-door patients were treated, and 18 children were vaccinated. The total number of patients treated during the month was 644. Of 234 new cases, 186 were from Edinburgh and the suburbs, 31 were from Leith, and 17 were from the country.

EDINBURGH EYE, EAR, AND THROAT INFIRMARY.

ONE of the minor medical charities of Edinburgh, but one which has been of much real benefit to the public, is at present somewhat unpleasantly situated. The Infirmary is at present located in a common stair, and has been for some time. At a meeting of the Edinburgh Town Council, on Monday, a number of letters were read from the other occupiers of the stair, pointing out that another infirmary had been opened on the flat above, and that they (the occupiers) considered it to be much against their health that such should be allowed, and also that it was very disagreeable to be constantly meeting patients on the stair. Several members spoke on the subject, and it was remitted to the Public Health Committee.

MONTROSE ASYLUM.

THE annual meeting of the Asylum and Infirmary Board of Montrose was held on Tuesday, June 9th; and from the annual report of the medical superintendent of the asylum submitted to it, it appears that there were admitted 106 for their first time, and 19 were readmitted. The total number under treatment during the year was 651, of whom 9 were discharged, of whom 48 were sent out as recovered, 28 as relieved, and 13 as not improved; 53 died, leaving on the register on May 14th, 1885, 509 patients, of whom 237 were men and 272 were women. The average numbers resident were 248 men and 286 women, giving a total of 526, which was 3 in excess of the number for the previous year. The disproportion between the number of male and female admissions has always been marked in this asylum, especially in the case of pauper patients sent from Forfarshire. The ratio of recoveries to admissions was 38 per cent. At a meeting of the same board, held in the previous week, the contracts for the erection of a convalescent home at Edzell, in connection with Montrose Infirmary, were accepted, the estimated cost of which is £780.

THE BRITISH DENTAL ASSOCIATION.

THERE was a very good attendance of members at the annual meeting of the Scottish Branch of the above Association, which was held this year on the 6th instant, at Dundee. Dr. Smith, of Edinburgh, presided. Among the papers read was one on "The Range of Dental Influence," by Mr. Crombie, of Aberdeen. Some cases of interest were shown, and the meeting closed with a valedictory address from the President, in which he made special reference to the important functions of the Society's branches. It was decided to hold the next annual meeting at Glasgow.

ROYAL INFIRMARY, DUNDEE.

DURING the year which terminated on May 15th there were admitted to the institution 2,000 patients, an increase of 222 as compared with the preceding year. In the out-door department 1,195 patients had been treated, and 7,284 persons had been visited at their homes by the district surgeons. The number of deaths which occurred in the wards was 191, which gave a mortality of 9.7 per cent., as compared with 7.7 per cent. in the preceding year. At the annual meeting of the governors and supporters of the infirmary, held on Monday, June 8, it was stated that the revenue for the year was £7,481, and the expenditure to £7,976, leaving a deficiency of £495, which raised the accumulated deficit to £1,081. A striking statement was made by one of the speakers at the meeting, who in speaking of the report of the Royal Commission on the Housing of the Poor, stated that in Dundee since 1872 fever cases had decreased from 611 to a little over 100 per annum. Should the present increase of patients requiring admission continue it will be necessary to provide increased accommodation for the servants and nurses, and this it is considered would cost £2,000, while the cost of renewing the remaining portion of the stonework of the building would be about £1,300. Attention was also directed to the necessity for increased contributions in aid of the Convalescent Home at Burnhill, to enable it to cope with the increased numbers sent from the Infirmary. The meeting resolved to increase the number of free admission passes from 175 to 200 annually.

ABERDEEN ROYAL INFIRMARY.

AT the quarterly Court of Managers of this institution, the question of providing for infectious diseases was under discussion. It seems that, for an annual payment from the town, the Royal Infirmary receives and treats the cases of infectious diseases. It is now proposed that this arrangement should cease, and that, in accordance with the Public Health Acts, the Local Authority should make adequate provision for fever and other infectious diseases. The meeting was adjourned until June 22nd. There can be no doubt that this proposal ought to be carried out. The expense of the treatment of infectious diseases should fall upon the rates, as in fact is the case in most other large towns. Thus a considerable number of beds would be set free for other purposes. The Infirmary requires, amongst other additions, a special ward or wards for the treatment of diseases of women.

TYPHOID FEVER AT LINLITHGOW.

IT was reported to a meeting of the Police Commissioners of Linlithgow on Monday, that a serious outbreak of typhoid fever had occurred in a dwelling-house in Brokley's Land, High Street. Of twelve people living in the house, seven had the disease; six of the cases were doing well, but the seventh was still severe. The matter had been brought under the notice of the medical officer of health, and has been attended to by him, and a supply of disinfectants given to the inspector.

IRELAND.

VACCINATION.

According to the returns of vaccination received for the March quarter, it appears that there were, in Ireland, 18,821 persons successfully vaccinated; that in 3,639 cases the operation was postponed; and that 80 children were reported as insusceptible of the operation. The severity of the weather, and the prevalence of whooping-cough and measles, were assigned as the chief causes for accounting for the small number of vaccinations during the quarter.

THE LATE DR. ROSS MAGUIRE.

The following resolution was adopted last week in reference to the death of this gentleman, who recently held the post of medical officer to Blanchardstown and Castleknock Dispensary:—"That, having learned with feelings of deep regret of the death of one of the oldest and most respected of our dispensary medical officers, Dr. Ross Maguire, we take this opportunity of expressing our feelings of sympathy with Mrs. Maguire and family; and that the clerk be directed to forward her a copy of this resolution."

SIR CHARLES A. CAMERON, M.D.

His Excellency, the Lord-Lieutenant, has conferred the honour of knighthood on Dr. Charles A. Cameron, medical officer of health and city analyst for Dublin, in recognition of his services in promoting the health of that city, and public health generally. As we mentioned last Saturday, the day upon which Dr. Cameron was knighted, he was elected on June 1st President of the Royal College of Surgeons in Ireland for the ensuing year. He is also Professor of Chemistry and Hygiene in the College, a Vice-President of the Institute of Chemistry of Grreat Britain, and the author of a *Manual of Hygiene* (1874), and of numerous papers and reports on subjects connected with chemistry and public health. The bestowal of this honour upon Sir Charles Cameron has given great satisfaction to his multitude of friends and well-wishers, and is well deserved.

HEALTH OF BELFAST.

During the four weeks ending the 23rd ult., the births registered numbered 619, and the deaths 650, the latter showing a death-rate as high as 39.4 per 1,000. This excessive mortality must be attributed to the prevalence of measles, and to the large number of cases of this disease which proved fatal, namely, 150. Besides this, 235 deaths were recorded from affections of the respiratory organs, being equivalent to a rate of 13.9 per 1,000. The condition of the atmosphere during May—some days piercing easterly winds, alternating with wet, cold days and nights—greatly aggravated the cases of measles and lung-affections, and hence the very unusual fact that the deaths exceeded the births by 31. From the large number of cases of measles which have been reported by the district officers of health during the past month, there does not appear to be any abatement in the serious epidemic of that disease which has prevailed in Belfast for some time. It is, however, to be hoped that the fatality which has hitherto marked its progress will greatly decrease when the weather becomes milder and less variable.

THE TREASURY GRANTS TO THE DUBLIN HOSPITALS.

In connection with this subject, to which we have lately referred in this Journal, it is stated that his Excellency the Lord Lieutenant intends to appoint six gentlemen, whose names are given, to serve on a Commission to inquire into and consider the application of these grants to the Dublin hospitals. Whether this intention of His Excellency will be carried out under existing political circumstances, it is difficult to know. Up to the time of writing, however, some of the gentlemen nominated to serve on the Commission had heard nothing officially about it.

THE SANITARY CONDITION OF CAIRO.

[From a special correspondent.]

The Sanitary Condition of Cairo, and the Medical School.—Drainage for Cairo.—The Gordon Memorial Hospital.—Sanitary Committee.—Difficulties of Sanitary Reform.—Death-rate of Cairo.

Cairo, June 1, 1885.

Mr. Ernest Hart's vigorous letters to the Journal on the sanitary condition of Cairo, and on the Native Medical School, have been much read and commented on by the faculty of this city, as well as by many laymen interested in these matters. There is no doubt that the condition of the medical school is disgraceful. The students are not taught to use their eyes, much less to exercise their hands. Some of the best students in pharmacy failed to recognise, in the recent examinations, the leaves of belladonna. A medical man in the Gendarmerie service recently admitted two men for service, one of whom had central corneal opacities, so that he could not count fingers held up at two yards distance, and the other had extremely varicose veins, and an ulcer in the front of the leg.

Surgeon-Major Green, the subdirector of the Sanitary Service, has made a strong representation to the Ministry on the urgent need of a system of drainage for Cairo. He has pointed out the continual danger of another epidemic of cholera until this work be carried out. Mr. Green is in favour of a water system, with force pumps to empty the sewage into the desert. As yet no reply has been received.

Colonel Maitland and Surgeon-Major Green have visited Port Said and chosen two alternative sites, either of which, they report, will be suitable for the Gordon Memorial Hospital. There is, however, a prevalent feeling among medical men in Egypt against Port Said being chosen for the situation of this hospital. Some would prefer Alexandria, others Cairo.

The native hospital at Port Said was visited at the same time. It was in a very unsanitary and neglected condition; but, as a result of the visit, orders have been given for repairs. The work has been undertaken by the Public Works Department, and £400 will be spent on it.

The change proposed in the Sanitary Committee, whereby three members in the employment of the Sanitary Department were to be replaced by delegates from the Public Works, Wakfs, and Police respectively, after passing the Council of Ministers, has been vetoed by the Khedive. The Khedive considers that a sanitary board should consist exclusively of medical men, and that engineers have no place there. At the request of the Council, the Sanitary Directorate expressed its willingness to accede to the wishes of His Highness. The Directorate has proposed, instead, three other names of gentlemen in the Government service, but independent of the Sanitary Department—namely, Mr. Crookshank, F.R.C.S.E., Director-General of Prisons; Dr. Badr Bey, in the Railway Service; and the Director of the Mint. Here the matter stands at present.

The following story illustrates the impossibility of any general sanitary reform as long as the capitulations practically exempt Europeans from the regulations which apply to natives. A short time ago, Surgeon-Major Green was informed by a lady that she had reason to believe there existed a case of small-pox at the laundry where her clothes were washed. The sanitary subdirector immediately proceeded to the house in question in company with the lady, and found, as she said, a young man with small-pox, exhibiting a well marked pustular eruption of several days' duration. In the very room where he lay was some of the linen taken in to wash. The patient had been attended by two medical men, the one an Austrian, the other a German subject. They had given the friends of the patient a written statement that he was suffering from "wind" pox (*sic*), and accordingly led them to believe that there was no need for precautions to be taken. This paper was shown to Surgeon-Major Green. The latter obtained a confirmatory opinion as to the case being one of true variola, and then wrote to the attending medical men, requesting them to come to him at the Sanitary Directorate, and explain their conduct. They went. The Austrian subject simply excused himself on the ground that the case was modified small-pox. The German subject, who is a medical man of considerable practice and established position in Cairo, disputed the right of the Sanitary Directorate to interfere with him, and took the matter to his consul. Surgeon-Major Green blamed them for misleading the patient as to his true condition, and not advising the friends to take proper precautions. The German consul wrote to Nubar Pasha, accusing Surgeon-Major Green of "furtively" entering the house of the German's patient, and interfering with him in the treatment of the case. He disputed his right to interfere with a German subject in any way whatever, and asked that reparation may be made for the insult endured by his *protégé*. Surgeon-Major Green has replied, pointing out the great danger that would ensue to the public health

if medical men were allowed to act in such an unprincipled way, and asking that the case may be referred to the German Medical Faculty for arbitration. There the matter rests for the present.

There has been a very large death-rate lately in Cairo, the deaths exceeding the births for several weeks past. The increased mortality is almost wholly among infants, and is apparently immediately due to the unusually warm weather.

Clouds have lately been seen more frequently than is usually the case at this time of year, and last night occurred the rare phenomenon of a slight shower of rain in June.

ADDITIONS TO THE BRITISH PHARMACOPŒIA.

We understand that proof-copies of the new edition of the *British Pharmacopœia* are now in the hands of the members of the General Medical Council, and that it is therefore possible to hope that it may be published within the next two months. As we were enabled to state some time ago, over a hundred new preparations have been added, while only about a score have been omitted. We learn that a considerable number of antiseptic preparations have been added, and that among these will probably be found iodoform, eucalyptus oil, fir-wool oil, thymol, boric acid, as well as salicin, salicylic acid, and salicylate of soda. Among the most important new drugs and active principles which will probably be found in the new edition will be pilocarpine, and several fluid preparations of jaborandi, cuca, and cucaine hydrochlorate, ergotin, caffeine, and citrate of caffeine, hydrochlorate of apomorphia, sulphate and bimuriate of morphia, codeine, physostigmine, elaterin, aloin, cinchonidine, and cinchonine, nitroglycerine, cascara sagrada, rhamnus, staphisagria, cimicifuga (actæa) menthol, cyanide of potassium, bromide, iodide, and sulphite of sodium and certain sulphocarbolates. Among external applications will probably be found oleic acid and several oleates, and several ointments made up with hard or soft paraffin.

THE MEDICAL SICKNESS, ANNUITY, AND LIFE-ASSURANCE SOCIETY.

A highly satisfactory statement of the progress and prospects of this recently founded Society was presented at the monthly meeting of the Executive Committee, held at 38, Wimpole Street, on June 10th. There were present Mr. Ernest Hart (Chairman), Mr. Bartlett, Dr. Hibborn, Mr. Major Greenwood, Dr. Ord, Mr. Sibley, Mr. E. Noble Smith, and Mr. Radley (Secretary).

It appears from the statement made that the Society, which has now been at work only fifteen months, has 674 members, has achieved remarkable financial success, and is in a position of assured and solid prosperity, and active and evident usefulness. The need for its operation, and the good work which it is doing, were shown by the number and variety of claims for sick-pay and allowances, which are weekly made and responded to. During the last four weeks alone, thirteen claims have been made for sick-pay by members totally incapacitated from professional work by sickness or severe accident, and the average weekly payments in respect to such claims have amounted to £27 per week. The causes for claims have been as follows:—Locomotor ataxy, hæmoptysis, pneumonia, rheumatism, tonsillitis, congestion of liver, and three accidents while riding or driving.

The pecuniary position, after fully meeting this legitimate and useful expenditure, was very satisfactory, the reserve fund already amounting to between £5,000 and £6,000 at the end of the first year's operations. This income had been managed with great care, and nearly the whole amount in hand had been invested, under the best advice, in first-class securities, at an average rate of nearly 3¾ per cent. interest. Already there were indications that surplus profits would result from this state of things, and such excess, as soon as safety had been fully assured and provided for, would be appropriated among the members, whose absolute property it would become, there being no shareholders or other outside claims to be met or profits to be paid.

Another favourable result was the low cost of management, the expenditure under this head being less by one-half than even the comparatively small addition of the premiums originally made to meet it by actuarial calculation. Thus, while the current amount available for expenditure under this head was about £160 per quarter, less than half this amount was being spent. This was largely due to the manner in which the affairs of the Society were supervised, without fee or charge, by the members of the Executive Committee, who exercised a real and constant control over its affairs, scrutinising its disbursements each week in the most careful and thorough manner, and to the efficiency and economy of the secretary.

Arrangements were being made to introduce some extensions in the work of the Society at the general meeting to be held at Cardiff during the last week in July, and a full report of the work already accomplished will then be issued to the members and the profession generally, with a view to still further increasing the field of its operations. In the meantime, the secretary, Mr. C. J. Radley, of 26, Wynne Road, S.W., will readily supply all information and papers on application.

THE IRISH MEDICAL ASSOCIATION.

The annual meeting of this Association was held according to custom on the first Monday in June, in the library of the Royal College of Surgeons in Ireland. Dr. Hemphill, of Clonmel, the outgoing President, occupied the chair.

Report of Council.—Mr. Chapman, honorary secretary, read the annual report of the Council, which recapitulated at length the proceedings of the executive body of the Association during the year. As regarded the Medical Act Amendment Bill the Council expressed the opinion that there was but little, if any, prospect of this Bill being re-introduced in the present session of Parliament, but they were fully prepared to have the views long since pronounced by the Association influentially put forward whenever Government brought this measure before the House. The Council regretted that the Union Officers' Superannuation Bill had little chance of being taken up by Parliament this session; and it referred to the proposals of the Union Officers Association that the Irish Medical Association should support a measure, suggested by the former body, which would leave a discretionary power to the guardians to award pensions to Union officers, subject to the sanction of the Local Government Board, at the Civil Service rate. As has already been reported in the British Medical Journal, a special general meeting of the Irish Medical Association declined to adopt such a suggestion, as the Association had long been pledged to the principle that medical officers should, as a matter of right, be entitled to superannuation-allowance upon retirement. The Report congratulated the Association upon the successful result of the several actions and appeals taken by the Council in the case of Dr. Rogers against the Youghal Board of Guardians, whereby the right of medical officers of health to receive remuneration for their services in connection with the Labourers' Act was finally established. The question of household franchise in connection with medical relief also received the anxious consideration of the Council. Being desirous of preserving the Association from all imputation of political leanings, they thought it advisable that it should not take any action for or against the clause of the Registration of Voters (Ireland) Bill, which dealt with the question of medical relief and pauperism. The report stated that the non-interference of the Council in this great public question did not place the dispensary medical officers in any worse position than heretofore as regarded their powers to check abuse of the medical charities' system, while it proved that the Council desired that no really poor person who was unable to pay for medical attendance should, through any action on the part of the Association, be deprived of the same by any indirect means whatsoever. Hitherto, the only means of checking imposture lay in taking legal proceedings to recover fees from persons who, though able to pay, had imposed upon the public charity; that means of so doing still remained; and the Council trusted the Association would continue to give its hearty support and assistance as heretofore for the purpose of checking such abuse. The next portion of the report dealt with the refusal on the part of the Lords of the Treasury to pay a medical man for his services while acting as a substitute for a prison-surgeon during the absence of the latter on official business. In this case the Judge of Assize, before whom the appeal came from the Recorder's Court, gave a decree against the Prisons' Board for the amount claimed, notwithstanding that the Treasury had peremptorily ordered that the amount of the substitute's remuneration should be deducted from the prison-surgeon's salary. The report stated that the prison-surgeon found that he must submit to this illegality, or almost certainly be dismissed by His Excellency the Lord Lieutenant, during whose pleasure he held office. The questions of an annual leave of absence to Poor Law Medical Officers, and of the abolition of offices under the Local Government Board without compensation to the holders thereof, were also mentioned as having engaged the attention of the Council. An important legal decision was obtained during the year in establishing the right of

Dispensary Medical Officers, who, in consequence of having received a subpœna from a court of justice, or from other cause, must be unavoidably absent from duty, to have their substitute paid out of the rates of the Union, precisely in the same way as if their unavoidable absence from duty had been caused by illness. Legal decisions were also obtained in fixing a proper fee in cases of medical officers giving evidence in sanitary prosecutions, in payments of dispensary medical assistants for examining dangerous lunatics, and for attendance on patients in custody of police.

The Treasurer's Report showed a satisfactory balance to the credit of the Association, with the exception that there was a sum of over £232 subscriptions in arrear.

The adoption of the report was moved by Mr. MOLONEY of Tulla, seconded by Mr. THOMPSON of Omagh, and adopted unanimously.

Mr. BODKIN of Galway moved a resolution to the effect "that the abuse of the red ticket system continues to be the bane of the poor-law medical relief system, and that some substantial changes are urgently required to remedy this abuse." The present system was unjust to the doctors, the ratepayers, and, above all, the sick poor, for whose benefit it was originally and exclusively intended. The medical officer was under the control of each member of a large and irresponsible body, who subjected him to excessive labour in attendance on persons for whom gratuitous medical relief was never intended by the Legislature to be provided. He mentioned a few typical instances of this practice within his own experience, when he was compelled to bestow gratuitous attendance upon those who were either able to pay for his services, or who did not really require attendance at all.

Mr. DAVYS seconded the motion, which was adopted.

The result of the ballot was then announced by Mr. Chapman.

New President.—Dr. EDWARD HAMILTON, the newly elected President, took the chair, and briefly expressed his thanks for the honour that had been conferred on him.

A vote of thanks was accorded to Dr. Hemphill, the outgoing President, who replied, and the proceedings terminated.

Dinner.—The dinner was held in the Albert Hall of the Royal College of Surgeons; Dr. Edward Hamilton presided. Among those present were the President of the College of Surgeons, Sir Charles Cameron; the Right Hon. David R. Plunket, M.P.; Sir George Porter; Mr. Maurice Brooks, M.P.; Dr. Croker King, Medical Commissioner of the Local Government Board; Dr. G. F. Duffey, Vice-President of the College of Physicians; the Right Hon. Edward Gibson, M.P.; Sir George Owens, T.C.; Dr. Lyons, M.P.; Mr. Theobald Purcell, Q.C.; and the Registrar-General (Dr. Grimshaw).

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held at the College on Thursday, the 11th inst.

The death of Mr. J. Moncrieff Arnott was reported to the Council, and it was resolved that a letter of condolence on the death of her ather be sent to Miss Arnott. Mr. Arnott was twice president of the College. He was formerly its representative on the General Medical Council and a member of the Court of Examiners. At his death, he was an honorary life member of the Council of the College.

The various professors for the ensuing year were nominated, with the exception of those on surgery, the nomination of whom is postponed. The nominations were, Dr. Brailey, Dr. Hill, Mr. Stewart, and Mr. Treves, as Hunterian Professors of Anatomy, to give eighteen lectures. Dr. Wooldridge was nominated Arris and Gale lecturer on Anatomy and Physiology, and Mr. Bland Sutton Erasmus Wilson lecturer on Pathology.

A letter was read from Mrs. Cæsar Hawkins, offering for the acceptance of the College the bust of her late husband, executed in marble. This was accepted with thanks.

The Council agreed to guarantee the cost of 100 copies of the autotype reproduction of original lectures by Harvey on the Circulation, delivered in and after 1616.

A letter was read from Sir Henry Pitman, intimating that the College of Physicians had appointed seven delegates to meet and confer with those of the College of Surgeons regarding the advisability of the Colleges obtaining the necessary powers to grant the degree of M.D.

A letter from the Secretaries of the British Association was read, asking the views of the Council as to the practicability and utility of holding an International Scientific Congress in London in 1888; and, in the event of such congress being held, whether the Council would be willing to grant the use of apartments, if required, for the meetings of one of the sections, or other purposes, during the congress. The Council resolved that it was not prepared to express any opinion regarding the advisability of holding such conference, but that it would give as many facilities as possible in the event of such a congress being held.

A letter from the Secretary of the Association of Members, transmitting the resolutions of the annual meeting of that body on the 5th ult., was read.

A communication from Mr. William Hickman, M.B., was read, forwarding a memorial, signed by over 600 persons, including over 400 teachers and practitioners, and over 200 students of medicine, urging the complete amalgamation of the Colleges of Physicians and Surgeons into a Royal College of Medicine, empowered to examine in all subjects in medicine, and to grant the degree or title of M.D. This memorial was referred to the delegates appointed by the College to consider the subject.

A report of the proceedings of the late meeting of the General Medical Council was received from Mr. Marshall, to whom a vote of thanks was tendered for his services to the College as its representative in that body.

A letter was read from Dr. Tuke, calling attention to certain clauses in the Lunacy Acts Amendment Bill, now before the House of Lords which are detrimental to the interests of the profession. The letter was referred to the President and Vice-Presidents for consideration.

In pursuance of a resolution of Council, adopted in May, 1884, it was resolved that a meeting be held in October next at a date to be hereafter determined, and of which due notice will be given, at which a report from the Council will be presented.

ROYAL COLLEGE OF PHYSICIANS.

AN extraordinary meeting of the College was held on the 11th instant; Sir William Jenner in the chair.

A communication was received from the British Association for the Advancement of Science, on the subject of a proposed International Scientific Congress, which has been suggested by the scientific men of Canada.

The report of the Croonian Trust Committee was received. It recommended that the income of Lady Sadleir's Bequest should still be devoted to lectures on the subjects of anatomy and physiology in relation to pathology and the treatment of disease, in such manner as the College may hereafter determine.

Dr. West moved, that it should be an instruction to the Council to consider the expediency of not limiting the nomination to the Croonian Lectureship to Fellows, Members, and Licentiates of the College. It was, however, pointed out that this would be a direct infringement of the terms of the trust, and the motion was rejected.

The report of the Committee on the Lunacy Bill was received. It entered carefully into the various questions involved. Owing to recent political events, and the resulting probable withdrawal of the Lunacy Bill, the report was not formally adopted; but it was ordered to be entered on the minutes for future reference. It is also to be printed and circulated amongst the Fellows.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 8th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, June 11th, 1885.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary —J. MAITLAND, M.B., Honorary Secretary, Madras.

NORTH WALES BRANCH.—The annual meeting will be held at Wrexham in the first week in July. Any member who desires to read a paper should communicate before June 25th with the Honorary Secretary, W. JONES-MORRIS, Portmadoc.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at Leicester, on Thursday, July 9th. Notice of papers, etc., to be sent to the undersigned.—LEWIS W. MARSHALL, M.D., Honorary Secretary and Treasurer, 2, East Circus Street, Nottingham.

SHROPSHIRE AND MID WALES BRANCH.—The annual general meeting of the Branch will be held at the Salop Infirmary, on Tuesday, June 30th, at 2 P.M. Members desirous of reading papers or opening discussions are requested to communicate with the Honorary Secretary.—EDWARD CURETON, Honorary Secretary, Shrewsbury.—May 13th, 1885.

YORKSHIRE BRANCH.—The annual meeting of the Branch will be held at the Town Hall, Halifax, on Wednesday, June 24th, at 3 P.M. The members and their friends will dine together at the White Swan, at 5.30 P.M. Members intending to read papers are requested to communicate with the Secretary before June 10th.—ARTHUR JACKSON, Sheffield.

LANCASHIRE AND CHESHIRE BRANCH.—The forty-ninth annual meeting of this Branch will be held at the Prince of Wales Hotel, Southport, on Wednesday, June 24th, 1885, at 2 P.M. Business: President's address; report of Council; financial statement; election of office-bearers; election of representative members in the Council of the Association; general business. Dr. Cullingworth will move, "that members present at the annual meeting shall have the power to substitute the names of any eligible members they please for those printed on the balloting paper, whether nominated by the Council or otherwise." Communications: 1. Robert S. Archer, M.B.: Case of Epigastric Abscess. 2. J. Brassey Brierley, M.D.: The Progress and Advantages of "The Medical Sickness, etc., Assurance Society." 3. Reginald Harrison, F.R.C.S.: On the Treatment of Urethral Stricture by Internal and External Urethrotomy combined. 4. Francis Imlach, M.D.: 1. Calculus removed by Nephrolithotomy; 2. Ovary and tube from a recent case of Pelvic Hæmatocele; 3. Pyosalpinx removed from a Diabetic Patient; 4. Prolapsed Ovaries from a Patient with Suicidal Tendencies. 5. A. Emrys-Jones, M.D.: Notes on the use of Iodoform in Eye-Disease. 6. W. Walter, M.D.: Large Fibroma of the Uterus removed by Abdominal Section. 7. Strethill Wright, M.D.: Some suggestions for the Improved Administration of the Public Health Service, with special reference to the official connection of the British Medical Association with that Service. Luncheon will be provided by the members of the Branch resident in Southport, at the Prince of Wales Hotel, from 12.30 to 2 P.M. Dinner at the Prince of Wales Hotel, at 5.30. Tickets, seven shillings each (exclusive of wine). The Glaciarium, Baths, and new Convalescent Hospital will be open to the inspection of members on presentation of their cards.—CHARLES E. GLASCOTT, M.D., General Secretary, 23, Saint John Street, Manchester.—June 12th, 1885.

BORDER COUNTIES BRANCH.—The eighteenth annual meeting will be held at the County Hotel, Carlisle, on Friday, June 26th. The chair will be taken by the President, Dr. Muir Selkirk, at 3 P.M. Mr. C. S. Hall, Carlisle, will deliver his inaugural address, after the election of office-bearers for the ensuing year. Members intending to read papers, show specimens or patients, are requested to communicate with the Secretary without delay. Dinner at the County Hotel at 6 P.M.—H. A. LEDIARD, 41, Lowther Street, Carlisle.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual meeting of this Branch will be held in the Medical Institute, Edmund Street, Birmingham, on Thursday, June 25th, 1885, at 3.30 P.M. The Chair will be taken by the President, Dr. Sawyer, who will deliver an inaugural address. The annual dinner will take place the same evening, at 6 P.M., at the Grand Hotel. Tickets, 5s. each—ALFRED H. CARTER, M.D., ROBERT SAUNDBY, M.D., Honorary Secretaries.—June 3rd, 1885.

SOUTHERN BRANCH.—The twelfth annual meeting of this Branch will take place at Ventnor, on Thursday, June 18th. The general meeting will be held at the residence of the President-elect, St. Catharine's House, at half-past 12. Luncheon will be provided between 12 and 1 o'clock. In accordance with the by-laws, two gentlemen will be elected at this meeting as representatives of the Branch on the Council of the Association for the ensuing year. Members desirous of reading papers or other communications are requested to forward at once the titles to the Honorary Secretary. No communications must exceed seven minutes in length, and no subsequent speech must exceed five minutes. The address will be delivered by the President-elect at half-past 2 P.M. During the afternoon, the members will have an opportunity of visiting the Royal National Hospital for Diseases of the Chest. The dinner will take place at the Crab and Lobster Hotel, at 6 P.M. Charge, 5s. 6d., exclusive of wine, etc. The Committee request that those gentlemen who intend to be present at the dinner will send in their names to Mr. W. E. Green, Sandown, on or before Tuesday, the 16th instant.—J. WARD COUSINS, Honorary Secretary and Treasurer.

METROPOLITAN COUNTIES BRANCH.—The Annual Meeting of this Branch will be held at the Holborn Restaurant, on Tuesday, June 23rd, at 5.30 P.M. President: Charles Macnamara, Esq.; President-elect: Walter Dickson, M.D. Dinner at 6 P.M.; tickets 7s. 6d. each, exclusive of wine.—ALEXANDER HENRY, M.D.; W. CHAPMAN GRIGG, M.D., Honorary Secretaries.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The annual meeting will be held at the Worcester Infirmary, on Tuesday, the 23rd instant, at three o'clock. Business: to elect Branch officers, and a representative on the Council of the Association for the ensuing year; to elect members of the Branch. Dr. Savage, Birmingham, will read a paper on Surgical Treatment of Fibro-myoma of the Uterus. Dinner will be at the Star Hotel, at five o'clock. Tickets, five shillings, exclusive of wine.—GEO. W. CROWE, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of this Branch will be held at the Hospital, Swansea, on Tuesday, June 23rd, at noon. Members wishing to read papers, etc., should send titles at once to Dr. Sheen, Cardiff.—A. SHEEN, M.D., D. A. DAVIES, M.B., Honorary Secretaries.

OXFORDSHIRE BRANCH.—The first general meeting of this Branch will be held on Tuesday, June 23rd. Members will receive special notice.—S. D. DARBISHIRE Honorary Secretary.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE sixth ordinary meeting of the session was held at the Grand Pump Room Hotel, Bath, on Thursday evening, May 28th: R. S. FOWLER, Esq., President, in the chair. There were also present twenty members.

New Member.—Mr. S. Smith, of Bristol, was elected a member of the Association and Branch.

Communications.—The following papers were read. 1. Dr. Aust Laurence read a paper On the Treatment of Uterine Hæmorrhage unaccompanied by Local Disease, which gave rise to a discussion, in which Dr. Swayne and Messrs. Ewens, Craddock and S. Swayne took part. 2. Mr. T. D. Ransford read notes of a case of Macewen's Operation for Genu Valgum, and showed the patient; Messrs. Ewen and Scott commented on the case.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE annual meeting of the above district was held at the Kent and Canterbury Hospital, on Thursday, May 28th, at 3 P.M.

Specimens.—Messrs. Down Brothers, of London, exhibited very well selected and arranged specimens of the latest inventions in surgical instruments.

Collective Investigation.—Previously to the meeting, the Collective Investigation Subcommittee met, and the forms for Inquiry into the Etiology of Pulmonary Phthisis were presented.

Appointment of Secretary.—After the usual business of the annual meeting, the Honorary District Secretary gave in his resignation, and Dr. Tyson, of Folkestone was appointed in his stead.

Future Meetings.—The following places were fixed for meeting at during the next session:—September, Staplehurst (Dr. Joyce, President); November, Canterbury; March, 1886, Dover; May (annual), Canterbury.

Papers.—The following were read. 1. Dr. Gogarty read a paper on Chorea, illustrated by four cases, in one of which the choreic movements ceased on scarlet-fever attacking the patient; the second was fatal through pericarditis; the third fatal, with no lesion of the heart, and no rheumatic history; and, in the fourth, acute mania occurred with the chorea. He considered that any advance in the knowledge of the disease was more to be looked for from physiological experiments, and from minute anatomy and pathology with a more extended study of nervous diseases in general. An interesting discussion followed. 2. Mr. Wacher read a case of Puerperal Fever that recovered after the use of Warburg's Tincture, other remedies having failed.

Dinner.—The members afterwards dined together at the Royal Fountain Hotel.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.

AN ordinary meeting of the South-East Hants District was held at the Grosvenor Hotel, Southsea, on May 12th, 1885. Dr. AXFORD occupied the chair, and thirty members were present.

Pathological Specimens.—The following were shown.

1. Epithelioma of Hand, by Dr. Ward Cousins.

2. Multilocular Ovarian Tumour, 76 pounds in weight, removed by Dr. Ward Cousins from a girl aged 17.

3. Stricture of Sigmoid Flexure, Central Abscess of Testicle, by Mr. H. P. Gardner.

4. Large Medullary Sarcoma of Kidney, by Mr. E. T. Crouch.

5. Osteo-sarcoma of Tibia, by Mr. R. E. Power.

Patients exhibited.—The following cases were shown.

1. Dr. Ward Cousins introduced a patient after a severe Injury of the Right Hand. The palm was deeply lacerated by the bursting of a champagne-bottle. Profuse hæmorrhage ensued, followed by sloughing. After the separation of the sloughs, and removal of necrosed bones, half the hand was saved by a plastic operation.

2. An infant was exhibited, the subject of Malformation of the Genital Organs. The labia were large, the clitoris elongated and pendulous, and the vagina imperforate. In the right inguinal region, a small swelling could be detected, which appeared to be an undescended testis.

Paper.—Dr. Kealy read a paper on Septicæmia.

Instrument.—Dr. Ward Cousins exhibited a new aural inflator, evacuator, and injector.

New President.—Surgeon-General Lamprey was elected President of the District for the ensuing year.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

THE Fifty-third Annual Meeting of the British Medical Association will be held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28th, 29th, 30th, and 31st, 1885.

President: JAMES CUMING, M.D., F.K.Q.C.P., Professor of Medicine in Queen's College, and Physician to the Royal Hospital, Belfast.

President-elect: W. T. EDWARDS, M.D., F.R.C.S., Physician to the Glamorgan and Monmouth Infirmary, Cardiff.

An Address in Therapeutics will be delivered by W. Roberts, M.D., F.R.S., Consulting Physician to the Manchester Royal Infirmary.

An Address in Surgery will be delivered by John Marshall, F.R.C.S., F.R.S., Professor of Surgery in University College, and Senior Surgeon to University College Hospital.

An Address in Public Medicine will be delivered by Thos. Jones Dyke, F.R.C.S., Medical Officer of Health, Merthyr Tydvil.

All Sections will be held in the Town Hall.

SECTION A. MEDICINE. Crown Court.—*President:* S. Wilks, M.D., F.R.S., London. *Vice-Presidents:* T. D. Griffiths, M.D., Swansea; Byrom Bramwell, M.D., Edinburgh. *Secretaries:* W. Price, M.B., Park Place, Cardiff; E. Markham Skerritt, M.D., Richmond Hill, Clifton.

SECTION B. SURGERY. Nisi Prius Court.—*President:* E. H. Bennett, M.D., President of the Royal College of Surgeons in Ireland, Dublin. *Vice-Presidents:* P. R. Cresswell, F.R.C.S., Dowlais; Edmund Owen, F.R.C.S., London. *Secretaries:* G. A. Brown, M.R.C.S., Tredegar. Thomas Jones, F.R.C.S., 96, Mosley Street, Manchester.

SECTION C. OBSTETRIC MEDICINE. Mayor's Court.—*President:* Henry Gervis, M.D., London. *Vice-Presidents:* S. H. Steel, M.B., Abergavenny; W. C. Grigg, M.D., London. *Secretaries:* A. P. Fiddian, M.B., 6, Brighton Terrace, Cardiff; D. Berry Hart, M.D., 65, Frederick Street, Edinburgh.

SECTION D. PUBLIC MEDICINE. Assembly Room.—*President:* D. Davies, M.R.C.S., M.O.H., Bristol. *Vice-Presidents:* E. Davies, M.R.C.S. M.O.H., Swansea; J. Lloyd-Roberts, M.B., Denbigh. *Secretaries:* Edward Rice Morgan, M.R.C.S., Morriston, Swansea; Herbert M. Page, M.D., 16, Prospect Hill, Redditch.

SECTION E. PSYCHOLOGY. Ante-Room.—*President:* D. Yellowlees, M.D., Glasgow. *Vice-Presidents:* G. J. Hearder, M.D., Carmarthen; G. E. Shuttleworth, M.D., Lancaster. *Secretaries:* C. Pegge, M.R.C.S., Vernon House, Briton Ferry, Glamorgan; A. Strange, M.D., County Asylum, Bicton Heath, Shrewsbury.

SECTION F. OPHTHALMOLOGY AND OTOLOGY. Grand Jury Room.—*President:* Henry Power, M.B., F.R.C.S., London. *Vice-Presidents:* E. Woakes, M.D., London; D. C. Lloyd Owen, F.R.C.S., Birmingham. *Secretaries:* J. Milward, M.D., 54, Charles Street, Cardiff; A. Emrys-Jones, M.D., 10, St. John Street, Manchester.

SECTION G. PHARMACOLOGY AND THERAPEUTICS. Council Chamber.—*President:* T. R. Fraser, M.D., F.R.S., Edinburgh. *Vice-Presidents:* J. Talfourd Jones, M.B., Brecon; W. Murrell, M.D., 38, Weymouth Street, London. *Secretaries:* Evan Jones, M.R.C.S., Ty Mawr, Aberdare; J. H. Wathen, L.R.C.P., Coburg Villa, Richmond Hill, Clifton.

Local Secretaries: Alfred Sheen, M.D., Halswell House, Cardiff; Andrew Davies, M.D., Cadiz House, Cardiff.

TUESDAY, JULY 28TH, 1885.

2.30 P.M.—Meeting of 1884-85 Council. Council Chamber, Town Hall.
3.30 P.M.—General Meeting. Report of Council and other business. Adjourn at 5 P.M. Assembly Room, Town Hall.
8 P.M.—General Meeting. President's Address, and any business adjourned from meeting at 3.30 o'clock. Assembly Room, Town Hall.

WEDNESDAY, JULY 29TH, 1885.

9.30 A.M.—Meeting of 1885-86 Council. Council Chamber, Town Hall.
11.0 A.M.—Second General Meeting. Address in Therapeutics. Assembly Room, Town Hall.
2 to 5 P.M.—Sectional Meetings.
5 to 7 P.M.—Garden Party by the High Sheriff of Glamorgan and Mrs. Hill.
8 P.M.—A *Conversazione* will be given by the President of the Association and the South Wales and Monmouthshire Branch. Park Hall, Park Place.

THURSDAY, JULY 30TH, 1885.

9.30 A.M.—Meeting of Council. Council Chamber, Town Hall.
11 A.M.—Third General Meeting. Address in Surgery. Assembly Room, Town Hall.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner. Park Hall, Park Place.

FRIDAY, JULY 31ST, 1885.

10 A.M.—Address in Public Medicine. Assembly Room, Town Hall.
11 A.M.—Sectional Meetings.
2 P.M.—Concluding General Meeting. Assembly Room, Town Hall.
8 P.M.—Reception by the Mayor of Cardiff. Park Hall, Park Place.

SATURDAY, AUGUST 1ST, 1885.

Excursions.

*** *Members intending to visit Cardiff during the Meeting, are requested to send in their names as soon as possible to the Honorary Secretary of the Reception Committee, Dr. Alfred Sheen, Halswell House, Cardiff.*

Members desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read, on or before July 21st.

EXCURSIONS.

1. *Tintern Abbey and Raglan Castle.*—The party will leave the Great Western Railway Station, Cardiff, by special train at 10.30, reaching Chepstow at 11.30. Here carriages will be in readiness to drive to the foot of the Windcliff, a perpendicular mass of rocks rising 800 feet above the level of the river, and overhung with thickets; from the summit is obtained a magnificent view of the Wye, and parts of nine counties—namely, Monmouth, Gloucester, Wilts, Somerset, Devon, Glamorgan, Brecon, Hereford, and Worcester. Tintern will be reached at 1 P.M., when luncheon will be served at the Beaufort Arms Hotel. The Abbey will be visited after luncheon; and at 4.50 the special train will leave Tintern Station for Raglan, which will be reached at 5.40. Raglan Castle, one of the most picturesque ruins in Wales, will be visited, and afternoon-tea will be served on the lawn. The party will leave by special train at 7 P.M., and reach Cardiff at 8 P.M.

2. *Glastonbury Abbey and Wells Cathedral.*—The party will leave the Taff Vale Railway Station at 7.25 A.M., and proceed by steamer from the Pier Head at 7.45 A.M., reaching Burnham about 9.30 A.M., and Wells at 10.30. The west front of the Cathedral is one of the noblest Gothic *façades* in the kingdom, and is especially interesting for its sculptures, consisting of upwards of 300 statues. The ruined Bishop's Palace will also be seen, occupying, with its pleasure ground, upwards of fourteen acres. Luncheon will be served at the Swan Hotel at 1 P.M. At 3.35 P.M. the party will leave by train for Glastonbury, which will be reached at 3.47. The ruins of the Abbey will be visited, and afternoon tea will be served at the George Inn, at 5.30. In the cemetery, tradition says, are buried King Arthur and his Queen Guinever, and Joseph of Arimathea. In the garden grows one of the oldest of the Holy-thorn trees, a graft from the miraculous staff of St. Joseph, which sprouted when thrust into the ground, and ever afterwards retained the power of flowering at Christmas. At 7.30 the party will leave for Burnham, and start at 9 P.M. for Cardiff by steamer.

3. *Caerphilly Castle and Dowlais Iron Works.*—By invitation of the Marquess of Bute, a special train will be arranged over the Taff Vale Railway, and down to Caerphilly Castle by the Rhymney Railway, where refreshments will be provided. By kind permission of G. T. Clark, Esq., the Dowlais Iron Works will be visited in this excursion. Caerphilly Castle is one of the largest and grandest old ruins in the kingdom. (The arrangements for this excursion are not yet complete.)

4. *Severn Tunnel and Caldicot Castle.*—The party will leave Cardiff, G. W. R. Station, at 10.30 A.M., and will reach Portskewit at 11.15. The tunnel was commenced in March, 1873, and is now about to be opened for traffic. It is about four and a half miles long, two and a quarter miles of which are under the river Severn. It connects, in the most direct manner, the mineral and populous districts of South Wales with Bristol and the South of England, and will save three-quarters of an hour in the journey to London. The members are invited by the contractor, Mr. Walker. A walk of about two miles will bring the party to Caldicot Castle, when luncheon will be served at 1.30 P.M. The castle is a splendid relic of feudal magnificence, and was once the property of the haughty Bolinbroke. The party will return from Portskewit Station at 4.45, reaching Cardiff at 5.35. (The arrangements for this excursion are not yet complete.)

5. *Symonds Yat and the Speech House, Forest of Dean.*—Symonds Yat, near Monmouth, is an elevated cliff, standing 600 feet above the sea-level, and renowned for the singular view which it commands of the numerous and beautiful mazes of the river Wye. The Speech House is charmingly situated in the midst of the Forest of Dean, and is surrounded with forest-drives and open glades. The party will

leave the Great Western Railway Station, Cardiff, by special train, at 10.30. At Newport, they will change into the ordinary train for Symonds Yat, which leaves at 11.5, and reaches Symonds Yat at 12.46. Luncheon at 1 P.M., at the Symonds Yat Refreshment House. Tea at 5.30, at Speech House. The party will walk a distance of two miles to Lydbrook Junction, in time to catch the 3.20 train for Speech House, which will be reached at 4 P.M. They will return at 6.24, *viâ* Lydney, reaching Cardiff at 8.10.

Annual Museum.

THE nineteenth annual exhibition of objects of interest in connection with medicine, surgery, and sanitary science, will take place in the Public Hall, Queen Street, Cardiff, during July 28th, 29th, 30th, and 31st, 1885. (Floor-space, 9,000 feet.)

The Museum will be divided into the following sections.

SECTION A.—Preparations, diagrams, casts, and models of anatomical and pathological objects, microscopes and microscopical preparations. (Secretary, W. M. Hier Evans, Esq.)

SECTION B.—Surgical and medical instruments and appliances; other instruments for scientific investigation; new medical works. (Secretary, A. Plain, M.B.)

SECTION C.—Foods, drugs, chemicals, and pharmaceutical preparations. (Secretary, Maurice G. Evans, M.D.)

SECTION D. SANITARY SECTION.—1. Books on sanitation. 2. Ambulances and appliances for carrying or moving sick and wounded. 3. Recent improvements in hospital furniture. 4. Personal hygiene, as clothing, beds, educational appliances, domestic appliances, filters, and arrangements for softening water; disinfectants and disinfecting apparatus. (Secretary (1, 2, 3, 4), E. Seward, A.R.I.B.A.) 5. Sanitary appliances, including drawings, models, and apparatus illustrative of the ventilation, lighting, draining, etc., of hospitals, public buildings, and private dwellings. (Illustrations of defects usually found would be of great interest.) (Secretary, E. M. B. Vaughan, A.R.I.B.A.)

In Sections A and D a printed name and description must be attached to each exhibit.

In Sections B and D, and with microscopes in Section A, exhibitors must send a printed list, with the name, number, and price of each article, and a corresponding number on each exhibit.

Unless these instructions are carried out, the exhibits will be declined.

The medical, surgical, and scientific instruments and sanitary appliances must be genuine novelties or improvements on those in common use.

Exhibition of Instruments and Apparatus.

It is intended to arrange for the exhibition of complete series of instruments, electro-therapeutic apparatus, instruments for physical diagnosis, and appliances relating to sanitary science and public health.

Facilities will also be afforded, when requested, for the display of instruments and apparatus in action.

CATALOGUE.—It is intended to print a catalogue of the exhibits in the Museum, and lithograph-plan. Descriptions should be sent in as early as possible, not later than June 20th, 1885.

TO ADVERTISERS.—The catalogue of the Museum will be one of the best advertising mediums of the day. The following will be the scale of charges for advertisements: One page, £1; half-page, 12s. 6d.; quarter-page, 7s. 6d.

TO EXHIBITORS.—All expenses of carriage to be prepaid, and all risks to be borne by the exhibitors; but the committee will exercise every care of the articles entrusted to them. A card bearing the name and address of the exhibitor, with the name of the instrument, etc., to be enclosed in each package, ready to be fixed on the outside of the exhibit.

All communications with reference to the museum and advertisements for the catalogue to be addressed (prepaid) to C. E. HARDYMAN, Esq., 42, Crockherbtown, Cardiff.

Notice is hereby given that, at the annual meeting to be held at Cardiff, on Tuesday, the 28th day of July next, a motion will be made on behalf of the Council that, in Articles 13 and 15, the word "fifty" be altered for "one hundred," so as to read as follows, namely:

13. The Council may, whenever they think fit, and they shall, upon a requisition made in writing by any one hundred or more members, convene an extraordinary general meeting.

15. Upon the receipt of such requisition, the Council shall forthwith proceed to convene a general meeting; and if they do not so within twenty-one days from the date of the requisition, any one hundred members may themselves convene a meeting.

That the following addition be made at the end of By-law No. 27:

"Any casual vacancy occurring in the Council may be filled up by any Branch, the representation of which may have become vacant. The return of the election of a representative member by any Branch to fill a casual vacancy, shall be communicated in writing to the Secretary of the Association by the President or Secretary of such Branch. But any person so chosen shall retain his office so long only as the representative member in respect of whom such casual vacancy may occur would have retained the same."

FRANCIS FOWKE, *General Secretary.*
161A, Strand, London, June 10th, 1885.

SPECIAL CORRESPONDENCE.

ROME.

[FROM OUR OWN CORRESPONDENT.]

International Sanitary Conference: Special Report.

The report of the Subcommittee appointed to consider the best methods of disinfection in cholera, and consisting of Drs. Koch, Sternberg, Thorne Thorne, Proust, Eck, Semmola, and Von Hofmann, was laid before the Technical Committee at the sitting of June 2nd. It is thus worded.

The Subcommittee recommends as methods of disinfection: 1. steam at 100° C.; 2. carbolic acid and chloride of lime; 3. ventilation. Of the carbolic acid and chloride of lime, two solutions are to be used: *a.* the weak, containing 2 per cent. of carbolic acid and 1 per cent. of chloride of lime; *b.* the strong, containing 5 per cent. of carbolic acid and 4 per cent. of chloride of lime. They are to be applied as follows: 1. For personal disinfection, by washing and bathing, with the weak solutions; 2. For disinfection of linen, clothes, bedding, etc., if not destroyed—(*a*) by passing steam through them for an hour, (*b*) by boiling them for thirty minutes, (*c*) by immersion for twenty-four hours in one of the weak solutions, (*d*) by ventilation for three or four weeks, but only in cases in which none of the other methods are applicable. Leather articles—such as portmanteaux, hand-bags, etc.—if not destroyed, are to be washed several times with one of the weak solutions. 3. For vomited matters and fæcal evacuations, the strong solutions are to be used. Recently soiled articles of linen, clothing, and bedding, if not at once subjected to steam at 100° C., are to be immersed for four hours in one of the strong solutions. There must be no washing of corpses. Bodies are to be wrapped up in sheets saturated with one of the strong solutions, and at once put in coffins. 5. Disinfection of goods, letters, and postal packages is superfluous. 6. For the disinfection of ships during the passage: The deck and class where the case or suspected case occurred, and the walls of the cabin or bunk, are to be washed, at least twice, with one of the weak solutions, and then thoroughly ventilated; while the water-closets are to be washed, at least twice daily, with one of the strong solutions. 7. If the drinking-water be suspected, it must be boiled before being used; and, if it have stood twenty-four hours after the first boiling, it must be reboiled. 8. In hospitals on land, the walls are to be washed with one of the weak solutions, then the wards ventilated, and finally whitewashed, and the wards used for the reception of cholera-cases are to be as far off as practicable from the ordinary ones. The closets in such hospitals are to be cleansed twice daily with a quantity of one of the stronger solutions equal in amount to that of the evacuations passing through them. 9. The clothes of the attendants are not to be taken out of the hospital, and must be regularly disinfected; and the attendants are to use one of the weak solutions for personal ablution. It was also decided to add to those recommendations another, to the effect that all packet-boats from infected ports should have a steam-disinfecting apparatus on board.

In the discussion which followed the reading of the Subcommittee's report, a number of the members took objection to the omission of various powerful disinfectants from the list recommended. The Dutch delegate, Dr. Ruysch, warmly insisted on the efficacy of corrosive sublimate, and one of the French delegates on that of sulphate of copper and sulphurous acid; whilst others maintained that no particular disinfectant was of any great utility, and that the Technical Committee should not, in the present state of knowledge, commit themselves to any definite recommendations. It having been pointed out by Dr. Koch and Dr. Sternberg that the report did not definitely exclude any one disinfectant, but was simply based on the necessity for naming simple, cheap, and readily transportable chemicals, not too complicated nor too dangerously poisonous, Sir Joseph Fayrer moved the adoption of the report, and this was carried.

The sitting on June 3rd, which was occupied with the recommendations of the Subcommittee on the measures to be taken on the arriva

of suspected or infected vessels at their destination, and also on the measures to be taken when the disease was imported into the Mediterranean, unfortunately proved completely abortive, all the regulations of the Subcommittee being rejected, and the matter referred for reconsideration to the members of that Subcommittee, with the substitution of Drs. Koch and Baccelli for Sir Guyer Hunter and Dr. Sternberl, who had resigned.

The regulations proposed by the Subcommittee on pilgrimages to Mecca came before the Technical Committee on June 4, and were discussed at great length, in spite of an attempt by Sir Joseph Fayrer and Dr. Ruysch, in the beginning of the sitting, to have them approved as a whole.

After some general recommendations as to the necessity of no passenger being permitted to embark for a pilgrimage to Mecca, who was unprovided with the necessary means; as to the presence on board of one or more surgeons appointed by the government of the country whence the pilgrimage proceeds; and as to all ships being held to be pilgrim ships which carried thirty or more pilgrims; power is given, in the report, to the surgeon to see to the disinfection of his ship before it leaves an infected port, and that quite apart from the inspection of the port health-officer; to prevent any persons coming on board who are ill, or who he suspects are ill with cholera; to rigorously reject all clothing and bedding which have been used for cholera patients; and to attend to the disinfection of such articles if proceeding from a cholera infected district. The ship's-surgeon and the port health-officer are to have powers to prevent overcrowding. On steamboats the 'tween-decks must have at least nine feet of surface, or fifty-four cubic feet, and on sailing vessels twelve feet of surface, or seventy-two cubic feet of space, for each pilgrim. During the passage from an infected port, the surgeon must enforce the same sanitary measures in pilgrim ships as already determined on for ordinary passenger boats, and, in general, all the measures adopted by the Indian Government relative to the embarkation and transport of pilgrims from Indian ports to the Red Sea are recommended for application by other countries whence pilgrimages set out. It is also proposed, after a rigorous sanitary inspection of such a pilgrim ship at a sanitary station before its entry into the Red Sea, and after the surgeon has certified that all the hygienic rules prescribed have been rigidly observed, and that no death, nor case, nor even suspected case, of cholera has occurred on board, and after this has been confirmed by the visit twice within twenty-four hours of the health-officer at the sanitary stations, that the ship shall be permitted to proceed at once to Jeddah. Should cases, or even merely suspected cases, of cholera have occurred on board, the same measures would be taken for the pilgrim ships as were passed for infected passenger vessels carrying surgeons and entering the Red Sea, and although a longer than five days' observation of the isolated and segregated groups of passengers and crew was strenuously advocated, the period of five days was accepted as sufficient by the majority. At Jeddah another inspection will be made, and free *pratique* granted after twenty-four hours' observation, if the vessel have remained clean; but if cholera have broken out on board after the ship has entered the Red Sea, it is at once to be sent back to the sanitary station at the entrance, to be dealt with there according to the rules previously laid down. Exactly similar regulations are to apply to pilgrim ships, both from Egypt and the Mediterranean, and on the return voyage, as now passed for the Indian pilgrimages; but the exact spots for establishing the sanitary stations are left to the plenary conference.

The Committee then dealt with the measures to be adopted against suspected and infected vessels at the ports of arrival. For suspected vessels—that is, those from infected ports—after a careful sanitary inspection, during the daytime, by the health-officer of the port, free *pratique* will be at once granted, should all the sanitary regulations prescribed have been observed both at the port of departure and during the passage, and provided the ship's surgeon show a clean bill of health, and the passage have lasted ten days; but twenty-four hours' observation will be enforced if the voyage have been shorter than ten days, to permit the disinfection on board of the dirty linen and clothes of passengers and crew. For infected vessels, the more radical measures recommended are landing and isolation of the sick; separation of the passengers and crew into as many small groups as possible; washing and disinfection of all articles of linen, clothing, and bedding; keeping under observation of each group for five days' time from the removal from amongst the members of the group of any case; and, in addition, the bathing of each person in one of the weak disinfecting solutions, and the providing him with freshly washed linen just before he is permitted to depart.

For suspected vessels proceeding from an infected port in the Mediterranean, a somewhat modified set of rules was adopted; the passengers and crew being disembarked, at the ports of arrival, in a locality so constructed as to afford absolute security for their isolation and disinfection; and being subjected there to an observation of three or six days, according to whether the vessel did or did not carry a surgeon. The more irreconcilable members naturally opposed these resolutions, which were only adopted by feeble majorities. For infected ships from Mediterranean ports, it was resolved to recommend the same measures as for such vessels coming from infected ports elsewhere.

The final sitting at which any work was done by the Technical Committee was held on Saturday, June 6th, when the general proposals of the subcommittee on the measures to prevent cholera spreading by land were considered. Previously to their being so, however, the British and Indian delegates, by special request, showed how trustworthy and practical was the system which Great Britain relied on to protect her from epidemic invasion, instead of the quarantine, which she had abandoned.

Dr. Thorne Thorne, after alluding to the general idea prevailing abroad, that Great Britain had given up the quarantine system simply from the selfish motive that her enormous commerce was too much hampered by it, pointed out that, since the date of the Vienna Conference, England alone had spent twenty-seven millions of pounds on the improvement of local sanitation, and that this enormous expenditure had been repaid her, not only in her having escaped from epidemic invasion by cholera, but in the great diminution of loss of life from such endemic diseases as depended on local unsanitary conditions, such as typhoid fever; and he maintained that this would not have been the case had she continued, like other nations, to trust to quarantine. It would be a bad day for England, should she ever come to think that a period of five days' observation could be of the same value to her as that improvement in local hygiene on which she now confidently relied to prevent a cholera epidemic from taking root on her soil.

Sir Joseph Fayrer urged that the same measures for the improvement of local sanitation, which had been so successful in Great Britain, when applied in the three great Indian Presidencies, had much diminished the general mortality, as well as the special cholera death-rate, throughout our large dependency; and that there was no other cause to which the greater healthiness of India could be ascribed, as the seasonal conditions were unchanged.

Sir W. Guyer Hunter referred to similar information already placed before the members of the committee by him at previous meetings, and contrasted the efficacy of the system of local sanitation, which had done so much to check the disease in India, with the proved total uselessness of quarantine and sanitary *cordons*, as lately tried in Egypt.

The Committee then passed most of the regulations submitted to it by the subcommittee to prevent the spread of the disease by land, some of which are certainly too general to be of the slightest value. Thus it is recommended:

1. That local sanitation be everywhere attended to, and the first cases isolated and disinfected, the means for doing so being prepared beforehand by the sanitary authorities.
2. That immediate notification be made to the proper authorities of every case, or suspected case, of cholera, and the nature of the disease be confirmed by competent medical men, and, in case of death, by necropsy.
3. That a regularly organised medical sanitary service be instituted in every country.
4. That the health-officers of every country should have powers to communicate directly without intermediaries, so as to agree upon, and at once adopt, the measures they deem urgent.
5. Particular attention is always to be given to the great through routes by which cholera is imported.
6. International express trains must be changed in passing from an infected into a non-infected country, and a surgeon must accompany every such train, to take the necessary steps in the event of anyone falling ill with the disease. Every large station is required to have an isolated room for the reception of such cases.

Dr. T. Lewis showed that this article was unnecessary, as the construction of the great trunk railways in India had not changed the lines on which cholera travelled in that country, nor increased the rapidity of its movements.

7. Passenger-boats on large rivers are to be rigorously inspected, overcrowding is to be prevented, and a medical inspection is to be made of those disembarking at the principal points of call, where isolated quarters are to be kept ready for the provisional reception of cases of illness.

Some other regulations, of less importance, for preventing the spread of the disease by land were also sanctioned, and the Committee agreed, at the same time, that the measures for the Caspian Sea and

the Russian Asiatic frontier should be identical with those already passed for protection against importation by sea and land elsewhere.

On the motion of Dr. Sternberg, it was also determined to apply to yellow fever the measures thought requisite against cholera, and the Committee wound up its labours by passing some common-place rules, which are not worth citing, for notifying the leading features of disease in each country by special sanitary bulletins, and communicating to the separate governments, by telegraph and otherwise, the particulars of the appearance and extension of any contagious malady —a work performed for the public, in Great Britain and America at any rate, by their enterprising newspapers Sir Joseph Fayrer having moved that Dr. Moleschott, as President, should report the results arrived at by the Technical Committee to the Plenary Conference, and the usual votes of thanks having been agreed to, the members separated, to enjoy a few days' well-earned rest, to be spent, at the invitation of the Government, in visiting Naples and its neighbourhood.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Pyridine.—Antipyrine.—Marey's Last Researches on Locomotion.—A Lunatic Scalded to Death.—School-hygiene.

M. GERMAIN SÉE, in a communication to the Académie des Sciences on pyridine, states that neither subcutaneous injections of pyridine salts, nor smoking cigarettes of pure pyridine, offered the same advantages in asthma as the practice of administering it by inhalation. Four or five grammes are poured onto a plate, which is placed in a closed room containing rather less than twenty-five cubic mètres of air. The patient, in the room, breathes the air impregnated with pyridine. This treatment should be repeated, for about twenty minutes, three times a day. Pyridine can be traced in the urine almost immediately after the commencement of an inhalation. According to Dr. Germain Sée, hypodermic injection and pyridine cigarettes provoke nervous disturbance. Inhalation produces a beneficial effect; the feeling of oppression common among asthmatic patients being relieved, breathing becomes easier, and they have no longer the characteristic intense longing for fresh air. The sensibility of the pneumogastric nerve and the excitability of the medulla are considerably diminished, and the heart's action becomes normal. It frequently happens that the patients fall asleep after the inhalations. This sleep is almost normal, and is not accompanied by profound insensibility, and is therefore different from that provoked by anæsthetics. While it lasts, sensations, followed by reflex phenomena, are provoked with difficulty, although contractile energy is maintained. The administration of pyridine is not followed either by paralysis, convulsions, or tremors; but the muscles are relaxed, and temporarily lose their tonicity, in consequence of the lessened sensibility of the medulla oblongata and spinal cord. This modification of reflex sensibility is the especial characteristic of pyridine, as distinguished from substances like nicotine and atropine. All the patients to whom Dr. Sée administered pyridine had quiet nights, though previously tormented with violent fits of coughing and intense oppression. The physical pulmonary symptoms all showed improvement. Pyridine does not affect the general health. When the suffocating asthmatic fits reappear after inhalations for nine or ten days, Dr. Sée recommends the administration of iodides. He has treated fourteen patients, nine of whom were asthmatic, and five subject to cardiac disease; they were all relieved. One patient had suffered from asthma for twelve years; he was greatly relieved by the treatment with pyridine, but it was discontinued in consequence of troublesome attacks of vertigo and sickness. The asthmatic patients who presented cardiac and renal complications, declared that respiration was much eased by the inhalations. Dr. Sée concludes that pyridine is preferable to hypodermic injection of morphia, its action being preferable and less dangerous.

Dr. Daremberg, at a meeting of the Académie de Médecine, stated that most authors concurred in believing that antipyrine caused a transient fall of temperature. After having tested it on many tuberculous patients, he believed that its effect varied, according to the time that it had been administered. In order to give it with benefit, the temperature should be taken every hour. There was no analogy between the effect of antipyrine and quinine on tuberculous patients. The latter alkaloid was not beneficial to them in any way; antipyrine did not provoke tinnitus, nor loss of appetite, nor sickness, even when six-gramme doses were given daily. The sweatings were lessened; and, though a special eruption might appear, it did not cause inconvenience. Some physicians administered antipyrine to lessen the regular temperature in phthisical patients; others to lessen it at its maximum; and others to regulate the temperature of phthisical patients so that their charts might register normal temperatures. Dr. Daremberg agreed with the latter practice. At the onset of the fever (temperature about 37.6° C.), a gramme of antipyrine should be given, and repeated every time that the thermometer rose three-tenths of a degree. If, in the space of one hour, the temperature rose two-tenths, and the patient could take food, another gramme should be swallowed. If at bed-time the temperature reached 37.7°, again a gramme should be taken. Antipyrine agreed with cod-liver oil, arsenic, and other drugs given in phthisis. When the course of the malady was rapid, the first dose should consist of two grammes. The patients retained their appetite. Sometimes, after a while, antipyrine ceased to have any effect; it should then be discontinued for a time. If the pharynx or larynx were ulcerated, then, in order to prevent the burning sensation which antipyrine caused, the patient should use cucaine as a gargle. Antipyrine neither provoked nor prevented hæmoptysis.

M. Marey has communicated to the Académie des Sciences his last researches on the locomotion of man and animals. He especially aimed at ascertaining the trajectory or curve described by a portion of a living body in motion. The experimenter formerly used instantaneous photography; but this method he considered to be faulty, because inevitably the curve described was only represented in height and length, both thickness and perspective being neglected. M. Marey now uses stereoscopy; his researches have revealed some interesting facts concerning the act of walking in the normal state and in lameness, the flight of birds, and the action of a horse's feet.

News comes from Marseilles of a sad occurrence in the Saint Pierre Lunatic Asylum. A keeper put two patients each in a separate bath, left them, and went to breakfast. One of the lunatics got out of his bath, during the absence of the keeper, and turned on the tap of hot water into the bath of the other. When the keeper returned, he found that the unhappy creature had been scalded to death.

Several physicians have discussed, before learned societies and municipal boards, the necessity for more perfect medical supervision at private schools, and the deterioration of the teeth observed in over-studious children.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Death of Dr. Thorburn.—Vacancies at the Royal Infirmary and Owens College.—Vacant Chair of Anatomy.—Small-Pox.

THE sudden, and as it proved fatal, illness of the late Dr. Thorburn came as a surprise to his friends and colleagues. Closely engaged as he had been for the last year in the preparation for the press of his work on diseases of women, he had found but little time for social enjoyments or for attendance on the meetings of the societies. In his own immediate family it was known that for the past few months his health had been very indifferent, and they hailed with joy the termination of his literary labours and the advent of a period of rest. But alas! as the work upon which he had bestowed so much labour and made such sacrifices passed from the printer's hands, the gifted author's life passed to its too early close. On the score of health, like so many other hard worked men, he himself had no anxiety, and laboured on, regardless of notable warnings, and even in his last illness he saw hope when to his colleagues it was clear that there was none. Few medical men in this city were held in higher esteem, a result due to his sterling qualities, his simple honest character, and kindly heart.

Dr. Thorburn's death leaves vacant the obstetric physiciancy to the Royal Infirmary, and the chair of obstetrics and gynæcology at Owens College. For both offices there will be no lack of local candidates, but the fact that the obstretric physician to the Infirmary must hold the diploma of the membership of the College of Physicians, London, will somewhat narrow the choice of the electors. The election at the Infirmary is in the hands of a committee especially appointed for the purpose by the subscribers, and at Owens College by the Council—the senate, *i.e.*, the professional body, recommending one of the candidates to that body. I hear that Dr. Lloyd Roberts and Dr. Cullingworth will be candidates for one or both of the vacancies; and from the long experience both of them have had at St. Mary's Hospital for Women it is hardly likely that their claims will be overlooked.

The vacant Professorship of Anatomy at Owens College will, I believe, be very shortly filled up, and for it there are many well known anatomists as candidates. The emoluments of the office amount at the present time to about £700 per annum; but should the new professor also hold the deanship of the Medical School, this sum would be increased by £150. I hear that the choice of the council will probably fall on either Mr. A. H. Young, Mr. Collier, or Mr. Symington; the two

former have been demonstrators under the late Professor Watson, and the latter is lecturer on anatomy at the Edinburgh School of Medicine.

The small-pox epidemic shows some signs of coming to an end; fourteen cases were reported for the week ending June 6, and only four the preceding week. We are suffering from a sharp epidemic of measles, while scarlet fever and typhoid are at a low ebb.

CORRESPONDENCE.

THE COMMA-BACILLUS: PROPOSAL FOR A COMMISSION OF INQUIRY.

SIR,—In answer to a letter by Mr. Watson Cheyne, printed in your issue of May 30th, I beg to say that I shall be very happy to assist in any inquiry that has for its object the investigation of the relation of Koch's comma-bacilli to Asiatic cholera, provided Dr. Koch himself takes part in the inquiry.—I am, your obedient servant,

94, Philbeach Gardens, Earl's Court, S.W. E. KLEIN.

CHOLERA-INOCULATION.

SIR,—In connection with the Ferran cholera-inoculation controversy, I have been solicited to obtain direct from a medical body in London, replies to the following queries:

1. Is a person who recovers from cholera secure from recurrence of the disease?

2. What interval of time has been observed in India, or elsewhere, between cholera-waves or epidemics?

I have taken the liberty of addressing you under the recommendation of Dr. William Jelly of this city, and I shall feel extremely obliged if you can favour me with a reply to satisfy the wishes of my applicants.—I am, sir, your obedient servant,

Valencia, Spain. JOSEPH H. DART, British Vice-Consul.

THE MACLEAN FUND.

SIR,—The number of subscribers to this fund now exceeds two hundred. Subscriptions from India and the Colonies are flowing in, and will, no doubt, add very materially to the amount of the fund. A careful record is being retained of the names of subscribers, with a view to publication. It is desirable that the account should be closed before the end of September. Will you, therefore, permit me, through your columns, to suggest that intending subscribers should transmit their contributions to Messrs. Grindlay and Co., 55, Parliament Street, S.W., with the least possible delay?—I am, sir, yours faithfully,

K. MCLEOD, Secretary and Treasurer.

The Cottage, Laverockbank Road, Trinity, Edinburgh.

CHOLECYSTOTOMY *V.* CHOLECYSTECTOMY.

SIR,—I have just had my attention drawn by my friend, Professor Boddaert van Custen, to a recent discussion upon this subject at the Belgian Académie de Médecine, where it was argued against the operation of cholecystotomy, and in favour of that for removing the gall-bladder, on the ground that the recurrence of stones in the gall-bladder would be likely, by leaving the organ.

This is either a merely *à priori* objection, or it is based upon actual experience. If it is a mere *à priori* statement, it may be dismissed at once without discussion, because I desire to place it on record that not in any one of my cases is there, so far, the slightest evidence of a tendency to recurrence of the disease. The earliest of these cases dates from August, 1878. Fifteen of my cases are still alive, and I do not know, with the exception of my colleague, Dr. Savage, that there has been any other successful trial of the operation. I desire also to point out that, even if the gall-stones were to form again, their subsequent removal, by a small incision through the old cicatrix, would be the easiest possible proceeding, as, in my operation, very careful union is made between the gall-bladder and the abdominal walls. The operation for the removal of the gall-bladder seems to me a radically absurd one, and wholly unnecessary. In the first place, it is terribly fatal, because, so far as we can learn the statistics of it, in the hands of its originator at least fifty per cent. of the cases have died, whilst all my fifteen cases of cholecystotomy have recovered, and, with one exception, have been cured. The formation of gall-stones is not due to the existence of the gall-bladder, because we find gall-stones in the substance of the liver and in the biliary duct. It is due to some morbid condition of the secretion of the liver, by which there seems to be maintained in the bile a superabundance of cholesterin, or of some substance or substances which deposit crystals of cholesterin. Removal of the gall-bladder would not in any way contribute to an alteration of this condition, and the mere existence of the gall-bladder is satisfactory evidence that it has some important function to fulfil, though what that function is yet remains to be discovered. Removal of the gall-bladder, in the abnormal condition of the bile which induces the formation of gall-stones, might have a really deleterious influence, for all that we can tell.—I am, etc.,

LAWSON TAIT.

7, The Crescent, Birmingham, June 9th, 1885.

THE EXPERIMENTAL PRODUCTION OF CHOREA.

SIR,—I should like to make a few remarks in reply to Dr. de Watteville's letter published in the JOURNAL of June 6. I merely wish to say something with regard to the use of the expression "chorea." I think we cannot substitute another term for chorea. But I believe we may give it a fairly definite meaning. Chorea is not simply clonic spasm; it is not a repetition of a clonic spasm; it is not one involuntary spasmodic movement; it is not a rhythmical repetition of one movement. Chorea consists of a succession of different movements occurring at different intervals. This is Hughlings Jackson's definition. If one saw a cat jerk the head to the left at regular intervals one would not call that chorea, though Anacker has called such a phenomenon chorea in the cow; and Chauveau has described chorea of the flexors of a foreleg in a puppy.

You cannot have chorea of a muscle; chorea applies to a movement. A series of flexions of a leg is not chorea. In my paper, I described in some detail the case of a cat. The phenomena observed in that cat I would venture to call chorea. I saw the cat, as many other gentlemen also did, retract the angle of its mouth, then jerk its head, next shrug its shoulder, then flex its paw, bend its neck, arch its back, and so forth. These movements never ceased to appear and disappear till the death of the animal. They did not occur all at once. The interval between any two of them was unequal. There was no order in which they occurred. If this morbid process be not chorea in the cat, then cats never have chorea. Certainly cats never can have human chorea. They cannot pronate their forearms or supinate them, so far as I know. But, whatever movements they possess, they may have chorea of those movements.—I am, Sir, yours obediently,

50, Torrington Square, W.C. A. MONEY.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE GENERAL MEDICAL COUNCIL AND THE MEDICAL PROFESSION

WE are requested to publish the following correspondence.

SIR,—Three years since, the House of Commons and the public were shocked at the disclosures made in a coroner's court, relative to the practice of qualified medical practitioners imposing upon the public by means of sham or so-called "dispensaries." It was found that these places of imposture were frequently conducted by unqualified assistants, and that the poorer classes who visited them, believed they were obtaining the aid of skilled and qualified "doctors." The subject was brought under the notice of Parliament by a member of the House of Commons, and the Government communicated with the Medical Council with reference to it. This Council assumed an air of virtuous indignation at the discoveries made to them, and, after due inquiry, declared they would consider those who kept unqualified assistants at branch practices to be guilty of infamous conduct in a professional respect, so as to render them liable to have their names removed from the *Medical Register*. The Medical Alliance complained to the Council of three such persons, who, after certain apologies and promises for their future conduct, were allowed, by the Council, to depart in peace and quiet. But, it was hoped that what had occurred to these three offending individuals, would be a warning and a caution to other dispensary proprietors. These hopes have not been realised, and, as a result, the Alliance in August and November last, and in the beginning of the present year complained to the English Branch Council of three "dispensary" proprietors, who retained the services of unqualified assistants. At one of these "dispensaries" the assistant, who is only a druggist's assistant, was fined £20, for passing himself off as a qualified man. These three complaints, like the former complaints, were favourably received by the English Branch Council, and all appeared to be proceeding smoothly and satisfactorily until March 5th last, when Mr. Farrar and the President of the Council appeared upon the scene, a scene which proved to be a transformation scene. From that time until now the subjoined correspondence will explain the attitudes assumed by the Council and the Alliance, respectively; and it will show that the Council urged the Alliance, as a preliminary proceeding, to prosecute the unqualified assistants, whereas the Alliance consider that the greatest culprits are the employers of those assistants, many of whom are poor and friendless, and only tools (and fools) in the hands and clutches of their unscrupulous principals. The Alliance consider also, that the "declarations" required by Mr. Farrar, from numerous persons in various parts of London, ought to be obtained by one of his own clerks; nevertheless, they are quite willing to instruct their solicitors to direct one of their own clerks to procure them, provided the Council will pay the costs.

The men complained of hold, espectively, English, Irish, and Scotch quali-

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fications, and in this correspondence are spoken of as Mr. England, Mr. Ireland, and Mr. Scotland.—I am, sir, your obedient servant,

May 29th, 1885. R. H. S. CARPENTER.

66, Lincoln's Inn Fields, March 5th, 1885.

Dear Sir,—The case of Mr. Ireland, of whom you complain in your letter to the General Medical Council of 25th August last, has been referred to us by the English Branch Council to obtain further evidence.

We shall therefore be obliged by your supplying us with the evidence taken in your proceedings against his assistant, a declaration by some competent person proving Ireland's connection with the so-called dispensary, and a declaration by the parents of the child showing that she was attended by the assistant, and was only once seen by Ireland; a copy of the certificate of death signed by him should also be supplied.—Yours truly, FARRAR AND CO.

R. H. S. Carpenter, Esq.

March 5th, 1885.

Dear Sir,—The case of England, of whom you complain in your letter to the Branch Council for England of 6th November last, has been referred to us by that Branch to obtain further evidence, which had better be in the form of a declaration verifying the newspaper report of the proceedings against the unqualified assistant, and proving that England, therein referred to, is the same person as the England of whom you complain.—Yours truly,

R. H. S. Carpenter, Esq. FARRAR AND CO.

1, Old Serjeants' Inn, Chancery Lane, W.C., March 13th, 1885.

Dear Sirs,—Dr. Carpenter has handed us your letters of the 5th instant in reference to certain additional evidence required by you in support of the complaints against Ireland and England. We shall be happy to obtain, and furnish the Council with, the required evidence, together with additional facts which are within our knowledge from our acquaintance with the cases, if the Council are prepared to defray the necessary expense of so doing.

Dr. Carpenter, personally, feels hardly equal to comply with the request, as he cannot do so without legal assistance.

Dr. Carpenter thinks, and we agree with him, that the funds of the Council ought to be available to meet the trifling outlay required in such cases as these.

Waiting the favour of your reply,—We are, dear sirs, yours faithfully,

Messrs. Farrar and Co. PRIDHAM, PIPER, AND CO.

General Medical Council, March 31st, 1885.

Sir,—I have laid before the President of the Medical Council a letter from Mr. Farrar, inclosing a communication from your solicitor, Mr. Pridham.

The President directs me to say that any communication on the subject of Mr. England you intended for the consideration of the Council should be forwarded to Mr. Farrar, solicitor to the Council, with the understanding that such communications do not, in any sense, pledge the Council to proceed with the case, but that the Council reserves the use of its discretion in the matter.—I am, sir, your obedient servant, W. J. C. MILLER, Registrar.

R. H. S. Carpenter, Esq.

66, Lincoln's Inn Fields, April 22nd, 1885.

Dear Sir,—The Registrar of the General Medical Council has submitted to me the papers you sent him in the cases of Mr. England, Mr. Ireland, and Mr. Scotland. Do you know whether England still continues to employ unqualified assistants? You give me, I see, the means of getting up the case against England, but the General Medical Council, being in the position of judge in these matters, objects to getting up cases or initiating prosecutions. This remark applies to Ireland's unqualified assistant, who, if he attends patients as a doctor without being qualified, can be prosecuted, and also to the unqualified man who acts with Scotland. I do not know if the quasi-partnership Scotland seems to be in with this unqualified man would be regarded by the General Medical Council as "infamous." If this man legitimately obtained the goodwill of a practice it does not necessarily follow that Scotland is doing a disgraceful act in working it and paying the unqualified man by a share of the profits. The case, as it stands, does not look well; and if this man, being not qualified, still practises as though he were, his conviction would be the first step in the matter; but it is not for the General Medical Council to prosecute.—I remain, faithfully yours,

R. H. S. Carpenter, Esq. F. W. FARRAR.

Medical Alliance Association, April 25th, 1885.

My dear Sir,—In reply to your letter of March 31st, informing me that the President of the Medical Council had directed you to mention to me that the Council do not pledge themselves to proceed with the case against Mr. England, I beg leave to reply that we do not expect them to pledge themselves as to what steps they will take with regard to it; nevertheless, as they have decided that the keeping of unqualified assistants to conduct branch practices is, from a professional point of view, an infamous proceeding, we shall expect that our complaint of Mr. England's conduct, in this respect will, at the least, be investigated by them.

Mr. Farrar, the solicitor to the Council, informed me by letter on April 22nd, that, as the Council were in the position of judges in these matters, they objected to getting up prosecutions, and I quite agree with them on this point; but, as a question of fact, we have not asked them to become prosecutors or the initiators of prosecutions. The course we have taken has been to make certain complaints to the Council, and to furnish them with numerous alleged facts to show that we were justified in making them. In addition to this, we have forwarded to the Council the means for their ascertaining whether our statements were accurate or inaccurate, and this information, we think, ought to have been acquired for the Council by their solicitor, especially as his obtaining would in no way have identified either him or the Council with the complainants in these proceedings.

In our complaints against Mr. Ireland and Mr. Scotland, Mr. Farrar tells me that the unqualified assistant who is acting with Mr. Ireland, and the unqualified assistant who is acting with Mr. Scotland, can be prosecuted, a fact, considering that the Alliance have already had fifty-two prosecutions, it was unnecessary to draw our attention to; but I am afraid Mr. Farrar is unaware of what some of these prosecutions cost, and that it will surprise him to be told that the costs in one case, instituted under the Apothecaries' Act by the Nottingham Medical Defence Association, amounted to £800. Yet Mr. Farrar tells me that the conviction of the unqualified assistants would be the first step for me to take before complaining to the Council of their qualified employers; but, with the greatest respect for Mr. Farrar's opinion, I am sorry to say that I cannot agree with him.

We wish to urge on our complaints, and to have them fully considered by the Medical Council, and for this purpose we shall feel glad to be permitted to instruct our solicitor to appear before the Council on our behalf when the cases are heard. A reply at your earliest convenience will much oblige,—Dear Sir, faithfully yours,

W. J. C. Miller, Esq., Registrar. R. H. S. CARPENTER.

General Medical Council, May 15th, 1885.

Dear Sir,—In answer to your letter of April 25th, I am directed to state that, before investigating a complaint, the General Medical Council expect to have before it the evidence on which that complaint is based.

The Council does not, as Mr. Farrar has told you, take upon itself the getting up of the case against the person complained of. This, at least, is the general rule, and, I think, the right one. When the statute law of the land enables a conviction to be obtained, the best course is to deal with the offender according to law, and not needlessly to exert the extraordinary powers given to the Medical Council under their special Acts.

I regret to hear that, in a single instance, the prosecution to a conviction of a medical offender has cost such a sum as £800. I cannot but feel that, if this is a fair example of the cost of convicting an offender, it is a hindrance to the action of the Medical Council as well as to that of such bodies as your own, which specially undertake the duties of purging the profession.

You will observe that, in the cases you mention, you still intimate to us, or our solicitor, where and how we or he may get up the evidence. This, as I have said, is contrary to the general rule on which the Council has hitherto acted, and should not be departed from without the greatest necessity.—Yours faithfully, W. J. C. MILLER, Registrar.

R. H. S. Carpenter, Esq.

May 16th, 1885.

Dear Sir,—Last night I received from Mr. Miller a reply to my letter of all the way back to the 25th of the last month. In this letter (and the object of the letter was to obtain it) I sought the permission of the Medical Council to instruct our solicitors to appear before them to support our complaints against the three medical men whose unprofessional conduct we have brought under the notice of the Council; but as Mr. Miller has in no way whatever replied to this request, I now repeat it to you, and, through you, to the Council now sitting, and shall esteem it a favour your informing me at once whether you will or will not accede to our request.

Mr. Miller unnecessarily repeats the statement previously made to us by Mr. Farrar, that the Council do not take upon themselves the getting up of the cases against the persons complained of; to which I reply, for the third or fourth time, that we have not asked nor expected them to do so.

Mr. Miller states, on behalf of your Council that, "when the statute law of the land enables a conviction to be obtained, the best course is to deal with the offender according to law, and not needlessly to exert the extraordinary powers given to the Medical Council under their special Acts." This advice may be very clear to the Medical Council, but my intellect is so uncommonly poor, that I fail to understand it. There is no "statute law of the land," that I am aware of, under which a conviction for many disgraceful offences can be obtained. Am I to understand that, until we can get convictions under the aforesaid "statut law of the land," the Medical Council will consider that we are "needlessly exerting the extraordinary powers given to them under their special Acts," when we complain to them of conduct of registered members of the profession which they themselves have publicly declared to be of an infamous character?

As to the single instance named to the Council, of the cost of an unsuccessful prosecution of a non-medical offender amounting to £800, it has not been stated that this amount is "a fair example of convicting an offender," so that the lamentations expressed in the paragraph referring to this prosecution are gratuitous and uncalled for.

With regard to the "duties of purging the profession," specially undertaken by prosecuting bodies, the efforts of those bodies have been directed chiefly against unqualified persons, and they in no way lighten the responsibilities and duties of the Medical Council with regard to registered practitioners, in the way we have endeavoured to evoke their interference.

With reference to the observation that we "still intimate to Mr. Farrar where, and how, he may get up the evidence to substantiate our complaints," we say, emphatically, that a superabundance of facts have already been supplied for that purpose to the Council, and to Mr. Farrar as well.

In conclusion, I wish to acknowledge, with thanks, the uniform courtesy we have received from Mr. Miller during our business transactions with him, and to remain, faithfully yours, R. H. S. CARPENTER.

Sir H. W. Acland, Bart, M.D., President of the General Medical Council.

P.S.—At an inquest, held last Monday, to inquire into the cause of the death of a child, attended by the unqualified assistant of Mr. Scotland, this assistant stated that the death arose from acute bronchitis and croup, of twenty-two hours' duration, and that the medicines he administered were nitro-muriatic acid and chlorate of potash. Nice treatment for croup!

General Medical Council, 299, Oxford Street, W., May 19th, 1885.

Sir,—I am directed by the President to acknowledge the receipt of your letter to him of the 16th instant, and, in answer thereto, to state that the form of the Council's proceedings does not admit of the attendance of a prosecutor or his representatives; Mr. Pridham's attendance to urge complaints against medical practitioners, before the Council, cannot, therefore, be admitted.

I have, further, to repeat that when offenders can be dealt with by law, it is not the practice of the Medical Council to exert its special powers. The more important duties of the Medical Council do not permit it to act, in ordinary cases, as a police-court for medical offences; its powers are extraordinary, and are reserved for special and extraordinary cases.—I am, sir, your obedient servant, W. J. C. MILLER, Registrar.

R. H. S. Carpenter, Esq.

May 27th, 1885.

Dear Sir,—In reply to your letter of the 19th inst., allow me to point out to you that the form of secret investigation your Council have adopted, and which does not permit accusers to attend before them to establish their complaints, is harsh and unjust to the accused, as well as un-English and unconstitutional. As to the Medical Council adopting the practice of not exerting its special powers when offenders can be dealt with by law, it is as humiliating a confession of the indifference of the Council to its duty of upholding the "honour and dignity of the profession" as has ever been attributed to them by their most bitter critics.

You say that "the more important duties of the Medical Council do not permit them to act in ordinary cases as a police-court for medical offences;" nevertheless, although they have not been requested, nor expected so to act, their

mode of proceeding in obtaining evidence is remarkably like some of the proceedings adopted in a police-court; and it is as like some of the proceedings in the old Court of Star Chamber as are any proceedings I have ever read of. From what you and Mr. Farrar say, the Council appear to hesitate and tremble at the bare idea of removing from the *Register* the names of those who disgrace the profession, and endanger the lives of the public; yet, during the years from 1875 to 1884, they—very properly, too—erased the names of two thousand four hundred and seventy-three medical men for the simple reason that they had not notified to the Registrar their change of address. Of these, only eight hundred and eighty-four have had their names restored to the *Register*, so that one thousand five hundred and eighty-nine men who have been struck off the *Register* are now in actual practice. These facts, amongst other things, show that you were in error when you stated, in your opening address to the Council, that "the Council cannot suspend." They strike off and restore to the *Register*, which, practically, amounts to suspension, and in a very wholesale way they have thus suspended. You were in error, also, when you stated "that removal from the *Register* may be much the same as ruin," as is shown by the fact that one thousand five hundred and eighty-nine men, whose names have been so removed, are in practice, and apparently without any inconvenience whatever.—I am, faithfully yours,

R. H. S. CARPENTER.

Sir H. W. Acland, Bart., M.D., President of the General Medical Council.

RESIDENT MEDICAL OFFICERS AND ELECTORAL PRIVILEGES.

SIR,—I cannot help thinking that, under the Representation of the People Act, 1884, "A. M. O." is entitled to a vote. Under the old Act, undoubtedly the answer given to his query in your issue of May 9th would have been correct; but the Act of 1884 states, "Where a man himself inhabits any dwelling-house by virtue of any office, service, or employment, and the dwelling-house is not inhabited by any person under whom such man serves in such office, service, or employment, he shall be deemed for the purposes of this Act, and of the Representation of the People Acts, to be an inhabitant occupier of such dwelling-house as a tenant." It is further stated in the Act that "dwelling-house includes any part of a house where that part is separately occupied as a dwelling." As the new law gives a vote to a coachman who lives in rooms over a stable, it would be curious if it omitted to give the same privilege to resident medical officers.—Yours truly,

JAMES B. BAILEY.

*** There have as yet been no judicial decisions on the meaning of Section 3 of the Representation of the People Act, 1884, and it is impossible to say how far persons who occupy premises by reason of their employment will be held entitled to vote. Where a man occupies separate premises, the vote will undoubtedly be conferred; but where he, as a caretaker, lives in premises which are not primarily used for residential purposes, the right to vote is not so clear. Probably the Act will be construed so as to give a vote to every one who can make out a plausible claim, but the point is one which must be decided in the first instance by the revising barristers, and afterwards, if necessary, by the judges of the High Court.

PROVIDENT DISPENSARIES.

"A LANC. MEMBER" is, we trust, labouring under an erroneous impression in regard to a "provident dispensary having been established in his neighbourhood, in which the manufacturer, the manager, the warehouseman, and even the Chairman of the Local Board, were admitted members, and, with their families, embraced the opportunity of receiving professional attendance at the rate of one penny per week, and one penny per prescription." If, however, the facts be as stated, we need scarcely remark that so gross a perversion, as we regard it, of the true intent of provident institutions is something more than discreditable to such a class of recipients of medical aid, and to the medical officers also, for accepting the appointment under such exceptional circumstances.

If, moreover, the "*modus operandi* of organising the two private dispensaries," of which our correspondent more especially complains, were sanctioned by the practitioners in question, it would reflect no slight discredit on the professional abettors of the obnoxious system; and, further, if he individually should be so ill-advised, and tempted to, as he phrases it, "get into the swim in the questionable tide of the unprofessional work," it would, in our opinion, be degrading to himself, and dishonouring to the faculty.

Should he withal accede to the request of "his old constituents, and form them into a club," we would counsel him to be guided by the advice tendered in our remarks on "Club-Practice," which appeared in the JOURNAL of May 30th, page 1137.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

THE FACULTY OF MEDICINE.—On June 10th, Congregation approved the preamble of a statute for constituting a Faculty of Medicine as distinct from the Faculty of Natural Sciences, and for its representation by a separate Board, and of another amending the examinations and exercises required of candidates for degrees in medicine. These statutes have drawn forth numerous criticisms, which have been circulated in the University; and to the second of them, that relating to the examinations for the medical degree, numerous amendments were notified in Congregation. The chief points of criticism were the provision as to the standing required before proceeding to the degree, which was regarded as insufficient, and the recognition of the examination of the conjoint Board of the Colleges of Physicians and of Surgeons as a substitute for portions of the University examination. The Dean of Christ Church maintained that the principle of such a substitution was admitted in other faculties. Dr. Champneys pointed out that the examination of the conjoint Board was an admirable *minimum*, not equal to that for the Oxford M.B. Oxford stood alone in attempting reciprocity. The Oxford graduates were, he said, unanimously opposed to the scheme. Mr. Bruce Clarke spoke in the same sense. He also spoke against the limitation of time. It was impossible to pass all the examinations in twenty terms, which, being terms, was far less than a continuous five years of study. He would extend the proposed time by a year, and the interval between the M.B. and the M.D. from one year as proposed to three.

Amendments were also handed in by Professor Burdon Sanderson and Professor Balfour, who both approved the scheme generally, as well as by Dr. Darbishire. Professor Freeman sympathised with the principle that it was not for the University to accept an examination carried on independently of itself as the equivalent of its own. Professor Burdon Sanderson declared there was every desire to maintain the present high standard of the Oxford degree. Sir Henry Acland gave a history of the difficulties connected with the attempt to systematise the medical education of the Empire, and the repeated failures to legislate in Parliament on the subject. In consequence of these failures, the conjoint examination had been instituted. It was to be allowed, not as a substitute for the degree examination, but as a certificate of a pass standard, to which the University might add its own requirements. Against these considerations, a subsequent speaker protested, as plunging Oxford into the vortex of what might be called medical politics.

MILITARY AND NAVAL MEDICAL SERVICES.

JUNIOR OFFICERS OF THE MEDICAL STAFF IN INDIA.

Letters continue to reach us from India complaining of the pay and allowances extended to junior medical officers under five years' standing, and we are asked to publish them. Again and again we have done so, and, as we have intimated, their complaints were embodied in a carefully drawn memorandum, and presented to the Secretary for India by Mr. Ernest Hart on behalf of the Parliamentary Bills Committee of the Association. The reply to the representations thus made was a peremptory refusal to entertain the question. The present is not a favourable time for agitation of this kind. The finances of India are about to be strained to the utmost to prepare against the eventualities of invasion, which many think to be a question of time. Even if actual invasion should never be attempted, an enormous expenditure must be incurred to render the operation difficult or impossible, and to provide for an increase in the army. In this state of matters it is useless to add that the present time, for applications of this kind, is not the most favourable. Medical officers ready and willing to serve on the present pay and allowances are to be had in abundance. This of itself is a strong official reason for leaving things as they are. Officers of the army medical staff must also bear in mind that they are as well off as their equals of the Indian medical service; that, if the pay of the junior ranks of both services is not high, the superior ranks are better paid than in any other service in the world, and the army medical staff has a large share of the well-paid appointments of India.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:—

	From	To
Brigade-Surgeon P. B. Smith, M.D	—	Aldershot.
,, H. C. Herbert, M.D.	—	Devonport.
,, St. J. Killery, M.D.	—	Aldershot.
Surgeon-Major W. Ffolliott	Aldershot	Hong Kong.
,, T. W. Orwin	—	Exeter.
,, C. White	—	Winchester.
,, N. B. Major	Ceylon	—
,, G. R. Rae	—	Aldershot.
,, A. H. Stokes, M.B.	—	Ceylon.
,, P. Connolly	—	Aldershot.
Surgeon W. H. Allen	Camden Fort	C. of Good Hope
,, A. W. Browne	Belfast	Nova Scotia.
,, J. W. H. Flanagan	—	Woolwich.
,, M. D. O'Connell	Egypt	Cork.
,, J. S. Langdon	Egypt	—
,, W. Hefferman	Jamaica	—
,, R. W. E. H. Nicholson	Templemore	Jamaica.
,, W. Dugdale	—	Devonport.
,, W. Rowney, M.D.	Egypt	Suakin.
,, R. Porter, M.B.	—	Egypt.
,, W. C. Beevor	Egypt	Suakin.
,, G. B. Russell, M.B.	Egypt	Suakin.
,, A. De C. Scanlan	Dover	Shorncliffe.
Quarter-Master G. Towers	Halifax, N.S.	—

ARMY MEDICAL SERVICE.

Brigade-Surgeon W. O'Halloran has retired on temporary half-pay. His commissions are dated: Assistant-Surgeon, February 18th, 1856; Surgeon, March 8th, 1871; Surgeon-Major, March 1st, 1873; and Brigade-Surgeon, Jan. 30th, 1882. He was present at the operations before, and capture of, Canton in December 1857 (medal with clasp), and with the Perak Expedition in 1876 (medal with clasp).

Surgeon J. S. Langdon has resigned his commission, which dates from July 31st, 1880. He recently returned from Egypt, whither he went from Gibraltar in February last; otherwise, he has no war-record.

Mr. George Harrison has been appointed Surgeon to the Cheshire Yeomanry.

The undermentioned gentlemen have been appointed Acting-Surgeons to the corps specified: W. H. Besant, to the 1st Northumberland and Sunderland Artillery Volunteers; Angus Macphee, M.D., to the 10th Lanarkshire (Glasgow Highland) Volunteers; and W. S. Simpson, to the 2nd Sussex Volunteers.

Acting-Surgeon H. F. Holland, M.D., to the 1st Bedfordshire Volunteers; and Acting-Surgeon Alfred Baker, to the 1st Volunteer Battalion of the Princess of Wales's Own Yorkshire Regiment (otherwise the 1st North Riding of Yorkshire Volunteers).

Surgeon W. H. Bracken, M.D., died at Pietermaritzburg, South Africa, on the 16th of April last, aged nearly 40. He entered the service July 31st, 1880, and was engaged in the war with the Boers in 1881.

Lieutenant-General Sir Gerald Graham, accompanied among others by Deputy Surgeon-General O. Barnett, C.I.E., Principal Medical Officer, and Surgeon-Major A. H. Anthonisz, M.B., left Suakin on the 17th ultimo in the P. and O. steamer *Deccan*. This vessel having been detained at Alexandria with the Guards, the officers mentioned proceeded in H.M.S. *Jumna*, which left that port on the 30th ultimo, and was expected at Portsmouth on the 12th instant.

INDIAN MEDICAL SERVICE.

Surgeon-General J. M. Cuningham, M.D., Bengal Establishment, late Sanitary Commissioner with the Government of India, who retired on the 31st of March last, has been nominated a Companion of the Order of the Star of India; and Deputy Surgeon-General Francis Day, of the Madras Establishment, who retired on November 1st, 1876, has been appointed Companion of the Order of the Indian Empire.

The services of Surgeon L. T. Young, Bengal Establishment, have been permanently placed at the disposal of the Government of the Punjab.

Surgeons J. T. W. Leslie, D. Prain, A. T. Bown, U. N. Mukerji, and W. L. Price, recently appointed Surgeons on the Bengal Establishment, reported their arrival at Bombay on April 2nd.

Surgeon F. J. Doyle, Madras Establishment, has been appointed Officiating Medical Officer to the 1st Infantry Hyderabad Contingent, *vice* Surgeon T. Mallins, who is doing duty with the 2nd Cavalry.

Surgeon S. J. Thomson, Bengal Establishment, Deputy Sanitary Commissioner 3rd Circle, is to have charge of the 1st Circle also, in addition to his own duties.

Surgeon H. A. F. Nailer, M.B., Madras Establishment, Zillah Surgeon of Chingleput, is allowed privilege-leave for three months.

Surgeon-Major R. Caldecott, Bombay Establishment, has been directed by the Secretary of State for India to return to duty.

Brigade-Surgeon John A. Henderson, M.D., Madras Establishment, has been promoted to be Deputy Surgeon-General, *vice* J. M. Joseph, M.D., whose period of service has expired. Dr. Henderson entered the service February 20th, 1856, and attained the rank of Brigade-Surgeon, March 1st, 1883. He has the medal for his services in the Indian Mutiny Campaign in 1857-58.

Surgeon-Major E. A. Birch, M.D., Bengal Establishment, is confirmed in the appointment of Surgeon-Superintendent of the Presidency General Hospital at Calcutta, in which he has been acting, *vice* Brigade-Surgeon J. Jones, who has retired.

Surgeon-Major E. Lawrie, M.B., Bengal Establishment, Professor of Anatomy and Surgery, Lahore Medical School, and Meteorological Reporter to the Punjab Government, is appointed to officiate as Residency Surgeon at Hyderabad from the date of assuming charge, during the absence on furlough of Brigade-Surgeon J. Beaumont, M.D.

Surgeon-Major W. A. C. Roe, Bengal Establishment, Civil Surgeon, on relinquishing charge of the camp of the Lieutenant-Governor, is appointed to officiate as Medical Officer to His Highness the Raja of Kapurthala, from April 21st.

The services of Surgeon F. J. Doyle, Madras Establishment, who has been doing duty in the Eastern District, have been placed at the disposal of the Government of India.

THE ARMY MEDICAL STAFF.

SIR,—Kindly allow me through your columns to invite attention to a fact which seems to have been lost sight of by those most interested therein.

Surgeons of the Army Medical Staff serving under the Warrant of 1876 count service from the date on which they left Netley, whereas their fellow-candidates of the Indian army, as well as their brother officers of earlier and later warrants, reckon service from the date of their joining at Netley. We of the Warrant of 1876 are, therefore, four months "junior" to our fellow-"candidates" of the "Indian," who went through exactly the same course, and at exactly the same time with us.

Now this is no sentimental grievance, as our promotion to the rank of Surgeon-Major is thereby postponed for four months, and we lose Rs. 1,356 by it, that is, the difference for that period between Rs. 450 and Rs. 789 *per mensem*, the pay respectively of a surgeon and a surgeon-major. Furthermore, we are four months nearer to being "retired for age," and our chance of promotion to the higher ranks is therefore correspondingly diminished.

This is no question of gold lace, spurs, or a "front seat" at dinner; I am therefore the more encouraged to hope that our staunch advocate, the British Medical Journal, and the majority at least of our brother-officers, will give us the support and assistance which our case merits.

I enclose my card, and remain, sir, yours obediently, One-of-them.

Presentation.—Mr. Harper, the medical officer to the North Holbeach district, and the workhouse of the Holbeach Union, has been presented with a silver salver bearing the following inscription:—"Presented to R. R. Harper, Esq., L.R.C.P.L., on the occasion of his marriage, June 3rd, 1885, by the officers of the Holbeach Union."

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Monday, June 8th.

Cholera.—Dr. Cameron asked the President of the Local Government Board whether his attention had been called to the abstract report of a committee of the Academy of Medicine and Surgery of Barcelona appointed to investigate Dr. Ferran's system of protected inoculation against cholera, published in the British Medical Journal of the 30th ult., and particularly to the following paragraph: "That, in the opinion of the committee, the identity of the micro-organism of Ferran with the comma-bacillus of Koch has been established, and that its pathogenic effects have been proved to be prevented by inoculation: therefore a means of averting cholera has been discovered;" whether he had observed that, according to Spanish telegrams published in the newspapers, the Spanish Government on May 28th appointed a commission to proceed to the cholera-stricken district of Valencia along with Dr. Ferran, with the view of testing his system; and whether, in view of the probably fleeting nature of the opportunity now presented for its investigation, and the trifling expense required for the despatch of a small commission to an accessible country like Spain, he would consider the propriety of at once nominating such a commission, without awaiting the result of protracted negotiations with the Indian Government as to their bearing a portion of the cost.—Mr. Russell: Our attention has been called to the report of the committee referred to, and we have seen the telegrams in the *Standard* as to the appointment of a commission by the Spanish Government. We have been promised by Her Majesty's Minister at Madrid translations of any papers by Dr. Ferran; but, having regard to the opinion of our medical adviser, we do not deem it necessary at the present time to despatch a commission on behalf of the board with the view of investigating Dr. Ferran's system of inoculation.

OBITUARY.

D. MANSON FRASER, M.A., M.D.

Intelligence has just been received that Dr. Fraser met his death under peculiarly painful circumstances. He went out to Borneo as a medical officer in 1883. It seems that a party of fanatics attacked and murdered three Sikh policemen and Dr. Fraser on the Kawning River. Dr. Fraser was a graduate in Arts and Medicine of Aberdeen University. He gained the M.A. degree in 1876, with first class honours, and his medical degrees in 1879, with honourable distinction. Dr. Fraser was for some time resident at the Liverpool Northern Hospital and the Homerton Fever Hospital, and he contributed some papers on fever, chiefly on scarlatina, to the *Practitioner*. He was a young man of great natural ability and brilliant promise. Amongst his class-fellows he stood out prominently as one of the most able and most successful medical students of his time.

INDIA AND THE COLONIES.

AUSTRALIA.

Death of Dr. W. L. Crowther.—The Australian journals announce the death of Dr. W. Lodewyk Crowther, of Hobart. Dr. Crowther was known in England as a liberal contributor to the Museum of the Royal College of Surgeons of England; and, for his special services, the gold medal of the College was awarded to him in 1869. He was for many years surgeon to the Hobart Hospital.

University of Melbourne.—At the recent annual commencement of this University, the Vice-Chancellor presented the report of a committee appointed to inquire into and advise upon the improvement of clinical teaching. In accordance with the recommendations of the committee, it was decided that the eight intern members of the hospital staff, four physicians and four surgeons, should be appointed *ex officio* University clinical lecturers, to deliver eight lectures each month, being one lecture monthly for each member of the staff; to give bedside instruction at definite times; to keep records, and grant certificates, of attendance. The fees for clinical instruction, supplemented by £500 from the University chest, are to be divided equally among the clinical professors who perform their duties to the satisfaction of the Council.

HOSPITAL AND DISPENSARY MANAGEMENT.

DERBYSHIRE COUNTY PAUPER LUNATIC ASYLUM.

As usual, Dr. Lindsay's report for 1884 gives ample evidence of the superintendent's energy and ability. The Commissioners report very favourably. They express their satisfaction with the neatness and cleanliness of the dresses of the patients, a point of much importance, yet too frequently neglected in asylums for the insane. The number employed in the workshops and on the farm is very considerable. The time has come when the efficient management of asylums will be largely judged by the amount of occupation—not necessarily remunerative—which the superintendent succeeds in introducing among the patients. In no particular has improvement in the administration of asylums been more marked of late years, than in this matter of the physical and mental occupation of the inmates in a definite manner, and with careful and thoughtful adaptation of work to their special capabilities and tastes.

It is a great satisfaction to know that Dr. Lindsay has not been permanently injured by the serious assault made upon him by one of the male patients some months ago. The assailant has been sent to Broadmoor.

On the beer-question, Dr. Lindsay observes: "Upwards of two years' experience of the discontinuance of beer to patients and staff has been attended with satisfactory results, and still further tends to confirm the views expressed in previous reports;" and he endorses the conclusions arrived at by Dr. Hack Tuke, in his paper on "Alcohol as a Beverage" in the *Journal of Mental Science* for January, 1885. Dr. Lindsay may well say: "Such facts as these (those contained in Dr. Tuke's paper) cannot be disposed of by the sneers of theorists or taunts about total abstinence, but are entitled to be treated with serious consideration; for I believe no such thing as total abstinence is to be met with in any British asylum, the value of alcoholic stimulants medicinally, and their use as well as necessity in disease, being not only admitted, but fully taken advantage of in every asylum, so far as I am aware."

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

WESTMINSTER UNION MALE LUNATIC WARDS.

We have recently had the opportunity of inspecting the new wards which have been built in the yard of the Westminster Workhouse, Poland Street, for the temporary reception of acute lunatics, and for epileptics, idiots, and harmless cases of lunacy, which from time to time crop up in this Union. The design of the building originated with the well known architect, Mr. Saxon Snell. It is by no means unpleasing to the eye, is on a level with the surrounding yard, and in that respect is well adapted for the temporary reception of epileptics and cases of acute mania.

On entering the building, we find on the right a lavatory and bath-room; on the left, there is an entrance to the airing-yard, water-closets, and urinals, which are entirely separate from the wards. Beyond this, on the right, there is a light and airy day-room, 12 feet high, with an area of 20 by 14 feet. Further down the passage there is a padded room, and beyond a strong room, the ventilation, etc., of both being as perfect as possible. To the left is the attendant's room, so arranged as to admit of his seeing into the airing-yard, the day-room, and the dormitory, which is a very fine apartment, 12 feet high, and 23 by 20 feet superficial area, having thorough ventilation by means of windows on each side, and also in the ceiling. Having examined the accommodation thus provided by the Board of Guardians, who, as our readers may be aware, were elected in 1884, we visited the old ward still used for this purpose, which we found to be a single room, with a lavatory at one end, and one closet leading out of it. This room has been repeatedly condemned by the Commissioners of Lunacy, by the Local Government Board Inspectors, and by the medical officer, Dr. Joseph Rogers, as utterly unsuited for the purpose; their united remonstrances having at length led to the erection of the new building, which is a credit to the guardians and to the able architect who designed it. We would recommend members of boards of guardians and workhouse medical officers, interested in the proper housing of lunatics, to take an opportunity of visiting and inspecting this building, as we feel satisfied that they will form a favourable opinion of the arrangements we have briefly described.

THE CONWAY GUARDIANS AND MR. DAVIES.

At a council meeting of the Poor-law Medical Officers' Association, held at their rooms, 3, Bolt Court, Fleet Street, on Thursday, June 4th, the following resolution was unanimously agreed to, and a copy thereof was ordered to be sent to the Clerk of the Conway Board of Guardians, and to Mr. Thomas Davies, medical officer, Conway Union.

"That this Council, having read the account of the proceedings of the guardians of the Conway Union at their meeting on the 29th ult., as reported in the *Liverpool Daily Post* of the following day, begs to express its sympathy with Mr. Thomas Davies, the medical officer of the Creuddyn district of the said union, in the persistent annoyance and persecution to which he has been subjected at the instance of the Rev. W. Venables Williams, the chairman of the board. The Council trust that Mr. Davies will not yield to the pressure which has been put upon him by the guardians through the influence of the said chairman, but will resist to the end, seeing that the board has attempted to fetter him in the performance of his duty to the sick poor, and, in the judgment of this Council, has exceeded its powers towards an officer, against whom they have brought most serious and unjustifiable reflections on his integrity and good faith. (Signed on the part of the Council) Joseph Rogers, M.D., Chairman; J. W. Barnes, F.R.C.S., Honorary Secretary."

Sir,—Perhaps you will allow me to correct some mis-statements in your comments on the Conway Board of Guardians and Mr. Davies, the medical officer and also to supply some omissions.

There was a full attendance, not in consequence of my notice to call attention to the relationship of the Board to Mr. Davies, but in consequence of there being an election to a vacant relieving officership. Two years ago, orders were given by the Board to Mr. Davies to discontinue the supply of quinine and cod-liver oil from his own surgery, as the Board had frequently complained of the extravagance of his charges; and at the same time the relieving officer was instructed to have the quinine and cod-liver oil prescriptions dispensed by the local chemists; the result has been that the bills for these articles have risen from £18 or £20 a year, inclusive of extra fees, to £36 or £40 a year for quinine and cod-liver oil alone.

I did not say that Mr. Davies had given these orders "in revenge for having received a notice to terminate his contract," but in revenge for the Board having stopped him from supplying quinine and cod-liver oil to the paupers from his own surgery.

The six ounces of quinine were distributed during the three months January, February, and March, among eighteen paupers, as I can prove by the prescriptions in my possession, and which I analysed most carefully. The pauper patients on Mr. Davies's list may have been fifty in number, but thirty-two of them must have been receiving other medicines.

When, on the previous Board-day, I asked him for an explanation of the chemist's bills, some of which were nothing but grey powder and bismuth mixtures, but were called quinine mixtures, and charged for as such, the following conversation took place.

Chairman: "What is the present price of quinine?"
Mr. Davies: "I don't know."
Chairman: "Is it 5s., or 10s., or 15s., or 20s. per ounce?"
Mr. Davies: "I don't know."
Chairman: "Don't you know that the present price is 5s. per ounce?"
Mr. Davies: "I think it is something like that."
Chairman: "What is the price of a 20-ounce bottle of best cod-liver oil?"
Mr. Davies: "I don't know."
Chairman: "Is it 2s. 6d. or 3s. a bottle?"
Mr. Davies: "I don't know."
Chairman: "Then, you don't supply quinine and cod-liver oil from your own surgery to your private patients?"
Mr. Davies: "Oh yes."
Chairman: "Then you actually wish this Board to believe you don't know the price of these articles?"
Mr. Davies: "Yes."

It is not correct to say that no member of the Board showed any disposition to support my notice of motion, that the next quarter's salary be refused; for, according to the report in the *North Wales Chronicle*, which is strictly accurate, Mr. Borthwick said, if "the Chairman would add a proviso to refuse the pay, if Mr. Davies still declines the £10 a year for extra medicines, he would second the resolution." The Chairman acceded to this, and Mr. Borthwick seconded the resolution. It is not correct that "the Board-room was cleared, and the guardians discussed the question *in camerâ*." Mr. Davies was asked to retire, but the four or five reporters remained in the room all the time.

You may advise Mr. Davies to be firm; but he will find that the Board is firm also, and will put up with no trifling on the part of the medical officer. The contract with Mr. Davies, which was not under seal, was subject to twenty-eight days' notice, to terminate which notice was duly given; so that, if Mr. Davies attempt to sue the Board for refusal of his quarter's salary, he will find himself out of court. My advice to him is to thankfully accept the £10 a year in lieu of extras, or he may find the consequences to be serious.—Yours, etc.,

William Venables Williams,
Chairman of the Conway Board of Guardians.

The Vicarage, Colwyn Bay.

THE LEEDS BOROUGH CORONER ON THE MEDICAL PROFESSION.

The Leeds newspapers report a very painful *fracas* between the Leeds coroner and a local medical practitioner; and one the more painful because the coroner appears to have gone out of his way unnecessarily

in order to make an attack upon medical men generally and recklessly. Quite independently of the merits of the particular case in dispute, we must say that the dignity of the court has been lowered, and a painful impression created, an impression which cannot but receive the attention of those under whom the coroner acts.

It appears that a groom died at Chapeltown, and his medical attendant, Mr. Nevitt, certified the cause as phlegmonous erysipelas, followed by gangrene of the arm. In consequence of a report that the deceased had been bitten by a horse, an inquest was held. Mr. Nevitt was not summoned to give evidence, notwithstanding that his evidence must, one would think, have been indispensable; but Mr. Nevitt did attend the inquest at the request of the employer of the deceased man. In this he acted quite within his rights. Unfortunately, he proceeded a step further, and accompanied the jury to view the body, pointing out to some of the jurors the nature of the lesions on the arm. This proceeding appears to have excited the coroner. A *post mortem* examination was made by Mr. Gill, who confirmed Mr. Nevitt's opinion as to the cause of death. There were marks, presumably of a horse's teeth, on the upper arm; but, apparently, these were unconnected with the cause of death.

The matter might have ended here with a simple verdict from the jury; but the coroner charged the jury in terms highly derogatory to the medical profession, on whom he made a gratuitous and uncalled for attack. We say uncalled for advisedly, for he stated that his remarks did not at all reflect upon Mr. Nevitt. The jury showed their appreciation of the coroner's remarks by finding that death had occurred as stated by Mr. Nevitt, and that this gentleman, in their opinion, had not exceeded his duty by showing the remains to the jury. The coroner thereupon censured the jury and Mr. Nevitt for their conduct.

Mr. Nevitt having been refused a hearing by the coroner, wrote an explanatory letter to a local newspaper; whereupon the coroner took advantage of the opportunity afforded by another inquest of denouncing Mr. Nevitt, and is reported to have said publicly that this gentleman had "fooled the jury." He also made use of other expressions equally insulting to Mr. Nevitt and to the medical profession generally. Certainly the dignity of the coroner's office is not enhanced by such unseemly proceedings on the part of the Leeds borough coroner.

CERTIFICATION OF LUNATICS IN WORKHOUSES.

SIR,—I had wished that my reply to Mr. J. Cornelius Garman of the 11th of April last would have disposed of the question; but, instead, I find that he again disputes the correctness of my conduct, and that of the very intelligent clerk of the Whitechapel Union. Not content with that, he refers me to public documents.—I am, sir, yours obediently,

JOSEPH ROGERS.

31, Montague Place, W.C.

POOR-LAW FEES IN THE BRIDGNORTH UNION.

MR. BETHELL writes to say that, in the matter to which we have drawn professional and public attention, the guardians have at length resolved to allow the fee which he claimed, and which we advised him to persist in claiming. This, he adds, has been in great measure brought about by the influence exercised by the publicity given to the matter, and the weight of the opinions expressed in the articles of the BRITISH MEDICAL JOURNAL. He desires also to express his thanks for the personal sympathy and support which he has received.

HEALTH OF ENGLISH TOWNS.

DURING the week ending June 6th, 5,892 births and 3,497 deaths were registered the twenty-eight large English towns, including London, dealt with in the gistrar-General's weekly return, which have an estimated population of 006,446 persons. The annual rate of mortality per 1,000 persons living in these wns, which had been 21.1 and 21.0 in the two preceding weeks, further declined to 20.5 last week. The rates in the several towns, ranged in order from e lowest, were as follow:—Brighton, 10.0; Norwich, 10.9; Wolverhampton, .2; Halifax, 13.5; Portsmouth, 15.1; Plymouth, 15.8; Leicester, 16.5; Derby, 9; Hull, 17.6; Sunderland, 18.3; Salford, 18.4; Bristol, 18.7; London, 19.4; eds, 19.4; Bradford, 19.7; Huddersfield, 20.3; Liverpool, 21.0; Blackburn, 21.3; rdiff, 22.6; Birmingham, 23.3; Nottingham, 23.4; Bolton, 23.7; Sheffield, 24.6; dham, 24.8; Preston, 25.5; Birkenhead, 26.3; Newcastle-upon-Tyne, 31.0; and nchester, 33.6. The average death-rate for the week in the twenty-seven prorcial towns was 21.4 per 1,000, and exceeded the rate recorded in London by . The 3,497 deaths registered during the week in the twenty-eight towns luded 521 which were referred to the principal zymotic diseases, against 510 l 487 in the two preceding weeks; of these, 224 resulted from measles, 130 m whooping-cough, 44 from "fever" (principally enteric), 37 from small-pox, 32 m diarrhœa, 31 from scarlet fever, and 23 from diphtheria. These 521 deaths re equal to an annual rate of 3.1 per 1,000. The zymotic death-rate in London s equal to 3.2; while in the twenty-seven provincial towns it was 2.9 per 1,000, ranged from 0.0 in Brighton, Norwich, and Halifax, to 5.3 in Sheffield, 5.4 in nchester, and 8.2 in Newcastle-upon-Tyne. The deaths referred to measles, ch had been 182 and 174 in the two previous weeks, rose to 224 last week showed the largest proportional fatality in Birkenhead, Sheffield, Manchester Newcastle-upon-Tyne. The fatal cases of whooping-cough, which in the previous weeks had been 158 and 125, were 130 last week; this disease caused highest rates in Cardiff, Plymouth, and Blackburn. The deaths referred to "fever," which had declined from 45 to 32 in the three previous weeks, rose again last week to 44, and caused the largest proportional fatality in Portsmouth and Newcastle-upon-Tyne. The 32 deaths attributed to diarrhœa were fewer than those in either of the two preceding weeks. The 31 deaths from scarlet fever showed an increase of but 5 upon the low number in the previous week; this disease caused the greatest mortality in Leicester, Sunderland, and Cardiff. The 23 deaths from diphtheria showed a decline of 8 from the number in the previous week, and included 15 in London and 2 in Hull. Of the 37 fatal cases of small-pox, 34 occurred in London (exclusive of 28 deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside registration London), 2 in Manchester, and 1 in Hull. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had increased in the ten preceding weeks from 830 to 1,389, had declined to 1,201 on Saturday last; the admissions during the week were 180, against 211, 282, and 272 in the three previous weeks. The death-rate from diseases of the respiratory organs in London was equal to 3.7 per 1,000, and somewhat exceeded the corrected average. The causes of 90, or 2.6 per cent., of the 3,497 deaths registered during the week in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

In the eight principal Scotch towns, having an estimated population of 1,254,607 persons, 937 births and 547 deaths were registered during the week ending June 9th. The annual rate of mortality, which had declined in the three previous weeks from 23.4 to 20.5 per 1,000, rose again to 21.8 in the week ending 6th instant, and exceeded by 1.3 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 12.2 in Leith, 16.5 in Aberdeen, 17.7 in Dundee, 20.5 in Edinburgh, 21.6 in Perth, 25.1 in Glasgow, 25.4 in Greenock, and 25.5 in Paisley. The 532 deaths registered in these towns included 74 which were referred to the principal zymotic diseases, against 67 and 59 in the two preceding weeks; of these, 23 resulted from whooping-cough, 16 from diarrhœa, 15 from measles, 11 from scarlet fever, 6 from diphtheria, 3 from "fever," and not one from small-pox. These 74 deaths were equal to an annual rate of 3.0 per 1,000, which was 0.1 below the average zymotic rate in the large English towns. The highest zymotic death-rates in the Scotch towns last week were recorded in Paisley and Glasgow. The deaths from whooping-cough, which had been 22 and 27 in the two previous weeks, declined again to 23, but included 12 in Glasgow, 6 in Edinburgh, and 3 in Dundee. The fatal cases of measles, which had fallen from 15 to 11 in the two previous weeks, rose again to 15, of which 14 occurred in Glasgow. The 16 deaths from diarrhœal diseases corresponded with the number in the corresponding week of last year. The fatal cases of scarlet fever, which had been but 3 and 4 in the two previous weeks, rose to 11, and included 4 in Glasgow, 2 in Edinburgh, 2 in Leith, and 2 in Paisley. Of the 6 deaths from diphtheria, 4 were returned in Glasgow. The death-rate from diseases of the respiratory organs in these Scotch towns was equal to 5.1 per 1,000, against 3.6 in London. As many as 74, or 13.9 per cent., of the 532 deaths registered during the week in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS.

In the week ending May 30th, the number of cases registered in the sixteen principal town-districts of Ireland was 454. The average annual death-rate represented by the deaths registered was 27.4 per 1,000. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000. Armagh, 5.2; Belfast, 39.0; Cork, 27.3; Drogheda, 33.8; Dublin, 24.7; Dundalk, 26.2; Galway, 20.2; Kilkenny, 16.9; Limerick, 16.2; Lisburn, 14.5; Londonderry, 14.3; Lurgan, 25.7; Newry, 35.1; Sligo, 14.4; Waterford, 25.5; Wexford, 17.1. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 5.7 per 1,000, the rates varying from 0.0 in Londonderry, Galway, Newry, Kilkenny, Wexford, Sligo, Lisburn, Lurgan, and Armagh, to 15.2 in Belfast; the 164 deaths from all causes registered in the last-named district comprising 50 from measles, 6 from whooping-cough, 3 from enteric fever, and 5 from diarrhœa. In the Dublin registration-district the deaths registered during the week amounted to 174. Thirty deaths from zymotic diseases were registered in Dublin: they comprised 13 from measles, 3 from scarlet fever, 2 from whooping-cough, 3 from enteric fever, and 8 from cerebro-spinal fever. Twenty-nine deaths from diseases of the respiratory system were registered; they comprised 21 from bronchitis, and 5 from pneumonia. The deaths of 9 children under five years of age were ascribed to convulsions. Twelve deaths were caused by diseases of the brain and nervous system (exclusive of convulsions), and 7 by diseases of the circulatory system. Phthisis or pulmonary consumption caused 30 deaths, mesenteric disease 5, tubercular meningitis 4, and cancer 3.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

BATH.—Dr. Brabazon regrets that the mortality registered from zymotic causes in this city during 1884 did not maintain the low average of previous years. The increase, however, does not seem to have arisen from any cause within the control of the sanitary authority. Thus, in 1883, 32 deaths, out of a total of 44 referred to the principal zymotic diseases, were ascribed to whooping-cough; but Dr. Brabazon is strongly of opinion that many of them should have been attributed to bronchitis, pneumonia, or convulsions. During the year under notice, a large proportion of the fatal cases of measles (39 in number) arose from neglect. Indeed, the health-officer thinks that there was scarcely one death registered from measles independently of bronchitis, and that, judging from the duration of the disease, it was evident that, in three-fourths of the cases registered, the immediate dangers of the zymotic disease must have passed away; but, owing to carelessness or privation, and possibly to the bitterly cold weather prevailing at the time, bronchitis and pneumonia were rapidly fatal. There was also a considerable prevalence of scarlet fever, the infection of which was spread by the association of children at school. The mortality from diseases of the respiratory organs exhibited a marked

decline, the deaths being 163, as compared with 228 in the previous year. Amongst infants under twelve months of age, the fatality was lower than in any year recorded, though that amongst children under five was above the average. With the exception of 1881, the general death-rate for 1884 (19.8 per 1,000) was below any recorded during the previous five years. Dr. Brabazon speaks in high terms of the value of the Infectious Hospital, but he deplores that he has no means of learning of the occurrence of cases of sickness requiring isolation.

TORQUAY.—Mr. Karkeek's report for 1884 contains, as usual, many points of interest. He demonstrates the great benefit which the district has already derived from the judicious use of the new sanatorium; and he records the growing inclination of parents to allow their children to be removed when attacked by infectious disease. Fifty-three patients have been admitted to the Infectious Hospital during the year. As regards zymotics, the medical officer of health records that a mild type of scarlatina has prevailed in the district throughout the year; but not in an epidemic form. Diarrhœa is specially referred to in the report; 15 deaths from the disease (11 of children under five years of age) having occurred in the district during July, August, September, and October last. On this point, Mr. Karkeek remarks that the children were all those of very poor parents, and living in corresponding habitations. "Some were hand-fed; and my own experience leads me to believe that in certain ranks of life a baby must have an extraordinary digestive apparatus to overcome the food given to it, and at the same time extract a living therefrom. I have yet to learn that there is any indication on Nature's part to the effect that boiled bread, brown sugar, corn-flour, and other poisonous messes were intended for very young infants. In cases when milk is given, the bottle and the tubes are often very foul; so foul, indeed, that freshly warmed milk turns sour in a few moments when placed in them. In addition to these dangers, in the autumn, babies get apples and plums 'just to play with,' and thus it is no wonder they die of diarrhœa." Overcrowding has been looked after, as has also the inspection of retail bakehouses, with satisfactory results. The total death-rate for the year was 15.4 per 1,000, reckoned on a population of 25,000; but if the deaths among visitors and strangers be deducted, the rate is reduced to 13.5 per 1,000. Torquay being frequented by sufferers from phthisis, it is not surprising to find recorded 41 deaths from that disease alone; but even this number is below the average.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College, having undergone the necessary examination at the half-yearly meetings of the Court of Examiners on the 28th 29th, and 30th ultimo, and the 1st instant, were reported to have acquitted themselves to the satisfaction of the Court, and, at a meeting of the Council on the 11th instant, were admitted Fellows.

Messrs. J. Barlow, M.D.Edin., Glasgow, diploma of membership dated November 17th, 1874, of the University of Edinburgh; W. J. Penny, L.R.C.P.Lond., Bristol, November 19th, 1879, of King's College; G. L. Galpin, M.D.Queen's Univ. Ireland, Marlborough Street, W. November 18th, 1880, and W. E. Wynter, L.R.C.P.Lond., Twickenham, January 26th, 1883, of Middlesex Hospital; F. N. Pedley, Finsbury Square, April 21st, 1881, S. Worthington, M.B.Lond., Enfield, November 16th, 1882, and C. D. Muspratt, Clapham, July 30th, 1884, of Guy's Hospital; F. Bass, L.R.C.P.Lond., Union Road, N., January 18th, 1882, J. N. Vogan, L.R.C.P.Lond., Redhill, April 18th, 1883, S. Paget, Grosvenor Street, W., July 23rd. 1883, and J. F. Steedman, L.S.A., Wellington, Salop, November 13th, 1883, of St. Bartholomew's Hospital; J. Collier, M.B.Lond., Manchester, July 17th, 1882, of the Manchester School of Medicine; E. T. Thring, L.R.C.P.Lond., Torrington Square, July 20th, 1882, of University College; F. H. V. Voss, L.S.A., Clapton Square, E., July 20th, 1882, of the London Hospital; Y. Saneyoshi, L.R.C.P.Lond., of St. Thomas's Hospital, January 24th, 1883; and H. W. Pigeon, M.B.Cantab., Manchester, January 25th, 1883, of the Manchester School of Medicine.

Three other gentlemen passed who will not receive their diplomas until attaining the age of 25.

MEDICAL VACANCIES.

The following vacancies are announced.

BOROUGH OF LEICESTER.—Medical Officer of Health. Salary, £500 per annum. Applications by June 23rd.

BURTON-ON-TRENT INFIRMARY.—House-Surgeon. Salary, £130 per annum. Applications by June 17th.

CARLOW UNION.—Medical Officer, Bagnalstown Dispensary. Salary, £140 per annum, and fees. Applications to Mr. C. Magrath, Honorary Secretary. Election on June 17th.

CHELTENHAM GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum. Applications by July 1st.

CLAYTON HOSPITAL AND GENERAL DISPENSARY, Wakefield.—House Surgeon. Salary, £120 per annum. Applications by June 22nd.

CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park Place, Manchester.—House-Surgeon. Salary, £80. Applications to Mr. Hubert Teague 38, Barton Arcade, Manchester.

CROYDON UNION (New Infirmary).—Assistant Medical Superintendent and Dispenser. Salary, £125 per annum. Applications, endorsed "application for Assistant Medical Superintendent and Dispenser," by June 20th.

CROYDON UNION.—Medical Superintendent to the New Infirmary, and Medical Officer of the Workhouse. Salary, £200 as Medical Superintendent, and £100 as Medical Officer of the Workhouse. Applications, endorsed "application for medical appointment," by June 20th.

CUMBERLAND INFIRMARY, Carlisle.—Assistant House-Surgeon. Salary, £40 per annum. Applications by June 23rd.

DERBYSHIRE GENERAL INFIRMARY.—Resident Assistant House-Surgeon. Applications to E. C. Green by June 17th.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, and Gartside Street, Manchester.—Junior Resident Medical Officer. Salary, £80 per annum. Applications by June 30th.

GENERAL HOSPITAL FOR SICK CHILDREN.—Medical Officer to the Dispensary. Salary, £180 per annum. Applications by June 30th.

HARTLEPOOL FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary, £120 per annum. Applications to T. Tweddell, Commercial Terrace, West Hartlepool.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by June 13th.

INVERNESS DISTRICT ASYLUM.—Assistant Medical Officer. Salary, £80 per annum. Applications to Dr. Aitken, Medical Superintendent, by June 17th.

LISTOWEL UNION.—Medical Officer, Listowel Dispensary. Salary, £120 per annum, and fees. Election on June 18th.

NEWCASTLE-UPON-TYNE INFIRMARY.—House-Surgeon. Salary, £50 per annum. Applications to the Chairman of the House Committee by June 15th.

OWENS COLLEGE, Manchester.—Professor of Obstetrics. Applications by June 25th.

RICHMOND HOSPITAL.—House-Surgeon. Salary, £80 per annum. Applications by July 1st.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House-Surgeon. Applications to the Chairman of the Managing Committee, by June 16th.

ROYAL FREE HOSPITAL, Gray's Inn Road.—Junior Resident Medical Officer. Applications by June 17th.

ST. HELEN'S FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.—Medical Officer. Applications to Mr. E. Fidler, Boundary Road, by June 20th.

ST. JOHN'S HOSPITAL FOR SKIN-DISEASES, Leicester Square, W.C.—Four Clinical Clerks. Applications by June 20th.

SHEFFIELD GENERAL INFIRMARY.—Physician. Applications by June 26th.

WEST BROMWICH FRIENDLY SOCIETIES' MEDICAL ALLIANCE.—Resident Medical Officer. Salary, £200 per annum. Applications to Mr. G Abbott, 9, St. James Road, Sheffield.

WEST LONDON HOSPITAL, Hammersmith.—Physician. Applications by June 29th.

WEST RIDING LUNATIC ASYLUM, Wakefield.—Resident Clinical Assistant. Applications to the Medical Superintendent.

MEDICAL APPOINTMENTS.

BLUMER, F. Milnes, M.B., C.M.Ed., appointed House-Surgeon to the Staffordshire General Infirmary, *vice* William Edward Ranson, M.R.C.S., resigned.

CORNISH, C. Newton, M.R.C.S., L.R.C.P.Ed., appointed Resident Medical Officer to Queen Charlotte's Hospital, *vice* H. Beevor, M.B.Lond., resigned.

WOOD, T. Outterson, F.R.C.P., and F.R.C.S.Ed., M.R.C.S.Eng., appointed Resident Medical Superintendent of Sussex House and Brandenburgh House Asylums, *vice* L. S. Forbes Winslow, M.D., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d which should be forwarded in stamps with the announcements.

BIRTH.

FRASER.—On the 4th instant, at Western Lodge, Romford, Essex, the wife of James Alexander Fraser, M.R.C.S., L.R.C.P., of a daughter.

MARRIAGE.

EVANS—WRIGHT.—On the 3rd instant, at St. Mary's, Lower Merton, Surrey, by the Rev. J. C. Erck, Frederick William, M.D., M.R.C.S., etc., eldest surviving son of the late Alderman Thomas Evans, of Cardiff, surgeon, to Henriett Clarissa, youngest daughter of the late Richard Wright, Esq.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

SATURDAY.—Vaccination Officers' Association, 2.30 P.M.: Charing Cross Hospital. 1. To read minutes of last meeting. 2. Correspondence. 3. Report of Committee. 4. Election of members and honorary members. 5. Dr Robert Cory will read a paper "On Some Medical Facts relating to Vaccination, of which it is desirable Vaccination-Officers should have more Extended Knowledge." 6. Duties devolving on vaccination-officers during epidemics of small-pox.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.— Samaritan Free Hospital for Women and Children, 2.30 P.M.— Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.— Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 1.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.— Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30 ; Obstetric, M.W. F., 1.30 ; Eye M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30 ; Dental, Tu. Th. F., 12

KING'S COLLEGE.—Medical, daily, 2 ; Surgical, daily, 1.30 ; Obstetric, Tu. Th. S., 2 ; o.p., M. W. F., 12.30 ; Eye, M. Th., 1 ; Ophthalmic Department, W., 1 ; Ear, Th., 2 ; Skin, Th. ; Throat, Th. 3 ; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2 ; Surgical, daily, 1.30 and 2 ; Obstetric, M. Th., 1.30 ; o.p. W. S., 1.30 ; Eye, W. S., 9 ; Ear, S., 9.30 ; Skin, Th., 9 ; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1 ; Obstetric, Tu. F., 1.30 ; o.p., W. S. 1.30 ; Eye W. S., 8.30 ; Ear and Throat, Tu., 9 ; Skin, F., 4 ; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30 ; Obstetric, Tu. Th. S., 2; o.p., W. S., 9 ; Eye, Tu. W. Th. S., 2 ; Ear, M., 2.30 ; Skin, F., 1.30 ; Larynx, W. 11.30 ; Orthopædic, F., 12.30 ; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1 ; Obstetric, Tu. S., 1 ; o.p. Th., 2 ; Eye, W. S., 2 ; Ear, Tu., 2 ; Skin, W., 2 ; Throat, Th., 2 ; Orthopædic, W., 2 ; Dental, Tu. S., 9 ; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45 ; Obstetric, Tu. F., 9.30 ; o.p., M. Th., 9.30 ; Eye, Tu. F., 9.30 ; Ear, W. S., 9.30 ; Throat, M. Th., 9.30 Skin, Tu. F., 9.30 ; Electrician, Tu. F., 9.30 ; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2 ; Obstetric, M. Th., 2 ; o.p., W., 1.30 ; Eye, M. Th., 2 ; o.p., daily, except Sat., 1.30 ; Ear, M., 12.30 ; Skin, W., 12.30 ; Throat, Tu. F., 1.30 ; Children, S., 12.30 ; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2 ; Obstetric, M. Tu. Th. F., 1.30 ; Eye, M. Tu. Th. F., 2 ; Ear, S., 1.30 ; Skin, W., 1.45 ; S., 9.15 : Throat, Th., 2.30 ; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric Tu. F., 3 ; Eye, M. Th., 2.30 ; Ear, Tu. F., 9 ; Skin, Th, 1 ; Dental, W. S , 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London ; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

SHORTENING THE ROUND LIGAMENTS.

SIR,—If I send a line in reply to Mr. Burton's courteous note, it is only to point out that nothing was said in my original communication in opposition to, or even in "disparagement" of, his main contention that "the greatest credit is due to the one who worked out the subject so thoroughly, and in such a practical form, that it at once commanded the attention of gynæcologists generally."—I am, sir, yours, etc.,

WALTER RIVINGTON.

22, Finsbury Square.

CROTON-OIL AND CHLOROFORM IN TÆNIA.

SIR,—Will you kindly allow me to suggest to Dr. Bernard Persh and Dr. Great-Rex (JOURNAL, February 21st, p. 414) that if they will give the vehicle only, in the new tænia remedy, they will kill the tapeworm quite as effectually without anæsthetising it with chloroform or purging it with croton-oil? The glycerine is the anthelmintic. This idea was given me a year or two ago, while collecting the extremities of a number of tænia from a pickerel for examination. I had collected six or eight heads in a little water in a watch-glass, where they were as lively and happy, apparently, as when they were six or eight feet longer and in the slimy stomach of the fish ; but, as soon as one was taken up on a needle-point, and put into a drop of glycerine on the slide of a microscope, I found that it died almost at once. I at once said : "Eureka ! Drench the intestine containing tapeworm with the sweet dose, and the result will more than equal the nasty fern dose ;" and this proved to be true. It may be necessary to follow the glycerine with a gentle purgative, but I have not always found it so, neither need the dose be restricted to an ounce.—I am, etc.,

G. A. MCCALLUM.

Dunnville, Ontario, Canada.

CHOLERA AND COMMA-BACILLI.

SIR,—I notice that, by experiments upon monkeys, Dr. Klein finds the comma-bacilli of Koch to be the result and not the cause of cholera. That the bacilli found by him are identical with those found by Koch and others, there can, I think, be no reasonable doubt, although Professor Miller lays much stress upon slight differences observed on cultivation.

In the JOURNAL of September 20th, 1884, I argued, from the knowledge we possess of such processes as union by first intention in surgery, that the bacilli of Koch must be the result and not the cause of the choleraic process. I stated that, when tissues of the body are in a healthy condition, they allow the development of no infective germs in their vicinity ; but that, when weakened by disease, as are the walls of the intestine in cholera, it would be a wonder if bacilli of some sort did not appear.

There remains the chemical theory of the cause of cholera ; and this, I feel confident, will soon be generally accepted. The poison of cholera is, in my opinion, some compound of ammonia with a putrefactive or decomposition product, and capable of existing both in the gaseous and in the liquid states. In this way only can the possibility of infection by both the respiratory and digestive processes be explained.

By the absorption of this poison through the lacteal system in the intestine, or through the pulmonary capillaries, a rapid liquefaction of the blood results. There is thus a difference between cholera and septicæmia, where the absorption of the poison is through the lymphatics, and therefore so slow or gradual, that tolerance of the circulatory system is established.

It is, I should say, certain, that with the failure of the germ-theory of cholera, that of tubercle and a few more will rapidly follow, leaving the chemical poisons masters of the situation.—I am, sir, yours truly,

Clayton-le-Moors. C. R. ILLINGWORTH, M.D.

GLYCOSURIA IN PHTHISIS.

SIR,—For some time past I have frequently found sugar in the urine of phthisical patients. At first I thought this was but a coincidence, but latterly have begun to ask myself the question whether, in advanced phthisis, sugar is not invariably present in the urine. During the last three months, of five patients who have died with this disease, I only failed to find sugar in one case, and in that there was probably extensive kidney-disease, as was shown by dropsy with albuminuria. The test I have always employed has been Fehling's, and the chief disturbing element in my analyses has usually been the presence of abundance of lithates. My results, however, I have often checked by testing in the same way some other sample of urine rich in lithates, where I did not suspect sugar, and comparing carefully the results obtained from each. I have referred to numerous works on medicine, but can find no account of any glycosuric tendency in phthisis, so that I should be glad to learn if my observations have been noted previously, are merely accidental, or the results of error in analysis.

I may add that I have often discovered sugar in the urine in cases of respiratory embarrassment from acute pulmonary disease, as, for instance, in severe cases of bronchitis, and in pleurisy with effusion. In these, however, there has always been an excess of lithates.—I am, yours obediently,

18, Queen's Road, Dalston, E. M. GREENWOOD, jun.

A QUESTION OF TREATMENT.

"BETA" suggests to "Alpha" that the following remedies may relieve the abnormal conditions of intestinal mucous membrane, on which the disagreeable symptom most likely depends. She would probably derive benefit from the following : bismuthi subnitratis, ingluvin (Warner) āā gr. x ; acidi nitrici diluti ♏vi ; acidi carbolici gr.i ; tinct. nucis vomicæ ♏v ; syrupi ʒiss ; aquæ menthæ pip. ad ʒi. To be taken three times daily, before meals. Tincture of perchloride of iron might also relieve this troublesome symptom if given twice daily in moderately full doses, provided its administration be not contraindicated. In either case, regular evacuation of the bowels ought to be secured by mild aperients if necessary. "Beta" has found saline purgatives (especially Carlsbad salts) to sometimes increase flatus.

DR. JOSEPH EATON, of Celbridge Infirmary, Co. Kildare, suggests the trial of the following, in doses of one dessertspoonful in a wineglassful of water after each meal : ℞ Glycerini (Price) ʒiv ; acidi carbolici gr.xxxii ; infusi calumbæ ʒiv. He has known the opium-habit to induce such a condition in patients, and possibly the "chloral night-draught" might also cause a like condition. Should the treatment recommended be adopted, Dr. Eaton would be glad to hear the result. Pure olive-oil, in suitable doses, should be used as a purgative.

M.D.—There is no legal scale of fees for the services in question. Most offices pay a guinea.

The Brussels M.D.

A general practitioner who purposes reading for the M.D. Brussels would be greatly obliged if any gentleman who has lately passed would inform him what are the best authorities to read from, and any further useful particulars Address, L. W., care of Smeeton and Co., chemists, Commercial Street, Leeds.

*** Our correspondent will find a very useful note on the subject of the Brussels degree at page 1025 of the Journal for May 16th.

Royal College of Surgeons of England.

At the half-yearly examination for the Fellowship of the College, which was commenced on May 28th, the following were the questions on pathology, therapeutics, and surgery submitted to the candidates, who were required to answer all four questions. 1. Discuss the origin, diagnosis, and treatment of the congenital cysts and fistulæ occurring in the neck. 2. What are the chief local conditions which interfere with the rapid healing of wounds? State how they may be best dealt with. 3. Describe in detail the course and symptoms of inherited syphilis from birth to adult life. Give the treatment appropriate to the principal affections. 4. Describe the principal constitutional conditions which affect the result of surgical operations.

Scarlet Fever: Prevention of Infection.

Sir,—The following hints may prove of service to "Junior Member."

1. During the visit, avoid all unnecessary contact with the patient and his surroundings. Insist upon proper ventilation of the sick-room, and the free use of volatile disinfectants; both these are delicate matters with the poor and uneducated. Direct that the patient's body be smeared all over every day with camphorated or carbolic oil (weak). It is well to visit infectious cases at the end of the day's work, and on returning home to change the outer clothing, freely exposing it to the fresh air. Use carbolic acid soap. The precautions taken at the London Fever Hospital, and referred to in the *Lancet* of April 25th, 1885, p. 766, are excellent, but they cannot all be carried out in private practice.

2. During desquamation, warm baths daily, with free use of carbolic acid soap, will hasten the process. The hands and feet are generally the last to "peel"; a blister would be hardly admissible, even if of service.

3. Give immediate notice of the offence to the medical officer of health. It is the duty of the sanitary authority to prosecute; *vide* Section 126, Public Health Act, 1875.—I am, sir, yours faithfully,

M. O. H.

The New Pharmacopœia.

Sir,—In common with many others, I should like to see the tinctura ferri perchloridi *P.B.* replaced by the old tinctura ferri sesquichloridi (muriatis), which is far less nauseous, and suits most stomachs better. Also I think the old tinctura cinnamoni composita should be reintroduced, as it is much superior to the sickly simple tincture.

Shall we indeed require a Pharmacopœia at all, after a few years, if the present fashion of prescribing everybody's syrup or tincture be continued, instead of using our own weapons, with which every practitioner was familiar years ago, and which now, alas, cannot be said to be the case? Our rising men ought undoubtedly to have a better acquaintance with the materials which they are prescribing, and this can only be gained by a time of dispensing for themselves.—I am, sir, yours faithfully,

H. H.

Temperance Teaching.

A recent correspondence in the *Times* has drawn attention to the great importance of including a knowledge of the physiology of alcohol in the curriculum of public schools. In America, scientific temperance education Bills have passed the legislatures of Maine, Pennsylvania, Alabama, Wisconsin, Missouri, Nebraska, Oregon, Nevada, and Idaho. In other States, a similar Bill has received the approval of one House, and is expected to be passed shortly.

Whatever view of the alcohol question may be taken, all must agree that an accurate acquaintance with the chief physiological effects of alcohol on body and on brain would be an invaluable boon to the young people of the present day, and to their successors. There is every reason to hope that a more intimate knowledge of the influence of alcohol on life and health would lead to increased sobriety, and the medical profession are specially interested in the wide dissemination of the truth on habits which are prominent factors in the moral and corporeal welfare of the masses.

Morphia-Craving.

Sir,—If your correspondent "M.H." will adopt the following treatment, I think he will succeed in curing his patient of his "hypodermic morphia-craving" in a short time.

The hypodermic instrument must he laid aside at once, and in many cases the sufferer can easily be induced doing so, if the danger of tetanus setting in be plainly pointed out to him. According to the hypodermic dose taken, must be regulated the dose of wine of opium combined with the bromide of sodium. Day by day, the opium-preparation may be lessened in quantity, and given less often. The liquor extract of cuca (Ferris and Co., Bristol) may be used, in doses of 1 or 2 drachms in water. Thus, for the first day or so of treatment, the patient may have an occasional dose of the cuca in addition to the opium and bromide, when the cuca should be made to do duty for the opium once a day, then twice a day, and so on, until finally the patient will find himself able to sleep well with the aid of the bromide of sodium alone. It may then be necessary for him to lessen the quantity of cuca-extract per day, and I know of no better way than by substituting for it "Mariani's wine of cuca," of which he might take a wineglassful two or three times a day for a while.

It is scarcely necessary to point out the importance of cheerful society, country air, the seaside, exercise of all kinds, light reading, and everything, in fact, that would keep both body and mind fully occupied, and pleasantly so. Of course, it would also be necessary to treat any debility which might have arisen from so long a continuance of the practice of morphia-taking by appropriate drugs, and, if actually required, a certain allowance of stimulants, of which good Bass's ale is the best, may be allowed.—I am, etc.,

Celbridge Infirmary, Co. Kildare. Joseph Eaton, M.K.Q.C.P.

In reply to "Assistant's" question, it would appear that, as the indoor salaried assistant of a duly qualified practitioner, his entire professional services, including all fees received (otherwise than by agreement) belong *de jure* to his employer for the time being, and, therefore, that our correspondent is not entitled to retain the fees in question, but should hand them over to his principal.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. H. Strahan, Kingston, Jamaica; Mr. W. Fearnley, London; Dr. Norman Kerr, London; Mr. G. F. Masterman, Stourport; The President of the Royal College of Physicians, London; Dr. R. E. Burges, Kettering; An Old Member; Dr. A. Pujoi, Bordeaux; Mr. R. Presser, Bromsgrove; Mr. R. Harrison, Liverpool; Messrs. Griffin and Co., London; Dr. F. de H. Hall, London; Mr. Lawson Tait, Birmingham; Mr. M. G. Evans, Cardiff; Dr. J. Alfred Calantarients, Scarborough; Our Rome Correspondent; Mr. W. Marriott, London; Mr. E. Chadwick, London; Mr. J. Binks, Wakefield; Dr. G. Thin, London; Dr. Samuel West, London; Mr. W. R. Spowart, Norwich; Our Manchester Correspondent; Mr. B. B. Rawlings, London; Dr. R. E. Power, Portsea; Mr. B. Squire, London; The Secretaries of the Darwin Memorial Committee, London; Dr. B. O'Connor, London; Mr. C. N. Cornish, London; Our Birmingham Correspondent; Mr. Kesteven, London; Mr. E. P. Hardey, Hull; Dr. Sieveking, London; Dr. Dale, Sunderland; The Rev. W. V. Williams, Colwyn Bay; Mr. T. M. Stone, London; Mr P. M. MacDonald, Dorchester; Dr. D. McLeod, Hawick; Messrs. Burroughs and Wellcome, London; Mr. J. Singleton, Cheltenham; Mr. G. Eastes, London; Mr. H. E. Spencer, York; Mr. Trendell, London; Mr. W. E. Green, Sandown; Dr. W. J. Mackie, Turvey; Dr. Taylor, Scarborough; The Lord Mayor, London; Mr. H. Cribb, Bishop Stortford; Mr. E. Reynolds, St. Alban's; Miss Epton, Paris; Mr. A. Manceaux, Brussels; Dr. Angel Money, London; Mr. Wood, London; Dr. T. Hawksley, Brighton; Dr. Allen Duke, St. Leonard's; Mr. R. Pearse, Cardiff: Mr. W. H. Battle, London; Mr. R. T. Gunton, Hatfield; Mr. H. Hemsted, Whitchurch; Dr. Styrap, Shrewsbury; Mr. H. Archer, Alnwick; Dr. Totherick, Wolverhampton; Mr. A. T. Harvey, London; Our Aberdeen Correspondent; Dr. E. Vallin, Paris; Mr. T. F. Gardner, Bournemouth; Dr. H. Dalton, Demarara; Mr. J. Stuart Nairne, Glasgow; Dr. J. Lindsay Steven, Glasgow; Dr. A. T. Myers, London; Dr. G. Cordwent, Milverton; Dr. P. Sousino, Pisa; Mr. W. P. Fox, Liverpool; Mr. A. Douglas, Hamworth; Dr. Joseph Rogers, London; Dr. W. Cooper, Aberdeen; Mr. A. De St. Dalmas, Leicester; Dr. W. E. Buck, Leicester; Dr. Pearson, London; Dr. Stevenson, London; Messrs. Vicars Bros., London; Mr. J. A. Stretton, Kidderminster; Mr. H. V. Palin, Wrexham; Mr. W. Budd, Exeter; Dr. Ward Cousins, Southsea; Dr. Wilks, London; Dr. H. Gervis, London; Mr. T. Whitehead Reid, Canterbury; Dr. Tripe, London; Mr. Alfred Freer, Stourbridge; Dr. A. De Watteville, London; Mr. Arthur Finigan, Morpeth; Mr. I. L. Clifford Smith, London; Dr. Neale, London; Dr. D'Arcy Adams, London; Mr. Arthur Douglas, Birmingham; Mr. Thomas Davies, Colwyn Bay; Mr. H. E. Richardson, Birkenhead; Our Correspondent at Valencia; Mrs. Margaret E. Bache, London; Dr. W. Culver James, London; The Secretary of the Parkes Museum; Mr. George P. Field, London; Mr. C. Roberts, London; Mr. T. Outterson Wood, Hammersmith; Mr. A. Duke, Dublin; Our Paris Correspondent; Dr. K. McLeod, Edinburgh; Mr. J. Niven, Manchester; Mr. F. M. Grangers, Chester; Our Edinburgh Correspondent; Our Glasgow Correspondent; Dr. Lush, Weymouth; Dr. E. D. Mullan, Londonderry; Mr. M. R. J. Behrendt, Burringham; Mr. A. Bethell, Bridgenorth; Mr. J. Aitchison, Newcastle-on-Tyne; Dr. Maunsell, Ewyas Harold, near Hereford; The Secretary of the Society of Arts, London; Dr. R. J. Purdon, Belfast; Dr. Klein, London; Mr. C. O. Elkerton, London; Dr. D. Lees, London; The Secretary of the Sanitary Institute, London; Mr. E. B. Callander, London; Our Dublin Correspondent; Mr. Spanton, Hanley, etc.

BOOKS, etc., RECEIVED.

Commercial Organic Analysis. By A. H. Allen, F.I.C., F.C.S. Vol. I. London: J. and A. Churchill. 1885.

The Nomenclature of Diseases. Drawn up by a Joint Committee Appointed by the Royal College of Physicians of England. Second Edition, being the First Revision. London: Harrison and Sons. 1885.

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LECTURES
ON
HERNIA AND ITS RADICAL CURE.

Delivered at the Royal College of Surgeons of England.

By JOHN WOOD, F.R.S., F.R.C.S.,
Hunterian Professor of Surgery and Pathology.

Lecture II.

Operation by the Subcutaneous Method.—Causes of Failure in the Operation.—Summary of Cases of Inguinal Hernia operated on for Radical Cure.—Successes and Failures of the Operation.—Table of ascertained Duration of Cure.—Number of ascertained Failures.—Hernia Complicated with Undescended Testis.—Transplantation of Testis into Scrotum.—Formation of "Tunica Vaginalis."

In the subcutaneous method of operating, an incision is made in the upper part of the scrotum, where the tegumentary structures are so movable and elastic that the incision can, if necessary, be drawn upwards, so as to expose the superficial abdominal ring; and can be enlarged, if it be desirable to remove the sac, to an extent sufficient for this purpose. The length of this incision rarely exceeds, when tension is removed and the dartos has resumed its normal degree of contraction, one and a half to two inches. It will now be easy to detect with the finger the pillars of the superficial ring, the lower border of the internal oblique and transversalis muscles, the borders of the deep ring, the spermatic cord, and the outer edge of the rectus abdominis muscle. The finger can be passed into the deep ring, so as to raise forward the internal oblique and transversalis muscles, and feel internally the raised edge of the conjoined tendon.

The first material I employed in stitching up the canal was hempen thread, fastened over a wooden compress. This was used in seventeen cases. In the small cases of children, a pair of rectangular pins, similar to hare-lip pins at the point, but bent at a right angle near the other end, with a loop like that of a safety-pin, to lock into its fellow, were used (in forty-eight cases). Then stout copper-wire, silvered, was employed, with a view to prevent suppuration, and to afford a straight direction to the track, so as to drain the part effectually (in two hundred and forty cases). Latterly, I have used a stout piece of kangaroo, deer, or ox-tendon, well antisepticised in carbolised oil, and softened just before using by soaking in 1 to 40 carbolic lotion. The advantage of this is, that there is no necessity for disturbing the wound by removing the buried suture, as in the case of the wire and other methods.

All these modifications are essentially alike as regards the structures which were traversed and included in the suture. The variations in manipulation were merely those rendered necessary by the nature of the material employed for the ligature. When wire was employed, it was usually removed after a week or ten days. Hardly any discharge followed its use and withdrawal. The induration of the parts around and within the inguinal canal was usually marked, but its duration was not so long as in the case of the buried tendon suture. It was soon found that this induration, which was formerly considered by surgeons as important, did not remain as a permanent barrier against a return of the hernia. Such a barrier can only be obtained by a more intimate and extensive adhesion between the sides of the canal.

Operation by the Subcutaneous Method.—A tenotomy-knife, a semicircular needle, mounted on a stout handle, flattened at the eye, with a sharp point and blunt shoulders, formed so as to slip along the front of the curved forefinger, with about a foot of tendon or wire as thick as stout twine, are the instruments necessary for the operation. If the sac is to be removed, a pair of blunt-pointed bent scissors will be useful, and a double hook or two to hold the edges of the wound apart.

The parts being carefully shaved and washed, together with the instruments and hands of the operator and assistant, with a 1 to 20 solution of carbolic acid, the hernia returned, the patient anæsthetised, and the spray (if considered important) in action, an incision with the tenotomy-knife, about three-fourths of an inch long, and oblique in direction, is made over the cord just below the pubic crest, through the tegumentary coverings down to the sac. A small artery—the external pubic—may require section and ligature at both ends with small catgut. The forefinger is then passed into the canal, carrying the sac invaginated before it, up to the deep ring, behind the internal oblique and transversalis muscles, which can be felt and seen to be lifted up by the finger. At the inner border, the edge of the deep ring and conjoined tendon can be felt, and the finger passed behind them. Along the finger is then carried the needle, until its point can be felt behind these structures, through which it is then pushed. When its point raises the skin, the latter is drawn well over to the inner side before the needle is pushed through it. The tendon is then passed through the eye of the needle (or, if wire be used, a bend at the end of it is hooked on), and withdrawn with the needle through the scrotal puncture, and then detached. The finger is then passed behind Poupart's ligament, the spermatic cord felt for in its groove, and pushed aside. The point of the finger is then carried close to the ligament, and along the groove of the outer pillars of the superficial ring, opposite to the deep ring, the needle passed along it as before, and made to pierce the aponeurotic fibres. The skin is then drawn outwards, so that the needle can be passed through the same puncture as before. The other end of the ligature is then secured to it, drawn again through the scrotal puncture, and detached. The needle is then carried across behind the sac, between it and the cord. The latter can be isolated, as in tying the veins in varicocele, without difficulty. The inner end of the ligature is then connected with the eye of the needle, and drawn through. In a large case, especially if the rupture be a direct one, the needle is, lastly, to be passed through the end of Poupart's ligament, just above the pubic spine, and then carried through the inner pillar of the ring and triangular fascia, close to the os pubis, at the edge of the rectus muscle. The outer end of the ligature is then connected, and drawn across, so as to lace up the canal like a boot.

In the case of tendon-ligature being used, it is now to be braced up tightly, tied in a well secured surgeon's knot, cut off close, and buried in the wound.

If wire be used, a loop is left at the upper groin-puncture; the lower ends are twisted down into the scrotal aperture, the upper loop drawn upon so as to tighten the wire, and held firm by two or three twists down into the puncture. The bight of the upper loop is then bent downwards to meet the ends bent upwards; these are curved into the form of a hook to fasten on to the loop. A firm pad of lint is placed on the skin under the arch thus formed; and a broad spica bandage secures the whole, and exercises sufficient pressure to keep the wire firmly in contact with the hinder wall of the canal.

In wire-cases, no drainage-tube or antiseptic dressing is required. The wire acts as a straight and perfect down drain; the operation is subcutaneous, and the wound rarely even suppurates.

In the case of tendon being used, a drainage-tube should be placed, reaching from the superficial ring into the scrotal puncture, and the gauze dressing applied in the usual way by a double spica bandage, with a piece of jacquenette, through which the penis is passed, placed over all to keep off urine from the absorbent dressing.

If the scrotal opening be made larger, in order to remove the sac, some stitches should be placed pretty close together above the drainage-tube. In such a case the scrotal opening can be drawn up and stretched, so as to allow the needle to pass out and in through it, instead of through a separate groin-puncture. Thus the whole operation may be done through a scrotal opening of the length of two inches. The patient should be placed in bed in a half-sitting posture, in a bed-chair, with the knees drawn up over a bolster. Sometimes it is necessary to use the catheter a few times after the operation. Usually there is no need of this, and the patient is free from pain after the first twelve hours. To prevent pain altogether, a morphia suppository should be placed in the rectum just after the operation.

In a week or ten days, according to the amount of action, the wire may be withdrawn. By this time both the ends of the bent wire lie in the same wound-track. The lower twist is first untwisted, and the ends stretched by extension to efface the spiral twist. By traction upon the loop above, when the ends of the wire are cut off close below, the wire usually comes out in one piece. If there be any difficulty the loop may be divided, and the ends dealt with separately. The great advantage of using carbolised absorbent tendon is that this proceeding, somewhat painful, is avoided.

If this operation be properly done, it fulfils the following requirements for the permanent cure of inguinal hernia.

1. The deep ring and hernial opening are closed flush with the peritoneum, while the internal oblique and transversalis muscles, and the external oblique aponeurosis, are united to each other and to the deep hernial opening and mouth of the sac, so as to close, sustain, and support it against a fresh protrusion.

2. The conjoined tendon, forming the hinder or deep wall of the canal, is united to Poupart's ligament, close upon and over the

spermatic cord and twisted sac. Thus the valve action of the canal walls is restored, and the deep ring supported from below. The muscular and aponeurotic layers between which the canal lies are bound together by adhesion, where they had been separated by the hernia.

3. The pillars of the superficial ring are laced up like a boot, supplementing the weakened arciform fascia, supporting the other adhesions, and forming a third line of defence against a renewal of the protrusion. There is no permanent invagination of fascia after the purposes of the operation itself are fulfilled. The firm mass of the material which afterwards becomes apparent is composed of fibrinous effusion, which contracts and hardens like any other cicatrix. And this blending of the three layers of suture forms the barrier upon which the surgeon must rely.

Causes of Failure in the Operation.—The most common is failure to secure the sides of the deep ring by not planting the suture close to its edges. Here fear of damage to the deep epigastric artery acts sometimes to the disadvantage of the case. These vessels, however, are so loosely attached to the tissues, and so movable, as to be cut with difficulty in a puncture with a blunt shouldered needle. They slip out of the way, and, though doubtless they have been often included in the grasp of the ligature, they have never given rise to any trouble or secondary hæmorrhage in the whole 414 operations. Next, the operator may fail to secure the conjoined tendon properly, or it may give way prematurely to the action of the ligature. Then, from fear of wounding the spermatic cord, the ligature may not embrace the tendon sufficiently closely, and may not be passed deeply enough through Poupart's ligament. The hernial groove here formed may not be included in its grasp, so the hernia may again creep along the unclosed canal. Then the pillars of the superficial ring may not be closely and continuously united along their whole length to each other and to the triangular fascia. Lastly, adhesions formed when the patient is in a feeble state of health, or in a permanently lax and weak condition of the aponeurotic structures, may yield and give way, as they may do in other operations for prolapse of any kind, by repeated and constant stretching. In such cases, a preventive truss will be afterwards required.

Sources of Danger in the Operation.—In the first place is the possibility of a puncture or wound of the bowel in placing the deep sutures. By keeping the needle upon the front of the curved finger, placed in the proper position, this can be easily avoided. In point of fact, this accident has not once happened in my own hands. Next, it is possible that the femoral or iliac vessels may be damaged. By placing the finger in front of the vessels, and lifting up Poupart's ligament well from them, I have avoided this accident. It has never occurred in my hands. Nor, as before mentioned, has any trouble arisen from the epigastric vessels. The cord may be damaged, and the sp matic duct included in the ligature or obstructed by its pressure. In two cases out of 414 the testicle has become atrophied; in one, in consequence of the pressure of a steel clamp to the ends of the wire, and in another from an abscess forming in the gland. In two others, being found atrophied, it was intentionally removed in the operation.

Summary of Cases of Inguinal Hernia operated on for the Radical Cure.—I will first take the cases of reducible hernia, which, for some years, were the only class of cases upon which I deemed it advisable to operate for the radical cure.

In my earlier attempts, stout hempen ligature thread was used, applied subcutaneously, and secured over a compress. Of these, there were seventeen cases, with one death from pyæmia.

The pin-operation was chiefly done on infants and children with large uncontrollable ruptures. Of these, there were forty-eight cases, one a double operation, making forty-nine operations, with two deaths from erysipelas and peritonitis; the last was set up by the pressure of a strong truss just before the operation upon a knuckle of bowel, which was found, after death, to be the focus of inflammation on the opposite side of the abdomen. This was published in the BRITISH MEDICAL JOURNAL at the time.

The subcutaneous wire operation was performed in two hundred and fifty-two cases, of which nine were double operations (on both sides), and eleven were second operations (the first not having succeeded). With these, the number of operations, as distinguished from cases, was two hundred and seventy-three.

Two hundred of these were done consecutively, without a single death or unpleasant symptom. In all these cases, the sac was not removed, but transfixed in several places, twisted, and tied firmly. The cases were selected mainly from young male adults, or adolescents, in good health, which may partly account for the singular immunity from serious symptoms in two hundred consecutive cases. Five of them only were females, all young adults or children. Out of the whole two hundred and seventy-three, there were four deaths, one from tetanus, one from delirium tremens, and two from bronchopneumonia.

The mortality in these three variations of the operation, taken together, was seven deaths out of three hundred and thirty-nine operations, or about 2 per cent., and half of them were from hospital causes, some of which have been, of late years, entirely abolished. Taking the wire operations alone, there were two hundred and seventy-three, with four deaths, about 1¾ per cent., none of which could be strictly attributed to the special conditions or results of the operation.

The Successes and Failures of the Operation.—In an operation of this kind, there are special difficulties in estimating and ascertaining the proportions of failures to successful cases. A certain proportion of the failures can be verified by the patients returning for further aid to the surgeon.

If the operation be imperfectly performed, the failure becomes manifest before the patient leaves the care of the surgeon, and can be noted. But in a considerable proportion of hospital-cases, the patient does not reappear after the first convalescence. My experience is that he is more likely to come back, if the operation be unsuccessful, in search of further relief. However carefully the addresses of hospital-patients may be kept, their wandering habits and frequent removals render it impossible to keep them in view, and to follow up the cases, for many years.

I have found that, in the greater proportion of the failures, the rupture returns before the end of the first year. When the operation is properly done, but the weakness of the abdominal structures inherent in the patient's tissues results in a slow yielding of the parts, and the formation of a fresh sac, the rupture may not become apparent until some time during the second year.

It has often been the custom of surgeons, too anxious for the appearance of success, to set down and put forth as cures cases which have been examined only a few weeks or months after the operation. The shortsightedness of placing the operator's reputation upon such a foundation has often struck me, and to avoid it I have, in the list which my hearers have placed before them of the results of ninety-six successful cases (furnishing ninety-eight operations), after subcutaneous operation, carefully excluded all cases which have not been verified two years after the operation.

It will be seen in the last column of the table that the first case has been watched and examined in public during a period of not less than twenty-five years. Two cases have been in view for 23 years (one of these cases is present to-day for examination) one for nineteen, another for seventeen, three for sixteen, and so on, down to four years' duration. Of the last there are eleven cases; of three years' duration twenty-one cases, and of two years upwards twenty-four cases. The dates of operation and of the time of the latest examination of the patients, or of hearing of them from competent authority, are given in the fourth and fifth columns.

It should be mentioned that No. 49 in the table was a case in which the omentum, though not adherent, could not be returned, while No. 73 was complicated with undescended testes. Both were wire cases, in which the sac was not separately ligatured.

It may also be pointed out that No. 6, after seventeen years without truss, by falling downstairs with a load of bacon on his back, ruptured himself again on the same side. This can scarcely be considered in any other light than as a fresh and distinct rupture, which would have occurred even if the side had never before been ruptured. Nos. 26 and 27 were double ruptures, both operated on successfully at about the same time, and counting really as two more successful operations to be added to the ninety-six, making ninety-eight in all. Nos. 10 and 47 were enormous uncontrollable ruptures, each operated on three times before a completely successful result ensued, the size of the rupture being diminished by each operation. No. 47 was in a child of seven years, and the return was mainly caused by violent crying. Five cases have been, since the cure, in service in India, the relaxing climate of which is highly unfavourable to rupture-cases. Three cases passed, after the operation, the medical examination for the army, and one for the navy, after being before rejected for rupture.

The ninety-six cases thus tabulated are those in which the operation, therefore, was found to be permanently or durably successful, and entitled in every sense to be considered as "radical cures." Out of the total number of cases of the same class, viz., 339, there are 152 others which have been examined at periods under two years from the time of the respective operations, and found satisfactory. Fifty-nine were found on after examination to be more or less failures in the intention of producing a radical cure. Most of these, however, were improved by the operation, and a truss was made available which had

Table of ascertained duration of Cure after WOOD'S *Subcutaneous Operation for the Radical Cure of Reducible Inguinal Hernia.*

No.	Initials of Name.	Age.	Date of Operation.	Date when last seen or heard of.	Truss worn or not.	Duration of Cure, about	Remarks.
						years.	
1	H. H.	22	Oct. 6, 1860	Jan. 5, 1885	No.	25	Shown frequently at King's Coll. Hosp., and Royal Med.-Chir. Soc.
2	J. B.	25	Jan. 11, 1862	Feb. 14, 1885	No.	23	Shown frequently at King's Coll. Hosp., and Royal Med.-Chir. Soc.
3	H. C.	28	Feb. 28, 1862	Jan., 1885	Light tr.	23	Indian service.
4	R. S.	6	Mar. 24, 1864	Mar. 5, 1885	No.	21	
5	H. W.	30	Nov., 1864	Jan., 1885	Light tr.	19	
6	J. M.	25	June 25, 1860	Nov. 20, 1877	Light tr.	17	[without truss.
7	H. H.	16	June 20, 1859	July 16, 1875	Occasion.	16	Fell down stairs in Nov. 1877, and ruptured himself again same side after 17 years
8	C. C. T.	19	June 5, 1865	July 19, 1881	No.	16	Wears truss at hard work ; engine fitting.
9	H. W.	26	June 21, 1865	April 30, 1881	Occasion.	16	
10	F. H.	25	Nov 8, 1871	Mar. 5, 1885	No.	14	Seen again quite recently.
11	M. B.	5	Oct., 1864	Dec., 1877	No.	13	Operated on three times ; pilot.
12	G. T.	15	Oct. 5, 1861	Dec. 9, 1874	No.	13	
13	W. A.	5	Oct. 6, 1864	Oct. 9, 1877	No.	13	
14	A. H. B.	50	Oct. 20, 1867	May 16, 1880	Light tr.	13	
15	C. T.	18	June 28, 1862	April, 1874	No.	12	Heard from by letter.
16	M. S.	8	Nov. 14, 1872	Oct., 1884	No.	12	Seen many times.
17	J. B.	17	June 29, 1859	Oct. 5, 1870	No.	11½	
18	Capt. G.	24	June 6, 1872	Dec. 6, 1883	No.	11	
19	J. C.	25	April, 1858	Oct. 20, 1868	No.	10½	Been in India 8 years, riding hard.
20	T. L.	18	Sept. 5, 1863	May 6, 1873	..	10	Died of phthisis ; no return up to death.
21	D. W.	34	Sept. 5, 1862	June 10, 1872	No.	9	
22	A. P.	22	July 5, 1876	Jan. 15, 1885	No.	9	
23	W. R.	19	May 31, 1862	Jan., 1870	No.	8	India ; wears truss when riding.
24	G. H. F. J.	28	Oct. 19, 1872	Mar. 5, 1880	No.	8	
25	L. E.	26	Feb. 13, 1877	Oct., 1884	Light tr	7	
26	J. P.	19	Mar. 30, 1878	Feb. 10, 1885	No.	7	Double, both sides operated on.
27	Lieut. D.	26	Mar., 1866	Jan., 1873	No.	7	Double, both sides operated on.
28	T. N.	7	July 4, 1863	Dec. 28, 1869	No.	6½	Heard by letter.
29	G. N.	9	Oct. 3, 1863	Dec. 28, 1869	No.	6	
30	H. C.	20	Oct. 5, 1866	Nov., 1872	No.	6	
31	G. R. A.	26	June 19, 1868	Sept., 1874	No.	6	Died of consumption ; no return up to death
32	A. H.	22	Feb. 9, 1878	Jan. 25, 1884	No.	6	Died of gastric fever ; no return.
33	J. P. N.	24	Dec. 13, 1870	April 5, 1876	Light tr.	5¼	
34	G. V.	21	June, 1860	Oct., 1865	No.	5	
35	W. B.	32	Mar. 12, 1862	May 1, 1867	Light tr.	5	
36	W. A.	24	Oct. 3, 1862	Nov. 1, 1867	..	5	
37	G. R. B.	7½	Nov. 28, 1878	Feb. 22, 1883	No.	5	
38	E. W. B.	50	Oct. 22, 1879	June 10, 1884	..	5	
39	E. P.	3	June 2, 1877	June 19, 1882	No.	5	Examined after return from India.
40	Lieut. H. L. C. L.	30	Mar. 12, 1878	Sept. 24, 1883	Riding tr.	5	Very large scrotal.
41	J. H. L.	4	June 22, 1871	Oct. 20, 1875	No.	4½	India ; examined after return.
42	J. D.	1½	Aug. 21, 1862	Oct., 1866	No.	4	
43	J. A. T.	36	Oct. 5, 1872	Feb. 24, 1876	Light tr.	4	Very large scrotal.
44	E. B.	5	Dec. 20, 1873	Jan. 14, 1877	No.	4	Ditto.
45	E. B.	12	Nov. 28, 1863	May 8, 1867	No.	4	Female, right inguinal, congenital.
46	F. B.	10	April 15, 1879	June 2, 1883	No.	4	Passed Navy Medical Examination.
47	G. D.	7	June 24, 1862	June, 1866	Light tr.	4	Enormous congenital ; operated on three times.
48	M. H.	40	Nov. 9, 1881	Jan., 1885	No.	4	Omentum and sac removed.
49	R. M.	27	Oct. 1, 1880	Mar., 1884	No.	4	Irreducible ; omentum and sac removed ; large.
50	C. D.	4½	June 28, 1862	June, 1866	Light tr.	4	Operated on twice ; very large congenital.
51	M. L.	34	Feb. 28, 1881	Jan., 1885	..	4	
52	Capt. C.	35	Mar. 20, 1864	April 1, 1867	Light tr.	3	Ruptured other side by fall from horse, hunting.
53	A. B.	30	Aug. 6, 1881	June, 1884	No.	3	Sac and omentum removed.
54	J. C.	18	April 8, 1867	May, 1870	..	3	
55	M. E.	18	Jan. 12, 1881	July 24, 1884	No.	3	Passed Army Medical Board.
56	P. S.	8	Nov. 10, 1880	Oct., 1883	No.	3	
57	J. D. R.	1½	Aug. 5, 1881	Dec. 3, 1884	..	3	
58	C. K.	8	April, 1876	June 20, 1879	No.	3	
59	J. S.	22	May 18, 1872	June 30, 1875	No.	3	
60	W. S.	22	Mar. 29, 1862	July 9, 1865	No.	3	
61	G. J.	18	Dec. 1, 1869	Dec., 1872	No.	3	
62	M. D.	18	Jan. 6, 1874	Jan., 1877	..	3	
63	C. D.	4½	Jan. 28, 1862	Oct., 1866	..	3	
64	S. B.	26	Feb. 27, 1864	May 26, 1867	No.	3	
65	R. H.	30	July 12, 1862	June, 1865	No.	3	Heard of.
66	D. S.	21	July 2, 1865	May, 1868	..	3	
67	J. P.	19	Dec. 30, 1865	July 10, 1868	..	3	
68	J. A.	19	Nov. 1, 1862	Dec., 1865	..	3	
69	W. B.	19	Nov. 10, 1880	Dec., 1883	..	3	
70	M. E.	18	Jan. 12, 1881	July 24, 1884	No.	3	
71	P. S.	8	Nov. 10, 1880	Oct., 1883	No.	3	
72	J. W. R.	1½	Aug. 5, 1881	Dec. 3, 1884	..	3	
73	A. J.	13	Feb. 19, 1882	Nov. 21, 1884	No.	2¾	Very large congenital scrotal ; uncontrollable.
74	J. P.	18	Oct. 19, 1861	Jan., 1863	..	2	Undescended testis put into scrotum.
75	U. B.	37	July 9, 1881	Nov. 1884	..	2	
76	M. B.	28	May 1, 1882	June, 1884	..	2	
77	M. C.	20	Nov. 12, 1874	Dec., 1876	..	2	Passed Medical Examination for India.
78	J. E.	27	April 30, 1881	Mar. 18, 1883	No.	2	Cornet-player.
79	G. H.	9	July 4, 1871	Oct., 1873	No.	2	
80	A. S. H.	35	May 9, 1879	Dec., 1881	No.	2	
81	H. H.	18	Dec. 7, 1881	Nov., 1883	.	2	
82	A. G.	6	July 31, 1883	Feb. 10, 1885	..	2	Heard of as quite cured.
83	J. K.	10	April 19, 1883	Jan. 5, 1885	..	2	
84	A. L.	18	Dec. 16, 1882	Oct. 13, 1884	..	2	Other side weak ; wears light double truss.
85	J. E. M.	21	April 3, 1882	June 1, 1884	..	2	
86	Mrs. P.	30	Oct. 5, 1878	June 21, 1880	No.	2	Passed Army Medical Examination.
87	A. C. R.	26	Mar. 20, 1880	May, 1882	No.	2	Mother of child also operated on.
88	K. R.	10	Mar. 19, 1882	May 20, 1884	Light tr.	2	Heard of from another patient sent by him.
89	L. S.	2½	Oct. 19, 1861	Oct. 2, 1883	No.	2	
90	G. S.	20	July 11, 1883	Mar., 1885	No.	2	Very large congenital.
91	J. W.	20	May 1, 1880	Dec., 1883	..	2	Slight bulge after operation.
92	J. W.	7	April 6, 1880	Feb. 3, 1883	No.	2	
93	A. W.	22	Feb. 15, 1881	Oct. 9, 1883	No.	2	Large congenital.
94	A. B.	30	Nov. 25, 1876	Oct. 15, 1878	..	2	
95	W. A.	35	Oct. 5, 1872	Jan., 1874	..	2	
96	C. S.	21	May 18, 1878	Nov. 7, 1880	..	2	

not been so before. None of them were made worse by the operation. The remaining cases have not been seen or heard of since their discharge from the hospital.

The number of successful operations out of a total of 339 (those of above and under two years' duration at the time of last examination taken together, as I think may fairly be done) is therefore 248, while the number of ascertained failures is 59. This result gives about 73 per cent. of successful cases; and it is reasonable to suppose that the same proportion may be maintained in the cases of which the result is unknown at the present time.

If we compared the ninety-six cases, or ninety-eight operations of known successful results, with the fifty-nine cases of ascertained failures, in order to obtain our percentage. By submitting to this we should still obtain nearly two-thirds of successful cases. And this notwithstanding that the ninety-six cases, or ninety-eight operations, are only reckoned from those of over two years' standing, while the fifty-nine cases chiefly became unsuccessful before the end of the first or in the second year, during which period the majority of the failures declared themselves. If from the total 339 we deduct the earlier cases of thread, and compress, and pin operations (73 in number), and take only the results of the improved operation, we obtain 82 per cent. of successful cases.

Spray and Antiseptic Cases.—In twenty-eight cases of inguinal hernia, the operation was conducted under the spray, with antiseptic gauze-dressings. The sac was tied at the neck with separate stout catgut, and removed; while the sides of the canal and rings were drawn together by kangaroo or ox tendon, or wire. All the cases were large and severe. Sixteen were reducible; and of these one died of broncho-pneumonia, with some *post mortem* signs of septic infection. The man was a marine engineer, aged 26, who had served long on the coast of Africa, and had fever several times. He was a bad subject for operation, but was completely incapacitated for his work and livelihood by a large and uncontrollable rupture. Twelve were cases of irreducible hernia from adhesions, etc., all severe, many very painful and tender. Of these, two died. One, aged 45, was operated on during a very foggy and severe winter, and died of broncho-pneumonia. The rupture was large, adherent, and painful. He begged earnestly for the operation to be done for his relief. The other fatal case was complicated with a cystic growth on the spermatic cord and epididymis, which was removed with the sac. His aged was 56, and he had come from the Cape to have the operation done. He was warned of its severe nature, but had suffered so much from its unmanageable nature and misfitting trusses, that he was incapacitated from both work and enjoyment. He died from pneumonic congestion and bronchitis. No failures to cure have hitherto resulted from this operation; but the percentage of fatal cases is considerably increased, in comparison with the more strictly subcutaneous method, in which the sac was not removed. No doubt this is partly the consequence of the greater severity of the cases, as well as of the operation. Three deaths out of twenty-eight cases gives about 11 per cent. of fatal cases, as compared with 1½ to 2 per cent. Four males and two females have been operated on more than two years, and have shown, on examination, no signs of a return. In six other cases, males, the results have not been tested or verified since the operation. Twelve males and three females have been cured for a period not yet reaching two years.

The mortality agrees fairly with that obtained by Tilanus, of Amsterdam—namely, about 11 per cent.—in his collection of one hundred Continental cases of the radical cure of hernia by the open method of operation by dissection, with and without the use of the more strict antiseptic precautions. If this death-rate be found to be maintained on further experience, it seems somewhat too great a general risk for an operation of the class to which that for the radical cure of hernia belongs—namely, that of expediency. In the collection of cases made by Dr. Israelsohn, and given by Professor Annandale, of Edinburgh, out of seventy-one cases, four of the patients died, while sixty-six were cured, the operations being performed by various surgeons, but all with strict antiseptic precautions. This points to a further improvement to be obtained by the careful carrying out of antiseptic precautions.

Hernia Complicated with Retained Testis.—These cases are invariably of the congenital variety of hernia, and are often accompanied by other morbid conditions, such as adhesions and intrasaccular obstructions, or strangulations. When orchitis or epididymitis has been present, which is not unfrequently the case, especially if a truss have been worn, or injury sustained, very difficult complications may ensue. In two cases the testicle was retained in the abdomen, and could not be felt or reached by opening up the canal. The patients were young adults who had worn trusses for some years, with much pain and discomfort, and without effect, in keeping up the rupture. When the testicle was drawn down by the descent of the bowel (to which it was in all probability adherent in the iliac fossa) the truss could not be worn at all, and much inconvenience ensued from the presence of the testis in the deep ring. Under these circumstances, the canal was closed up to the deep ring by the wire suture, the neck and fundus of the sac being tied and removed. One of these was operated on a second time, the first operation having failed. The ultimate result was the comfortable wearing of a light truss. In another case the hernia became acutely strangulated, and necessitated immediate operation. On opening the canal under spray there were found two deep hernial openings, one placed internally and filled up by protruded and adherent omentum, and the other, externally, was occupied by a knuckle of strangulated intestine, lying along and over the cord, and adherent to a very small and shrivelled testicle. The testicle was removed, the spermatic artery tied with catgut, and the omentum and double-necked sac also tied separately and removed flush with the peritoneum. The canal and superficial ring were then wired up with a small drainage-tube placed along it. The patient did extremely well under the gauze dressing, and recovered in a short time with a bulgy groin, produced by that deficiency in the development of the internal oblique and transversalis muscles to which I have before alluded. He wears now a light truss for supporting the weak parts.

In six other cases the testicle was by an open incision freed from its adhesions and abnormal attachments in the canal and rings. In all of them the cremaster muscular fibres were wasted or absent, and the adhesions were united with its connecting fascia and the conjoined tendon, and with the fascia propria, and in two cases with the intercolumnar fascia. In these two last cases the testicle lay in the superficial ring upon the crest of the os pubis. In all of these six cases the congenital sac was formed, as is usual, by the tunica vaginalis, which, with the globus minor of the epididymis, was drawn down below and in front of the testicle. In three of them the epididymis was spread out and drawn down below the testis in a manner illustrative of the action of the gubernaculum; which, attached mainly to the epididymis and peritoneum, caused these structures to precede the adherent and delayed testicle in its descent.

By separating the adhesions carefully and removing the adherent omentum when necessary, the testicle could be cleared, and the spermatic cord examined and freed from adhesions. The cord was then carefully stretched by being pulled forwards and outwards, and then slipped down into the upper contracted part of the imperfect scrotum, previously dilated by the introduction of the finger, and freely stretched like a glove, until it was large enough to hold the testicle. A thick silk or tendon ligature was then passed through the hinder and lower part of the scrotum by means of an ordinary curved suture needle, or a handled needle. Then it was made to pass through the fibrous tissues in close contact with the testicle and spermatic duct, and out again through the scrotum, about an inch distant from the first puncture. The ends of the ligature were then tied over a carbolised pad of the size of the end of the thumb, at the bottom and back part of the scrotum.

In three cases, the spermatic cord was found to be too short and resisting to be placed, without great tension, in the scrotum. To overcome this difficulty, I carefully dissected with the point of the scalpel, through the connective tissue attaching the testicle to the globus major, as far down as to enable me to turn the testicle upside down, with the lower part of the epididymis and globus minor still attached to the testicle. By this means, I gained the length of the testicle (about one and a half inches), which, without further strain, lay topsy-turvy in the scrotum, the cord and epididymis being above it. A drainage-tube through the bottom of the scrotum, and the use of the spray and careful dressing with gauze, resulted in perfect success.

In one or two cases, the testicle showed a disposition to ascend as far as the root of the scrotum by subsequent contraction, but remained placed out of the way of injury below the penis, between its root and the origin of the adductor longus muscle. In none of these cases has the testicle been found to waste since the operation, and this must be attributed to the care with which the deferent vessels, passing from the epididymis to the testicle, and the numerous small branches of the spermatic vessels proper, were treated and arranged.

I have transplanted the testicle in this way in six cases in which no hernia was apparent. In one of them, a little child, the testis, after a few months' interval, was not to be found, and had either atrophied or reascended into the canal. In the cases in which the upper opening of the scrotum was wide, a stout tendon or catgut buried suture, placed across it when the testicle was lodged in the scrotum, assisted in keeping it there. This could usually be felt, for many months after the operation, as a distinct ridge above the testicle.

In two cases. a hernia appeared in the inguinal canal after the

testicle had been transplanted for some months. These had either been overlooked at the time of the operation, or had formed subsequently. In one, the operation for the radical cure was subsequently performed, and the other still wears a truss, with a pad of the shape of a horse-shoe pressing on the canal, the breadth of the pubic bone intervening between it and the transplanted testis. Since these cases occurred, I have made it a rule, if the canal be patulous when the testis is transplanted, to put tendon-sutures to its sides and rings, as in the subcutaneous operation for the radical cure, feeling the great probability that a hernia will follow the testicle along the funicular process into the hollow made by it during its retention in the canal.

In all these cases, the stretching and the detachment of the vas deferens and epididymis from the testicle, were much facilitated by the loose unravelment—a spreading out which the epididymis and tissues had undergone by the continuous traction of the gubernaculum since the fœtal period. In several, the epididymis was pulled to a considerable distance from the testicle.

In the cases in which the open and dilated funicular process, which forms the sac in congenital hernia, was long enough to permit it to be brought down into the scrotum, the fundus was utilised to form a tunica vaginalis, by being detached from the neck of the sac, and stitched up with a glover's suture of thin catgut, on a level with the top of the testicle. The intervening neck of the sac, from this point to the deep ring, was then detached, tied with a double ligature of tendon or catgut, flush with the deep hernial opening, and removed altogether. In some of the cases, a twist or two was given to the neck of the sac before the ligature was applied and the sac removed. In one case, where the gland was evidently atrophied, flabby, and little more than fibrous connective tissue, the testicle was entirely removed. With this exception, and the case of strangulation before described, the testis was preserved, and the result as to the rupture was even more satisfactory than where the gland was removed.

ABSTRACT OF LECTURES
ON
SOME OF THE INJURIES AND DISEASES OF THE HEAD AND NECK, THE GENITO-URINARY ORGANS, AND THE RECTUM.

Delivered at the Royal College of Surgeons of England.

By EDWARD LUND, F.R.C.S.,
Professor of Surgery, Victoria University, Manchester; Consulting Surgeon, Manchester Royal Infirmary, etc.

Lecture II.—Some Injuries and Diseases of the Bladder and Genito-Urinary Organs.

If there be one condition of the bladder which will give a surgeon especial annoyance and distress, it is when he discovers that, either from some fault of his own, from careless nursing, or from ignorance of those in attendance on the patient, he has to deal with a case of extreme distension of the bladder with overflow, which has been overlooked. A practitioner, a few years since, consulted the lecturer about a young lady, who, he believed, required paracentesis. Six days previously, she had caught cold; and he found her, on the next day, feverish, with abdominal tenderness. Her urine was slightly albuminous, and was beginning to pass from her involuntarily; the abdomen was much distended. Renal disease was suspected. The lecturer, on examining the patient, detected a circumscribed fluctuating tumour in the abdomen, but menstruation had been regular. He found that, directly after the chill, there had been pain in micturition, with scanty passage of urine, and therefore introduced a catheter. Seven pints of dark-coloured and slightly ammoniacal urine were removed, and the patient quickly recovered. In a second case, where the patient was a man aged 60, the lecturer was called to see what was said to be a tumour in the pelvis pressing on the rectum, and causing abnormal symptoms. There had been tenesmus following prolonged difficulty in defæcation; and abscess, bursting into the bowel, had been diagnosed. The patient had been under observation for three weeks; at the end of the first, a swelling had formed on the left side of the pelvis; this increased steadily. There were evidences of prostatic disease. The lecturer passed an ordinary screw-up silver catheter (not having a prostatic instrument at hand), and a quart of urine was drawn off, the tumour in the left of the pelvis disappearing. The prostate was enlarged and tender, pressing on the rectum so as to obstruct some scybala. The urgent symptoms soon disappeared on careful attention to the bowels and bladder. In a third case of this class, an elderly but robust gentleman, a foreigner, was seized, when at work in his office, with giddiness, followed by severe rigors and profuse perspiration. Similar symptoms, but not so severe, had occurred before. He went to bed and was sick; the abdomen was distended, and hernia was suspected. He had recently passed great quantities of urine, but always with some difficulty. The lecturer passed a vulcanised India-rubber catheter, withdrawing nearly five pints of urine. In a few days, the symptoms recurred, and were relieved in the same manner, and the patient ultimately did well, when regular catheterism was enforced. His ignorance of the English language and his corpulence had made his case troublesome through the difficulty from which he suffered in expressing subjective symptoms, and which his attendants experienced in examining the abdomen. No surgeon should ever stir without a male elastic catheter.

Mr. Lund then spoke in favour of puncture of the bladder above the pubes. It is cleaner than rectal puncture, and an instrument can be better retained. Having ascertained that the bladder is really full, and not suddenly empty through changes caused by secondary renal disease, the lecturer uses for the purpose a trocar and cannula of special form, just long enough to secure its entrance into the bladder, and with the cutting end of the trocar so fashioned that it will make a lineal vertical, and not a triangular cut, which is then stretched into a circular form by the progress of the instrument. The cannula is made large enough to permit the passage through it, on the withdrawal of the trocar, of a vulcanised India-rubber tube, which can lie smoothly in the bladder, and to which can be firmly fixed a plate or shield moulded to the curvature of the abdominal wall, and there retained by elastic bands. The bladder will tolerate the presence of such a tube without pain or inconvenience for a long while. In one case, where suprapubic paracentesis was performed on a patient subject to retention from an extremely fine stricture, internal urethrotomy was effected five weeks later, the intervening time being occupied by dilatation of the urethra from a condition almost impervious to one sufficient to permit the passage of a guide bougie in advance of the urethrotome. In another case of greatly distended bladder, from large swollen prostate, which resisted all attempts at catheterism, the lecturer punctured above the pubes, and the tube was worn for thirteen weeks, the patient going to and from his business by railway. Eventually the tube was removed, the resulting sinus closed; and he can now empty his bladder very satisfactorily, although a flexible catheter is passed occasionally to measure the quantity of retained urine, and to note how far it preserves its healthy acid reaction. In the suprapubic as in rectal puncture, the sinus heals readily. The only practical objection urged against suprapubic puncture is, that the opening is not so favourably placed for the drainage of the bladder as when the rectum is tapped. Assuming the patient, after the operation, is to remain always upon his back, there is great force in this objection. But with the suprapubic puncture it is not difficult to set up an arrangement of elastic rubber tubing on the siphon principle, which will drain off the urine so completely as to leave the bladder practically dry. Or, if the patient lie on his side, the drainage can still go on, the instrument being safe from injury. Moreover, the bladder is not punctured near to its most sensitive part, as by the rectal operation, but on its anterior wall, where it is endowed with the least amount of sensibility. There is another method of puncturing the bladder in prostatic retention recommended by Mr. Reginald Harrison, of Liverpool, in which, without any preliminary incision, he drives a long trocar and cannula through the perinæum and the prostate gland until the bladder is reached. This instrument being replaced by a silver tube, the latter can be borne easily by the patient, and forms a ready means of emptying the bladder, to his immense relief. Mr. Harrison's observations lead to the conclusion that direct puncture of the prostate gland may subsequently induce atrophy and general wasting of that organ, and so ultimately restore to the prostatic portion of the urethra some of its normal capacity. It is the possibility of such a result following upon Mr. Harrison's operation that has led the lecturer to watch, with great interest, how far extended experience shall confirm this idea.

The lecturer then spoke in favour of circumcising an infant whenever the prepuce "balloons out" whilst urine is passing. In such a case, there is always a risk of inguinal hernia being produced through straining during micturition. When this complication already exists, there comes the trouble of getting a suitable truss for an infant. Mr. Lund prefers the little known worsted truss, which he described at

length. An account of it will be found in Ranking's *Abstract*, vol. ix, p. 131. He also demonstrated a mode of remedy for umbilical hernia by means of strapping.

Mr. Lund described a case of calculus in the bladder, masked by enlargement of the prostate. The stone was so moulded to the neck of the bladder above the base of the prostate, as to have been protected from pressure on the collapse of the bladder, and perhaps kept constantly in one place by its peculiar shape. On the other hand, in a middle-aged patient, a stricture far back in the membranous part of the urethra had caused such stretching and dilatation of the prostatic portion, as to set up the symptoms of calculus, which subsided on division of the stricture.

A case was then described where a boy passed a piece of India-rubber tubing into his urethra, in the dark, and let it slip into his bladder, but was not certain that he had not let it pass out with the stream of urine. Retention of urine followed, and Mr. Lund employed the endoscope invented by Dr. Cruise of Dublin, and detected the piece of tubing, which, from its shape, had evaded the point of an exploratory sound. It was removed by external urethrotomy. Though it had lain thirty-nine days in the bladder, it had not become encrusted with mucus or phosphates, probably owing to its non-porous nature. In another case, a hypochondriacal young man, believing he had stricture, slipped the ivory handle of a crochet-needle into his bladder in an attempt to dilate the suspected obstruction. No pain followed, but the patient was anxious to have the foreign body extracted. At the end of six months, when symptoms of calculus supervened, Mr. Lund performed lithotomy, and removed the piece of ivory coated with much soft phosphatic deposit. The late Mr. Propert had a similar case under his care once. A youth let a stick of sealing-wax slip into his bladder, and went to India, returning after staying there for some months. Symptoms of calculus had, at last, developed. Sir Benjamin Brodie operated, and successfully removed a mass of phosphatic concretion surrounding the sealing-wax.

Mr. Lund then dwelt upon a case where a distinct click was heard on introducing a metallic catheter into a woman's bladder, after a sound had failed to elicit that characteristic symptom. An operation was performed, but no calculus was found; yet the patient, who had previously suffered from dysuria, recovered entirely. The conditions were these: the instrument in the bladder, when the click was heard, was the catheter used as a sound, and it was hollow, and being very slightly curved, the water or the urine could pass along it with little resistance. The bladder was irritable, and possessed great expulsive power. So long as the water flowed out freely in a continuous stream, no concussion was produced; but, as the lecturer afterwards proved most indisputably, every time he stopped the outgoing stream suddenly by touching the mouth of the catheter with his finger, an audible concussion was produced to a degree which no one, who had not heard and felt it, could credit without direct demonstration. The experiment was repeated several times on different patients in the hospital, and always with the same results, provided the expulsive power were great, and the stream of water or urine flowed rapidly at the moment of arrest. These are conditions analogous in principle to the rebound and noise occasioned in an ordinary water-pipe, where a shut-off tap is closed suddenly while, from high pressure in the water-main, the water is escaping with great force. The lecturer had never been able to produce this phenomenon when using a long male catheter, with the usual right-angled curve; but with a nearly straight female catheter, under the circumstances referred to, it may be, as in this case, a source of fallacy, if the surgeon be content to sound a female bladder with a hollow sound, and to allow any of the fluid to escape while manipulating with the instrument.

The lecturer commented on the curious fact that, whilst accidental wounds of the urethra are constantly followed by slow contraction of that canal, wounds made in operations on the urethra, as in the removal of small calculi fixed in some part of the spongy portion, or median lithotomy, which is really external urethrotomy of the membranous portion, and the incisions made internally in internal urethrotomy, are not necessarily productive of the same permanent contraction. To account for this it is supposed that, when the urethra is ruptured, the laceration usually occurs in the membranous portion, and transversely to the direction of the canal. This causes contraction, whereas all the other forms of wounds, being parallel to its axis, are not succeeded by permanent narrowing of the part. But another factor or cause must be considered in reference to permanent contractions after injury, as compared with wounds made in operations. The membranous portion, the part most frequently burst in injury, is naturally surrounded by muscular fibres, which have a tendency to compress the tube, as well as to sling it and draw it up under the pubic arch. These fibres, at the moment of the injury, will be so displaced as to lift or pull a part only of the canal upwards, while the other portion may remain unchanged in its position. Here at once a difficulty is created, either for the outflow of the urine, or for the passage inwards of an instrument along the urethra; because, at the injured part, the two portions of the tube so broken have ceased to be opposite to each other, or in one continuous line. How far these changes may be due exclusively to muscular action, or whether or not, in some cases, effusion of blood outside the urethra, in the deep parts of the perinæum, through which the urethra passes, may contribute to the displacement, are questions very difficult to answer. Most probably, it is because the two portions of the tube are no longer, after the injury, exactly opposite to each other, that it is difficult to pass the instrument along an urethra so damaged. In a boy who has ruptured his urethra from falling astride a narrow beam or iron paling, care must be taken, as all are aware, to prevent contraction, but particularly at puberty. It is just at that period of life that gradual dilatation is successful; whereas, if then neglected, the cicatricial contraction will grow with the patient, just as in the case of scars on the face.

It is much disputed whether other forms of stricture of the urethra are not also cicatricial in their origin. Inflammatory lymph may form a ring around a part of the canal, that ring steadily contracting. In urethritis, the most chronic forms are the most frequently followed by stricture. The influencing changes have probably advanced to active ulceration, which, on ceasing to extend, will bear the character of the cicatrix of a scald or burn, with all its tendency to steady contraction. This ulceration may cause stricture in another way. The urethra, like many other mucous canals, has its opposing surfaces in near, if not actual, contact when at rest. The line of the folded portion alters in direction in different portions of the canal, being vertical at and near the meatus, and transverse further back. When, as a result of destructive inflammatory changes, an ulcerated area has formed around a segment of the urethra, the opposed surfaces of the affected segment lie in contact with each other for hours in the intervals of micturition, so that adhesions may occur, especially at the sides of the folded canal. Thus it is that, in a tightly strictured urethra, where we can only pass a very small bougie, if it be made of some flexible material, it may require to be guided alternately to one or the other side of the urethra, to secure its passage into the bladder. This appears to be the etiology of stricture; it is not simply a pushing in of the mucous membrane towards the centre of the canal by the deposit of lymph on its exterior surface, the result of inflammation in the submucous tissue, but it is rather destruction of tissue, with cicatrisation and subsequent contraction. Such lymph-deposit may occasionally be a cause; and, by a process of healthy absorption, the lymph so effused may be removed, and the canal restored absolutely to its former capacity. Yet this happy result is of very rare occurrence, and the old remark, "Once strictured, always strictured," is not far from the truth.

Mr. Lund then turned to the "treatment by anticipation" of stricture; that is, the timely prevention of its more serious results; for, apart from injuries, organic stricture may be the result of chronic inflammation, especially in cases of gonorrhœa. This infective and specific inflammation involves a septic condition of the urethral mucous membrane. Therefore such destructive processes advance more rapidly in the urethra than in an aseptic inflammation. Extensive ulceration may occur, necessarily followed by contractile cicatrisation. The entire cessation of discharge from the mucous surface marks the cessation of the period of ulceration. The discharge may continue after superficial ulceration has ceased; but if it cease, then it is highly probable that cicatrisation is in progress, if not already completed. The contraction of the cicatrices—for there will generally be more than one spot or portion of the urethra so attacked—is very gradual; so gradual as to be overlooked by the patient himself until certain signs in the way of delay in the act of micturition, or the diminished stream of urine, attract his attention.

The use of alcohol is the most powerful agent in prolonging inflammation of this kind in the urethra. A certain part of that chemical compound is always excreted through the kidneys, almost unchanged. It is certain to irritate the urethra in a case of recent acute urethritis, often causing a temporary return of the symptoms; therefore complete abstinence from alcohol must be enforced in such a case. Mr. Lund spoke strongly in favour of exploration of the urethra with a gum-elastic catheter or, better still, a flexible ball-bougie. If a specially tender spot be detected, it is very advisable to watch the case continuously, and to pass an instrument at regular intervals for months, or even years. The ball-bougie is the best dilator for this

purpose, as its swollen extremity distends only the incipient stricture, and not the entire urethral canal.

Unfortunately, as a rule, the first time that the surgeon sees any patient who consults him about a stricture, is when that disease is in an advanced, often very advanced, stage. Then Mr. Lund considers that prolonged rest in the horizontal posture is imperative ; amongst other benefits, the chance of colds and chills is averted, so that the kidneys are spared some excess of action. Occasional warm baths will be very beneficial, combined with the occasional administration of saline aperients. After two or three days, catheterism may be commenced. A fine pliable bougie should be passed very gently. As soon as the surgeon can pass an instrument easily through the contracted portion of the urethra, one of two courses must be adopted ; either continuous or intermittent dilatation. Where the pain is not great, and the patient is not restless or irritable, continuous dilatation is the quicker and the more successful of the two plans. This is done by a succession of small filiform or of gradually tapering bougies, one being retained for a few hours, or until by its presence, or by the subsidence of swelling in the lining of the urethra, it is found to be no longer tightly gripped, and that it can be freely moved to and fro in the passage; then it is to be removed, and a larger size substituted for it, always following the French scale or gauge, so as to make the transition from size to size as gradual as possible, until it be equal to No. 5, or even No. 6, French gauge.

It is often difficult to introduce a larger filiform bougie just after a smaller has been withdrawn, for there may still be much tortuosity in the canal, and its introduction is not easily insured. Mr. Lund has used with great advantage the very long tapering bougie which Mr. Reginald Harrison has contrived for this special purpose, which he calls the whip-bougie. This instrument, once through the narrow canal, may hour by hour be gently pressed onwards, and, without removal and reintroduction, it serves as a long conical wedge with which to dilate the passage. It is a very ingenious and useful instrument.

It is at this stage of expansion of the canal that we may discuss the propriety of performing internal urethrotomy, and the cases to which it is applicable. With so small a guide as is furnished by a bougie of No. 6, French scale, if it can be passed along the whole length of the urethra ; and if we are sure it has not entered a false passage, instead of the bladder, or gone out of the urethra through one sinus, and come into it again through another nearer the bladder—these possible errors in direction being carefully avoided—we may proceed to the operation of internal urethrotomy. This consists in a series of operations beginning with the passage of a No. 6 bougie, and culminating in the introduction into the bladder of a catheter equal to No. 34, French scale, through which the urine can be withdrawn.

At every successive stage we have ample proof whether or not we are proceeding rightly ; and, if doubt exist that some unfortunate departure has been made from the true line of the passage, it is easy as well as prudent to desist for the time, and on some future occasion to complete the urethrotomy. To verify the correctness of our advance, and avoid error, the surgeon, firstly, must introduce, and assume that he is able to pass effectively, a *bougie conductrice*, and to this is attached an exceedingly small silver tube, fashioned as a catheter, and this is led onwards into the bladder. If this stage be reached, urine will flow through this little catheter, confirming our impression that the instrument is really within the bladder. But if this should not occur, by reason of the tube being stopped up by blood or mucus, or because there is not sufficient urine in the bladder, we can inject warm water with a fine syringe, and wait for its discharge.

Then, a fine silver tube (exhibited by the lecturer), stiffened by a steel rod, screwed into it, becomes at once a safe guide for a set of tubes with conical ends, of increasing size, to be passed over it, by which the canal can be dilated up to the equivalent of No. 12, French scale. The catheter, steel rod, and the largest tube, are then withdrawn from the passage, as far as the metal mount of the bougie, from which they are unscrewed, but this is left in the urethra. Lastly, the urethrotome itself is screwed on to the metallic mount of the bougie, which in its turn serves as a guide for the introduction, completely into the bladder, of the central portion of the urethrotome, along which the cutting portion slides. Mr. Lund has had this portion made self-sheathing, so that there may be no danger of the urethra being cut on the removal of the instrument, or at any other moment, except when, by pressure on the handle, the edge of the knife is exposed.

Internal urethrotomy thus conducted is, in the lecturer's experience, a very satisfactory and efficient operation. By no means is it applicable to every case of stricture of urethra, or the essential operation for its relief and possible cure. In fact, it is most important that cases should be selected, and that the patient should be carefully tended after the performance of the operation, or much constitutional disturbance may result. The cases not favourable for its adoption are those in which, from the habitually low specific gravity of the urine, when fairly estimated from the accumulated secretion of twenty-four hours, it is presumable, at least, that renal insufficiency exists, and that an embarrassed state of the secretory powers of the kidneys may be set up by nervous influence, or shock from the operation itself. There is another class of cases in which it is not suitable ; those in which there is evidence of urethritis, with purulent secretion. In this latter state it is imperatively necessary that the surgeon should employ, for many days beforehand, antiseptic injections, preferably a weak solution of chloride of zinc, to correct this condition. Otherwise, there will be the greatest risk after the operation that septic changes will invade the wound within the urethra, and thence be propagated through the general system as septicæmia, or even end as acute or chronic pyæmia. With regard to the mechanism of the operation, it may be objected that, the incisions being made only along the upper or pubic wall of the urethra, they will not thereby divide the bands or adhesions, elsewhere placed, which have diminished the capacity of the canal.

This is, unfortunately, an insuperable objection. But there is no other operation for stricture in which the surgeon can be sure that this great difficulty has been overcome. He can only rely upon the effect of forcible dilatation of the canal by the large conical metallic bougie which is passed at the end of the operation. After this, the permanency and success of the case will depend almost entirely upon the surgeon's power to preserve the enlarged calibre of the canal until the cicatricial splice of new tissue shall have enlarged the general circumference of the urethra.

Here the lecturer noted a very pertinent and thoroughly practical remark made by the President of the College, in a discussion on the subject of the treatment of stricture at one of the medical societies some years since. In dealing with a case of stricture of the urethra, said to have been cured by any particular surgical proceeding, the surgeon, knowing how prone such cases are to undergo secondary contraction, must ask the important question ere the verdict of the success is recorded, "How long is it, since the operation was performed ?"

ABSTRACT OF THREE LECTURES ON SECRETION.

Delivered at the Royal College of Surgeons of England, June, 1885.

By EDWARD ALBERT SCHÄFER, M.R.C.S., F.R.S.,
Lecturer on Anatomy and Physiology in the College; Jodrell Professor of Physiology in University College, London.

Lecture I.—Structure of the Secreting Organ.

In his introductory remarks, Professor Schäfer said that there were few subjects more interesting to physiologists in the present day than that which he had chosen for the title of his lectures—Secretion. He proposed to consider it under three heads: 1. The Structure of the Secreting Organ: 2. The Secreting Organ in Activity: 3. Old and New Theories of Secretion. Each of these would occupy a lecture.

By the term secreting organ was ordinarily understood a structure which separated material, either that it might serve some useful purpose in the organism, or that it might be got rid of. The process of secretion, which was most frequently attended with chemical change, was vested in cells ; and hence it was necessary, in the first place, to consider the structure of cells. There was, however, a weakness in the ordinary definition of secreting organ and secreting cell ; for there was scarcely a cell to which the term might not be applied. Treviranus long ago made the remark, which had been quoted by Sir James Paget, that every organ in the body had towards others the relation of an excreting organ. The lecturer would prefer to substitute the word secreting for excreting ; and if Treviranus' views were admitted with this modification, then cell-secretion and cell-nutrition were very closely allied ; and the term "secreting cell" might logically include every cell in the body.

In accordance with this view of unity of function, the secreting cell agreed with other cells in consisting of protoplasm and nucleus ; but in secreting cells the protoplasm showed peculiarities of structure. In order to understand this, it was necessary to examine the structure of an ordinary typical cell ; and, with regard to this, the ideas formerly

entertained as to the structure of cells and nuclei had, in late years, undergone much change.

Modern observation had shown the nucleus of cells to consist of two distinct substances; one, called chromatin, from being coloured by reagents; the other, achromatin, not being capable of coloration. Achromatin was generally amorphous; chromatin always had a definite form, being generally arranged as a membrane on the outside of the nucleus, and being prolonged in the interior in the form of a network, on which lay masses of chromatin constituting the nucleoli. In some cells, the chromatin was chiefly arranged in filaments, and nucleoli were absent; sometimes it was arranged in a striated form, or in rows of particles. Division of the nucleus was usually attended with changes in the chromatin, which became arranged in the form of a rosette around the centre of the nucleus, and broke up into filaments. The achromatin also underwent change.

As regarded the structure of the cell-protoplasm, there was less agreement of opinion than concerning the nucleus. The protoplasm was formerly supposed to be a structureless homogeneous material, and the definition of Dujardin's "sarcode" would very closely agree with the old description of the cell-protoplasm; but it was now admitted by everyone that the protoplasm often had a reticular appearance. The analogy of this with the reticular structure of the nucleus, had led some to teach that the nucleus and the cell were identical, one part being merely more condensed and marked off from the rest. Heitzmann had represented the reticular structure in cartilage-cells as passing, not only through the nucleus and protoplasm, but through the intercellular substance, so as to become connected with other cells. But there was an objection to the acceptance of this view, inasmuch as the reticulated appearance might be produced artificially by alcohol and other agents used in preparation; and, further, it could not always be seen in the living subject. A living cartilage-cell showed filaments in the protoplasm, but these were not connected in the form of a network. Nor had there been seen any sign of reticular structure in the amœba, or in such bodies as the colourless blood-corpuscles of the neut or salamander. In organisms of this kind, the protoplasm often presented a reticular appearance, due to the taking in of globules of fluid. Sometimes granules were taken in by means of pseudopodia, and gave the protoplasm the appearance of a network; but this was very different from what was described by Heitzmann, Stricker, and others. The lecturer referred to a book by Heitzmann, in which the idea of reticulation was applied to all structures of the body.

The term "cell-contents" next demanded notice. It originally meant all that was included within the cell-membrane which was supposed to exist; afterwards it was applied to the fatty, albuminous, starchy, and other matters incorporated in the protoplasm, but distinct from it. The term was now rarely used, but it was still necessary until a better one could be suggested. "Paraplasm" had been proposed, but it was also used in another sense. It was therefore better to use the old term "cell-contents" to describe any substance included within the protoplasm. A reticular appearance of the protoplasm might be produced by the cell-contents; for example, the fatty granules in the cells of the sebaceous gland of the cat, and the cell-sap in vegetables.

So far, the lecturer said, the cells described had little of specialisation in function; but secreting cells were highly specialised, and often the protoplasm presented differences, consisting usually in the development of fibrils. Such fibrils were most conspicuous in the cells of the kidney; they were also seen in the cells of the ducts of the salivary glands, and in those of the pancreas. These fibrils took generally the direction of the flow of the secretion. In some instances, as the columnar cells of the intestine, a striation of the fibrils was observed. In other instances, as the liver, where the direction of the flow of the secretion was uncertain, the arrangement of the fibrils was less definite; in the frog's liver, however, there was a tendency to converge in the direction of the ducts, but not so distinctly as in the kidney and salivary gland.

Modifications were also produced by the accumulation of the material to be secreted, such as carbohydrates, fatty matters, zymogen, etc. These might cause the protoplasm, as in the cells of the pancreas when containing zymogen, to have a reticular appearance; but when the zymogen was discharged, no trace of reticulation was left, the protoplasm presenting a homogeneous appearance.

In secreting cells, the cell-contents fell under two categories; first, there were the secreted materials, such as albuminous matters, glycogen, and fat; the last was best shewn by means of osmic acid. In the liver-cells, there were both fatty matters and hydrocarbons. These were supposed to be intended for the nutrition of the cell, but no positive assertion with regard to this could be made, for they might be the result of cell-activity, and of the breaking up of the contents. Other cell-contents were discharged, such as the pigment of liver-cells, crystals of uric acid, etc. These might undergo further change after being discharged, so that it was unsafe to draw a conclusion as to the chemical nature of cell-contents from the characters of the secretion.

The lecturer then alluded to the manner in which the secreting cells were arranged. This varied much, from the simple flat membrane to the different forms of glands. A more important matter was the relation of the secreting cells to the rest of the organ. The secreting epithelium nearly always rested on a basement-membrane, which, in some parts, appeared perforated, but, when more closely examined, was found to be not so, the membrane being merely thinner. The blood-vessels were very rarely in direct relation with the cells; they seldom penetrated the basement-membrane, and were separated from the secreting cells by the lymphatics. Hence the material for the nutrition of the cells must be derived, not from the blood, but from the lymph of the gland.

That nerves bore a relation to the secreting cells was certain, but the manner of their terminations could not be said to have been successfully made out. It was thought, about fifteen years ago, that the passage of the axis-cylinder into gland-cells had been discovered, but this had not been confirmed.

HEALTH-RESORTS IN ULSTER.

By ROBERT ESLER, M.D., Belfast.

THE attention of the members of the British Medical Association was directed to the north of Ireland during the meeting of the Association in Belfast last year; and the recent visit of the Prince of Wales has drawn the attention of a larger circle of the reading community to the emerald Isle. Thousands from all parts of Britain annually visit the north, on account of its bold and varied scenery; but little is known of the comparative merits of the various localities as health-resorts.

As the Association has now a large membership in Ulster, some particulars of a few of the most fashionable summer resorts may be of interest; but, before entering upon the details of the various localities, some attention might be given to the general laws which are essential to enable any town or district to be designated a health-resort.

That people of all classes leave their comfortable homes, and at some cost, and often great inconvenience, remove to seaside, stuffy, damp, incommodious cottages, badly drained and badly ventilated, to seek for health, or to renew the amount of vigour they may possess, is matter of yearly observation; and that they do so especially for the good of the children of the family is commonly alleged.

How much of this habit may be laid at the door of the medical adviser, I am not in a position to say; but am aware that a large proportion of the fashion in this direction is attributed to medical men. It may be in the matter of sea-air as it is with alcohol; people like it, and they get some one willing to prescribe it. To the hard-working business man, the rest of a seaside holiday, with change of scene, may be the best way to enjoy mental recoil and regain physical tone, but that it is universally required by women and children is a more doubtful point; much, of course, will depend on their home, their surroundings, and their condition in life.

Where variety can be had without discomfort and inconvenience, and where the matter of expense does not bulk largely as a factor, there can be no reasonable objection to a sojourn at one of the many health-resorts which this and other countries offer.

The habit of taking an annual holiday has become so common to dwellers in large towns that the fact may as well be recognised. It will be the object of this paper to point out some of the health-resorts which are to be found in Ulster, and to give as many statistics as are available in relation to their sanitary condition.

The purity of the air we breathe, and of the water we drink, is so important to the well being, and even to the continuance, of human life, that attention to these matters, in the different localities of any country, should be abundantly bestowed by medical men who have the guidance of their patients in connection with their residence, their sojourn, and their holiday-resorts in any given locality.

The province of Ulster is composed of the counties Antrim, Armagh, Cavan, Donegal, Down, Fermanagh, Londonderry, Monaghan, and Tyrone. The climate varies considerably from north to south, but the general character of the whole province is cold and damp, although during the summer months the clear bracing air of the northern coast is exceedingly pleasant. The principal health-

resorts are situated in counties Antrim and Down, although many select the highlands of Donegal as their sanatorium.

ROSTREVOR.—The beautiful watering-place of Rostrevor is situated on Carlingford Bay, at the southern extremity of County Down. The village is small, and does not consist of more than about three hundred houses. It is sheltered from the north and east by the Mourne mountains, while it lies open to the southern sun and the soft sea breezes of the beautiful bay on which it is built. The cultivated slopes are richly covered with verdure and studded with elegant villas. The whole landscape forms a beautiful picture, the rich meadow lands of the valleys offering a pleasing contrast to the rugged mountain-tops by which they are hemmed in. There is no trade or bustle, and the whole tone of the place is that of peace and contentment. It is altogether a spot of surpassing attraction, and has been rightly called the Montpellier of Ireland. As a health-resort, Rostrevor has no equal in Ireland during the spring months, as it is at this time of the year that the village is thoroughly protected from the prevailing east winds by Slieve Bàn, at whose base it is situated. The hotel accommodation is excellent. The Mourne Hotel, overlooking the bay, is a model of beauty and convenience. Lodgings are plentiful and prices moderate. Travelling can be done by rail from either Dublin or Belfast to Warrenpoint, distant two miles, from which the journey can be completed by tram-car.

The neighbourhood has many places of interest; Narrowwater Castle, built by Sir Hugh de Lacy, in 1212, to protect the entrance to the canal leading to Newry; the residence of the Martin family, where the home rule agitation was originated; Killowen Chapel, where the marriage was celebrated which led to the famous Yelverton trial; Greenore, which is situated on the opposite side of the bay, from which there is daily steamboat communication with Holyhead.

Dr. Vesey reports of Rostrevor, as a health-resort, that the sewerage is good, and that typhoid fever has not been met with for many years; that the water-supply could not be better or purer, as it comes from the mountain. The storage-reservoir is placed 600 feet above sea-level, and the service-reservoir 232 feet, thus giving a pressure of more than 100 lbs. to the square inch. The death-rate is exceptionally low, being only 12 per 1,000, and if invalids were excluded it would be less. The rainfall is above the average of the surrounding country, but on account of the sandy subsoil the surface quickly dries. Ozone has been tested for, and its presence found.

NEWCASTLE.—Next to Rostrevor, in importance as a fashionable watering place in County Down, is the cheerful little town of Newcastle. It is situated twenty Irish miles from Rostrevor, by the shore road, and about the same distance from Belfast by rail. Its permanent population is about 1,000, but during the summer months this may be multiplied several times. It is one of the most picturesque places in this country; standing as it does on a beautiful sandy beach, at the foot of Slieve Donard, the highest of the Mourne Mountains, 2,800 feet above the sea level. There are many beautiful walks and drives in the neighbourhood, including those to Bryansford, Dundrum, Castlewellan, and Rathfriland. Donard Lodge, with the beautiful surrounding park, the property of the Dowager-Countess Annesley, is one of the chief attractions; and, as it is freely thrown open to the public, it affords an endless variety of scenery, containing, as it does, exquisite landscape gardening, and the most rugged glens, with bold waterfalls.

The hotel accommodation is excellent, both the Annesley Arms and the Belleview being commodious and well-managed hostelries. There is a Chalybeate Spa Well in the neighbourhood. The town is well provided with pure water. Baths have been erected at considerable cost, they are well fitted up, and contain both hot and cold water. The combination of mountain and sea-air makes this a most desirable summer-resort.

DONAGHADEE.—This is one of the nicest little towns in County Down, having rail to Belfast, from which it is distant 22 miles. It is the nearest port to Scotland, from which it is only 21 miles distant. At one time direct communication was carried on to Portpatrick, but at present the passenger-traffic is diverted *vid* Larne and Stranraer. Donaghadee contains a very fine harbour and lighthouse. An old Danish rath, at the end of the town, gives it a picturesque appearance.

In answer to inquiries as to the sanitary condition of the place, Dr. Stuart, the resident medical officer of health, writes as follows.

1. *Sewerage.*—The town is situated on a slope from the upward, which makes sewerage easy, the fall being good in the greater part of the town; there is a sufficient supply of drains, which empty themselves into the sea, and, as it washes the whole front of the town every tide, all offensive matter deposited by the sewers is carried off. A number of the gratings on the drains, along the streets, are of the old open description, but I have instituted means to have them replaced with stench traps, which will, when done, make the sewerage perfect.

2. *Condition of the Air.*—This is generally mild, the town is well sheltered from the south and west winds, which prevail here in the winter time; east and north-east breezes prevail in spring and summer, which make the air bracing and invigorating, at the very time when strangers visit our town in search of health; even during winter the air is milder than in Belfast.

3. *Water-Supply.*—Though we have no public water-supply from a distance, there is an ample supply from pure springs in the neighbourhood. There are three good pumps erected, outside the town, by the Sanitary Board, and other private pumps, which afford a never failing supply. The water was lately analysed by Dr. Cameron, of Dublin, county analyst, and pronounced by him to be good. The best evidence I can produce to show the excellent quality of the water, is the absence of any ill consequences to the public health from its use. I have had charge of the dispensary for twenty-five years, and during all that time we had no epidemic of any kind traceable to the use of the water of the pumps; in fact, the town has for many years been so healthy, we have had only sporadic cases of zymotic diseases, and these, "few and far between." I consider we have the cleanest, healthiest little town on the north-east coast.

4. *Death-Rate.*—For the last year, this has been about twenty per thousand.

5. *Rainfall.*—I am informed by Mr. Macgowan, manager of the station here for meteorological observations, that, for the last three months, this has been just 4.5 inches.

There is a very good view of the Scotch coast from the front street of the town; and from the moat in the centre of it, excellent views can be obtained from Cantyre, in Argyleshire, to the Mull of Galloway, including Ailsa Craig and the Isle of Man. The town is built in a semicircle, having the splendid quay as a promenade, not surpassed by any in the kingdom. Adjacent to the town are extensive gardens and walks, beautifully kept, which are open to the public, free, every day except Sabbath. These are the property of the landlord, D. Delacherois, Esq., D.L. In the immediate neighbourhood there are two extensive gardens, well supplied with every kind of summer fruits and flowers.

There are, in the summer season, usually six trains each way, between Donaghadee and Belfast, daily.

There are local conveyances, to any extent desired, to be obtained. The old outside car, the modern wagonette, and highland coach, carrying thirty-five passengers each, together with long cars, carrying eighteen persons each, run to Bangor three times daily. These cars are in good demand for excursion parties, picnics, etc.

The town contains one Episcopal church, two Presbyterian churches, one Methodist church, and one Roman Catholic chapel.

In Donaghadee there is one of the best constructed, and extensive baths in the province—the Ulster Baths—containing a large plunge bath, 70 feet square, filled from the sea every tide, also numerous cold, warm, shower, and spray baths, for ladies and gentlemen. Adjacent to the town are many good bays for sea-bathing, in a pure sea, free from the possibility of impregnation by the diluted sewage of the large town of Belfast, which must impregnate other bathing-places nearer the Northern Athens.

An attraction, valued by some, is the existence of a Corinthian sailing club, where well contested sailing matches take place every Saturday afternoon in the summer. Boats can always be had, at moderate terms, for pleasure sailing and rowing, manned by some of the best boatmen in Ireland.

BALLYNAHINCH.—This country district of County Down has a combination of mountain air and spa water, which gives it some reputation as a health-resort; and, for those suffering from rheumatic affections the place offers many attractions, and unquestionably many patients consider that they receive much benefit from a sojourn at this sanatorium. It is situated half way between Belfast and Downpatrick.

BANGOR.—This is, in many respects, one of the most important seaside towns in Ulster, as it is visited by the largest number of persons during the summer months. It is only ten miles from Belfast, on the County Down side of the Lough. It is a very ancient town, having had an abbey destroyed by the Danes early in the ninth century. Dr. Reuben Bolton furnishes the following particulars as to its sanitary condition.

1. *Sewerage.*—A thorough system of sewerage for Bangor is approaching completion. The main sewers throughout the town have been laid down for about a year, but await a sufficient supply of water for efficient flushing from the capacious reservoir just

constructed at a distance of about two miles. The sewer-pipes from all the streets and houses have not yet been connected with the main sewers. When the entire system shall have been completed, the result will be as perfect and effectual an arrangement for the disposal of sewerage by water-carriage as can exist anywhere.

2. *Condition of the Air.*—The air of Bangor is particularly pure and bracing, consequent upon its situation on the sloping and indented southern shore of Belfast Lough ; upon its surroundings (except on the seaward aspect) of open country, greatly diversified by alternate hill and vale, with occasional coppice or wood ; upon the absence of all manufacturing establishments which could pollute the atmosphere with smoke, or the streams with poisonous filth; and upon the arrangement and steepness of the streets constituting the main thoroughfares of the town, which enable every breeze that blows to circulate freely, and to quickly dry the roads after rain.

3. *Water-supply.*—Hitherto the supply of water for Bangor has been derived from pumps or wells, either public or private. These, with such rain-water as could be stored, have furnished a fairly adequate supply for consumption and domestic purposes generally. The pump-water is pure, and free from organic matter, but, from every source, is hard, containing both carbonate and sulphate of lime in considerable quantities ; iron is also present in several specimens. To meet the requirements arising from the rapid extension of the town, and the necessity for a continuous supply of water to flush the new sewerage works, to extinguish fires, etc., an extensive scheme for the provision of an ample water-supply has been entered upon by the sanitary authority, and is now all but complete. The reservoir is stated to be capable of containing enough pure water to furnish a supply of twenty gallons daily to five thousand persons for five months, and is situated on an elevation higher by forty feet than any habitation within the township.

4. *Death-rate.*—The population of the township, or urban sanitary district of Bangor, was returned at the last census as being 3,006. During the year 1884, the deaths registered as having occurred within the district during the first quarter of the year were 14 in number. During the second quarter, there were 13 deaths registered ; and, during the quarter ending September 30th, 11 deaths. These figures correspond to an annual death-rate of about 16.8 per 1,000 of the population. It should be understood that, the census throughout the kingdom being taken during February, the population given above, on which the mean mortality is calculated, is that of the ordinary residents. The visitors in summer add enormously to the number of inhabitants ; but as they cannot be conveniently reckoned, all deaths, whether those of permanent or temporary residents, are included as indicating the death-rate among the permanent population only, and so make the ratio appear somewhat higher.

PORTRUSH.—This favourite and fashionable watering-place is situated almost at the extreme north of Co. Antrim. It has rapidly risen during the past few years, and has become widely known and very popular, on account of its close proximity to the world-renowned Giant's Causeway, and also from the excellent salmon-fishing to be obtained in the neighbourhood. The coast-scenery is unsurpassed in the world. An electric railway extends from Portrush to Bushmills, a distance of six miles in the direction of the Causeway, and recently powers have been obtained from Parliament to complete the remaining two miles. The sandy beach is one of the most beautiful to be met with anywhere. The sea is rather rough, the water is buoyant, and the air keen and tonic. Dr. Adam Clarke was born at Portrush ; a monument has been erected to his memory on a hill overlooking the town. A quay affords accommodation to vessels of small tonnage, and steamers to Scotland leave twice weekly.

The death-rate is 15 per 1,000 of the population. The rainfall for 1882 was 47.65 inches, and for 1883, 44.68.

The following facts on air, sewerage, and water-supply are furnished by Dr. Macaw of Bushmills.

The air of Portrush is pure and bracing. It is a good deal exposed during the winter months. A scheme of sewerage is in progress which, when completed, will be very good. The soil is porous, and dries rapidly after rain. A new and ample water-supply has been recently provided. There are five good hotels, and a superior class of houses, let either in apartments or as furnished houses. The population in winter is 1,500 ; in summer, from 3,000 to 4,000.

Denluce Castle, midway between Portrush and Bushmills, is a ruin of great antiquity and much interest.

At Portstewart the air is pure and bracing; the sewerage is pretty good ; and there is a fair supply of water from wells and pumps. There are two good hotels, and a good strand for promenade.

At Bushmills and Ballintra the air is pure and bracing, the sewerage is good, and the water-supply fair from wells and pumps. There are hotels at Bushmills and the Causeway, each a mile distant. Bushmills is accessible from Portrush by the electric tramway. There are several furnished houses and houses let in apartments.

The sewerage at Ballycastle is defective, but the water-supply is pretty good. The scenery in the neighbourhood is beautiful. The place is accessible by railway, but there is very little accommodation for lodgers.

The Giant's Causeway Hotel is situated on a commanding eminence close to the Causeway, and is under excellent management, being conducted in connection with the electric railway. To those who want a tonic and invigorating atmosphere, with wild and beautiful coast-scenery, a week's residence here will be thoroughly enjoyable. Of the Causeway itself, it is not necessary to speak here. Being one of the wonders of the world, everyone has a desire to see it. Its curiously formed pavement, its wonderful caves, its charming bays and bold headlands, have been the theme of visitors for more than two hundred years. Time has not deprived them of any of their beauty, nor description made their study any the less interesting.

Portrush being the "Brighton of Ireland," and the Giant's Causeway an unsolved geological problem, with the only electrical railway in the world lying between them, it is not surprising that this is one of the most attractive health-resorts in Ulster.

CASE OF APHASIA IN WHICH THE CHIEF LESION WAS SEATED IN THE SUPRAMARGINAL AND ANGULAR GYRI, BROCA'S CONVOLUTION BEING UNAFFECTED.

By SAMUEL WEST, M.D., F.R.C.P.,

Physician to the City of London Hospital for Diseases of the Chest ; Physician to the Royal Free Hospital ; Medical Registrar and Tutor to St. Bartholomew's Hospital.

HENRY H., aged 66, a painter, was admitted into the Royal Free Hospital with an attack of bronchitis. Except from occasional attack of gout, he had been in good health until one year ago, when his breath became short on exertion, but he was not laid up until his feet began to swell about two weeks before admission.

The patient was rather stout, but of a sallow pallid colour ; the face was slightly puffy, and the legs œdematous ; loud rhonchus and sibilus were audible over the whole chest ; the heart was extremely feeble, and the cardiac dulness increased to an inch to the right of the sternum ; there was no murmur ; the veins of the neck were turgid ; the liver did not appear to be enlarged ; the urine contained a small amount of albumen, and the arteries were hard. The case was regarded as one of bronchitis, with a weak dilated heart, consequent upon granular kidneys.

The patient improved considerably under treatment until January 21st, about three and a half weeks from his admission, when, at 6 A.M., he was discovered by the nurse to be unable to speak. Nothing had occurred during the night to attract attention to him ; and, except for his aphasia, he seemed to be in his usual health.

On examination, during the morning, incomplete right hemiplegia was discovered, the loss of power being more marked in the leg. The patient appeared to be in comfort ; and, in general health, to be, on the whole, better than before. He was cheerful and happy, but he understood very imperfectly what was said to him, and, in reply to questions, he muttered gibberish, though he often repeated the words "Yes," "Well." The movements of the tongue were free and symmetrical ; the pupils were equal, and reacted normally to light and to accommodation. There was no paralysis of the eye-muscles, and the discs were normal. Only a slight loss of power on the right side of the face was to be detected. The urine was passed involuntarily, and the bowels were confined. With reference to the right arm, the note taken ran as follows : "There is a good deal of inco-ordination of the right hand."

January 22nd. The patient's condition was the same, but he had not slept at all. On being asked to put out his tongue, he would move it about in his mouth, but not protrude it, showing that he partly, at any rate, understood what was required of him.

January 24th. For the last two nights the patient had slept well, though to-day he was drowsy and heavy. A condition of incomplete hemianæsthesia on the right side was discovered, affecting also the right half of the face.

January 25th. The patient could make use of a few more words, but did not understand completely what was said to him.

January 26th. The patient said "good morning," "corner," "very well," "order," "one, two, with it," indiscriminately, in response to questions, although he seemed to understand that he was answering foolishly. He would try one after another of these expressions, and when he found that none was the right reply, he would shrug his shoulders, shake his head, and say, with a laugh, "Oh Lord, oh Lord," as if amused with his ineffectual efforts. Occasionally he would say "I can't," "I couldn't," "I could," but always in answer to questions, as if indicating his sense of inability to do what was wanted. The phrases which were most used were "good morning," "corner," "order;" and, when writing or printing was shown him, he always turned it so as to be right side up, and said "one, two, with it." These expressions were thought to be those in constant use in his occupation, which was that of a carrier. The paper probably suggested the invoice, and "one, two, with it" the number of packages to be delivered with it, while "good morning," "corner," and "order" would be expressions of commonest use in his business. Writing or printing conveyed no distinct meaning to him, although it was clear, from his always holding the writing or printing in the proper position, that he recognised the symbols, though he failed to attach any meaning to them.

January 28th. The patient had a good deal of fresh bronchitis, and much dyspnœa. He had lost appetite, and slept badly. He lay always upon his left side, and when sitting up always inclined to the left side. Four dry cups upon the back relieved his dyspnœa much.

January 29th. The patient passed a very bad night, and in the early morning became so restless that two men became necessary to keep him in bed. Later, he became quieter and drowsy; he vomited a little. The breathing became difficult, and there was some cyanosis. The left hand was œdematous, but he had been lying on it. The pulse was 84, weak, and very irregular; the temperature throughout was not raised.

February 6th. During the last week the patient had slightly improved. He was now more intelligent, and answered simple questions fairly rationally, if they did not require much more than "yes," or "no." When asked to put out his tongue, he moved his tongue about in his mouth, but put out his hand.

February 12th. To-day he produced his tongue when asked, and it was protruded straight.

February 28th. For the last few days there had been a gradual increase in weakness. The face had become more puffy, and sleep and appetite were poor.

March 1st. The patient was rapidly losing ground. He had hardly slept at all for two nights.

March 5th. The patient died quietly at 1.30. The urine had been reduced to about eight ounces during the last twenty-four hours. The eyes had been frequently examined; there was no affection of external muscles, and no retinal change. Vision appeared good, but I am not sure whether each eye was tested separately, though I think this was done. The hearing, also, so far as could be ascertained, was unaffected. The condition of hemiparæsthesia remained unchanged throughout. The patient's death occurred exactly six weeks after the attack of aphasia.

The *post mortem* examination, made twenty-four hours after death, disclosed the following conditions. There was considerable general œdema, and dropsical fluid in the peritoneum (moderate) in both pleura (considerable) and in the pericardium (slight). The lungs were œdematous, and partly collapsed. The aorta was extremely atheromatous, and the arch dilated. The heart was generally dilated. The left ventricle was hypertrophied, and slightly fatty. The left coronary artery was much obstructed at its origin by atheroma, and the mouth of the right completely obliterated; although this artery was pervious, and of rather unusually large size, even up to its origin from the aorta. The liver was slightly cirrhotic; the spleen was small and hard. The kidneys were small and granular.

Brain.—On removing the dura mater, the meshes of the pia mater were seen greatly distended with serous fluid (true dropsy). Both veins and arteries contained but little blood. On removing the brain, a good deal of serous fluid escaped from the spinal canal. On the left side of the brain, corresponding with the whole extent of the supramarginal and angular convolutions, was a large area of softening, considerably depressed below the level of the rest of the cortex. The colour was pale yellow, and the surface was speckled with small patches of white and yellow (fatty change). No evidence of disease of the vessels, other than atheroma, was evident at the base. The distribution of the softening pointed to plugging of the distal portions of the Sylvian artery as the cause of the lesion, but the proximal portions of the vessel were pervious. All the convolutions of the left hemisphere looked smaller than those of the right, but the difference was most marked in the convolutions adjacent to the fissure of Sylvius, namely, those on the lower part of the frontal lobe, the supramarginal and angular, which were softened and depressed in the manner already described, and the convolutions of the temporo-sphenoidal lobe, especially the superior. The parietal lobe was the seat of the greatest change; even the superior parietal lobule was markedly smaller than on the right side; but, with the exception of the region of softening, the convolutions did not appear affected otherwise than in respect of size.

After the brain had been hardened in spirit, vertical sections were made corresponding with the lines drawn in the figure. Upon the surface of the brain, the softening was bounded above sharply by the intraparietal fissure; in front, by the posterior border of the root of the ascending parietal convolution; posteriorly, by the upper part of the posterior extremity of the first temporo-sphenoidal fissure, and inferiorly, by the posterior third of the fissure of Sylvius, and by a horizontal line drawn from the tip of the Sylvian fissure to the top of the posterior portion of the first temporo-sphenoidal fissure.

The vertical sections showed the softening to extend somewhat beyond these limits. Section 5 passed, as nearly as possible, through the centre of the supramarginal convolution. Section 3 corresponded with the posterior border of the root of the ascending parietal convolution; Section 7, with the posterior extremity of the angular gyrus. Sections 4 and 6 were about midway between these three. Section 2 corresponded with the inferior extremity of the fissure of Rolando. Section 1 corresponded with the ascending ramus of the fissure of Sylvius.



It was corresponding with sections 4 and 5, that is, with the middle and adjacent portion anteriorly of the supramarginal convolution, that the softening was most extensive, both superficially and deeply. Here it involved all the white substance corresponding with this convolution, and was about one inch in depth. The deeper portion of the immediately adjacent parts of the superior temporo-sphenoidal convolution, as well as of the superior parietal lobule and ascending parietal convolutions, were softened and yellow, but the change did not reach to the surface.

Superficially, the softening did not seem to extend anteriorly beyond the posterior border of the ascending parietal convolution; but the sections showed that it extended into the root of the ascending parietal convolution, and also that the portion of the superior temporo-sphenoidal convolution adjacent to the fissure of Sylvius was involved, and that the softening had affected the whole surface of the island of Reil, though it did not extend far into the white substance of the convolu-

tions in this place. Farther forward still, corresponding with section 2, the softening was limited to the surface of the island of Reil, which was, however, still affected throughout its whole extent on the section. The claustrum could still be easily distinguished, but it was not so sharply marked off from the convolutions of the Insula by the white band as upon the opposite side. The external capsule appeared perfectly intact throughout. Broca's convolution had entirely escaped. The posterior limits were rather more difficult to define, but here the softening extended rather further superficially than it did deeply. Superficially it reached the bordering convolutions connecting the angular gyrus and occipital lobe, but deeply it did not extend quite so far. The superior temporo-sphenoidal convolution was softened in the deeper part of the Sylvian fissure for the posterior two-thirds of its extent, and for a short distance from the spot posteriorly where the supramarginal and angular convolutions became continuous with it. I have indicated upon the figure, by means of vertical shading, the deeper portions of the convolutions which were affected.

The vessels could not be dissected in the fissure of Sylvius, without destroying the relation of parts, but the destruction produced by the lesion agreed exactly with the distribution of the peripheral branch of the Sylvian artery, and it is fair to conclude that it was caused by plugging (probably embolism) of the vessel, as the accompanying diagram clearly demonstrates. (See previous pege.)

The prominent symptoms of the case were aphasia, commencing suddenly, and unaccompanied by loss of consciousness, associated with paresis of the right arm and leg, and of the right side of the face, and with incomplete hemianæsthesia.

Taking the classification of aphasia into the ataxic and the amnesic form, it is clear from the clinical phenomena to which group the case belongs. The motor-centres were not affected. All the movements necessary for the production of speech were possible. Some words the patient still retained, but these, as has been stated, belonged rather to the automatic or emotional class, such as, "Oh, Lord!" "yes," etc. Others, again, were in such common use in his occupation as to have become probably almost automatic, such as "good morning," "corner," "order." At other times, either in response to questions, or when attempting to read, he would give utterance to sounds which, in rhythm and sequence, so closely resembled language that the patient was thought to be speaking Welsh, as he was able to do before his illness, but it turned out to be only gibberish.

It is evident from these facts that the various movements necessary for speech were possible, even of the most complex kind, but that they were not rightly co-ordinated and associated. The case was clearly, therefore, not one of motor or expressive aphasia, but belonged to the amnesic group.

The various receptive or sensory or impressive centres were, however, affected in very varying degrees.

The visual speech-centre was profoundly involved. When an object, such as a pen, was shown to the patient, he was entirely unable to recall its name; though it clearly suggested to him the appropriate idea, for when it was given him he would take it rightly in his hand and make movements, as if for the purpose of writing, although nothing was produced but meaningless scratches. When writing or printing was given him he would turn it the right way up, and look at as if endeavouring to understand it. He clearly recognised the symbols, though he failed to attach any meaning to them. Sometimes he would proceed to read; but, if words were produced, they would be simply those simple expressions before mentioned, or else an unintelligible gibberish, which had no relation whatever in length or rhythm to the sentences before him.

The auditory centre was involved, but in a much less degree. The patient understood much that was said to him, as he showed by giving the hand, putting out the tongue, or taking something when told to do so; but the power of response to such orders varied very greatly at different times. Sometimes the patient was capable of imperfect parrot-speech, being able to repeat some simple word or two, when they were spoken to him, but this was unusual; more commonly if he made the attempt, the result was the same as on trying to read, namely, either the set words or gibberish. The state of the patient prevented any detailed examination of other senses, but the condition of hemiparæsthesia was easily made out.

The pathological lesion found, confirmed all the clinical anticipations. The motor speech-centre, that is, the convolution of Broca, had entirely escaped, and the lesion was confined to the region of the brain posterior to the fissure of Rolando. The lesion was most marked in the supramarginal and angular gyri, being here of the widest superficial extent, as well as also of the greatest depth. This is the region where the visual cortical centres are placed.

The supramarginal or superior temporo-sphenoidal convolution was also involved, but to a much smaller extent, and only in the immediate neighbourhood of the fissure of Sylvius. This is the place where the centre of hearing is localised. Hence we have, as we anticipated, the chief lesion in the centre of vision, and a well marked, but less extensive, lesion in the centre of hearing.

But the lesion is seen below the surface to extend somewhat further. 1. In front it reached into the root of the ascending parietal convolution. Here Ferrier places certain movements of the opposite side of the face and mouth, and we have, in the lesion, an explanation of the loss of power observed in the face. 2. Above, it reached the upper portion of nearly the whole ascending parietal convolution. In the middle portion are placed by Ferrier the centres for the finer movements of the hands and fingers (the prehensile movements), and it was exactly these which were most affected in our patient. In the parietal lobule, or upper part, are placed centres for some of the movements of the leg, and we have, in this lesion, an explanation of the loss of power in the leg.

The cortical lesions thus explain, most satisfactorily, both the aphasia and the hemiplegia. The sense of touch is placed by Ferrier in the uncinnate gyrus and in the hippocampus major. Considering the close proximity of these convolutions to the fissure of Sylvius, it is possible that we have, in a lesion of these parts, the explanation of the hemianæsthesia, for the internal capsule had completely escaped. The objection to this view lies in the fact that their blood-supply is derived, it is stated, from the posterior and not from the middle cerebral artery. Moreover, if these parts were involved, it must be to a very slight extent, for they appeared quite natural to the naked eye. Hemianæsthesia is a not uncommon symptom in aphasia when the internal capsule is uninjured, whatever explanation of its causation be given.

The last point of interest is the extensive lesion of the island of Reil; but the functions of this part of the brain are very obscure, and it is impossible, at present, to associate with this lesion its appropriate clinical symptoms. The case, in its entirety, affords very interesting confirmation of some of the present doctrines of cerebral localisation.

ONE THOUSAND MIDWIFERY CASES WITHOUT A MATERNAL DEATH.

By W. J. BEATTY, L.R.C.P., etc., Stockton-on-Tees,
Fellow of the London and Edinburgh Obstetrical Societies, and Fellow of the British Gynæcological Society.

THERE is nothing wonderful in a thousand midwifery cases without a maternal death, but there are some interesting points in the complications I have tabulated.

1.	Forceps	48
2.	Turning...	11
3.	Placenta prævia (complete)	3
4.	Placenta prævia (partial)	2
5.	*Post Partum* Hæmorrhage	5
6.	Accidental Hæmorrhage	1
7.	Retained Placenta	15
8.	Puerperal Convulsions	5
9.	Hand Presentation	3
10.	Breech Presentation	8
11.	Funis Presentation	2
12.	Foot Presentation	5
13.	Craniotomy	3
14.	Puerperal Fever	5
15.	Twins	4

1. Many practitioners will think my percentage of *forceps* cases unusually high. According to Dr. Meadows, the percentage in Germany is 1 in 106, in this country 1 in 115. I may say I have never applied the forceps except in cases where I thought it absolutely necessary.

2. *Turning* has in my practice been above the average, 11 in 1,000, against 1 in 124. I turned five times in placenta prævia, three times in hand presentation, twice in funis presentation, and once in puerperal convulsions.

3 and 4. *Placenta Prævia.*—My percentage is high, 5 in 1,000, whereas 2 in 1,000 is about the average. Three of my cases were complete, the other two partial.

5. *Post Partum Hæmorrhage.*—I have only noted those cases which caused me much anxiety; hence my percentage seems low.

6. *Accidental Hæmorrhage.*—I have only had one case.

7. *Retained Placenta* (15 cases).—Five were due to hour-glass con-

traction; the remainder to morbid adhesions. In one of my cases, the placenta was so adherent, that I was obliged to leave quite a third attached to the wall of the uterus, as the force required to remove it would have been more dangerous than allowing it to remain. I syringed the uterus out night and morning for a fortnight. The portion of placenta separated, and the patient passed it on the sixth day, and made a rapid recovery. It is much safer to leave a portion of the placenta, than to use force which is likely to injure the wall of the uterus.

8. *Puerperal Convulsions.*—Five cases have fallen to my lot, and most harassing they have been. Three were due to septicæmia, and two to reflex action. The treatment adopted in all my cases was putting the patient under chloroform, delivering as rapidly as possible (if the os were not dilated, I inserted Barnes's bags); then I gave a hypodermic injection of a fourth of a grain of morphia. I believe morphia is more beneficial than any other drug in eclampsia. This treatment appears unscientific, but the effect this drug has on the convulsions is really marvellous. I have not tried pilocarpin, highly recommended by that careful observer Dr. Murphy, of Sunderland. I can quite imagine it being highly beneficial in eclampsia due to albuminuria.

9, 10, 11, 12.—On the several *presentations* I need not comment, as I have already alluded to 9 and 11 under Turning.

13. *Craniotomy.*—The three cases were all due to deformity of the pelvis.

14. *Puerperal Fever.*—My treatment is, syringe the uterus out yourself twice or three times a day. Do not depend on the nurse to do it. I give a mixture of quinine (five-grain doses) and sulphuric acid, with a calomel and opium pill with each dose of mixture. If there be much tenderness, I apply turpentine-flannels to the abdomen, and I sometimes give two-drop doses of turpentine suspended in mucilage every hour for twenty-four hours. The latter often gives great relief.

15. *Twins.*—Two of my cases of hour-glass contraction appeared to be due to overdistension of the uterus by twins.

A CASE OF MILKY HYDROCELE.

By SIDNEY DAVIES, M.A., M.B.Oxon., Cairo.

The case of hydrocele containing milky fluid, reported by Mr. Kendall, of New South Wales, in the Journal of April 11th, induces me to report the following analogous case, which was obviously caused by filaria hominis.

Alexander C., aged 23, a Greek, member of the Cairo police, consulted me in November last for a swelling of the left testicle. The swelling had the appearance of hydrocele, which disease is common in this country. Accordingly I tapped it, and drew off two ounces of milky fluid. This fluid coagulated on boiling, and, after standing a day, separated into a thick and thin portion; in fact, it had the ordinary properties of chyle. Under the microscope, it was found to contain fat-granules and granular leucocytes. Among the latter were seen moving three or four embryonic filariæ, of the same appearance and proportions as those I have frequently seen before in the blood of patients with chyluria.

The patient was born in Alexandria, and had lived there until four months previously to my seeing him, when he entered the Cairo police force. He noticed the swelling of the testicle nine months before consulting me. He had thrice suffered from gonorrhœa, and had had a "soft sore," but no other diseases. He had never had chyluria nor hæmaturia.

In three weeks, after tapping, the fluid returned, having the same appearance as before. After consulting with Dr. Grant Bey, I determined, by his advice, to open up the tunica vaginalis, and allow the sac to granulate from the bottom. I accordingly cut down into the chylocele, and exposed the testicle. The sac was washed with 1 in 20 solution of carbolic acid, and a large drainage-tube inserted. The patient had an attack of hæmaturia, presumably from absorption of carbolic acid, which lasted two or three days. There was free suppuration, with rather severe inflammation of the coverings of the testicle round the wound; but the wound healed completely in three weeks after the operation. Up to this date there has been no return of the disease.

Remarks.—In the *Medical Times and Gazette*, May, 1882, Dr. Sonsino described two cases of milky hydrocele (*idrocele lattiginoso*), in which filariæ occurred. Similar cases have been reported by Bancroft and others. It has been shown by Dr. Manson that filaria produces disease by causing obstruction in the lymphatic circulation; hence its passage into the urinary system, and hence the thickened connective tissue and lacunæ of lymphous fluid observed in elephantiasis. The tunica vaginalis is morphologically a large lymph-space. One would therefore expect it to be a frequent seat of accumulation of chyle or lymph, when the lymphatic circulation is obstructed. It is remarkable that the patient, in this case, had never suffered from chyluria. I examined his blood by day and night, but found no filariæ; but this by no means negatives their existence in the blood. A more persevering search would probably have discovered them. The treatment by free incision was adopted in preference to injections, on account of the fear that the latter procees would only heal by producing an abscess, which would have caused more protracted suffering than the method adopted. In a future case, however, I should try injecting iodine. Filaria hominis being indigenous to Australia, it seems probable that Mr. Kendall's case was also due to this parasite. I think, if he had looked for filariæ, he would very likely have seen them. In this case, as in Dr. Sonsino's two cases, the filariæ were very active; more so than in blood. In urine they are generally found dead, as I have remarked from my own experience. My examination of the blood was not made till after the patient was cured. Dr. Sonsino has suggested to me that this may account for filariæ not having been found, as the adult worm may have escaped unobserved in the discharge from the wound. I have to acknowledge the kind help of Dr. Sonsino in making these notes.

THERAPEUTIC MEMORANDA.

NITRITE OF AMYL AN ELIMINATOR OF URIC ACID.

The above statement is not supported by any sufficient evidence in the three cases reported by Dr. Macdonald. Cases 1 and 2 were complicated by the administration also of nitro-glycerine, and Case 3 appears to have been improving before the nitrite of amyl was given. Further, no evidence of any value as to the increased or diminished elimination of any urinary product can be obtained without the total quantity of urine passed in the 24 hours being collected and measured, and the sample analysed being taken from the mixture of the whole. In the absence of this, the degree of concentration and the variations in the excretions of the different urinary constituents at different periods of the day introduce serious sources of error. The results in Dr. Macdonald's cases are quite as likely to have been due to concentration of the urine as to an absolute increase in the amount of uric acid eliminated.

When working at the quantitative estimation of uric acid, it was evident to me that the apparent amount of deposit varied greatly with the size of the crystals and the quantity of pigment, and that such an estimate, without careful weighing, must be extremely inaccurate.

H. Handford, Nottingham.

QUININE IN THE TREATMENT OF PNEUMONIA.

In the report of the proceedings of the medical section of the Academy of Medicine in Ireland which I read in the British Medical Journal (June 6th), I find that several physicians thought quinine useless in the treatment of pneumonia, and that no one seemed to recognise the fact that quinine will abort pneumonia.

In September, 1884, I published an account of 100 cases of pneumonia which had been under my care at the Birmingham Workhouse Infirmary, and I said that I had seen four cases aborted by quinine. Since writing that paper, I have had at least another 100 cases, and have treated them all with quinine. I have notes of 12 cases aborted by this drug.

Where the disease is not at once checked by the drug, still it is, in many cases, very favourably influenced by it, the temperature being lowered, and the general tone maintained through its influence on the nervous system. Quinine and alcohol (when the pulse indicates its use) are the drugs, in my opinion, the most reliable in pneumonia.

The following case shows how splendidly quinine acts in this disease.

D. H., a man, aged 75, was taken ill suddenly on April 30th, with a severe rigor. I saw him the same day, and found that there was fine crepitation at the left base, dyspnœa, respirations 36 per minute, with a temperature of 104° Fahr., flushed face, etc., but no expectoration. There was a trace of albumen in the urine. He was at once ordered 10 grains of quinine, to be repeated every six hours. The next day the temperature had fallen to normal, the crepitation had diminished, and there was no sign of consolidation. On June 4th, the patient was quite well, and up. The only bad symptom I

have observed after the 10 grain doses of quinine has been vomiting, which, in two or three cases, has obliged me to discontinue the drug. I do not give quinine to children, but to adults I always do.

C. W. SUCKLING, M.D.Lond., M.R.C.P.,
Physician to the Queen's Hospital, Birmingham.

CLINICAL MEMORANDA.

PURULENT PERICARDITIS: ASPIRATION: DEATH.

J. C., aged 30, a carpenter, who had always enjoyed good health, was seized, on June 11th, 1884, with pain in the right side and epigastrium; he had no rigors. I saw him first on June 21st. He was seriously ill and weak. His complaint was of short breath and sleeplessness, and pain in the right side. The skin of the hands was cool and clammy: pulse, 120; temperature, 98.8°. There were dull percussion and mixed crepitation over both bases. The heart's sounds were very feeble and indistinct. No cardiac impulse could be detected. There was no pericardial friction-sound or endocardial murmur. Cardiac dulness was much increased, and it was continuous, with an impaired percussion-note, up to the right clavicle, and laterally to the bases of the lungs. The liver was depressed. I relied chiefly upon digitalis and restorative treatment. By June 30th, he was no better, and I therefore aspirated the pericardium, and drew off a quart of sweet well-formed pus. There was immediate relief. No pericardial friction sound followed. On July 5th, I repeated the operation, and again on the 12th. Incision of the pericardium and drainage was proposed, but the patient declined further interference, and, as his condition seemed almost hopeless from the first, it was not pressed. He lived for a week after the last operation.

At the *post mortem* examination a much thickened and dilated pericardium was found, containing more than two pints of sweet well-formed pus, with some flocculent masses. The surface of the pericardium was roughened. An old adhesion existed between the heart's apex and the pericardium, of dense fibrous tissue. By distension of the bag of the heart, this adhesion had become stretched out to the length of two inches. The heart was healthy; the liver was depressed by the distended pericardium; both lungs were engorged and œdematous, but not hepatised. In the left lung, at the extreme base, a small abscess was found.

In the treatment of this case, and at the *post mortem* examination, I had the valued help of Mr. W. H. Thornton, of Reigate, and his son, Mr. B. Thornton, and Dr. Palmer, of St. Peter's.

The chief impression that this case made upon me was the futility, excepting as a means of temporary relief, of merely drawing off pus from the suppurating serous membrane, and the necessity of drainage. The absence of pericardial friction will help to confirm the diagnosis of Dr. Samuel West in his interesting and successful case of purulent pericarditis, published in Vol. lxvi of the *Medico-Chirurgical Transactions*. THOS. F. RAVEN, L.R.C.P., Broadstairs.

JAUNDICE FROM ARSENICAL WALL-PAPERS.

THE following six cases of jaundice due to arsenic taken in by the respiratory organs are worth recording, if they were only to illustrate the singular uniformity of effects produced by that poison upon the biliary ducts.

On September 20th last, I was called in to a boy and girl, aged 9 and 10, children of a gentleman lately come into a renovated and enlarged house. I found them suffering from vomiting, tenderness at the epigastrium, furred tongues, with well marked icterus. In a fortnight they had recovered.

On October 30th, I was summoned to another boy and girl in the same family, but a little older. Their symptoms were precisely the same, and recovery soon took place after a week's bed, etc. I suspected the drains of this house (just out of a transition state), might be out of order, but could get no proof of this.

On November 13th, I was again called in to two older sisters, aged 18 and 16. They, too, presented jaundice, and all the symptoms of the other four, but more acute. Convalescence was established in a fortnight. Noticing in the dining-room a little damp on the paper, I examined it more closely. It was a provisional paper of a light blue, blue tint relieved by white figuring. Scraping off some of this white dust, and submitting also a piece of the paper to tests, I found the presence of arsenic in a large quantity. On visiting the airy playroom where the children had of late passed more time than usual, I found the walls covered with a pale paper with white relief, but not the same as in the dining-room. Some of this I also tested, and found in it the presence of arsenic in large quantity. It would have seemed that arsenic respired is very apt to produce icterus, through tumefaction of the ductus communis at its outlet. The papers have been renewed, fresh ones supplied, and the family has continued well ever since. ALFRED FREER, M.R.C.S.L., L.S.A., Stourbridge.

CARBUNCLE OF THE FACE.

IN the BRITISH MEDICAL JOURNAL of June 6th, there is a report of a case of carbuncle of the face treated in the Teignmouth Infirmary, which was fatal on the sixth day.

In the BRITISH MEDICAL JOURNAL nearly two years ago, I published a paper on Phagedænic Carbuncle, and gave one case, *inter alia*, apparently as severe as the above, and with the complication of marked albuminuria, but with a successful result. There are, however, three points of difference in the treatment. I gave perchloride of iron, carefully withheld brandy, and, at an early stage, made a large cavity in the diseased mass with caustic potash.

I have had to treat a tolerably large number of cases of carbuncle, and have come to the conclusion, from careful comparative observations some years ago, that alcohol in any shape during the treatment is distinctly harmful; indeed, I believe that there is no more certain mode of making the disease fatal than giving brandy or wine freely.

In September last, I treated a poor woman, aged 73, for severe carbuncle of the upper lip, gave perchloride of iron with plenty of milk and eggs, beef-tea as a stimulant, but no alcohol; applied extract of belladonna locally to relieve the pain, and iodoform in vaseline as a dressing after the caustic potash, and she quickly recovered. And I have quite recently treated a lady of 83 years, with the disease seated on the brow, and of an area of about two square inches, in the same way. In her case, the administration of a single glass of sherry, contrary to my directions, caused at once so great an increase in the pain, and so marked an elevation in pulse and temperature, that my patient's life was certainly endangered; and she was afterwards quite as anxious as myself to avoid the repetition of the error. She is now quite well.

I should add that, in all the cases, sufficient hydrate of chloral was given at bedtime, and repeated if necessary, to obtain a long night's rest. Sulphide of calcium I have not tried, the iron-salt giving such satisfactory results in my hands; but its instability, unless kept absolutely dry, must make it an uncertain remedy.

G. F. MASTERMAN, Stourport.

SURGICAL MEMORANDA.

REMOVAL OF A LEECH FROM THE POSTERIOR NARES.

A FEW days ago, I was called to remove a leech from the nose of a little European boy, aged three years. I examined the nostrils and pharynx, but could see nothing; but, after watching for a quarter of an hour, during which the mother kept sponging the nostrils with cold water, I saw the anterior sucker of a leech appearing. I tried to seize him with a small pair of brass forceps, but he escaped. The bathing was continued, when he again appeared, and I tried to hold him with artery forceps, but again failed. I then took an ordinary dressing forceps, and placed the blades open in the nostril, the bathing being continued. This time he descended, and was caught in the blades. I did not drag, but waited until he let go his hold with his posterior sucker, which he quickly transferred to the forceps, and I then removed him. How long the leech had been there it was impossible to say, but the parents told me that for the last fortnight their little boy had had bleeding from the nose. The child could give no account of it, but he very often played in the bath-room, where an open tub of water is kept for bathing purposes. The leech was an inch long, and was lighter coloured on the ventral than on the dorsal aspect, and the belly was without spots. The oral extremity was not narrowed before dilating into the sucker, which had its upper lip lance-shaped, armed with three crescentic jaws; while the caudal disc was large, and distinctly separated from the body by a narrow constriction, which proved it to be an aquatic species.

The land-leech (*Hirudo Tazalla*) is very common in the jungles of the Malay Peninsula, being very troublesome, especially in damp weather, when it readily attaches itself to the limbs and body of passers; causing, after it is removed, small, deep, and very irritable ulcers, with a great deal of itching. The Malays rub tobacco-juice over their skins to prevent the leeches from attaching themselves.

When once a leech has fastened himself, it is better not to pull him forcibly off, but to put a little salt over him, when he will let go his

hold, or to place the raw surface of a cut onion close to him, when he will immediately drop off. Should the bite become an ulcer, I apply an ointment, which is composed of the following ingredients :—Resin, lead plaster, and white wax, of each four ounces ; extract of liquid opium, one drachm ; olive-oil, twenty ounces ; glycerine, two ounces. I originally used the unguentum galbani compositum, but did not get such good results from it as from my own preparation.

A. W. SINCLAIR, L.R.C.P.Ed., Sclânzor.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

[OUT-PATIENT DEPARTMENT.]

ACUTE MILIARY TUBERCULOSIS IN AN INFANT AGED EIGHT WEEKS : NECROPSY. REMARKS.

(Under the care of Dr. ANGEL MONEY.)

A female infant, aged eight weeks, was brought on Tuesday, May 26th, 1885. The foster-mother said that the child had been ill for three weeks with a bad cough and vomiting. Its mother had died five weeks previously from consumption. The infant had been fed on cow's milk, condensed milk, and gruel. There was no evidence of syphilis. On examination, the surface of the body was cold and mottled from passive congestion. The temperature in the rectum was subnormal. The abdomen was distended and soft, without dulness, except where the enlarged spleen extended three fingers' breadth below the costal margin, as could be easily made out by palpation. There were dulness, tubular breathing, and sharp crepitation over the lower lobe of the right lung, and some scattered *râles* in the rest of the lungs. There were no other morbid physical signs. The child was admitted into the hospital, and died in two hours, despite stimulant treatment.

At the necropsy, the lower lobe of the right lung was found to be in a state of consolidation, of pneumonic character, with intermixed tubercles, forming in places distinct patches, evidently due to agglomeration. The remaining portions of the lungs were pretty uniformly sown with miliary tubercles, many of which had caseous centres. The spleen was large, rather hard, weighed one ounce and a quarter, and had many tubercles scattered through it, some as large as a hempseed, and caseous. The liver was studded throughout with minute white tubercles, and was a little enlarged ; it weighed four ounces and a half. There were many small white tubercles in the kidneys. The bronchial and mesenteric glands were a little enlarged, but not caseated. One tracheal gland was enlarged, caseated, and softened in the centre. There was some muco-pus in the bronchial tubes, especially on the right side. The intestines were free from ulceration. The child weighed only four pounds and a half. Unfortunately the head was not opened, so that the meninges and choroids were not examined. There was no beading of the ribs, and no signs of rickets on section of the junction of the fifth and sixth ribs and cartilages.

REMARKS BY DR. ANGEL MONEY.—The case is interesting on account of the occurrence of general tuberculosis in so young a child. Such cases, though rare, are not unknown. The diagnosis during life must always be difficult, if not impossible. Oftentimes no sputa can be obtained, and so the bacillary test is unavailable. Clinically, the case might have been one of tubercle, bronchopneumonia, or bronchitis, with atelectasis, so far as the evidence afforded by the temperature and pulmonary physical signs. Neither atelectasis nor collapse raises the temperature. Tubercle and bronchopneumonia or pneumonia do so, but there may be no fever during the final stages, when the vitality of the body is greatly exhausted. The enlargement of the spleen is a sign of much importance. In my experience, tuberculosis in infants is frequently attended with enlargement of the spleen ; syphilis is in the same case ; pure rickets I am doubtful about in this respect. I find it very difficult to say for certain whether tubercle is present or absent in many cases. Recently, I watched for six months the case of a female child aged two years, in which the physical signs were, briefly, progressive emaciation, vomiting, diarrhœa, signs of bronchitis of the smaller tubes, a variable fever, and frequent apyrexia. The child ultimately died, and at the *post mortem* examination no tubercle could be found. I have thought it possible to diagnose in the early stage by the aspect and behaviour of infants whether they are suffering from simple marasmus, the result of bad feeding, or from marasmus due to tubercle. So far, I have not found myself in error. I find, on turning to my note-book, that the case last mentioned was noted, when first seen, as one probably due to simple malnutrition, the result of bad feeding. Dr. Barlow has told me that he considers a diagnosis possible in the great majority of cases, though not in all ; and he has borne out this opinion by a reference to a few cases, in which he suspected simple marasmus, and which turned out to be tubercular at the necropsy. Probably further experience will lead me to the same conclusion. It may be asked what are the signs upon which reliance may be placed in diagnosing simple, as distinct from tubercular marasmus. The reply must be that where the impaired nutrition is the result of faulty methods of feeding, the infant will be noted to have a stronger and more frequent cry, to be more actively restless, and apparently suffer more than where tubercle is at work, and there will be less anæmia. I refer only to thoracic and abdominal tubercle ; not to tubercle in the meninges. I admit that these signs are equivocal, though perhaps more so on paper than in practice. I lay no stress on the distinction, and merely put it forward as an attempt to enlarge our powers of diagnosis. I hardly like to say that the case briefly recorded may have some bearing on the question of the contagiousness and heredity of tubercle. Was the child born with tubercle already in its tissues ? Did the mother impart tubercle to it ? or was the tuberculosis acquired from the cow's milk on which the child was fed ? Whence came the tubercle ?

REPORTS OF SOCIETIES.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, JUNE 4TH, 1885.

HENRY POWER, F.R.C.S., Vice-President, in the Chair.

Congenital Defects in the Vitreous Body.—Mr. LANG showed a child with congenital lesions of the vitreous body and choroid.—Mr. POWER inquired the grounds for considering the lesions congenital.—Mr. JULER thought the appearances were probably due to an inflammatory condition of the vitreous body, and not to a persistent hyaloid artery.—In reply, Mr. LANG said that the right eye had always been defective ; the band could be traced forward until it divided into three parts, one of which was attached to the back of the posterior capsule ; of the other bands, one passed upwards and the other inwards. He thought the choroidal changes were due to intra-uterine inflammation ; the disc was of a very dark grey colour, and the choroiditis was extensive. There was no history of syphilis.

Black Cataract.—Mr. POWER showed a specimen of black cataract, which was the first he had himself met with. Mr. Myrtle, house-surgeon at the Westminster Ophthalmic Hospital, told him however, that he had recently seen three removed in Paris. Two of these cases occurred in De Wecker's practice. The apparent comparative rarity of the condition in England was curious. The cataract came away in the capsule, and the patient had so far made a good recovery. The operation was done under cucaine, and the patient could count fingers immediately.—Mr. SWANZY had seen a good many cases in Dublin, and in von Graefe's practice. He was under the impression that the prognosis was not good.—Mr. LANG had met with two cases ; both patients were myopic. The operation and its subsequent course was in both cases most satisfactory.—Mr. JULER thought the lens shown was large, and inquired whether myopia generally accompanied black cataract.—Mr. POWER said that his patient was myopic.—Mr SWANZY said that not all the cases he had seen were myopic.—Mr. NETTLESHIP had never met with so black a cataract as the one shown.—Mr. MACKINLAY said that Mr. McHardy had shown a remarkable specimen to the Society some years ago.—Mr. ADAMS FROST suggested that a section of the cataract should be made, to ascertain whether the coloration was uniform.—Mr. POWER observed that the occurrence of black cataract had been connected with effusion of blood, and suggested that a chemical examination might settle that question.

Congenital Deformity of Eyelid.—Mr. MCHARDY showed a case of congenital deformity, probably a nævoid growth, of both eyelids on the left side, and hypertrophy of the bones on the outer side of the orbit.—Mr. SPENCER WATSON mentioned a case in which a similar but less extensive lesion was present. The growth was almost destroyed by ligature and the actual cautery.—Mr. POWER had met with several cases. In one, a child, the nævus extended deep into the orbit. Treatment by the figure-of-eight ligature had been successful

on the second application. In another case, now under care, the nævoid growth, which involved the inner canthus, extended deeply into the orbit. In this case, he had carefully dissected out the greater part of the growth.—Mr. NETTLESHIP referred to a case he had shown to the Society, of apparently lymphatic nævus. The eye was pushed forward; and the growth overlapped the orbit, and rose on to the forehead. The patient, a boy, subsequently had an attack of spontaneous inflammation, which was not followed by any improvement.—Mr. W. H. JESSOP thought the large vessels extending backward over the zygoma and into the parotid pointed to the centre of mischief being in the external jugular vein.—Mr. WAREN TAY asked whether there was any nævoid change within the eyeball.—Mr. MCHARDY had not been able to examine the fundus oculi. A remarkable fact was that, though the eye had never been used, there was fair vision ($\frac{6}{24}$). He referred to a case under Mr. Brudenell Carter's care ten years ago, with great proptosis. On dissecting down to the growth, it was found to be a degenerate nævoid growth.—Mr. ADAMS FROST said that he had recently seen the case last mentioned. The skin had never regained its natural appearance, nor had the movements of the eyelid been restored.

Growths in the Cornea and Iris.—Mr. JESSOP read the report of the Committee, signed by himself and Mr. Lawford, on Mr. Benson's case of growths in the cornea and iris. The nodules on the cornea were chiefly external to the posterior elastic lamina. The nodules consisted of round nucleated cells, which stained deeply. In some spots, there were signs of disintegration. There was practically no caseation. No giant-cells were found, nor any bacilli. The reporters concluded that the growths were not tubercular.—In reply to Mr. SWANZY, Mr. JESSOP said that the lesion appeared to be some form of granuloma.

An Intra-ocular Gumma.—Mr. W. SPENCER WATSON read a paper on a living specimen of intra-ocular gumma, shown at the previous meeting. A child, aged 6 years, whose history pointed to inherited syphilis, who presented symptoms (with snuffles and sore anus) pointing in the same direction, and whose father was suffering from phthisis, came to the South London Ophthalmic Hospital with a protrusion of the upper and outer quadrant of the sclerotic. This was punctured; though no pus escaped, a prominent tumour remained. The earlier stages resembled those of acute onyx, with hypopion; but, after the formation of the protrusion in the sclerotic, the pus in the pupillary area disappeared. Under a course of mercury, the protrusion subsided, leaving a pigmented scar in its place, and a shrunken eyeball. All the other symptoms also were ameliorated, and the child's general health improved. The whole case seemed to indicate an intra-ocular syphiloma. At one time, the sympathetic irritation of the sound eye threatened danger to it also; but the mercurial course had a good influence; and, as the damaged eye contracted, the fellow-eye lost all irritability, and the general health correspondingly improved. This form of syphilitic affection of the eye was, according to the author's experience, very uncommon.—Mr. ADAMS FROST quoted a case of gumma on the anterior surface of the iris.—Dr. BRAILEY, while Curator of the Royal London Ophthalmic Hospital at Moorfields, had met with several cases of gumma within the eyeball. All, however, were small, and were, as a rule, connected with the choroid. He had also met with two cases of tuberculosis, of which one was taken for panophthalmitis, the other for glioma. He entertained no doubt that the eye occasionally shrank after glioma.—Mr. NETTLESHIP had seen several cases of intra-ocular gumma in patients the subject of acquired syphilis. The eye was destroyed in two cases by softening of the growth. In another case, syphilis appeared to be very improbable, and the exact nature of the growth remained obscure.—Mr. LANG related the case of a man, the subject of acquired syphilis, who had a gumma of the iris, and another at the angle of the anterior chamber. Under vigorous treatment, the gummata subsided, leaving a damaged eye. In another case he had seen under Mr. Wordsworth's care, the gumma separated the iris from the sclero-corneal junction, but subsided under treatment, and left a very good eye.—Mr. POWER thought the interest of Mr. Watson's case was the early age of the patient. Gummata on the iris in adults had been very common at one time. At Chatham, cases of gumma of the iris used to be frequently seen before the enactment of the Contagious Diseases Acts. Since their repeal, such cases had become more frequent. The lesion developed very rapidly, and led, commonly, to destruction of the eye. In children, however, he believed intra-ocular gummata were very rare.—Mr. SPENCER WATSON said that the mother in this case was probably infected by the child before birth; the symptoms appeared after her confinement. The symptoms in the child resembled those of the secondary stage of acquired syphilis.

Double Retinal Glioma.—Dr. BRAILEY described a case of double retinal glioma, which resulted in the shrinking of one eye, and the perforation of the anterior part of the opposite eye, by a large projecting mass of new growth. He first saw the child, who was still living, in October, 1882, when there appeared at the fundus of the left eye a yellowish-red vascular reflex. The right also showed a greyish reflex, with a few vessels on it. The disease was diagnosed as glioma, the condition being more advanced in the left eye, where it implicated the entire retinal thickness, and of comparatively short duration in the other, where it was apparently confined to the external retinal layers (glioma exophytum). In the diagnosis of glioma, Mr. Vernon concurred. The disease progressed slowly for ten months, when the right eye was apparently the subject of an acute suppurative panophthalmitis, during the progress of which the child lay for several days in a state of stupor. Mr. Brock, of Tooting, under whose care she was, attributed this condition to meningitis. Two and a half years from the time of her being first seen, the tumour perforated the left eye, and projected for about three-quarters of an inch as a rounded mass, about half an inch in diameter, from between the lids. There was at present no evidence of any further extension of the disease. Dr. Brailey thought that the points of interest in the case were its long duration, and the fact that an intra-ocular glioma could shrink and become inert. He referred to such a case recorded by Mr. Snell in the Society's *Transactions* for 1884, to which he had himself appended another; but in neither of these did the shrinking appear to be the result of a suppurative panophthalmitis. Another point of interest was the probable mode of extension of the disease from one eye to the other. He thought that this, in some cases, at all events, was by the optic nerves and chiasma.—Mr. H. POWER observed that glioma in both eyes was a rare affection; he only recalled one case. One eye was excised. The patient only survived a year.—Mr. MCHARDY related two cases in which both eyes were the seats of glioma.—Mr. FREDERICK MASON thought that the shrinking of an eye affected with glioma must be a very uncommon occurrence. He described a case of glioma of both eyes. Orbital growth followed the excision of the eye earliest affected; this orbital growth shrank to a considerable extent.—Mr. ADAMS FROST inquired whether, in such cases, any advantage was gained by excising the second eye.—Mr. SWANZY had met with one case of glioma in a child under one year, in which both eyes were affected a very short time after birth, and probably simultaneously. He agreed with Dr. Brailey that glioma frequently grew very slowly.—Mr. POWER observed that it would be interesting to know whether early excision prevented recurrence with any certainty.—Mr. NETTLESHIP had operated, four years ago, on one case in which the growth was quite confined to the eyeball. The child had since remained perfectly well. A case under the care of the late Mr. Critchett had survived over three years. In another case, observed by Mr. Brudenell Carter, the patient survived seven or more years. Other cases were on record which tended to show that, if the affected eye were removed before the optic nerve and the orbital tissues were involved, there was a good chance that the patient would subsequently remain free from disease.—Dr. BRAILEY believed that complete immunity was obtained in about 20 or 25 per cent. of the cases.—Mr. LANG quoted a case which appeared to show that growth might occur in the second eye, without spreading along the optic nerve.—Mr. WAREN TAY said that he had on one occasion operated on a case of glioma, and the patient remained in good health after eight or nine years. He had never recorded the case, because the specimen had been lost, and he could, therefore, not give an absolute demonstration that the tumour was a glioma.

DONATIONS AND BEQUESTS.—Mr. Joseph Crossland has given £1,000 to the Huddersfield Infirmary, for establishing a ward for children.—Mrs. William Danby Baker, of Kennington Road, has bequeathed one-third of £3,000 Consols to the British Home for Incurables at Clapham, and another third to the Royal Hospital for Incurables at Putney, after the death of Miss Charlotte Clarke.—Miss Sarah Ward, formerly of Camberwell New Road, but late of Sutton, has bequeathed £500 New Three Per Cents., each, to the Hospital for Consumption and Diseases of the Chest and to the City of London Hospital for Diseases of the Chest.—The Hospital for Sick Children has received £500 anonymously.—Mr. John C. A. Voelcker, of Kensington, has bequeathed £100 to University College Hospital, and £100 to the German Hospital at Dalston.—The Queen's Hospital, Birmingham, has become entitled to £100 under the will of Mr. Meyer Blanckensee, and £50 under that of Mr. James Price.—Mrs. Bryan has given £105 to the Sussex County Hospital, towards the support of the Convalescent Home at Ditchling.—The Sheffield General Infirmary has received £100 under the will of Mr. Charles Doncaster.—Mr. George Tatum has given £78 15s. to the building-fund of the new Great Northern Central Hospital.

NORTH OF IRELAND BRANCH.

THURSDAY, MAY 21ST.

JAMES CUMING, M.D., President, in the Chair.

Intracapsular Injection in Cataract; Scoop-syringe. — Dr. M'KEOWN (Belfast) read a paper on intracapsular injection in the extraction of cataract, and showed the needle and scoop-syringe which he used. After expulsion of the nucleus, the end of the scoop-syringe was introduced within the capsule, and distilled water, of the temperature of about 100° Fahr., carefully injected. As masses of cortex were brought towards the wound by the water, a slight use of the syringe as a scoop facilitated greatly the quick clearing of the pupil. He spoke favourably of this instrument, which he had used in 21 cases. In no case was there suppuration of the eyeball or of the corneal wound. In one case there was severe irido-choroiditis, and in another slight iritis. In two cases there was iritis before operation, resulting from wound, but injection of water did not increase the iritis. In no case did injection cause prolapse of the vitreous body. He found this instrument much better than the gravitation-bottle, which he showed at the meeting of the British Medical Association in Belfast. He stated his conclusions as follows. 1. The injection of water *per se* within the capsule was innocuous. 2. It enabled one to operate on cataracts without waiting for the period of complete maturity. 3. In cases of cataract regarded ripe, but which offered great difficulties in the complete removal of the cortex, it enabled one to dispense with tedious manipulation, and to complete the operation expeditiously. [The scoop-syringe may be had from Messrs. Meyer and Meltzer, Great Portland Street, London.]

Multilocular Ovarian Tumour.—Dr. THOMPSON (Omagh) exhibited a very large multilocular ovarian tumour, which he removed by operation from a patient in the County Tyrone Infirmary. There were very extensive adhesions, and, as a consequence, the operation was very prolonged. The patient did well for nearly a month after the operation, but a sharp attack of diarrhœa carried her off.

Leucoderma.—Dr. BYERS (Belfast) showed an interesting case of leucoderma.

Paralysis from Spinal Hæmorrhage.—Dr. DEMPSEY (Belfast) showed a boy, aged 16, who had been the subject of paraplegia, due to spinal hæmorrhage. He was employed in a factory carrying bales of flax. While engaged at his usual work on December 31st last, he felt a sudden acute pain in the back, at the lower dorsal region. He was obliged to cease work, but was able to walk home—a distance of a quarter of a mile. He went to bed, and slept for two hours. When he awoke, there was complete paralysis of motion and sensation in the lower extremities. He was still in this condition on his admission into the Mater Infirmorum Hospital on January 13th. There was also paralysis of the sphincters; urine and fæces were passed involuntarily. Extensive bed-sores had formed on each hip, and there was a large trophic ulcer on the outer dorsum of the left foot, laying the bones bare. The plantar and patellar tendon and cremasteric reflexes were absent. He was kept on iodide and bromide of potassium for about a month, and afterwards upon strychnine, with the use of electricity and massage. He gradually improved in every respect, and about the middle of March he was able to walk pretty well and to retain his urine for two or three hours. He had, on May 21st, perfect control over both sphincters, and could walk a long distance. The short time that elapsed from the onset of pain until the occurrence of paralysis pointed to hæmorrhage as the cause. However, the interval between the attack of pain and setting in of paralysis was too long, and the recovery too complete, for hæmorrhage into the substance of the cord. The case was therefore regarded as one of hæmorrhage into the spinal meninges: and, occurring without injury or unusual strain, and producing such profound paralysis, it must be looked upon as one of comparative rarity.

Fatty Tumour.—Dr. O'NEILL (Belfast) exhibited a fatty tumour, weighing one pound five ounces, which he removed on that day from the back of a boy aged 14 years.

Collective Investigation.—Dr. LINDSAY called the attention of the meeting to the subject of Collective Investigation.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

FRIDAY, MAY 29TH.

HENRY HABGOOD, M.D., in the Chair.

Lateral Dislocation of the Patella.—Dr. HABGOOD read notes of a ase under his own care in which displacement inwards had occurred, pparently from muscular action.

The Therapeutic Value of Chloride of Calcium.—Dr. CREIGHTON Eastbourne) described the great improvement which he had obtained in cases of scrofula treated by this drug. He advocated it in glandular enlargement in the neck, in suppuration of glands, and also in caries due to scrofula. In support of this, he related cases. He recommended the crystallised chloride as the best form. The doses he gave were smaller than those generally used, namely, one to three grains for young children, and rarely more than 12 to 15 grains for adults. A solution in syrup rendered the salt fairly palatable, and it should be given in milk, after meals. It was generally necessary to continue treatment for a long time, even for some years; and in cases where improvement, or apparent cure, resulted, symptoms of relapse sometimes necessitated occasional return to the treatment.

Paraldehyde as a Hypnotic.—Mr. HODGSON (Brighton), after dwelling upon the history of this drug, spoke of its use in his own practice in cases of insomnia, unaccompanied by pain, especially in mania, hypochondriasis, delirium tremens, and migraine. As compared with chloral, it had the advantage of not being a cardiac depressant. For gout, both acute and chronic, he strongly recommended it, finding that sleep was obtained, while the solid constituents of the urine were increased rather than diminished. When either throat or stomach was inflamed, it was unsuitable, owing to its pungency, and this quality rendered free dilution always necessary. As an anodyne, Mr. Hodgson considered paraldehyde weak, but he had found that it increased the action of morphia.

Use of the Ophthalmoscope in the Diagnosis of General Diseases.—Mr. JULER (London) illustrated the remarks in his paper by cases. In anæmic conditions, the state of the retina was of great importance in forming a prognosis. The optic disc often showed signs of the existence of cerebral tumours, renal disease, etc. Refraction errors could be easily detected, and the accompanying headache relieved by appropriate treatment. In these and other ways the routine use of the ophthalmoscope would lead to more accurate and also more early diagnosis.

REVIEWS AND NOTICES.

A TEXT-BOOK OF PHARMACOLOGY, THERAPEUTICS, AND MATERIA MEDICA. By T. LAUDER BRUNTON, M.D., D.Sc., F.R.S., Fellow of the Royal College of Physicians, Lecturer on Materia Medica at St. Bartholomew's Hospital, Examiner in Materia Medica in the University of London, in the Victoria University, and in the Royal College of Physicians, London; late Examiner in the University of Edinburgh. Adapted to the *United States Pharmacopœia* by FRANCIS H. WILLIAMS, M.D., Boston. London: Macmillan and Co. 1885.

THIS book contains the matured results of nearly twenty years' incessant labour on the subject of pharmacology and the allied sciences.

"More than fifteen years ago," says Dr. BRUNTON, "I had a work on materia medica completely written, and ready for the printer. Some time afterwards, all the arrangements had been made for its publication, and in the course of a few weeks it was to have been issued from the press. Just as I was about to send it to the printer, however, I asked for a little delay, in order that I might make some improvements, and remove some redundancies, for the work, as it then stood, was considerably larger than the present one. As I went through it, I found so many unsatisfactory statements and uncertainties regarding the mode of action of drugs, which I thought I could decide by a few experiments, that I wished for a little time in order that these doubtful points might be settled; but as I went on the labour grew, other engagements became pressing, and longer and longer delay was required. From greater experience as a teacher and examiner, also, I came to the conclusion that the plan of the work might be altered with advantage, and so, finally, the whole manuscript was thrown aside, and the book entirely rewritten."

The present work is not a text-book of materia medica, in the sense in which that term is still very commonly used. It deals but little with the origin and mode of preparation of drugs, but discusses in the fullest possible detail their action on the various systems of the body, both in health and disease. Dr. Brunton finds that students usually experience considerable difficulty in applying their knowledge of physiology to pharmacology and therapeutics; and he has accordingly thought it well to give a short preliminary account of the normal functions of the different organs, before discussing the alterations produced in them by the action of remedies.

In the case of nearly all the more complex systems, the information is greatly in advance of that given in most English works on

physiology. It is generally admitted that our mode of teaching students materia medica is eminently unsatisfactory. This is fully recognised by Dr. Brunton, who strongly advocates a radical change in our method of dealing with the subject. "It is very greatly to be regretted, for it is a stumbling block in the way of true progress," says Dr. Brunton, "that students, who have afterwards to become medical practitioners, and not pharmaceutical chemists, should be asked at examinations the quantities of crude drugs from which particular preparations are made—quantities which even the manufacturing chemist himself would never dream of carrying in his memory, but would obtain by reference to his books whenever he required them. As the late Professor Sharpey used very truly to say, 'You may as well require of a medical student a knowledge of the whole art of cutlery before you set him to dissect.' Medical science is now advancing in every direction, and unless we cut off some of the less useful kinds of information, which medical students were formerly obliged to acquire, it becomes impossible for them to learn all that is truly valuable. In materia medica we now oblige them to learn the physiological action of drugs, a subject regarding which, until quite recently, little or nothing was known; and to oblige them to learn all this, in addition to what they were formerly expected to know, is to treat them as Pharaoh treated the Israelites, and to compel them to make the same number of bricks while giving them no straw." We fully concur in the justice of these remarks, and trust that Dr. Brunton will, in conjunction with other lecturers on materia medica, take an early opportunity of bringing the whole subject under the notice of the Royal College of Physicians, or some other influential body. The present state of affairs is most unsatisfactory, and calls for urgent reform.

The work before us covers such a wide range of subjects that anything like detailed criticism is, in the space at our disposal, impossible. It is simply a mine of wealth both for students and practitioners. It is thoroughly practical and thoroughly reliable. It contains almost everything that anyone can possibly want to know about a drug, and it is all so systematically arranged that the information sought can be obtained with the minimum of trouble and loss of time. Let us take for example the case of apomorphia, a drug now largely used as an emetic. Here we see at a glance how it is prepared, what is its action, what are its therapeutic uses, what is the best mode of giving it, and what untoward effects are likely to follow its administration. And so it is with other drugs. We find a full and complete account of nearly all the new remedies, including picrotoxine, muscarine, nitroglycerine, cucaine, homatropin, hamamelis virginica, grindelia robusta, quebracho, and a host of others. Even "massage" comes in for its share of attention, and its action on the muscles is fully discussed. Many of the special chapters, especially those devoted to the action of drugs on protoplasm, blood, low organisms, etc., display considerable originality, and are deserving of careful study and attention. The author's remarks on homœopathy are trite and amusing. The whole book is profusely illustrated, and many of the diagrams will be of the greatest use to students in preparing for examinations. We feel that we cannot speak too highly of Dr. Brunton's work. It is worthy of his high reputation as a pharmacologist, and is undoubtedly the best treatise on the subject in the English language.

Bodily Deformities and their Treatment: a Handbook of Practical Orthopædics. By Henry Albert Reeves, F.R.C.S.Edin., Senior Assistant Surgeon and Teacher of Practical Surgery at the London Hospital, etc. London: H. K. Lewis. 1885.

The arrangement of the subjects dealt with in this volume is systematic; separate parts being devoted to deformities of the spine and trunk, the extremities, upper and lower, and lastly, ankylosis and other deformities.

In all works on orthopædic surgery the spine occupies a very important place, and we look to the chapter upon this subject in the volume before us with much interest. In the part dealing with lateral curvature, we find some very practical remarks upon the examination of the spine. The author very rightly urges the importance of making careful records of curvatures, and he describes Bühring's measuring apparatus, and Mikulicz's skoliosometer. With the latter we may measure, 1, the height of the spine; 2, its lateral deviation; 3, vertebral torsion with reference to the whole thorax; 4, the position of the scapulæ; 5, the height of the shoulders; and 6, that of the iliac crests.

The description of this deformity is also fairly good, and the remarks upon diagnosis are practical and useful; but we cannot agree with the suggestion that, in forming a diagnosis in cases of supposed hysterical curvature, an anæsthetic is necessary or desirable. We must own our disappointment with the author's remarks upon treatment. They are very meagre, and in fact afford very little useful information to the practitioner. In regard to gymnastics, the Swedish system is stated to be preferable to Zander's system, a statement which is open to question. With regard to mechanical apparatus, a woodcut is given to illustrate the mechanical corset used by the author. We had hoped to see a greater departure from the old fashioned mechanical spinal apparatus.

The author has done well to separate cyphosis from caries of the spine. Under the head of the former, he describes the diagnosis between the two affections, and states that "pain is almost always present in some stages of spinal caries, whereas it is not a very common complication of the ordinary forms of cyphosis, unless this be due to rachitis, rheumatism, or gout." Our experience has been somewhat different, as we have met with many cases in which caries has commenced and progressed until much angular deformity has been produced; and, in some cases, even abscesses have formed without any pain being present, and, upon the other hand, we have often found considerable pain in connection with simple cases of cyphosis.

There is, as might be expected, a long chapter on osteotomy as a remedy for genu valgum, in which Mr. Reeves urges the advantages of his own modifications of this operation. Very little indeed is said about treatment by means of splints and instruments. A figure representing an instrument applied to a slight case of genu valgum is given, regarding which it may be remarked that the perineal band is quite unnecessary.

The various deformities which are usually considered as orthopædic are dealt with tolerably completely as regards description; but in very few cases does the author offer much detailed information regarding treatment.

There are numerous illustrations, of rather a rough character, but, with some exceptions, they are sufficiently explanatory of the cases represented.

The subjects which the author claims to introduce newly to British surgery are especially his description of "spring-finger," and his chapter on "paralytic dislocations." We will only further remark that, in his preface, the statement that, so far as he knows, "there is no work in any language dealing with orthopædics in its modern sense," is hardly correct; for, if we exclude several which may not completely fulfil Mr. Reeves's view of the "modern sense" of the subject, there at least remains the volume in Ziemssen's *Handbook of General Therapeutics*, by Professor Busch of Berlin.

Dental Caries: A Critical Summary; and the Prevention of Dental Caries. A series of papers reprinted from the *Journal of the British Dental Association*. By Henry Sewill, M.R.C.S. and L.D.S.Eng. London: Baillière, Tindall, and Cox. 1884.

"The most important of dental diseases," as the author styles caries, receives in these pages a full description, compiled chiefly, as he modestly asserts, from the works of others. It is defined as "a process of disintegration, commencing invariably at the surface, proceeding inwards, and due entirely to external agents; enamel and dentine are perfectly passive under this process of disintegration, and manifest neither pathological action nor vital reaction of any kind." But the definition requires to be still further defined; and the author, consequently, remarks that, "by pathological action, he means (1) morbid changes in the tissues, induced or produced by the influence of the vascular and nervous systems; and (2) morbid changes in the tissues, in which changes vascular and nervous influence may, perhaps, have no share, but which are not produced by external agents. By vital reaction, he means any change in the tissues not solely induced and produced by external agents." Then, inquiring what agent exists in the mouth capable of giving rise to the first phenomena of the disease, he finds it in the acid commonly there present, which is capable of slowly dissolving enamel, and starting disintegration of dentine. An irritating foreign body kept pressing upon the gum between two teeth will cause caries. Artificial substitutes supported by frames surrounding natural teeth inevitably, unless the teeth and frame be kept scrupulously clean, cause the formation of acid decomposition-products upon the enamel, with resultant caries. Mr. Sewill quotes the researches of the Messrs. Tomes as demonstrating that caries is, to a great extent, due to the solvent action of acids which have been generated by fermentation going on in the mouth; whilst the accumulation of food and secretions in the cavity thus formed intensifies the mischief by furnishing fresh supplies of acid. He also shows that Professor Wedl's observations agree substantially with the views of

Messrs. Tomes. The acids found in the mouth extract the calcareous salts from the hard tissues, and cause disintegration. In the latter stages, the tubes become enlarged and varicose, and filled with leptothrix, which occasions more rapid progress of the softening and disintegration than would have been the case under the action of acid alone. And, in fact, all the latest investigations go to prove that the presence of micro-organisms, consisting of micrococci, rod-shaped and oval bacteria, and short bacilli, is indispensable to the carious process; these organisms extending in the tooth slightly beyond even the limits of the tissue recognisable by the unaided senses as carious. Mr. Sewill himself suggests that the brownish pigmentation of the tissues, which takes place in the progress of the disease, is probably due to the presence of pigment-forming bacteria. In this view, Mr. Underwood also agrees. This, then, is the text upon which the author bases his whole work. He shows how innate structural defects of the dental tissues provoke caries; how another of its predisposing causes is found in crowding and irregularity of the teeth; and how various diseases that affect the oral secretions, and whose name is "legion," tend to produce the same condition. The author then discusses other opinions respecting the nature of the carious process which have been lately upheld by various writers, and arrives at conclusions respecting their fallacies which his own sharply pronounced and scientific views seem fully to justify. Moreover, the polemical nature of his remarks adds a crispness and vigour to his pages, which is often refreshing.

The second part of the book, which treats of the "prevention of dental caries," first notes the conditions with which it is most frequently associated. The author next inculcates mechanical cleanliness by the use of a tooth-brush and of a quill or wooden tooth-pick; he then describes the various kinds of tooth-powder, and of washes for the mouth, best suited for various abnormal conditions. This part of the work is supplementary to the earlier part, and may be beneficially studied, not only by dentists, but also by medical men in general practice, who are, particularly in country districts, liable to be consulted by the parents and friends of children whose teeth are defective. Mr. Sewill's book, in fact, gives a very full account of dental caries; and those who wish to understand, and to know how to prevent, the process, cannot do better than study it as set forth in these pages. There has at various times been much nonsense written respecting the subject—a very simple one—which the work under review should tend to overthrow, whilst establishing in its stead the simple views respecting the carious process which are the outcome of the most recent scientific investigations.

NOTES ON BOOKS.

L'Année Médicale, 1884.—The publishing firm of Plon et Cie, in Paris, has issued the seventh volume of the *Année Médicale* (1884). This excellent little year-book of medicine is one of the most able and useful summaries of progress in the medical science with which we are acquainted. It is under the management of Dr. Bourneville, the chief editor of the *Progrès Médical*, with a large staff.

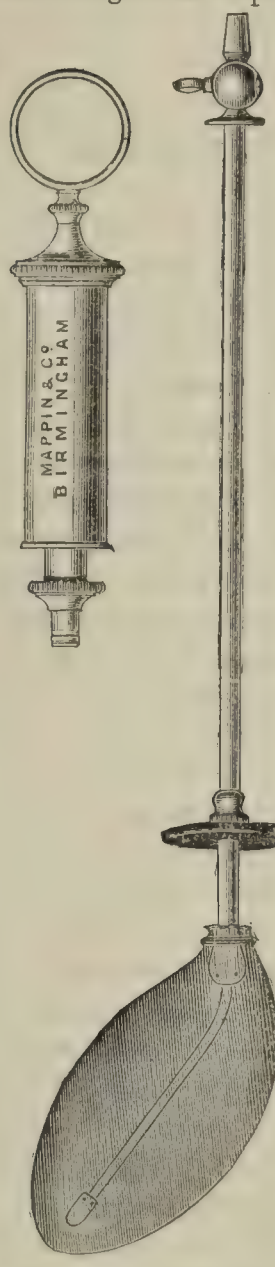
The Young Doctor's Future; or What Shall be My Practice? Being some account of medical appointments, Civil, Naval, and Military; with hints upon the method of general practice. By E. Diver, M.D. London: Smith, Elder and Co. 1885.—The object which the author proposed to himself in writing this little book, is sufficiently indicated in the title. The appearance of a second edition shows that he has, to some extent, succeeded in his endeavour. The information with regard to surgeoncies in the emigration-service, and ship-surgeoncies, is sufficiently full, but with regard to the Army, Navy, and Indian Medical Services, little more information than is to be found in the official regulations is given. There are some mistakes. The honours conferred upon officers of the Indian Medical Service but rarely include the Order of the Bath. Of forty-seven medical officers so distinguished, thirty-four belong to the Army, eleven to the Navy, and only two to the Indian Medical Service. This service commonly receives the Order of the Indian Empire, or, more rarely, the Order of the Star of India. A full discussion of the advantages and disadvantages of the public services as a career, would be a valuable addition to the volume. The hints on the methods of conducting a general practice will be found most useful at first starting, and the section on appointments, chiefly poor-law appointments, and their difficulties, contains much valuable matter.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A NEW INSTRUMENT FOR DILATATION OF THE CERVIX UTERI.

An instrument made from my design by Messrs. Mappin, of New Street, Birmingham, will, I think, be found of much practical use for the easy, safe, and comparatively painless dilatation of the cervix uteri in suitable cases.

It consists of a specially constructed hollow sound, a small force-pump (such as is used for the inflation of expanding rubber pessaries), and a finger-stall of pure and fine rubber.



The shape of the sound is shown in the accompanying figure. It is hollow, and perforated at the enlargements (corresponding to the shoulder and lip of the sound) for the passage of air. The tube between these enlargements is of smaller calibre than the rest of the instrument, and is made of silver. The opposite extremity of the instrument is made to accurately fit the nozzle of the pump, and is supplied with a tap.

A pure rubber finger-stall is passed over the lip and shoulder of the sound, and the mouth of the finger-stall is tied tightly with silk round the sound just below the enlargement at the shoulder. The stall is lubricated with oil or vaseline, and passed by the sound well inside the neck of the womb.

The pump is then attached, and the finger-stall inflated; about twenty strokes of the piston producing the amount of inflation usually required in cases of polypus or retained ovum. The tap is then turned off, the pump removed, and the instrument left *in situ*.

In about ten minutes, as a rule, mild expulsive uterine pains come on; and in three or four hours (in favourable cases) the instrument is expelled, the cervix being well dilated. Any necessary exploration or operation can then either be performed at once; or, if this be not immediately convenient, the largest size of Mr. Tait's dilators may be passed inside the cervix, and allowed to remain until the surgeon is ready to attend to the case.

This method of dilatation more closely resembles the physiological process than any other with which I am acquainted. The expanded finger-stall *in situ* is analogous to the bag of membranes, which it very closely imitates; and the uterine body, contracting on this, becomes the dilator of its own cervix.

As a plug for hæmorrhage, or for other reasons, it may be found advisable to fix the upper end of the instrument, bearing the finger-stall, just within the cervix. Mr. Mappin, therefore, has added, at my suggestion, a sliding metal clip to the shaft of the instrument, to which a circular disc of vulcanite is readily attached, when required. By this means, the dilating portion of the instrument can easily be fixed. I believe, however, this will but rarely be found necessary.

Of course, it is essential that the finger-stall should be thoroughly good; and it is wise to test each stall before using it. A fresh finger-stall can be employed for each case.

I have used the instrument four times. In each case, there was no difficulty in its application; the mechanical result was all that could be desired; there was no rise of temperature during the process of dilatation; and the patients did not complain of pain.

John W. Taylor, F.R.C.S., Out-patient Surgeon to the Birmingham and Midland Hospital for Women.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 20th, 1885.

THE COMING ELECTIONS AT THE ROYAL COLLEGE OF SURGEONS.

IN no formal sense may it be said that the elections on July 2nd, to fill the three vacancies on the Council of the Royal College of Surgeons, will be of unusual interest and importance. The seven candidates, as we announced last week, are Mr. Savory, Mr. Gant, Mr. Francis Mason, Mr. Rouse, Mr. Cowell, Mr. Macnamara, and Mr. Oliver Pemberton. It is needless to discuss the general aspects of the question, which have been repeatedly considered in the JOURNAL, before and since the last election; and we have regularly reported the proceedings of two Associations which have spoken for themselves with regard to the wishes of the Fellows and the Members as a body. We publish this week an annotation concerning the Fellows' Association. The Council of that body appears to advocate for special consideration the claims of Mr. Macnamara and Mr. Pemberton. There can be little doubt that these two surgeons possess all the qualities to be desired in a member of Council; and, as active and tried members of the British Medical Association, they certainly deserve our support. The Treasurer of the Association, also President of the Metropolitan Counties Branch, is a thoroughly representative surgeon, whose writings on diseases of the eye, and of the bones and joints, have earned him just renown all over the world. Mr. Macnamara is also a link between the profession in the British Isles and the profession in our Indian Empire. Lastly, he is an avowed champion of all those principles which ought to reign, but do not as yet prevail, at the College Council. His experience in administrative duties connected with the British Medical Association would especially fit him for an active and leading member of that Council, and his unfailing tact and other high social qualities would prove of especial advantage amidst the possibly stormy debates to be expected in any Council undergoing reform. Mr. Macnamara has twice contested the elections before—in 1882 and 1883. It is earnestly to be hoped that members of the Association will do their utmost to reward his exertions on their behalf, as their tried officer, by rendering his third candidature successful.

The feeling of our Association must be as strongly in favour of the candidature of Mr. Oliver Pemberton, of Birmingham, who only lost a seat on the College Council, at the last election, by five votes. In the first place, he is a provincial member, and should be supported as such; and all the more, seeing that at present there are but two representatives of provincial surgery, Mr. Cadge and Mr. Lund, on the Council. He is known, too, as a most able surgeon, the author of some valuable contributions to the medical press, and of an excellent Address in Surgery at the annual meeting of the Association held in Birmingham in 1872. His physical power and mental calibre peculiarly suit him for the task of reform, with which he has for long strongly sympathised. A large proportion of metropolitan Fellows are members of the Fellows' Association; it is to be hoped that they will not be biassed by unworthy local prejudices, and will not forget the advantage of securing so able a provincial candidate. A loyal understanding between town and country Fellows was never of more importance than at present.

For varied reasons, it is less expedient to consider the merits of the other candidates. They are all London surgeons, and have their supporters, who will not fail to speak for them. A word must be said upon a rumour that an attempt is being made to throw out a surgeon of high distinction, who has been long connected with the College as an examiner and Member of Council, and has undoubtedly, to say the least, somewhat profited thereby. This gentleman is known, on the other hand, to be a decided opponent of changes which we have ever thought desirable. We are told that this rumour has already created a reactionary movement, on the score that the rejection of an eloquent and representative man of Mr. Savory's calibre would damage a good cause, although he is known to be opposed to the progress of that cause. It would, it has been urged, give rise to an opinion that his defeat would be due, not to any question at issue, but rather to a prevalent belief, founded on fact but not precisely correct, that he was once an unduly severe examiner. We may confidently assure the Fellows of the College that no organised attempt to oust any candidate has been attempted. The Council of the Association of Fellows has, we believe, avoided mentioning any other names besides those of Mr. Macnamara and Mr. Pemberton as especially eligible candidates, so that the third may be entirely at the individual discretion of the electors. The Fellows will neither forget that a certain candidate has done his best to make the anatomical examinations at the College a real test, nor that, on the other hand, he has consistently opposed desirable reform. Nobody can deny that this surgeon must take his chance, and that he is perfectly strong enough to take his own part.

DISEASES OF THE FALLOPIAN TUBES.

A CYNICAL critic of that department of the profession which deals with diseases of women might say that its history has been divided, in the course of the nineteenth century, into an ulceration, a flexion, and a Fallopian tube epoch, the ages of the speculum, the pessary, and the operation which has been termed salpingotomy. Many general physicians and surgeons use such language in a deprecatory sense, as though medicine and surgery had been free from fashion in therapeutics and from pet operations of transient popularity. All such fashions imply great and new truths, abused at first because ill understood; but their abuse has led to their right interpretation, to the great benefit of humanity. To the objection that the projectors of new ideas and operations advertise their names when promulgating their theories, it may be answered that, in so doing, they likewise call attention to their errors as well as to their triumphs; nor can it be doubted that it is far better that new methods of treatment and new operations should be made public, than that they should be concealed.

No doubt, many observers may be too ready to attribute nearly every form of pelvic trouble in females to disease of the Fallopian tubes, as their predecessors did with regard to abrasion of the os externum, to flexions, and to endometritis. The general discomfort in the pelvic region, once held to be an infallible symptom of "ulceration" is now often attributed to salpingitis; flexions have recently been traced to the same affection, which is believed by some to drag the body of the uterus out of its normal axis; and endometritis has been recently represented as playing a secondary part to inflammation of the tubes, a cause no doubt, yet practically a mere preamble to the essential disease. On the other hand, we have the remarkable experience of Battey, Hegar, and Tait, and the pathological observations of Dr. Kingston Fowler, which incontestably prove that disease of the Fallopian tube is a stern and frequent reality.

In a paper read last January before the New York Academy of Medicine, Dr. Gill Wylie gave his audience an exhaustive summary of the subject of salpingitis. This disease may occur in virginity, when catarrh of the vagina or uterus has been of long standing. There can be little doubt that it is a frequent result of gonorrhœa, which in the female is often so mild as not to attract much attention. When chronic, it is particularly apt to spread to the endometrium and Fallopian tubes. In many respects, specific catarrh in the tubes may involve even worse results than when it attacks the male urethra. Stricture of the uterine extremity, sealing up the fimbriæ or escape of discharge into the peritoneal cavity, may occur; the former involving pyosalpinx, the latter causing serious local peritonitis. The direct relation of gonorrhœa to tubal inflammation has been repeatedly traced in patients under the care of several authorities. On the other hand, we must be on our guard against a tendency, which is gaining ground, to believe too much in latent gonorrhœa, just as in the surgical department of hospitals abortion is apt to be looked upon as almost pathognomonic of syphilis. Septic poisoning after labour or abortion is a fertile source of tubal disease, and syphilis may cause salpingitis, just as it gives rise to otitis or ozæna. It is known that disease of the uterine mucous membrane is sometimes cured by the administration of antisyphilitic medicines, after having resisted local treatment. Dr. Wylie points out the important fact that hydrosalpinx may arise quite independently of catarrhal disease of the tube. The symptoms of salpingitis are varied and often obscure; pain in the iliac fossa is frequently very severe and persistent in cases of pyosalpinx. Diagnosis is often facilitated by rest, and by the use of glycerine-plugs applied to the cervix uteri so as to promote the absorption of inflammatory material external to the tubes. After a few weeks of this treatment, a distended tube can generally be distinguished by bimanual palpation. In such cases, pus has been made to appear in the vagina by gentle pressure on a distended tube, and the tube may even empty itself spontaneously, its uterine orifice becoming once more patulous though subsidence of swelling in the mucous membrane. Therein lies a plain indication for cure by therapeutic means, which is at least possible in the earlier stages of salpingitis.

It is questionable whether salpingitis of the purulent form is curable by this simple treatment when it has become very chronic. This opens up the great question of radical cure by operation, of which so much has lately been written. It remains to be seen whether a careful unravelling of the affected tubes, possibly combined with catheterism, might not be effected by abdominal section so as to save those important appendages. It is but fair to the advocates of removal of the tubes to note that, in their experience, the tubes, and generally the ovaries as well, have been found to be incurably diseased, as may be seen in a series of specimens now preserved in the Museum of the Royal College of Surgeons; nor do Dr. Fowler's pathological researches encourage the belief that advanced disease of this kind is amenable to palliative treatment and therefore curable without operation. Lastly, the labours of Mr. Bland Sutton have proved that tubal disease, of which little was known a few years since in regard to its occurrence in women, is by no means rare in the lower animals, at least when they are in captivity.

WHAT BECOMES OF MEDICAL STUDENTS.

At the sitting of the General Medical Council on May 13th, Mr. Marshall moved that a committee be appointed to superintend the preparation of statistical returns relating to the medical profession of the United Kingdom, and that the committee be empowered to expend on those investigations such sums as might be sanctioned by the President and Treasurer. Mr. Marshall referred to Sir James Paget's interesting return as to the career of a thousand students at St. Bartholomew's Hospital. The return in question bore the name of the heading of this paragraph, and will be found in the fifth volume of the *Hospital Reports*. The career of one thousand students was carefully traced. Out of these, twenty-three achieved distinguished success, holding important public and hospital appointments, or gaining leading practices. Sixty-six had considerable success, holding good appointments or lucrative practices in good districts, or gaining more than ordinary esteem and influence in society. Five hundred and seven, or rather more than half, attained fair success, being able to live by their profession, or to gain promotion in ordinary appointments, maintaining in all cases a good reputation. One hundred and twenty-four had very limited success, not having made a fair practice within fifteen years after entering the profession, or appearing likely to do so, or were only just making an uncertain livelihood, or were still employed as assistants in ordinary practices, or were erratic, or doing much less than had been expected of them. Fifty-six "failed entirely." Sixteen of these ill-fated men did not get on in life, though no reason could be assigned to account for their failure, and ten failed through ill-health or some distinct misadventure. Ten were habitually irregular in their habits, and five failed because of scandalous misconduct. Fifteen were never able to pass examinations, "some because of idleness and listlessness, a very few through sheer want of intellect." Ninety-six, or nearly ten per cent., left the profession after beginning either its study or its practice; in the same space of time only seven entered the hospital after abandoning other studies or callings, and five of the seven again changed their minds. This is a tolerably clear proof that medicine is not a profession to adopt as a change or a last resource, a fact that certainly does not apply to several other vocations. Of the ninety-six, three were wisely removed from their hospital-studies by their friends, and thirteen left pupilage of their own accord or were expelled. Two retired through acquiring means which put them in a position to dispense with work of any kind; four, after beginning practice, had to leave in disgrace; three took to the stage, one with success; four gained commissions in the army; three enlisted, one winning a commission; one successfully took to the bar;

seven took holy orders; twenty went into business; nine became farmers; three homœopaths (all unsuccessfully); whilst twenty-four left the profession for various other pursuits. Eighty-seven died after beginning practice, twenty-one of diseases incurred in their duties, five by suicide, and one "judicially," attaining, nearly thirty years since, a terrible notoriety by his crimes. The remainder died of various diseases when either prosperous or otherwise. Forty-one died when students, seventeen of phthisis, four (at least) of fever caught in the hospital, whilst two committed suicide.

From these statistics we may glean just what might have been expected through guessing, namely, that a large proportion of those who enter the practice of the profession manage to make a little money, or, at least, to pay their way; that a very select few achieve fame (and still fewer fortune); that a few, not many, render themselves infamous, and that a considerable proportion become the victims of casualties.

Legislative measures and regulations framed by qualifying bodies can exercise but little control over destiny, as shown in these statistics, excepting as regards that class of students who fail to pass their examinations. The entire question resolves itself, as do most of the others that have been raised at the same Council, into the yet larger subjects associated with the conduct of examinations and medical education. No university nor college can prevent men from attempting to enter a profession for which they are unsuited, nor from yielding occasionally to sundry deleterious influences; but neglect of students at any particular school of medicine can be discovered and controlled, and waste of time in studying accessory sciences for unnecessarily severe preliminary examinations can be remedied by obvious means. In this way, Mr. Marshall's motion may bring about useful results, and it is satisfactory to find that it was agreed to, a committee, consisting of Mr. Marshall, Dr. Haldane, and Dr. Struthers, being appointed, at the same meeting of the Council, to carry out the aims of the proposal. The result of its labours will be awaited with interest by the profession.

THE PEL TRIAL.

All Paris has been greatly excited by the trial of the murderer, Albert Pel; and much satisfaction is expressed at his conviction for the murder of his mistress, Böhmer, although he was acquitted of the charge of poisoning his wife by arsenic. The case is interesting from the scientific evidence offered on behalf of the prosecution, rather than from the heinousness of the crimes charged, though Pel is no common criminal, and is suspected of several other murders.

Pel is alleged to have invariably employed arsenic in the carrying out of his designs. In the case of his wife, she appears to have been seized, within a month after marriage, with vomiting and other symptoms of irritant poisoning, to which she succumbed. The doctor in attendance attributed her death to the eating of mushrooms, and never suspected arsenic till that mineral was detected in the body, exhumed after a burial of four years. The evidence as to the detection of arsenic is curious and interesting. Professor L'Hote is stated to have found no arsenic in the bowels, only one fifty-third part of a grain in about seven ounces of liver and kidney, and none in the muscles. For the defence, it was alleged that Madame Pel had been in the habit of taking Fowler's solution, and that this could well account for the traces of arsenic found in the body. Professor Brouardel, who confirmed Professor L'Hote's analysis of the viscera of Pel's wife, is reported to have given this curious evidence, that, if the deceased woman had used arsenical medicines, the arsenic would not have been found localised, as it was in her body, in the organs in which poisons taken in large doses accumulated. The prisoner was acquitted of this murder.

In the case of Pel's mistress, Böhmer, the symptoms observed were those of arsenical poisoning; but no analysis was made. Indeed, the body of Böhmer was never found; and the theory of the prosecution was that Pel cremated the deceased's remains. Evidence was offered by experts to show that her body could have been burnt in Pel's stove in forty hours. Rather curiously, according to our insular views, Pel was convicted of this case of poisoning; at all events, the *Times* report says that the verdict of the jury was "in the negative on the first count, relative to the poisoning of Eugénie Buffecau (the wife), but in the affirmative, and without extenuating circumstances, with reference to the poisoning of Eliza Böhmer."

The profession will await with interest details of this perhaps unique case of the conviction of a man for murder by arsenic, where the evidence of the administration of the poison was based upon symptoms and moral circumstances only, all analytical and *post mortem* evidence being wanting.

MEDICAL BENEVOLENT COLLEGE.

The communication which we publish in another column from Mr. Jabez Hogg, concerning the results of the recent election at the Royal Medical Benevolent College, is one of considerable importance, and deserves the careful consideration of the supporters of that valuable institution. After repeated consideration, and at a large and influential meeting, at which the whole subject was, by no means for the first time, thoroughly debated, it was resolved, in 1879, to appoint a Committee of Examination, who should carefully investigate the claims of candidates for admission to the College, and who should select a number, equal to the number of vacancies, of those who, in the opinion of the Committee, best deserved election, and whose case or claims were the most urgent. It was hoped, in this way, to put an end to the costly, extravagant, harmful, and capricious mode of election previously in vogue, which countenanced a long and costly system of canvassing as preliminary to an election.

It is unnecessary again to repeat the arguments which convinced, and reasonably convinced, the governors that it was time that this evil of canvassing for election at charities should cease, at least in this great medical charity, and should be replaced by a judicious and well advised method of selection, by which not the wealthiest and most importunate should be selected, but the most deserving. For a time, this worked well; gradually, however, the practice of importunate canvassing has again crept into vogue, and all the evils which it was hoped had been abolished threaten to revive. The governors too easily allow themselves to yield to this sort of ill advised importunity. They would do more wisely to adhere to the principle which was so judiciously adopted in 1879, and to treat these applications by circular as almost in themselves a disqualification for election. Candidates who will not submit to the general sense of the governors as to the mode of approaching them, as expressed by resolution, and who avail themselves of a method which makes it difficult or impossible for the governors carefully and accurately to weigh the respective claims, seek an unfair advantage over those whose

extreme poverty, or whose greater modesty and obedience to the expressed will of the whole body place them in the shade. Canvassing of this sort should be sternly repressed. We refer to Mr. Hogg's letter as one of fair and candid statement and convincing argument; and we earnestly hope that, next year, the useful effect of this well founded remonstrance will make itself felt.

THE POLITICAL SITUATION.

THE Lunacy Acts Amendment Bill and the Scottish Burghs Police Bill will not, owing to the recent change of Government, be proceeded with this year. For the same reason, the Medical Acts Amendment Bill, of which an abbreviated form was in preparation by the Government, will not be introduced this year. Social and sanitary legislation of all kinds falls through with the rest, and only measures of immediate political urgency will be proceeded with pending the new elections.

A PUBLIC meeting to promote the interests of the Volunteer Medical Staff Corps will be held at the Mansion House on Friday, June 19th, at 3 P.M., when the Right Honourable the Lord Mayor will take the chair.

DR. WILLIAM MARCET, F.R.S. (not Dr. March, as stated on page 1211 of last week's JOURNAL), will deliver an address in the Section of Chemistry, Meteorology, and Geology, at the forthcoming congress of the Sanitary Institute.

ABOUT £11,200 had on Wednesday been received at the Mansion House towards the Hospital Sunday Fund. Of this sum, St. Michael's, Chester Square (per Canon Fleming), furnishes £951 4s. 6d.; St. Paul's Cathedral, £161 6s.

MR. JOHN FURLEY, of the St. John Ambulance Association, has had the honour of submitting for the inspection of the Prince and Princess of Wales an ambulance carriage built by Messrs. Marshall, Brothers, of New Street, Ashford, under his direction, for the Princess of Wales' branch of the National Aid Society. The carriage has been since forwarded to Cairo.

IT is reported that, in view of the failure of the Lunacy Acts Amendment Bill to become law during the present session, Lord Shaftesbury has resumed his position as Chairman of the Lunacy Commission, while reserving to himself complete liberty of action as to future legislation.

THE honour of knighthood has been conferred upon Dr. Peter Eade, Senior Physician to the Norfolk and Norwich Hospital, and Consulting Physician to the Norwich Dispensary and to the Jenny Lind Infirmary for Sick Children, etc. Dr. Eade, it will be remembered, took a prominent part in the proceedings of the Annual Meeting of the British Medical Association held at Norwich in 1874; and, on the recent visit of the Prince of Wales, took a leading part in his reception. Dr. Eade has rendered many services to his locality.

WE are informed that the *American Journal of the Medical Sciences* will appear in January next as an Anglo-American periodical, under the name of the *International Journal of the Medical Sciences*, to be published simultaneously on both sides of the Atlantic. Dr. I. Minis Hays will be the American, and Mr. Malcolm Morris the European editor. The first number will contain a series of contribu-

FRENCH LADY-DOCTORS AND PUBLIC APPOINTMENTS.

OUR Paris correspondent informs us that Mademoiselle Benoit, M.D. of Paris, has recently petitioned the Municipal Council of that city to be permitted to compete for the appointments of medical officer to Primary Schools for Girls or to the Governesses' Institutes. The Council have forwarded the petition to the Government authorities, with the recommendation that it should be granted.

THE RATING OF CHARITABLE INSTITUTIONS.

AN energetic protest has been made in Liverpool against the proposed rating of their hospitals and other charitable institutions, and it is proposed to move Parliament for a special act of exemption. This movement has roused the managers of the hospitals of London to a sense of the strange inconsistencies and anomalies of parochial rating. The chief cause of complaint is, that hospitals are compelled to pay poor-rates. In other words, the voluntary charitable funds subscribed to relieve the sick poor in hospitals are taxed, and very heavily, too, to help keep the sick poor in poor-law infirmaries. It is clear that, but for the existence of voluntary hospitals, the infirmaries would have to receive all the hospital-sick, and the ratepayers would have to support them. Strange exemptions to rating now exist in favour of chapels, Sunday and ragged schools, scientific and literary institutions, and some lunatic asylums; but sick-charities have no favour. The Liverpool protest should be endorsed by managers of hospitals throughout the kingdom, and the unwise and inequitable system of taxing charity abolished.

LONDON FEVER HOSPITAL.

ON June 23rd, the friends of this excellent institution will dine together under the chairmanship of the Lord Mayor, and it is hoped that a sum of money will be contributed sufficient to enable the work of the charity to be continued for some time to come. Medical practitioners in London have every reason to assist in obtaining the means for this purpose by encouraging their patients and others who have derived benefit from the existence of the London Fever Hospital, to support it in its mission of providing accommodation for those who require something better than is offered by the hospitals of the Metropolitan Asylums Board. There are a very large number of people in London who, while able to pay something towards their maintenance during sickness, are yet unable to bear the whole cost of the illness; and it is for these especially that the London Fever Hospital now exists. The private rooms are practically self-supporting, but only a small sum is asked of those who enter its general wards.

FAITH-HEALING.

IN some of the faith-healing conferences of the last few weeks, there has been an ingenuous mixture of worldliness with a confused mass of what Mr. Matthew Arnold might call "other-worldliness," which has been at times almost pathetic. With the keen desire for bodily relief and profit, is mixed the vague religious fervour which is best developed when people are gathered together in masses, and subjected to the stimulant of prayer and hymns. A child with very imperfect sight is sometimes brought on to the platform by its eager mother; and, after due anointing and a solemn silence, is observed to move its head towards something it can dimly see; there is a burst of thanksgiving, and its sight is declared by the authorities "to be cured;" its mother is, for the time, overpowered with joy, and the pathos comes later when she finds that, when she holds up before it its favourite toys, it still says "What is it?" in the old familiar unrecognising fashion, and that the burden of her trouble is no lighter. If the leaders of this movement wish to be treated seriously themselves, they must begin by treating the possessors of modern knowledge seriously. Blindness and deafness, for instance, are defects which, in the very great majority of cases, can be proved or disproved with almost absolute certainty, and their immediate causes pointed out by those who

have well-trained professional skill. If the faith-healers genuinely believe in the cure in these cases, and there can be no doubt that many of them do, they have a splendid opportunity of advancing their doctrine, by obtaining a thoroughly competent opinion before their treatment, as well as after it. There need be no interference with the workings of pure faith in the patient, no sceptic bystander watching throughout so as to invalidate the conditions of cure; but there must be good evidence both before and after. If the conditions really preclude good evidence, it is most unfortunate for the faith-healer; but he must spend time and trouble on repeated attempts to overcome the difficulties of his conditions, and not assume beforehand that they are insuperable. On the other hand, the medical man, who has had very little experience of faith among his stock of drugs, has also much to learn from these displays of crude emotion. He may see men lay down their crutches and walk in whom he would have been very sorry to testify, by a written opinion, that there was no organic paralysis; and his broad and vague terms of hysteria and hypochondriasis may seem to need extension and lose distinctness. He may, in short, feel that there is much to be done in this field of the interaction of mind and body, and that it is not easy for him, at least, to get hold of the motor force.

TEETH-SWALLOWING.

THE journal of the British Dental Association makes the following apposite remarks.

"With reference to the cases of teeth-swallowing which are constantly being reported in the medical journals, we would once more call attention to the importance of a proper technical description of the plate being given. In most cases we are told simply that the patient swallowed "a small plate," or a plate with two teeth or three teeth. No doubt, in a large number of instances, the patient is to blame for wearing a denture which no longer fits properly, or of which some of the attachments are broken. Still it would be very desirable to ascertain what class of dentures are the most dangerous; and if the medical practitioners who meet with such cases would get some dental friend to furnish a clear description of the plate, some very valuable statistics might soon be accumulated, and the experience thus gained would probably enable us to guard more effectually against the occurrence of these accidents."

MADEIRA.

FOR the information of all who may recommend patients to visit Madeira for their health, or who may themselves have occasion to visit that island, we are enabled to state that on and after July 1st a considerable reduction in the passenger-fares from Southampton or Plymouth by the steamers of the Union Steamship Company will be made. The directors of that company have decided to reduce the outward fares from nineteen guineas, first-class; thirteen guineas, second-class; and ten guineas, third-class, to fifteen, ten, and seven guineas respectively; the homeward fares remaining as at present, namely, twelve, eight, and six guineas respectively. The passage-money to and from Madeira includes railway-fare between London and Southampton, or *vice versâ*.

THE PREVENTION OF BLINDNESS.

A LARGE proportion of the inmates of blind asylums have lost their sight owing to the ravages of one of the most preventable of diseases of the eye, and one of the most curable, it properly treated at the commencement. The Ophthalmological Society of the United Kingdom has, as our readers may remember, recently taken action in the matter, and the proposals made by it (BRITISH MEDICAL JOURNAL, May 23rd, p. 1068) are now under the consideration of the Local Government Board. Mr. Vose Solomon, in a paper read before the Staffordshire Branch of the British Medical Association, and published in the *Ophthalmic Review*, June, 1883, proposes that application should be made to "boards of guardians, union doctors, and managers of maternity societies connected with the churches," suggesting that every note issued for the parish midwife shall be accompanied by a packet containing sixty grains of alum, and bearing a label as follows:—"*Lotion-Powder for the Baby's Eyes.* Directions. Dissolve this powder in a pint of clean water. Directly you see matter come from the baby's eyes, clean it away every two hours with a bit of wool or rag, and then thoroughly wash the inside of the eyelids with the lotion. If the eye looks weak, and does not matter, use the lotion every four hours. Get a doctor as soon as possible. Eyes that matter, if neglected, often go stone-blind." In this way the interest of the mother would be enlisted, and her attention drawn, before its birth, to the dangers which may await her child.

OPERATIVE TREATMENT OF AORTIC ANEURYSM.

THE aneurysm of the arch of the aorta, which Professor Baccelli attempted to occlude by the introduction of fine steel watch-springs in the presence of many of the delegates to the Sanitary Conference and of the practitioners of Rome and students of the University, is the third case of the same kind in which the proceeding has been tried. The patient was a mason from Jesi, 50 years of age. He was laid on the ordinary lecturing-couch of the medical clinique, on his back, turned slightly to the right, and the fine trocar—or exploring needle, rather—introduced in the direction from left to right. No blood escaped on the withdrawal of the trocar, and then there were slowly pushed into the sac through the cannula seven watch-springs, each 50 centimètres long, so that 3 mètres and 50 centimètres of this wire filled the sac at the end of the operation. The case terminated fatally two days later, apparently from exhaustion of the patient, and not from embolism. There were very few signs of coagulation in the sac found at the necropsy. All the three cases have thus, unfortunately, turned out unsuccessful.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

WE are informed that the council of this Association have considered a communication from the Members' Association, relative to the question of the standing of any member necessary to qualify him for a vote at the annual election of members of the Council of the College. The Members' Association claim that a member should be allowed a vote five years after he has received his diploma. The Fellows' Association consider that, in fairness to themselves, that privilege should not be allowed to a member until he has been qualified for ten years. The council of the latter have decided upon appointing delegates to meet other delegates selected by the Members' Association, in order to discuss this question. The same council, we understand, are in no way desirous of unduly pressing the claims of any of the seven candidates for the three vacancies on the College Council. They are, however, strongly of opinion that two out of the ranks of the competitors deserve especial consideration, as gentlemen who, independently of other qualifications, are well known to be ardent supporters of the cause of reform, namely, Mr. Macnamara and Mr. Oliver Pemberton. It has not been considered advisable to name a third candidate, that being left to the private opinion of each voter. The members of the British Medical Association will hardly fail to support the two candidates above named; their claims are elsewhere demonstrated in this number of the JOURNAL.

COUNTRY PRACTITIONERS.

ONE of the important questions relating to the improvement of practical medical knowledge is the question how to preserve and utilise the knowledge of the country practitioner. It too often dies with him; and that there are many points in it worth preservation there can be no doubt. The tendency of modern medicine has been to abandon drastic measures and watch, and possibly assist, nature. But natural processes are long, and need long observation. The advantages in this respect that sometimes fall to the country practitioner, in comparison with his town colleague, are well described by Dr. S. Dyer, in a short presidential address to the Dorset and West Hants

Branch of the British Medical Association. The familiarity between doctor and patient is more intimate, and there is more chivalry in the constancy of patients to their advisers. Questions of heredity can be more fully investigated, the full tale of concomitant circumstances more intimately known. The record of a little of such life-long experience can be saved by opportunities such as offered by medical meetings of the smaller Branches of the British Medical Association or other societies; for there are many practitioners who, though they will not find time to keep written records, yet will verbally condense their experience, and some record of that may be preserved; and, further, the Collective Investigation Committee are putting forth pointed questions, and are reaping a large harvest of knowledge from short answers.

ENTOZOA AT THE ROYAL SOCIETY.

At a recent meeting of this Society, a paper was presented by Dr. J. Davies Thomas, of Adelaide, Australia, "On the Successful Breeding of *Tænia echinococcus* by the Administration of Human Hydatids to Dogs." At the *conversazione* of the Society, specimens of the hydatid tapeworms thus reared by Dr. Thomas were exhibited by Dr. Cobbold, together with other canine tapeworms in various stages of growth reared by himself. It was shown that a *Tænia cœnurus* of five days' growth might very well be mistaken for a *Tænia echinococcus* fully grown.

CHANCRE OF THE EYELIDS.

It appears that the attention of French surgeons has been recently directed to the frequency of primary syphilitic disease of the eyelids in children. The method of infection appeared to be very obscure, but M. Baudry, of Lille, has made known, in the *Mémoires de la Société Française d'Ophthalmologie*, some important facts which throw great light on the subject. A female patient, 22 months old, was brought to him with an indurated chancre on the free edge of the lower eyelid on the right side, and acute inflammation of the palpebral conjunctiva. It was found that the child had been nursed by a woman who was accustomed to wipe its eyelids with her fingers freely moistened with saliva, to rub off some crusts that had formed, for the conjunctival disease was of some months' standing. This woman was suffering from syphilitic ulceration of the mouth. M. Baudry had observed a precisely similar case, where an indurated chancre was found on the upper lid of the left eye close to the inner canthus. The mother, who was syphilitic, "cleaned" the child's eye in the same manner, and stated that all her friends and neighbours did the same when their infants' eyelids stuck together. It may be observed that primary sores in unusual situations have already been traced to similar dirty practices, more or less prevalent in different countries.

ARE MEDICAL OFFICERS OF CLUBS BOUND TO GIVE LUNACY CERTIFICATES?

In the Woolwich County Court, Judge Pitt Taylor has just decided that the medical officer of a club is bound to give any certificate required by a member without fee, the case in point being a certificate in lunacy. When practitioners contract to supply "attendance and medicines" for from three to six shillings a year, they do not, we believe, generally understand that they bind themselves to undertake the serious responsibility which is implied in certifying to unsoundness of mind without any extra payment. Many practitioners, as is well known, now refuse to give a certificate in lunacy under any circumstances whatever. We wonder whether heavy damages could be successfully claimed in the Woolwich County Court from the medical officer of a club, who refused to take on himself the risk of certifying to the unsoundness of a club-patient's mind. Again, would the same doctrine apply to the proprietors of the so-called self-supporting dispensaries, who undertake to supply attendance and medicines for a shilling a week prepaid? If so—and we suppose that, till a higher court has decided otherwise, Judge Pitt Taylor's view must be taken as good law—all practitioners who make contracts to attend patients for a stipulated sum had better be careful to see that certain services, such as certificates for insurance, in lunacy, and perhaps those having reference to other clubs or societies, as well as attendance during, or immediately after, confinements, miscarriages, vaccination, and diseases due to drink and immorality, are expressly excluded from the contract.

HYPODERMIC INJECTION OF OIL.

In a paper read before the Section of Practical Medicine at the recent meeting of the American Medical Association, Dr. J. V. Shoemaker, of Philadelphia, said that it was well known that oils which could not be swallowed, or were rejected by the stomach, could be absorbed by inunction and subcutaneous injection; but the more rapid and effective use of these agents subcutaneously had had very little practical application. Krueg used subcucaneous injection of olive-oil in the case of an insane patient who refused to eat, with the result of keeping him in good bodily vigour; at the end of a month, he was induced to take food in the natural way. Dr. J. T. Whittaker, of Cincinnati, had, in a case of gastric ulcer, given subcutaneous injections of drachm-doses of milk alternated with beef-extract. The general condition of the patient was improved, but abscesses formed where the milk had been injected. Cod-liver oil was then substituted for the other articles, two drachms being given every two hours for two days; on one day, eight ounces were injected. No ill effects attended or followed the injections of the oil. Dr. Shoemaker had, he said, been induced a few years ago, in consequence of the inability of some of his patients to bear medicine by the stomach, to try subcutaneous injection of oil; and the effects in various diseases had been highly gratifying. Castor-oil administered in this way had acted as a laxative in many cases of constipation. For this purpose, one or two injections of a drachm or two of the oil were generally sufficient. Injection of a like quantity of cod-liver oil or olive-oil had been attended with improvement of nutrition in cases of debility, dyspepsia, scrofula, tuberculosis, and some diseases of the skin and nervous system; it was especially useful in diseases of the alimentary canal, and in all affections depending on defective nutrition. The injecting syringe should have a capacity of from four to eight drachms, and should be provided with a needle of good calibre. The injection should be made in parts well provided with subcutaneous areolar tissue, such as the superior and inferior scapular and the sacral regions, the arms, the chest, the buttocks, and legs. Some irritation was produced at the point of puncture, sometimes redness and swelling; but these soon disappeared. There was no induration or inflammation, if proper care were taken in using the syringe, and the tissues were in a healthy condition.

MICRO-ORGANISMS IN DISEASES OF THE EYE.

An interesting paper on this subject has been contributed by Dr. Widmark, teacher of ophthalmic surgery in Stockholm, to a recent number of the *Nordiskt Mediciniskt Arkiv*. He has made a series of researches with the object of testing the accuracy of the idea, put forth by Sämisch, Leber, Hirschberg, and other ophthalmologists, that serpiginous or creeping ulcer of the cornea is the result of infection, and that, when it complicates dacrocystitis, it is produced by micro-organisms passing from the lacrymal sac. In 37 cases of dacrocystitis and two of serpiginous ulcer of the cornea which he examined, Dr. Widmark found micrococci, rarely single, often forming streptococci, and most frequently diplococci. He succeeded in making pure cultivations of these micro-organisms in a jelly of ox-blood serum, and in inoculating therewith the eyes of rabbits; the result being in all cases the production of ulcerative keratitis with hypopyon. The operation was done by making an incision with a Gräfe's knife in the substance of the cornea, and introducing some of the cultivation-material with a small spatula. Twenty inoculations were made with uniform

results ; while, of 10 control-experiments with sterilised gelatine, the results in all were negative. Subcutaneous inoculation of the cultivation-material on five rabbits were followed by abscesses, the pus from which, when inoculated in the cornea, produced ulcers. In concluding his paper, Dr. Widmark suggests that the chief reason why operations on the eye are rarely followed by suppuration, is that any microbes which may be present are washed away by the tears, or prevented from aggregating by the abundant and rapid secretion of the aqueous humour.

INSTRUCTION IN NURSING IN HOLLAND.

THE Dutch Red Cross Society, having considered a report of a committee upon the training of nurses and male attendants, has decided upon a comprehensive scheme, by which healthy individuals of good character will be chosen and carefully trained, receiving both practical and theoretical instruction in such subjects as it is necessary for them to know. After a year's training, an examination will be held and diplomas granted ; the successful candidates will also receive uniform and pay, according to a definite and progressive scale. The claims of discharged soldiers are to be especially considered in selecting candidates. In order to obtain means for defraying the necessary expenses of this scheme, an appeal is to be made through the branch committees to the public for subscriptions.

DETECTION OF TUBERCLE-BACILLI.

THE *Centralbl. für Klin. Med.* for May 23rd contains an original article by Dr. Rütimeyer, on the presence of tubercle-bacilli in the blood and in the spleen in acute miliary tuberculosis. In several cases of the disease, he has examined specimens of blood obtained during life by puncture of the spleen with a syringe, and has been able to demonstrate bacilli in all of them. He has found this method to be much more certain than that of obtaining the blood by means of a puncture in the finger, and there is no great risk of any danger to the patient from escape of blood into the peritoneum.

ABSORBENT POWER OF THE CUTICLE.

DR. JUHL has been making experiments on the absorbent power of the human cuticle for fluids in the form of spray. The lower extremities were isolated from the rest of the body by a partition, the opening in which was carefully packed with India-rubber, so that no fluid might pass to the rest of the body. The spray was then made to play upon the isolated extremity, and only normal skin was exposed to it, all patches which were unduly reddened being covered with gutta percha tissue firmly fixed with chloroform. The skin was carefully cleansed with soap and water before the commencement of the experiment ; and after the spraying, the superfluous fluid was wiped off, the leg rubbed with fat, and a close bandage applied, before the limb was removed from its isolation. The drugs used were ferrocyanide of potassium, salicylic acid, salicylate of soda, iodide of potassium, and tincture of iodine ; and all of them were found, in greater or less quantity, in the urine. Alcoholic solutions were found to be absorbed more readily than aqueous.

REFLEX TRIGEMINUS-COUGH.

DR. ENSING, of Schagen, communicates to the *Tijdschrift voor Geneeskunde* notes on the case of a girl, aged 16, with a dry hacking cough, in whom no organic disease could be discovered. It was observed, however, that percussion below the right scapula brought on an attack of coughing. The mucous membrane of the right nostril was strongly hyperæmic, and somewhat swollen, and, on using the probe, it was noticed that, whenever it came into contact with a particular spot, the cough was excited exactly as on percussion below the right scapula. Dr. Ensing blew in a powder composed of nitrate of silver and starch, and in three visits the cough had disappeared. The general health, which had been weak, rapidly improved.

EXTIRPATION OF THE THYROID GLAND IN DOGS.

ALBERTONI and Tizzoni extirpated the thyroid gland in twenty-three dogs (*Gaz. degli Ospitali*, June 3rd, 1885). Of these, four survived. In Schiff's hands, the operation had been uniformly fatal in upwards of sixty cases (in dogs). In rabbits, the removal of the gland is borne well, according to all investigators. The symptoms noted by the Italian observers are much the same as have been generally recorded, and belong chiefly to the nervous system. Albumen, however, has been found in the urine by them—a circumstance not previously remarked. The authors believe they have found the explanation of many of the symptoms in the fact that the arterial blood becomes venous in character ; that is, it contains only about the same quantity of oxygen as the venous blood, or even less. An important condition, not hitherto noted, has been found by them after death. Nerves, even at a distance, were found degenerated—the sciatic nerve, for example. The nerve-centres have not yet been carefully examined ; but, when this has been done, the authors will make known the results.

SOCIETY OF APOTHECARIES : SURGICAL SCHOLARSHIP.

MR. WILLIAM HENRY BOWES, of Guy's Hospital, has been elected to the Surgical Scholarship of the Society of Apothecaries of London, of the annual value of £100. The examiners—Mr. Bryant and Sir William Mac Cormac—report that Mr. William Alexander Bowes McCabe, of University College, obtained a number of marks nearly equal to those of the successful candidate.

SMALL-POX AT BURSLEM.

THE epidemic of small-pox which is just now afflicting Burslem, and which is supposed to have been introduced into the town by a tramp, has been smouldering there since December last. Its presence was known by the appearance of a case from time to time in the poorest parts of the town ; and the disease only assumed an epidemic form in the end of April and beginning of May ; and from this time its severity gradually increased up to now, when its maximum, we believe, has been reached. During the last three weeks, vigorous efforts have been made to isolate the cases by removing them to temporary hospital-tents erected in an airy situation a mile and a half out of the town ; and in these there are now 34 patients under treatment, many with the disease in a mild form, others in a more dangerous one. Besides these, there are other 10 or 12 cases remaining in the town, some of them so slight as to be hardly recognisable as small-pox. Three cases only have died—two in the tents, and one at home. The youngest case was that of an unvaccinated child of 7 years ; the oldest, that of a woman lately come from the country, 61 years of age.

OPENING OF THE HOLLOWAY SANATORIUM.

THE Holloway Sanatorium at Virginia Water, opened by the Prince of Wales, who was accompanied by the Princess, on Monday last (June 15th), is a large roomy building, presenting a long, ornate, many gabled front to the visitor who enters the gates close to the railway-station. The building contains accommodation for 200 patients (100 of each sex), and about 100 servants and attendants ; it is intended for the treatment of patients of the middle class, professional men especially, who are likely to be benefited by a year's residence in a quiet rural neighbourhood, and in a house where everything that kindness and lavish generosity can do to alleviate the lot, and to beautify the surroundings, of the unfortunate sufferers has been done. Cases of hopeless insanity will not be admitted. The decorations of the entrance-hall, of the large and well proportioned recreation-room, and of the dining hall, are most ornate and elaborate ; the walls of the dining-hall are covered by frescoes after Watteau, executed in the art training-school. The small sitting-rooms are furnished as drawing-rooms ; the influence of Japanese artistic methods is very plainly seen in the wall-decorations of these rooms, and the general result here leaves nothing to be desired. The

private rooms vary in the luxury of their fittings, but all are comfortably furnished. At the rear of the building are cottages, which will eventually be occupied by patients who desire such accommodation. The majority of the patients to be admitted will be required to contribute towards their own support; the fees, we understand, will range between two guineas and 25 shillings a week, but a certain small number of necessitous cases from the professional class will be admitted free; that is, so far as funds will allow: for, following the example set at Northampton, and at the Retreat at York, it is intended to make the institution self-supporting. We understand that arrangements are in progress for the immediate admission of a considerable number of patients, and that there is every reason to believe that the sanatorium will shortly be in full working order. Donors of £50 and upwards are to be governors of the institution; but gentlemen resident in Surrey or Berkshire may, if thought desirable by the governors, be elected into the body without the money qualification. The General Committee of the Sanatorium is to consist of not less than eight or more than twenty members, elected from among the governors; with, as *ex officio* members, the Lord-Lieutenant of the County, the Lord Bishop of the Diocese, and the Chairman of Quarter Sessions. The immediate control of the institution is to be under the direction of the Medical Superintendent.

THE COLLEGES AND THE TITLE OF DOCTOR.

We have been informed that the first meeting of the committee of delegates from the Royal College of Physicians and Surgeons appointed to consider what steps, if any, can be taken to enable the two colleges to obtain the legal right of giving the title of doctor to persons who shall have obtained the licence of the Royal College of Physicians, and the diploma of member of the Royal College of Surgeons, was held at the latter college on Tuesday night; Sir William Jenner being in the chair. All the members of the committee were present, except Sir Andrew Clark, absent through indisposition. The proceedings are said to have been satisfactory, and a second meeting will soon be held.

THE INFLUENCE OF RESIDENCE AND OCCUPATION ON PHTHISIS.

Our readers are doubtless aware that the Collective Investigation Committee is prosecuting an inquiry into the Etiology of Pulmonary Phthisis. One of the three forms issued for this purpose relates to the influence of residence and occupation. The questions in this form are of a kind that may best be answered by a medical officer of health, and the Secretary of the Committee will be happy to forward any number of forms, on application, to any gentleman holding an appointment of that kind.

SCOTLAND.

THE CARTWRIGHT PRIZE.

We are glad to observe that the Cartwright Prize of 500 dollars, given by the Alumni Association of the College of Physicians and Surgeons of New York, has been awarded to Dr. William Russell, of Edinburgh, for his essay on the Heart in Debility.

THE NOTIFICATION OF INFECTIOUS DISEASES.

At a meeting of the Public Health Committee of Edinburgh Town Council, held on Tuesday, June 16th, the report submitted by the medical officer of health showed that, during last month, 272 cases of infectious diseases had been intimated to the authorities; and that these consisted of 122 cases of measles; scarlet fever, 87; typhoid fever, 55; diphtheria, five; typhus, three. Of these, 74 occurred in the New Town, 137 in the Old Town, and 61 in the Southern suburbs. On June 15th, there were in hospital 80 cases of infectious diseases, as compared with 63 on May 26th. In the City Hospital, there is at present one case of small-pox; in the fever wards of the old Royal Infirmary, there are 27 cases of typhoid, 14 of scarlet fever, and 11 of erysipelas; in the fever wards of the Royal Hospital for Sick Children, there are nine of typhoid and 18 of scarlet fever. The Corporation's Epidemic Hospital is now nearly completed, and consists of eighteen wards, which will contain 178 beds. The conversion of the old Infirmary Buildings (under the medical superintendence of Dr. Littlejohn, and of Mr. Morham, city architect) to the purposes of a modern fever hospital, is one which reflects credit on the Town Council of Edinburgh, and on its enterprising medical officer of health.

THE GLASGOW EAR HOSPITAL.

The proposed removal of this institution to larger and more suitable premises, as previously mentioned in the Journal, has now taken place, and everything seems to have been done by the Directors to render the Hospital adapted to meet the objects it has in view; for not only has excellent accommodation been provided for the in-door and out-door patients, but every facility is given to the general practitioner and student for engaging in the study of aural diseases. It is only right that a town of the size of Glasgow should have a special hospital for ear-disease; but this branch of study has not been overlooked in connection with the infirmaries of the town, and at both of these institutions there are well equipped departments for dealing with these cases, and every facility for the admission of suitable or urgent cases for treatment in the wards, so that students of the different medical schools may make themselves thoroughly conversant with diseases of the ear at either the Royal or Western Infirmaries. Under these circumstances, it is a matter of regret that the recent change of location of the Glasgow Ear Hospital should have been used as an opportunity for the laudation of its own special excellence and of its staff, coupled with a somewhat ungenerous reference to the facilities afforded by other charitable institutions of the town for benefiting this special class of sufferers.

THE POLLUTION OF THE RIVER CLYDE.

In July of last year, the Health Committee of Glasgow took under consideration the question of the pollution of the Clyde, especially in connection with the discharge into that river of the offensive refuse from public works which had been allowed to find their way into the main sewers. A report on the subject has been prepared by Dr. Wallace, the city analyst, and it has been issued to the different members of the Town Council; but its contents, and the conclusions arrived at, have an interest for other towns as well as Glasgow. In his investigations, Dr. Wallace goes over a large extent of ground. Steps were taken to ascertain the nature and chemical composition of the various discharges from public works, and the result of mixing them with ordinary sewage in the sewers. Further, efforts were made to estimate the effect of the discharges, taking quantity and composition into account, upon the purity of the Clyde, as compared with the effect produced by the sewage proper of the city; and, lastly, it was attempted to find out the best means of purifying these manufacturing-discharges, in the event of its being necessary to treat them before admitting them into the Clyde. Upon all these points, Dr. Wallace has much to say, and offers much valuable information. The conclusion to which he comes, is that it would be a fair estimate to assume that the impurities found in the water of the Clyde are due to sewage proper and manufacturing-refuse in about equal proportions. With such a report as this as a foundation, there should be no difficulty in the Glasgow authorities at once putting into force the powers that undoubtedly at present exist for the suppression of such pollution of the Clyde as this report brings clearly out, and which, in the public interest, should be stopped without any further delay.

DUNDEE ROYAL LUNATIC ASYLUM.

The annual meeting of the governors of the Dundee Royal Lunatic Asylum was held last Monday. Sir John Ogilvy, Bart., presided. The report of the directors and also that of the medical superintendent

for the past year were read and unanimously approved of. The reports showed that at the present time the number of inmates is 293, namely, 123 males and 170 females, being a decrease of 77 as compared with the previous year. In consequence of a considerable number of removals being made by the Dundee Parochial Board, the overcrowding which before existed has been very much remedied. The financial report stated that the income from patients for the year amounted to over £10,395, and the expenditure to £8,806, leaving a surplus of over £1,589. The profit on the garden was £148 10s. 2d.; on the dairy account, £51 0s. 5d.; and on the old asylum £94 3s. 3d.; making a total profit of £1,882 18s. 1d., which, after deducting £2,457 9s. 4d. as interest on bank account for building purposes for the year, as for rent, a net deficiency of £568 11s. 3d. remained. Sir John Ogilvy, as chairman and all the committee of management and other officials, were re-appointed, and a vote of thanks was awarded to hem for their services during the past year.

DUNDEE ROYAL INFIRMARY.

An anonymous donation of £1,000 has been received by the Treasurers of the Dundee Royal Infirmary, one-half of which is asked to be applied to the further endowment of the Convalescent Home at Barnhill.

SCOTTISH VITAL STATISTICS.

The returns on Scottish vital statistics, as given by the Registrar-General for the quarter ending March 31st, show the respective rates to be all below the average of the corresponding period during the previous ten years. The number of births was 30,878, which is at the rate of 320 per 10,000 of estimated population, or 3.20 per cent. for the whole country. The variations from this general average range from 348 in the principal towns, to 223 in the insular-rural districts. In the large towns very marked differences are noticeable. Thus, the birth-rate for every 10,000 persons in Glasgow, was 392; in Aberdeen, 362; in Paisley, 358; in Dundee, 327; in Greenock, 324; in Edinburgh, 296; in Leith, 292; and in Perth, 273. Of the 30,874 births, 2,675, or 8.7 per cent. were illegitimate, the highest proportion in any county being in Banff, where it reached 23.6 per cent. The deaths during the quarter amounted to 21,936, being at the annual rate of 227 deaths for every 10,000 of the estimated population, or 2.27 per cent. The rate in England and Wales during the same period was 220 for every 10,000 persons. Among the large towns, Glasgow heads the list, its death-rate baing 314 for every 10,000 of its estimated population. The 6,408 marriages registered, give an annual rate of 66 for every 10,000 persons, or 0.66 per cent., which is 0.03 below the average rate for the corresponding quarter during the past ten years. From the figures given in this quarterly report, and from a consideration of the official returns of emigration, the computed increase in the population of the country for the three months is 5,693. One noticeable feature about the present report is, that it is the first occasion on which the classification of diseases, as now employed by the Registrar-General of England, in his various reports, is used. Seeing that 32 per cent. of the inhabitants of Scotland reside in the eight principal towns, a careful analysis has been made of the diseases prevalent in them, so as to afford some criterion of the condition of the matters in the rest of the country, and the figures under the different headings contain many points of interest. The remarks on the weather of the different months, embraced in the report, show the temperature of January to have been low, with an unusual amount of east wind, while February was a mild month. March, again, was characterised by dry, cold, bracing weather.

THE SCOTCH FISHERY BOARD ANNUAL REPORT.

A very full and exhaustive report has been issued by the Fishery Board of Scotland on the subject of the Scotch Fisheries during the past year; and it is gratifying to find that in every branch of this great national industry and important source of food-supply there is a very satisfactory state of things to record. The report itself, too, furnishes very valuable evidence of the intelligent energy and thoroughness with which the present board has laboured since it was established about three years ago. From the figures given in the report, it appears that the Scotch Fisheries were more productive last year than for some time previously; and the extent of their importance is shown by the fact that their total estimated value for 1884 reached the large figure of £3,351,849, while it is reckoned that fully half a million of people, or about one-seventh of the entire population of Scotland, are more or less dependent on the fisheries for a means of living. Not the least interesting portion of the report is that which deals with the scientific investigations instituted by the board. It shows that one of the chief obstacles to the complete study and elucidation of the various points requiring investigation is the want of funds and of suitable appliances. To some extent, the money deficiency has been met, but there has not yet been forthcoming on the part of the Government that amount of liberality which the importance of the subject demands. Meanwhile, the board has taken one or two important steps in connection with these investigations. First, it has obtained full information as to the methods of inquiry which have proved so successful in America; and, in the next place, it has secured the services of an experienced naturalist in Mr. Brook, of Huddersfield, whose whole time is devoted to the work of scientific inquiry. Under this gentleman, a temporary laboratory has been established at East Loch Tarbert, where it is proposed to direct attention chiefly to the following questions: The nature of the eggs of fishes, and of the spawning process; the rate of growth of the chief food-fishes; and the nature of the food of the young and adult forms. To those interested in the subject, the whole report will well repay perusal; and we hope that, when we have to notice the next report, we will be able to congratulate the board on having a more liberal supply of Government money placed at its disposal than it has had in the past. The work it has already accomplished shows that it knows how to utilise to the best advantage any funds that are placed under its control.

IRELAND.

Three cases of small-pox are reported as having occurred in Dublin last week. The disease is stated to have been introduced from London.

QUEENSTOWN GENERAL HOSPITAL.

From the report, read at the recent annual meeting, it appears that the expenditure for last year amounted to £329, leaving a balance in hand of £85. In addition, £394 was subscribed towards the Extension Fund. The proceeds of the late bazaar amounted to £300, a result which must be regarded as satisfactory. During the year, 86 cases were admitted into the wards, with a mortality of six.

THE SOUTH INFIRMARY, CORK.

During the recent visit of their Royal Highnesses the Prince and Princess of Wales to Cork, a member of the profession unfortunately incurred considerable odium among some classes by the peculiar manner in which, it was stated, he chose to exhibit his political sentiments. As a consequence, he was expelled from the County Club, of which he was member. Shortly following after this, the trustees of the South Infirmary, of the staff of which the gentleman in question is a member, issued an advertisement stating that, in compliance with a rule (which it is said had fallen into abeyance) limiting the tenure of office to five years, but with eligibility for re-election, three posts on the staff would be vacant on June 12th, for which applications were invited. This action of the trustees was regarded by, we believe, a large section of the public as an attempt to oust the gentleman to whom we have referred from his position upon the staff. The entire profes-

ion of Cork, however, looking upon the matter from a higher standng, and apart from all political feeling—as we, as medical journalists, are also bound to do—deprecated the proceeding as calculated to lower the status of the profession, and opposed to the best interests of the institution. At a numerously attended meeting of the profession, presided over by Dr. O'Connor, ex-President of the British Medical Association, a resolution to this effect, and also one deprecating any opposition to the outgoing members of the staff who sought re-election, were unanimously adopted (*vide* JOURNAL, May 30th, p. 1120). The trustees held their meeting for the election last week, under the presidency of the Mayor of the city. A resolution, repudiating any intention on their part to insult the medical profession or the staff, was passed. Dr. William Townsend stated that the right of the trustees to hold quinquennial elections was not questioned; but what had hurt the feelings of the profession was the form in which the advertisement had been issued. On the letters of application being opened, it was found that the retiring members of the staff under the five years' rule were the only candidates, all of whom were consequently re-elected.

CORK MATERNITY.

IT is a subject of regret that this institution, which has given such valuable assistance to the poorer classes of the community, should be inadequately supplied with funds. Last year shows a further diminution in the subscription-list, the income from this source and from donations only amounting to £60, which, with the contributions from the patients, gives a total income of £72. The committee draw attention to the fact that, if a more liberal aid be not extended to the institution, its sphere of usefulness must be curtailed, and probably many a valuable life lost for want of that skilled assistance afforded by the Maternity. The small sum annually of £120 will cover all the ordinary expenses, and this amount is all that is asked for to afford relief to the suffering, to aid the distressed, and to save human life.

THE UNIVERSITY OF DUBLIN SCHOOL OF PHYSIC.

WE understand that the Board of Trinity College, Dublin, have approved of plans for the erection of additions to the Medical School in connection with the University, involving an outlay of between £10,000 and £12,000. One of the features in the new building will be an anatomical lecture-theatre, capable of accommodating over 300 students. The strides this school has made within the last few years, under its present excellent staff, necessitates this considerable addition; and the Board has shown great wisdom in at once recognising the value of the suggestions made to them by their professors, and in agreeing to carry them out in their entirety.

PASSAGE WEST DISPENSARY.

DR. BEAMISH, of Castleview, has resigned the appointment of dispensary medical officer and medical officer of health for Carrigaline district, Passage West, being unable to devote sufficient time to his duties. The following resolution has been unanimously adopted by the dispensary commtttee: "That we, the members of the committee of management of the Carrigaline Dispensary, express our deep regret in the acceptance of Dr. Thomas Beamish's resignation, after so many years of untiring zeal and careful attention to the wants of the poor, who, we are sure, will feel the loss of a kind, feeling Christian friend, as well as a successful and skilful physician, which qualities, together with his good nature and urbanity of manner, have won for him the golden opinions of every class of society in the community, and that he now feels it, owing to increasing duties of private practice, actually necessary to retire from further dispensary duty."

WE regret that, by a printer's error in the JOURNAL of June 13th, the London Sanitary Protection Association were represented as having removed to new premises. The offices of the Association are still, as heretofore, at 1, Adam Street, W.C.

CHOLERA.

THE CHOLERA IN SPAIN.

OUR own correspondent writes to us from Valencia, under date June 14th:

I regret to state that cholera has made rapid strides, not only through the length and breadth of this province, but has passed over to Murcia, in the south, where it is very fatal, and up to Madrid the past week, and also gone into that of Castellon de la Plana, on the north-east, where it is making great headway. There is a great panic in every place where it has appeared, and people are fleeing wherever they think best. I cannot say it is very fatal as yet; but what there is, is speedily so. The proportion of infected is small compared with the population of the places; for example, Valencia, with its population of 160,000, has six to eight deaths daily. In the only cholera-hospital, there were yesterday 12 women and seven men only, and one of these was a case of enteric fever.

What is causing a greater disturbance in the provinces—Castilla, Castellon de la Plana, Valencia, Murcia, Alicante, etc.—is the work of Ferran. It has divided the Government and Cortes, and formed a capital battlefield; and had it not been for the firmness and cool determination of the minister, Señor Robledo, in preventing Ferran and his allies from carrying on his inoculations, the whole nation would have become Ferranic, at the rate of two dollars a head at least. I know a man who paid £7 for inoculation, and another who paid £4, and so on. Now, the tide is beginning to turn the other way; and yesterday, circular orders were sent to all the alcaldes throughout the country to prevent any from being inoculated, and to seize all flasks or vessels with the liquid, and stop Ferran and his friends from "propagating the very disease that ought to be destroyed, or introducing another disease worse than cholera to the nation."

It is also becoming a serious matter with some of the medical men, especially in the country. Some have been stoned, others maltreated; and one of them, after a patient of his died, was sent for, and made to swallow all the medicine that his dead patient had left. The medical officer of the Hospital of San Pablo in this city dare not go out of the premises, as he was severely handled, and also the police who tried to defend him.

COMMUNICATION OF CHOLERA BY WATER.

AN interesting communication made by M. Marey last year to the Académie de Médecine, on "Water as Means of Spreading Cholera," now appears in the form of a pamphlet, entitled, "Les Eaux Contaminés et le Cholera." M. Marey reproduces the history of the Broad Street pump, which he describes "as a never-to-be-forgotten lesson, by which all the world ought to profit." M. Marey collects, in his pamphlet, several interesting facts regarding the subject. Part of the department of the Côte d'Or was irrigated by two small rivers, the Telle and Bèze; and in a plan of the ground traversed by the rivers, M. Marey indicates, by dates, at what period during the epidemic—that is, of 1854—cholera appeared in the villages through which the rivers passed. A plan of the town of Lille, in 1832, shows that two sewers ran through it. These were not water-tight, and were on a feeble incline. The drinking water was taken from wells. When a house was built at Lille two holes were dug; one served as a cesspool, the other as a well, from which water was drawn up. There was direct communication between the cesspool and the sewer; also between the well and the sewer. In one district of the town, among 132 cholera cases, 102 of those attacked lived in houses situated on the track of the sewer. Further proofs of the terrible facility with which water spreads contagion is furnished by the facts which M. Marey has collected concerning the cholera epidemic in Paris in 1849. In order to show the distribution of the epidemic he made a careful outline of Paris as it was at that period, and indicated the deaths by black dots. In some districts the deaths from cholera were so numerous that the dots have to be replaced by black bands; in others, there are large white spaces, unsullied by black spots. M. Marey's investigation suggested that the white districts were supplied with spring-water. He therefore obtained a plan showing the sources of the water supply of Paris during 1849, and found that the white spaces represented districts on the left bank of the Seine, and were supplied with water from a spring at Arcueil, and a well at Grenelle, the water of which is drawn from a depth of 570 mètres. The districts where cholera mortality was high were supplied with Seine or Ourcq water. According to M. Marey, Seine water contains less impurities than it did in 1849; but the river Ourcq is in the same dangerously impure state. Before it reaches Paris, it receives all the refuse of Ferté-Milon. A

considerable number of boats run up and down ; the river is fouled by boat traffic, and the habits of the boatmen contribute to render it a serious source of danger to Paris. M. Marey furnishes other data clearly demonstrative that water is a vehicle of contagion. One particular instance fell under his personal observation. In the small village of Meursault, 103 persons died from cholera. The certificates of death, residence, etc., remained in the possession of the secretary of the mayoralty. M. Marey, with the aid of the oldest inhabitants, drew out a plan of the village as it was in the time of the epidemic, and found that the disease was most severe where the houses were built near the river, or where wells communicated with the river, or were fouled by contact with the oozings of dung-heaps, on which the foulest refuse was thrown.

ST. BARTHOLOMEW'S HOSPITAL FIFTY YEARS AGO.

AT a special meeting of the Abernethian Society, on Monday, June 8th, Mr. W. T. H. Spicer, President, in the chair, Sir JAMES PAGET, Bart., gave an address on "St. Bartholomew's Hospital and School Fifty Years ago."

Sir James Paget began by describing the exterior of the hospital, saying how much more classical it was in appearance then than now, and how all the four blocks which surrounded the square were then connected by arches or gateways, which led into the neighbouring streets. A great improvement had taken place since then, in that the square was much quieter, for then it was almost as noisy inside as outside, where a cattle-fair was held every week. In fact, it was a public thoroughfare. In some respects it was more rural, for attached to the vicar's house was a garden, in which a mulberry tree flourished. Dr. Hughes was accustomed to say that he had heard the nightingale singing there. He then went on to speak about the school buildings, and showed what great alterations had taken place lately. In the neighbourhood was a students' club, situated over a baker's shop. Here the students were accustomed to congregate and spend a good deal of their time in playing cards. He then went on to speak about the teaching, and showed how the majority of students had been apprenticed to general practitioners for three or four years before coming to the hospital. Here they spent about 18 months, which was quite sufficient time for them to obtain a very fair knowledge of medicine. There was then only one examination at the College of Surgeons for the diploma. This consisted of about twenty-five minutes' *vivâ voce* before a number of the Fellows, all of whom sat at the same table.

The teaching was entirely by lectures, the most eloquent of which were those given by Sir William Lawrence. Mr. Stanley used to lecture on anatomy. His lectures were remarkable not so much for their minute details, as for the comic manner in which he delivered them, and for the curious so-called "tips" which he gave the students to help them to remember their work. Dr. Hume, senior physician, lectured on chemistry, which included light, heat, and electricity, and, in addition, on botany, medicine, and materia medica—seven different subjects. He mentioned this in order to show how, in the advanced state of these sciences at the present day, it would be impossible for any physician to teach properly so many subjects. There was very little clinical teaching. In fact, at this time, the school was in a rapid state of decay, as far as the teaching was concerned.

With regard to the hospital staff, Sir James Paget said that the quality was excellent, but that the number was much smaller than now. There were three physicians and three surgeons ; each had an assistant. In addition to this there was an apothecary. The junior staff consisted of one house-surgeon and five dressers to each surgeon. The house-surgeons lived together over King Henry VIII's gateway, facing Smithfield market. The dressers were appointed for from 6 to 12 months. There were no special departments, such as the ophthalmic, aural, and orthopædic departments.

The great treatment at that time was bleeding ; and he remarked that it would be difficult to say for what case bleeding was not used. To everything which was acute, bleeding was applied. It was used as a means of producing muscular relaxation, and was also used as an anæsthetic. Twelve or thirteen ounces of blood were frequently extracted from a man before a dislocation was reduced. Yet, in spite of this, it was very rare for any mischief to arise from this practice. The large majority of patients recovered from the loss of blood ; and, in certain diseases, he had no doubt that a number of people benefited by it. Mercury and sarsaparilla were the only remedies used for syphilis at that time. Potassium-iodide was just being introduced by Dr. Robert Williams, and was only commencing to gain a reputation. Sir James Paget then went on to say that he thought that diagnosis should be the future study of students to a much more minute extent than it was even now, and they should notice how the personal character of a patient influenced the disease and also the action of the drug. He next referred to the surgical operations of the day, and remarked that not only was the number smaller, but the method of operating also differed greatly. Swiftness, simplicity, and brilliancy were the chief qualities of a good surgeon. This was essentially necessary, as they might very well understand if they remembered that anæsthetics at this time did not exist. For the same reasons, surgical instruments were far less elaborate than now. The patient was placed on a lowering diet, and purgatives were administered for some days before the operation. Organic defects in the kidney, heart, etc., were not looked for, and hygienic treatment was very defective, so that it was not surprising if the mortality of operations was greater than now. The lecturer then referred to the nursing staff, and said that the sisters in those days, as now, were very practical indeed, but that the nurses were very far inferior, both in their capabilities and their social position, to what they are now. Finally, Sir James Paget made a few remarks on the medical students of 50 years ago, and said they were certainly not so refined as nowadays, but, at the same time, it should be remembered that society in general was also less refined. They were a hard working set of men, taking them altogether. In conclusion, he thanked the Society for having honoured him by asking him to address them, and said what great pleasure it had given him to lecture to a body of students again.

DR. MATTHEWS DUNCAN proposed a vote of thanks to Sir James Paget for his interesting lecture, remarking at the same time that he thought it would be very interesting if the Society were to ask Sir George Burrows to relate to them the curious manner in which patients were examined in those days.—Dr. NORMAN MOORE seconded the proposal, which was carried unanimously, amidst much applause.

METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

A MEETING to consider the work of the Metropolitan Provident Medical Association was held, at the residence of Mr. Mocatta (one of the Executive Committee), 9, Connaught Place, on Tuesday last. The report of the society showed that the Association was established in January, 1884, for the purpose of promoting the formation of provident dispensaries throughout the metropolis and its environs upon a self-supporting and self-managing basis. Each dispensary had the services of a staff of respectable qualified medical practitioners resident in the neighbourhood, and was managed by a local Committee, in conjunction with two representatives of the medical staff. The medical staff received one half of the contributions paid by the members, with a fixed proportion of any surplus remaining after the expenses of the management have been paid. The collection of money and the providing and dispensing of medicines were undertaken by the dispensary, and included in the members' contributions. Members were required to pay regularly, in sickness and in health, small monthly contributions well within their means, but sufficient to provide a reasonable remuneration for the medical man. In all cases, provision was made for medical attendance at the homes of members when necessary, without extra payment ; and suitable and serious cases are recommended to general or special hospitals. Nine dispensaries had already been opened, and two existing provident dispensaries had become branches of the Association. It was estimated that there were no fewer than 25,000 persons entitled to medical treatment. The annual income from members' contributions alone was £3,297, which was an increase of more than £1,500 since March, 1882. Further funds were urgently needed.

Mr. MOCATTA pointed out that, in the friendly societies which existed, no provision was made for the medical attendance of the wives and children of the members. It was therefore plain that some scheme was wanted to cope with the difficulty which these people experienced in obtaining medical assistance, the hospital-accommodation for out-patients being greatly overcrowded, and the small clubs already existing were not adequate to supply the wants of the masses in this particular. In regard to the expense of such a benefit, it would be 10d. a month for a man and his wife, 2d. for each child under 14, and 6d. for those over 14, but not more than three children being charged for in one family. Ten thousand pounds would provide all London with dispensaries, which in 10 years would be self-supporting and free from expense.

The following resolution was moved by the Hon. E. STANHOPE, M.P., seconded by Mr. TIMOTHY HOLMES, and adopted :

"That, in the opinion of this meeting, the scheme of the Metropolitan Provident Medical Association, whereby good medical attendance and medicine have already been brought within the reach of the

working-classes in many districts of London, on reasonable paying and non-pauperising terms, has been of much value to the public; and it is desirable that funds should be raised in order to extend the same self-supporting system into other districts when it is urgently needed."

The SECRETARY (Mr. W. G. Bunn) announced subscriptions amounting to £116.

ST. THOMAS'S HOSPITAL.

THE annual distribution of prizes to the successful students of St. Thomas's Hospital Medical School took place on Monday last, when the prizes were distributed by the Lord Mayor, who was accompanied by the Lady Mayoress and a number of distinguished visitors, among whom were Mr. Simon, C.B., Dr. Crawford, Director-General of the Army Medical Department, Sir J. W. Reid, Director-General of the Navy Medical Department, Sir Edwin and Lady Saunders, Mr. C. Tyler, Sir J. Hanbury, Lady Hanbury, Mr. Le Gros Clark, and Mr. Ernest Baggallay.

The Treasurer, Mr. Alderman Stone, having briefly opened the proceedings, the Lord Mayor was conducted by Dr. William Ord, Dean of the Medical School, to the handsome apartment known as the Governors' Hall, where, after an appropriate speech from the Dean, the distribution took place.

Among the students who obtained the chief prizes were Mr. F. C. Abbot of Gorleston, who took the £100 entrance science scholarship; F. Fawssett, of Surbiton, the Musgrove scholarship of £40 and certificate of honour; H. P. Hawkins, of Hawkhurst, second tenure of the Peacock scholarship, 40 guineas, with college prize (£20), and certificate of honour; S. H. Jones, the Cheselden medal and the Treasurer's gold medal; and F. D. Crowdy, the Mead medal. The Lord Mayor, in reply to a speech from the Dean thanking his lordship for the honour he had that day conferred on the hospital, made reference to the ancient alliance that had always bound St. Thomas's to the City of London, to the continued progress and extension of the good work of the hospital, and to those of its former students who were distinguishing themselves in various parts of the world.

After the prize-giving, a meeting was held in the hospital-library, for the purpose of presenting a testimonial to Mr. Charles Stewart, formerly Curator of St. Thomas's Museum, but who quitted that position in July last to take the post of Conservator of the Hunterian Museum.

The DEAN (Dr. ORD), in presenting the testimonial to Mr. Stewart, which consisted of an extremely handsome bronze clock and a purse, spoke of his unvarying kindness and valuable help, at critical moments, to the students and the staff, to his great resources of knowledge, unreservedly given. In the past twenty years every man in that place had been able to regard Mr. Stewart as a friend, and few felt otherwise than that they owed to him a deep debt of gratitude. They esteemed him for his strength of purpose, truth, and manliness. Working earnestly and truly, absolutely hating all that is false, generously lavishing help on those around. As to his work, their museum was itself a standing memorial of his unrivalled skill. Dr. Ord spoke of the varied subjects in which, as a labour of love, Mr. Stewart had been engaged in teaching, and of his artistic skill in illustrating his recent successful lectures at the Royal College of Surgeons, and concluded by saying that while they regretted the loss of so much love and goodness, they could, with reviving voice, congratulate him on his preferment, the more so since they knew that no man could be more fully fitted to fill that post than himself.

Mr. STEWART suitably responded.

MEDICAL NOTES FROM THE NILE EXPEDITIONARY FORCE.

[FROM OUR OWN CORRESPONDENT.]

Up the Nile, May 19th, 1885.

IT is some weeks since I wrote to you, and I can honestly say that my silence is not from a lack of epistolary matter. We are now in the midst of heavy medical and surgical work, the inevitable and bitter fruit of hardship, exposure, and a series of engagements in a most trying climate, such as this is. The surgical cases are diminishing daily, as the recovered cases have been sent down the Nile in successive boat-loads, on the road to England. The transit of the sick and wounded across the desert has come to an end, and the patients have borne up wonderfully. The care and attention given by officers and men of the Medical Staff Corps were incessant, and went far towards smoothing over all difficulties, and lessening the unavoidable discomforts of the journey. Camel cacolets, and stretchers carried by Egyptian soldiers, were the means employed for transporting helpless cases; the less serious cases were able to ride.

All the amputation cases have—with one or two exceptions, where the flaps sloughed—done right well, healing kindly and rapidly, with scarcely any constitutional disturbance. Antiseptics of the usual kind were plentifully available at all times, and have acted well, aided and intensified, as I think they have been, by Nature's grand antiseptic in these parts, desert air. It is indeed marvellous what a tonic and invigorating effect the pure crisp air of the desert has, not only on the healthy, but on those convalescing from wounds and sickness.

Though I cannot say the exact number, I am credibly informed that over five hundred invalids have been already passed down the river to the base at Wady Halfa, entailing great and continuous work and anxiety on those responsible for the arrangement, treatment, and safe conveyance of these helpless cargoes of poor sufferers over hundreds of miles of river journey.

The melancholy epoch of this campaign is the present period, when, active operations being over, sick and wounded flow down from the front—poor, feeble, human skeletons—either shattered by climate or terribly mutilated in battle; the whole forming a ghastly spectacle truly; a grim kaleidoscope of wrecked manhood, of human suffering and mute sorrow. Many of them, mayhap, are old chums, or comrades of brighter days, with whose look and appearance in health we have been long familiar; now, alas, how sadly altered are they. Our work lies in and among these, a steady clinical plodding in this most trying climate; and the generally melancholy aspect of affairs receives, day by day, a gloomier tinge, when we hear of other gaps in our ranks, other colleagues having succumbed, struck down at their post, or invalided. All carry with them, down the Nile, damaged systems which for many a day to come will cause them bitterly to rue the Nile expedition of 1884-85. Our thoughts are just now full of regret for those promising men in our corps, namely, Turner, Conolly, Bradshaw, and Lane, all representative men of the first order; while the list of those medical officers invalided, and sent off to England, is too long for the limits of my letter, though the number significantly tells of the hardships and hard work of army surgeons in the Soudan.

Enteric fever and dysentery are daily on the increase, especially the former; and its type is becoming graver since the setting in of the hot weather; 105° to 106° are quite common evening temperatures, and 103° to 104° in the morning and during the day. Quinine and salicine have been, in my hands, somewhat disappointing; so much so, that I now trust almost entirely to the graduated cold bath; and so persistent is the high temperature, that constant immersion is necessary; while we must be on our guard to support the failing heart by the judicious use of stimulants. It is a noteworthy fact that, even when convalescence seems to be established, the patients frequently fall into a state of persistent high temperature, which goes on week after week, reducing the sufferer almost to a skeleton, and eventually causing death from exhaustion.

A well marked case of embolism came under my notice lately. A soldier, recovering from enteric fever, complained one day of a dull pain in the right inguinal region, especially on pressure. Nothing was to be seen on examination, except that the right leg was considerably bulkier than the left; and, although there was nothing like œdematous swelling, still there was unquestionably enlargement of that limb, the most rational explanation being an obstruction of the right iliac vein by a fibrinous clot. This man otherwise made a good recovery, though a tardy one.

Regarding the type of enteric fever we have had lately, the early and well marked prominence of nervous symptoms has been most noticeable. For instance, a man comes in with an anxious flushed countenance, his facial muscles nervously twitching, especially about the angles of the mouth and chin. When requested to put out his tongue, he seems to do so with some difficulty, and in a nervous hurried manner. It is nothing uncommon to find in such a man a persistent day-temperature of 105°, rising to 106° towards evening. Marked and early subsultus is an invariable symptom. While this terrible nervous and heat storm—so to speak—is raging in the system, the pulse, strange to say, is not excited in proportion—at least, not till towards the end. Skin-eruption is seldom seen; and the diarrhœa, or absence of it, is sometimes misleading. But it is seldom that abdominal tenderness over the spleen or right iliac region is quite absent. Beyond extensive ulceration of the iliac mucous membrane, there is no other noteworthy *post mortem* appearance. The cardiac, nervous, and general functional power is simply paralysed, and eventually overpowered—struck down, in fact, by excessive caloric. Such is enteric fever, as now fatally prevalent in the Nile Valley.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 8th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, June 11th, 1885.

NOTICE OF QUARTERLY MEETINGS FOR 1885. ELECTION OF MEMBERS.

ANY qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member *by the Council* or by any recognised *Branch Council.*

Meetings of the Council will be held on July 8th, and October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, June 17th, and September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HÆMOGLOBINURIA.
ALBUMINURIA IN THE APPARENTLY HEALTHY.
SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person, if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th, Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—*(a)* The influence of residence and occupation; (*b*) the previous state of the patients' thoracic organs and general health; (*c*) heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161a, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary. - J. MAITLAND, M.B., Honorary Secretary, Madras.

NORTH WALES BRANCH.—The annual meeting will be held at Wrexham in the first week in July. Any member who desires to read a paper should communicate before June 25th with the Honorary Secretary, W. JONES-MORRIS, Portmadoc.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at Leicester, on Thursday, July 9th. Notice of papers, etc., to be sent to the undersigned. —LEWIS W. MARSHALL, M.D., Honorary Secretary and Treasurer, 2, East Circus Street, Nottingham.

SHROPSHIRE AND MID WALES BRANCH.—The annual general meeting of the Branch will be held at the Salop Infirmary, on Tuesday, June 30th, at 2 P.M. Members desirous of reading papers or opening discussions are requested to communicate with the Honorary Secretary.—EDWARD CURETON, Honorary Secretary, Shrewsbury.—May 13th, 1885.

LANCASHIRE AND CHESHIRE BRANCH.—The forty-ninth annual meeting of this Branch will be held at the Prince of Wales Hotel, Southport, on Wednesday, June 24th, 1885, at 2 P.M. Business: President's address; report of Council; financial statement; election of office-bearers; election of representative members in the Council of the Association; general business. Dr. Cullingworth will move, "that members present at the annual meeting shall have the power to substitute the names of any eligible members they please for those printed on the balloting paper, whether nominated by the Council or otherwise." Communications: 1. Robert S. Archer, M.B.: Case of Epigastric Abscess. 2. J. Brassey Brierley, M.D.: The Progress and Advantages of "The Medical Sickness, etc., Assurance Society." 3. Reginald Harrison, F.R.C.S.: On the Treatment of Urethral Stricture by Internal and External Urethrotomy combined. 4. Francis Imlach, M.D.: 1. Calculus removed by Nephrolithotomy; 2. Ovary and Tube from a recent case of Pelvic Hæmatocele; 3. Pyosalpinx removed from a Diabetic Patient; 4. Prolapsed Ovaries from a Patient with Suicidal Tendencies. 5. A. Emrys-Jones, M.D.: Notes on the use of Iodoform in Eye-Disease. 6. W. Walter, M.D.: Large Fibroma of the Uterus removed by Abdominal Section. 7. Dr. Robertson: On the Treatment of Cholera; 8. Dr. Wallace: (1) Note on Abdominal Section and Free Drainage in Certain Forms of Ascites and Septic and Puerperal Peritonitis, (2) Specimens of Uterine Myofibroma removed by Hysterectomy, and Dermoid Ovarian Cysts. Luncheon will be provided by the members of the Branch resident in Southport, at the Prince of Wales Hotel, from 12.30 to 2 P.M. Dinner at the Prince of Wales Hotel, at 5.30. Tickets, seven shillings each (exclusive of wine). The Glaciarium, Baths, and new Convalescent Hospital will be open to the inspection of members on presentation of their cards.—CHARLES E. GLASCOTT, M.D., General Secretary, 23, Saint John Street, Manchester.—June 12th, 1885.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The annual meeting of this Branch will be held at the Hospital, Swansea, on Tuesday, June 23rd, at noon. Members wishing to read papers, etc., should send titles at once to Dr. Sheen, Cardiff.—A. SHEEN, M.D., D. A. DAVIES, M.B., Honorary Secretaries.

OXFORDSHIRE BRANCH.—The first general meeting of this Branch will be held on Tuesday, June 23rd. Members will receive special notice.—S. D. DARBISHIRE, Honorary Secretary.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual meeting of this Branch will be held in the Medical Institute, Edmund Street, Birmingham, on Thursday, June 25th, 1885, at 3.30 P.M. The Chair will be taken by the President, Dr. Sawyer, who will deliver an inaugural address. The annual dinner will take place the same evening, at 6 P.M., at the Grand Hotel. Tickets, 5s. each—ALFRED H. CARTER, M.D., ROBERT SAUNDBY, M.D., Honorary Secretaries. —June 3rd, 1885.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The annual meeting will be held at the Worcester Infirmary, on Tuesday, the 23rd instant, at three o'clock. Business: to elect Branch officers, and a representative on the Council of the Association for the ensuing year; to elect members of the Branch. Dr. Savage, of Birmingham, will read a paper on Surgical Treatment of Fibro-myoma of the Uterus. Dinner will be at the Star Hotel, at five o'clock. Tickets, five shillings, exclusive of wine.—GEO. W. CROWE, Honorary Secretary.

EDINBURGH BRANCH.—The annual meeting of the Edinburgh Branch of the British Medical Association, will be held at 5, St. Andrew Square, on Tuesday, June 23rd, at 4 P.M. Professor Annandale, President, in the chair.—G. A. GIBSON, M.D., Secretary.

NORTH OF ENGLAND BRANCH.—The annual meeting of the North of England Branch, will be held at Hexham, on Thursday, July 16th.—DAVID DRUMMOND, Honorary Secretary.

YORKSHIRE BRANCH.—The annual meeting of the Yorkshire Branch will be held at the Town Hall, Halifax, on Wednesday, June 24th, at 3 P.M., when the following business will be transacted: The President will make some opening remarks. The report of the Council will be read. The representatives of the Branch for the Council of the Association will be elected. The following papers will be read. Dr. James Braithwaite: A third case of Gastrotomy for Extra-uterine Gestation. Dr. J. W. Eastwood: A case of Over-pressure in a Female. Dr. Dolan: Medical Sick and Benefit Society. Dr. Clifford Allbutt: Case of Impending Death from Obscure Cardiac Disease permanently relieved by Caffeine. Mr. E. Atkinson: Gunshot Wounds of the Head in civil practice. Mr. T. Pridgin Teale: Ovariotomy during Pregnancy; Excision of Cancer of Rectum. Dr. Churton: Cases of very old Pleural Effusion. Mr. Mayo Robson: A case of Thyroidectomy and one of thyroidotomy. Messrs. Burroughs, Wellcome and Co. will exhibit new and interesting specimens, etc., in the Town Hall, at 2 P.M At 6 P.M. the members will dine at the White Swan Hotel. Tickets (exclusive of wine), 5s. each.—ARTHUR JACKSON, Secretary, Sheffield.

BORDER COUNTIES BRANCH.—The eighteenth annual meeting will be held at the County Hotel, Carlisle, on Friday, June 26th. The chair will be taken by the President, Dr. Muir Selkirk, at 3 P.M. A Council meeting at 2.30 P.M. Business: Election of new members; report of the Council; election of office-bearers; election of representative member in the Council of the Association: fixing meetings to be held during year. Mr. C. S. Hall, Carlisle, will deliver his presidential address. Dr. Muir, Selkirk, will introduce the subject of the Patent Medicines Stamp Act, in connection with the petition for its repeal. Dr. Haddon, Hawick, will read a paper "On the value of the Thermometer in practice." Dinner will be at the County Hotel, at 6 P.M. Tickets, 5s. each (exclusive of wine).—H. A. LEDIARD, Secretary, 41, Lowther Street, Carlisle.

METROPOLITAN COUNTIES BRANCH.—President: Charles Macnamara, Esq.; President-elect: Walter Dickson, M.D., R.N. The thirty-third Annual Meeting of this Branch will be held at the Holborn Restaurant, on Tuesday, June 23rd, at 5.30 P.M. The following business will be transacted:—1. Election of new members of the Branch. 2. Report of the retiring Council and treasurer's report. 3. Consideration of alteration of a law of the Branch. 4. Address by the new President. 5. Such other business at the Branch may think it necessary to consider. At 7 P.M. precisely, the members will dine together; Walter Dickson, M.D. President, in the chair. Tickets 7s. 6d. each (exclusive of wine). Application for dinner tickets should be made not later than Saturday, June 20th, to Dr. Grigg, 27, Curzon Street, Mayfair, W.—ALEXANDER HENRY, M.D.; W. CHAPMAN GRIGG, M.D., Honorary Secretaries.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The June meeting of the Branch will be held in the Gardenston Arms Hotel, Laurencekirk, on Thursday, June 25th, 1885, at 3 P.M. Business:—1. Minutes, nomination of new members, etc.; 2. Ballot for admission of new members; 3. Arab Medicine, and Surgery in the Soudan, by Professor A. Ogston. An omnibus-excursion by the North Esk, Montrose, and Den Finella, to Bervie, returning to Laurencekirk by Arbuthnot and Fordoun, is arranged for those who can leave Aberdeen in the morning. Luncheon and omnibus, 5s. per head. Dinner (inclusive of attendance, but exclusive of wine) in the Gardenston Arms Hotel, at 3.30 P.M., 3s. 6d. each.—ROBERT JOHN GARDEN, J. MACKENZIE BOOTH.

SOUTH-EASTERN BRANCH: ANNUAL MEETING.

THE forty-first annual meeting of this Branch was held at the Royal Sea Bathing Infirmary, Margate, on Thursday, June 4th, at 2 o'clock. The directors, with great liberality, invited the members to luncheon at the Infirmary at 1 o'clock. Dr. J. GALTON, the retiring President, having made a few valedictory remarks, introduced his successor, Dr. ROWE, of Margate.

President's Address.—Dr. ROWE delivered an address upon the rise and progress of the Sea-Bathing Infirmary, and the nature of the work carried on there. After a few remarks on special hospitals, he proceeded to say that the institution of the Hospital for Scrofula at Margate was due to Dr. J. C. Lettsom, who advocated its formation, and by whom the foundation-stone was laid on June 21st, 1792. The building was opened for the reception of patients in 1796. From the report in 1801, it appears that £325 1s. 8d. was paid for three acres of land; and £1,766 for the construction of the building. Recently, as much as £3,470 had been paid for less than three acres, to be used as a recreation-ground. The number of patients admitted from the first opening of the hospital to the end of 1884 was 42,223. Reference was made to the munificent liberality of the late Sir Erasmus Wilson, who had, at an outlay of £30,000, added to the hospital four large wards, two day-rooms, a large swimming-bath, an ambulatory, and a chapel; and had handed these over to the directors, with the understanding that the number of beds was not to be increased. Dr. Rowe protested against the tendency to class the institution among convalescent homes. Its employment for this purpose would be a misapplication of the funds of the charity, and required to be resisted with vigilance.

Report of Council.—This was read by Dr. PARSONS, the Honorary Secretary. It was as follows.

"The Council has much pleasure in again meeting the assembled members, and in presenting to them the report for the past year. At the last annual meeting, the Branch consisted of 472 members, and at the present time it consists of 488 members. In the interval, 32 members have been added, 10 have either retired or withdrawn from the Branch, whilst six have been removed by death.

"Amongst those whom death has taken from us, your Council has especially to lament the loss of a valued colleague—Dr. Lanchester, of Croydon—whose almost sudden decease, after a brief illness, caused universal regret throughout the Branch. Your Council desires thus publicly to express its high appreciation of the services which Dr. Lanchester rendered to this Branch, first as Honorary District Secretary for East Surrey for many years, and afterwards as President of the Branch, and finally as a representative on the Council of the Association. In all these offices, he won the esteem and regard of his fellow-men by the loyalty, courtesy, and ability with which he discharged the duties which devolved upon him. His name will doubtless be long remembered with affection in the Branch.

"The Districts continue to work harmoniously and vigorously. Conjoint meetings, which were first tried as an experiment, have become so popular and successful, that they may be almost regarded now as permanent institutions. To the Honorary District Secretaries your warmest thanks are due for the energy and tact with which they invariably discharge the duties entrusted to them, and for the uniform success of their endeavours to attract the best men to our ranks. In the West Kent District, the work of the Honorary Secretary has been most efficiently performed by Dr. Lewis Jones, of St. Bartholomew's Hospital, Chatham, who, as you are aware, kindly undertook the duties during the absence of the Honorary Secretary, Mr. Nankivell, in Fiji, for the benefit of his health. Your thanks are due to this gentleman, for his willing and disinterested services at a time when his District was in great difficulty.

"The work of collective investigation does not proceed satisfactorily. Honorary secretaries have been appointed in each district; but the returns from this Branch do not afford sufficient evidence of the energy and activity which should prevail amongst the members.

"Last year, the annual meeting voted 10 guineas to the funds of the British Medical Benevolent Fund, and the donation has been thankfully acknowledged by the executive of the Fund. During the past year, the honorary secretary of the Branch has received from the members donations to the amount of £27; and the Council recommends this very excellent fund to the benevolent consideration of the members. The smallest sums are thankfully received by the honorary secretary, and duly transmitted by him to the executive of the Fund.

"As most of the members are doubtless aware, the profession at Brighton has invited the Association to hold its annual meeting in that town in the year 1866; and the Council at its last meeting agreed to recommend to the general meeting at Cardiff, in July next, that the invitation be accepted. There is thus the prospect that the Association, within a short time, will visit this Branch; and your Council feels confident that the members will do their utmost to give a cordial reception to the guests, and to make the meeting of 1886 worthy in every way of the traditions of the South-Eastern Branch. The Mayor and Corporation of Brighton have also, on behalf of the inhabitants, sent a cordial invitation to the Association.

"The Parliamentary Bills Committee has continued its labours during the past year, but the session has been so occupied with urgent imperial affairs, that no time has been found for medical reform. One of the most important measures, however, which has engaged the attention of Parliament is the Lunacy Act Amendment Bill; and on April 30th, a meeting of the Parliamentary Bills Committee was held to consider the subject, and it was resolved to take such steps as may be necessary to afford adequate protection to medical men who may be called upon to sign certificates of lunacy.

"In view of the present state of legislation, there is very little chance of the Poisons Bill passing this session, though it has been referred to a Select Committee of the House of Lords; and the Midwives Bill, in its present form, is considered by the Government too complicated to receive the support of the Cabinet.

"Every effort is being made to induce the House of Commons to reconsider the case of the militia-surgeons, who, at the age of 65, are suddenly compulsorily retired, and that without compensation of any kind. It is much to be desired that every member of the Branch who has personal acquaintance with members of the House of Commons will lose no opportunity of urging them to support those measures which from time to time are brought forward by the Parliamentary Bills Committee of the Association."

The financial statement showed a balance in hand of £91 0s. 8d.

The Meeting of the Association in 1886.—In view of the approaching visit of the Association to Brighton in 1886; and considering that the members of the Association would be the guests of the South-Eastern Branch, it was unanimously resolved, upon the motion of Mr. J. REID and Mr. E. H. GALTON, that the sum of £50 be contributed to the Brighton Reception Fund from the surplus funds of the Branch.

Council of the Branch.—The following gentlemen were elected by voting papers members of the Council of the Branch for the ensuing year:—F. Bagshawe, M.D.; R. L. Bowles, M.D.; J. M. Burton, Esq.; T. M. Butler, Esq.; J. Ewart, M.D.; T. Eastes, M.D.; E. H. Galton, Esq.; J. H. Galton, M.D.; A. H. B. Hallowes, Esq.; F. B. Hallowes, Esq.; C. Kelly, M.D.; B. Marsack, Esq.; S. Monckton, M.D.; A. Napper, Esq.; C. E. Oldman, M.D.; T. F. Raven, Esq.; J. Reid, M.D.; B. Roberts, M.D.; E. Noble Smith, Esq.; E. W. Thurston, Esq.; T. Trollope, M.D.; J. S. Turner, Esq.; J. L. Worship, Esq.

Representatives in the Council of the Association.—The following were elected to represent the Branch in the Council of the Association: C. Holman, M.D.; G. F. Hodgson, Esq.; C. Parsons, M.D.

Secretary.—After a cordial vote of thanks to the retiring officers, the Honorary Secretary (Dr. Parsons) was re-elected with acclamation.

Annual Meeting in 1886.—It was resolved to hold the annual meeting in 1886 at Worthing, with Mr. W. J. Harris, of Worthing, as President-elect; and as Vice-Presidents-elect, Dr. Leonard Buckell, of Chichester, and Dr. T. Fuller, of New Shoreham.

Visit to the New Buildings.—The business of the meeting being concluded, a visit was made to the wards and the new buildings, the swimming-bath, and the roof-ambulatory overlooking the sea. The exquisite chapel, the gift of the late Sir Erasmus Wilson, excited great admiration, and is said to have cost the donor at least £10,000. The new wards also owe their existence to his munificence.

Dinner.—At 5 o'clock, the members and their friends dined together at the Cliftonville Hotel, and drank prosperity to the Association and to the South-Eastern Branch.

EAST YORK AND NORTH LINCOLN BRANCH: ANNUAL MEETING.

THE twenty-ninth annual meeting was held at the Infirmary, Hull, on May 27th. There were fifty-four members present. Mr. KEETLEY, having made a few remarks, resigned the chair to the new President, Mr. CRAVEN.

Report of the Representative of the Branch.—This report was brought up by Mr. DIX. It had been previously circulated, and Mr. Dix now supplemented his report by explanatory remarks on the various paragraphs. The report referred to the inquiry as to the wish of the Association with regard to the admission of homœopaths into the Association, to the finances of the Association, and the proposed spending of £25,000 in the purchase of land and the erection of business premises; also to the question whether the Collective Investigation Committee should continue to be subsidised. It mentioned certain defects in the new laws of the Association with regard to the appointment of Committees, and the filling up of vacancies; also to a much needed change in the JOURNAL in the notice as to "Election of Members," and concluded with the expression of a desire to serve the Branch as the representative for another year. The report was adopted, and a vote of thanks to Mr. Dix for his services was passed.

Report of Representative on the Parliamentary Bills Committee.—The report of Dr. MACMILLAN, representative on the Parliamentary Bills Committee, was brought up. The report referred to the Notification of Infectious Diseases, to the French Medical Bill Ship-Surgeons, Burgh Police and Health (Scotland) Bill, the Lunacy Bill, the Poison Bill, Militia Surgeons, Midwives Bill, and to the constitution of the committee. The report was adopted, and a vote of thanks was passed to Dr. Macmillan.

Election of Council.—To obviate loss of time, the Council had issued a list of names, merely as a suggestion. This proceeding on their part was strongly objected to by Mr. Sissons, but was supported by Dr. King. Dr. DALY proposed that each officer be elected separately. Dr. Daly's amendment was carried by a large majority. The following is the result of the election:—*President:* R. M. Craven, Esq. *President-elect:* M. D. Macleod, M.B. *Ex-President:* T. B. Keetley, Esq. *Vice-President:* G. F. Elliott, M.D.; H. Thompson, Esq. *Secretary:* E. P. Hardey, Esq. *Representative of the Branch:* J. Dix, Esq. *Representative on the Parliamentary Bills Committee:* A. Macmillan, M.D. *Council.*—E. O. Daly, M.B.; T. M. Evans, Esq.; E. H. Howlett, Esq.; K. King, M.D.; J. A. Locking, Esq.; W. J. Lunn, M.D.; R. H. B. Nicholson, Esq.; W. Stephenson, Esq.

Autumn Meeting.—It was decided to hold the autumn meeting in October.

Time of Elections.—A recommendation of the Council that the elections and other official business be transacted at the meeting of the Branch last before the annual meeting, was considered. It was resolved that the elections be conducted as before, at the annual meeting.

President's Address.—After referring to his former presidency, 20 years ago, Mr. CRAVEN said that he claimed an acquaintance with the profession and its doings in Hull for the last 50 years. Amongst other reminiscences, the visitation of the cholera was particularly mentioned. He then passed in review some of the many changes which had taken place in the practice of surgery since he entered the profession. Amongst these were the introduction of anæsthetics and antiseptics, and many new operations, such as the excision of joints, on which latter he made some critical remarks. The greater frequency with which lithotrity was now practised instead of lithotomy was another change. He next referred to the rise of conservative surgery, mentioning in this connection Esmarch's bandage, Davy's lever, and Lister's abdominal tourniquet. Excision of the rectum, cutting into the bladder (as recently advocated by Sir Henry Thompson, the aspiration of the bladder, and the subcutaneous injection of remedies, were all fresh advances. The rise of specialism was noticed. In the practice of obstetrics, the more frequent use of the forceps was mentioned with a word of caution. The use of uterine and vaginal injections, the better management of the placenta, the treatment of abortion and of uterine hæmorrhage, were other subjects touched upon. The address concluded with some notice of the changes which had taken place during his life in the town of Hull.

A vote of thanks was unanimously accorded to the President for his address.

Cucaine.—Dr. ROCKLIFFE read a paper on this subject, giving a full account of the drug, its history and uses, and concluding by detailing his own experience of it in ophthalmic surgery, which had been extremely satisfactory.

Nephrotomy.—Mr. R. H. B. NICHOLSON gave some further notes on a case brought forward last year; the patient was going on well. There were calculi in both kidneys. These were shown.

Specimens.—Mr. Soutter showed hooklets from a case of tænia echinococcus, trichina spiralis, Bilharzia hæmatobia (ova), and a section of tuberculous gland.

Mr. Chambers showed a patient with Charcot's Disease of the Knee-joint, who was under the care of Dr. Daly.

Dr. F. Nicholson showed a specimen of Hydatid of the Liver.

Dinner.—In the evening, thirty members dined together at the Vittoria Hotel.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

THE Fifty-third Annual Meeting of the British Medical Association will be held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28th, 29th, 30th, and 31st, 1885.

President: JAMES CUMING, M.D., F.K.Q.C.P., Professor of Medicine in Queen's College, and Physician to the Royal Hospital, Belfast.

President-elect: W. T. EDWARDS, M.D., F.R.C.S., Physician to the Glamorgan and Monmouth Infirmary, Cardiff.

An Address in Therapeutics will be delivered by W. Roberts, M.D., F.R.S., Consulting Physician to the Manchester Royal Infirmary.

An Address in Surgery will be delivered by John Marshall, F.R.C.S., F.R.S., Professor of Surgery in University College, and Senior Surgeon to University College Hospital.

An Address in Public Medicine will be delivered by Thos. Jones Dyke, F.R.C.S., Medical Officer of Health, Merthyr Tydvil.

All Sections will be held in the Town Hall.

SECTION A. MEDICINE. Crown Court.—*President:* S. Wilks, M.D., F.R.S., London. *Vice-Presidents:* T. D. Griffiths, M.D., Swansea; Byrom Bramwell, M.D., Edinburgh. *Secretaries:* W. Price, M.B., Park Place, Cardiff; E. Markham Skerritt, M.D., Richmond Hill, Clifton.

SECTION B. SURGERY. Nisi Prius Court.—*President:* E. H. Bennett, M.D., President of the Royal College of Surgeons in Ireland, Dublin. *Vice-Presidents:* P. R. Cresswell, F.R.C.S., Dowlais; Edmund Owen, F.R.C.S., London. *Secretaries:* G. A. Brown, M.R.C.S., Tredegar. Thomas Jones, F.R.C.S., 96, Mosley Street, Manchester.

SECTION C. OBSTETRIC MEDICINE. Mayor's Court.—*President:* Henry Gervis, M.D., London. *Vice-Presidents:* S. H. Steel, M.B., Abergavenny; W. C. Grigg, M.D., London. *Secretaries:* A. P. Fiddian, M.B., 6, Brighton Terrace, Cardiff; D. Berry Hart, M.D., 65, Frederick Street, Edinburgh.

SECTION D. PUBLIC MEDICINE. Assembly Room.—*President:* D. Davies, M.R.C.S., M.O.H., Bristol. *Vice-Presidents:* E. Davies, M.R.C.S., M.O.H., Swansea; J. Lloyd-Roberts, M.B., Denbigh. *Secretaries:* Edward Rice Morgan, M.R.C.S., Morriston, Swansea; Herbert M. Page, M.D., 16, Prospect Hill, Redditch.

SECTION E. PSYCHOLOGY. Ante-Room.—*President:* D. Yellowlees, M.D., Glasgow. *Vice-Presidents:* G. J. Hearder, M.D., Carmarthen; G. E. Shuttleworth, M.D., Lancaster. *Secretaries:* C. Pegge, M.R.C.S., Vernon House, Briton Ferry, Glamorgan; A. Strange, M.D., County Asylum, Bicton Heath, Shrewsbury.

SECTION F. OPHTHALMOLOGY AND OTOLOGY. Grand Jury Room.—*President:* Henry Power, M.B., F.R.C.S., London. *Vice-Presidents:* E. Woakes, M.D., London; D. C. Lloyd Owen, F.R.C.S., Birmingham. *Secretaries:* J. Milward, M.D., 54, Charles Street, Cardiff; A. Emrys-Jones, M.D., 10, St. John Street, Manchester.

SECTION G. PHARMACOLOGY AND THERAPEUTICS. Council Chamber.—*President:* T. R. Fraser, M.D., F.R.S., Edinburgh. *Vice-Presidents:* J. Talfourd Jones, M.B., Brecon; W. Murrell, M.D., 38, Weymouth Street, London. *Secretaries:* Evan Jones, M.R.C.S., Ty Mawr, Aberdare; J. H. Wathen, L.R.C.P., Coburg Villa, Richmond Hill, Clifton.

Local Secretary: Alfred Sheen, M.D., Halswell House, Cardiff.

TUESDAY, JULY 28TH, 1885.

2.30 P.M.—Meeting of 1884-85 Council. Council Chamber, Town Hall.
3.30 P.M.—General Meeting. Report of Council and other business. Adjourn at 5 P.M. Assembly Room, Town Hall.
8 P.M.—General Meeting. President's Address, and any business adjourned from meeting at 3.30 o'clock. Assembly Room, Town Hall.

WEDNESDAY, JULY 29TH, 1885.

9.30 A.M.—Meeting of 1885-86 Council. Council Chamber, Town Hall.
11.0 A.M.—Second General Meeting. Address in Therapeutics. Assembly Room, Town Hall.
2 to 5 P.M.—Sectional Meetings.
5 to 7 P.M.—Garden Party by the High Sheriff of Glamorgan and Mrs. Hill.
8 P.M.—A *Conversazione* will be given by the President of the Association and the South Wales and Monmouthshire Branch. Park Hall, Park Place.

THURSDAY, JULY 30TH, 1885.

9.30 A.M.—Meeting of Council. Council Chamber, Town Hall.
11 A.M.—Third General Meeting. Address in Surgery. Assembly Room, Town Hall.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner. Park Hall, Park Place.

FRIDAY, JULY 31ST, 1885.

10 A.M.—Address in Public Medicine. Assembly Room, Town Hall.
11 A.M.—Sectional Meetings.
2 P.M.—Concluding General Meeting. Assembly Room, Town Hall.
8 P.M.—Reception by the Mayor of Cardiff. Park Hall, Park Place.

SATURDAY, AUGUST 1ST, 1885.

Excursions.

*** *Members intending to visit Cardiff during the Meeting, are requested to send in their names as soon as possible to the Honorary Secretary of the Reception Committee, Dr. Alfred Sheen, Halswell House, Cardiff.*

Members desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read, on or before July 21st.

EXCURSIONS.

1. *Tintern Abbey and Raglan Castle.*—The party will leave the Great Western Railway Station, Cardiff, by special train at 10.30, reaching Chepstow at 11.30. Here carriages will be in readiness to drive to the foot of the Windcliff, a perpendicular mass of rocks rising 800 feet above the level of the river, and overhung with thickets; from the summit is obtained a magnificent view of the Wye, and parts of nine counties—namely, Monmouth, Gloucester, Wilts, Somerset, Devon, Glamorgan, Brecon, Hereford, and Worcester. Tintern will be reached at 1 P.M., when luncheon will be served at the Beaufort Arms Hotel. The Abbey will be visited after luncheon; and at 4.50 the special train will leave Tintern Station for Raglan, which will be reached at 5.40. Raglan Castle, one of the most picturesque ruins in Wales, will be visited, and afternoon-tea will be served on the lawn. The party will leave by special train at 7 P.M., and reach Cardiff at 8 P.M.

2. *Glastonbury Abbey and Wells Cathedral.*—The party will leave the Taff Vale Railway Station at 7.25 A.M., and proceed by steamer from the Pier Head at 7.45 A.M., reaching Burnham about 9.30 A.M., and Wells at 10.30. The west front of the Cathedral is one of the noblest Gothic *façades* in the kingdom, and is especially interesting for its sculptures, consisting of upwards of 300 statues. The ruined Bishop's Palace will also be seen, occupying, with its pleasure ground, upwards of fourteen acres. Luncheon will be served at the Swan Hotel at 1 P.M. At 3.35 P.M. the party will leave by train for Glastonbury, which will be reached at 3.47. The ruins of the Abbey will be visited, and afternoon tea will be served at the George Inn, at 5.30. In the cemetery, tradition says, are buried King Arthur and his Queen Guinever, and Joseph of Arimathea. In the garden grows one of the oldest of the Holy-thorn trees, a graft from the miraculous staff of St. Joseph, which sprouted when thrust into the ground, and ever afterwards retained the power of flowering at Christmas. At 7.30 the party will leave for Burnham, and start at 9 P.M. for Cardiff by steamer.

3. *Caerphilly Castle and Dowlais Iron Works.*—By invitation of the Marquess of Bute, a special train will be arranged over the Taff Vale Railway, and down to Caerphilly Castle by the Rhymney Railway, where refreshments will be provided. By kind permission of G. T. Clark, Esq., the Dowlais Iron Works will be visited in this excursion. Caerphilly Castle is one of the largest and grandest old ruins in the kingdom. (The arrangements for this excursion are not yet complete.)

4. *Severn Tunnel and Caldicot Castle.*—The party will leave Cardiff, G. W. R. Station, at 10.30 A.M., and will reach Portskewit at 11.15. The tunnel was commenced in March, 1873, and is now about to be opened for traffic. It is about four and a half miles long, two and a quarter miles of which are under the river Severn. It connects, in the most direct manner, the mineral and populous districts of South Wales with Bristol and the South of England, and will save three-quarters of an hour in the journey to London. The members are invited by the contractor, Mr. Walker. A walk of about two miles will bring the party to Caldicot Castle, when luncheon will be served at 1.30 P.M. The castle is a splendid relic of feudal magnificence, and was once the property of the haughty Bolinbroke. The party will return from Portskewit Station at 4.45, reaching Cardiff at 5.35. (The arrangements for this excursion are not yet complete.)

5. *Symonds Yat and the Speech House, Forest of Dean.*—Symonds Yat, near Monmouth, is an elevated cliff, standing 600 feet above the sea-level, and renowned for the singular view which it commands of the numerous and beautiful mazes of the river Wye. The Speech House is charmingly situated in the midst of the Forest of Dean, and is surrounded with forest-drives and open glades. The party will leave the Great Western Railway Station, Cardiff, by special train, at 10.30. At Newport, they will change into the ordinary train for Symonds Yat, which leaves at 11.5, and reaches Symonds Yat at 12.46. Luncheon at 1 P.M., at the Symonds Yat Refreshment House. Tea at 5.30, at Speech House. The party will walk a distance of two miles to Lydbrook Junction, in time to catch the 3.20 train for Speech House, which will be reached at 4 P.M. They will return at 6.24, *viâ* Lydney, reaching Cardiff at 8.10.

ANNUAL MUSEUM.

THE nineteenth annual exhibition of objects of interest in connection with medicine, surgery, and sanitary science, will take place in the Public Hall, Queen Street, Cardiff, during July 28th, 29th, 30th, and 31st, 1885. (Floor-space, 9,000 feet.)

The Museum will be divided into the following sections.

SECTION A.—Preparations, diagrams, casts, and models of anatomical and pathological objects, microscopes and microscopical preparations. (Secretary, W. M. Hier Evans, Esq.)

SECTION B.—Surgical and medical instruments and appliances; other instruments for scientific investigation; new medical works. (Secretary, A. Plain, M.B.)

SECTION C.—Foods, drugs, chemicals, and pharmaceutical preparations. (Secretary, Maurice G. Evans, M.D.)

SECTION D. SANITARY SECTION.—1. Books on sanitation. 2. Ambulances and appliances for carrying or moving sick and wounded. 3. Recent improvements in hospital furniture. 4. Personal hygiene, as clothing, beds, educational appliances, domestic appliances, filters, and arrangements for softening water; disinfectants and disinfecting apparatus. (Secretary (1, 2, 3, 4), E. Seward, A.R.I.B.A.) 5. Sanitary appliances, including drawings, models, and apparatus illustrative of the ventilation, lighting, draining, etc., of hospitals, public buildings, and private dwellings. (Illustrations of defects usually found would be of great interest.) (Secretary, E. M. B. Vaughan, A.R.I.B.A.)

In Sections A and D a printed name and description must be attached to each exhibit.

In Sections B and D, and with microscopes in Section A, exhibitors must send a printed list, with the name, number, and price of each article, and a corresponding number on each exhibit.

Unless these instructions are carried out, the exhibits will be declined.

The medical, surgical, and scientific instruments and sanitary appliances must be genuine novelties or improvements on those in common use.

EXHIBITION OF INSTRUMENTS AND APPARATUS.

It is intended to arrange for the exhibition of complete series of instruments, electro-therapeutic apparatus, instruments for physical diagnosis, and appliances relating to sanitary science and public health.

Facilities will also be afforded, when requested, for the display of instruments and apparatus in action.

CATALOGUE.—It is intended to print a catalogue of the exhibits in the Museum, and lithograph-plan. Descriptions should be sent in as early as possible, not later than June 20th, 1885.

To Exhibitors.—All expenses of carriage to be prepaid, and all risks to be borne by the exhibitors; but the committee will exercise every care of the articles entrusted to them. A card bearing the name and address of the exhibitor, with the name of the instrument, etc., to be enclosed in each package, ready to be fixed on the outside of the exhibit.

All communications with reference to the museum and advertisements for the catalogue to be addressed (prepaid) to C. E. Hardyman, Esq., 42, Crockherbtown, Cardiff.

Notice of Special Business.

Notice is hereby given that, at the Annual General Meeting to be held at the Town Hall, Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28th, 29th, 30th, and 31st, a motion will be made on behalf of the Council that, in Articles 13 and 15, the word "fifty" be altered for "one hundred," so as to read as follows, namely:

13. The Council may, whenever they think fit, and they shall, upon a requisition made in writing by any one hundred or more members, convene an extraordinary general meeting.

15. Upon the receipt of such requisition, the Council shall forthwith proceed to convene a general meeting; and if they do not so within twenty-one days from the date of the requisition, any one hundred members may themselves convene a meeting.

That the following addition be made at the end of By-law No. 27:

"Any casual vacancy occurring in the Council may be filled up by any Branch, the representation of which may have become vacant. The return of the election of a representative member by any Branch to fill a casual vacancy, shall be communicated in writing to the Secretary of the Association by the President or Secretary of such Branch. But any person so chosen shall retain his office so long only as the representative member in respect of whom such casual vacancy may occur would have retained the same."

Mr. Dix gives notice that he will move that an addition be made to By-law 22 in the words following:

"The railway fares—first class return—of the Representatives of the Branches who attend the Meetings of the Council shall be paid from the funds of the Association."

Francis Fowke, *General Secretary.*

161A, Strand, London, June 18th, 1885.

SPECIAL CORRESPONDENCE.

ROME.

[from our own correspondent.]

International Sanitary Conference: Special Report.

The plenary Conference met on Friday, the 12th instant, under the presidency of Signor Cadorna, to hear the results of the proceedings of its Technical Committee, and to determine its further action. After a few words from the President, the German Ambassador, Herr von Kendell, acting on behalf of the Diplomatic Corps, of which he is Dean, proposed at once to prorogue the Conference, on the ground that many of the representatives were without instructions from their respective Governments as to their attitude towards the technical recommendations in the report which would be laid before them; and this proposal was accepted almost without discussion. The Italian Minister for Foreign Affairs has fixed November 16th as the date for its reassembling.

The determination of the Conference to adjourn the discussion of the various resolutions passed by the Technical Committee will not take anyone by surprise who has carefully considered their bearing. Liberal as they are, when compared with similar recommendations made about ten or twelve years ago, they are still so thoroughly restrictive, and would so inevitably hamper all trading interests, that, even if justifiable from an hygienic point of view, much time and thought would be expected from the governing bodies of great commercial nations before they could approve or reject them. No practical object was to be gained by hastening the discussion of such knotty points as the inspection of ships and passengers from India in the Red Sea, or the question of the pilgrimages to Mecca, as long as the exact terms of the international agreement on the Suez Canal are still unsettled; and it is, too, an advantage that the full report of the proceedings of the Technical Committee will be submitted to the experts and sanitary advisers of the different Governments before their diplomatic representatives again meet, as, up to the present, no such report has been presented. The Chairman of the Technical Committee, Professor Moleschott, accompanied the delegates in their excursion to Naples, whence they only returned on Friday morning; and he probably has not found time, so far, to revise the report of the proceedings drawn up by the Secretaries. It is an open secret that this report would have been a very imperfect one, as containing only the resolutions finally accepted by the majority of the experts, had it not been for the energetic remonstrances of Sir Guyer Hunter, who insisted on the amendments of the minority, and on the arguments upon which they based their opposition to many of the recommendations, finding a place in it. It will thus be possible for the diplomatists to assure themselves that the opposition of the technical delegates of such nations as Great Britain and the United States is not founded on mere self-interested motives, or on the orders received from their respective Governments, but on the very excellent practical results of the enlightened system they recommend to take the place of all restrictive measures.

For us, no doubt, the general result of the meetings has been disappointing; but it is an advantage, even if no very substantial one, that the word quarantine disappears, and that isolation and observation take its place. The feeble defence of land-quarantine and of sanitary *cordons*, even by those who only last year were loudest in their demands for them, shows that men, who are supposed, at least, to have some knowledge of hygiene, are ashamed to advance before a body of scientists the totally untenable arguments on their behalf, which can only impose on a panic-stricken and ignorant mob. That some courage is required to draw the logical conclusion, even after withdrawal from an indefensible position, is evident from what is going on in Spain at this moment, where the Government is still trying the hopeless system of *cordons* and quarantine, though the technical delegate of that country to the Conference had not a word to say in their favour. Should the disease reappear in Italy this summer, it may be hoped that the lesson of last year will be taken to heart, and that the Italian Government will have the courage of the opinions expressed on the subject by its sanitary representatives. We may expect to have heard the last, in almost all European countries, except possibly in Spain and Turkey, of the intolerable and cruel fumigations by the fumes of chlorine and sulphur, not only in quarantine-grounds and at railway and other stations, but even in the carriages themselves, which were held to be properly disinfected only when such fumes were strong enough to well-nigh suffocate the unfortunate passengers, to be actually dangerous to those with weak lungs, and to be irritating to all. And even in minor matters, it will be a gain that there has been a thorough exposure of the absurdity of the saturation of letters and newspapers with disinfectants, whose odours made their reception and opening a severe punishment, instead of a pleasure, to many susceptible persons. The Committee has unquestionably acted rightly in putting aside many crotchets, and in agreeing on a simple set of recommendations for the use of well-known cheap and transportable disinfectants, although it scarcely required the formidable machinery of an International Conference to attain such a result. The mitigation of the restrictive measures in regard to pilgrimages to Mecca from India, and other infected districts, if finally accepted by the governments interested in the matter, is also an advance, as the pilgrim-ships are not at once to be sent into quarantine simply because they are pilgrim-vessels, and come from suspected ports, but are to have free *pratique* if their surgeons can show that they have complied with all the sanitary regulations, and if the clean bills of health which these officers present are confirmed after a rigorous inspection at certain appointed sanitary stations.

Granting, however, that the foregoing resolutions may prove slightly encouraging to those who confidently hope to prevent epidemics settling in their midst by the wise provisions taken to reduce all local unsanitary conditions to a minimum, not under the pressure of imminent danger, but simply as a part of a well thought-out system of national hygiene, many of the recommendations carried by large majorities make it clear how totally unable are most of the delegates to appreciate such a standpoint. We can, indeed, afford to smile when we see how the continental mind cannot get rid of the fixed idea that everything must be done by Government, and insists on the nomination, or, at the very least, on the ratification, of the appointments of surgeons to large packet-boats being in official hands. No member of the profession—in our islands certainly—will take objection to the enforcement of the most stringent rules against the introduction of cholera into passenger, pilgrim, or troop ships, nor to any amount of care for the isolation of the sick, and the disinfection of their effects, and the cabins they have occupied, should the precautions at the port of departure have proved unavailing. Some differences of opinion must exist as to the best methods of procedure, but none as to the expediency of prophylactic measures. It is a very different matter, however, when we are asked to submit to rigorous inspection of all vessels coming from an infected port; and, in the event of their being declared foul by officials, whe are to be appointed under some kind of indefinite

international agreement, men who may be Turks or Egyptians or Greeks, to find their passengers and crews subjected to that very quarantine we have long held to be useless, and which is doubly dangerous from the local and climatical conditions under which it must be carried out. In what practical way could a thousand human beings, landed from a large Indian troopship, be divided into small groups, isolated, cared for, and observed, even during five days, as a minimum, on any part of the Red Sea coast, without the certainty of the disease spreading amongst them in a very different ratio from what experience has shown it does when the infected vessel passes as quickly as she can to the cooler breezes of the Mediterranean and the Atlantic? The lesson from what occurred on board the *Crocodile*, accentuated as it was by Dr. Thorne, is not likely soon to be forgotten by British hygienists, nor can we admit that there is the least risk in an infected ship passing through the canal, if it has no communication with either bank.

The question of humanity, too, has a double aspect, as we have no right to expose an unhealthy country, such as Egypt, to the dangers of constant epidemics spreading from the local centres of contagion which the quarantine-stations on the Red Sea would inevitably become; and all British medical men are confident that, even if a vessel should still be infected when it reaches our shores, the disease would be stamped out without difficulty and without cruelty to the passengers and crew. As no transference of cholera from Great Britain to any uninfected European country has ever occurred, the nations of the continent have no right to object to our preference for the course we think best. If they thoroughly understood upon what our confidence is based, they would at once set to work to secure for their populations a pure air, an uncontaminated water, a thorough drainage, and an unpolluted subsoil, which would prevent the disease from finding a lodgment in their midst, or, if accidentally introduced, would insure its confinement within the most modest limits, and its rapid extinction. Much remains yet to be done before even the most advanced continental peoples can be educated to understand these views, but there are some signs, faint though they be, of good augury. The doctrines of Pettenkofer are daily becoming better understood and more thoroughly acted on in Germany, and the present generation of medical students in Rome will find, in the teaching of their Professor of Hygiene, Professor Tommasi-Crudeli, a thorough appreciation of the advantages of local sanitation. In ten years' time, an International Sanitary Conference will possibly arrive at more rational conclusions. In the meantime, there is no object to be gained by Great Britain and the United States taking part in entangling International Congresses on sanitary questions with the representatives of such countries as Guatemala and Peru, as Chili and Uruguay, as Roumania, Servia, and Greece.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Effects of Impure Iodide of Potassium in a case of Tabes Dorsalis.—Nephrectomy.—Hysterectomy.—Suture of Tendons to other Tendons.—Chorea treated with Bromide of Camphor.—Aphasia and Hemiplegia of the Left Side.—The Micrococcus Pyocyaneus.—General News.

M. HUCHARD has treated a case of locomotor ataxy with iodide of potassium, administered in daily doses of a drachm. After the first dose, the patient manifested symptoms of iodine-intoxication. The dose was then lowered to 12 grains, gradually increased to 15. Dyspnœa, with œdema of the glottis, became so urgent, that tracheotomy had to be performed, and the patient progressed favourably. The laryngeal spasm was evidently provoked by the œdema of the glottis, which was found to be due to the use of impure iodide of potassium, containing a certain proportion of iodates. Other patients, both in M. Huchard's and in other wards, manifested symptoms which could be attributed to the action of impure iodides; therefore, it could not be supposed that this special patient was peculiarly susceptible to its influence.

M. Polaillon read, at a recent meeting of the Académie de Médecine, a note on a case of extirpation of the kidney. The patient was 27 years of age, suffering from calculous pyelo-nephritis. The purulent sac occupied a large area in the lumbar region. The operation was performed antiseptically, and the results were most satisfactory. MM. Le Fort, Le Deulie, and Péan, have recently performed this operation.

At the same meeting, M. Tillaux exhibited a myoma, weighing seven kilogrammes, which he had removed from a patient. All the symptoms had warranted the belief that the tumour was an ovarian cyst. The patient refused to permit an exploratory puncture. The entire uterus was removed, and the patient rapidly recovered.

In a patient where the tendons of the extensor muscles of the thumb and the forefinger had been cut asunder, M. Schwartz endeavoured to unite the divided tendons, but the upper ends could not be found. He, therefore, joined the inferior portions to a band separated from the tendon of the long radial extensor muscle; union was completely effected, and the results were most satisfactory.

M. Bourneville has treated successfully, at the Bicêtre, a case of chorea in a child, aged six, with bromide of camphor. The first attack happened in 1884, and was caused by fright; the treatment then consisted of alkaline baths, valerianates, potassium bromide, and purgatives. In February, 1885, the child was again taken to M. Bourneville, choreic movements having reappeared a week previously, followed by all the characteristic symptoms of the disease. Purgatives, valerian, iodide of iron, iodide and bromide of potassium, were again administered. Ten days subsequently, capsules of bromide of camphor were given for two successive nights, then two every evening and morning for five days; afterwards three, evening and morning. The child's condition gradually improved; the capsules were discontinued on March 16th, and resumed on March 19th. Cod-liver oil and gentian wine were also prescribed. On March 26th, the capsules were left off; the child continued to improve.

Dr. Charles Féré read a note, before the Biological Society, on an interesting case of aphasia, accompanied by hemiplegia of the left side. The patient was a strong man, aged 37, at the Salpêtrière. The principal symptom was difficulty in speaking, which was specially evident when he spoke slowly; some words were pronounced with more difficulty than others; others were left unarticulated. He limped slightly with the left leg; the left hand trembled, and he used it awkwardly. His face was drawn towards the right side; the naso-genian line had disappeared. The first symptoms appeared in 1884, when the patient had trembling in the left arm, but was able to continue his business. After the reappearance of the trembling in the left arm, accompanied by giddiness, he suddenly became speechless, and for ten minutes he was unable to articulate a single word, but wrote very correctly what he wished to say. Dr. Féré diagnosed aphasia, which left its traces, and was followed by motor disturbance on the left side. The accuracy of Broca's localisation thus seemed questioned; but, on making inquiries, Dr. Féré learned that the patient's teachers had experienced a great deal of trouble in making him write with the right hand, and he had used his left hand in his work in preference to the right. At the Gymnasium he used the left hand, and, notwithstanding the paresis, its dynamometric force was only five degrees less than that of the right side. The patient, Dr. Féré says, was left-handed; but, by education, had been brought to use his right hand, especially for writing, and this habit had continued after the faculty of speech was impaired.

M. Charrin read, before the Biological Society, the result of his researches on the *Micrococcus pyocyaneus*. This micro-organism is less infectious than most others. If half a cubic centimètre of cultivation-broth be injected into the veins of a rabbit, albuminuria immediately sets in. If its urine or excrement be mixed with sterilised broth, pyocyanine appears; the micro-organism is eliminated with urine and fæces. It can be stained in the tissues; the characteristic behaviour of pyocyanine in the presence of reagents prevents the possibility of error.

M. Beauregard read, before the Biological Society, notes of a traveller who, after drinking habitually water containing a considerable proportion of sulphates, observed that a distinct odour of sulphuretted hydrogen emanated from his body, and articles of silver in contact with his skin became black. This condition remained a long time after he ceased drinking the water, and had taken several baths. A flavour of sulphuretted hydrogen remained constantly in his mouth. M. Rabuteau explained the facts brought forward by M. Beauregard, by stating that sulphate of lime in the presence of acids decomposed, and produced sulphuretted hydrogen; in the blood, on the contrary, sulphates are eliminated as sulphides.

M. Echsner de Coniuck has found pyridine in commercial methylamine. He has also detected, in some samples of raw petroleum, a nitrogenous body analogous to the carbylamines discovered by M. Gautier.

M. Laborde continues his researches on the adulteration of the principal alkaloids. At the Biological Society he showed samples of digitaline of German origin, resisting the influence of reagents. He also showed a false jaborandi from which is extracted a pseudo-pilocarpine.

The late Dr. Nöel Gueneau de Mussy directed that no discourses should be pronounced at his funeral. His wish was observed;

but the Académie de Médecine, wishing to have on record an expression of its appreciation of his talents and merits, has begged M. Féréol, one of his favourite pupils, to draw up a memoir of Dr. Gueneau de Mussy's life and works, to appear in the *Bulletin* of the Académie.

Mr. Jules Wilbien, a dresser at the Children's Hospital, has died from diphtheria, contracted during the observance of his duties. M. Grancher, his *chef*, and M. Peyron, Director of the Assistance Publique, delivered short orations on his tomb.

MM. Neumann, Pasteau, Dreyfous, and Ch. Segraux have been named *officiers d'Académie*. The decorations were remitted to them at a general meeting of the "Union des Femmes de France." The distinction is a recompense for the services rendered to this society by their lectures on elementary medicine, surgery, dressing, etc.

M. Marey has laid before the Académie des Sciences a memoir by M. Vignal, *Sur le Developpement des Nerfs, l'Accroissement en Longueur des Nerfs par la Formation de Segments Interannulaires, Developpement desElements de la Moëlle Epinière* (On the Development of Nerves, their Increase in Length by the Formation of Interannular Segments, and the Development of the Elements of the Spinal Cord); also a memoir by MM. Malassez and Vignal, *Sur la Tuberculose Zooglœique et son Micro-organisme* (On Zooglœic Tuberculosis and its Micro-organism). These memoirs will be sent as competitions for the Montyon Prize. Dr. Gousset, of Lille, has presented, for the same prize, a *Mémoire rélatif à l'Hygiène des Chauffeurs, et à l' Influences des Temperatures elevées sur l'Organisme* (Notes on the Hygienic Condition of Stokers, and the Influence of High Temperatures on the Human Organism).

CORRESPONDENCE.

THE CHOLERA-BACILLUS: PROPOSAL FOR A COMMISSION OF INQUIRY.

SIR,—The letter of Dr. Klein on the above subject, in the JOURNAL of June 13th, will, I believe, prove a great disappointment to many who, like myself, are interested in the very important question at issue. When I proposed that a Commission should be appointed, in the national interest, to supervise the remarkable, and not to say extraordinary, experiments reported by Dr. Klein in his controversy with Mr. Watson Cheyne, I did not anticipate that the former gentleman would decline to accept the proposal; for his letter in the JOURNAL is evidently a covert refusal to submit his experiments to the test of a commission of experts. He says he will accept the commission, if a condition, which is manifestly impossible (as well as unnecessary), be carried out—namely, that Koch should abandon his important official duties in Berlin, and come to England to carry out experiments simultaneously with himself! Koch's presence here is really quite unnecessary. His experiments have been largely tested, and have been submitted to the judgment of a large number of medical men in Germany, and elsewhere, with the result that an enormous majority of those capable of judging have been satisfied as to the specific character of the comma-bacillus. Dr. Klein asserts that his more recent experiments disprove Koch's views; but, so far as they are noticed in his reports in the JOURNAL, I cannot think he has proved his case. He stands pretty much alone in some of the statements made in the JOURNAL, and, as his sole support, he relies on experiments which are contrary to the experience of a very large number of capable experimenters. Surely, the *onus probandi* lies with him. Mr. Cheyne, who is one of the ablest authorities on the subject in this country, has expressed in the JOURNAL his desire and willingness to submit his experiments to a commission, without insisting on any impossible conditions. He is a pathologist well deserving of Dr. Klein's steel; and I have no doubt that Koch would be quite willing to accept him as his representative in testing the doubtful experiments of Dr. Klein before a commission.

The question at issue is simple enough. Dr. Klein asserts that a comma-bacillus identical with Koch's is constantly present in the cæcum of healthy guinea-pigs, and can be found under other circumstances not connected with cholera, and that, therefore, Koch's bacillus is not pathognomonic of cholera. If this can be proved, the whole of Koch's work on cholera is at once disposed of as a mere worthless fable, and he and all his fellow-workers will be proved to be the victims of a monstrous error. It surely is not necessary for Koch to be present while this simple fact is being demonstrated. Dr. Klein asserts that he has the means of proving all this at his disposal. It is quite certain that no one else has. It is hardly consonant with his position, after his very active written controversy with Mr. Cheyne in the JOURNAL, to decline to meet him in the laboratory.—I am, sir, your obedient servant, THOS. WHITESIDE HIME.

Town Hall, Bradford.

LUNACY ACTS AMENDMENT.

SIR,—I judge by the note you have appended to my letter on the above subject, and by the analysis of the new clauses which you publish, that you have overlooked the following.

"Clause 8, Section 4.—A medical practitioner who, in the manner required by this Act, signs any certificate that a person is of unsound mind, shall not be liable to any civil or criminal proceeding for signing such certificate, or for any act done with the view of enabling the practitioner to sign the certificate, if the certificate is signed and the act is done in good faith."

Also, "Clause 16, Section 2.—Any person who makes a wilful misstatement of any material fact in any medical or other certificate under this Act.....shall be guilty of a misdemeanor."

"Section 3.—No prosecution for a misdemeanor under this Section shall take place except by the direction of the Attorney-General or the Public Prosecutor."

The fourth section of Clause 8 is entirely new, not being found in the original Bill. It will be seen that this protects, very strongly, all except those who act in bad faith. Clause 16 makes such as these liable to prosecution for a misdemeanor; but, even then, such prosecution cannot be instituted except the permission of the law-officers of the Crown has been first obtained.

When I wrote the letter you published in the JOURNAL of June 6th, I had not seen the Bill as amended in Committee. It seems to me that these amendments give us all we can want or reasonably ask for in this direction. In fact, so far as the medical profession, as a whole, is concerned, if only the "magistrate, justice, or judge" could be done away with, and a skilled visitor appointed in their place in every district, the Bill would leave nothing to be desired.—I am, sir, yours,

401, Holloway Road. W. HENRY KESTEVEN.

*** It is the opinion of counsel that the new Clause 8, Subsection 4, to which Mr. Kesteven calls attention, will go a long way to protect medical men from vexatious litigation. It will not prevent civil actions from being brought, but it will render it impossible for the plaintiffs in such actions to succeed except in cases where the court or a jury find the medical man not to have acted in good faith. Neglect to observe the proper formalities in giving a certificate might, however, be held to be evidence of want of good faith; and, if so, the practitioner who was guilty of such neglect might still be liable to pay damages for it.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SIR,—Although I think it would be very undesirable, as a precedent, that any candidate for election to the Council of the Royal College of Surgeons should be called upon to state precisely his views upon any question, as a test of his eligibility for an office wherein he should be able to exercise an unfettered judgment, in accordance with the confidence reposed in him, and in his honesty of purpose, by the electoral constituency of Fellows, yet it seems to me that the present occasion is quite exceptional with regard to that principle.

Certain matters of vital consequence to the rights of the Fellows, and the future welfare, or perhaps, the existence of the College, have been so freely and fully considered, so thrashed out by discussion, that it is simply impossible for any eligible candidate for the College Council not to have arrived at a definite conclusion thereon. Accordingly, I proceed to state my convictions, and the course, therefore, I should be prepared to take in the event of my being honoured with a seat in the Council.

There is one positive wrong which underlies all other forms of exclusiveness, and the mal-influence of which paralyses the hands of that section of the Council who are still bound by tradition—I mean the restriction of the office of Examiner in Surgery almost exclusively to members of the Council. Other positions of emolument have been thrown more open to the Fellows and to the Members generally. But the chief source of emolument yet remains restricted to members of the Council. The injustice and the inconsistency of this exclusiveness are obvious, seeing that many Fellows may be highly qualified for the office of Examiner, who were not on the Council; and that members of Council may possess the capacity for administration rather than any special fitness for the office of Examiner. The two positions are not convertible. Let the conjunction of these two offices be broken up, more generally than hitherto, and then the Council will

themselves see no desirability in their maintaining the present *statu quo*.

Other things would follow. Who can doubt that the President of the College should not be elected necessarily in the order of rotation from members of Council; that, at a yearly meeting, the report of the Council should be submitted to the electoral constituency; and that no vital change in the constitution and relations of the College should be undertaken by the Council, without the knowledge and concurrence of the Fellows and Members constituting the College? In all these respects, the College should stand upon the same basis as that of any other Society, say the Royal Medical and Chirurgical Society, which is quite analogous in its relations to the general constituent body.

These are the conclusions at which I have long since arrived, after mature consideration, and to which I should be quite prepared to give effect in the Council. In private circles, I have freely acknowledged my convictions; and, as the present crisis seems to demand a public statement of them, may I ask you to disseminate them through the medium of the BRITISH MEDICAL JOURNAL—thus to reach all the members of the Association?—I am, sir, yours faithfully,

FREDERICK JAMES GANT.

Connaught Square, W.

OBITUARY.

SIR WILLIAM MURE MUIR, M.D., K.C.B.

THE death of Sir William Mure Muir, K.C.B., late Director-General of the Army Medical Department, occurred at Oak Lodge, Blackheath Park, on the 2nd instant, after a lingering illness. Sir William Muir received his professional education at the University of Edinburgh and St. George's Hospital, London, under the tuition of Sir Charles Bell, Sir George Ballingall, Professors Syme, Jameson, and Wilson, Drs. Christison, Knox, Seymour, and other eminent physicians and surgeons of the day. He was born January 24th, 1818, took his degree as M.D. at Edinburgh in 1840, and the diploma of the Edinburgh College of Surgeons in the same year, and received his commission as Assistant-Surgeon in the army, November 22nd, 1842. He became full Surgeon February 24th, 1854; Deputy Inspector-General, December 31st, 1858; Surgeon-General, February 15th, 1861; and Director-General of the Department, April 1st, 1874. He served upon full-pay for nearly 40 years, 24 of which were passed in foreign service, in the Mediterranean, Turkey and the Crimea, the Mauritius, India, China, and North America. He landed in the Crimea with his regiment, the 33rd, and was in charge of it during the whole of the siege of Sebastopol, being present at the Alma, Inkerman, and the sortie on October 26th, the attack on the Redan, and at the fall of Sebastopol, receiving the Crimean medal with three clasps, the Knighthood of the Legion of Honour, and the Turkish medal. In February, 1855, and again in September, he was specially recommended for promotion by the Principal Medical Officer of the Light Division, who reported that he knew of no more deserving or competent officer in Her Majesty's service. After six months of duty at home, Dr. Muir proceeded with his regiment to the Mauritius, and thence to India, where he served against the mutineers in 1857 and 1858. In 1860, he was selected as Principal Medical Officer of the force to China, under Sir Hope Grant, for which he received the medal with two clasps, the Companionship of the Bath, and promotion to be Inspector-General. He was soon afterwards nominated to accompany the expedition which was despatched to North America in connection with the difficulty which arose in consequence of the stopping of the steamer *Trent*, and he availed himself of the opportunities thus afforded of seeing the working during war of the American system of army medical administration. He subsequently served in India, first as Principal Medical Officer of the British troops in Bengal, and subsequently as the head of the sanitary branch of the Army Medical Department. In all these various positions, Dr. Muir's duties were discharged in a manner which constantly called forth the warmest enconiums from his superiors, both among combatant officers and in his own department.

We have referred on various occasions to the changes which were successively made in the organisation of the Army Medical Department during Sir William Muir's tenure of the office of director-general. When the appointment of head of the Army Medical Service devolved on him in April, 1874, the regimental system of administration had already received its death-blow. "The Royal Warrant of March 1st, 1873, put an end to it," as Viscount Cranbrook subsequently said in the House of Commons, "not only as the result of argument, but also on the ground of economy." Shortly after that warrant appeared, medical officers were withdrawn from regiments altogether and were converted into staff-officers. Sir William Muir devoted himself to the consolidation of the new unification system and to the task of bringing it into harmony with the other military departments. In this undertaking he met with great opposition, and, like his predecessor, Sir Galbraith Logan, under whose rule the disruption of the old combination of staff and regimental medical officers had occurred, Sir William Muir had to encounter a vast amount of obliquy. There were, moreover, many matters affecting the interests of medical officers at this time, which formed just subjects of complaint, and the existence of these grievances, and the agitation excited by the removal of medical officers from regiments, rendered the military medical service very unpopular in the civil schools, and caused a serious dearth of candidates for army appointments. These difficulties were attempted to be removed by the issue of the royal warrant of April 28th, 1876. This warrant, the first which appeared under Sir William Muir's direction, was very unfortunate in its provisions. All medical officers entering the department from the date of the warrant were to enlist for a short service of ten years, after the expiration of which period six were to be selected annually for promotion into the higher ranks, the services of the remainder being dispensed with. All but the six selected officers on their return into civil life were to receive a sum of £1,000 in lieu of all pension on retirement, pension for wounds excepted. The test examination for promotion to the rank of surgeon-major was also abolished by this warrant. All these arrangements have been since abrogated, and for reasons which were plainly foreseen and fully commented upon in all the leading medical journals of the day. So little did this warrant succeed in restoring popularity to the Army Medical Service, that, in the winter of the same year, when 38 vacant appointments were advertised for competition, only 12 candidates for them appeared, of whom five had been previously rejected, and the examination had to be abandoned. The disrepute into which the department had now fallen led to the appointment of a War Office Committee to inquire into its causes. The committee were ordered, at the same time, to report fully on the remedies which might appear to them to be likely to place the department on a more satisfactory footing. The committee consisted of three members, and one of them was Sir William Muir. The report which was presented by this committee led to the Royal Warrant of November, 1879. This warrant was not without its blots; but the rates of emolument conferred by it were based on so liberal a scale, and such other material advantages were contained in it, that the great object of restoring popularity, and filling the attenuated ranks of the department, were at last accomplished by its means. The benefits derived from the increased rates of pay and retiring allowances, and from the other substantial improvements contained in the new warrant, would have hardly succeeded in bringing back popularity to the service, had the injudicious arrangement of the previous warrant, by which a surgeon was engaged for ten years and then dismissed with a gratuity, been continued. The short-service system was, however, abolished at the same time as the other improvements were introduced; and now, under the favourable conditions of this last warrant, the Army Medical Service is as attractive to young surgeons, for a career in life, as it was in the old days before its popularity had been tampered with. The advantages conferred by this warrant will cause the name of Sir William Muir, under whose directorship they were obtained, to be remembered with gratitude by all army medical officers.

Sir William Muir married, in 1875, Rachel, daughter of the Rev. G. Heaton, of Hennock, Devon, by whom he had issue one son, who, together with his widow, survives him.

JAMES MONCRIEFF ARNOTT, F.R.S.

BY the death of James Moncrieff Arnott, a prominent figure of the medical profession of a generation ago, and one of the very few connecting links with the last century, has been removed. He was born at Cupar Fife, on March 15th, 1794, where his father was in practice. Mr. Arnott's grandfather had been in practice in the same place, and was married as far back as 1732. Mr. Arnott was educated at the Grammar School at Cupar, then at the High School, and subsequently at the College, Edinburgh. He commenced attending medical classes in 1809, and passed the College of Surgeons of Edinburgh on January 15th, 1813, being then at the age of 18; he took the M.D. of that University at the age of 19, it being possible in those days to become qualified at this early age.

Mr. Arnott then came to London for a year, attending Abernethy, on anatomy, at St. Bartholomew's Hospital, and Astley Cooper, at Guy's, on surgery. He became also a pupil of St. George's Hospital,

and of the Lock, then in Grosvenor Place. He went to Paris in 1814, attending for a year Pelletan and Dupuytren at the Hôtel Dieu, and Roger and Roux at La Charité. He passed a similar period at Vienna, chiefly under Beer, the ophthalmologist, and Hildebrand, probably the ablest teacher of clinical medicine then existing. Mr. Arnott returned to England in 1817, and then became a Member of the College of Surgeons of England. He was anxious to become a hospital surgeon; but in those days the great hospitals were close boroughs, and for many years he occupied himself by seeing the poor at his own house, and frequently operating upon them at their own homes. During these years, he was a frequent visitor at the great hospitals on field-days, attending at the invitation of their respective surgeons, by whom he was much esteemed.

He was, however, elected Assistant-Surgeon at the Middlesex Hospital in 1831, and he became full Surgeon in 1833. He was elected Professor of Surgery at King's College in 1836, continuing to hold office as Surgeon at the Middlesex Hospital. He lectured at King's College about five years, when he retired, but remained at the Middlesex Hospital until 1848, when he resigned, and was appointed Professor of Surgery at University College, and Surgeon to that Hospital. He retired from University College in 1850.

Mr. Arnott was made a Fellow of the Royal College of Surgeons of England in 1843, and an Examiner in 1847. He was elected President in 1850, and he also became President a second time in 1859. He was a very active member of the various medical societies, especially of the Royal Medical and Chirurgical, which he had joined early in life. Having held various offices in that Society, he became President in 1847. He was also a member of the Pathological Society, and President in 1855.

Mr. Arnott contributed eight papers to the *Medico-Chirurgical Transactions*, the most notable of which was published in 1829, "A Pathological Inquiry into the Secondary Effects of Inflammation of the Veins." This paper marked an important era in the history of our knowledge of this subject, and formed a starting-point for the more recent investigations on the subjects of pyæmia and septicæmia.

It is rather as a teacher than as an operator that Mr. Arnott will be remembered. His lectures were full of force and distinctness; and, although the manner may have been rugged and abrupt, his teaching was emphatic and to the point. He had the remarkable faculty of being able to brush away the cobwebs of speculation and uncertainty, and of seizing and presenting established facts, so that his hearers were not bewildered by lengthy and conflicting statements. In this age, when salient facts are apt to be drowned in a flood of words, his brevity and his incisive style might well find more imitators.

His capacity for conducting business was very great, and this, added to a commanding presence, eminently fitted him for the presidential chair. At the Royal College of Surgeons he has left his mark; it was chiefly through his exertions that the Government grant of £15,000 towards the rebuilding of the Museum was obtained; and in recognition of these services, in 1852, the Council voted the marble bust which is now in the College. Although one of the last survivors of the old *régime*, he was ever ready to adopt new ideas and reforms. Aided by the suggestions of his former pupil and house-surgeon, Mr. John Tomes, he did much to establish the licence in dental surgery, by which that department of practice has become a recognised branch of surgery.

It is interesting to note the many points of similarity, and also of contrast, that present themselves in the career of Mr. Arnott and that of his old friend and colleague, Sir Thomas Watson. They both lived to beyond the age of 90 years; the one was Surgeon and the other Physician to the Middlesex Hospital; and while holding these offices, the one was appointed Professor of Surgery, the other Professor of Medicine, at King's College. They both had the crushing misfortune to become widowers in middle age. Although very different in manner and disposition, they both upheld the dignity of the profession in a remarkable degree, and exhibited an integrity of character and a keen sense of honour which well qualified them as leaders of our profession.

Mr. Arnott married in 1830 the widow of Captain Augustus Donaldson, R.N., and daughter of Cavin Delane, Esq. Mrs. Arnott died in 1840, leaving one daughter, who remained unmarried, and became the companion of Mr. Arnott's old age. He retired from his active professional life in 1865. His elder brother then died, and Mr. J. M. Arnott succeeded to a small but very old family estate at Chapel, Fife. He had held various royal appointments, and was Surgeon Extraordinary to Queen Adelaide, Surgeon in Ordinary to the late Prince Consort, and Surgeon Extraordinary to Her Majesty the Queen. Mr. Arnott died on May 27th, 1885, and was buried in Kensal Green, being followed to the grave by his daughter, by Mr. Cooper Forster, the President of the Royal College of Surgeons, and by many friends.

SAMUEL BUDD, M.D., Exeter.

Dr. Samuel Budd, whose death has occurred at the age of 79, was an old and respected citizen of Exeter, where he was for 40 years honorary physician to the Devon and Exeter Hospital, and for many years physician to the Dispensary. Up to the time of his death, Dr. Budd was consulting physician to both these charities. He was educated at Edinburgh, Dublin, and Guy's Hospital, and studied several years in Paris. He was M.D.Ed. and M.R.C.P.Lond. Dr. Budd was a magistrate for the city of Exeter.

JOHN THORBURN, M.D., F.R.C.P.,

Professor of Obstetric Medicine in Owens College, Manchester.

Dr. Thorburn died at his residence, Moss House, Rusholme, Manchester, on May 26th, after an illness of ten days. He was attended by Dr. Dreschfeld and other friends, with unremitting care, though the nature of his illness, pulmonary embolism, permitted almost no hope of his recovery.

Dr. Thorburn was born at Huddersfield in 1834, his parents afterwards removing to Manchester. Educated at the Edinburgh High School, he entered the Edinburgh University in 1849, and graduated there as doctor of medicine in 1855. His graduation thesis, on Surgical Fever, was awarded the mark of distinguished merit. At an early stage of his university career, he was elected President of the Royal Medical Society. After taking his degree, he held the posts of house-surgeon and house-physician in the Edinburgh Royal Infirmary, and house-surgeon to the Royal Maternity Hospital. Among his friends and colleagues were Sir Joseph Lister and Dr. Wilson Fox; and he had the good fortune to number among his teachers Alison, Christison, Syme, Goodsir, Hughes Bennett, and James Simpson. After leaving Edinburgh, he was for a time resident-assistant in the Brompton Hospital for Diseases of the Chest.

Thus thoroughly equipped, he settled in Manchester in 1858. His first public appointment was that of medical officer to the Chorlton Dispensary. In 1860, he was elected to the staff of the Clinical Hospital. His energy and ability were soon manifested in the active part which he took, along with Dr. Henry Simpson and others, in the founding of the Southern Hospital for Diseases of Women and Children in 1866. Here he obtained opportunities for work in that department of medical science, to which he thenceforward more specially devoted his attention, while the charity has owed no small share of its success to his ability and tact. In 1873, he was appointed obstetric physician to the Royal Infirmary, being the first to hold that appointment. In the same year, he commenced his duties as lecturer on midwifery in the Royal Medical School. The amalgamation of the Royal School of Medicine with Owens College, and the subsequent constitution of the Victoria University, were attended, almost as a matter of course, with the appointment of Dr. Thorburn to the chair of obstetric medicine.

Dr. Thorburn's teaching was distinguished by the characteristics pervading all his work, clearness combined with moderation and justness of judgment.

In 1878, he became a Member of the Royal College of Physicians of London, and was elected a Fellow in the beginning of May last.

Throughout his long and successful career, Dr. Thorburn found time to show his interest in all progressive medical movements, as well as in matters affecting the physical well-being of the community. He acted as Secretary of the Manchester Medical Society for three years, and was subsequently elected President. He was also President of the Medico-Ethical Association. Of the Manchester Edinburgh University Society he has been annually elected President since its foundation. His interest in the public welfare is shown in his pamphlets on *The Mode of Admission to our Medical Charities*, and in his little book on *Vaccination* for general readers. We quite coincide with his view that, on exceptional important subjects like vaccination, it is the duty of medical men to counteract injudicious agitation by an intelligible statement of the facts.

Amongst other short papers written by him, we may mention *The Power and Place of Art in the Treatment of Disease*, pregnant as it is with valuable advice to young practitioners, *Suggestions as to the Medicinal Treatment of the Unborn Child*, and his thoughtful essay on *Female Education in its Physiological Aspect*. Dr. Thorburn took an active share in the foundation of the *Medical Chronicle*, and the measure of success which it has attained is in no small degree due to his efforts.

For the last two years, Dr. Thorburn was engaged in the preparation of a practical treatise on the diseases of women. To the ad-

ditional strain thus imposed on one fully occupied with other pursuits, there is but little doubt that we must attribute his untimely death, at the early age of 51, just when he was beginning to reap the full reward of an honoured and honourable career. To all who knew his genial and kindly disposition, and the straightforward manliness of his character, his death has brought a sense of personal loss. Dr. Thorburn leaves a wife and five children, of whom one, Dr. William Thorburn, has already given brilliant professional promise.

JOSEPH BUNNY, M.D., Newbury.

By the death, on the 30th ult., of Dr. Joseph Bunny, Newbury has lost one of its oldest and most respected inhabitants. He received his medical education at Edinburgh, and at Guy's and St. Thomas's Hospitals, and in 1832 obtained the degree of M.D. at the University of Edinburgh, having previously, in 1820, become a Member of the Royal College of Surgeons of England, and a Licentiate of the Society of Apothecaries. He commenced the practice of his profession in Newbury, and in 1839 was elected borough coroner, an office which he held until 1873, when he resigned. Dr. Bunny was a Fellow of the Obstetrical and Medical Societies of London, a magistrate for the borough, and held several other offices connected with local charities. He was the first honorary surgeon to the Newbury Dispensary, established in 1835, and performed the duties for ten years, after which he was honorary consulting surgeon until the year 1877. For some years past his health had been such as to gradually induce him to seek release from his practice, and to take a less active part in public matters.

The deceased had been a member of the British Medical Association from the first, and had attained the age of 86 years.

ROBERT G. RATTRAY, M.D., Aberdeen.

Dr. R. G. Rattray, who was, until a few years ago, superintendent of and apothecary to the Aberdeen Royal Infirmary, has died at the age of 75. Dr. Rattray was a native of Aberdeen, where he attended his medical classes, and then proceeded to London in 1830, where he obtained the diploma of the Royal College of Surgeons. On his return to Aberdeen, he was appointed Lecturer on Materia Medica in connection with King's College, at a time when there were two medical schools in Aberdeen. He graduated as M.D. of King's College in 1845. In 1840, he was appointed apothecary to the Royal Infirmary, and, in 1849, resident medical superintendent, which offices he retained until he retired, in 1882, with a pension of £200 *per annum*. Dr. Rattray was a man of wide general culture and genial disposition, while he was a capital hand at an anecdote. He had considerable mechanical ingenuity, and a turn for chemical manipulation. He was ever ready to help and encourage the students at the infirmary, and in them he took a great interest.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL ETIQUETTE.

J. A. C.—Before proceeding to make public so serious a charge as that specified in "J. A. C.'s" communication, and, withal, without "showing any difference in his manner toward Dr. —," he should, in our opinion, either by personal interview, or courteous note, have sought an explanation from the consultant in question; and, in the event of an unsatisfactory reply, a reference of the case to a mutual professional friend, or, failing that, to a "Court Medical," may have been desirable. Even now, if for any special local reason it be deemed necessary to submit the matter for adjustication, we would suggest that course, rather than to seek redress through the medium of the Journal. It is a question, moreover, whether, if the letter were published in its present form, an action would not lie for defamation.

Our correspondent will, we think, show a wise discretion in allowing the matter to drop; for if the "base trick" to which he alludes, be correctly represented, such conduct can scarcely fail, sooner or later, to recoil upon the offender.

Sir,—I would feel obliged by your informing me the medical etiquette of the following case, namely, A. and B. are two practitioners in the same town. A patient who is attending A., for fifteen months or more, dies rather suddenly, though not unexpectedly. A. gives the friends a medical certificate of the cause of death. B., in the mean time, hearing of the case, goes to the house of A.'s patient, and requests to see the man, saying that he is sent by the man's employer. After this, he informs the coroner of the fact of his seeing the man after death; subsequently attends the inquest, and gives evidence. B. was fully aware that there was a certificate of death given, and that A. had been attending the man up to his death, who, I should add, had not been out to his work for weeks, before that morning. I would feel obliged by your publishing the above facts, and letting me know what I should do in the matter.—I am, sir, truly yours, A.

P.S. I should say B. was not attending the man at all previous to death, and was therefore unable to specify the true cause of death.

*** If, as we naturally assume, the statement made by "A." be a correct representation of the facts relative to "B.'s" conduct in the case of the deceased patient of another practitioner, the latter committed a very reprehensible breach of professional morality, and, moreover, unnecessarily entailed upon the sorrowing family the painful and often much dreaded ordeal of an inquest.

On hearing of "B.'s" application to the coroner, our correspondent would have done well to have immediately communicated to him the nature of the case, and the facts which had induced "A.," as the family medical attendant of the deceased, to give a certificate of death, and, at the same time, to have courtiously solicited from "B." an explanation of his conduct in the matter—against which it is too late, we fear, to do more than enter a simple but emphatic protest.

QUALIFICATIONS OF HOSPITAL SURGEONS.

Sir,—Kindly give an opinion on the following case: A. and B. are honorary assistant-surgeons to a hospital for sick children. A. has served in that capacity for four years; B. for some months. A vacancy occurs in the surgeon's staff; A. and B. are the only applicants; A. has qualifications, M.D.Edin., L.R.C.P., L.R.C.S.Edin. B. has qualifications, M.R.C.S., and L.S.A.London.

A., by being earlier in the field, by personal influence, and by his long service, secures the majority of the Governors' votes. P., the retiring surgeon, acting on behalf of his assistant-surgeon B., lays an objection before the secretary, against A.'s candidature, according to the wording of the rule of the Institution relating to the appointment of a surgeon. "Every candidate for the office of surgeon, shall be a registered Fellow or Member of one of the Royal Colleges of Surgeons of the United Kingdom."

The objection is not sustained. Failing this, B., or his supporters, canvass the voters, informing them that A. is not eligible for the appointment, and cause this rumour to be freely circulated among the governors.

A., unaware of such action, until too late, finds, quite unexpectedly, that at the election B. has secured the appointment by having a majority of votes. However, a very great number of voters having plighted their troth to A., do not vote at all. Under these circumstances, can a fresh election be claimed by A., by stating his case before the committee? (A Member of the Edinburgh College of Surgeons, and of the College of Surgeons in Ireland, is called Licentiate.)—Yours sincerely, Jacobus.

*** There can be no moral, and, we think, no legal doubt, that the L.R.C.S.Edin., is included in and constitutes "membership," according to the true meaning and intent of the printed rule of the hospital in question; and, moreover, the objection to A.'s candidature was unsound in principle, and professionally wrong.

Whether or not, under the circumstances, the election can be annulled, is a question which it may perhaps be well for our correspondent to submit to his legal adviser, and for the consideration also of his more influential supporters.

MILITARY AND NAVAL MEDICAL SERVICES.

The *London Gazette* of June 5th, 1885, contains a notice from the War Office that Lieutenant-Colonel Commandant Pearson Robert Cresswell, F.R.C.S., commanding the 2nd Glamorgan Rifle Volunteer Corps, is granted the honorary rank of Colonel.

EXAMINATION OF RECRUITS.

Sir,—Is it consistent with professional etiquette, for any volunteer-surgeon to expect, in virtue of his appointment, to displace the civilian surgeon, who has for many years held his appointment from the Secretary of State for War, both for the medical examination of recruits, and attendance on sick members of the army who may be in his district?

The country has long been subdivided into districts, and special appointments have been given to civilian practitioners, where there were no resident army surgeons: a class of men whose long experience thoroughly qualify them for the position they hold, and who are quite as likely to discharge their duties to the army, as the best of volunteer surgeons, whose experience in the examination of recruits must be of a very limited order indeed.—Yours truly,

Salop. An Old Member.

*** It is not probable, under the circumstances named, that the authorities of the War Office would deprive the present holder of his appointment, and it would hardly be consistent with professional propriety for a brother practitioner, even though holding a volunteer charge, to seek to displace him from it.

ARMY MEDICAL SERVICE.

Surgeon-Major John Kinahan, M.D., has been granted retired pay, with the honorary rank of Brigade-Surgeon. He entered the service on August 5th, 1858; became Surgeon, March 1st, 1873; and Surgeon-Major, April 1st, 1873. Dr. Kinahan has recently returned from Egypt, whither he went in the summer of last year. He was also in Egypt during the campaign in 1882, and has the medal and Egyptian bronze star therefor.

Surgeon R. H. S. Sawyer, M.B., who went on half pay on November 19th, last, has been re-appointed Surgeon, *vice* R. Lesly, M.D., dead.

Mr. George Harrison has been appointed Surgeon to the Cheshire Yeomanry; Acting Surgeon H. F. Holland, M.D., to the 1st Bedfordshire Volunteers; and Acting-Surgeon Alfred Baker, to the 1st Volunteer Battalion of the Princess of Wales's Own Yorkshire Regiment (otherwise the 1st North Riding of Yorkshire Volunteers).

The undermentioned Surgeons on probation—namely, Samuel Hickson, M.B.; H. J. Fletcher, M.B.; S. H. Lindeman; Edward Davis; Simpson Powell, M.B.; F. W. C. Jones, M.B.; James Meek, M.D.; A. E. Morris, M.D.; Eugene Cormack, M.B.; Claudius O'Donel, M.D.; W. A. Carte, M.B.; A. O. Fitzgerald; F. D. Elderton; E. N. Sheldrake; R. E. Molesworth; J. W. F. Long; C. L. Josling; J. F. Bateson, M.B.; W. T. Swan, M.B.; Joseph Bulfin, M.B.; R. L. R. Macleod, M.B.; J. H. Curtis; G. G. Adams; M. F. Shine,

M.D.; W. B. Day. M.B.; D. R. Hamilton, M.B.; R. G. Thompson, M.D.; C. T. Blackwell; R. I. Power; C. R. Kilkelly, M.B.; W. H. Bean; N. C. Ferguson, M.B.; S. R. Wills; M. L. Hearn; S. L. Deeble; R. H. Hall, M.D.; W. H. Bennett, M.B.; J. H. Greenaway; R. G. Hanley, M.B.; W. H. Bell; Gerald Cree; S. C. Philson; J. M. Nicolls, M.B.; and F. W. H. D. Harris, have been appointed Surgeons.

Mr. J. H. Davidson, M.B., has been appointed Acting Surgeon to the 2nd Northumberland (the Percy) Artillery Volunteers; and Mr. T. B. Shaw has been appointed in the same capacity to the 2nd East Riding of Yorkshire Artillery Volunteers.

Surgeon J. H. Casson, from the 2nd Derbyshire Volunteers, and Surgeon W. H. Platt, from the 1st Tower Hamlets Volunteers (The Tower Hamlets Rifle Volunteer Brigade), have been appointed Surgeons to the Volunteer Medical Staff Corps.

Mr. J. E. Squire, M.D.; Mr. S. W. Sutton, M.D.; Mr. E. W. Willett; and Mr. W. E. St. M. Raw, have also been appointed Surgeons to the corps.

Mr. George Robertson has been made Quartermaster to the Volunteer Medical Staff Corps.

Brigade-Surgeon T. N. Hoysted has been appointed to the officiating administrative medical charge of the Rawul Pindee Division, during the absence of Deputy Surgeon-General J. Ferguson.

The leave to Australia on medical certificate granted to Surgeon E. M. D. Fitz-Gerald, M.D., has been extended to October 29th.

A telegram received at the War Office, dated Cairo, June 12th, informs us that Surgeon-Major P. R. Gabbett, and Surgeon K. S. Wallis, had arrived there, sick, from up Nile.

Deputy Surgeon-General O. Barnett, C.I.E.; Surgeons-Major J. B. Hamilton, M.D.: G. J. H. Evatt, M.D.; and A. H. Anthonisz, M.B.; Surgeons J. L. Peyton, M.B.; H. P. Birch, and F. H. Treherne, arrived at Portsmouth on Saturday last, in the Indian troopship *Jumna*.

The *Ganges*, which left Suakin on May 26th, with a considerable number of invalids, principally belonging to the Medical Staff, also arrived at Portsmouth on Saturday last.

Surgeon-Major F. Ferguson, according to a later telegram, had also arrived at Cairo, invalided; and Surgeon W. Turner had left Suakin, for England, in the *Loch Ard*.

Surgeon-General Francis Holton, M.B., died at 4, Randolph Gardens, Kilburn, on June 12th, aged 59. He entered the service as Assistant Surgeon, May 23rd, 1851; became Surgeon, August 24th, 1858; Surgeon-Major, May 14th, 1871; Deputy Surgeon-General, August 21st, 1879, and retired on September 3rd, last. He received the honorary rank of Surgeon-General on January 7th, last. He served in Bulgaria, Scutari, and the Crimea, during the war with Russia in 1854-56.

INDIAN MEDICAL SERVICE.

Surgeon G. A. Emerson, Bengal Establishment, has been appointed to the officiating medical charge of the 17th Native Infantry, Suakin, in the place of Surgeon-Major R. T. Lyons, who has been appointed to the charge of No. 2 Field Hospital, with the Indian contingent at Suakin.

Surgeons M. E. Reporter and A. G. E. Newland, both of the Madras Establishment, have passed the higher standard in Hindustani.

On the recommendation of a medical board, Surgeon-Major P. Cullen, M.D., Bengal Establishment, Civil Surgeon at Nimar, is permitted to proceed on furlough, in anticipation of the furlough which will be hereafter granted him by the Government of India.

Surgeon-Major R. Temple-Wright, M.D., Bengal Establishment, officiating Civil Surgeon at Jubbulpore, is appointed to the medical charge of the Central Gaol and Thuggee and Dacoity Establishment at Jubbulpore, to be superintendent of the Meteorological Observatory at Jubbulpore.

The services of Surgeon D. F. Dymott, M.B., Madras Establishment, Resident Surgeon General Hospital, and Professor of Pathology in the Medical College, are temporarily replaced at the disposal of the military department.

The undermentioned gentlemen have been granted leave of absence for the periods specified: Surgeon A. E. R. Stephens, Bengal Establishment, in medical charge of the 20th Native Infantry, for six months, to Australia, on medical certificate. Surgeon-Major R. Boustead, Bombay Establishment, to Europe for 183 days on medical certificate.

THE NAVY.

The following appointments have been made at the Admiralty during the past week: G. R. Moore to be Surgeon and Agent at Jersey; A. G. Wildey, Surgeon to the *Medina*; J. M'Martin, to the *Duke of Wellington*; A. G. Andrews, Surgeon, to the *Medway*.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Monday, June 15th.

Parliamentary Elections (Medical Relief) Bill.—Mr. Gladstone having moved the adjournment of the House, Mr. Collings hoped the motion would not be agreed to until after the introduction of his Bill to provide that no person shall be disqualified from voting at Parliamentary elections by the receipt of medical relief for himself or for his family. The measure, he said, was urgently desired by tens of thousands of the new voters, and he trusted that it might be read a first time that night.—Mr. Broadhurst supported the appeal. The enfranchising measure passed by the House would, in many thousands of cases, prove to be a mere mockery unless the Bill of his hon. friend were passed.—Mr. Biggar thought it was useless to introdu e the Bill, as there was no chance of its passing this session. —Mr. Warton, Mr. Reid, Mr. Kenny, Mr. Picton, and Mr. Callan also spoke.—Sir L. Playfair pointed out that, when they saw cholera breaking out over different parts at the present time, the most important measure was the immediate isolation of cases that might occur in public hospitals. If every voter who entered a hospital under such circumstances was to be disfranchised, one of the greatest sanitary measures would be rendered inoperative. All his hon. friend now asked was not to decide on the merits of the Bill, but merely permission to introduce it, in order that they might have an opportunity of rectifying an error.

The House divided, and the numbers were:

For the adjournment of the House	...	32
Against	...	55
Majority	...	—23

Leave was given to introduce the Bill.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In the 28 large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons, 5,563 births and 3,168 deaths were registered during the week ending June 13th. The annual rate of mortality, which had declined in the three preceding weeks from 21.1 to 20.5 per 1,000, further fell last week to 18.6. The rates in the several towns, ranged in order from the lowest, were as follow:—Derby, 10.5; Sunderland, 13.7; Halifax, 14.2; Wolverhampton, 14.5; Bristol, 15.3; Bradford, 15.3; Portsmouth, 15.5; Preston, 15.6; Nottingham, 16.3; London, 16.8; Leicester, 16.9; Birmingham, 17.1; Brighton, 17.3; Leeds, 17.9; Cardiff, 18.8; Hull, 19.9; Norwich, 20.0; Huddersfield, 20.3; Salford, 20.7; Birkenhead, 20.7; Oldham, 22.3; Bolton, 22.3; Liverpool, 23.4; Blackburn, 23.6; Sheffield, 23.7; Manchester, 26.5; Plymouth, 28.1; and Newcastle-upon-Tyne, 35.4. In the 27 pro-vincial towns the death-rate averaged 20.0 per 1,000, and exceeded by as much as 3.2 the rate recorded in London. The 3,168 deaths registered during the week in the 28 towns included 178 which resulted from measles, 102 from whooping-cough, 37 from diarrhœa, 32 from "fever" (principally enteric), 27 from diphtheria, 27 from small-pox, and 26 from scarlet fever; in all, 429 deaths were referred to the principal zymotic diseases, against 486 and 520 in the two preceding weeks. The zymotic death-rate was equal to an annual rate of 2.5 per 1,000. In London the zymotic rate was 2.8; while it averaged 2.3 per 1,000 in the 27 provincial towns, among which the zymotic rates ranged from 0.0 in Norwich, and Halifax, to 4.0 in Manchester, 4.8 Sheffield, and 5.8 in Newcastle-upon-Tyne. The deaths referred to measles, which had been 174 and 224 in the two previous weeks, declined last week to 178, and caused the largest proportional fatality in Manchester, Sheffield, and Newcastle-upon-Tyne. The 102 fatal cases of whooping-cough showed a marked decline from recent weekly numbers, and were fewer than in any week since the beginning of the year; this disease caused the highest rates in Oldham, Birkenhead, and Plymouth. The deaths referred to "fever," which had been 32 and 44 in the two previous weeks, declined again to 32; this disease was proportionally most fatal in Brighton and in Blackburn. The 27 deaths from diphtheria showed an increase of four upon the low number in the previous week, and included 17 in London, two in Portsmouth, and two in Liverpool. The fatal cases of scarlet fever, which had been 40, 26, and 31 in the three preceding weeks, declined again to 26 last week, showing the highest death-rates in Leicester and Sunderland. Of the 27 fatal cases of small-pox, 23 occurred in registration London (excluding 17 deaths of London residents from this disease registered in the Metropolitan Asylum Hospitals situated outside registration London), two in Hull, one in Manchester, and one in Sheffield. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 1,389 and 1,201 at the end of the two previous weeks, rose again to 1,221 on Saturday last; 204 new cases were admitted to these hospitals during the week, against 272 and 180 in the two preceding weeks. The death-rate from diseases of the respiratory organs in London was equal to 2.9 per 1,000, and was below the average. The causes of 66, or 2.1 per cent., of the 3,168 deaths registered in the 28 towns last week were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

During the week ending the 13th instant, 877 births and 502 deaths were registered in the eight principal Scotch towns, having an estimated population of 1,269,170 persons. The annual rate of mortality, which had been 20.5 and 21.8 per 1,000 in the two preceding weeks, declined to 20.6 last week, and exceeded by 2.1 per 1,000 the averate rate for the same period in the 28 large English towns. Among these Scotch towns, the rate was equal to 10.0 in Perth, 17.0 in Dundee, 17.0 in Aberdeen, 17.4 in Edinburgh, 20.2 in Paisley, 22.0 in Leith, 23.9 in Glasgow, and 24.0 in Greenock. The 502 deaths registered during last week included 63 which were referred to the principal zymotic diseases, against 59 and 74 in the two preceding weeks; of these, 22 resulted from whooping-cough, 13 from measles, 13 from diarrhœal diseases, seven from "fever" (principally enteric), five from diphtheria, three from scarlet fever, and not one from small-pox. These 63 deaths were equal to an annual rate of 2.6 per 1,000, which slightly exceeded the average zymotic death-rate in the 28 large English towns. The highest zymotic rates last week in the Scotch towns were recorded in Greenock and Leith. The 22 deaths from whooping-cough showed a further slight decline from recent weekly numbers, and included 12 in Glasgow, and six in Edinburgh. The fatal cases of measles, which had been 11 and 15 in the two preceding weeks, were 13 last week, of which seven occurred in Glasgow, three in Greenock, and two in Edinburgh. The seven deaths referred to "fever" exceeded by four the number in the previous week, and included four in Leith, and three in Glasgow. The five fatal cases of diphtheria were within one of the number in the preceding week; and of the three deaths from scarlet fever, one occurred in Glasgow, one in Aberdeen, and one in Paisley. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 3.9 per 1,000, against 2.9 in London. As many as 67, or 13.3 per cent., of the 502 deaths registered last week in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS.

During the week ending June 6th, the number of deaths registered in the 16 principal town-districts of Ireland was 492. The average annual death-rate represented by the deaths registered was 29.7 per 1,000. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000. Armagh, 25.8; Belfast, 43.3; Cork, 29.9; Drogheda, 50.7; Dublin, 23.0; Dundalk, 26.2; Galway, 10.1; Kilkenny, 25.4; Limerick, 35.1; Lisburn, 14.5; Londonderry, 32.1; Lurgan, 20.5; Newry, 31.6; Sligo, 19.2; Waterford, 13.9; Wexford, 25.7. The deaths from the principal zymotic diseases in the 16 districts were equal to an annual rate of 5.0 per 1,000, the rates varying from 0.0 in Galway, Kilkenny, Drogheda, Wexford, Dundalk, Sligo, and Lurgan, to 13.3 in Belfast; the 182 deaths from all causes registered in the last-named district comprising 46 from measles, one from scarlatina, three from whooping-cough, one from diphtheria, two from enteric fever, and three from diarrhœa. In the Dublin registration-district the deaths registered during the week amounted to 156. There were 18 deaths from zymotic diseases registered in Dublin: they comprised nine from measles, one from scarlet fever, two from whooping-cough, etc. Thirty deaths from diseases of the respiratory system were registered; they comprised 20 from bronchitis, and nine from pneumonia. The deaths of nine children under five years of age (including seven infants under one year old) were ascribed to convulsions. Two deaths were caused by apoplexy, two by epilepsy, eight by other diseases of the brain and nervous system (exclusive of convulsions), and six by diseases of the circulatory system. Phthisis or pulmonary consumption caused 25 deaths, mesenteric disease seven, tubercular meningitis nine, and cancer three.

In the week ending June 13th, 430 deaths were registered in the 16 principal town-districts of Ireland. The average annual death-rate represented by the deaths registered was 26.0 per 1,000. The deaths registered in each of the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Armagh, 10.3; Belfast, 30.4; Cork, 18.2; Drogheda, 33.8; Dublin, 28.4; Dundalk, 21.8; Galway, 30.3; Kilkenny, 21.1; Limerick, 18.9; Lisburn, 29.0; Londonderry, 12.5; Lurgan, 0.0; Newry, 35.1; Sligo, 24.1; Waterford, 18.5; Wexford, 12.8. The deaths from the principal zymotic dieeases were equal to an annual rate of 3.6 per 1,000, the rates varying from 0.0 in 11 of the districts to 9.7 in Lisburn. Among the 128 deaths registered in Belfast were 29 from measles and three from whooping-cough. In the Dublin Registration District, the deaths registered during the week amounted to 197. Thirty-three deaths from zymotic diseases were registered; they comprised 11 from measles, three from scarlet fever, two from whooping-cough, seven from cerebro-spinal fever, five from enteric fever, etc. Thirty-five deaths from diseases of the respiratory system were registered; they comprised 19 from bronchitis and seven from pneumonia. The deaths of 15 children under five years of age (including 12 infants under one year old) were ascribed to convulsions. Five deaths were caused by apoplexy, eight by other diseases of the brain and nervous system (exclusive of convulsions), and 11 by diseases of the circulatory system. Phthisis or pulmonary consumption caused 26 deaths, mesenteric disease four, tubercular meningitis six, and cancer two. Nine accidental deaths and one case of suicide were registered. In 25 instances there was "no medical attendant" during the last illness.

HEALTH OF FOREIGN CITIES.

It appears from statistics published in the Registrar-General's return for the week ending June 6th, that the annual death-rate recently averaged 31.1 per 1,000 in the three principal Indian cities: it was equal to 25.1 in Bombay, 33.3 in Madras, and 35.1 in Calcutta. Cholera caused 70 deaths in Calcutta; and fever-mortality showed the greatest excess in Bombay, where it had further increased. According to the most recently received weekly returns, the annual death-rate per 1,000 in twenty of the largest European cities averaged 26.0, and was 5.5 above the mean rate during the week in the twenty-eight large English towns. The death-rate in St. Petersburg was 33.2, and higher than that which prevailed in the previous week; the 590 deaths included 22 from "fever," 12 from measles, and 10 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 24.0, and ranged from 19.5 in Christiania to 26.5 in Stockholm; diphtheria and croup caused 7 deaths in Christiania, 6 in Copenhagen, and 4 in Stockholm; and 5 deaths from scarlet fever occurred in Christiania. The death-rate in Paris was 24.9, showing a further slight decline from rates in recent weeks, but exceeding the rate in London by 5.5; the deaths included 44 from measles, 36 from diphtheria and croup, and 20 from typhoid fever. The 198 deaths in Brussels, of which 7 resulted from croup and 2 from measles, were equal to a rate of 24.0. In Geneva, the 31 deaths gave a rate of 22.6. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 23.1, the highest rate being 24.0 in the Hague; diphtheria and croup caused 5 deaths in Amsterdam, and 2 deaths from scarlet fever occurred in Rotterdam. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 28.3, and ranged from 22.6 in Berlin and 25.4 in Dresden, to 33.6 in Breslau and 34.1 in Vienna. Small-pox caused 33 deaths in Vienna, and 2 in Buda-Pesth; and diphtheria-fatality was greatest in Berlin, Hamburg, and Dresden. In Rome, the death-rate did not exceed 19.1, while in Venice it was equal to 26.3. Small-pox caused 3 deaths in Venice, and measles 2 in Rome. No returns appear to have been received from Madrid or Lisbon. The 139 deaths in Alexandria included 3 from small-pox and 4 from "fever," and were equal to a rate of 31.2. In four of the largest American cities, the recorded death-rate averaged 23.4, and ranged from 16.1 in Baltimore to 27.1 in New York. Scarlet fever and diphtheria showed more or less fatal prevalence in each of these American cities; measles caused 36 deaths in New York and Brooklyn.

It appears from statistics published in the Registrar-General's return for the week ending June 13th, that the death-rate recently averaged 28.6 per 1,000 in the three principal Indian cities; it was 25.6 in Bombay, 27.5 in Calcutta, and 30.7 in Madras. Cholera caused 65, and small-pox 10, deaths in Calcutta; "fever-mortality showed the largest excess in Bombay, where 14 fatal cases of measles were reported. According to the most recently received weekly returns, the average annual death-rate per 1,000 persons estimated to be living in 19 of the largest European cities was equal to 26.8, and was no less than 8.2 above the mean rate during the week in the 28 large English towns. The death-rate in St. Petersburg was 31.6, and showed a decline from the high rate in the previous week; the 562 deaths included 14 from measles and 11 from diphtheria. In three other northern cities—Copenhagen, Christiania, and Stockholm—the death-rate averaged 23.8, and was equal to 19.5 in Christiania, and 24.4 in Copenhagen and in Stockholm; scarlet fever, diphtheria, and croup showed more or less fatal prevalence in each of these cities. In Paris, the death-rate was 24.1, and showed a further decline from the rates in recent weeks, but was 7.3 above the rate last week in London. The 185 deaths in Brussels, of which eight resulted from croup, were equal to a rate of 21.8. In Geneva, the 25 deaths gave a rate of 18.2. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 22.1, the rates ranging from 19.9 in Amsterdam to 25.8 in Rotterdam; the 141 deaths in Amsterdam included five from whooping-cough and four from scarlet-fever. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 28.9, and ranged from 23.2 in Berlin and 25.6 in Dresden, to 34.5 in Munich and 35.7 in Buda-Pesth. Diphtheria showed fatal prevalence in most of these German cities, especially in Berlin; small-pox caused 22 deaths in Vienna. Venice is the only Italian city furnishing a return for the Registrar-General's last weekly return; the 73 deaths in this city, of which typhoid fever caused four, were equal to a rate of 26.3. No weekly returns have been recently received either from Madrid or from Lisbon. The 150 deaths in Alexandria included seven from whooping-cough, and were equal to a rate of 33.7. In four of the largest American cities, the mean recorded death-rate was 22.6; the rates ranged from 16.6 in Baltimore to 25.3 in New York. Diphtheria and scarlet fever caused considerable mortality in New York and Brooklyn; and in Philadelphia, the 399 deaths included 28 from diphtheria and croup, and 10 from scarlet fever, or nearly 10 per cent. of the total deaths.

CERTIFICATION OF HARMLESS LUNATICS.

Sir,—Will you be good enough to favour me with your advice under the following circumstances?

A widow applies for out-door medical relief for her daughter, and receives an order. I attend, and find the girl, aged 18, to be suffering from dementia of six years' standing, with great physical debility. She is evidently perfectly harmless, and a proper person to be left at home with her mother.

An application is now made to the Board for out-door pecuniary relief; consequently I am called upon to certify. If I certify that the patient is of unsound mind, the relieving officer will have to procure a magisterial investigation, which will cost the ratepayers about eighteen shillings, and will result in the patient's being left where she is. If, to avoid this, I merely certify respecting the physical condition, I shall be placed in an awkward position when I send in my quarterly return, in which I have to state that the list contains all the paupers of unsound mind in my district.—Yours faithfully,

H. E. Spencer, District Medical Officer, York Union.

23, Monkgate, York.

*** There is only one course for a district medical officer to follow, and that is the strictly legal one, and that consists in his reporting to the relieving officer that A. or B., as the case may be, is a harmless demented person, and as such might be safely entrusted to the care of his or her friends. It is no part of a district or workhouse medical officer's duty to consider the cost which may accrue from the honest expression of his opinion on any case which officially comes before him. The exhibition of an economic spirit will never be acknowledged by any board of guardians; on the contrary, it may not improbably lead to censure being incurred for his entertaining it.

MEDICAL NEWS.

Society of Apothecaries of London.—The following gentleman passed the Examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, June 4th, 1885.

Shaw, William Wright, M.R.C.S.Eng, St. Bartholomew's Hospital.

The following gentlemen also on the same day passed their Primary Professional Examination.

Ellis, William Gilmour, St. Bartholomew's Hospital.
Rendall, Percy John, St. Bartholomew's Hospital.
Sparrow, John Elliotson Pennington, King's College.

The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 11th, 1885.

Cook, Alexander, L.F.P.S.Glasgow, Argyle Place, Edinburgh.
Stericker, Frederick Walter, M.B.Camb., M.R.C.S.Eng., St. Saviours, Jersey.

MEDICAL VACANCIES.

The following vacancies are announced.

BOROUGH OF LEICESTER.—Medical Officer of Health. Salary, £500 per annum. Applications by June 23rd.

BRADFORD INFIRMARY AND DISPENSARY.—Two Honorary Physicians. 2 Honorary Medical Officers, and 1 Honorary Surgeon. Applications by June 24th.

CHELTENHAM GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum. Applications by July 1st.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E. Resident Clinical Assistant. Applications to the Secretary, 24, Finsbury Circus, E.C.

CLAYTON HOSPITAL AND GENERAL DISPENSARY, Wakefield.—House Surgeon. Salary, £120 per annum. Applications by June 22nd.

CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park Place, Manchester.—House-Surgeon. Salary, £80. Applications to Mr. Hubert Teague, 38, Barton Arcade, Manchester.

CUMBERLAND INFIRMARY, Carlisle.—Assistant House-Surgeon. Salary, £40 per annum. Applications by June 23rd.

CROYDON UNION (New Infirmary).—Assistant Medical Superintendent and Dispenser. Salary, £125 per annum. Applications, endorsed "application for Assistant Medical Superintendent and Dispenser," by June 20th.

CROYDON UNION.—Medical Superintendent to the New Infirmary, and Medical Officer of the Workhouse. Salary, £200 as Medical Superintendent, and £100 as Medical Officer of the Workhouse. Applications, endorsed "application for medical appointment," by June 20th.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, and Gartside Street, Manchester.—Junior Resident Medical Officer. Salary, £80 per annum. Applications by June 30th.

GENERAL HOSPITAL FOR SICK CHILDREN.—Medical Officer to the Dispensary. Salary, £180 per annum. Applications by June 30th.

HARTLEPOOL FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary, £120 per annum. Applications to T. Tweddell, Commercial Terrace, West Hartlepool.

OWENS COLLEGE, Manchester.—Professor of Obstetrics. Applications by June 25th.

RICHMOND HOSPITAL.—House-Surgeon. Salary, £80 per annum. Applications by July 1st.

SHEFFIELD GENERAL INFIRMARY.—Physician. Applications by June 26th.

ST. HELEN'S FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.—Medical Officer. Applications to Mr. E. Fidler, Boundary Road, by June 20th.

ST. JOHN'S HOSPITAL FOR SKIN-DISEASES, Leicester Square, W.C.—Four Clinical Clerks. Applications by June 20th.

WEST BROMWICH FRIENDLY SOCIETIES' MEDICAL ALLIANCE.—Resident Medical Officer. Salary, £200 per annum. Applications to Mr. G. Abbott, 9, St. James Road, Sheffield.

WEST LONDON HOSPITAL, Hammersmith.—Physician. Applications by June 29th.

WEST RIDING LUNATIC ASYLUM, Wakefield.—Resident Clinical Assistant. Applications to the Medical Superintendent.

MEDICAL APPOINTMENTS.

BLACK, William G., M.R.C.S., elected Honorary Surgeon to the Children's Hospital, Newcastle-on-Tyne, *vice* F. Page, M.D., whose term of office has expired.

DAVIS, Henry, M.R.C.S.Eng., L.S.A.Lond., appointed Second Chloroformist to the Middlesex Hospital.

GRANGER, Farington M., M.R.C.S., L.R.C.P.Lond., appointed Ophthalmic Surgeon to the Chester General Infirmary.

HOUSEMAN, James Gilpin, M.B., Physician to Newcastle-on-Tyne Sick Children's Hospital, *vice* David Drummond, M.D., resigned.

LACEY, Thomas Samuel, L.R.C.S.I. and L.M., L.R.C.P.E., appointed Medical Officer for the Royton and Thornham District of the Oldham Union.

LIMONT, James, M.A., B.Sc., M.B., appointed Honorar Physician to the Infirmary, Newcastle-upon-Tyne.

MCMURRAY, John, M.D., M.Ch., M.A.O. (R.U.I.), appointed Assistant Medical Officer to the Parish Infirmary (Liverpool), *vice* J. G. Barns, L.R.C.P.Lond. M.R.C.S.Eng., resigned.

PITT, George Newton, M.A., M.D., M.R.C.P., appointed Medical Registrar and Demonstrator of Practical Medicine to Guy's Hospital.

RATTON, Surgeon-Major James J. L., M.D., appointed Professor of Surgery and Senior Surgeon to the General Hospital at Madras.

STEWART, Mr. G. Eland, M.R.C.S., L.R.C.P., appointed Resident Medical Officer to the Hospital for Diseases of the Throat, in Golden Square.

WELSH, R. C., M.B., appointed House Surgeon to the North Dispensary, Liverpool, *vice* J. McMurray, M.D.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTHS.

EMERSON.—May 23rd, at Hampstead, the wife of P. H. Emerson, B.A., M.B. Cantab., of a daughter.

IMAGE.—On June 12th, at St. Margaret's, Bury St. Edmunds, the wife of Francis E. Image, M.B.Cantab., of twin daughters.

NICHOLLS.—On May 23rd, at Dominica, West Indies, the wife of H. A. Alford Nicholls, M.D., C.M., M.R.C.S., of a son.

MARRIAGES.

GIBB—ADAMSON.—On June 10th, at Ava Lodge, Magdalen Green, Dundee, William Gibb, L.R.C.P., etc., Ed., to Annie, second daughter of John Adamson, Esq.

SHADWELL—WHITTINGHAM.—At Walthamstow, on June 17th, St. Clair B. Shadwell, L.R.C.P.Lond., eldest son of J. B. Shadwell, Esq., I.C.S., of Cherrapoonjee, Bengal, to Marion Alice, second daughter of W. B. Whittingham, Esq., of North View, Walthamstow.

DEATH.

GROVER.—At George Street West, Luton, Beds., on June 16th, Montague Grover, M.R.C.S.Eng. (Grover and Sworder), aged 83 years.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—British Gynæcological Society. Specimens will be shown. Adjourned discussion on Dr. More Madden's paper on Fibro-myomata.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M.W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12,

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S, 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

The Cure of Writers' Cramp.

Sir,—Under the above heading, a very interesting article by Dr. De Watteville appeared in the British Medical Journal of February 14th. The successful treatment of this intractable complaint consisted of the daily use of "massage," with gymnastic exercises, active and passive. The article was particularly interesting to me from the fact that I had had, a short time previously, under my care a case of writers' cramp, in which my efforts had met with no success. My patient was about to take a long holiday at my instigation; but after reading the article alluded to, I begged him to submit to the "massage," and postpone his holiday.

G. S., aged 40, is a partner in a large business. His occupation is indoors, but not sedentary, and he generally spends about three hours a day writing. About fifteen months ago, he felt a stiffness and awkwardness in using the pen. He continued to write, but the fingers and thumb became more and more clumsy, and unable to guide the pen. About seven months ago, as soon as he began to write, the fingers and thumb became flexed, and it was almost impossible to hold the pen at all. At this time, Mr. G. S. came under my care. Various forms of galvanism were tried, with friction to the muscles, together with, in turn, various tonics and sedatives. Writing was given up almost entirely, and one of Mathieu's instruments was procured to aid him in signing cheques, or in any use of the pen that was absolutely necessary. No improvement whatever followed the treatment, and it was altogether discontinued till Dr. De Watteville's article appeared in the Journal.

Soon after this date, Mr. G. S. began the treatment by massage and gymnastic exercises. The muscles of the hand and arm were thoroughly kneaded, stretched, beaten, and rubbed for half an hour every morning and evening for a month, either by myself or according to my instructions; and during the day the patient exercised the various muscles himself with India-rubber bands and balls. A very marked increase in the size of the muscles, both of the hand and arm, followed the treatment. They became hard, firm, and full, instead of flabby and small, as they previously were; but this was the only improvement noticeable. At any attempt to write, the forefinger chiefly, and the thumb and second finger to a less extent, become flexed upon the pen, and in a very short time the act of writing becomes impossible.

Throughout the case, my patient's health has been fairly good, and he has suffered little or no pain. He is somewhat nervous in temperament, in which particular other members of the family resemble him. The father died suddenly, of apoplexy, at 60 years of age. The mother also died quite suddenly, of heart-disease, aged 40. My patient now proposes to take a long sea-voyage, and entirely give up all attempts to use the pen for many months, in the hope that nature, left to work her own course, may effect what art has failed to do.—Yours obediently,

Edward E. Meeres, M.D., M.R.C.P.

Plymouth.

Alopecia Areata and Ringworm.

Sir,—May I be allowed space to make a few observations on Dr. Tom Robinson's remarks under Clinical Memoranda in the Journal of May 23rd, on the above subject?

In the first place, such a case as Dr. Robinson describes, of combined alopecia and ringworm, has often been seen before and noted in the Journals, especially by Drs. Liveing and Stowers. Such mixed cases are not very rare, and I have seen many such; and this year have had a gentleman under my care with parasitic sycosis and alopecia areata. Dr. Liveing has called attention to the occurrence of bald places in ordinary ringworm, and remarks as follows: "Tinea tonsurans occasionally produces perfectly smooth, bald, shining patches of the skin, bearing a close resemblance to alopecia areata."

There is no doubt that patches of tinea tonsurans under some forms of treatment may be transformed into bald places, that cannot be distinguished from alopecia coming on from other causes. I have many times seen an alcoholic and etherial solution of boracic acid do this; and Dr. Liveing has reported a similar case in the Journal for April 8th, 1882. The occurrence of these mixed and alternating cases of ringworm of the head and alopecia have led to two mistakes; first, that alopecia areata is a parasitic disease (the old tinea decalvans); and, secondly, that alopecia is sometimes contagious. Alopecia areata is quite a distinct affection from tinea tonsurans; and though patches of tinea tonsurans may at times, through treatment, or even without treatment, pass into bald places that are indistinguishable from alopecia areata, and quite free from diseased stumps and hairs, yet it is also certain that alopecia areata never passes into tinea tonsurans, and children with it may safely be admitted into schools.

The reported cases of spreading alopecia have probably been mixed cases of alopecia and ringworm.

Dr. Tom Robinson remarks: "One-half of the circumference of the ringworm on the neck extended into the hair-roots, but the hairs were not broken off, as we see on the scalps of young children with the same malady."

This is so in the very early stage of parasitic sycosis, when it is just like ringworm of the skin, but the fungus soon invades the substance of the hairs, and renders them brittle; and then they may be seen to be broken off, as in ringworm of the head. This constitutes the first stage of the disease, which is followed by induration and swelling, the so-called second stage.

Dr. Robinson then ends his letter with three axioms, which, he thinks, spring from the facts he mentions, but with which I entirely disagree.

1. "We have a common cause for the three diseases."

Of course, ringworm of the body and parasitic sycosis are due to the action of the same fungus upon different parts, but certainly alopecia areata and ringworm bear no relation to one another, except in the way I have mentioned.

2. "Adults do not develop on the scalp the condition which is known as tinea tonsurans."

Here, again, I cannot agree with Dr. Robinson; for, though ringworm of the head in adults—and even after sixteen—is a very rare disease, yet I have seen three typical cases in persons over twenty-five years of age.

3. "Alopecia areata is the prototype of tinea tonsurans."

I think few will agree with this statement; for, though tinea tonsurans may be transformed into bald spots resembling alopecia areata, yet it is certain alopecia areata never passes into tinea tonsurans, but is a disease associated with an atrophied condition of the hair-bulbs, and is due to a state of perverted nutrition, and is in no way connected with any vegetable parasite.

Dr. Liveing has so clearly proved this in his paper read before the International Medical Congress, that it is superfluous to add more on the subject.—I am, etc.,

Alder Smith, M.B., F.R.C.S.

Christ's Hospital, E.C.

Consistency. Invertebrate animals such as snails, are not protected by the Vivisection Act, which applies only to vertebrate animals.

Incontinence of Urine and Fæces.

Sir,—Perhaps the account of the following case may be of help to "M.B., C.M." in his treatment of his patient suffering from incontinence of urine and fæces (British Medical Journal, May 30th).

A little girl, aged 7, came under my care suffering from incontinence of urine, worse at night, but continuing throughout the day. She had suffered from this ailment from birth, and had been several times under treatment, but with no benefit. Belladonna-tincture was first tried, in increasing doses until a drachm dose was given twice a day, without any effect. Very little fluid was taken; and the patient was roused after a few hours' sleep to pass urine. The incontinence still continued. No worms had been observed; but, it being thought that some irritation might be the cause, liquid extract of male fern was administered, and several worms (ascarides lumbricoides) came away. The male fern was continued until no more worms were passed; but the incontinence continued. The bladder was sounded, but no stone was present, and the urethra was quite healthy and normally developed.

Liquid extract of ergot, in doses of 15 minims, with three drops of liquor strychniæ, was then given three times a day. In three days, the incontinence ceased, and only returned once, after a fortnight's entire cessation, when it was again controlled by the ergot and strychnia. The last time I heard of the child, it had had some return of the old trouble, but it had then been without medicine some weeks. I advised the medicine to be continued for at least a fortnight after the incontinence ceased, and then the patient to see me, if not free from the incontinence. She has not called, so it is to be presumed the ergot and strychnia have again proved successful. The child is a very nervous child, there is a very neurotic history in the family; it seems probable, therefore, that the successful remedy acted mostly, if not entirely, through the nervous system.—I am, etc.,

Bournemouth. T. Fred. Gardner, L.R.C.P.Lond., M.R.C.S.E., L.S.A.

Sir,—I advise your correspondent "M.B., C.M." (Journal, May 30th, p. 1137) to try the effect of bromide of potassium on his little patient, beginning with a dose of five grains, and gradually increasing it to ten grains, three times a day. The first dose should be given before getting up, the second at noon, and the third on going to bed. The remedy may be given with the liquor cinchonæ, or a few drops of sal volatile and syrup. The disease is of neurotic origin.—I am, sir, very faithfully yours,

William H. Day, M.D.

Sir,—The case described under this title is one which is not likely to be benefited by any specific medication. Easton's syrup, which contains strychnia, is more likely to increase the mischief by still further exciting the reflex activity of the cord. Bromide might prove of more service. The condition of the little patient is one, however, which is sure to improve with time. It depends upon a constitutional defect, which the further evolution of the nerve-centres will to a certain extent correct; and the symptom complained of tends, in my experience, to disappear when the child reaches the age of 8 or 10. It must not be forgotten, however, that it is a phenomenon of grave omen for the future, and frequently constitutes a premonitory sign of ulterior neuropathic troubles, organic or functional. The whole hygiene and education of the child should be governed in consequence.—I am, etc.,

A. de Watteville.

A Voyage to New Zealand.

Sir,—On reading the British Medical Journal of May 9th, I was glad to find that some one had at last drawn the attention of the profession to the somewhat reckless way in which pulmonary patients are often shipped off by their medical men for a voyage to the Antipodes to escape the winter in England. To New Zealand by sailing-ship seems to be the favourite prescription in these cases; and, as one who has undergone it, perhaps I may be allowed to point out some other dangers attending it, as well as to emphasise those already mentioned by your correspondent.

In the first place, I must take exception to the choice of a sailing-ship as the best conveyance for an invalid. Taking the average passage of such a ship to New Zealand as three months, it must be considered that more than half that time will be spent in cold weather, some of it perhaps among the ice off the Cape. Now, sir, but very few of the passenger-ships running out there have any means whatever of warming the saloon or state-rooms, and the wretched passengers are condemned to return from the icy gales on deck into a saloon which has been heated, perhaps, one or two degrees higher than the external air, by the combined efforts of paraffin-lamps and the products of respiration of the passengers. Of course, all ventilators and ports are screwed down to keep the water out, and hence the state of the atmosphere in the saloon is hardly conducive to recovery in pulmonary disease. A good many more indictments might be brought against sailing-ships, but as this is the chief, I shall content myself with mentioning it. In the well appointed steamers now running, all this is different; the cabins are heated by steam, and everything is conducive to enjoyment and recovery; in fact, under these conditions, the westerly gales in the South Atlantic do as much good as the pleasant warmth of the Trades.

With regard to New Zealand as a health-resort, practitioners would do well to remember that the country extends almost due north and nouth, and that there is as much or more difference between the climates of its two extremes as there is between those of John O'Groat and the Land's End. Again, although the actual range of temperature in New Zealand seems to be small, yet those who have suffered know in how very short a time that change will take place. The change from warm sunshine to a biting wind in half an hour in winter is common enough; and in summer, from hot to suffocating, only requires the wind to chop round to the N.W.

Auckland has undoubtedly the most equable climate, and then perhaps comes Nelson. Dunedin, Christchurch, and Wellington should not be recommended.—I am, sir, yours truly,

Viator.

Practice in Australia.

Sir,—In the Journal for April 4th, a member in Australia gives a kindly warning to medical men, before seeking practice in that country.

I wish to state that the warning may be taken *cum grano salis*, although doubtless the motives of your correspondent are quite disinterested. In answer to the warning, I give an extract from a letter received last month from my brother, who has been in practice in Sydney for the last three years. He says there is plenty of scope for practice in the colony, and nearly all medical men are doing well; and he would strongly advise another brother and myself (both in practice) to come out there at once, as he would rather see his brothers prospering than strangers.

In the absence of further information corroborative of this statement from other sources, comments from me are superfluous.—I am, etc.,

Verbum Sap.

ROYAL MEDICAL BENEVOLENT COLLEGE.

SIR,—The thirty-first election of pensioners and foundation scholars, to this institution, took place on Thursday last; and, for certain reasons which I trust you will permit me to lay before your readers, it may be said to have been somewhat disappointing. To those who were at the pains and trouble of bringing about what was hoped would effect a considerable change for the better in the mode of election of candidates, it will appear disheartening. In 1879, it was resolved to constitute a committee of examination, "whose duty it shall be to carefully investigate the claims of those who have been admitted by the Council as candidates, and select a number equal to the number of vacancies, who, in the opinion of the Committee, best deserve election, and whose cases or claims are the most urgent." This rule in no way deprives any governor of his right of voting for any candidate; and no scheme can have been devised under the present by-laws of the College which seems, on the whole, better calculated to influence benevolent opinion towards the adoption of measures which shall more effectually secure the objects for which the charitable part of the institution exists.

No one, who has watched the results, will for a moment allow that the task assigned to the Committee of Examination, although a delicate and difficult one, has not been most faithfully and impartially performed. Nevertheless, it can hardly be denied that the recommendations of the Committee have not received the attention it was hoped they would receive, from the great body of subscribers; and whereby it was expected, by those who are well acquainted with the evils of the canvassing system, that the most necessitous would be less likely to be thrust aside by those who can afford a lavish expenditure, and secure the help of traffickers in votes. The result of this year's election is certainly less assuring on this point. There were no fewer than 23 candidates on the list for three vacant pensionerships, and 53 for eight foundation scholarships; and although the names of the three elected pensioners appear among those recommended by the Committee, one narrowly succeeded by a chance death-vacancy, after the list was sent out; otherwise, at the age of 69, and, on the fourth application, she would have been once more doomed to disappointment. Of the 23 candidates, only four had in any way subscribed or contributed to the College. The applicants for foundation scholarships recommended for election, were on this occasion less successful than on any previous occasion; only three were elected; one of the three having been subjected to the grevious burden of an expensive canvass for five years, the others for four and three years. Of the fortunate five who displaced those recommended by the Committee, one was up for the third, three for the second, and one for the first time. Of the whole number of applicants, 53, only eight of their parents had contributed towards the support of the College, although it appears all had been in practice for a number of years, periods varying from 10 to 40 years. It would be very difficult to say why so large a majority of the votes of the governors should on this occasion have been secured by outsiders—those who, after the most careful consideration by a Committee of the Council, were reported as less urgent and deserving than those whose names appear in the printed list sent out with the voting papers. It is true that one of the more fortunate five was 14 years of age, and would, therefore, if not elected this year, have been ineligible by age; but this was only his second application, and his father had not subscribed a shilling to the College. Of the rest (one was a candidate for the first time), it may very fairly be said that their claims were in no way more urgent, nor stronger, than those especially recommended; and, what is somewhat more remarkable, not one of the eight orphans of those who in their life-time had contributed to the College, was on the successful list, or fared better for the self-denial and providence evinced by his parents.

The result of this election seems to imply that a large number of governors lend themselves to the importunities of professional canvassers and traffickers in votes, and in this way the action of the Committee of Examination is heavily handicapped by people who never contribute, or are likely to contribute, towards the support of the institution, and whose interest in it dates from the time they take up the cause of a candidate, and ceases as soon as his election is secured. In this matter it appears to me that the provident are made to suffer for the improvident and apathetic in the cause of charity; and is this not a burning question, and one which must affect the future prosperity of the College? Indeed, the Council appear to be alive to the fact, for in their annual report they lament the greatly increasing pressure for admission to the benefits of the institution; and who, on reading over the long list of applicants, can fail to sympathise with them? The list of names is, in truth, longer than usual, while the subscription-list is falling off, and by no means keeps pace with the bitter cry for help.

Something, surely, might be done to relieve the plethora of candidates. A change in the by-laws, enacting a contributory qualification, as in other special charities, seems to be demanded. The benefits of the charity should be limited to subscribers, or those who have subscribed. I would suggest a by-law to the effect that in no case shall the name of an applicant for a pensionership or foundation-scholar be placed on the list, unless he or she (or the parents of the boy) shall have subscribed to the College for at least two years.—I remain, sir, your obedient servant, JABEZ HOGG.

1, Bedford Square.

A CAUTION.

MESSRS. BURROUGHS, WELLCOME, and Co., of Snow Hill Buildings, E.C., have asked us to state that a person calling himself Dr. Cecil H. Cook, and claiming to represent them, has no authority to do so, and has no connection with them whatever, and that they will not be responsible for any liabilities he may contract. They request that any person knowing where he is to be found will communicate with the authorities at Scotland Yard.

A QUESTION OF TREATMENT.

IN reply to "Alpha" (*see* BRITISH MEDICAL JOURNAL, June 6th, p. 1184), Dr. Maurice G. Evans (Cardiff) recommends a trial of the following: Bismuthi trisnitris gr. v: magnesiæ carbonatis, gr. v; carbonis ligni gr. x; M. To be taken three times a day, well stirred up in a wineglassful of water, immediately after meals. In the majority of cases the voluminous generation of gas is due to some abnormal fermentation of the intestinal secretions which the charcoal prevents. "Alpha" will confer a favour by communicating the results to Dr. Evans.

SUBSCRIBER A. B.—There can be no objection to a temperate and accurate statement of fact being made on such a subject, through any legitimate channel; but the statement should be rigidly confined to accurately ascertained facts.

LOCUM TENENS is referred to the answer which we ave on the same subject las week.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. J. F. Howard, Shaw; Mr. G. C. Searle, Brixham; Mr. E. A. Hart, London; The Secretary of St. Mary's Hospital; Dr. Jno. Phillips, London; Dr. R. N. Ingle, Cambridge; Mr. W. G. Black, Newcastle-on-Tyne; Mr. W. T. Gardiner, London; Dr. Styrap, Shrewsbury; Dr. Fitch, Nova Scotia; Mr. Dodsworth, London; Dr. Myers, London; Mr. F. Swinford Edwards, London; Dr. J. J. K. Fairclough, Old Trafford; Dr. D. McRitchie, London; Mr. E. White Wallis, London; Dr. Maxwell, Woolwich; Mr. J. W. Hayward, Whitstable; Mr. Lund, Manchester; Mr. J. Binks, Wakefield; Dr. George Newton Pitt, London; Mr. H. H. Fowler, London; Mr. F. H. Spooner, London; Mr. C. B. Plowright, King's Lynn; Dr. Huggard, Geneva; Dr. W. Marcet, London; The Rev. A. J. D. D'Orsey, London; Mr. George Owen Willis, Henley-on-Thames; Mr. Samuel Nall, Disley; Dr. Heywood Smith, London; Mr. Wagstaffe, Sevenoaks; A Member; the Rev. W. Venables Williams, Colwyn Bay; Messrs. Steel and Jones, London; Mr. H. A. Bredin, Bootle; Mr. F. J. Turner, Gunnerside; Mr. W. Hood, York; Mr. J. Sidney Hunt, Shepton Mallett; Dr. Clark Bell, New York; Mr. James Marshall, Glasgow; Mr. J. Storey, Leicester; Dr. Parsons, Dover; Mr. W. Smith, Ballymena; Mr. R. Greene, Liverpool; Dr. Pavy, London; Dr. A. Hill, Birmingham; Mr. P. H. Emerson, Southwold; Surgeon-Major F. W. S. Hodder, Newry; Mr. J. V. Solomon, Birmingham; Mr. G. L. Fraser, Newcastle-on-Tyne; Our Birmingham Correspondent; Dr. Murphy, Sunderland; Mr. F. Broadbent, South Collingham; Dr. R. T. Kinkead, Galway; Mr. J. Sarjant, Worcester; Dr. T. Spencer Cobbold, London; Mr. T. F. Raven, Broadstairs; Our Paris Correspondent; Mr. T. B. Ireland, Tadcaster; Mr. G. E. Stewart, London; Dr. N. Kerr, London; Dr. J. W. Moore, Dublin; Mr. Durham, London; Dr. D. Drummond, Newcastle-on-Tyne; Mr. Charles Stewart, London; Our Dublin Correspondent; Dr. Gibson, Edinburgh; Our Edinburgh Correspondent; Our Correspondent in Rome; Mr. W. I. Keir, Melksham; Mr. T. J. Clancy, Cork; Mr. W. Davenport Adams, London; Our Berlin Correspondent; Mr. A. H. Young, London; Mr. W. Whitehead, Manchester; The Secretary of the National Hospital, London; Mr. Jno. Alcock, Burslem; Messrs. Burn and Galloway, London; Mr. F. J. Gant, London; Messrs. Raphael Tuck and Sons, London; Mr. A. W. Mayo Robson, Leeds; Dr. J. Weston Bull, London; Mr. John Furley, London; Mr. J. Vesey Fitzgerald, Birmingham; Mr. H. W. Phillips, Bolton; Mr. T. P. Devlin, Finstown, Orkney; Dr. F. P. Atkinson, Surbiton, etc.

BOOKS, ETC., RECEIVED.

Ringworm, its Diagnosis and Treatment. By Alder Smith, M.B. Third Edition. London: H. K. Lewis. 1885.

Transactions of the American Gynæcological Society for the Year 1884. Vol. IX. New York: D. Appleton and Co. 1885.

The Nature of Mind and Human Automatism. By Morton Prince, M.D. Philadelphia: J. B. Lippincott and Co. 1885.

Gout. By Robson Roose, M.D. London: H. K. Lewis. 1885.

Bedside Urine Testing. By G. Oliver, M.D. London: H. K. Lewis. 1885.

Frozen Sections of a Child. By T. Dwight, M.D. New York: W. Wood and Co. 1881.

Gout in its Clinical Aspects. By J. Mortimer Granville, M.D. London: J. and A. Churchill. 1885.

Year-Book of the Scientific and Learned Societies of Great Britain and Ireland. London: Griffin and Co. 1885.

Diseases of the Tongue. By H. T. Batlin, F.R.C.S. London: Cassell and Co., Limited. 1885.

A System of Obstetric Medicine and Surgery, Theoretical and Clinical, for the Student and Practitioner. By Robert Barnes, M.D., and Fancourt Barnes, M.D. Second Volume. London: Smith, Elder, and Co. 1885.

Surgical Operations. Part I. The Ligature of Arteries. By Sir William Mac Cormac. London: Smith, Elder, and Co. 1885.

Comparative Anatomy and Physiology. By F. Jeffrey Bell, M.A. London: Cassell and Company, Limited. 1885.

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Anatomy of the Parts of Crural Hernia.—Cause and Formation of the Rupture.—Operation for its Radical Cure.—Sources of Failure and Danger.—Operation for the Radical Cure of Hernia after Kelotomy for Strangulation.—Umbilical Hernia.—Evolutionary Failures.—Anatomy.—Varieties.—Taxis.—Operation for Radical Cure.—Choice of Cases.—Review of the various Methods of Attempting a Radical Cure of Hernia in Ancient and Modern Times.—Classification of Cases for Selection of Operation.—Conclusion.

Anatomy of Crural Hernia.—In the hollow of the groin below the inner extremity of Poupart's ligament, and forming, with the deep and superficial abdominal rings, an inverted triangle, of which it is the apex, lies the saphenous opening.

Formed by the separation of the fascia lata into two layers, of which the outer or iliac part is advanced forwards by its attachment along the whole length of Poupart's ligament, and the inner or pubic portion, covering the sloping surface of the adductor and pectineus muscles, is attached to the pectineal line, and continued behind the sheath of the femoral vessels to be continuous with the ilio-psoas fascia, and connected with the capsule of the hip-joint; the saphenous opening presents an oval outline, looking forwards and a little downwards and inwards. The outer border curves sharply inwards in a falciform manner, lies in front of the femoral vessels, and is attached to and blended with Gimbernat's ligament by a process about half an inch wide, Hey's ligament, important to surgeons, because it crosses the upper part of the crural canal, and may be the seat of strangulation. Below, the falciform edge passes under the saphena vein, which curves over it to join the common femoral vein, receiving, as it does so, the veins which accompany the superficial branches of the common femoral artery, namely, the two external pubic, the epigastric, and the circumflex iliac. The first two pass inwards, the next upwards, and the last outwards. They supply the numerous lymphatic glands which lie in two groups in this situation, the upper directed obliquely along Poupart's ligament above and invested by Scarpa's fascia, and the lower lying parallel and internal to the saphena vein. Nearly all the afferent ducts of these glands pass in a body through the saphenous opening, the inner part of the femoral sheath, and the crural ring, to join the deep iliac and lumbar glands. The saphenous opening is covered in by a layer of fascia connected with its borders, called, from the numerous holes which transmit these lymphatics and some of the vessels, the cribriform fascia. This is blended, superficially, with the deep layer of superficial fascia of the thigh, and, deeply, with the inner part of the sheath of the femoral vessels.

By detaching Hey's ligament from Poupart's, and turning down the fascia lata and cribriform fascia, the sheath of the femoral vessels is brought to view. It is arranged in three compartments; the outer for the common femoral artery, the middle one for the vein, and the inner one, smaller and funnel-shaped, is filled up by the afferent lymphatic ducts. On clearing these, it is found that they are held in position by a thin horizontal layer of perforated fascia containing a lymphatic gland, derived from, and continuous with, the subperitoneal fascia and fat of the iliac fossa, attached externally to the strong longitudinal septum, covering and protecting the femoral vein, and, internally, to Gimbernat's ligaments. This is the septum crurale of Cloquet, and is of little or no surgical importance.

If the finger be pushed upward into the iliac fossa, it will pass through the crural ring. Arching over it, in front, will be felt a curved border, formed by the union of the fascia transversalis with the deep fibres of Poupart's ligament, the deep crural arch. This is the usual seat of strangulation in crural hernia. Outside is the femoral vein, covered by its septum; inside, the edge of Gimbernat's ligament, to which the deep crural arch is attached; and behind is the hinder part of the crural sheath, resting upon the pectineal line of the pubis, and the pectineus muscle arising from it, and covered by the strong pubic portion of fascia lata. Above and externally, the epigastric artery arises from the external iliac trunk. Sometimes this gives origin to an irregular obturator artery, which may then descend into the pelvis close behind the border of Gimbernat's ligament.

Sometimes this branch arises from the external iliac itself, and then it passes down external to the crural ring altogether, and the precautions taken to avoid injuring the iliac vessels will also avoid the irregular branch. It is but rarely, however, that this vessel is cut in relieving the strangulation of a crural hernia. It yields readily to pressure in the loose subperitoneal investment. If the hernia-knife be not too sharp, it will cut the tense fibres of Gimbernat's ligament without injuring the loose yielding and elastic artery. In dividing the strangulating portion of the crural ring, the knife is usually directed inwards.

On opening the peritoneum and dissecting the crural ring from the abdominal cavity, it will be seen that a depression is formed opposite to that opening, internal to the iliac vessels. When the os pubis presents a salient border or projection at the pectineal line, as in old age, it becomes more easy for the bowel, by its pressure, to obtain a purchase or hold for the formation of a hernial sac. It will also be seen that the peritoneum around is more closely attached to the subjacent structures than in the inguinal region. Hence the sac of a crural hernia is rarely so large as that of an inguinal one. The aspect of the crural ring is more horizontally placed than the deep inguinal ring. It faces upwards and downwards, with a slightly forward direction. The best guide to it is the pubic spinous process, which is about half an inch internal to, and a little above, it; while Poupart's ligament is directly above.

The most frequent seat of strangulation is at the deep crural arch, or in the neck of the sac, at that point thickened by the continued pressure. Next frequently, the strangulating point may be the edge of Hey's femoral ligament, when the sac and bowel are bent outwards at an acute angle. Ill-directed attempts at taxis may here do much harm, and may even cause ulceration of the bowel at the point of constriction. This is especially apt to occur in elderly females, whose tissues are thinned and delicate, and the edges of the fasciæ and pectineal line sharp.

In a large crural hernia, the manipulation of the taxis should be at first directed inwards and downwards, and then backward, with a slight upward inclination of the neck of the sac. It is rare that directly upward pressure is required.

Formation of a Crural Hernia.—First, the sac is pressed downwards and slightly forwards, dilating the canal, along the lymphatic compartment of the femoral sheath, pushing before it the septum crurale, and spreading out the lymphatic ducts. It is then directed forwards, pushing before it the front wall of the innermost compartment of the femoral sheath and the cribriform fascia, and forming a tumour in the groin below Poupart's ligament and inside the femoral vessels. It then passes outwards and a little upwards, across the femoral vessels, where the fascial connections of the falciform process are weaker and looser than on the inner side, which is, moreover, supported to some extent by the numerous small vessels and lymphatic ducts before described. Finally, it lies with its fundus placed upon and above Poupart's ligament under the integuments, and its neck considerably in front of, and close to, the femoral vein.

In the course of the formation of a large hernia, Poupart's ligament is bulged forwards, and the groin loses more or less of the hollowness that it presents normally over the saphenous opening. The greater length and slenderness of Poupart's ligament in females, with the greater width of the pelvis and of the hips, render them more liable to this form of rupture than the male sex; while the latter, from the presence of the spermatic cord, are more liable to open abdominal rings and inguinal hernia.

The coverings of a crural hernia are: 1, the integuments, often thickened by the presence of a deep layer of fat, which may mask the position of Poupart's ligament and render the diagnosis somewhat difficult; enlargement of the femoral glands in these tissues may also tend to obscure the diagnosis, and mask the saphenous opening; 2, the cribriform fascia, recognised by the perforations of the lymphatic ducts, often also obscured by fat and glands; 3, the fascia propria, or crural sheath, recognised by its superior density and fascial appearance; 4, the septum crurale, or subperitoneal fascia, covering the sac, recognised by its greyish blue, sometimes greenish colour; 5, the sac itself is often thickened, wholly or in part, sometimes presenting an hour-glass shape, from the crossing of vessels, regular or irregular. In one case, the shape was due to an irregular origin of the deep epigastric by a common trunk with the obturator from the common femoral, the former crossing and deeply indenting in

front a crural hernial sac, and thus forming a very dangerous irregularity. The crural hernial sac and its contents are more liable to adhesions and abnormal positions of the omentum and bowel than an inguinal hernia.

Thickening of the sac at the neck and adhesive blendings of the covering structures and glands may render it difficult to discriminate the tissues during operation. Or a varicose condition of the saphena or femoral vein may give rise to great difficulty, and need careful precautions. By drawing down the sac and exposing Poupart's ligament and the pubic spine clearly, a good guide is obtained in difficult cases. In large and old standing cases, very often no discrimination between the different layers of covering is possible. In operating, the femoral vein should be carefully protected by the finger or a small spatula, and both Poupart's ligament and the pectineal fascia should be kept distinctly in view, as well as the edge of Gimbernat's ligament.

Operation for the Radical Cure of Crural Hernia.—The skin of the groin being shaved and washed with carbolic lotion, and the patient anæsthetised, a fold of skin over the site of the hernial tumour should be pinched up, and a scalpel or tenotomy-knife carried with its edge upwards, cutting towards the surface in a vertical line. This will usually expose the cribriform fascia. In a stout subject it is better to dissect down, through the fat, in successive layers. The deeper tissues are then cut through, down to the sac, which is to be opened by pinching up a portion, lateralising of the knife, and, with or without a director, slitting it up vertically. With the handle of the knife the sac is then carefully separated from the surrounding structures; then it is opened, the contents examined, and thickened, elongated, or adherent omentum removed, after ligature of the vessels separately with thin catgut. The sac, being carefully emptied, is to be transfixed at the neck with the handled hernia-needle, carrying a stout tendon ligature, tied on each side, and cut off close.

Next, the needle is carried through the deep layer of the crural sheath and the pubic portion of fascia lata, entering an inch below the crural ring, and emerging close up to the pectineal line, at the side of the femoral vein, which is to be carefully protected by the finger or a spatula. The needle is then carried through Poupart's ligament, emerging at the upper part of the incision. It is then threaded with one end of the same stout piece of tendon used to ligature the sac, which is then drawn down, emerging at the lower part of the incision. The needle is then again to be passed at the inner side of the wound, through the pubic fascia lata, skirting Gimbernat's ligament, and transfixing a second time the inner end of Poupart's ligament. The other end of the tendon ligature is then attached to the eye of the needle, and brought down, and the two ends are tied with a double surgeon's knot, or, if wire be used, twisted by two turns. The effect will be to draw, backwards and downwards to the os pubis, the inner end of Poupart's ligament, and to close up the crural ring completely. A piece of small drainage-tube, or horsehair, is then placed along the wound, from the ring to the lowest angle; the wound is closed by closely applied interrupted sutures, and gauze or cotton-wool dressing applied in the usual manner. Latterly, I have found the use of tendon ligature so satisfactory, that, for this operation, I prefer it to wire. The wound usually closes over it and heals by adhesion at once, and there is not the pain and inconvenience of the withdrawal of the wire. So far the endurance of the tendon, when buried in the tissues, has been long and satisfactory enough to maintain the cure, which has been watched and noted in some cases for above two years.

Operation for the Radical Cure of Hernia after Kelotomy for the Relief of Strangulation.—At the meeting of the British Medical Association at King's College, London, in August, 1873, in the address given by me to the Surgical Section, I described an operation, performed in March of the same year, for the closure of the inguinal canal and rings, after relief of the strangulation by kelotomy. The hernia was a large one, the bowel was strangulated to a chocolate colour, and the sac contained inflammatory serous effusion. The case did excellently well; no peritonitis ensued; and the patient was shown to the members of the Association, wearing no truss. The steps required, in addition to the ordinary operation of kelotomy with opening of the sac, consisted in ligature of the neck, and the application of wire for the closure of the canal and rings, in the same way as in the subcutaneous method. In all cases, I have ligatured the neck of the sac flush with the peritoneal opening, and in some removed it altogether, and then laced up the canal and rings with wire or tendon-ligature.

I have operated for the radical cure of strangulated hernia, after kelotomy, in sixteen cases—namely, eight inguinal and eight crural. Seven were done by ligature of the neck by catgut and entire removal of the sac, with the closure of the canal and rings by wire-lacing, and nine by the use of tendon for all these purposes. Of these, one case of inguinal hernia in a male, and one of crural in a female, died from the effects of the strangulation upon the bowel. In neither did the removal of the sac or the closure of the canal appear to add to the risk of a fatal result, inasmuch as none of the *post mortem* morbid appearances implicated the rings or the canal, but were confined to the bowel, omentum, and visceral layer of peritoneum. Such, indeed, is usually the case in the cases of death from the operation for the cure of hernia. It is rare to find any amount of peritonitis, and still more rare to find morbid appearances affecting the sac or canal.

The history of hernia shows that the sac may be twisted, perforated through and through, injected with irritants, ligatured or removed altogether, or may slough off, without any appreciable amount of peritonitis; and that death, when it ensues, is far more often from blood-poisoning, erysipelas, and such diseases as may occur from any operation, than from peritonitis. We may, therefore, conclude that, antiseptic means being employed to prevent such results, the attempt should be made to cure the patient of the hernia after kelotomy, in all cases where the condition of the bowel renders it safe to return it into the peritoneal cavity, after the relief of the strangulation. The omentum may be dealt with more freely than has heretofore been done. If it be sphacelated or suspicious in appearance, the vessels may be taken up in a healthy part above, tied with small catgut, and the doubtful part removed by tearing, or with a pair of blunt scissors. This may be done by spreading out the omentum, and taking up the vessels, which are usually plainly seen from the congestion of the veins, with a piece of thin catgut, applied by a common suture-needle, an aneurysm-needle, or a common pair of dissecting-forceps.

In a very few cases, indeed, a cure of the hernia may occur after kelotomy, where no attempts have been made to close the sac or canal; but, ordinarily, the division of the strangulating structures leaves the hernial aperture much more patulous, and the hernia larger and more uncontrollable by trusses than before. To prevent this by an addition to the ordinary operation of kelotomy, which does not appreciably increase the risk, and is effected while the parts are exposed by that operation, seems to be a course which will commend itself to most surgeons.

Umbilical Hernia.—The anatomy of the umbilicus is sufficiently simple. An opening left in the linea alba at the site of the exit of the omphalo-mesenteric duct, between that and the closed urachus, from imperfect development, sometimes permits at the period of birth a portion of bowel to protrude into the substance of the umbilical cord during the pressure and struggles of parturition.

On examining the infant before the application of the ligature to the navel-string, the appearance of the latter should be carefully noticed when the infant cries. If any swelling take place, or the cord appear thicker than normal, the sac, which is composed of the tissues of the funis, lined by a thin layer of serous membrane, should be carefully compressed, so as to exclude the bowel, if present, and a broad ligature placed nearly flush with the surface of the integuments. By this means the rupture may be at once cured.

To tie the cord at a distance from the navel is in these cases to invite the occurrence of an umbilical hernia; while no harm can result from the application of a thick silk ligature in the way just described, if the swelling be carefully manipulated to exclude any bowel which may be present in the sac. Often the weakness at the navel opening is unobserved, or the treatment by a pad and belt is discontinued too soon; and the result is the appearance of an infantile umbilical hernia, when the muscular system of the child becomes more powerful and the efforts in crying more continuous. Sometimes, although no hernia may at once ensue, a weakness is left at the site of the aperture, and a piece of omentum may pass in and out of the sac, preventing the circular contraction of the tendinous cicatrix, which should seal up the opening and cure the hernia. The original weakness may persist, and the first occurrence of the hernia, though this is not commonly the case, may happen in adult life or even in its decline. At this time, the accumulation of intra-abdominal fat, the occurrence of pregnancy or ascites, or the habitual distension of the bowels by air, may produce a rupture here. In such cases, the navel-cicatrix never presents the cup-shaped depression of a strong and healthy development. The peritoneum covering the inner surface of this point, when healthily developed, is tough, grayish-white, and presents small puckerings, produced by the contraction of the cicatrix, which binds the margins of the umbilical aperture together. In hernial cases this part is looser, more bulgy, and less firmly adherent. As the hernia becomes larger by the intrusion of omentum, the peritoneum becomes stretched, and finally so much attenuated as to be incapable of demonstration, so that we may look in vain in a long established case for a real peritoneal sac. The sac is a blending of the stretched and attenuated cicatrix with the remains of the peritoneal structure.

The abdominal wall gives way, in fact, at its weakest part, under the distension. In such cases, that part lies in the navel, and not in the groins. In some instances the small apertures in the middle line aponeurosis, which usually transmit the small intercostal vessels and nerves, may become dilated by the growth of pellets of fat, which gradually enlarge them, and finally may permit (when the patient from any cause becomes afterwards thin) the occurrence of a rupture close to the navel, and apparently (at first sight) umbilical. It will be found, on close examination of such cases, that the aperture is on one side of the real navel. The umbilical hernia of adults is always formed in one of the ways just described, but most frequently in the way first mentioned, and usually there is a history of an infantile or congenital weakness in the part. From the exposed and prominent position of the rupture, the part is liable to the results of pressure and friction, or injury. The sac may be rendered irregular in shape, bulging out on all sides, like a mushroom, and thickened irregularly by hypertrophy. The omentum within is very liable to become adherent, or thickened in lumps of fibrinous effusion. Or the bowel may be adherent to the omentum or sac.

Such changes are more commonly found at the lower part of the sac. This is brought about by the weight and pressure of the contents downwards upon the sharp lower curved edge of the hernial opening; while the pressure of the clothing, or even of a belt or truss worn to support the rupture, but often ill-fitting, pressing downwards instead of lifting upward, and uncomfortable to the patient, as well as injurious, produces a constant irritation and shifting of the pressure.

Hence it is found that the strangulating part of an umbilical hernia is placed at the lower edge, with the bowel hanging over it, and sometimes sharply ulcerated through, with extravasation of fæcal matter into the sac. Not uncommonly, however, the strangulating part is intrasaccular, produced by the adhesions or omental openings, and may be, during operation, difficult to find and to separate from the matted tissues.

The transverse colon is usually involved in an umbilical hernia, but by no means invariably so. Frequently the small intestines are found in the sac, generally the omentum; in a few instances, a portion of the stomach and spleen.

In applying the taxis or any supporting apparatus to a large umbilical hernia, the pendulous position of the fundus must be carefully borne in mind. The pressure should be a lifting pressure towards the umbilical cicatrix. If this be not attended to, the bruised and damaged bowel is pressed and rubbed upon the cutting lower edge of the hernial aperture, and still further damaged, or even ruptured. The fundus should be placed in the hollow of the hand, and lifted up gently, while the fingers of the other hand manipulate the neck of the sac by a gentle kneading motion.

Operation for the Radical Cure of Umbilical Hernia.—As a rule, a congenital umbilical hernia, more even than other varieties, has a strong tendency to get well by the progressive contraction of the ring-like cicatrix around. In this it follows the law of all circular cicatrices, which, unless prevented by other conditions, tend to contract towards the centre, and close up the aperture. Time should, therefore, in all cases, be allowed for this beneficent action of the *vis medicatrix naturæ* to exert its influence, favoured, as far as possible, by properly fitting pad and belt. But in some, either from early weakness of constitution, hereditary predisposition, frequent crying, or the neglect of proper support, the rupture remains uncured up to the adult period, or becomes so large as to be dangerous and unsightly. This constitutes a serious danger in both sexes: in the male, from the disability and weakness thereby ensuing; and in the female, from the liability to pregnancy.

In only two cases have I thought it advisable to interfere by operation for the cure of umbilical hernia in adult males. One was a finely grown young man, aged 22, with a protrusion of the size of a small apple. He much wished to serve in the army, but was refused admission by the medical examiners. He was operated on June 16th, 1883, made a good recovery, had no unpleasant symptoms at all, and was finally admitted into the service, where he still remains cured. The other case was about the size of a walnut, in a lad aged 14, who had been rejected by the medical examiners for the navy. The cure was as perfect as in the last case, and no symptoms worth mentioning occurred.

In both cases, the operation was done with wire, in the following manner. A small semicircular needle, with a handle and the eye near the point, and sharp enough to pierce easily the very tough and resisting cicatricial tissue around the neck of the sac, and copper wire silvered, and rather thinner and more flexible than that used for inguinal hernia, were the only instruments used in the operation. The sac was first pinched up with the thumb and fingers, and carefully emptied of its contents. It was then invaginated upon the forefinger, which was placed under the edge of the hernial opening on one side. The point of the needle was then made to transfix the tendinous margin about half an inch from the edge. The point of the needle, on raising and before perforating the skin, was then carried round a quadrant of the circular opening, and made to emerge at the upper pole of the vertical diameter. The bent end of the wire was then hooked on, and drawn back with the needle. The same manœuvre was then gone through on the opposite side, the upper end of the wire hooked on, and drawn through. The invaginating forefinger was then carried down to the lower pole of the vertical diameter, the needle passed through from behind, and then turned under the skin, so as to be made to emerge where the wire came out through the lateral puncture. The wire was again hooked on, and drawn down, a loop being left so as to emerge at each of the punctures. The same manœuvre being accomplished at the opposite side, the ends of the wire were left emerging at the lowest puncture, while a loop of wire was found at all the other punctures. The ends of the wire and the upper loop were then drawn upon, until the lateral loops sank under the skin. The invaginated skin and sac were drawn out of the aperture by traction with a pair of hooked forceps. Then, by twisting down into the punctures the upper loop and the ends of the wire below, the sides of the hernial opening were drawn powerfully together in a vertical line coinciding with the linea alba.

The application of tendon may be accomplished in the same manner, the ends of the ligature being tied firmly below at the lowest puncture, while the loops are all sunk into the other punctures, so as to disappear in the tissues. The method of application of the constricting ligature was, in fact, almost exactly the same as the subcutaneous ligature for nævus, which I have used for many years.

The wire was left in for a fortnight; much thickening ensued along its track. It was finally withdrawn by untwisting the upper loop and lower ends, cutting off the latter short, and drawing upwards the former. The wire, on being straightened by stretching, came out easily.

If the rupture be a large one, it would be better to keep all the loops, the lateral ones as well as the upper ones, and twist them all down into their respective punctures. The prepared thick tendon-ligature may be used in this operation, instead of wire. It is durable enough, if properly prepared, to endure until it becomes organised, and does not require removal. After the operation, the sac of the hernia projects as a vertical ridge, which can afterwards be removed, if desirable, with a pair of scissors, when the cavity is permanently closed at the neck. A pad of gauze, placed vertically on each side, with another thick one over them, covered with oil-skin, and held on by a broad body-bandage, is all the dressing required.

In three other uncontrollable cases in children, I have operated without any serious symptoms. One was by the use of the angular pins locked together. The result in this case was not satisfactory; the rupture returned. The others were operated on by the use of the thinner wire; they were completely successful. No death, or indeed any serious symptom, ensued. The hernial opening into the peritoneal cavity was in each case closed by adhesive effusion, and the wounds scarcely even suppurated. But, in the unsuccessful case referred to, the adhesions were not strong enough to prevent a return of the rupture.

Review of the Various Methods of Attempting a Radical Cure of Hernia.—I can only briefly allude to the numerous fellow-workers who have followed this line of surgical improvement. Scarcely any subject in the whole department of surgery has been more discussed or more written about. Not any has been more soiled by the practices of mountebanks and charlatans from the earliest dawn of the history of medicine.

The want of permanent success has been almost universal, and the danger to life of many of these proceedings too often demonstrated. Of the ancient methods many owed their fame to extreme ignorance on the one hand, and impudent charlatanry on the other. Plasters and ointments of elecampane, caustics and the hot iron, and especially the application of oil of vitriol, brought fame and money to an impudent quack.

Excision of the sac and its covering, and in many cases of the testicle also, was practised by Celsus. Galen and Paulus Ægineta ligatured the sac at the superficial ring, and tied up also the cord and skin. Centuries after their time this was practised by continental quacks, as mentioned by Dionis and Scultetus. Then was introduced the milder and more scientific proceeding of opening the sac freely, and stitching its edges close. This was called the royal stitch, because it qualified the king's lieges for military service. The punctum aureum, as described by Ambroise Paré, consisted of passing a golden or leaden wire

behind both sac and cord, at the superficial ring, and twisting it down tight enough to close the hernial sac, without stopping the circulation through the testicle. In more modern times, Schmucker and Langenbeck exposed the sac by a free incision at the superficial ring, and ligaturing it without enclosing the cord. The fatality of this method (3 in 10 cases), and the failure of most attempts to cure in the hands of such men as Anel, Armont, and Petit in France, and Abernethy and Sharp in this country, led to the general professional opinion of the uselessness of such operations to produce a cure, and to their actual condemnation as very dangerous to life. The efforts of surgeons then turned in the direction of truss pressure as a means of radical cure. Richter employed a strong and tight truss, with a hard pad of wood; and this method was employed by L'Estrange, of Dublin, who has been followed by many Irish and American surgeons. The injurious pressure upon the spermatic cord, resulting, it seems to me, from the shape of the pad employed, has been marked in some cases I have seen and heard of. The pain and suffering inflicted during the lengthened period necessary for a cure, and the want of skill and care of the patient in adjusting the pressure, and the difficulty and expense of a continual supply of new trusses, combined to prevent a greater success than 10 or 15 per cent. of uncertain cures by this plan. But undoubtedly cases of cure by a skilful and prolonged use of an efficient truss have occurred to myself and many other surgeons. In children's cases especially, it is much more frequently effected; and it might be much more common if nurses and parents were as skilled as surgeons and instrument-makers in adjusting the trusses. But too often, especially in hospital practice, the attempt to cure by this method is hopeless; and the rupture, when brought for radical cure, is large, uncontrollable, and difficult, requiring sometimes two or even three operations.

A class of operations dealing with the interior of the sac by injection of irritants like iodine and tincture of cantharides was practised unsuccessfully, and sometimes fatally, by Velpeau and Pancoast. Another, dealing with the sac by introducing solid substances, such as threads or sponge, or gold-beater's skin, with the same object, was practised, with equally bad results, by Schuh, Belmas, and Riggs. The method of invagination of the skin of the scrotum into the canal, and endeavouring to plug up the rings permanently, was then brought into vogue by Signoroni and Gerdy. This plan was followed by another, namely, the use of a hard wooden plug, forced along the canal, originating in Wützer, and practised by Rothmund, Sigmund, and Spencer Wells.

In all these methods it was found that, after a greater or less period of time, the plug, at first apparently satisfactory, gradually made its way, pushed by the recurring hernia, down into the scrotum. In many, excessive suppuration brought on burrowing of pus towards the abdomen, and fatal results. The apparent cures were in a great majority of cases temporary and illusory, and the operation fell into discredit. A revival of the injection method not into, but around the neck of the sac, using astringents such as solution of oak bark, has been practised in America by Heaton, and followed by Warren and Bull.

Since the publication of my treatise on Rupture in 1863, fresh methods of proceeding have been originated. Mr. Spanton has invented a new instrument for uniting by adhesion the pillars of the ring. It is shaped like a corkscrew and is introduced from the groin above downwards into the scrotum, guided by the forefinger, passed through a scrotal incision, into the canal. It is removed after a week or fortnight, according to the action set up. Mr. Fitzgerald, of Melbourne, Australia, laces up the pillars of the superficial ring with a continuous gold wire suture, which he leaves in the tissues in the hope that it may permanently fulfil its functions. Professor Dowell, of Texas, sews subcutaneously the pillars of the ring with silver wire, and claims to have done 100 cases with 60 permanent cures.

It will be observed that, in all of this class of operations, the anterior wall of the inguinal canal and its superficial ring are the only parts really affected by the operation. The hinder wall and the deep ring and neck of the sac are unaffected. The result is, that sooner or later the hernia makes its way behind the adhesions or the permanent wire suture, separating the former, and by constant pressure causing the latter to cut its way slowly through the tissues and become useless. In the case of the latter plans also, there is the manifest probability of a truss being inapplicable if the hernia return, or a weakness or bulge remain, requiring another operation for the removal of the wires within a few months. The same result will undoubtedly occur if the operation which goes by my name be imperfectly done, and the pillars of the superficial ring only be sutured. A misapprehension which may easily arise from a want of familiar and practical knowledge of anatomy, has led to the application of the name to operations in which all my precautions were neglected; and also to the employment of a part of my operation only as the basis for a new method. The result has been, in many instances, a want of success, for which the operator, and not the operation, is really responsible.

Reasons, somewhat like the foregoing, have led to what is called the open method, or the method by dissection, for the radical cure of hernia. It will be well to state here that, with the protection of the spray and the careful use of antiseptic dressings, I by no means object to, but have often employed, this method of operating. But the real factors in the production of hernia should be properly and securely dealt with. An operation which has been practised by men of ability and professional position cannot be lightly considered by anyone. As present workers in this field of surgery I may mention the names of Professors Sir J. Lister; Annandale, of Edinburgh; and Stokes, of Dublin; Sir W. Mac Cormac; Macleod and Buchanan, of Glasgow; Mitchell Banks, of Liverpool; and Charles Steele, of Bristol, the first, I believe, who operated for the radical cure of hernia with all the antiseptic precautions.

Professor Annandale, of Edinburgh, opens the canal, ties the neck of the sac, and removes it bodily, and then stitches together the margins of the opening. In the *Edinburgh Medical Journal* for December, 1880, he published a case of strangulated crural hernia, operated on in January, 1872, in which he tied the neck of the sac with catgut and removed it with some adherent omentum. In a case of irreducible crural hernia, operated on in January, 1880, he stitched the margins of the crural ring to the stump of the sac in addition.

Professor Stokes, of Dublin, opens the sac freely, stitches up the neck, and then, without removing the sac, draws together the canal and pillars of the ring by chromicised catgut, carbolised silk, or silver wire. He considers the removal of the sac to be a risky and unsurgical proceeding. Mr. Mitchell Banks, of Liverpool, opens the canal freely, ligatures the neck of the sac, and divides it, detaches the fundus and removes it, and then sutures up with catgut the pillars of the ring.

Mr. Alexander, of Liverpool, opens the canal by dissection, and ligatures the neck of the sac with catgut, making a point of tying it so that it shall be flush with the peritoneum internally, so as to leave no digital depression. He then divides the neck of the sac below the ligature, and leaves it in the wound, without suturing the pillars of the ring. In one of the two cases of crural hernia, operated on by him in June, 1880, and reported in the *Liverpool Medico-Chirurgical Journal*, the fundus of the sac afterwards sloughed out. Sir William Mac Cormac has followed this plan, I believe, in a good number of cases. Professor Buchanan, of Glasgow, in cases of congenital hernia, cuts down to the sac, slits it up longitudinally on each side of the cord, then divides the front part horizontally, rolls up the upper half, and with it plugs the deep ring, turning down the lower half to complete the "tunica vaginalis" above.

Many of these surgeons appear to take little pains to close up the inguinal canal, as distinguished from the superficial ring. At the deep ring, some close the neck of the sac, without closing the margins of the fascia that forms the ring proper. In an irreducible hernia, it is, of course, necessary to open up the sac freely, and in many cases the inguinal canal also, in order to remove the sac entire. I accomplish this, if found necessary, by extending my usually limited incision upwards from the scrotum. The entire removal of the sac is always a tedious, severe, and often a difficult, operation, if due care be taken to preserve intact the spermatic cord. It must be accomplished by much dragging and tearing and separating a great number of vessels. The spermatic cord is sometimes found spread out, and its constituents separated widely apart. In two cases of irreducible direct inguinal hernia, I found it placed in front of, instead of behind, the sac—the vas deferens towards the inner, and the spermatic vessels to the outer side. In other large cases, I have found the vas deferens projecting before it into the interior the wall of the sac, with a sort of mesentery thrown around it. Much care is required in dealing with a large sac for its entire removal, and a good deal of extravasation of blood into the penis and scrotum follows in many cases—with, often, retention of urine. Banks states that it requires a good deal of "mauling;" while Stokes considers the process as "unsurgical," if not "repulsive and barbarous." It may certainly be considered as a most difficult and prolonged operation, and the increased mortality which follows it shows that its effects on the system are serious. It is only very weighty reasons which would justify its performance.

With respect to the supposed advantages of the open method, enabling the surgeon to see the parts on which he operates, I have myself found that, after the first cut and the application of the sponge, the parts became so bleared with blood, that I was obliged to rely mainly upon the aid of the sense of touch, before I ventured to pass a needle through Poupart's ligament, the conjoined tendon, or the pillars of the

ring. My experience is that this operation can be all done, and has been very frequently done by me, when the sac to be removed is not very large, through a scrotal incision, two inches long, reaching up to the superficial ring. The mobility and elasticity of the integuments is such, that the aperture thus made can be drawn up so as to lie over the hernial opening, which is itself dilated and large enough to permit the sac to be followed, drawn out, detached, tied, and divided close to the deep ring, without any important division of the intercolumnar fascia, which necessarily weakens the abdominal wall.

A fallacy which some operators seem to entertain is, that, by stitching the pillars of the ring only, the canal is also closed. The layers formed by the walls of the inguinal canal, and the spermatic groove above Poupart's ligament, in fact, remain as loosely connected with each other, when the parts are well healed, as they did before the operation. They are movable upon each other, and slide and give way before the soft pressure of the sac to form another hernia. Abundant material for a fresh sac is found in the peritoneum forming the false ligaments of the bladder. The plans for simply tying the neck of the sack, and either cutting it off or leaving it and the sides of the canal to heal up as they lie, are simply resuscitations of the older mediæval plans, about which the late Sir William Lawrence argued "that it was futile to close up or cut off the neck of the sac, while the openings in the abdominal wall remained to admit a fresh sac, which the peritoneum was apt and ready to furnish."

Conclusion.—It appears indubitable, from the results of the last twenty or more years' experience of the radical cure of hernia, that the position of those surgical writers who have maintained that the radical cure should not be attempted, except in the severest cases, is untenable. The operation has given as great relief and exemption from the minor troubles and worry which make life miserable as any operation associated with prolapse, such as hæmorrhoids, and is even more safe. It is certainly quite as much called for, on the score of relief from pain and inconvenience, as most other abdominal operations. Though it may not, like ovariotomy, remove the certainty of a speedy death, and may, like colotomy, be called an operation of convenience or expediency, it often relieves suffering as severe as that for which colotomy is performed, and is attended by far happier results.

The justification of the operation being admitted, it remains to consider what cases are most appropriate for it, and which of the many we have passed in review is most proper and applicable for the cases chosen. The rules I have observed in my own cases have been as follows. The subcutaneous plan has been adopted :

1. In cases of children above 5 years old, in whom trusses are useless and unavailable because of neglect, violent coughing and crying, sore groins, rapid increase in the size of the hernia, and interference with micturition.

2. In cases of young adults, or boys under 14, whose prospects in life as candidates for the naval, military, or engineering professions, or for colonising, are seriously impaired by the hernial condition. Such persons may be far from surgical assistance when the exigencies of duty or occupation may produce strangulation, or the breakage of a truss may leave them defenceless ; they are subject, also, to increased life-assurance-rates, from which the operation, when successful, relieves them. It should be done in able-bodied working men, generally, whose various laborious employments may place them continually in danger of strangulation, and whose strength and usefulness are impaired by the hernia. The extent of the necessity for a radical cure of rupture, and the patriotic and social motives which demand it, are clearly made manifest by the estimates of the number of recruits and conscripts rejected for this complaint. Malgaigne states that one in every 13 Frenchmen is ruptured ; Arnaud, one in every eight. During the civil war in the United States, 38,132 were rejected in two years. In this country, it is said that one in every 20 males is ruptured. The bodily ailments and mental worry which this condition and its consequences entail upon this large number of human beings, make up a very impressive total of suffering. And the mortality from it must be also considered. In 1879, according to the Registrar-General's reports, as given by Mr. Spanton, no fewer than 1,119 deaths occurred from hernia, of which 23.5 per cent. had undergone operation for strangulation, etc. The average rate of mortality of the operation of kelotomy in 11 large hospitals is given by the same author as 41.8 per cent. The proportion of the mortality from hernia increases with age to a marked degree. The importance of a permanent cure effected during youth for so large and useful a class as this, when thus viewed, rises to the point of a national demand.

3. In reducible cases, where the sac is thick and indurated from truss-pressure, or where the omentum is continually slipping down under the truss, showing thereby that it is abnormally elongated, I open the sac, tie the vessels of the omentum separately, and remove it below the ligatures ; tie up the neck of the sac flush with the peritoneum at the deep hernial opening, and apply wire or tendon ligature to the canal and rings. When, from any cause, a first operation fails in effecting a satisfactory cure also, I open the sac, inspect its interior to discover any special cause for the failure, tie and remove the sac, and lace up the canal and rings with especial care and security.

4. In all favourable cases of strangulated hernia, both inguinal and crural, the coverings and front wall of the canal being necessarily divided to search for the constricting tissues, I open the sac, examine the contents, remove adhesions and doubtful portions of omentum, then tie up the neck of the sac, cut it off short, and remove it altogether (except in congenital hernia), and secure the walls of the canal and rings, as in the subcutaneous method. Of course, a wrong diagnosis of the condition of the bowel or omentum, and of their fitness to be returned into the abdomen, or some other cause arising from the strangulation, may, in these cases, result in a fatal issue. But I believe strongly that, if drainage be free, and skilfully arranged, no increase of risk ensues from the attempt to produce a radical cure. Quite lately, I have done this in a case of *reductio en bloc* in a man who is now convalescent in the hospital.

5. Cases of irreducible hernia, and of large and unmanageable cases of reducible hernia, in patients otherwise in a good state of general health, and not above the age of 60, and in which truss-pressure entirely fails to render the patient comfortable and free from danger, seem to me to justify and to require operation, if the patient wish for the benefits which he may reasonably expect from a carefully conducted operation, under strict antiseptic methods. In all cases he should have the chances fairly laid before him, in a way that he can understand, and then have the option without bias or persuasion.

In these cases, as in the last class, the operation necessarily assumes more or less of the character of an open operation under spray. The sac is freely opened, and is tied and removed, but the suturing of the canal and rings is effected as in the subcutaneous method.

In bringing my allotted task to a conclusion, I am deeply conscious that a very considerable part of these lectures have gone over ground which has been elementary enough to re-echo the household words of every dissecting-room and tutor's class. In extenuation, I have to plead that the subject demanded a good deal of such anatomical repetition, to preserve its coherency, and to make it understood.

After all my efforts, I fear that there still remains much room for elucidation ; and I have been led to think so because men who have arrived at considerable position in the profession have declared to me that they were unable to comprehend my method of operating, until they had seen it done by me, and that it was much more simple to see and to do it than to describe it.

At the risk of being tedious to the more experienced of my hearers, I have endeavoured to be clear to those less learned and less experienced. I have some fear that there is no doubt about the first, but that I may not have succeeded in the last as fully as I could have desired. At any rate, I have done the best that was in me to ascertain the exact truth about the possibility of a permanent cure of hernia, to prove it as convincingly as I was able, and to state it as simply as I could, and as shortly and completely as the scope of these lectures has demanded.

The last part of my duty now presents itself, and that is to thank you, Mr. President and gentlemen, most sincerely for your presence and kindness during my lectures.

[Cases of the radical cure of hernia, of 23 years' duration and downwards, were shown at the close of each lecture.]

Disinfection of Rags by Steam.—All rags sent to New York are disinfected in the following manner. They are arranged in bundles, and placed in an impermeable receptacle, into which overheated steam is introduced (330° Fahr.). In about five minutes, the temperature of the bundles is so high that it does not fall below 100° Fahr. until two hours have elapsed. The experiments that have been made prove that this process destroys completely all germs contained in the rags.

Small-pox in the Potteries.—The outbreak of small-pox which has taken place at Burslem has spread to Tunstall and Fenton, and serious alarm is experienced in the other towns of the Potteries, which are all grouped together. Eighteen cases have been under treatment at the tent-hospitals at Flagstaff Field, Bradmell Hall Farm, Burslem. There are six fresh cases in the town, and two persons at Tunstall are suffering from the disease.

ABSTRACT OF LECTURES
ON
SOME OF THE INJURIES AND DISEASES OF THE HEAD AND NECK, THE GENITO-URINARY ORGANS, AND THE RECTUM.

Delivered at the Royal College of Surgeons of England.

By EDWARD LUND, F.R.C.S.,
Professor of Surgery, Victoria University, Manchester; Consulting Surgeon, Manchester Royal Infirmary, etc.

Lecture III.—*Some Injuries and Diseases of the Rectum, Perinæum, etc.*

The most common cause of anal fistula is cellulo-membranous abscess in the ischio-rectal space, which, unrelieved, travels towards the cylinder of the rectum, as a point of less resistance than the skin and its adjacent tissues. A common origin of such an abscess in those who are robust and otherwise healthy, is habitual constipation; whereby, in the powerful straining action resorted to for the emptying of the bowel, the cellular tissue around is unduly compressed, bruised, and injured, and cellulitis is set up. Again, when from circumstances a man with a loaded rectum, and every desire to empty it in obedience to the call of nature, thoughtlessly postpones the act, the swollen bowel slowly produces, by prolonged distension and pressure, the same injury to tissues and the same result as if it had taken place more rapidly.

We know, in patients disposed to phthisical disease, how irritable the mucous membrane of the bowels often is, how just the opposite condition—a tendency to diarrhœa—can be easily established, and how, with them, fistula in ano will constantly follow abscess near the rectum. For, as in the advanced stage of phthisis we have frequently diarrhœa connected with the ulceration of the colon, so in the earlier stages there may be a similar yet milder state, an aphthous condition possibly of the rectum, with here and there more positive congestion and inflammatory change, which shall extend from the interior to the exterior of the bowel, in a direction contrary to what happens in the former class of cases.

At last this excessive action in the mucous membrane and the submucous tissue ends in abscess, which either bursts spontaneously, generally into the bowel, or is opened externally artificially to relieve the pain; and thus a second opening is produced, and a fistula established. Hence it is possible that, while in the one class of cases constipation has preceded the formation of the abscess antecedent to the fistula, in the other class, a relaxed condition of the bowel may have existed, and yet a result nearly similar in each has been brought about.

It is notorious that in some cases of ischio-rectal abscess, where we open the abscess, it heals, and no fistula follows; while in other cases, however early we make our external incision, freely, and with good effect as far as escape of pus is proof, yet a fistula forms, and the passage will remain unhealed, in spite of every treatment short of its complete division. Now it is the patient with the previously irritable bowel in place of constipation who is the more liable, when an abscess has formed near the rectum, and it has been opened, to have a fistula follow as an inevitable consequence. The lecturer has, in a few instances, noticed this particular condition of things. A person in delicate health, perhaps liable to diarrhœa, but certainly not the subject of habitual constipation, is suddenly attacked with pain in or near the rectum, increased by pressure, and with constitutional symptoms indicative of purulent formation near the bowel. An incision is made with proper care, and pus evacuated. Up to this time, no trace of blood or muco-pus has passed from the anus. We refrain from passing any probe or director into the wound, lest we may pierce the bowel; yet, the next day, or two days afterwards, blood, or blood-stained mucus or pus, is seen escaping through the anus; and it is then too evident that what most probably was, at the time of the incision through the skin, a small slough on the mucous surface of the rectum, over the projection of the abscess, has now separated, an ulcerated aperture has been formed, and a fistula established from the skin to the interior of the bowel, as the director or probe will then prove.

As to proneness to diarrhœa, and irritability of the lower bowel, considered in regard to their surgical relations, and in view of surgical treatment, it is the duty of the surgeon always to make, in such cases, a careful rectal digital examination, when the cause of the irritability is obscure, or when it resists the more ordinary modes of treatment. Chronic intractable diarrhœa demands surgical examination as much as constipation. Without going so far as to pass the hand into the bowel, we may often derive much positive and valuable information by rectal examination either in ordinary or in doubtful cases.

A maiden lady, nearly fifty years of age, consulted Mr. Lund for irritability of the lower bowel, occurring only at night, and greatly disturbing her sleep. She generally had her bowels opened once in the morning. Every night, however, as she was just passing into sleep, she felt an urgent desire to relieve the bowels, which for the time gave her ease. This would recur two or three times in the night. After the lecturer had tried palliatives for many months, the patient consulted a London physician of great eminence, who followed his invariable rule, in cases of irritable bowel or chronic diarrhœa, of making a rectal digital examination; and then he found a fibroid tumour loosely placed in the pelvis, attached possibly to the back of the uterus, or to some part of its appendages, which, in the upright or in the sitting posture, fell away from the bowel to one side of the pelvis, and there, for the time, gave no special sign. But as soon as the horizontal position was assumed, the mass fell backwards on the rectum, and so pressed upon it as to congest the mucous lining, and excite a desire to evacuate; and thus the patient was suffering from a mechanical cause, which, although evident in its effects, it was impossible to correct. The finger may also detect polypus in the rectum of a child before prolapsus has occurred.

The practice formerly in the examination of a case of anal fistula was first to pass the probe, note if it travelled towards the rectum, then introduce the index finger into the bowel, and try to feel the end of the probe, that you might know if the fistula was complete. But it is always best to settle the question as to the condition of healthiness or otherwise of the bowel, before doing anything towards the exploration of the fistula. The lecturer described a case where a surgeon, about to operate for what appeared to be a simple fistula, discovered an epitheliomatous deposit, with contraction of the bowel, and a corresponding dilatation above, with rupture and abscess as a starting point for the fistula. The intended operation was thus rendered altogether useless.

Then, in order to demonstrate the duration of a fistula communicating with the bowel, and the risk of allowing a suppurating surface, such as the lining of a fistula, to exist in any person for an indefinite period, the lecturer described the case of a healthy woman, who had a fistula, with an opening upon the skin about one-and-a-half inch from the anus. She refused operation, and let this condition of things remain unrelieved for nearly three years, when, catching cold, acute pyæmic symptoms set in, with pain over the liver, etc., and she died within a week from the commencement of her illness. An immense hepatic abscess was discovered at the necropsy.

The lecturer then discussed the question of the proper treatment of a fistula that travels high up the rectum under the mucous membrane, and opens into the intestinal canal at a spot far beyond ordinary reach. Professor Syme used to contend that the point of perforation was generally lower than the highest point of the fistulous track; and if that point be discovered and all the track below it be laid open in the usual manner, perfect healing may certainly result in many cases, even though the track above the inner opening be left untouched. The fistula will then be like any other abscess opened in its lowest portion. Mr. Lund, however, described a case of fistula treated on this principle, where a muco-purulent discharge persisted until the rectum was thoroughly explored, and the upper part of the fistula freely laid open. The lecturer strongly advocated a careful exploration of the rectum before dismissing any case that has been operated upon. Not only must the surgeon be certain that the upper part of the fistula has been laid open and healed, but he must also explore the cicatrix at the site of the lower end; for, if healing be imperfect in that situation, a small pouch is apt to form, opening towards the bowel, yet closed below. This pouch is apt to lodge rectal mucus or fæcal matter, which may set up inflammation, and therefore it requires division. The lecturer exhibited a guarded hooked knife, which, when closed, is of the same size and curve as that of a probe suitable for exploration of fistulæ, and which can be used as a probe. This knife is well suited for the division of a pouch of this kind, also for laying open small blind internal fistulæ.

An internal blind fistula in the rectum, or, perhaps more properly, a sinus leading out from the rectum, with only one discoverable opening, and that within the bowel, occasionally runs a very strange course. The lecturer once examined a small tumour on a patient's righ

buttock. It lay too high up to be touched in the sitting posture, yet gave much inconvenience by the friction of his clothes. Of somewhat circular form, an inch-and-a-half in diameter, raised above the skin, which was thickened and polished over it, this tumour was quite hard to the touch, painless on deep pressure, but very sensitive to light pressure across its surface. It had existed for about two years, commencing as a small nodule in the skin. In the last few months it had enlarged somewhat. It was thought advisable to remove it. Mr. Lund noted that the inguinal glands on the same side were enlarged and indurated; but there was no pain in them. He entered it in his note book as "Keloid growth on buttock, (query) Malignant degeneracy." A large elliptical incision was made, so as to remove healthy skin around the growth. The tumour seemed to dip some distance into the fat of the buttock, and this was removed also. The under-surface of the mass was found to be very soft, as if composed of the contents of an old abscess. At the lower end of the wound there was a depression, and into this a long thick probe was passed, which glided readily on towards the bowel, and could be felt beneath the mucous membrane, which was so thin as to be readily transfixed. No internal opening could be found. A cut was then made into the bowel by the side of the probe, as in an ordinary fistula operation, laying open a sinus fully five inches in length, and dividing the sphincter of the bowel rather more than an inch within the rectum. Thus there had been a very chronic internal blind fistula, and its extreme end had excited just enough inflammation of the skin and subcutaneous tissue, to imitate a keloid growth. The patient made a good recovery, and the suspicion of malignancy was happily dispelled.

Difficulty may occur in making a positive diagnosis in a case where a suspected fistula in the rectum appears as an external blind fistula; and the question to be decided is whether or not it is a sinus succeeding to a surface-abscess of the part, running parallel to the wall of the rectum, or whether it has perforated the bowel. The lecturer related the case of a widow lady who had an external fistula, which was found to run parallel with the rectum, but a probe passed along it could not be felt under the mucous membrane. An insurance office insisted upon the patient paying a high yearly premium unless the fistula, a source of risk to health, were cured. As unsuccessful as his predecessors in tracing the path of the fistula with the probe, and being unable by this means to say that it communicated with the bowel, Mr. Lund made a small plug of slips of lint well soaked in white starch and cold water, tied them together, and let them dry. The plug, when quite dry and hard, was smeared with glycerine (not oil, lest it might vitiate the experiment), and passed up the rectum, and there held firmly while, by means of a syringe, with fine nozzle, fitting accurately the external wound, a small quantity of tincture of iodine was injected, care being taken that none of it escaped. The plug was then withdrawn from the rectum, and on it there was a distinct mark of the iodide of starch, which gave unmistakable evidence that, although the internal orifice might be small, there was really a complete fistulous track; and the operation was immediately proceeded with. Mr. Lund had much trouble in securing perfect healing of the incision, for the original difficulty in the case was apparently occasioned by the irregular course which the fistula had taken. A very satisfactory result was at last attained. The patient quite recovered, and ultimately the assurance company accepted the future annual premium on the life at the usual rate.

The lecturer then spoke approvingly of Mr. Curling's principle, that the surgeon who operates for fistula should be his own dresser. While the incisions are being made, he avoids the use of water or wet applications to the part. Any blood or pus which may escape is removed by pieces of dry lint or linen cloth, and then, after the operation, from first to last, Mr. Lund uses carbolated castor-oil, to protect the freshly cut surfaces from the irritation of feculent matter, or mucus, or flatus, escaping from the rectum. This oil, if so prepared that it is perfectly clear and bright, showing that the carbolic acid is perfectly dissolved in it, is a very soothing and comfortable application. If the oil be applied freely, no washing of the part is necessary; for the fæces, if they escape, can be removed from the surface, already well oiled, by pieces of lint likewise soaked in the oil.

To avoid pain during the dressing of a fistula, let the patient be placed on his left side, with his back to the surgeon. As the previous dressings are removed, the exposed surface is quickly and freely covered with the carbolated oil, applied by means of a full-sized camel-hair brush. A strip of lint, about half an inch wide and 10 inches long, is then taken, well saturated with oil. It is folded over the end of a short square-ended flat probe, and held in the right hand, so as to firmly fix it; or two, three, or more strips may be oiled, folded, and placed over the end of the probe. The surgeon then prepares the forefinger of his left hand by smearing it well with the oil. He passes the finger up the bowel, being exceedingly careful to direct the pad of the finger or its palmar aspect towards the line of the incision which was made in the operation; and in this way he protects the tender part by gently pressing the finger in its whole length against it. He then passes the probe, loaded with the strip or strips of oiled lint, over the back of his finger (its dorsal aspect), until he knows that the probe has entered well into the rectum, beyond the end of the left forefinger—in fact, beyond the extreme end of the incision. When this is done, the finger is slowly withdrawn, and then the probe, leaving the lint well fixed by one end high up in the bowel. After this, the lower portion of the lint, which still lies outside the bowel, is guided on to that portion of the cut which appears externally. It is thus gently pushed or packed into place. No pain is experienced by the patient, as none of the dressings are dragged over the tender and inflamed surface, to which they might have a tendency to adhere. On the external surface of the anus, some lint soaked in the oil is then placed; on it a piece of gutta-percha tissue, and over this a pad formed of a small folded towel or napkin, kept in position by a broad T-bandage, still further secured by four safety-pins placed at the distant corners of the pad, so as to prevent, by the rolling up of the T-bandage, that terrible rope-like disposition of it which is often seen on removing the dressings in these cases, and which is not half so comfortable or easy to the patient as the gentle pressure of a wide soft pad.

In searching for obstructive disease of the rectum, the surgeon may pass his finger into the rectum in such a case, move it freely about within its cavity, withdraw the finger, and say that there is no obstruction, that it is rather a large loose rectum, and, if there be contraction, it is high up and beyond reach. An opinion may also be expressed that the cause of the obstruction is not organic, but rather functional, as far as the rectum is concerned, for it is large and loose. A more careful examination would show that the enlarged, almost dilated, condition of the rectum, just within reach of the finger, was caused by an obstruction higher up in the bowel, which, by its resistance to the passage of the fæces, had caused such violent expulsory efforts to be made that there was a descent of the obstructed portion of the bowel into the part below, which became thereby stretched and dilated. There had been, as it were, a sort of commencing intussusception, or involution of the bowel, and the dilated part below the contraction had conveyed the idea to the finger of the surgeon, in making his examination, that the bowel higher up was also large and loose.

This dilated state of the bowel just within the anal orifice must, then, be regarded as a sign of rather doubtful import, and as no proof of the natural patulency of the canal higher up, and perhaps just beyond the limits of examination. We cannot afford to wait until, by the increase of the contraction, and the distension of the bowel above it, we have revealed its true position; for the sooner we learn that we have to do with mechanical obstruction, or with atony of the lower bowel, the better for our patient. The evidence supplied by the use of a bougie in a case of this kind is not always conclusive. The bougie may impinge upon the front of the sacrum, or, if this bone be more than usually curved, may strike against the upper projecting part of it, and so, failing to pass, simulate the presence of contraction. It may also have its extremity caught in a fold of the mucous membrane, and there, resting awhile, may bend upon itself, still apparently passing on into the interior.

In suspected cases of disease of the rectum much may be learnt, as a preliminary sign, by observing the exact condition of the anus in reference to its size and distance from the surface of the perinæum, estimated in relation to a transverse line between the tubera ischii. Unless there be, in any given case, some natural peculiarity of formation, it will generally be found that, where the cause of the trouble in the lower bowel is rather one of irritation and spasm than of relaxation and debility of the parts, when the patient is examined on his side, the anus will be seen to be contracted and drawn high up in the perinæum, which has therefore a conical configuration, and the anus is held there by undue action of the levator ani, and the closing fibres of the sphincter. There is often, however, an opposite condition of things; the perinæum, in its anal portion, may be unusually flat, the anus low down, large and protruding; and this will indicate, not spasm or over-action of the levator, but a relaxed condition which permits a falling of the bowel, and its passive dilatation, with the commencement, possibly, of slight prolapsus of the gut.

Obviously, the treatment required in these two classes of cases will be different; in the one, we must allay irritability by, if possible, the removal of its cause; if not, by diminishing the irritability of the part; in the other, we must endeavour to give strength and tone to the part, so as to counteract the mischief already done, or to limit its advance.

In the former class we often find fissure of the anus, or an irritable ulcer of the rectum. Here a digital examination, without an anæsthetic, is almost an impossibility, for it can rarely be borne by the patient. Yet it may sometimes be done; and then, where the patient can or will permit it, if we doubt with which of these two forms of disease we had to deal, Mr. Lund has observed a very simple means of deciding. If it be a case of irritable ulcer in the rectum, generally on its posterior wall, the surgeon may, with great gentleness, manage to pass the finger into the bowel; and so long as he does not press sharply nor deeply on the ulcer, the pain is bearable. But he may rotate or turn round his finger, when it is so placed and still within the rectum, and no special increase of pain is experienced, or perhaps none at all. It is not so in the fissured anus or the fissured rectum. In this terribly painful affection, the surgeon may, with great gentleness, having the finger well lubricated, get it through the powerfully contracting sphincter, and then, not moving it for a time, the patient may at last tolerate its presence; but the moment the surgeon rotates or twists his finger round, he will call out in great agony.

Fissure of the anus may be easily and quickly relieved by section of the mucous and submucous tissues, without much distress to the patient at the moment of the division; but an ulcer of the rectum requires a longer and deeper cut, and this can hardly be done without the use of a speculum, and unless the patient be in a state of complete anæsthesia. It may also require constitutional, as well as local, treatment for its cure.

Mr. Lund then made some observations upon piles. He believed that the production of piles, as life advances, is peculiar to some persons, under whatever circumstances they may be placed; and that in them, as compared with others, there seems to be a sort of hereditary tendency to this malady. A natural looseness and relaxed condition of the subcutaneous and the submucous tissue, in and about the rectum and its neighbourhood, is a great predisposing local cause to the production of external and internal piles. There must of necessity be considerable difference from time to time in the expansile capacity, and in the power of subsequent contraction exhibited by all the tissues around the aperture of the bowel, and chiefly those of the skin. There must be a great difference in the condition of the parts surrounding the anus, when it expands sufficiently to permit the passage of a large mass of hardened fæces, as compared with its normal state of rest, or when the aperture is so effectually closed by muscular action that, as Hilton puts it, the mighty power of the sphincter prevails, and flatus is retained within a distended rectum, or it is expelled through an aperture too small to allow the passage with it of liquid fæces.

After these repeated stretchings and expansions of the part, the subcutaneous fibres of the superficial sphincter are the first to suffer, and in process of time they fail to gather up in radiating folds the skin with which they are intimately incorporated. The skin, left thus loosely disposed around the anal orifice, soon becomes the subject of œdema, which in its earlier stages may subside, to return under similar conditions, until, at last, other causes contributing to the same result, it is not simple œdema which invades the part, but a more inflammatory condition, with lymph in addition to serum, and a hardening and thickening of tissue producing a true external pile. We may look upon the mucous lining of the lower bowel, for the purpose of marking the changes incident to the growth of hæmorrhoids, as a cylinder with two coverings, or rather as three cylinders, one within the other, the mucous and the muscular, with the cellular coat between them. In the latter space are the vessels, nerves, and lymphatics, and especially the veins, and these lie closely beneath the mucous coat itself. From a variety of causes, such as pressure from above, restraining the free return of venous blood, or sudden compression by muscular action, these veins beneath the mucous membrane are rendered tense and swollen, and drag upon the connective tissue which should retain them in position. Thus a temporary bulging and enlargement of the veins is produced, which by repetition becomes chronic; the blood, which at first was retained within them only for a moment, now no longer leaves them; or if it do, after each act of defecation, it escapes more and more slowly, and thus the swelling is perpetuated, and changes are set up which at last culminate in the production of the true hæmorrhoidal tumour, the internal pile.

Where a patient has long suffered from external piles, he may not experience much inconvenience from them until the imperfect action of the sphincter allows the fold of skin to increase inordinately, and with it likewise a certain descent of the mucous membrane. This does not return into the bowel, but remains outside. Now begins a series of changes which will attract the attention of the sufferer, and surely lead him to seek advice. The portion of the mucous membrane remaining outside, being exposed to contact with the air and friction of the dress, will become so congested and inflamed, as to secrete a quantity of mucus, far in excess of what might be thought possible from so small a surface. The result is that from this rectal blennorrhagia, if it may be so termed, there is a constant moisture of the part, and with it very often superficial ulceration, either of the mucous surface itself, or of the border-line of skin next to it. This state of things, when once established, will inevitably advance. The prolapsus, small as it is, goes on enlarging, and a constant dragging action will be perpetuated, not only by the expulsory movements of the bowel, when it will be most excessive, but likewise in the intervals. This is particularly the case where the erect position of the body is long maintained, or where, from fatigue in walking, or from any great exertion, the muscular system is exhausted, together with the fibres of the external sphincter, which ought to resist the dropping of the part in the early stage of prolapse.

This prolapse of the bowel would be much less likely to occur if the layer of cellular tissue beneath the mucous membrane were not so excessively loose as to permit its descent, or if the descent of mucous membrane with the enlarged veins beneath it did not drag upon and elongate the fibres of the cellular tissue itself. As the disease progresses, it does so with accelerated velocity. The greater the quantity of tissue forced down beyond the line of the rings of the external sphincter, and held there, the greater will be the actual size of the prolapsus, and, with it, of the veins contained in the tissue itself.

Among our preventive and palliative treatment of a general or constitutional nature in cases of piles, we must place foremost on the list diet and regular and temperate habits of life. The best remedies Mr. Lund believes to be sulphate of magnesia in moderate doses, combined with dilute nitric acid to increase its aperient action, and to give to it a more decidedly cholagogue influence, with taraxacum as a diuretic, and quinine as a stomachic tonic for the purpose of correcting that debility of the digestive organs commonly the result of the prolonged use of aperients. Where the liver is sluggish, the urine high-coloured, and the alvine secretions abilious, with nausea and vomiting of bile, then to the persistent use of the laxative mixture an occasional dose of blue pill with the dried carbonate of soda, may be added; this assists the action of the mercurial, and enables us to employ a smaller dose.

For the removal of external piles—that is, the cutaneous pile—Mr. Lund had nothing to add in regard to our ordinary mode of operating, whether done by one slice with the scalpel, or by many cuts with scissors. But when we have to treat an advanced case of the muco-cutaneous pile, or a number of internal piles, with more or less prolapsus, then their removal, if done by abscission, which the lecturer strongly advocated, must be proceeded with in a certain orderly manner.

The means of removal—that is, the instrument used in the operation up to a certain stage—is the scissors; and in this Mr. Lund follows, as in the operation for the removal of the tongue, the method of Mr. Walter Whitehead, who has employed it in the anal region as well as in the mouth.

Where the parts are very vascular, or are liable to be so in certain portions of their structure, a succession of small clips or cuts with scissors, by dividing only a small portion of tissue at a time, with an interval in which we can observe the amount of hæmorrhage, and deliberately control it, is safer in the end than where many blood-vessels are divided rapidly with each sweep of the scalpel, and excessive bleeding follows. The scissors which we use should have the ends of each blade well rounded, that it may not scratch or puncture the part against which it is pressed, but only cut across it, somewhat parallel to its surface. And they should be tested beforehand, to prove that they cut well up to the extreme end; and this may be done on wetted paper or leather, to imitate the flaccid yielding structures with which we have to deal.

The patient being prepared by having had the bowels emptied by the repeated use of gentle aperients for some days, rather than by one large dose on the previous day, and also, an hour before operation, by an injection of glycerine and warm water, Mr. Lund places him in the lithotomy-position, and secures the limbs with anklets and wristlets in the usual way. The first thing is to dilate the anus, and to draw down so much of the lining membrane of the bowel, with the enlarged veins beneath it, as will enable us to judge accurately of the size and limits of the growth. The dilatation is performed by passing an ordinary bivalve rectal speculum well into the bowel, expanding the blades; while so expanded, the instrument is withdrawn, and with it the mucous membrane, if it be at all loose. If it have already descended somewhat, it can be more completely drawn out by two or three such manipulations. This done, and the prolapsed bowel so produced being held outside the anus, the surgeon must proceed to snip

through the skin with the scissors just within the line of junction between skin and mucous membrane—that is, in the mucous membrane itself—passing round the bowel, except, perhaps, at one or two places where the continuity of the circle thus formed may be interrupted by leaving uncut little bridges of the muco-cutaneous membrane. This is not needful if the cutaneous tissue around the anus have been much relaxed; but, if it be at all tight and unyielding, it is prudent to do so, to prevent the formation of an uninterrupted annular cicatrix, which, by its firmness, might interfere afterwards with the free expansion of the anal orifice. After cutting around the anus in this manner, going on more and more deeply in every succeeding circuit, the scissors will enter the cellular space between the mucous membrane and the muscular wall of the lower part of the rectum. We know that this has taken place, when we see the muscular fibres; and we take care not to go too near to the mucous membrane, or to cut through it.

As this is being done, we observe the hæmorrhoidal growths lying on the exterior surface of the separated inner cylinder. Here and there in this cellular space a small vessel may be wounded; if this be done, as we watch carefully the effect of each clip of the scissors, it is easy to seize the bleeding point with Sir Spencer Wells's very useful pressure-forceps, and to stop the bleeding for the moment, or we may twist the vessel then and there.

Having thus separated the mucous cylinder from its attachment with the hæmorrhoidal enlargements and the companion vessels, we divide it into several smaller portions, each of which shall contain a bunch of vessels as an hæmorrhoidal growth. These being isolated by one or more cuts only in the mucous membrane, the surgeon may twist each off separately with torsion-forceps, properly curved and fashioned, having made his incisions at the base narrow enough for that purpose, any bleeding having been previously arrested by the means already mentioned. When two or three of these small masses have been so removed, the surgeon must seize the mucous membrane left above them, and sew it by means of curved needles, which serve as hooks to draw down the mucous membrane, as well as to pierce the skin around. If the mucous membrane be not secured in this way, before all the masses had been twisted off, the operator would lose command over it, and it might slip out of convenient reach. This plan, which is Mr. Whitehead's suggestion, is of very great practical importance.

When the last hæmorrhoidal mass has been thus separated, and the mucous membrane has been fixed to the skin, not too tightly, lest the suture-holes might ulcerate too soon, a perfect ring is formed at the orifice of the bowel, with some eversion or out-rolling of the mucous lining, which is useful in determining the escape of discharge from the rectum while the parts are healing. It secures this important point, that, the only part from which hæmorrhage can arise after the operation, being in the space between the mucous cylinder and that one formed by muscular structure, all the bleeding that may occur subsequently will be external and visible; and therefore, if needful, proper measures can be had recourse to for its control.

The next step is to place a morphia suppository within the rectum, and lodge it high up in the bowel by a proper instrument; and then, finally, to smear all the divided surfaces with the carbolated oil. The after-treatment of the case, locally, consists in the free and persistent application of the oil to the part, so that it may serve as a means of protection from the air and from the irritation or poisonous action of any of the discharges from the bowel; and it will be found to be as successful here as in the after-treatment of cases of operation for rectal fistula.

In conclusion, Mr. Lund observed: "I will not go into the merits of this mode of operating, as compared with other methods. I will only say I believe it to be a very safe method, and very effective. It is a tedious operation—that is to say, it takes much time; but, if rapidity in operating be no longer our test of excellence, I am sure the removal of internal piles by torsion will meet the approval of any who will give the operation a fair trial."

Relief of Cramp of the Uterus during Parturition.—The *Deuts. Med. Wochens.* quotes from the *Eira*, No. 17, 1884, a method adopted by Dr. Svanberg for removing cramp of the uterus during parturition. He employs a mixture of equal parts of chloroform and olive-oil, or two parts of chloroform to one of oil. A compress is soaked in this mixture, and pressed firmly on the abdomen, between the umbilicus and the symphysis pubis, with the result of immediately relieving the spasm, even when the previous inhalation of chloroform has been insufficient to do so.

Vaccination.—Mr. John W. Hayward, Public Vaccinator, Whitstable District, Blean Union, has a second time been awarded the Government grant for successful vaccination, amounting to £16 2s.

ABSTRACT OF THREE LECTURES ON SECRETION.

Delivered at the Royal College of Surgeons of England, June, 1885.

By EDWARD ALBERT SCHÄFER, M.R.C.S., F.R.S.,
Lecturer on Anatomy and Physiology in the College; Jodrell Professor of Physiology in University College, London.

Lecture II.—The Secreting Organ in Activity.

The lecturer began by describing the methods of exciting the activity of secreting glands, remarking that it would be necessary to go into some details with regard to individual glands. The ordinary medium of excitation was no doubt the nervous system; but there were also other methods of stimulating glands. It had been questioned whether the glands in the higher animals could be affected by direct excitation; but there was no doubt that they could be, as when the gastric glands were stimulated by irritating the stomach after division of the nerves. It must be remembered, however, that there were nervous ganglia in the coats of the stomach; and the stimulation might take place through them. In any case, it was certain that secretion could be obtained by direct stimulation of glands; for instance, the secretory activity of the salivary glands was stimulated by moving the jaws, or by electric excitation.

Of the stimulation of glands by reflex excitation, there were numerous instances. The salivary glands were stimulated by placing sapid substances in the mouth; also when food or other irritants were placed in the throat or elsewhere. Another example was the mammary gland, the secretion from which was produced through excitation by the lips of the infant. Some irritants seemed to act in a reflex manner, not through the sensory nerves, but through the cerebro-spinal centres; thus emotion affected the sweat, salivary, and, indeed, nearly all the glands in the body, producing sometimes increase, sometimes decrease, or even arrest of the secretion. Further, excitation of certain parts of the higher nervous centres might produce an increased flow of saliva.

Artificial methods of stimulating secreting glands were considered under two heads: 1, excitation of nerves; 2, the action of drugs.

It was first discovered in 1851 that excitation of nerves produced an increase of secretion. Ludwig found that, when the lingual nerve in a dog was divided, and the cut end was excited, there was a free flow of watery saliva from the submaxillary gland. Distension of the blood-vessels also occurred, but this was not the cause of the increased secretion. It was afterwards shown by Schiff and Claude Bernard, that the fibres in the lingual nerve, through which the stimulation was produced, were really derived from the facial nerve, and passed through the chorda tympani.

The following facts, the lecturer said, had been made out as to the nerve-supply of the submaxillary and sublingual glands. There were two sources: one from the cerebro-spinal centre, in the medulla oblongata; the other from the cervical sympathetic. In the submaxillary gland, the cerebro-spinal fibres came from the facial nerve through the chorda tympani, and became combined with ganglia in the gland; the sympathetic fibres passed through the cervical sympathetic, and reached the gland along the arteries. Very different results were obtained by stimulating these two sets of nerve-fibres. In the dog, stimulating the cerebro-spinal fibres produced an abundant thin watery secretion; exciting the sympathetic caused a thick viscid secretion, in small quantity. A difference was also observed in the effect on the blood-vessels: the cerebro-spinal fibres caused dilatation, the sympathetic fibres contraction. This contrast of action, however, was not universal; in some instances, stimulation of the sympathetic produced a thin secretion. There was also a difference in the character of the secretion: excitation of the chorda tympani appeared to increase the water and solid matters; that of the sympathetic seemed to increase the materials to be stored up in the gland. In the parotid gland, the cerebro-spinal fibres passed from the pharyngeal nerve through the otic ganglia. [The lecturer here described, by means of diagrams, the method of exposing the salivary glands and their nerves.] In the dog, an abundant watery secretion from the submaxillary gland was produced by electric stimulation of the chorda tympani; and the nervous supply of the submaxillary gland in man was very probably similar to that in the dog.

In some animals, there was another salivary gland—the orbital

gland; this was supplied with cerebro-spinal fibres through the buccinator nerve.

As regarded the glands of the stomach, although they received their supply from the vagus and splanchnic nerves, no constant result had been obtained from stimulating or dividing these nerves. In the pancreas, also, it had not been found that excitation of the sympathetic nerve produced any effect on the secretion. The mammary gland was certainly under the influence of the nervous system; but experiments had not given any important results. The sweat-glands could be shown experimentally to be under the influence of the nerves; excitation produced in them sometimes increase, sometimes inhibition, of secretion.

With regard to the action of drugs, the lecturer said that there were two to which special reference might be made—atropin and pilocarpin. Atropin arrested the secretions of nearly every gland; pilocarpin promoted secretion most powerfully. These drugs could therefore be used in investigating changes in the activity of glands.

The next point to be considered was the morphological changes which gland-cells underwent during the process of secretions; this was, comparatively, a new subject. Claude Bernard noticed differences in the character of the secretion at different times, but could not find differences in the cells. It was Heidenhain who first observed a marked change during activity in the cells of the pancreas, and of the gastric and salivary glands. The cells of secreting glands were essentially of two kinds: 1, those yielding zymogen granules, with albumen and a ferment—serous cells; 2, those producing mucus without ferment, and with very little albumen—mucous cells. The cells were distinct, but sometimes intermixed. In the submaxillary gland, some alveoli were filled with both kinds of cells, serous and mucous. The parotid, except in very rare instances, was a serous gland; the submaxillary and sublingual were mostly mucous glands. The orbital was a well marked example of a mucous gland. The cells of the pancreas mostly formed granules, not mucus.

Heidenhain found that the cells of the submaxillary gland presented different appearances before and after stimulating. His method was to stimulate a submaxillary gland, excise it, and harden it in alcohol, and then to remove and harden a gland in a state of rest. He proved that the cells of the resting gland were larger than those of the stimulated gland, and that, after stimulation, the cells could be stained with carmine more deeply and completely than before. The pancreatic cells became a little larger after food, then smaller; when digestion was completed, they regained their ordinary size. Similar changes were found in the cardiac glands of the stomach; after food, they were first enlarged somewhat, then they became smaller, sometimes very small, and stained deeply. In the pyloric glands, Ebstein found similar changes; also in the mucus-secreting columnar cells of the stomach, the cells being emptied of mucus. Heidenhain observed a similar reduction of size and discharge of mucus in the mucous glands of the large intestine.

In the orbital gland, most of the cells, in the resting state, were filled with mucus, while other cells, filled with granular matter, lay outside. But in a gland that had been in a state of activity, this distinction could no longer be observed. Hence, it appeared that, during secretory activity, the material accumulated in the cells was discharged, and the cells became mere masses of protoplasms, fresh matter afterwards taking the place of that which was discharged.

These observations, however, had been made on cells hardened by alcohol; and it was uncertain whether they represented the changes actually taking place in the living cell. Sheridan Lea and another observer had availed themselves of the pancreatic lobules lying between the layers of the mesentery in rabbits. On placing the mesentery under the microscope, and applying a stimulant, they found that, instead of the contents of the cell being homogeneous, it was crammed with granules at the inner part, leaving an outer clear zone. When the gland was stimulated the cells were at first somewhat enlarged, but soon became smaller, through a gradual loss of the granules from the inner part; and, if the stimulation were prolonged, there might be scarcely any granules left. Similar observations were made by Langley on the salivary and gastric glands. These showed that the cells of the parotid gland were filled with granules, which were gradually discharged while the gland was in a state of activity; and in the glands of the stomach Langley showed similar conditions to occur. Hence it was to be inferred that this was a general condition of serous glands.

Some glands showed peculiarities. In the mammary gland, during rest, the cells were flattened; during activity they projected into the alveoli. The globules of fat found in milk were probably derived from the breaking up of cells, or were discharged from them.

Other changes were produced in glands by stimulation of nerves, and were mostly well known. In the submaxillary gland of the dog, dilatation of the cells occurred when the cerebro-spinal nerves, and contraction when the sympathetic nerves, were excited. During the experiment, the activity of the gland was not proved to be accompanied by contraction of the blood-vessels. Langley found that when both sets of nerves were stimulated, but one more strongly than the other, its effects predominated; but that, when both were stimulated equally, there was an increased supply of blood to the gland, and increased secretion. It might be supposed that the increase of secretion was due to the increased blood-supply; but Ludwig had found that secretion went on in the submaxillary gland even when the blood-pressure was much reduced. Atropin arrested secretion, but did not stop the blood-supply.

Another change was a rise of temperature during secretory activity. Ludwig had found an increase of 1.5 per cent. in the salivary gland. Heat was thus produced as a result of activity of cells; and this was a great source of heat in the body.

Electric changes also accompanied the action of secreting glands. These were first observed in the skin of the frog; but there was a possible source of error in the circumstance that the glands contained involuntary muscular fibres. Luchsinga, and two pupils in the physiological laboratory at University College, had found that excitation of the nerves going to a gland was followed by changes similar to those produced by stimulation of other protoplasmic tissues.

Lecture III.—Old and New Theories of Secretion.

In commencing the third lecture, Mr. Schäfer said that, to physiologists, the function of secretion was the most obscure of all functions. In discussing the theories which had been held concerning it, he would analyse them under four heads:

1. The theories which prevailed before there was any true knowledge of the structure of glands.
2. Physical theories, held after some knowledge of the structure had been obtained.
3. Theories which recognised the importance of cells in secretion.
4. Theories of the action of nerves on the cells.

1. Up to the first third of the present century, there was very little definite knowledge of the structure of glands. In 1665, the first account of this was given by Malpighi, who described the ducts as ramifying and terminating in hollow cavities in the glands, and supposed that the secretion came from the blood-vessels distributed on the walls of the cavities. On the other hand, Ruysch, who was less clear-sighted than Malpighi, but a very skilful anatomist, and especially expert in injecting blood-vessels, taught that a gland was only a mass of blood-vessels, and that the fine arteries were connected with the ducts. Malpighi also had much the same belief as to the connection of the arteries with the ducts. At that time, and long afterwards, vasa serosa or vasa non-rubra, and direct passages between the blood-vessels and gland ducts, were believed to exist. For a long while, there was a controversy between the followers of Malpighi and those of Ruysch. Haller examined the conflicting theories, and gave the weight of his authority in favour of Ruysch; but the dispute continued even up to the time of Johannes Müller's celebrated work on the structure of glands. Even Meckel, in his *Handbook of Human Anatomy*, discussed the two views; but in the end took the side of Malpighi. Müller's work on the secreting glands, published in 1830, marked an epoch in our knowledge of the subject, but it had been led up to by previous observations. In 1749, Ferrein gave a very clear account of the structure of the kidney, and showed that the ducts of Bellini were connected with the convoluted tubules of the organ. In 1788, Szumanski described the convoluted tubules as being connected with the acini of Malpighi, and represented a direct connection between them. Curiously enough, Müller spoke of this view of Szumanski as a great error, and said that the acini of Malpighi were quite distinct from the tubules. It was reserved for Bowman to prove the correctness of Szumanski's opinion. At the end of the last century, Mascagni and Cruickshank made their experiments with injecting mercury into the ducts of glands, and found in the mammary gland that it passed into the saccules and not into the blood-vessels. With improved methods of investigation, the supposed vasa serosa were not found, and gradually ceased to be mentioned, except for the purpose of condemnation, but even up to the time of Müller the matter remained undecided. Just before Müller wrote, however, E. H. Weber found that matters injected into the pancreatic ducts passed into the saccules. Müller showed conclusively that the only mode of termination of the blood-vessels was in capillaries, which ramified in the interior of the gland. He also showed that differences in secretion did not depend on differences in the form of glands, and negatived various other theories which had been held.

2. After the publication of Müller's work, various physical theories of secretions were held. At first, it was thought to be a mere transudation through the basement-membrane; but when chemical differences were found in the products of secretion, these had to be taken into account. At that time, nothing was known about cells and their action. Afterwards, Dutrochet's theory of diffusion was applied to the explanation of secretion; and this diffusion must, no doubt, still be taken into account, though with modifications. Wollaston supposed that secretion might be a mode of diffusion modified by electric action. It was now known that glands presented electric variations, but no one held electricity to be a sufficient cause of secretion. Another physical theory was that of vascular pressure; but this, as was noted in the second lecture, had been shown by Ludwig to be incorrect. In many glands secretion was intermittent, though the blood-pressure was constant, and the secretion from the submaxillary gland continued when the pressure was cut off, and even when the heart of the animal was removed.

3. The third class of theories consisted of those relating to the action of the secreting cells. It might have been supposed that, after Schwann's investigations, the cell would have early had a place assigned to it in the function of secretion; but this could not be done until the nature and function of the cell was understood. It had even been thought that the cells lay loose within the glands, and that any changes which they might produce in the secretion were merely accidental. But, gradually, the importance of the cell and of its contents in the elaboration of secretions was recognised. No definite idea regarding this, however, had been formulated till late years. The first theory, the endosmotic theory, was put forth by Hering, of Prague, in 1872. He thought that the cells of the submaxillary gland contained a colloid substance, which became swollen up in consequence of the inhibition of fluid. He thought that the protoplasmic cells could form mucin; that this absorbed water, causing enlargement of the cells, which gave out their contents; that then mucin was again formed, and the process was repeated. In this way, pressure on the gland was produced; and Hering thought the flow of secretion might also thus be explained. From experiments on the parotid gland, Hering found that saliva was secreted under less pressure than in the case of the submaxillary. There were no powerful facts against Hering's theory, except the intermittent character of the secretions, and the fact that, in cases of paralysis of the nerves of the submaxillary gland, where secretion went on constantly, no mucin was found. Heidenhain was disposed to adopt Hering's theory with some modifications. He pointed out the necessity of assuming the active co-operation of the protoplasm of the cells, and held that the variations in secretion produced by the influence of nerves depended on differences in the power of the cells to resist the flow of fluid from them. Amœbæ, while alive, resisted the absorption of fluid; and, conversely, cells might resist discharge of fluid from them. Heidenhain supposed that, when division of a nerve was attended by increased secretion, it was in consequence of the power of the cells to resist the outflow being diminished. Contraction of the protoplasm of cells might also occur under the influence of nerves; but this had not been made out. Stricker and Spina had put forth a theory which tended to reverse all previous ideas. Engelmann had found that the cells of the glands in the frog's foot were, while in a state of rest, either flattened against the membrane or slightly prominent; but that, when the sciatic nerve was excited, the cells became enlarged, and projected into the gland, which also contracted, so that the lumen almost entirely disappeared. Engelmann believed that the contraction was due to the action of muscular fibres, and that the increase in thickness of the cells was produced by contraction of the gland, the changes in the cells being analogous to those met with in the epithelium of the urinary bladder, according to its state of distension or emptiness. Two or three years ago, Stricker and Spina investigated the glands in the foot and in the transparent lower eyelid of the frog. They found some of the cells flattened, others filling up the cavity of the glands like a plug; also that, when an electric shock was passed through the limb, the flattened cells became swollen, and the plug-like condition was increased. But they denied that muscular action had any effect in reducing the size of the epithelial cells, and said that, when the gland enlarged, the cells were flattened against the membranous layer, and the secretion was poured out into the lumen of the gland. They believed that the condition was not one of contraction, but rather of relaxation of the cells, with a passage of water into them, followed by contraction, which forced the fluid contents into the lumen of the gland. The lecturer had observed enlargement of the gland-cells during excitation of the nerves; but there was always some diminution of the gland, mostly in a direction from above downwards, in the course of the muscular fibres. Of course, this contraction could not be well seen, except when the gland was displayed in longitudinal section, which was often difficult. Stricker and Spina desired to apply their theory to all glands, including the salivary; they said that, if atropin were given, and the nerve irritated, there was no secretion; but, if the glands in the frog were at once stimulated, some secretion took place. Mr. Schäfer found that small doses of atropin (about two milligrammes) were sufficient to paralyse the chorda tympani, and to prevent secretion under direct irritation. Further, the results obtained by Stricker and Spina from the use of atropin in frogs differed from those in man, frogs being less susceptible to the action of atropin. The lecturer thought that the theory of Stricker and Spina must be rejected, so far as regarded the salivary glands; but no doubt somewhat different results were produced in the glands of the frog's foot from those observed in the glands of other parts.

4. The next theories for consideration were those concerning the influence of nerves. Heidenhain drew attention to the differences produced by exciting one or the other set of nerve-fibres supplying the gland. In the parotid gland, irritation of Jacobson's nerve was followed by an increase of watery secretion, while irritation of the sympathetic produced accumulation of organic matter. He believed that there were two sets of fibres, the secretory, and the nutritive or trophic; the former coming from the cerebro-spinal system, the latter from the sympathethic. But it was by no means certain that secretory fibres had not a trophic action; and there was no doubt that irritation of trophic fibres might produce the result attributed to the others. Langley and Heidenhain had spoken of three changes as being produced: *a*, a growth of protoplasm; *b*, transformation of protoplasm into secretory products; *c*, increase of fluid. The lecturer, however, thought that the fact of an increased growth of protoplasm had been much exaggerated; and that the enlargement of cells after irritation was the result, not of growth of protoplasm, but of the formation of secretory products within the protoplasm. It was agreed that the next effect was a discharge of the secretory products, which might or might not take place at the same rate as the enlargement; if at the same rate, the cells retained their size. The assumption of the growth of the protoplasm appeared to depend on the idea that the secretory products were formed *from* protoplasm, whereas they were probably formed *by* it. In regard to the formation of tissues, there were two views: *a*, that held by Beale and others, that all tissues must first have been protoplasm; *b*, that the tissues were formed by protoplasm. All that could be said was, that it was not yet possible to form a satisfactory theory on this point, one that should be applicable both to secretion and to nutrition. Lastly, the fact must be recognised that changes took place in glands during secretion, similar to those which occurred in other organic structures; such as the formation of heat, the evolution of carbonic acid, and electric changes.

A CASE OF SYPHILIS, IN WHICH ATAXY AND OTHER NERVOUS DISORDERS OCCURRED AT AN UNUSUALLY EARLY PERIOD.

By T. CHURTON, M.D.,
Physician to the Leeds General Infirmary.

John P., aged 24, of medium size, light hair and complexion, norma weight 11 st. 6 lbs., but now reduced to 10 st., a groom, able when in health to ride any horse, to walk thirty miles a day, and to endure long abstinence from food, accustomed to drink rather heavily both of beer and spirits, was admitted into the Leeds Infirmary on December 19th, 1884. He was quite unable to walk; he could stand, even when supported on both sides, with great difficulty, anxiously looking down all the while at his legs, and so tending to fall forwards, being unable to balance his trunk upon his lower limbs. He had also lost power of coordinate movements in his upper limbs; could not cut up his food; could not even pick up a match without great trouble and bungling; he could not, moreover, tell by mere sense of touch what the match was. His grasp was, however, not very feeble; he complained of numbness and "pins and needles" in his fingers, especially in those of the left hand. He had similar abnormal sensations in his feet, especially in the left. His replies to questions were hazy, and, when repeated, variable; he seemed rather dazed. There was no tenderness nor swelling of bones and joints; no special wasting of muscles. The plantar and patellar reflexes were absent; the cremasteric and abdominal present; the pupils, optic discs, and retinæ were normal. Hearing, etc., was not notably altered. The urine, on being heated, gave a marked phosphatic cloud. The organs of supply, circulation, and elimination were not particularly affected; he stated, however, that he had suffered a few weeks previously from

epigastric and abdominal pains, with some giddiness. In the right groin was a dusky red scaly rash; on the inner side of the right thigh was a similar, but much larger patch; on the penis, a cicatrix was found.

At first denying syphilis, he subsequently gave the following history. At seven years of age, he had rheumatic fever, but no other illness until two years ago, when he had gonorrhœa; sixteen weeks ago, he had a chancre, followed by an enlarged gland in his left groin; three weeks later, he had a sore-throat and a rash on the neck; he was then treated for syphilis, but not continuously. His parents are alive, but ailing; in his family, there is neither nervous disease nor phthisis. Five or six weeks ago, his right toes began to be numb and tingling; he staggered when he walked; the numbness spread up the leg; then the left foot and leg became affected; he was obliged to look at his legs when walking; he could not stand with his eyes shut or in the dark. At this time, he was still drinking rather freely. A fortnight ago (December 5th) he was quite unable to walk. Ten days ago his hands became numb and weak.

Upon this history being gained from him, mercurial inunction was at once begun; one drachm of blue ointment being rubbed in daily. He was kept at rest, had good food and no alcohol. He improved rapidly, so that on January 10 he could walk fairly well, could stand for a few moments with closed eyes, could cut up his food, grasp the dynamometer (right 53, left 51), distinguish two points of the æsthesiometer on the finger tips at a quarter of an inch from each other, and at one inch distance on the instep. The plantar and patellar reflexes were still absent. The inunction was continued until January 17th. He was discharged almost well on the 21st. A month later, the reflexes were normal.

Though the leading and most prominent clinical features of this case were thus finally seen to be those of locomotor ataxy, or posterior sclerosis, it cannot be taken as a simple case of that disease. The patient could neither walk nor stand at all, eyes shut or eyes open; so that, though he looked constantly at his legs when supported in the erect position, the sight of them did not help him. The equilibrating organ could not avail itself of information, reaching it through any channel. The really noteworthy feature of this case, however, is beside its accurate pathology. For the patient, having been quite well four months previously to admission and having then contracted syphilis, presented distinct symptoms of serious nervous disorder two months afterwards. I have previously seen nothing so rapid as this, except upon a single occasion.

Some years ago a similar case came under my observation. A young man, within a few months of his having contracted syphilis, presented, in addition to complete ataxy, certain specific signs which John P. did not present—for example, paralysis of the third nerve on one side. In him, perfect recovery ensued upon the very vigorous use of mercurial treatment, moderate treatment having been found wholly ineffective. Some authorities state that nervous diseases due to syphilis are not to be expected until from three to eighteen years have elapsed since the syphilis was acquired; but neither are changes in the arteries expected until after an equal lapse of time, yet cases have been recently recorded by Dr. Sharkey and M. Leudet, in which arteritis has followed the original sore in a few months. Now this question of the lapse of time appears to be one of some importance, for I do not remember ever to have seen a case of ataxy occurring many years after even indisputable syphilis, in which strong antisyphilitic treatment has done any good whatever; early cases, on the other hand, seem to require very decided treatment. The reason why later cases are unaffected by that treatment has appeared to me to be that, during the interval, other causes of disease, perhaps several, or even many, have come into operation, and, aided to some extent by the specific taint, have brought about a condition of the nerves and sheaths which the syphilis alone had shown itself, even when in full vigour, unable in these persons to achieve. In such circumstances, no simple treatment, no single drug, no one precaution, is sufficient, or scientific, or in accord with common sense. It has been shown, indeed, that even such compositely caused disorders are not, when treated early, at all hopeless. But the case now under consideration is one of syphilis affecting, at an unusually early period, motion slightly, and co-ordination of sensations and movements gravely. Such cases appear to be as easily curable by vigorous treatment, specific and otherwise, as the commoner form of localised paralysis, due to a simple gumma.

BEQUESTS AND DONATIONS.——Mr. Dennis Herbert, of Huntingdon, has bequeathed £200 to the Huntingdon County Hospital, £200 to the Earlswood Asylum for Idiots, and £100 to the Huntingdon Convalescent Hospital.

CONTROL OF THE LACTEAL SECRETION.

BY J. STUART NAIRNE, F.F.P.S.

THE breasts of parturient women frequently give trouble from engorgement of the lactiferous vessels, and from other causes leading to tension and pain in these organs. The two following cases will illustrate the line of treatment I have followed for some years past under these circumstances, and which has never yet failed to afford me perfect satisfaction and my patients perfect ease.

CASE I.—Mrs. G., multipara, was confined of a dropsical and malformed dead child, at full time, on March 14th, 1885. The breasts, which had been small and hard before confinement, soon became engorged and swollen; and the patient was hot and feverish. Cloths moistened with whisky and vinegar were laid on the breasts, and 10 drops of the tincture of belladonna were given every hour. Within 24 hours, the throbbing, which had been very troublesome, had ceased; milk could be easily expressed from the nipples, and she complained of a very dry throat. When the throat began to become dry, the number of drops of the tincture was diminished. During 10 days she had this treatment; the last few days, 10 drops only three times a day; and by that time the milk had almost entirely disappeared, and the breasts were small and flaccid. They gave no further trouble.

CASE II.—Mrs. C. was confined of her second child on May 25th, 1885; it was very weakly, being born before its time. She had a rapid rush of milk to the breasts; and next day these organs were very much enlarged, tender, and hard, and the child could draw no milk from them, and was so weakly that I thought it would die. It was, therefore, fed with the spoon, and the tincture of belladonna was given internally, as in the first case. The breasts were supported, and gently rubbed from the circumference towards the nipple. Next day, she said she felt hardly any pain, and the milk could be easily expressed from the nipples. The belladonna was continued another day, by which time the breasts were so soft, and the milk was flowing so freely, that the child was quite able to take its own nourishment. The belladonna was then stopped, and the breasts have given no further trouble.

These are only two cases which I have described, because they have just occurred, and they point quite clearly to the powerful influence that belladonna has in modifying the secretion of milk. Of course, one might say that, after a few days, the breasts settle down of themselves to their work. Sometimes they do, and sometimes they do not. My observation points to the fact that poor women of their own accord fly to a hundred remedies to relieve them—seidlitz powders, castor-oil, rubbing with oil and various things, and exhausting the breast with some kind of apparatus; and frequently to no effect; and frequently, also, with no result, is belladonna applied externally. The worst suppurating breast ever I saw was one in which the extract of belladonna had been applied most faithfully. In fact, applied externally in any form, belladonna is most disappointing. It frequently fails to relieve pain, take out the heat, or reduce the secretion of milk; and the cleanest of its applications is dirty. The smell, too, is frequently exceedingly offensive to the patient. Belladonna given internally is at once cleanly and effective; and I believe that, administered with judgment and careful watching of its effect, it is a specific for such congested conditions of the mammary organs.

BEQUESTS.—Mr. John Eden, of Beamish Park, has bequeathed £10,000 to the Durham Infirmary, £5,000 to the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties, £2,000 to the Brompton Cancer Hospital, £500 to the Royal Isle of Wight Infirmary at Ryde, £200 to the Gateshead Infirmary, and £200 to the Ramsgate and St. Lawrence Royal Dispensary.—Mrs. Mary Ann Blundell, of Alexandra Road, St. John's Wood, has bequeathed £100 to the British Home for Incurables, Clapham Rise.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—The annual meeting was held on June 2nd, and the following officers were elected. President, Dr. Goyder; vice-president, Mr. W. H. Ellis; council, Mr. Mossop, Mr. Miall, Dr. Craig, and Mr. Hirst; treasurer, Dr. Dunlop; secretaries, Dr. Rabagliati and Mr. Wilmot; auditors, Drs. Foster and Whalley; pathologists, Messrs. Carter and Spence.

DEATHS FROM STARVATION.—The annual return just issued of the number of deaths upon which coroners' juries have returned a verdict of death from starvation, or accelerated by privation, in the metropolitan district, in the year 1884, shows a total of 37 cases. Of these, 26 were in the eastern, eight in the central, and two in the western, division of Middlesex. The remaining case was in the Greenwich division of Kent.

THERAPEUTIC MEMORANDA.

CUCAINE IN HAY FEVER.

In the Journal of February 28th, in speaking of the relief afforded by cucaine in acute coryza, I suggested the probability of its efficacy in hay-fever. During the last few days, I have had the opportunity of testing it in my own case, and the relief obtained has more than answered my expectations. On this account I am induced to record the result, hoping that others will give it a fair trial. I have only, as yet, tried it in one other case beside my own, but there it answered equally well.

To alleviate the itching and burning of the eyelids (always an early and prominent symptom), I use a two per cent. solution, and apply it, by means of a camel's hair brush or the tip of the finger, to the margins of the lids, dabbing a little into the eye at the inner canthus. If too much be not used, there is no inconvenience from dilatation of the pupil; the remedy is thus applied as often as the symptoms present themselves. For the relief of the nasal symptoms I have used a four per cent. solution, introducing a couple of drops into each nostril by means of an eye-dropper, holding the head well back, and sniffing it up. It is well to have only a small quantity (for example, ʒj) of these solutions made up at once, and the little bottles are conveniently carried about for use at any time. The use of goggles to protect the eyes from glare and dust is also most important, and they should be worn regularly, whenever the light is bright, from the commencement of the disease until the susceptibility has passed away.

Wm. S. Paget, M.D.Lond., M.R.C.P., Great Crosby.

TREATMENT OF ERYTHEMA NODOSUM.

The raised patches of erythema nodosum, which are generally found over the tibiæ, are sometimes very painful, and are usually slow in receding. I have acted in accordance with the belief that this disease is due to inflammation of the lymphatic vessels and spaces, and that it is more closely allied to erysipelas than to any other disease; I have, therefore, treated it antiseptically with sulphurous acid. In three cases, treated in this manner, I have met with marked success, the pain being relieved, and the patches rapidly subsiding.

My method is to soak lint in a mixture of equal parts of fresh sulphurous acid of the *British Pharmacopœia* and hot water, heated to boiling-point; the lint is then wrung out, and placed over the patches. When it cools, it is changed for another piece.

W. E. Buck, M.A., M.D.Cantab.,
Physician to the Leicester Infirmary.

CLINICAL MEMORANDA.

GOUT, DIABETES, RENAL COLIC, AND IMPACTION OF CALCULI IN THE URETHRA.

J. B., a tall stout man, a farmer, was subject to fits of acute gout. I was first called on to attend him for an attack on February 16th, 1878. He seemed to make a speedy recovery, but left his bed too soon. On February 28th, I was sent for, and found the patient as ill as ever. This attack did not subside as the former, and after the great toe-joint, various others, of the lower and upper extremities, became affected, including the knee-joints; the patient recovered, and I ceased attendance on June 26th. He was now sent to Buxton for a change, and returned much improved. There was a return of the disease in the end of December, and lasting to some days in January, 1879. He again had a prolonged attack, commencing December 15th, 1880, and ending April 15th, 1881. On December 28th, I was sent for, and found the patient suffering from diabetes mellitus. For this he was under treatment till April 14th, 1882. On October 22nd, 1882, he had an attack of renal colic. Diabetic symptoms reappeared again in January 1883. I saw him on this account on January 26th. He remained under treatment till May following. In September, there was a recurrence of the disease, lasting till November 9th. During the time from January to May, he had several short attacks of gout; and, whilst these lasted, the diabetes disappeared, but returned as they subsided. About September 18th, he had another attack of renal colic. This was followed by fæcal obstruction, relieved by injections of soapy water. On October 20th, I was sent for, as the patient could not pass urine. I removed with dressing-forceps an uric acid calculus of irregular oval shape, measuring a quarter of an inch in one and five-sixteenths of an inch in the other diameter, from a point just behind the glans penis. On October 3rd, 1884, I was again sent for. I found a hard nodule, occupying a place somewhat behind the terminal half of the urethra, and, by using a probe, made out its nature, but could not get hold of it with any instrument I had. In order to give him relief, I tried to pass a soft rubber-catheter beyond the obstruction, and succeeded. In passing the catheter, the calculus was very slightly displaced backwards; but, on removing the instrument, the stone seemed to get wedged against it, and was brought somewhat in advance of its old position, but still I was unable to grasp it. I limited myself to passing the catheter twice daily, and made attempts to remove the stone by such means as I had. On October 6th, at my second visit, I had again passed the catheter carefully, and, in withdrawing it, the stone moved forward considerably, so that I now was able to grasp it in my dressing-forceps and extract it; a few drops of blood followed.

This patient, during his attacks of gout, passed large quantities of uric acid (red sand). The discharges of this substance were always coincident with amelioration in the gouty symptoms. Fearing the formation of larger concretions, I ordered him citrate of lithia, in ten-grain doses, which always had the effect of causing the uric acid deposit in the urine to disappear. I also ordered him to drink with his meals lithia-potash water, which was prepared for me by Blake, Sandford, and Blake. Each bottle contained five grains of lithia citrate and ten grains of potash bicarbonate. But the patient did not persist sufficiently in the use of this water. The second calculus was also somewhat oval in shape, flattened on one side, and measuring somewhat more than a quarter of an inch in one diameter and three-eighths of an inch in the other.

M. R. J. Behrendt, L.R.C.P. and L.R.C.S.Ed.

HYPERPYREXIA IN AN INFANT.

On May 23rd I was called to see an infant, aged 14 months. It was suffering from pneumonia at the left base, and was also apparently in the initiatory stage of measles; from which disease the other children in the house were recovering. The child was exceedingly drowsy, not easily roused, and seemed very prostrate. I treated it with slightly stimulating mixtures (ammonia and ipecacuanha) ordered a warm bath twice a day, and poulticed the back. On the 25th, the rash of measles appeared very slightly in the morning, and disappeared the same afternoon. On the 26th, the child was unconscious, breathing very rapidly, and on taking its temperature, the index showed it to be 107.5. The child was wrapped in blankets and covered with heaps of unnecessary clothing, which the mother had put on, hoping "to bring out the rash." I at once stripped it, and applied handkerchiefs wrung out in cold water all over the chest, abdomen, neck, and arms, frequently changing them, until the temperature was reduced to 101°; this operation took half an hour. The child became conscious; her pupils acted to light, and she swallowed some milk and brandy. This was at 6.30 P.M.; she had a much better night, and took nourishments well; but about 9 A.M. she seemed to relapse into her former condition of unconsciousness, and when I saw her at 11 A.M., her temperature was 105°. I reduced it again by the cold treatment, to 100°, much against the father's will; and by constant visiting her and applying cold, I managed to keep the temperature fairly down, and at 9 P.M. I got her to drink several teaspoonsful of milk and brandy; the temperature then was 102°; the pulse very weak, the hands and feet cold; I then reapplied hot flannels to the extremities. I then was obliged to leave, and could not return that night; she died about 1 A.M.

I have never seen such a high temperature in an infant, and I fee sure that if she had had skilled nursing, her life would probably have been saved. Antipyretics were out of the question, as she could not swallow; and injections, *per rectum*, were useless, as she had diarrhœa. The rash of measles never appeared properly more than once. Was the high temperature due to "suppressed measles?"

A. H. Boys, Pill, Somerset.

ANKYLOSTOMUM DUODENALE IN JAMAICA.

Dr. Wucherer (quoted by Dr. Cobbold—Quain's *Dictionary of Medicine*, part ii, p. 1,398), in speaking of the geographical distribution of the "Ankylostomum Duodenale," after mentioning several countries, says: "It thus appears, from the wide separation of these several localities, that the ankylostomes, if duly sought for, will be found in many other countries."

As I cannot find, in any of the writings on the subject which I have been able to search, that the West Indian Islands have been added to the list of tropical localities where this intestinal parasite may be

found, I venture to record the fact that I have frequently met with the ankylostomum duodenale in this island (Jamaica).

Shortly after my arrival here, among the cases of anæmia (which are numerous in a tropical hospital) admitted under my care, I noticed some whose symptoms seemed to correspond closely with the descriptions of so-called Egyptian and Brazilian chlorosis; and, on an opportunity occurring I carefully examined the small intestine of a patient who had exhibited such symptoms during life, with the result that numbers of the parasites were found and identified by microscopic examination. Since then, I have met with many such cases.

The symptoms attending the presence of this nematode (blanching, dyspnœa, serous effusions, diarrhœa, etc.) are fully given by the writers on the subject. Nearly all my patients, whether children or adults, have been "dirt eaters" (the dirt being usually earth, clay, chalk, or starch). But as this is not the earliest symptom of the disease, but is evidently the result of the inordinate appetite created by the drain on the system, which is made by the thousands of blood-sucking, unwelcome guests, after they have entered the body of their host—one cannot suppose that the ova of the parasite are introduced into the alimentary canal with the earth eaten (as is the case with the larvæ of certain beetles). It seems much more probable that the ova are swallowed in drinking-water—the Jamaican peasant getting his water usually from springs, ponds, or rivers, which are as often as not the receptacles of his evacuations.

HENRY STRACHAN, L.R.C.P.Lond.,
M.R.C.S.Eng.
Public Hospital, Kingston, Jamaica.

OBSTETRIC MEMORANDA.

SPONTANEOUS EXPULSION OF FŒTUS, WITH ARM AND SHOULDER PRESENTING.

I WAS called by a midwife one evening lately to go and deliver a woman who had been in labour 16 hours, with "the hand" presenting. The patient was 35 years of age, had been married six years, had three children previously, and two premature (stillborn); her last child was 11½ months old. There was no unnatural history about her previous confinements. She was of middle stature, and well developed, but in a weak state from her lengthened discomfort. On examination, I found the whole of the arm and shoulder protruding from the vagina. The finger was with difficulty introduced, and discovered the occiput jammed in the hollow of the sacrum. The fœtus was in a putrid condition. While I stood for a moment thinking of the best means to relieve the woman, there was one pain, and the delivery was accomplished.

The chief interest in this case is the way in which the expulsion was effected. It was not as is usual in the "spontaneous expulsion" of Douglas, in which case the head is jammed against the pubes. In this instance, the occiput remained jammed in the hollow of the sacrum, and the thorax, abdomen, and then legs, were expelled anteriorly, the head following. The patient went on uninterruptedly well, and was up on the tenth day.

J. LIONEL STRETTON, Kidderminster.

SURGICAL MEMORANDA.

THE USE OF CUCAINE DURING THE REMOVAL OF A NEEDLE FROM THE FOOT.

I HAVE read with great interest the various accounts in the JOURNAL of the use of cucaine in different minor operations, but do not remember having read of a case in which it has been used during the extraction of a foreign body from the sole of the foot. I have used it with great success in the following case.

A little girl happened to run a needle into the fore part of her heel; the point broke off and lay embedded. By passing the blunt end of another needle along the track left by the broken one, the latter could be felt about a quarter of an inch from the surface. The pain, however, caused by the process of probing was so acute, that I determined to try the effect of cucaine during extraction. I painted the surface near the puncture with a 4 per cent. solution of the hydrochlorate, and allowed some to trickle into the wound; altogether, about 8 or 10 drops were used. In about half an hour's time, the part was so deadened, that I was able to dilate the wound by means of a fine probe and forceps, and to extract the broken needle without causing the slightest pain.

SAMUEL NALL, M.B.Cantab., etc., Disley, Cheshire.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ST. BARTHOLOMEW'S HOSPITAL.

CONSULTATIONS.

JUNE 11TH, 1885.

Traumatic Cephalhydrocele.—In concluding a paper on traumatic cephalhydrocele, Mr. T. SMITH (*St. Bartholomew's Hospital Reports*, vol. xx, 1884, page 240) says: "Though few cases of cephalhydrocele have been described, it may well be doubted if the number of recorded cases adequately represents the frequency of the lesion. For I bear in mind, even in my own experience, cases that have passed from under my care with, as was supposed, unabsorbed cephalhæmatomata, and some of these bore a very suspicious resemblance to the first case recorded in this paper." In that paper, Mr. Smith reprinted a table published by Dr. Conner, of Ohio, in the *American Journal of Medical Sciences*, July 1884, and added three other cases to the list, making altogether 22 cases. Mr. R. J. Godlee showed a specimen of the skull from another case at the Pathological Society on January 6th, 1885 (BRITISH MEDICAL JOURNAL, January 10th, p. 75); and Mr. T. Smith's conjecture as to the comparative frequency of the condition was confirmed by the fact that Dr. Bristowe could recall three cases on the spur of the moment.—On June 11th, Mr. MORRANT BAKER showed yet another case at the consultations at St. Bartholomew's Hospital. Mr. Baker's patient was a female infant, aged eight months; two months before, it had been allowed to fall on its head on to the floor. When the child was picked up, there was a large swelling above the left ear; this swelling, according to the mother, had not since notably altered in size, but it had "come rather lower down." The child presented no symptoms of nervous disorder, it had never had a fit, and was good-tempered and amenable. At the consultation, the child presented a smooth, soft, elastic swelling, evidently containing fluid, situated in the left temporal region; the swelling was oval, measuring three inches and a half from before back, and two inches and a half from above downwards. The skin over it appeared quite natural, but the external ear was displaced and depressed, so that the meatus looked downwards and outwards. The swelling reached upwards to the lower margin of the left parietal bone, forwards to the malar eminence and the zygomatic arch, and backwards to the upper portion of the temporo-occipital suture. A free edge, which was taken to be the lower edge of the parietal bone, could be plainly felt, and was thought to be a little everted; eversion of the margins of the opening in the parietal bone was also noticed in the case figured by Mr. Smith in his paper. The bony margin was not well defined below, but the swelling evidently communicated very freely with the interior of the skull, and it appeared as if a portion of the squamous portion of the temporal bone were wanting. The swelling became tense when the child cried; when it was quiet, pulsation was very evident, and was synchronous with that of the anterior fontanelle, which was large, extending forward for some distance into the frontal bone. At the point on the opposite side corresponding to the tumour, the bone was thought to be soft, but there was no evidence of craniotabes. In the case figured by Mr. Smith, there was, according to Mr. Godlee's report (*loc. cit.*), an indentation on the other parietal bone, corresponding in shape and size with the aperture in the bone of the affected side.

In these cases the fluid, which is indistinguishable from cerebro-spinal fluid, appears to accumulate between the bone and the pericranium, or beneath the temporal muscles, in consequence of fracture of the bone and rupture of the dura mater, which is everywhere firmly adherent to the bone in infants. Fracture of the bone in them therefore must involve laceration of the dura mater. Further, in several of the cases—four at least—there was a direct communication between the cavity of the cephalhydrocele and the lateral ventricle. The patients have all been children; nearly half the cases were under

one year old. In one case recorded by Billroth, the injury was produced by the forceps at the time of delivery.

The tumour was punctured, aspirated, or incised in 18 cases; 11 of these cases died, six recovered, and one was lost sight of. In five of the cases, the tumour appeared immediately after the fall, and this was also the case in the patient shown by Mr. Morrant Baker, who, in his comments on the case, said that no treatment beyond the application of gentle pressure was to be recommended. He thought that, if the child survived, the swelling would gradually disappear.—Mr. LANGTON said that he was led, by the wide separation of the bones, and by the fact that a portion appeared to be prolonged over the tumour, to suggest that the lesion was largely congenital. In a case which had been under his care when assistant-surgeon, recovery took place gradually, without any treatment.—Mr. HARRISON CRIPPS observed that the term traumatic meningocele, sometimes used, was improperly applied, as there was no hernia of the membranes, but a rupture of the bone and membranes, allowing an accumulation of fluid to occur beneath the temporal muscles.

Epithelioma of Leg.—A consultation was also held on a man aged 40, under the care of Mr. T. SMITH. The patient had had an ulcer on the anterior surface of the leg in the lower third, for between four or five years before admission; this ulcer had healed up, but had broken down again; and, about a year before admission, its appearance altered, and it became prominent. The tumour was a fleshy mass about three inches long and two wide, and projected about one inch above the surface; it was soft, bleeding easily when touched, and the edges were not hard. Mr. Smith observed that the growth was in all probability an epithelioma; it was not very painful, and the man could go on with his work. The glands in the groin were affected, and any operation therefore would probably be most unsatisfactory.—Mr. SAVORY remarked that the tibia was also probably involved, and perhaps the popliteal glands. The only operation he thought worth attempting was to remove the growth freely, and scrape the bone.—Mr. WILLETT, on the other hand, thought a local operation could do no good, and advised amputation through the upper third of the leg, the gland in the groin being at the same time freely removed.—Mr. WALSHAM questioned whether the lumbar glands were not also affected, and agreed with Mr. Smith that no operation could be undertaken with any confidence that the patient would be thereby benefited.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 3RD, 1885.

J. B. POTTER, M.D., President, in the Chair.

Specimens.—The following specimens were shown:

1. Pessaries of Gelatine containing Glycerine and Boroglyceride. By Dr. GERVIS.

2. A specimen showing Endometritis, Salpingitis, Oöphoritis, and Perimetritis, with Rupture of the Tube. By Mr. DORAN.

3. Serous Perimetritis, producing complete Intestinal Obstruction, and evacuating itself by sloughing processes. By Dr. W. S. A. GRIFFITH.

On Serous Perimetritis.—Dr. JOHN WILLIAMS gave an account of three well marked cases, and a description of the appearances after death in one. Dr. Williams concluded that the disease was due to extension of inflammation from the uterus, that it commenced in the peritoneum in the neighbourhood of the ovaries, and extended along the brim of the pelvis, matting the intestines to the fundus of the uterus, and converting the pelvic cavity into a closed sac. Into that sac, serum was effused, which raised the uterus upwards and forwards, and depressed the posterior wall of the vagina, so as to protrude through the vulva in some cases. The effused serum became coagulated at the upper part, where adhesive peritonitis was present, and formed in some cases a considerable mass. This mass fixed the uterus, and was the hard swelling felt after tapping.—Mr. KNOWSLEY THORNTON had seen two cases of the disease, one of which had recovered after tapping and drainage, and the other (presumed to be a similar case) had died without local treatment, without a necropsy. He urged that the connection of the onset of these cases with delivery, abortion, and sudden checking of the menses, pointed to escape of fluid from the Fallopian tube. The fluid, however, was not septic, as would be expected; indeed, if it became septic (as after tapping), the case almost always ended fatally, in the absence of a free opening and washing out the cavity. The disease was practically a separate disease from ordinary pelvic peritonitis and cellulitis, with which all were familiar. The material causing serous perimetritis was evidently very irritating, as shown by the dense adhesion. He inquired whether the semisolid material described by Dr. Williams was the result of irritation or of secretion under pressure. The pressure was indicated by the great pain accompanying the disease. As to treatment, aspiration was inferior to free opening by a trocar, and maintenance of the opening so formed, with washing out of the cavity. Nothing answered so well for this purpose as a Cock's trocar and cannula, with a Wells' retaining spring for the cannula.—Dr. GERVIS thought that cases of slight severity were not very uncommon. He differed from Dr. Williams in his explanation of the pushing of the uterus upwards and forwards, as also in hæmatocele. Dr. Williams thought this only occurred after the formation of adhesions, but Dr. Gervis had seen many cases in which this displacement occurred almost immediately after the effusion, and before the fluid could have become encysted.—Mr. DORAN agreed with Dr. Williams as to the usual route of the extension of the inflammation, namely, from the uterine cavity and along the tubes. In Dr. Matthews Duncan's book on *Parametritis and Perimetritis*, a case was related in which the sound could be easily passed through the left tube into the peritoneal cavity. The rarity of serous perimetritis might be due to the necessity of a combination of factors, namely, patency of the tubes, followed by a particular kind of inflammation producing the effusion of serum, and the formation of a closed cavity by adhesions. Perimetritic inflammation might be of parametric origin, by way of extension, but this was probably rarer than the mode of origin above described.—Dr. GRAILY HEWITT pointed out the analogy between effusion into Douglas's pouch (serous perimetritis), and effusion into the broad ligament (parametritis); the only difference being that of position. He thought the diagnosis of serous perimetritis from hæmatocele very difficult.—Dr. GODSON believed that serous perimetritis was not so rare as the author thought, and that its diagnosis from hæmatocele was often difficult. In Dr. Greenhalgh's time, the ward at St. Bartholomew's Hospital had always several cases headed "hæmatocele," and cases with the same characteristics were called by Dr. Matthews Duncan "perimetritis." As neither tapped these swellings, their pathology was so far doubtful.—Dr. MATTHEWS DUNCAN esteemed highly this contribution to pathology, and especially the *post mortem* examination in one of the cases. In Dr. Duncan's cases, the fluid always ran off as in a perimetric abscess, and he had no experience of the solid matter described by Dr. Williams. He had seen the serum set after it was drawn off, but he required full assurance as to its formation in the cavity containing the fluid.—Dr. CLEVELAND thought the use of the thermometer had not been sufficiently dwelt upon in the differential diagnosis between serous perimetritis and hæmatocele.—Dr. W. GRIFFITH thought that the great difference of opinion among the speakers arose from the want of a precise definition of serous perimetritis. Some, who thought the disease rare, limited the term serous perimetritis to cases with large effusion. He believed serous perimetritis to be the commonest form of perimetritis, by the analogy of pleurisy with effusion of serum and that of other inflammations of serous membranes, and by the displacement of the uterus and its rapid subsequent retreat. The specimen which he showed illustrated the occasional sudden disappearance of the signs; the serum escaping by rectum, vagina, and bladder, and not showing its presence, as pus would.—Dr. GALABIN had met with a fair number of cases in which encysted serous perimetritis had been diagnosed, and the diagnosis confirmed by the gradual disappearance of the swelling, and the recovery of the patient. In one case, the resemblance to an ovarian cyst had been very close, a fluctuating swelling in Douglas's pouch being felt as a tumour reaching above the navel. A diagnosis of serous perimetritis was made because of the acute inflammatory symptoms with which the affection began. It eventually disappeared completely. He had only once tapped a serous perimetritis, and that in consequence of an error in diagnosis. Tapping was generally unadvisable. His case illustrated the fact that these cases might sometimes have the rigors and high temperature usually thought to indicate pus. It was aspirated, and clear serum drawn off with antiseptic precautions. The patient became worse, showing septic symptoms; the swelling filled again; a free incision was made, a large drainage-tube kept in, and the cavity washed out with a weak solution of iodine. The patient recovered after a serious illness.—Dr. CHAMPNEYS had noticed the flakes of lymph described by Dr. Williams, in fluid recently drawn from a case of serous perimetritis under his care. He had lately had a case in St. George's Hospital, in which a pouch of clear serum existed side by side with an ordinary pelvic abscess. As regarded the surgical treatment, it must be remembered that the walls of the cyst were dense and unyielding, and would not readily collapse; in this lay one of the dangers. If such a collection were opened, antiseptic treatment should

consist of careful antiseptic cleansing of the vagina and of the instruments; and, in addition, he believed that it was well to leave an iodoform-pessary, which would melt slowly, in the vagina, to dispose of any germs which might attempt to gain an entrance. He believed that a differential diagnosis without tapping was impossible more often than not. He would remind Dr. Griffith that a very small enlargement of a pelvic organ—such as an ovary—was sufficient to displace the floating uterus, and that displacement was not an absolute evidence of effusion.—In reply, Dr. WILLIAMS said that his first case was improved by tapping; that she died from severe diarrhœa, for which there was ample cause other than sepsis; and the contents of the sac were quite sweet and antiseptic after death. The little serum at the bottom of the sac was clear and sweet. As to the rarity of the disease, Dr. Williams was surprised to hear from several speakers that they had seen several such cases. There were only about half a dozen cases on record, and the majority of the systematic writers on the diseases of women said little or nothing about it. The three cases recorded in the paper were the only three that Dr. Williams had seen and recognised. Mr. Doran's ingenious explanation of the extension of inflammation along the Fallopian tube to the peritoneum in some cases, and not in others, was deserving of attention and study. Dr. Williams thought that it was probably a correct account of what took place. Dr. Matthews Duncan had asked if the solid serum was the result of *post mortem* change. Dr. Williams thought it was not, because the solid mass was discovered by Dr. Hewitt and himself during life above the layer of fluid in the most dependent part of the sac; flakes of it were passed in the second case; and, in the three cases, a similar hard mass was discovered at the top of the sac during life; and Dr. Matthews Duncan had found the same physical signs after tapping, signs which the presence of the coagulated fluid fully explained.

Specimen of the Pseudo-osteomalacic Pelvis of Naegelé.—Dr. WALTER GRIFFITH showed a specimen, which was bought in Paris by Professor Humphry, of Cambridge, and lent by him. It was obviously rachitic, but had some of the characteristic deformities of mollities, including a much curved instead of a flat sacrum, much curved iliac fossæ, and a triangular in place of the usual flat brim; the posterior parts of the ilia were moulded round the sacrum. The os pubis, however, was not peaked, as was the case in other specimens of this type. It was suggested that the cause of this unusual deformity was a severe form of rickets occurring later in childhood than usual. References were given to other recorded specimens, and to papers on the subject by Smellie, Dr. John Burns of Glasgow, Naegelé, Michaelis, Litzmann, and Spiegelberg. Photographs and detailed measurements were also given.—Dr. CHAMPNEYS regretted that the author had not adopted the plan which he had himself followed when he had brought abstruse pelves before the Society, namely, that of leaving the specimen on view with the paper at the Library for the study of Fellows. Speaking from a cursory view of the pelvis, he thought that the disease appeared to have attacked the pelvis unequally, the posterior parts being much more deformed, and bearing much plainer evidences of softening than the anterior parts. The specimen was of great interest.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 10TH, 1885.

NORMAN CHEVERS, C.I.E., M.D., President, in the Chair.

Ventilation with Air from Superior Layers in place of Inferior Layers.—Mr. EDWIN CHADWICK, C.B., said that his attention was early directed to instances of layers or strata of air of malarious influence, and referred to instances where those who were obliged to live within or beneath such layers suffered from epidemic visitations, whilst those dwelling on levels above them escaped. The general effect of land-drainage had been to reduce mists, and even to remove them; and, in such instances, had reduced the plague of midges in England, of mosquitoes in Algeria, and ague in the fen-districts of Lincolnshire. Dr. Neil Arnott had suggested drawing air from a height above the common and moist layers, and distributing it into houses by engine-power, or as gas is distributed; the principle was worthy of consideration in the construction of hospitals. The admirable methods of internal ventilation in some hospitals of Paris and in England really introduced air that was positively bad, because it was drawn from lower couches, and was common street-air polluted by street and sewer emanations; were the air drawn from superior and pure layers, there would be no need for washing the air of surgical wards before operations. Of the two systems of ventilation—one of "propulsion," or driving in the air; the other of "aspiration," or of drawing it out by suction—the principle of the latter was peculiarly adapted to drawing in the air from the superior layer, obtained from two, three, four, or five hundred feet, or whatever height might be desired. The principle was also applicable for securing sleep, in India and Southern cities, free from the plague of mosquitoes, since these fed exclusively in the animalised gases diffused amongst lower layers of air. The engine-power required for this service would be less than that for ventilation by punkahs. The temperature of the superior air might be easily raised, as at the Lariboisière Hospital, by hot water in its downward course, or on its admission into the building; it could easily be lowered, if necessary, by being passed over surfaces cooled down by evaporation. The expense would be less than that of warming edifices by the ordinary method. Common absorbent brick ought not to be used in the construction of towers for the obtaining of pure air, but non-absorbent concrete would appear to be the most eligible material; the requisite heights of the towers would have to be ascertained experimentally.

Remarks on Outbreaks of Cholera in Ships carrying Coolies from Calcutta, showing the Periods of these Occurrences and the Ships' Positions at the Time.—Inspector-General ROBERT LAWSON said that, when Mr. Bolton G. Corney, Colonial Surgeon, Fiji, was in this country last autumn, he mentioned that cholera had appeared in some ships carrying coolies from Calcutta to Fiji, and that about ten cases of cholera had occurred in 1880 among coolies who had been in the colony about a year, four of which had proved fatal. Since his return to Fiji, Mr. Corney had sent home notes of four ships that had suffered from cholera during their voyage from Calcutta; each vessel had about 500 coolies besides its crew. Of these, the *Leonidas* sailed on March 4th, 1879; and on the 7th, being the fourth day after the coolies embarked, an European sailor was attacked with cholera in lat. 18° N., long. 90° E.; other attacks occurred among the coolies on the eighth day, and daily from the fourteenth to the twenty-second days, on the last of which the ship was in lat. 3° N., when they ceased. The *Poonah* sailed on April 7th, 1883, cholera broke out on the 12th, the sixth day after embarcation, in lat. 16° N. Fifty-four cases occurred among the coolies, the last on the thirty-sixth day in lat. 12° S., but an European was attacked on the forty-first day, in 18° S. The *Hourah* had a fatal case, in a child, before sailing; the body was sent on shore, with its mother and another child, and the ship left on April 9th, 1884. The next case occurred on the ninth day after embarcation, in lat. 12° N., long. 91° E.; and on the fifteenth day there were three in 8° N., after which there was no more cholera, though diarrhœa continued till the fortieth day. The *Pericles* sailed on May 10th, 1884; the first case of cholera occurred on the 14th, the fifth day after embarcation, in 17° N., 90° E.; numerous cases occurred up to the twenty-ninth day, when the ship was in 35° S., having made an unusually rapid passage through the tropics. There were no further details for the *Poonah* or the *Pericles*. In addition to these instances H.M.S. *Cruizer*, on passage from either Madras or Trincomalee to Swan River, Western Australia, in 1831, had four deaths from cholera; of these, one was attacked on July 12th, in 4° N., 91° E., two on July 26th, in 9° S., 95° E., and the fourth on August 8th, in 28° S., 85° E. The dates of sailing and of arrival at Swan River were not specified. Following up this investigation, a table in the *Eighteenth Annual Report of the Sanitary Commissioner with the Government of India*, p. 135, gave the names of 32 ships carrying coolies from Calcutta to Mauritius, Natal, and the West Indian colonies, being all those in which cholera occurred from 1871 to 1880 inclusive. The total number embarked during this period was 129,527, of whom 14,752 sailed in the vessels just alluded to, of whom 181 died of cholera; the days after embarcation on which the deaths occurred in each ship were specified in the table from the first to the twentieth singly, and above the twentieth in a group. Arranging these vessels according to the days on which the first death occurred, they resolved themselves into four groups, the first embracing four, in which the first deaths from cholera occurred from the first to the fourth day, and the last on the sixth day. The second group, of nine ships, had the first deaths from the seventh to the sixteenth day; in these, the last took place on the seventeenth or earlier, except in two, one of which had a single death on the nineteenth and another on the twentieth day. The third group, of eight, had no death before the twenty-first day. In the fourth group, of 11 ships, three had deaths in the first two periods, two had them in all three, and six in the last two only. Sailing ships from Calcutta, bound for points south of the Equator, proceeded along the meridian of 90° E., as nearly as the winds permitted; about the Line they usually deviated somewhat to the eastward, until they reached the S.E. trade-wind; if bound westward, this was a fair wind for them, and all followed nearly the same track as far as Mauritius; if going eastward, they had to get through the trade-wind with as little westing as possible, to reach the westerly winds found to the south of it. For these reasons, all sailing ships from Calcutta going south, followed much the same track until they reached the equatorial

margin of the S.E. trade, which varied from 4° S. to 12° S. on the 90° east longitude, according to season. From several instances the approximate mean latitude of these on the 7th day after embarcation of their coolies was found to be 15° N., and on the 16th day 7° N., while on the 21st day their position was about 1° N., with a variation in particular cases, however, of 3°, or even more, either way; the positions, then, in which the outbreaks in the three groups abovementioned took place were pretty clearly defined, and as there was no succession of cases from embarcation to account for them, they must have been due to factors which came into operation in the localities where they occurred. These factors were not always active in the same localities; thus, of the 16 outbreaks above 20 days, three occurred in 1872, seven in 1873, and three in 1874, while there were but three other instances in the remaining seven years of the decade. There was no record of cholera having been epidemic on land bordering on the Indian Ocean, south of latitude 21°, but the *Cruizer* and *Pericles* had cases in 28° and 35° S., and the *Windsor Castle*, carrying troops from England in 1866, had a fatal case in 37° S., 39° E., to the south-east of the Cape of Good Hope, showing that the causes of the disease might be in operation at sea much beyond 21° S.; and deaths from cholera had actually occurred in the Cape Colony and Natal, in Tasmania (43° S.) and in New Zealand. At the Cape and Natal such cases were usually accompanied by a prevalence of choleraic diarrhœa, and preceded by several months the appearance of cholera in the epidemic form at Mauritius, or the east coast of Africa to the north, and the adjacent islands, and, at such times, ships at sea between the Cape and Mauritius experienced attacks, though they might have no communication with the land for many days. These facts showed that the factors which gave rise to cholera might be in force over the sea as well as over the land, that they frequently operated over very extended areas, and the single cases, or small groups, which sprang up under their influence were not fortuitous, but were really indications of their presence and activity.

STAFFORDSHIRE BRANCH.

MAY 28TH, 1885.

E. T. TYLECOTE, M.D., President, in the Chair.

Scirrhus (?) of the Tonsil.—Dr. TOTHERICK showed a married woman, aged 45, who had suffered five months with a gradually enlarging swelling under the left ear. She had a cachectic look, had lost much flesh, and had some pain and difficulty in swallowing. The left tonsil was seen to be much enlarged; and its great hardness on deep pressure, Dr. Totherick thought, justified the idea that it was that extremely rare disease of the tonsil, scirrhus.

Renal Calculi.—Mr. JOHN HARTILL exhibited 132 renal calculi, passed within the last ten years by a man who died suddenly the previous week, at the age of 74. He had had frequent attacks of gout, but his only renal symptom was occasional hæmaturia during the passage of a calculus.

Molluscum Contagiosum.—Mr. SPANTON presented photographs of a case of molluscum contagiosum in a girl aged 9, in which the disease covered the greater part of the face, and was associated with a strumous diathesis. The treatment consisted of excision of the larger growths, a few at a time, and evacuation, with application of caustics to the interior of the smaller ones; it resulted in complete cure.

Severe Gunshot-Injury of Shoulder.—Mr. SPANTON showed photographs of a boy who had a severe injury of the left shoulder-joint, caused by a charge of shot from a gun fired accidentally close to him. The upper portion of the scapula, the outer half of the clavicle, the head of the humerus, and most of the soft parts covering these, were completely destroyed, exposing the subclavian and axillary arteries, which had escaped. Mr. Spanton divided the scapula below the spine, removing all the upper remaining portion, the outer half of the clavicle, and about two inches of the humerus, including the splintered head. The lacerated muscles were cut away, the wound covered as far as the lacerated skin would permit, and gauze dressings applied after thorough cleansing. Complete recovery took place, with the movements of the arm fully as good as after an ordinary excision of the shoulder-joint. The case was brought forward to illustrate the excellent results which will follow conservative surgery in very severe gunshot-wounds in civil practice.

Malignant Tumour of Jaws.—Mr. SPANTON showed microscopic sections from a case of malignant tumours of the upper and lower jaws in a patient, aged 55, for whom excision of both right upper and lower jaws was performed.

Retained Testis.—Mr. SPANTON showed a retained left testis removed from a man in whom it caused much pain and inconvenience. It was shown to illustrate what a miserable apology for a useful organ these usually represented, and how justifiable it was to excise them in all such cases where pain or other sufficient symptoms demanded that course, and especially when, as in this case, an incomplete hernia existed, but no kind of truss could be borne by the patient.

Pulmonary Calculi.—Dr. MCALDOWIE exhibited more than thirty pulmonary calculi from a case of phthisis calculosa. About half of the number were expectorated during life; the remainder were taken after death from the upper lobe of the right lung.

Secondary Scirrhus of the Liver.—Dr. MCALDOWIE showed also a coloured drawing of a section of the liver from a case of secondary scirrhus invading the organ by the portal fissure. The liver itself was normal in size and shape, of a dark purplish hue, whilst the cancerous tissue was deeply pigmented with bile, and showed extensive ramifications along the course of the vessels throughout the whole of the organ.

Ovariotomy with Removal of Omentum.—Mr. VINCENT JACKSON showed a portion of a multilocular ovarian tumour recently successfully removed from a young married woman, as well as a piece of the great omentum, measuring 15 by four inches, which, on account of its extensive attachment to the cyst, was also removed. The woman was the first admitted into the Women's Surgical Infirmary recently established in connection with the Wolverhampton and Staffordshire General Hospital.

Lithotrity at One Sitting.—Mr. VINCENT JACKSON showed a calculus lately removed from a middle-aged man by lithotrity at one sitting. The reason he exhibited the specimen was that it enabled him to point out how undesirable it was to use, as a matter of routine, the larger evacuating cannulæ. In this case a lithotrite was easily introduced and manipulated within the bladder until fragmentation and pulverising of the calculus was effected. A No. 18 tube—the urethral meatus having been freely incised—was with great difficulty pushed into the bladder, and it seemed as if this was only accomplished by considerable injury to the soft parts, as evidenced by the free and unusual hæmorrhage which ensued. As lithotrity in the present day essentially consisted of carefully and rapidly crushing the calculus into fine particles, there could be no necessity for the employment of the larger evacuating tubes; for in the majority, if not in all cases, a smaller instrument would not only be more convenient for passing into the bladder, but equally so for washing out the bladder, and giving exit to fragments; and, if any were too large, these could at once be reduced by the reintroduction and use of the lithotrite. Another point of interest in the case was that the only symptom complained of was the constant dribbling of urine, and it was for this condition that Dr. Scott (Wolverhampton) sent the patient to Mr. Jackson.

Strangulated Umbilical Hernia.—Mr. W. H. FOLKER read a paper upon a case of strangulated umbilical hernia, in which six inches of bowel were successfully removed. In the discussion, the speakers were Mr. Spanton, Dr. Lycett, Mr. Vincent Jackson, and Mr. Mitchell Banks (Liverpool).

Prevention of Blindness in Infants.—Mr. J. VOSE SOLOMON read a paper on the prevention of blindness from infantile purulent ophthalmia among the indigent poor. In the discussion, Dr. C. Smith, Dr. Lycett, Dr. Totherick, Mr. Clendinnen, and Mr. F. J. Gray took part.

THE EAST LONDON NURSING SOCIETY.—The Princess Christian and other distinguished ladies were present recently at a drawing-room meeting, held at the invitation of Mrs. Stuart Wortley, under the presidency of the Bishop of Bedford, for the purpose of aiding the East London Nursing Society. The Bishop of Bedford, in opening the proceedings, pointed out the value of the trained nurses provided by the Society in alleviating sickness, rendered the more dangerous by reason of the lack of common sanitary precautions. The following resolutions were passed: "That in order to meet effectively the wants of the sick poor in the great towns, some system is indispensable which will provide trained nursing, under trained superintendents, to provide for visiting and attending them in their own homes." "That the East London Nursing Society, having originated this movement, and so far carried it out with remarkable efficiency and success, is worthy of liberal and increased support." A resolution was also passed, on the motion of Sir E. H. Currie, and seconded by Dr. Ross, urging the extension of the Society to the whole of the hundred parishes of East London.

INSTRUCTION IN OPHTHALMOLOGY IN BIRMINGHAM.—Mr. Vose Solomon commenced a course of Clinical Ophthalmic Lectures at Queen's College, Birmingham, on June 12th. He will continue to lecture every Friday, at three o'clock, to the end of the summer session. The course is free to students and practitioners. Living illustrations will be demonstrated.

REVIEWS AND NOTICES.

THE INHALATION-TREATMENT OF DISEASES OF THE ORGANS OF RESPIRATION, INCLUDING CONSUMPTION. By ARTHUR HILL HASSALL, M.D.Lond. London: Longmans, Green, and Co. 1885.

THE first pages of this volume are destructive; they are devoted to proving with what difficulty and in what very small quantities liquid medicines reach the air-passages beyond the epiglottis. Experiments made with the drugs most commonly used in ordinary oro-nasal inhalers gave results of the most interesting and, as it would appear, conclusive kind. After use for one hour, the sponge still retained about five-sixths of the total quantity of carbolic acid used, and more than four-fifths of the total quantity of creasote and thymol. It would not be safe to assume that nearly the whole of even the small quantity which disappears finds its way into the bronchial passages; some must be lost during the use of the respirator, some during the process of extracting the carbolic acid from the sponge for estimation; some is condensed on the lips and the mucous membrane of the nose, mouth, and fauces, and either absorbed or swallowed. In the case of iodine, the result was different. About one-third of a grain in solution was used, the vapour given off at first was, when this quantity was used, pungent to the mucous membrane of the nose and mouth, and the whole quantity disappeared. As might have been anticipated, the ultimate destination of this iodine was, in all probability, not the air-passages, and evidence was obtained that some at least was arrested by the alkaline fluids of the mouth and fauces, and converted into iodides. When an oro-nasal inhaler containing carbolic acid was used for a longer time—for two hours—the quantity remaining on the sponge was only slightly less than when used for an hour. When the solution of carbolic acid sprinkled on the sponge was weaker, a somewhat smaller proportion disappeared. Dr. HASSALL read a paper before the annual meeting of the British Medical Association at Liverpool (see BRITISH MEDICAL JOURNAL, vol. ii, 1883, p. 869) which detailed further evidence tending to prove that the antiseptic and other substances in common use can only reach the bronchi and lungs in such exceedingly minute doses that they may almost be called homœopathic. This statement applies not only to the oro-nasal inhalers, but also to the method of inhalation by the vapour of hot water. No substance, of course, is volatilised which is not more or less volatile at the temperature of the water or steam, and the amount volatilised varies very much with the temperature; twice as much carbolic acid evaporates at 80° Fahr. as at 65° Fahr. A third class of inhalers is that in which the drug is sprayed into the open mouth while the patient breathes, such as Siegle's and Dr. Lee's inhalers, and the atomisers where the motive power is a bellows-arrangement. With such arrangements, the quantity of the drug introduced into the mouth and fauces may be larger, though some of Dr. Hassall's experiments throw doubt on this; but the amount which reaches beyond the vocal cords must be very small, part being lost in the air, part being swallowed, and part returned during expiration.

The rate at which such bodies as carbolic acid evaporate, and therefore the rate at which the air of a room becomes charged with them, varies with the temperature, the extent of surface exposed to the air, and the movement of the air; it is also influenced, though to a much less extent, by the solvent. At a temperature of about 70° Fahr., the amount which evaporates from a dish in four hours is, of carbolic acid alone, 7.3 per cent.; of carbolic acid dissolved in water, 7.8 per cent.; dissolved in rectified spirit, 7.9 per cent.; in chloroform, 13.6; and in ether, 25.1. These results apply to solutions exposed in open dishes; in oro-nasal inhalers, however, the volatile solvents are more rapidly dissipated, owing to the fine state of subdivision, and their influence is thus lost after a very short time.

That drugs inhaled must, in order to have any direct effect on diseases of the lungs, enter these organs in quantity sufficient to produce a distinctly appreciable impression on the local lesion, will be generally admitted. Dr. Hassall's experiments will come to confirm the very general impression that ordinary oral and oro-nasal inhalers and the various hot water inhalers do not accomplish this end. The steam-spray and Dr. Lee's steam-draught inhalers are in somewhat different case; they deliver the medicated vapour of any required strength, and the only doubt that attaches to their efficacy is on the question whether the medicated vapour is supplied under the most favourable circumstances for reaching the lungs.

If the air of the room in which a patient lives be charged with an antiseptic, there can be little doubt that the drug must reach at least to the smaller bronchi; and the air of a closed room can be easily charged with carbolic acid, creasote, or thymol, by soaking a long strip of cloth in a solution of the antiseptic, and then allowing the cloth to dry on a suitable frame, or by evaporating the antiseptic in a water-bath at a suitable temperature (about 165° Fahr.). It is not clear, however, whether by these methods—by the latter especially—the diffusion of the vapour through the air of an apartment would be by any means uniform; and we believe that there are reasons for supposing that the vapour of carbolic acid would tend to accumulate in the lower strata. This objection would vitiate the whole of this part of the system. In Dr. Hassall's "globe" inhalers, on the other hand, in place of a small tightly packed pad of absorbent material, through which the air penetrates with difficulty, there is a large loosely packed mass of cotton-wool lint charged with the antiseptic, and easily penetrated in every part by the air. In cold weather, the globe can be warmed by a hot bath. The only objection to it is its cumbrous shape, which prevents its being used for long at a time.

Dr. Hassall has already (BRITISH MEDICAL JOURNAL, vol. i, 1884, p. 46) detailed the plan upon which he has constructed his inhalation-chamber, and we need not, therefore, repeat the description; neither need we say more here than that the chapters on the medicaments employed in inhalation, and the manner in which they may be administered, contain very full practical directions and details on these heads.

In conclusion, it may be observed that Dr. Hassall has done the profession a real service in laying before it the large mass of facts and experiments contained in this book. The objections he brings against the respirators and inhalers in general use appear to be very strong, and he has devised a method resting on sound scientific principles, which, it may reasonably be hoped, will turn out to be a useful means of treatment in bronchiectasis and chronic phthisis attended by copious or foul expectoration. More cannot be expected of any method at the present time.

A PRACTICAL TREATISE ON THE DISEASES OF WOMEN. Prepared with special reference to the wants of the General Practitioner and Advanced Student. By JOHN THORBURN, M.D., F.R.C.P. Professor of Obstetric Medicine, the Owens College, and Victoria University, Manchester; Obstetric Physician to the Manchester Royal Infirmary, etc. With Chromo-lithograph, and over two hundred Illustrations. London: Charles Griffin and Company. 1885.

IT is needless for us to dwell upon the melancholy circumstances which have attended the issue of this work, for they are only too well known. It is customary to speak of an eloquent tribute being due to a distinguished man at his death; but after considering all conventional expressions of this kind, it would appear most appropriate under the circumstances to say that the most eloquent tribute to Professor THORBURN'S memory is the publication of which we are about to give a brief notice.

The composition of a task of this nature is extraordinarily difficult. Gynæcology is the field of professional strife now almost extinct in other branches of medicine. All its principal problems are disputed in their very essence, as the question of flexions and displacements will amply demonstrate, and their therapeutic or surgical treatment has for long been a source of warm discussion. A less unedifying cause of difficulty to the teacher is the revolution which active surgery is effecting in the principles of gynæcology. Disputes and innovations, however, alike trouble the teacher. Under the circumstances, he should and must let his pupils understand all sides of the question, and, in this respect, Professor Thorburn has done his duty. The treatise will probably fail to satisfy any one great exponent of gynæcology, but such a result is, in the very nature of things, inevitable.

We must confine ourselves to a summary of the author's views on some of the principal stock subjects within the scope of his task, premising that he never fails to inculcate the highest moral principles, as the reader may see by a mere glance at pp. 113 and 525, where questions concerning the Weir Mitchell treatment and the prevention of gestation are discussed. The author, in the first place, writes in favour of Dr. Weir Mitchell's method in cases of women subject to some of the worst forms of hysteria, but observes that several serious drawbacks must not be overlooked. The expense is very great, the consent of friends is hard to obtain, and the patient is submitted to the evil of a change of medical attendants, an evil not confined, even at the very outset, to the patient. Still, the author believes in the efficacy and excellence of the system when conducted under proper precautions.

The more common and accepted plastic operations are tersely described and illustrated by means of good, large woodcuts, mostly

taken, as in the case of the other illustrations, from standard works. The mention of plastic operations turns our attention to certain novel and less generally accepted procedures that fall under this category. Emmet's operation, so named "according to the practice, which will ere long render Greek and Latin mere child's play to the medical student, in comparison with the biographical language inflicted upon him," as the author grimly observes, is described at great length. His approval of the operation, even in select cases, is qualified, his experience of it admittedly defective, and the chief conclusions are based on the almost equally qualified opinions of Dr. W. J. Sinclair, of Manchester.

The chapter on ovulation and menstruation might certainly be improved by careful revision on the part of a future editor. The earlier paragraphs on the physiology of those processes are particularly good and pithy, and on a level with some of the best passages in the rest of the work; they are composed with high literary skill, and present all the leading theories worth recording. The portions relating to amenorrhœa and dysmenorrhœa do not contrast favourably with the preceding part of the chapter; for we find (as in some other parts of the *Treatise*) long lists of causes, carefully numbered and classified, familiar in cram-books and in works on diseases of women far inferior in literary and scientific value to this *Practical Treatise*. The particularly difficult subject of the treatment of dysmenorrhœa is, on the other hand, handled with great judiciousness, both as regards the use of conveying information to the reader in a palatable literary form, and in respect to the manner in which different modes of treatment are compared. Dr. Thorburn claims highly successful results after the use of bougies, even in membranous dysmenorrhœa; but, "when dilatation by sound is unusually painful or difficult, when the effect of one sitting is more than once not apparent at the next, or when the relief obtained by dilatation at one menstrual period is totally lost at the next," the author recommends that incision should be used.

The paragraphs devoted to metritis are highly satisfactory from every point of view, for all that can be definitely stated on the subject is given. Its composition must have been particularly difficult to the lamented author. In speaking of uterine fibroids, Dr. Thorburn does not speak in disfavour of removal of the ovaries, and takes pains to discredit complete hysterectomy. It must be observed that, in drawing such comparisons, the fact should be recorded that in several cases of large uterine myomata, where oöphorectomy has been actually commenced, the most experienced operators have found it impossible to secure the pedicle of one or both ovaries, and have been compelled to pass a clamp round the cervix and cut away the uterus, as the only means of stopping furious hæmorrhage. Removal of the uterus for malignant disease is unequivocally condemned.

The chapters on ovarian tumours and ovariotomy are, on the whole, satisfactory. Much care is bestowed upon matters of diagnosis. In describing the ligature of the pedicle, we regret to find that the author makes no mention of the practice of securing the large vessels on the outer border of the pedicle separately, which is a safer precaution than tying a simple ligature round the whole pedicle on the proximal side of the double one, and is very frequently needed.

Perhaps the best portion of Dr. Thorburn's work is the chapter on pelvic disorders. He states clearly his own views of the inflammatory affections so frequent in the neighbourhood of the female organs. It is highly satisfactory to find that he uses the clear and truly pathological term "pelvic peritonitis," in preference to "perimetritis." He has not, on the other hand, overcome the unfortunate difficulty of finding a good name for inflammation of the connective tissue of the pelvis. Our author prefers "pelvic cellulitis," but the second word is barbarous, like "hyperresonant," or "peri-uterine." Celsus, the only real authority for settling the relation of Greek to Latin in medical literature, imports Greek words entire and in their own characters, generally under the familiar form of expression "*ὕδρωπα* Graeci vocant," but often without mentioning anything about Greek, as "*φῦμα* vero nominantur tuberculum furunculo simile," though the use of the third person plural, of course, implies "the Greeks." Celsus often uses recognised latinised words, such as "cerastes" and "aristolochia," but in no case does he give authority for the use of hybrid words like "perirenal" or "cellulitis." If introduction of Greek words in their own characters be inadmissible, it is a pity that, on the other hand, our best medical writers cannot avoid hybridism. In attempting to do so in the case now to the point, some very high authorities have used the terms perimetritis and parametritis; that is, after taking great pains to show that the two diseases must never be confounded, they give them names especially liable to create confusion. There is, indeed, great need for reform in gynæcological nomenclature.

Dr. Thorburn emphasises the importance of recognising tubal disease. He is very guarded in recommending to surgeons in general the well known radical operation which has been successfully performed by Mr. Lawson Tait. Those who are never likely to have the opportunity of acquiring similar experience may put many of their patients to unwarranted risks, and will also be prone to discredit the operation, because it has been a failure in their hands. The author of the *Practical Treatise* expresses his belief that "rash imitators" have already met with such failures.

In conclusion, we may describe the entire work as impartial and instructive, besides being in every other way a worthy memorial of its lamented author.

Conférences Thérapeutiques et Cliniques sur les Maladies des Enfants. Par le Dr. Jules Simon, Médicin de l'Hôpital des Enfants-Malades. Tome II. Paris: A. Delahaye et E. Lecrosnier.

Dr. Jules Simon follows no discoverable order or system in the lectures which he chooses for publication; the volume before us is concerned with such dissimilar subjects as typhoid fever, sea-baths, alcohol, the bromides and iodides, iron, diseases of the nervous system, and the use of mineral waters in childhood. The last named subject at least presents some novel points, and to it we will therefore chiefly direct our attention. M. Simon, whether from a mistaken sense of patriotism, or from motives of policy, we cannot say, commends only French mineral waters; and his remarks, therefore, have but a limited application.

In scrofula and other allied conditions, M. Simon lays it down that the greatest reliance is to be placed in sea-air and sea-bathing, except when certain complications are present, such as nervous disease or great excitability, rheumatism, diseases of the heart, skin, eyes, or ears, a tendency to respiratory catarrh, albuminuria, acute or chronic, tuberculosis, or febrile disease of any kind; but no child under 3 years of age ought to be sent to the sea as a means of treatment. Where the seaside is contra-indicated, he recommends, as a general rule, Salins, not far from Dôle, and close to the Jura Mountains; the water, which is cold, contains a large quantity of chloride of sodium, and small quantities of the bromides and sulphates, and of iodide of potassium; as an alternative, he mentions Moutiers, reached by diligence from Chamôusset, a station on the line between Geneva and the Mont Cenis, near Chambery; the water here contains a little carbonic acid, and, in addition to chlorides, small quantities of arsenic, iron, and iodides; its temperature is about 95° Fahr., and it is specially suited to cases where the joints are affected. Salies-de-Béarn, between Biarritz and Pau, is mentioned as a substitute for Salins in the cold season. When scrofulous children suffer from neuralgic pains, pains in the bones or joints, or actual rheumatic manifestations, M. Simon says that the water of Bourbonne-les-Bains, near Chaumont, on the direct line from Paris to Belfort, is useful; it contains a large quantity of chlorides, and small quantities of bromides, iodides, iron, and arsenic; the temperature is very high, 134° Fahr., but the water contains some gases. In all these places the water is used as baths, and this he considers the most important method, but at Bourbonne and Moutiers it is also drunk. For fat, puffy, scrofulous children, easily tired and perspiring on slight exertion, he recommends the waters of Brides, close to Montiers, which contain sulphates as well as chlorides, and are, he says, at once tonic and purgative; their temperature is 95° Fahr. In the same part of France, and only about four miles from Chambery, which is easily reached by rail from Geneva, is Challes, where the waters are cold and very rich in salts, chiefly sulphides, combined with soda, but containing also chlorides, and iodides and bromides in small quantities; Challes is specially useful in cases of scrofulous adenitis with diseases of the skin; or in catarrh of the mucous membranes, more particularly where there is a history of inherited syphilis. The waters of Barèges resemble those of Challes, but the quantity of sulphur is much smaller. Sulphides, and chloride of soda, iodides, and iron, are the principal constituents. The worst and most inveterate cases ought to be sent to Barèges, where great benefit may be obtained in chronic joint and bone diseases, after the seaside has failed to effect a cure. In other cases of less severity, where skin-diseases are troublesome, often combined with granular lids, otorrhœa, and enlarged cervical glands, Uriage, in the department of Isère, is often of use; the temperature of the water is 80° Fahr.; it contains sulphuretted hydrogen and chloride of sodium with small quantities of iron, arsenic and iodides. In scrofulous patients, where disorders of the skin and chronic inflammation of the joints are prominent symptoms, he recommends the sulphur waters of the Pyrenean stations, such as Luchon, Cauterets, and Barèges. The waters of St. Honoré, in the department of Nièvre, which contain sulphur,

arsenic, and iron also, he says, often render great services to such cases. While recognising the value of the sulphur waters in scrofula, with lesions of the mucous membrane, skin, or joints, he thinks it easy to over-estimate their value, and places his chief reliance on waters containing chlorides, or chlorides and sulphides. Bourboule, in the Auvergne district, he recommends in scrofula, with marked anæmia and a tendency to skin-disease; its waters contain large quantities of chlorides and a little arsenic. When digestive disorders are superadded, he has found Royat useful; its waters contain chlorides, arsenic, and bicarbonates. Where the digestive disorder is the prominent symptom, and where the mesenteric glands are enlarged, he recommends St. Nectaire, where there are both hot and cold springs, and where the water, besides containing chlorides, bicarbonates, and iron, is highly charged with gases.

A special lecture which is devoted to skin-diseases contains a good deal of repetition, into which we shall not follow the author. For nervous and excitable children troubled with skin-disease, he strongly recommends St. Gervais in Savoy. The temperature of the springs varies. The water contains a little sulphur, some chlorides, and enough sulphates to make them gently laxative. The action of the waters of St. Gervais is, on the whole, calming and sedative, while the small dose of chlorides has a slight tonic effect. Allevard, in the department of Isère, he recommends in cases of this class, complicated by chronic bronchitis; but, in cases where nervous irritability is not a prominent symptom, he prefers Cauterets.

For the cure of rheumatism, especially in debilitated subjects, he recommends Aix-les-Bains, where the waters are also slightly stimulating. In those cases where, in addition to the rheumatic symptoms, there are digestive disorders, he says that Plombières, in the Vosges, is to be recommended, although its waters contain hardly any salts. When rheumatism is combined with chlorosis, the water of Luxeuil, not far from Plombières, is said to be most beneficial. It contains iron as sesquioxide and phosphate, sulphate of magnesia, chlorides, carbonates, sulphates, and arseniates, besides carbonic acid and oxygen. There are also saline springs at this place, which have their special use in combating the rheumatic element.

M. Simon concludes his lectures on mineral waters by a digression. In "diseases of the urinary passages," gravel, and gout in the adults, he strongly recommends the waters of Contrexéville and of Vittel in the Vosges, and adds that he has sometimes derived benefit from their use in cases of well-fed children unable to take exercise owing to disease of the lower extremities, who are consequently troubled by fulness and weight in the hypogastrium, and by some vesical irritation.

M. Simon confesses himself unable to explain in all cases how mineral waters produce the effects attributed to them, and it is impossible to regard his suggestion of some electrical influence as possessing any real value.

NOTES ON BOOKS.

Where to take a Holiday: Reports on some Home and Foreign Health-Resorts, being the Holiday Number of the "London Medical Record" (London: Smith, Elder, and Co.).—In August 1883, and in June 1884, we noticed the first two numbers of this useful annual periodical. The number recently published is a distinct advance upon its predecessors; the pages, which were 64 in No. 2, being augmented to 80 in the present issue, which contains nearly all the articles published last year, with the addition of four or five more. This holiday number of the *Record* begins with a short notice of Ocean-voyages, detailing especially the one from Southampton to the Cape of Good Hope and Natal; this, with an interesting article on Summer Holidays at Sea, by Dr. G. Thin, and a short notice of Summer Tours in Scotland by Steamboat, all placed at the first part of the publication, may serve as hints to "good sailors" of a novel and very enjoyable method of taking a holiday. A cyclist contributes next a long paper, entitled "Holiday Touring on Wheels," which will be found to contain valuable notes and information for those who may be desirous of passing a holiday amongst pleasant English rural scenery in this inexpensive and truly enjoyable manner. His remarks will be apt to make those who have never essayed such an excursion long to become the possessors of "wheels," and start upon the tour in the southern counties which he therein maps out. Amongst the new health-resorts noticed for the first time this year are the Deeside Hydropathic establishment, at Heathcot, Aberdeen, and the New Forest. We fully noticed, last year, the separate papers which appeared in the volume for 1884, so that a detailed survey of the same is not again necessary. But we may observe that the article by Dr. Vintras on the sea-side resorts on the French Coast, from Dunkirk to Caen, is a combination of the two papers which he published on the same locality in 1883 and 1884. In this, we are somewhat disappointed, as, in 1884, he wrote, "We hope next year to continue our sketches of some of the most interesting sea-bathing resorts on the French coast, as far as Cherbourg." Papers by Inspector-General Macpherson, Dr. Hermann Weber, Dr. Symes Thompson, Dr. Burney Yeo, and Dr. C. Parsons, together with notes on some 45 of the chief English and foreign health-resorts, form the great bulk of the work, which will be found to be a very mine of information to medical practitioners and to those who have their health chiefly in view when they undertake a holiday-ramble. The world of London will shortly be thinking of its accustomed autumnal outing; to those who would recruit their health by joining the general exodus, these pages may be recommended, with the assurance that a careful perusal of them will afford information respecting the localities that may be advantageously visited, which is likely to prove highly serviceable.

The Holiday Annual: A Handbook of Practical Information on Holiday Topics. Edited by A. B. C. (London: Sir J. Causton and Sons. 1885.)—Of this publication, to which in former years we have directed the attention of our readers, with the result that many have become subscribers, two new numbers have appeared since our notice in June, 1884. These numbers are 9 and 10; the former was published last July, and the latter, which first appeared in the spring of this year, has already reached a second edition. For the sake of those to whom these small volumes are unknown, we may say that they are collections of notes of holiday-tours, undertaken by various people, in all manner of directions. Thus, the ninth annual, published last July, was principally devoted to home holiday-resorts, and gave a programme of four tours in Connemara and the West of Ireland; a Tour in the Highlands of Deeside; a Trip on the Norfolk Broads and Rivers; another Trip from Dundee; a Youngster's Jaunt to Scotland; a Week in the Hebrides; a Week in North Wales; Ambleside as a Centre for the Lake District; a Fortnight in the Highlands of Scotland; and interesting papers relating to a holiday at Champéry, and the following holiday-resorts—namely, Bridlington Quay, Tenby, Thirsk and its neighbourhood, Southsea, Worthing, Dolgelley, Chester, Scarborough, Deal, and Guernsey. The *Holiday Annual* for 1885 commences with an excellent article on our Home Scenery. Next follow several interesting accounts of tours, amongst which are the following: a Ramble in Arran; a Tour in Ireland; a Voyage to the North Cape; an Adventure on Helvellyn; a Visit to the Central Rhine and some of its View-points; a Run to the Orkneys, and round the Scotch Coast; sixteen days in Norway; a cruise in the Bristol Channel; a Visit to the Caves of Han-sur-Lesse, Belgium; a Week's Tricycling in North Wales; and a Voyage up the Baltic to St. Petersburg. Notices of the capabilities of Ryde as a pleasure-resort, and of Pen-y-Gwryd, are also contained in this volume. Most of the articles are written in a pleasant holiday humour, and contain generally full descriptions of the routes taken, inns and hotels patronised, and expenses incurred; so that would-be followers of the narrators could easily, with time and money, go and do likewise. Indeed, the smallness of the charges made at some of the out-of-the-way places visited by writers in these volumes is astonishing, and highly encouraging to holiday-makers who may be blest with a good pair of legs, but with small purses. Copies of all the annuals, from No. 4 onwards, may be obtained, as well as of the two numbers we have here reviewed, and may be had (price 8d., or 9d. post-free, each) upon application to the editor, 1, Guyscliff Villas, Hither Green, Lewisham, Kent. Any one at a loss as to where to pass his holiday cannot do better than procure these publications; they will afford him much pleasant reading, and give him hints which, in conjunction with those contained in the "holiday number" of the *London Medical Record* (of which we to-day furnish also a review), will aid in the solution of that perennial momentous question, "Where to take a holiday."

Medical Temperance Journal, April, 1885.—The current number of this vigorous temperance quarterly treats on a variety of aspects of the temperance movement, all more or less relating to medicine. Among the topics discussed are workhouse stimulants, the place of alcohol in medicine, alcohol in digestion, legislation for the inebriate, lunacy and inebriety, life-assurance and drinking. There are also reports of recent meetings of the Society for the Study and Cure of Inebriety and of the British Medical Temperance Association.

DONATIONS AND BEQUESTS.—The Hospital for Diseases of the Throat, Golden Square, has received £126 from the Committee of the Cambrian Dances.—The Corporation of the City of London have given £105 to the North West London Hospital, and £105 to the National Hospital for Consumption at Ventnor.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1885.

SUBSCRIPTIONS to the Association for 1885 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post-Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 27th, 1885.

MEDICAL EDUCATION AND APPRENTICESHIP.

THE recent meeting of the General Medical Council spent much time over the question of medical education, and we spoke of the collective aspect of the subject in a leading article in the JOURNAL of May 30th. It is evident that the apprenticeship question is not yet solved, nor can it be denied the right of serious consideration from every member of the profession, since the practitioner is directly, and the hospital-surgeon indirectly, concerned in the matter.

In obstetrics, the interests of the mother are placed before those of the child, though it is the duty of its professors to be careful of both; and so in medical politics, the interests of any individual qualified practitioner must be assumed to be higher than those of any individual pupil under his care. Thus, if the former make a rule of spending one particular hour daily in teaching his pupil how to prescribe, it is evident that he must not neglect an urgent case that may take us that hour on one day, or even on many successive days. The interests of a patient are paramount, but the same is the case in hospital education, so this point is not of great weight in any comparison of the two systems of education. As the practitioner has undertaken to instruct his pupil, it is a clear point of honour that he must do so; and, the larger his practice, the more the pupil must suffer, unless the practitioner can devise a method by which the pupil may profitably employ his time during the absence of his superior. This can be done; but its benefits are neutralised, if the practitioner do not possess that rare faculty of testing, by a few words and by occasional orders, if his pupil be really learning anything at all. True clinical instruction is beset with evident difficulties in apprenticeship. Many poor patients openly avow that they expect to be "taught over" in hospitals where there is no fee to pay; but that they strongly object to any such thing when they send for the services of a paid medical man. Lastly, systematic oral instruction of any kind is a heavy weight on a practitioner. The more successful family doctors have the least time to teach. In short, it is questionable whether, as a rule, it is worth a practitioner's while to take a pupil.

The pupil's interest has next to be considered. First comes the converse of a proposition at the end of the last paragraph; the less successful family practitioners have the most time to teach. It is evident, however, that these very men may be bad teachers; and, their practice being small, the pupil cannot well learn the social duties of practice, one of the sole real benefits of pupilage. When he does learn some of those duties, he may be neglectful of other professional essentials. Mr. Rawdon Macnamara declared at the Council that a student who had gained a smattering of practice was the most difficult to prepare for any examination. In his after-career at a hospital, the private pupil is very apt to sneer at careful clinical work. He talks about how the gentleman to whom he has been apprenticed has "a knack to telling what's the matter with a patient." He tends to classify or even describe disease by rule of thumb remedies, and to make such instructive observations as, "Diarrhœa, that's castor-oil and tinc. op., followed by mist. cret."—pronouncing, of course, all the names of drugs in their abbreviated form. That is not the way to learn the nature of disease, nor even to acquire a useful though purely empirical knowledge of therapeutics. It must be admitted that the apprentice generally possesses some of the art of pleasing a patient, or, at least, of showing an assumed deference—an art in which the hospital-student is sometimes deficient. In private practice, it is always easier to learn the great truth that the patient should be considered, as the sufferers first, of interest to himself, and the case afterwards, of interest at such to the medical attendant. Altogether, it must be allowed, however, that the pure hospital-student is the best off. Adding to the above considerations the well known advantages of a medical school, and the absolute necessity of a sound knowledge of anatomy and physiology, it may be said that it is very unadvisable for the student to work with a practitioner during his first two years of study, and far better for him to spend the third in dressing and clerking in the wards of his hospital.

There remains the fourth year. Here the case is different; for, let it be granted that the student has not only passed his anatomical and physiological examination, but gained a fairly scientific knowledge of disease and therapeutics, it is questionable whether a twelvemonth with a practitioner would not be highly advantageous to him. It would afford the best way for learning practical midwifery, far better than obstetric work in slums, with or without the aid of an overworked and inexperienced hospital midwifery-assistant. The pupil would know the groundwork of his duties, even if the practitioner should neglect him, and would learn, without prejudice to higher necessities, those social requirements which are so important to all who live by the cure of the sick. Hence it is very reasonable that authorities on medical education should still consider whether the apprenticeship question should be entirely put aside, especially in relation to the later stages of medical study.

THE CHEMICAL PROBLEMS OF MEDICINE.

AT present, undoubtedly, an insufficient amount of attention is in general paid to the chemical problems of medicine—a result which is possibly in part due to an overburdening of the medical student; although this is not alone to blame, for, as Professor Hoppe-Seyler has recently pointed out, the great improvements that have been made of late years in the manufacture of microscopes have tended to lend an undue weight to the anatomical method of demonstration and investigation. While at first this tendency has been useful in clearing away many obscurities, yet it has gradually become more and more pressing, even crushing, on the remaining branches of the medical curriculum. Indeed, this sovereignty of morphology has exercised more or less of a paralysing influence on chemical and therapeutical efforts in medicine. We have an example of this in one of the apparently most attractive

studies of the present day—that of the bacteria and their pathological relations. No limited region of natural science, indeed, has attracted such a number of zealous investigators as the microscopic determination of the conditions of life and propagation of these micro-organisms. Botanists, chemists, physiologists, pathologists, surgeons, and hygienists contend eagerly in the race in this realm of investigation. But even here the students of morphology greatly predominate, the difficulties attending the chemical inquiries possibly repelling investigators; for these are attended with a far greater share of difficulty than the microscopic investigation; yet this latter, apart even from the staining methods now so much used, and which must often lead to manifold deception, cannot with certainty make great advances without simultaneous chemical inquiries.

Now, it may with truth be said that, without the knowledge of the methods of physiological chemistry, and a practical training in some of their applications, as well as a practical acquaintance with many of its decisions, a physician in the present day cannot properly recognise, follow in their course, and suitably treat, diseases of the stomach and alimentary canal, disorders in the blood-vascular changes, or morbid conditions of the liver, kidneys, or urinary passages.

In all civilised countries, there are now laboratories for agricultural chemistry, as also in connection with distilleries, breweries, sugar and dye factories, etc.; but the physiological and pathological laboratories are few and far between, as well as restricted in their means and opportunities. In Germany, however, some direct progress has been made in this direction, of which good examples are to be seen in the Physiological Institute of the Berlin University, and the recently established Institute for Physiological Chemistry in the University of Strasburg.

The questions of biology lie so far away from the pure chemist's province, that it would be vain to reckon on a further advance in physiology from his side; for, while theoretical and technical chemistry are closely linked together, and the one greatly benefited by the other, the same cannot be said for the relations of chemistry to physiology and medicine. Indeed, without some direct State encouragement of the kind above referred to, we greatly fear that the pursuit of physiological chemistry will not be forwarded as it deserves. The importance of its study, we are afraid, is only beginning to be recognised. But, even already it may be judged of by its fruits. It is not our intention here to give more than the merest indication of the advances physiological chemistry has made. Suffice it to point to a few examples. Not only with great diligence, but also with marked success, the processes of digestion have been studied; and in the results medicine and hygiene, as well as physiology, have been enriched by treasures of knowledge whose practical value is daily becoming more and more apparent, and more particularly to the physician in aiding him in the diagnosis and treatment of diseases of the alimentary tract, especially. Our knowledge of the composition of the blood, and its changes, has also been greatly advanced; and the life-processes within organs are likewise beginning to be better understood. The chemical structure, also, of numerous substances already known as arising in the organism has been determined, and their formation by synthesis accomplished. Further, as Professor Hoppe-Seyler points out, it is now a matter of belief, founded on the investigations that have already been successfully carried out, that definite fundamental chemical formations and changes are common to all living beings, and that the life-processes prevalent among them, especially their growth through formation of their own substance, and their propagation without limit under conditions peculiar to them, must be found in the presence of those chemical constituents. In the further processes of change, also, often apparently so different in different animals and plants, certain conformable fundamental types are observed; and even in the life-processes of man, this parallelism is likewise found, whose simplest manifestations can possibly be followed with the least difficulty in the lowest organisms. All living beings, in short, no matter how widely different in form and life-phenomena, appear to owe their fundamental structure to an original chemical organisation with properties common to them all.

Researches on nutrition have already furnished the solution of many clinical problems, but a clear insight into the hidden springs and processes of life still remain closely veiled. That they are chemical processes we fully believe, but most painstaking work will be required to solve them. The progress of chemical investigation, however, in its enquiries into the constitution of the delicate machinery which determines life in normal as well as pathological conditions—opposed as it is on so many sides—must be slow and laborious. But this we must accept, for on other than chemical paths we cannot make much sure advance. It may be taken for granted that the future of medical science, in a great measure, belongs to and is dependent on physiological chemistry. To underestimate this study would, therefore, be to retard the progress of the healing art, in which we should all have a deep and living interest.

THE SCHEME OF THE PROPOSED TEACHING UNIVERSITY.

THE plan submitted to the delegates of the Medical Schools by the Subcommittee for Medicine of the Association for Promoting a Teaching University for London, having been discussed at length, and modified or defined on certain heads, has been adopted by the Conference as a basis for the further elaboration of a scheme next session. We have already published the chief heads of the report in our notices of the two earlier meetings of the Conference. Shortly stated, the proposal with regard to the faculty of medicine is that it should consist of the teachers of strictly professional and allied scientific subjects in the recognised schools of medicine in London, of the examiners of the University, and of such other persons as the faculty may elect. A board of studies, containing not less than twenty, nor more than thirty members, would be elected in part by the general faculty, and in part by the members belonging to each school, so that each school would be in this way represented on the Board of Studies. This board would have the power of consulting with the examiners or any other members of the faculty, or with any other board of studies. From the board of studies would be chosen, by some method of election not yet arranged, three members to sit on the governing body. The Royal Colleges of Physicians and Surgeons would also be represented on this governing body; but how the majority are to be appointed, for the faculties are only to elect one third, has not yet been determined. The scheme has evidently been carefully thought out, and is thoroughly consistent throughout, but it rests on too narrow a basis, and is not sufficiently comprehensive. The graduates are excluded from all concern with their University from the time they obtain their degree. This has been a favourite plan with the govern-

ing bodies of Universities who are thereby detached from the control of the body of *alumni* who represent the University to the world, who are most jealous of its good name, and most interested to prevent its conversion into a mere trading company. Six hundred years ago this same question agitated the University of Paris, and was finally settled in favour of the graduates; and it will, as a general rule, be found that the most successful and the most long-lived universities have been those which recognised most fully the democratic principle. The original proposal of the Subcommittee of the Association for Promoting a Teaching University to exclude from the faculty all but the elder teachers, has been modified, with the result of somewhat widening the roll of possible members of that body; a liberal construction is to be put on the qualification for the faculty, and the faculty is to have the power to elect persons whose advice is likely to be of value, such as retiring members of teaching staffs.

The relation of the proposed University to the two Royal Colleges is a point of great practical importance, and was a subject of discussion at the Conference. It is proposed that the Colleges should be represented on the governing body, and that the examinations, so far as the subjects are the same, should be held by a combined board appointed, in part by the Colleges and in part by the University, by agreement. This part of the scheme will receive, we venture to think, a more hearty welcome than any other; there is a natural and reasonable disinclination to accept any scheme which involves the multiplication of examinations and of licensing bodies; but this proposal, which would practically amount to an amalgamation of the Royal Colleges with the proposed new University, so far as concerns examinations, appears to meet many difficulties, and to present comparatively few disadvantages from the point of view of public policy.

The recommendations of the Conference on another head will also probably meet with wide approval, though it must remain doubtful how far the conflicting interests of existing schools will permit the realisation of the proposed reform. The desirability of concentrating the teaching of the majority of the more purely scientific subjects has long been recognised, though the tendency of recent years has been rather in the opposite direction, each medical school seeking more and more to make itself complete in every department; the system, however, is admittedly not good, and owes its origin to the very natural anxiety of the smaller schools to prevent students from being attracted to larger schools for the whole curriculum by the necessity of attending special classes in the early stages of their career. If, at three or four centres in London, central science-schools could be formed by the amalgamation of the science-classes of existing medical schools, and of, perhaps, other science-classes in the neighbourhood, the objection indicated above would not be felt.

Among the suggestions originally put forward by the Association for promoting a teaching university, figured one which received a good deal of unfavourable comment. The proposal to found chairs and appoint professors was naturally viewed with some disfavour by existing teaching institutions; but, in the modified form which it now assumes, it will probably command support in the very quarters where it would otherwise have been most bitterly opposed. It is proposed that the professors should prosecute the study of the higher and more specialised subjects, and give instruction supplementary to the teaching provided by existing institutions, and designed to meet the wants of graduates. The whole scheme, but this part of it especially, presupposes the command of a considerable sum of money; and it is an open secret that hopes are entertained that an endowment may be provided by funds now applied to different, and perhaps less useful, purposes in the City of London.

Though the report of the conference leaves many of the difficulties surrounding the reform of university medical education in London untouched, it deals with others in a practical and reasonable spirit, which encourages the hope that the Association from which it emanates may, directly or indirectly, contribute to the final settlement, whether this comes by the creation of a new body, or by the reformation and expansion of existing institutions.

THE new edition of the *Nomenclature of Diseases* has this week been distributed to the registered practitioners in the United Kingdom.

THE number of candidates for matriculation at the summer examination of the University of London has reached the unprecedented total of over 1,200.

THE Prince of Wales has kindly consented to visit Birmingham in the autumn, for the purpose of opening the hospital which has been erected at Erdington at the cost of Mr. Jaffray.

THE distribution of prizes to the successful students of the past year at the National Dental Hospital and College will take place on Monday, July 6th, at the Beethoven Rooms, 27, Harley Street.

QUEEN'S COLLEGE, BIRMINGHAM.

AT a meeting of the Council of Queen's College, Birmingham, held on June 18th, Dr. C. W. Suckling, Physician to the Queen's Hospital, was elected Co-professor of Materia Medica and Therapeutics, as the colleague of Dr. Rickards. At the same meeting, Mr. Charles Sims was appointed Professor of Dental Surgery, and Mr. W. T. Elliott was elected Professor of Dental Mechanics.

REPRESENTATION OF THE SCOTTISH UNIVERSITIES IN PARLIAMENT.

WE are very glad to hear that a strong effort is likely to be made to return a medical candidate for the Universities of Glasgow and Aberdeen. The loss to Scotch Universities, and especially to the medical faculties, of Sir Lyon Playfair, is irreparable. If a strong candidate could be secured, it would be exceedingly important, and we believe that the Graduates' Association in London are now considering the advisability of putting forward a strong medical candidate for the representation of the Universities of Glasgow and Aberdeen. The place of Sir Lyon Playfair, at Edinburgh, will probably be taken by a Conservative lawyer; and the effect of a legal candidate replacing a man of science so closely in sympathy with the medical profession, and capable of so ably stating medical and scientific views on current questions, will be profoundly felt in the next Parliament by these Universities. If Glasgow and Aberdeeen can unite to send a strong medical member to Parliament, they will render great service to the Universities, and to the general cause of progress and science.

THE UNIVERSITY OF LONDON.

THE Senate of the University of London have, as we have already reported, appointed a small committee to consider the proposals made by the Metropolitan Counties Branch regarding degrees in medicine, and have invited the Branch to nominate a few members to confer with the said committee. In compliance with this invitation, the Council of the Branch have appointed a small Committee, who will meet the Committee of the Senate on July 1st. The following proposals have been suggested for consideration, on the part of the Metropolitan Counties Branch. "The matriculation examination of the University of London should be the accepted preliminary examination for all London medical students, except those who have matriculated at other

universities. For this purpose, arrangements would have to be made with the Colleges of Physicians and Surgeons, and other bodies. The requirements for the matriculation examination should be reduced; there should be fewer subjects of examination, and a greater latitude of choice. The preliminary scientific examination should be remodelled, especially as regards physics and biology. To carry out the above changes, and to get the medical schools to co-operate cordially with the Senate, it is necessary to associate them with the working of the University, either by admitting their representatives on the Senate, or by constituting boards of studies, in which their representatives would have a place. Men who have undergone medical training, and can show that they have fulfilled all the essential requirements of the University, should be allowed to pass the examinations in as rapid succession as may be convenient to them. Medical men who have been in practice for some years should be admitted as candidates for degrees, without being required to undergo the matriculation and preliminary scientific examinations. Rejected candidates should not be required to undergo a second examination in those subjects in which they may have passsed."

THE VICTORIA HOSPITAL FOR SICK CHILDREN.

THE Victoria Hospital for Sick Children, which stands close to the Thames Embankment at Chelsea, has proved that it meets a rea want of the large poor population of Chelsea and Battersea. The wards for in-patients have been for many years excellently appointed and well adapted to their purpose; but the out-patient department, which occupied part of the ground-floor, is neither suitable for such a purpose, nor large enough to fulfil the needs of an increasing number of patients. The committee, with the advice of the medical staff, have had the advisability of erecting a new out-patient department for some years under consideration, but the want of funds has prevented any decisive action. This difficulty having been to a great extent overcome, the first stone of a separate building to accommodate the out-patient department was laid by Her Royal Highness Princess Louise, Marchioness of Lorne, on Tuesday last, June 23rd.

THE CROONIAN TRUST.

THE decision of the Royal College of Physicians of London to devote the whole of Lady Sadlier's bequest (Croonian Trust) to an extension of the specific wishes of the founder, was, perhaps, inevitable; but we trust that a liberal construction may be put upon the duties of the lecturer or lecturers who are to deliver lectures on anatomy and physiology, more especially in reference to pathology and the prevention and cure of disease. The generous founder desired that anatomical preparations should be made, and demonstrations given, to illustrate the lectures; and it would surely not be going outside her testamentary disposition if the lecturers were provided with a sum of money to defray the cost of original researches which should subsequently be made the subject of the course of lectures.

ALCOHOL IN SMALL-POX.

A RECENT report by the medical superintendent of the small-pox hospital-ships in the Thames records some facts of interest. This report was in response to a resolution of the Board of Management, asking whether there had been increased mortality, protracted convalescence, or difference in the condition of the patients on discharg since the alteration of the treatment from alcoholic to non-alcoholic Dr. Birdwood reported that, in the period of treatment with alcohol, the general character of the disease had not been so severe as under the new *régime*, and that the death-rate had been higher. During the latter period, with little alcohol, none was given in acute cases, and only a small ration of beer in convalescence. From May, 1884, till June 12th, 1885, there had been treated 5,080 patients, who had been taken direct from their own homes to the ships, and 3,673 who had been transferred from other hospitals. Many of the latter were, as may be supposed, light cases. This year, the proportion of cases taken direct from their own dwellings has been greater than last year. Yet the death-rate has been under seven per cent. of the admissions, against over 15 per cent. at the land-hospitals in the metropolis. There had been five periods of gradual reduction in the amount of alcohol administered, till during the fifth term of twelve weeks, no spirits or wine had been given, and under 1,000 pints of beer. Dr. Birdwood states that he expected a greatly increased death-rate, owing to three-fourths of the cases coming direct, instead of, as formerly, from other hospitals; but the mortality had remained steady at from six to seven per 1,000. He could not show from the returns that any marked improvement had occurred in recovery under the lessened consumption of alcohol; but he was of opinion that convalescence was more rapid, and that the complications of abscesses and boils had been less frequent and less severe. Dr. Birdwood and his colleague, Mr. Bolt, though satisfied with the beneficial effects of the lessened use of alcohol, had not given up its employment altogether. In suitable cases they still prescribed it; but they had found the conditions calling for its administration comparatively rare in small-pox.

THE LONDON FEVER HOSPITAL.

THE London Fever Hospital, Liverpool Road, is well known to the members of the profession practising in London as one of the most useful medical institutions in existence; and it will be a source of general satisfaction that the festival dinner, over which the Lord Mayor presided on Tuesday, June 23rd, resulted in a substantial addition to the funds of the hospital. About a quarter of the annual expenditure is balanced by the fees received from paying patients; but, though a large number of patients belong to the professional and upper middle classes, many others are not in a position to pay any fee, or a sufficient fee; the number of patients admitted free is, however, very limited. The hospital is excellently managed; during the past year, no patient admitted for one kind of fever has contracted another; only one nurse contracted scarlet fever, and she recovered; the mortality has been, for scarlet fever, 3.37 per cent.; for measles, 3.45 per cent.; for enteric fever, 14.92 per cent.; and for diphtheria, 15.38; these results, when it is remembered that many of the cases, especially of enteric fever and diphtheria, are only sent to the hospital because they are exceptionally severe, are satisfactory, and reflect great credit, especially on Dr. Hopwood, the resident medical officer. As the Lord Mayor well said, sanitary science, which has made great advances in recent years, needs such a hospital as this as an auxiliary in attempting to stamp out the infectious diseases among the middle classes. We were glad to notice the names of many leading retail firms in the metropolis among the subscribers; to such firms, with their large staffs of young people often living on the premises, the advantages offered by this hospital are so obvious, that subscriptions from this source ought to form an assured source of income.

SYPHILITIC INFECTION.

A SERIES of lectures on Syphilis, by M. Leloir of Lille, is appearing in the columns of the *Progrès Médical*. M. Leloir has collected a large number of cases where chancres have appeared in unusual situations, and in all these cases there was evidence both that the epidermis was denuded from the site of the chancre at or before infection, and that syphilitic virus was deposited on the denuded spot. The natural arrangement by which the tissues of the vagina are capable of great distension without rupture, and considerable friction without laceration, accounts for the rarity of vaginal chancre. Anal chancres have been repeatedly observed in women who have subjected themselves freely to natural coitus when suffering from slight fissure of the anus, infected fluids running harmlessly over an unexcoriated vulva and perinæum, to find a nidus in a fissure. The great frequency of fissure of the anus in women, with neglected gonorrhœa, is well known. M. Leloir described cases of infection through eczematous patches on different parts of the body. There is strong evidence that syphilitic virus has lain on an uninjured epithelial surface for some time

without infecting the subject. On the other hand, there is still stronger evidence of a very serious fact, which proves that cleanliness alone will not always protect the profligate and the careless from syphilis. When syphilitic virus falls on a surface denuded of its epithelium, absorption is instantaneous, and resists the most rapid preventive measures. A surgeon, who had just grazed his finger, observed, in examining a syphilitic patient, that the excoriation touched, for a second, the surface of a chancre. He scrubbed the finger thoroughly with soap and water at once, but all in vain, for in a few weeks a chancre appeared on the finger, and was followed by constitutional syphilis of the severe type often seen in such cases. Several precisely similar cases have occurred amongst British practitioners. M. Leloir believes that early cauterisation may destroy the virus, but states that this theory has not been thoroughly proved. He lays great stress on the fact that a hard sore undergoes a long period of incubation. "Never has a chancre, the first sign of a reaction of the organism against the syphilitic virus, shown itself on the first day, nor on the second, nor on the fourth, nor even during the first week." M. Leloir gives the twenty-fifth day as the medium date. By unjustifiably allaying the apprehensions of a patient too quickly, he may be induced, as has not unfrequently happened, to look upon a chancre that has appeared very long after infection as a mere excoriation, and, on the strength of his error, he may spread infection to others. M. Leloir has observed the "premonitory herpes" of Cusco, a crop of herpetic vesicles sometimes appearing on the prepuce two or three days before the chancre, and possibly due to irritation of the nerves of the skin by the virus. This complication may, obviously, be a source of fallacy in a patient who persists in excesses after actual syphilitic infection.

VOLUNTEER MEDICAL STAFF CORPS.

At the Mansion House, on Friday, June 19th—the Right Hon. the Lord Mayor in the chair—a public meeting was held to promote the interest of this corps. After stating the object of the meeting, and recommending the movement to those present, the Lord Mayor was called from his position in the chair, which was subsequently ably occupied by Dr. Crawford, Director-General of the Army Medical Department. The first resolution, "That this corps deserves the cordial support of all classes of the community," was proposed by General Gipps, C.B., commanding the Home District; and, in a well chosen speech, was seconded by Sir James Hanbury, K.C.B., Principal Medical Officer of the Home District; and supported by Mr. Furley. The second resolution, "That this corps is an essential part of the Volunteer Force," was proposed by Colonel Lumsden, London Scottish R.V., seconded by Colonel Routledge, City of London R.V., and supported by Sir William Mac Cormac. The third resolution, "That this meeting pledges itself to promote the interests of this corps, monetarily and otherwise," was proposed by Mr. John Biddulph Martin, seconded by Sir Guyer Hunter, and supported by Colonel Shakespeare and General Lowry. All the speakers remarked on the usefulness of the corps as a great teaching element to young medical men, and especially to the community at large, as well as a backbone and essential reserve to the Medical Staff Corps of the Army. It was stated that the medical officers of the army had already grasped the importance of the movement, but that it would take a long time to educate the mass of civil practitioners to bestir themselves to take their rightful place in public movements of the kind. Especially in this particular enterprise might it be expected they would come forward, as it was the first organised movement of the kind ever started by civil medical men in this or any other country.—The Volunteer Medical Staff Corps held its first church-parade at St. Paul's on June 14th, being Hospital Sunday.—On Saturday, June 13th, the corps paraded at Woolwich Arsenal, where a course of instruction in loading and unloading ambulance-wagons was gone through, as many as six wagons being available.

CUCAINE AND MYDRIASIS.

At a meeting of the Royal Society on Thursday, June 18th, an important contribution, "On the Mydriasis produced by the Local Application of Cucaine to the Eye," was read by Mr. Walter H. Jessop, Senior Assistant-Surgeon to the Central London Ophthalmic Hospital and Assistant Demonstrator of Anatomy, St. Bartholomew's Hospital. The object of the paper was to try and elucidate the cause of the mydriasis accompanying the application of cucaine to the eye. This research had been made chiefly on human and rabbits' eyes by conjunctival installation, and on rabbits' eyes by certain experiments The salt of cucaine used for the purpose was the hydrochlorate, in two, four, and twenty per cent. solutions. The quantity of the solution used each time was about one minim. The pupil had been measured by a Nettleship's pupillometer, or by a graduated thread, which could easily be placed across the cornea. The experiments all pointed to the action of cucaine as a local irritant of the endings of the cervical sympathetic or mydriatic nerve of the eye. Both in rabbits in which a piece of the cervical sympathetic had been excised for some days, and also in a case presenting all the symptoms of section of the cervical sympathetic, cucaine had not the slightest effect on the pupil. Some of the experiments proved that the action of cucaine was local and not central, that the mydriasis was in no way dependent upon the third nerve, nor due to paralysis of the sphincter of the iris. The mydriatic nerve possesses fibres acting on the blood-vessels as a vaso-constrictor, and others that are purely mydriatic, supplying the dilator muscular fibres of the iris. Mr. Jessop proved, by his experiments, that both sets of fibres are affected by the cucaine, which acts on the vessels of the iris (a fact which accounts for the diminution of tension in an eye under cucaine), and also increases the mydriasis of a bloodless eye.

DR. FERRAN AND CHOLERA.

The following is a translation from a well-known Spanish provincial paper, which appeared under the heading, "Dr. Ferran, The Scientific Commission, and the Newspaper Correspondents," in the issue of June 18th.

"A very respected person in Valencia writes us the following. Here in Valencia we have three choleras, which are Dr. Ferran, the Scientific Commission, and the newspaper correspondent of the Madrid journals. The first has not been able to impede the spread of the epidemic, and, afterwards, has disturbed the tranquility of the towns, producing extraordinary excitement. The second is losing precious time, and, up to the present time, no one has seen the practical utility of its works. Many deplore that the tardiness of their proceedings prevent the government and local authorities from adopting all the measures which the circumstances require. Lastly, the correspondents of the newspapers, with the exception of the ————, who writes with discretion, and neither exaggerates or disfigures the truth, are producing alarming panics by their absurd and inexact news. For my part, it is clear that the system of Ferran, of cultivating microbes and of producing 'slight cases' of cholera, is extremely hazardous, and able to produce fatal results; nevertheless, I do not wish to discuss the question of inoculation. I only mention as eloquent facts, that the condition of the four last inoculated cases is very grave; that the medical man who died a few days ago had been inoculated; and that, in the village, many of those formerly inoculated have also died. I believed that the Scientific Commission was going to free us from these evils, but find now that it comes to complicate the situation. To begin with, in place of experimenting on animals, as was natural and logical, and as was the custom formerly, they make the experiments on people who are willing to submit. Among many other inconveniences of importance, this has made it impossible to make certain classes of experiments, which might be very useful. Anyway, the '200 guinea-pigs' have been useless. Moreover, the commission ought, in my opinion, by this time to have decided on the nature of the disease which reigns here; but, strange to say, the gentlemen of the Commission decline to say officially what they tell all the world privately. Why do they not formulate their opinion? I do not know; but the fact is that the first, and certainly the most peremptory duty it has to fulfil, is to declare the true character of the epidemic. It is lamentable that the enthusiastic

gentlemen of the Commission, with its essentially scientific work, should forget that the authorities, the Government, and the country are waiting with natural impatience, the conclusions of its studies. For the other part, the correspondents of the Madrid papers paint the situation in Valencia in very fantastic colours. Some try to make political capital of this matter, and others try to give novelty and transcendency to their letters and telegrams by their reports. Fortunately, however, we are better than people believe, and every day we see with astonishment the notices referring to Valencia which the Madrid papers publish. In the towns there is considerably less disease than is reported, and even less in the capital (Valencia). Yesterday (June 8th), for example, there only two cases, and very doubtful ones."

REPRESENTATION OF THE UNIVERSITIES OF EDINBURGH AND ST. ANDREW'S.

A DINNER of graduates of these universities will take place at the Holborn Restaurant on July 3rd. The chair will be taken by the Marquis of Salisbury; and Mr. J. H. A. Macdonald, Dean of Faculty, and Lord Advocate of Scotland, under the new Ministry, will also be present. Mr. Macdonald is to be the Conservative candidate for the representation of the Universities; and we understand that the Liberal candidate will be Mr. Æneas Mackay, advocate in Edinburgh. Tickets for the dinner may be obtained of Dr. J. G. Garson, of Lincoln's Inn Fields; or Mr. A. Macmorran, Goldsmith Buildings, Temple.

DEATH OF DR. T. P. HESLOP.

WE regret to hear of the death of Dr. Thomas P. Heslop, of Birmingham, which took place on the 17th inst., during a journey to Braemar. Dr. Heslop was formerly physician to the Queen's Hospital in Birmingham, and, at the time of his death, was consulting physician to the Children's, Women's, Skin, Lock, and Orthopœdic Hospitals of that time. He was the author of several essays and articles on subjects relating to hospital reform, payment of medical officers of clubs, attendance on the children of the poor, and other subjects of general and practical interest. Dr. Heslop graduated as M.D. at Edinburgh in 1848, and was elected a Fellow of the Royal College of Physicians of London in 1872.

THE PRESENT STATE OF THERAPEUTICS.

THE comparative neglect into which the science of therapeutics has been allowed to fall is, in short, the subject chosen by Dr. Sawyer as the topic of his address as President of the Birmingham and Midland Counties Branch. Admittedly, the advance has been slower in therapeutics than in pathology, though the progress even in the former, during the last quarter of a century, has been more substantial than in any previous similar period. The progress has been slow (says Dr. Sawyer), firstly, because of the intrinsic difficulty of the subject; and, secondly, because, both in popular teaching and in the curricula of the examining bodies, therapeutics has been relegated to a second place; many clinical teachers give but little attention to the subject, and the formal lectures are given at so early a stage of the student's career that he is not prepared to benefit by them. The terms of the equation with which therapeutics have to deal are life, a disease, and a drug. The apparently simple question: "Does a certain drug cure a certain disease?" was chosen by Mr. John Stuart Mill as an illustration of the most intricate class of problems which the human intelligence can attempt to unravel. Practical medicine cannot stay for a logical demonstration; it must act on a reasonable probability. In therapeutics must be included the details of personal hygiene, dietetics, gymnastics or regulated exercise, and every other agency and circumstance which can favourably influence disease. Experience must prompt our actions, and experience must test results; that is to say, we must be guided by a wise empiricism, receiving suggestions from experimental science, but bringing everything to the touchstone of experience. Progress in the science of therapeutics must be made along a double front, by the discovery of the unknown and by the perfection of the known, and the last is not least important. This is Dr. Sawyer's teaching; and few will, it may be hoped, be found to doubt either its truth or its opportuneness.

THE SALE OF POISONS.

AN important inquest was concluded at Worplesden, Surrey, on June 18th, at which a question arose as to the interpretation of the law relative to the sale of poisons. Eliza Fenn, a married woman, who had been at one time an inmate of a lunatic asylum, and who had previously attempted suicide, purchased, on May 23rd, half an ounce of coloured arsenic at the shop of Mr. Wheeler, a chemist and druggist. A couple of hours before, she had expressed herself to a friend as tired of her life. Mr. Wheeler knew the woman by sight as a customer, but he was not acquainted either with her name, her residence, or her status. Fenn gave a false name and address, and stated that the poison was to be used for the destruction of rats. She signed the entry in the poison book as "Eliza Marten." The seller did not attach his signature to the entry. No one introduced Fenn to Mr. Wheeler. Nevertheless, he asserted that he believed he had complied with the requirements of the law; but the coroner, Mr. Roumieu, a practising barrister, was of a different opinion, and held that the knowledge of the purchaser required by the Pharmacy Act was not merely a knowledge of a person by sight, but a knowledge of him or her by name and repute. In this case, where a false name had been tendered, the only clue to the purchaser was the recognition of her photograph by the vendor of the poison, and of her handwriting. We commend the case to the consideration of the Pharmaceutical Society, a body which is supposed to supervise the proceedings of registered chemists and druggists. The Pharmacy Act, 1868, says that it shall be unlawful to sell any poison of those which are in the first part of the schedule (which includes arsenic) to the Act, to any person unknown to the seller, unless introduced by some person known to the seller. Surely Eliza Fenn was unknown to the seller in any reasonable sense of the term. The seller, in this case, appears to have overlooked the provisions of the Act to Regulate the Sale of Arsenic, 1851, which goes a step farther than the Pharmacy Act, 1868, for, whilst the latter Act requires the entry in the poisons-book to state the date of sale, the name and address of the purchaser, the name and quantity of the poison sold, and the purpose for which it is required, to which is to be appended the signature of the purchaser. The former Act demands, in addition, a statement as to the condition or occupation of the purchaser, and that the entry be completed by the addition of the seller's signature. In view of a probable alteration of the law, the importance of defining what is meant by knowledge of the purchaser, becomes most important.

SHALL WE HANG THE INSANE WHO COMMIT HOMICIDES?

THE treatment of criminal lunatics has for long been one of the most thorny questions of law, and one in which medical opinion has been steadily gaining ground against legal dicta. It has all along been held that some amount or quality of insanity was sufficient to avert the punishment from the criminal, and the discussion on the characteristics of the insanity requisite so to do has led gradually to the acceptance by the law courts of a medical view, and of its determination by medical experts. Lord Hale laid it down two centuries ago that there was a state of partial insanity—*quoad hoc vel illud insanire*—which did not excuse its subjects "in the committing of any offence for its matter capital." Later, the criterion of responsibility was the knowledge of right and wrong in the criminal, either on matters in general, or, as it was formulated more recently in McNaughten's trial in 1843, in the Criminal Act solely. If he knew the Act was wrong, he was guilty, whether insane or not; but though guilty in this sense, yet if he was insane, he has very generally been not punished, but confined at Her Majesty's pleasure. The law of the United States has, on the

whole, followed the English law, but it varies slightly in different States, and there has been less inclination shown to pardon. There was much angry discussion about Guiteau, who was generally, the medical experts considered, insane, but yet was not only brought in guilty of murder, but refused any mitigation of his sentence on the plea of insanity, and hanged. That was in part due to public indignation against his murder of the President; but more recently the question has been revived by the hanging of Dr. Beech for murder. He had been undoubtedly insane in repeated attacks of restless religious melancholia. He practised medicine in the intervals of his insanity. One morning, he killed his wife by a careful incision in the neck, composed the body decently, and at once came to give information of himself, apparently as a matter of formal duty, but without showing any interest. He had no pretext and no excuse—except insanity; and no medical man doubted it, except one who shielded himself under Transatlantic phraseology, and considered him "rather as a crank than as insane." The jury found him guilty; there are insufficient technical provisions in Pennsylvania for the consideration of the plea of insanity after a verdict, and he was consequently hanged. Mr. Clark Bell brings the matter forward in a paper before the Medical Jurisprudence Society of Philadelphia, pleading that the legal arrangements of Pennsylvania State should be improved, and also that punishment by death in such cases should be made practically impossible. It has been the underlying legal contention in these matters throughout that, if responsibility can be affixed to anyone, by whatsoever delicate tests, then the criminal must be by law declared guilty of his crime, and any conclusions to which this may lead which are disapproved by common humanity must be overcome by the exercise of a power of pardon which can be readily applied. But it may be too readily applied; and it is to be remembered that the public have grown rather intolerant of the plea of insanity frequently brought in to excuse men from the punishments of crime; not so much that they would deny the expediency of the medical use of the word insanity to cover a constantly increasing territory, but rather that they doubt if it is advisable to make all kinds of insanity adequate defences against punishment. "Little or no loss is inflicted either on the community or on the madman himself by his execution," writes Sir James Stephen, in his great digest of the criminal law. If the main object of punishment by death is, as in almost all theories it is taken to be, to deter the future criminal, then there is some good evidence to show that some classes of the insane had better be punished more mercilessly than at present, as many of them are open indistinctly but effectively to the influence of a deterrent.

PROTECTIVE POWER OF VACCINATION.

THE members of the Vaccination Officers' Association held their ordinary meeting on Saturday last, at Charing Cross Hospital Medical School. After the usual routine business had been transacted, a paper was read by Dr. Robert Cory "On some Medical Facts relating to Vaccination, which it is desirable Vaccination Officers should have more extended knowledge." Dr. Cory illustrated his remarks by diagrams and statistical sheets, gathered from small-pox hospitals and other institutions, which most conclusively proved the power of efficient vaccination as a protection from small-pox. One of the most interesting diagrams related to ophthalmic statistics collected from Guy's Hospital, referring to cases of blindness from small-pox. In no instance had the patients been revaccinated, only one case showing marks of primary vaccination—namely, two vaccine cicatrices. The statistics gathered from Highgate and Homerton Hospitals, respectively and independently, show comparatively the same result against the unvaccinated, the mortality ranging from 37.2 among the unvaccinated, to 1.1 among those showing four or more vaccine cicatrices, in regard to Highgate; whereas, in Homerton, the mortality of those unprotected by vaccination showed 43.7, against a percentage of 3.2 of those protected by vaccination. Dr. Cory concluded his valuable paper with numerous instances which had come under his personal observation, showing the protective power of vaccination. A discussion followed the paper, in which Dr. Charles Renner and Dr. E. L. Webb participated. Various questions having been put and answered, a vote of thanks was passed to Dr. Robert Cory for his interesting and instructive paper, with a request that he would permit the members of the Association to make further use of the same.

A DEATH FROM HYDROPHOBIA.

A DEATH from what seems to have been a genuine attack of hydrophobia was investigated by Dr. Danford Thomas at South Mimms on Saturday last. The case was that of a labourer, aged 54, and was somewhat peculiar in possessing a longer period of incubation than usual, namely, from four to five months. How far such a late postponement of the effects of the bite may have been due to the quantity of the virus actually introduced, and how far to the idiosyncrasy of the deceased at an age when nervous activity has begun to diminish, is open to question. We have here an example of the kind of case in which early and efficient inoculation performed after Pasteur's method, and running its parallel and probably more rapid course, would give promise of the best preventive results.

THE HOLBORN FEVER-NEST.

A TIMELY addition to the improvements which have for some time been carried on in the Holborn district has been suggested by the Home Secretary to the District Board. The buildings known as Brooke's Market have become a by-word among sanitary inspectors on account of their unwholesomeness. That they form an active focus of disease, is evident from the fact that the cases of non-zymotic disease alone which have occurred in them have, in two years, nearly equalled the total annual population. The latest proposal is to convert this "fever-nest" into a public playground. There are certainly not too many such open spaces about Holborn. Mr. George R. Sims has, on moral grounds, advocated a certain degree of caution in pulling down rookeries of this kind, dreading the dispersion of their often criminal inhabitants into the purer outer circle of honest artisan life. There is, no doubt, some appearance of force in this objection; but we must not forget that a good deal has been done by the Committee on the Housing of the Poor to accommodate those who are thus rendered homeless with lowly rented, but clean and healthy, dwellings. The present advantage to Holborn, by the removal of such a hot-bed from its midst, is unquestionable.

PROPOSED CODE OF MEDICAL ETHICS IN RUSSIA.

THE much vexed question of what diplomas should be considered to confer the practical right of calling oneself "Doctor" is not confined to Great Britain. In Russia, students whose marks at their various examinations reach only a moderate average receive the title of Vratch (Arzt) surgeon, with a licence to practise; while those who attain a high average are permitted to proceed by means of an inaugural dissertation, which corresponds to the keeping of an act at Oxford or Cambridge, to the higher title of Doctor of Medicine. In a proposed scheme of medical ethics, based on the Warsaw Medical Society's ethical rules, which has been communicated to the St. Petersburg medical press by G. Küsel, of Narva, it is laid down that it is for the interest of the profession that practitioners should make use of the title Vratch, surgeon, before their other titles; also that "the circumstance that, amongst the public, it is generally the custom to style every practitioner 'Doctor,' instead of 'Surgeon,' does not justify the assumption of this title by surgeons, to whom it does not of right belong." It is also provided that a practitioner who gives in his adherence to any system of medicine unrecognised by science must be considered as having forfeited his rights of professional fellowship. A complaint is made in a note that, notwithstanding the official recognition of the distinction between the two classes of practitioners, and the legal right that doctors of medicine have to certain important

posts, these are frequently filled up contrary to the official regulations by practitioners who are only surgeons. It is also suggested that the title "Lekarski Pomoshchnik," surgeon's mate, which is conferred on senior members of the subordinate medical service, called Feldshers, should be changed, as it tends to create confusion amongst the public between the professional status of a properly educated surgeon and that of a hospital-sergeant or compounder. Many of the rules in the proposed code are very similar to those formulated by Dr. Styrap and others for the guidance of British practitioners. Dispensing and all connection with pharmacists is forbidden, also the giving of prescriptions without seeing the patient, also the writing, publication, or distribution of pseudo-popular pamphlets describing the symptoms and treatment of diseases, also the giving of testimonials of the value of remedies or mineral waters. Announcements of name, address, specialty, and hours of consultation, are permitted; but it is suggested that, if these be repeated more than three times, they partake of the nature of advertisements, even if they refer to the taking of resident patients into institutions.

SCOTLAND.

THE LATE PROFESSOR FLEEMING JENKIN.

THE death of Professor Fleeming Jenkin is a serious loss to the University of Edinburgh. Ever since his appointment, 17 years ago, to the newly instituted Chair of Engineering in that University, he has been recognised as a most able and successful teacher, and he was held in high esteem by all who had ever studied under him. It is unnecessary for us to sketch his successful career as an engineer, but we cannot pass by the great services he has rendered to the community generally by the very active steps he took for the formation of those local sanitary associations which have already accomplished so much good in many of our large towns. It was in 1877 that he delivered two lectures before the Philosophical Institution of Edinburgh, on "Sanitary Houses," and, as an outcome of the interest aroused by them, there was set on foot the Edinburgh Sanitary Protection Association. It was the first of its kind, but since then similar associations have been founded in other large towns, both in Scotland and elsewhere, and their annual reports show how beneficial they have been. Professor Fleeming Jenkin's death was due to blood-poisoning which supervened on a comparatively minor surgical operation.

THE EDINBURGH EPIDEMIC HOSPITAL.

THE announcement that the Epidemic Hospital for the City of Edinburgh is nearing completion, and will be ready within the next few weeks for the reception of patients, possesses for former students of Edinburgh University more than ordinary interest. This is due to the fact that, under another name, we have the buildings of the surgical department of the old infirmary transformed into a hospital for the treatment of infectious diseases. Although the work of the architect is seen on every side, there would still be no difficulty for anyone acquainted with the former building finding his way around as heretofore. The changes he would meet with would only be such as are demanded by the different diseases to be provided for, namely, typhus, typhoid, measles, scarlatina, and erysipelas. One of the chief things aimed at has been thorough separation of the wards one from the other, so as to prevent the possibility of the poison of one entering the other. This has been accomplished either by stone stairs or by double doors. As to the allocation of the different wards, those for typhus, typhoid, and measles are in the front portion of the old surgical hospital; the erysipelas-wards are on the ground floor, and were the eye-wards of the old infirmary; while the old high school, or what were formerly the clinical wards, is entirely given up to scarlatina cases. In all, the new hospital contains 18 wards, with 178 beds. In the shape of two lofty recreation-rooms for scarlatina convalescents, there would be some difficulty in recognising the old operating-theatre, within whose walls has been enacted many a thrilling scene, and on whose benches have sat many generations of students. Numerous other changes have also of necessity been effected, and there are still some details to be decided on; but the general arrangement adopted has produced what should prove a most complete and compact hospital, and one admirably suited for the class of cases to be dealt with. At a meeting of Edinburgh Town Council, held on Tuesday, a letter was read from the managers of the Royal Infirmary, offering the Town Council the Fever Hospital, belonging to the Infirmary, with all its fittings and in its present working condition, for £4,000. On the motion of the Lord Provost, it was agreed to accept the offer, although considerable discussion took place on the action of the Infirmary managers in refusing to deal with infectious diseases after July 1st. Some soreness was felt and expressed on the subject; but this will doubtless wear off, and the Infirmary and Fever Hospital each be better for its independent state.

MEMENTOES OF THE OLD INFIRMARY, EDINBURGH.

THE buildings of the medical part of the old Royal Infirmary, Edinburgh, having been demolished recently, advantage was taken of some of the wood to have stethoscopes made of it, as *souvenirs* of the old place. Two large tablets, which by their size and gilt lettering attracted the attention of all (and which will be remembered by thousands of our readers), placed on each side above the main entrance to the old medical hospital, on one of which was "I was sick, and ye visited me," and on the other, "I was a stranger, and ye took me in,' were found to be composed of stucco, so that they could not be transferred to the new building. Someone, however, who had kindly feelings of the old entrance, has come forward and anonymously had the *fac-similes* of the tablets reproduced in stone over the principal entrance to the New Royal Infirmary. At the same time, other two tablets were carved out of stone left rough for the purpose, one bearing the date of the foundation of the Infirmary, the other bearing the crest of the institution, with the motto "*Patet omnibus.*"

THE GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

WE are glad to be able to announce the formation of the above Society. As was mentioned in the JOURNAL of May 30th, the matter has been under consideration for some time, and a preliminary meeting was held, at which a committee was appointed to draw up the necessary constitution and rules. On the 17th instant, a further meeting took place, when the committee handed in its report, which embodied a draft constitution for the Society. This was agreed to, and it was decided to adopt the title of "The Glasgow Obstetrical and Gynæcological Society." The following office-bearers were elected: *Honorary President:* Professor W. Leishman, M.D. *President:* W. L. Reid, M.D. *Vice-Presidents:* S. Sloan, M.D.; A. Wallace, M.D. *Treasurer:* R. Pollok, M.D.; *Secretary:* J. Stuart Nairne, F.F.P.S. *Council:* Drs. Halket, Park, Turner, Murdoch Cameron, Robert Bell, and Marshall. As we observed before, such a society as that now established should prove of great advantage to Glasgow, and be a valuable means for the interchange of views on the different interesting questions that come within the field of work it proposes to occupy.

PROPOSED NEW MEDICAL SCHOOL AT DUNDEE.

EVER since University College, Dundee, was fairly equipped for its work, the hope has been expressed, in many quarters, that a medical school would, in time, be attached to it; and, since the appointment of Mr. D'Arcy Thompson, a distinguished and enthusiastic graduate of Cambridge, to the chair of biology last winter, the hope has, we learn, taken more definite form. Mr. Thompson has already done excellent teaching and original work in Dundee, on the lines adopted by the Cambridge school. The professional staff in Dundee are said to entertain the opinion, that a medical school would give to the College more definite aims than it can aspire to at present. A town of the

size of Dundee, with its 150,000 inhabitants, and its well equipped infirmary, would hardly remain long, in Germany, without a medical school. The Infirmary has 250 beds, an average of 150 in-patients (2,000 annually), and a large out-patient department. The clinical material is ample and varied, and is drawn, not only from the town and neighbourhood, but also from the shipping, which often supplies examples of tropical diseases. Some of the local medical men are believed to be very favourable to the scheme, and Sir Andrew Clark, and Professor Gairdner of Glasgow, Professor Michael Foster, and Dr. Macalister of Cambridge, are reported to have expressed their hearty approval of the enterprise. Professor Gairdner has gone so far as to consent to distribute the prizes and certificates, and to deliver an address on "Medical Teaching," on Saturday, the 27th instant, at the closing ceremony of the session. Considering the crowded condition of the class-rooms and wards in Edinburgh and Glasgow, it is not unlikely that students would be attracted in sufficient number to permit a medical school to be opened, if only the necessary funds be forthcoming, and the staff carefully and wisely selected. The Universities (Scotland) Bill, 1885, contains a clause, allowing St. Andrew's University to affiliate colleges in other towns; and if Dundee can show a good reason for the existence of its medical school, and good honest work, the executive commission, which will be appointed under the Act, will hardly be able to pass over its claims to recognition. It may interest our readers to know that this is not the first time the scheme has been broached, and that something like it was suggested in the columns of the *Dundee Advertiser*, by a retired Edinburgh surgeon, the late Dr. Watson-Wemyss of Denhead, St. Andrew's, as long ago as 1872.

ABERDEEN INFIRMARY AND THE TREATMENT OF INFECTIOUS DISEASES.

THE important subject of the reception of cases of infectious disease into a hospital supported by the charitable, which has been settled in Glasgow for some time and in Edinburgh recently, has now come to the front in Aberdeen, at a meeting of the president and managers of the Infirmary and Lunatic Asylum, held to resume consideration of a motion by the Rev. Mr. Calder on the subject, on Monday. By this motion, it was sought to exclude from the infirmary cases of fever and other infectious disorders, which, it was asserted, should be provided for, in accordance with the Public Health Act, by the local authority in whose jurisdiction such cases occur, and not at the expense of the charitable funds subscribed for the infirmary in the city and country. A full discussion of the subject took place, and it was resolved to remit the question to the committee of managers, to inquire and report as to what arrangement can be made with the local authority in the matter of infectious diseases.

PRECAUTIONS AGAINST CHOLERA AT ABERDEEN.

THE Public Health Committee of Aberdeen Town Council have resolved on various measures to be taken with the view of preventing the introduction of cholera by any vessel into the harbour. Two policemen will be engaged to watch, night and day, the arrival of fishing-luggers at Point Law, and ascertain whether any illness has broken out among the crew during the voyage. An order, printed in French, German, and Dutch, has been circulated, giving directions to foreign fishing-boats, arriving with sickness on board, where they are to moor until the medical officer of health has had an opportunity of boarding them, and making the necessary medical examination.

BEQUESTS AND DONATIONS.—Mr. Frank John Moore, of Northchurch, Herts, has bequeathed £500 to be invested for the West Herts Infirmary, Hemel Hempstead.—The Rev. George Currey, D.D., Master of the Charter House, has bequeathed £100 to the East London Hospital for Children, and £100 to the Firs Home for Advanced Consumption, Bournemouth.—The British Home for Incurables has received £100 under the will of Mrs. Gaskell.—Mr. W. Gisborne has given £50 to the Charing Cross Hospital.

IRELAND.

Two deaths from sunstroke took place in Newry during the past few days.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

MR. SAMUEL H. WEBB, formerly a demonstrator of chemistry in the Ledwich School of Medicine, has been elected to the vacant examinership in physics, chemistry, and medical jurisprudence.

THE CORONERSHIP FOR KILDARE.

AN election for a coroner for the Northern Division of Kildare, vacant by the resignation of Dr. Hayes, J.P., took place at Naas last week. There were two candidates, both medical men—namely, Messrs. Smyth and Coddy—for the appointment. Of 1,100 voters a little over one-half voted, the result being that Dr. Joseph Smyth was successful by a large majority of votes.

SMALL-POX IN DUBLIN.

WE regret to learn that two of the three cases of small-pox, reported last week in this column, have proved fatal. Up to the present, so far as we know, the disease has not spread, all the cases having occurred in one house.

THE TREASURY GRANTS TO DUBLIN HOSPITALS.

THE Commission appointed by His Excellency the Lord Lieutenant, to inquire into the allocation of these grants, and to which we referred in the JOURNAL of the 13th instant, has been constituted, and commenced its sittings, in private. Sir R. Blennerhassett, M.P. for Kerry, is the chairman of the committee, which is composed of six members, none of whom are medical men. The secretary is Mr. Thomas Myles, M.B., late resident surgeon of Steeven's Hospital.

BOARD OF GUARDIANS—TREATMENT OF MEDICAL OFFICERS.

THE advertisement for a medical officer to Omagh dispensary district, which takes place this day, contained a proviso that the salary (£120) was to include all expenses in attending any prosecutions at petty sessions, and that all cases against defaulters under the Vaccination Acts should be brought by and in the name of the medical officer. The committee of management of the Cappaghwhite district have also advertised for a medical officer, the election to take place on July 1st, and state that the person appointed must undertake, in the event of his calling in a medical man, or his being called in to assist in any surgical or other operation by any medical officer of the union, not to charge more than one guinea. It is to be hoped that the guardians will, in the absence of candidates, be obliged to alter these regulations.

ST. VINCENT'S HOSPITAL, DUBLIN.

As stated recently in the JOURNAL, it has been decided to increase the staff of this hospital, consequent on its enlargement, by appointing an assistant-physician and an assistant-surgeon. The former post has been filled, as we have reported, by the election of Dr. McHugh; and on Tuesday last Mr. Richard F. Tobin, late surgeon-major medical staff, was appointed assistant-surgeon to the hospital. Mr. Tobin was, we believe, a pupil of St. Vincent's Hospital. He qualified in 1864, and entered the Army Medical Department the following year. He was an assistant professor of military surgery at Netley Hospital, and during the late campaign in the Soudan a large amount of operative surgery passed through his hands. Mr. Tobin now retires from the army, on the completion of twenty years' full pay service, with a high reputation as a surgeon, and we wish him every success in entering into civil practice.

CHOLERA.

THE CHOLERA IN SPAIN.

OUR special correspondent writes from Valencia:

In my last I was compelled, for want of time, to leave out several particulars in reference to the spread of cholera in this country, and perhaps what is of more importance to the profession, especially to microbiologists, in reference to the so-called "preventive cholera-inoculation." The primitive stock is said to have been taken out of the intestines of a patient who died of cholera last year in Marseilles, and contained in large numbers the comma-bacilli of Koch. This Ferran took to Tortosa, and he set to work to examine and cultivate this material. In a short time, he proclaimed that he discovered what Koch and others failed to find—that is, the primitive or basic cell of the comma-bacillus. He now set about manufacturing a stock of material, and, armed with his hypodermic syringe and his flasks, started for Barcelona, where the matter was taken up by the Academy of Medicine. Several of the medical men were inoculated, and their verdict and opinions were given in the sheet I sent you. He was called to the city of Alcira, and, as the inoculations were gratis, 3,000 or 4,000 persons flocked to him; and, for a time, the faith in this affair allayed the great panic then prevailing, and in that sense did some good, although some, even at this early period, were smitten with the disease being inoculated. He was now called to Madrid by Government. In Madrid, much to their surprise, he and his companions were met by a large majority of sceptics, professional and lay; and amongst the foremost of the latter was, and is, the Chief Minister of Government, Señor Romero Robledo, who declared most firmly that he would neither give his own arm for inoculation, or permit it to be performed in any part of Spain, until it was fully proved that it was efficacious. On the other hand, Señor Castelar pleaded for Ferran. After being in Madrid a few days, they returned to Alcira, where they were received with enthusiasm. There came with them from Madrid a Government Commission, and other Commissions began to flock from all quarters of Spain, and a few came from Portugal and Brazil, to study and examine into Ferran's system and its results. All these have left some days ago, except the first named, and they leave to-day or to-morrow. I fear nothing has been done to satisfy the sceptics. In two days after Ferran returned to Alcira, a decree arrived from Government, prohibiting the inoculation; and a great storm arose in the city and elsewhere, against the Minister Robledo, and now affairs have settled into two political camps, styled Ferranistas and anti-Ferranistas. Meantime, Ferran, with his assistants, has visited Jativa, Alcira, Valencia, and other places, privately inoculating all who were inclined to pay him his fee of two dollars and upwards.

It is reported that 7,000 have been re-inoculated in Alcira alone, and 3,000 more only inoculated. I place no trust in these figures, or on Spanish statistics. For instance, it was stated in the papers that the population of Alcira was 16,000, as I named in my first letter. When I went there, the medical men who joined me told me it was 22,000, and more; I asked the reason why officially they reported only 16,000. The reply was, "If we gave the true number, we would have to pay more taxes, so we are bound to keep it under." I asked another question: "Seeing that you all affirm that the prevailing disease in your city is true Asiatic cholera, why do you officially give the unmeaning and unprofessional name of 'enfermedad euspechosa'?" Their reply was: "If we gave it its true name, the city would have been 'acordonado' (which really means 'boycotted') the past three months, and every one of us would have starved." I have seen that numbers of those inoculated by Ferran come in for their general share of invasions of cholera, and also of deaths. Strict orders have been given by the Government to place "cordones sanatorios" around numbers of the infected towns; and this cannot be done in numbers of cities (such as this city). Also, Government is properly severe on all the alcaldes who do not attend to the hygiene of their district. Yesterday, one was fined £20 near this for neglect; others have been deposed; others sent to prison; others tried and sentenced, etc.

There are three kinds of lazarettoes—namely, government, municipal, and railway; and may kind Heaven protect us from getting into either of them. The poor are at once taken off to the Cholera Hospital, a wretched hole, without windows, and attended to by the Sisters of San Vincent de Paul, and a medical man, who has three shillings a day. The treatment of the disease in Alcida here, and where I have seen it, is a spoonful of beef-tea or milk, and a little strong rum, and sometimes five or six drops of laudanum. There is a cholera-wagon, of a grey colour with red top, that promenades the city to pick up any stray subject, dead or alive; it creates a great panic whenever seen. Unfortunately, whatever is put into it can be seen; yesterday, a body of a dead woman was in it when I saw it.

I am sorry to say that cholera is spreading very rapidly the last few days through the four Provinces I mentioned in my last, but the capitals of these are not the most or severest affected; it is the smaller and dirtier towns. In Murcia, it suddenly appeared three or four days ago, attacking (the papers say) 270, with 80 deaths. It has also returned in force to Alcira, and I fear it has got an awkward footing in Madrid, as eight deaths are reported to-day.

I shall finish this letter by a few questions, trusting that some of your readers will answer them in the JOURNAL.

1. Does an attack of cholera give immunity from another attack? My own reply is, No; as I know people at home and abroad, and have patients here, who have had it twice and thrice, and some have died of it after one attack.

2. If an attack of the true disease do not give immunity from another attack, is it probable or possible that inoculation can? Ferran and his followers proclaim that his inoculation is innocuous; that no bad results take place from it; and that those re-inoculated have complete immunity from cholera. If phlegmonous erysipelas, septicæmia, and death, after re-inoculation—all of which I myself have seen—be not awful results, then what is innocuous?

3. How does Ferran know what he puts into the arm with his syringe, whether half-a-dozen or a thousand, or not one of his self-named "peronospora Ferrani"? I have seen several who have been inoculated twenty-four hours and twelve hours after, and not a trace even of the needle visible; and again, I have seen and heard of many more who have had phlegmonous and septic erysipelas.

Supposing there is any truth in the "preventive cholera inoculation," how is it to be proved? The only way I can see by which it might be done is by comparative observations; and, for obvious reasons, these are very difficult, and hardly to be made with rigid accuracy on a sufficiently large scale.

THE ELECTION INTO THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

THE election on Thursday next will be conducted exactly as in former years. The unsuitableness of the method prescribed by the by-laws to the end in view, which we take to be the discovery of the opinion of the majority of the Fellows, has so often been proclaimed in these pages that it is needless again to dwell upon the point with much minuteness. The fact that the President has the power during the voting-time, which is limited to three hours, to close the ballot, if, after notice given by him, no Fellow shall actually ballot during the next ten minutes, is an antiquated arrangement, which presses with undue severity upon country members, and probably deters many of them from coming up to record their votes, since they can but feel that if they appear towards the end of the three hours, they may find the election over, and the time they have given to the object entirely lost; whereas, for a Metropolitan Fellow to go to Lincoln's Inn Fields and find the ballot closed, entails a much less serious loss of time. Again, the system of personal voting chiefly inconveniences the Fellows who reside outside London, and on all hands is condemned.

As is well known, the vacancies occurring in the Council this year are three only, and are caused by the retirement in rotation of Messrs. Erichsen, Savory, and Holmes, who were elected in 1877; only one of whom, Mr. Savory, now seeks re-election.

Of the seven candidates for these three seats, the following is the order of seniority, according to the dates of their passing the membership of the College. Mr. Savory and Mr. Pemberton were admitted members in 1847, Mr. Gant in 1849, Mr. Rouse in 1851, Mr. Macnamara in 1854, and Mr. Mason and Mr. Cowell both in 1858. Dating seniority from admission to the Fellowship, the following is the order of the candidates: Mr. Savory became a Fellow in 1852, Mr. Gant in

1861, Mr. Mason in 1862, Mr. Rouse in 1863, Mr. Cowell in 1867, Mr. Macnamara in 1875, and Mr. Pemberton in 1878. All these gentlemen are resident in London, except Mr. Pemberton.

COLLECTIVE INVESTIGATION.

LIST OF RETURNS RECEIVED DURING MAY, 1885.

THE Committee desires to acknowledge the following list of returns received during the month of May.

Aberdeen Branch: Intemperance: J. Mackenzie Booth. M.D.; W. H. P. Evatt; C. R. MacDonald, M.D.

Bath and Bristol Branch: I, W. Beaumont; XIII, H. G. Terry; Intemperance, R. Shingleton Smith, M.D.; J. Taylor.

Birmingham and Midland Counties Branch: I, Dr. Wyer; G. Birt, M.B. (2); III, G. Birt, M.B.

Border Counties Branch: I, W. L. Cullen (3); J. R. Hamilton, M.D. (2); II, J. R. Hamilton, M.D. (2); VII, W. L. Cullen; XII, Henry Barnes, M.D.; Intemperance, T. B. Green; G. R. Fraser; Henry Barnes, M.D.

East Anglian Branch: I, S. H. Burton, M.D.; Intemperance, J. T. Skrimshire, M.D.; H. J. Benham, M.D.; E. G. Barnes, M.D.; W. H. Day; C. B. Plowright; H. B. Vincent; XIII, H. J. Towlson; H. C. Rogers (2).

East Yorks Branch: Intemperance, R. A. Mossman.

Gloucestershire Branch: Intemperance, C. T. Wilson, M.B.

Lancashire and Cheshire Branch: Intemperance, C. H. Pinck, M.B.; T. W. H. Garstang, M.A.; G. C. Kingsbury, M.D.; William Berry.

Chester District: I, A. Ransome, M.D.; X, A. Ransome, M.D. (3); Intemperance, J. Taylor (3); F. W. Jordan.

Liverpool District: II, T. R. Pennington; Intemperance, W. S. Paget, M.D.; J. Matthews.

Manchester District: II, III, (4) VII, D. J. Mackenzie, M.D.; Intemperance, W. F. O'Grady; A. W. Stocks; H. W. Boddy, M.D.

Metropolitan Counties Branch: I, E. G. Gilbert, M.D.; X, D. W. Finlay, M.D. (2); E. Clifford Beale, M.A., M.B.; Intemperance, F. J. Buckell, M.B.; A. Wertland, M.D.; W. A. Bonney, M.D.; G. Dale, M.B.; J. F. Palmer; A. H. W. Ayling; M. Greenwood, Jun.; M. G. Biggs; B. A. Rugg; W. T. P. Douglas, B.A., M.B.; J. Chalmers, M.D.; E. A. Snell, M.B.; Patmore Sheehy; W. Dickson, M.D.; G. N. Adams, M.D.; J. S. Ferris, M.B.; J. Davidson, M.B.; XIII, E. J. Lequesne (2); P. H. Banks (6).

Midland Counties Branch: Derby District: Intemperance, E. M. Wrench, F.R.C.S.; A. Boswell, M.D.; H. Denne, M.D.

Leicester District: Intemperance, J. Baird.

Lincolnshire District: I, A. Campbell; Intemperance, W. Hamilton Allen, M.B.

Nottingham District: II, H. Handford, M.D. (2); S. Johnson, M.D. (2); Intemperance, G. Vincent, M.B.; T. Jones.

North of England Branch: I, R. Mears (3); II (2) IV, R. S. Peart, M.D.; Intemperance, T. M. Evans; R. S. Peart, M.D.

North of Ireland Branch: III, G. F. Duffy, M.D.; IV, G. F. Duffy, M.D.; VII, R. J. Kinkead, M.D.; Intemperance, G. W. Daly, M.D.; James Taylor; S. M. Cordner; J. Murray.

North Wales Branch: Intemperance, T. Davies; J. Davies; W. Thomas; Charles Lovegrove; D. C. Burlingham.

Reading Branch: Intemperance, H. H. Parry.

South-Eastern Branch: West Kent District: I (6), VI (4), VIII, X (2), R. Bowles, M.D.; Intemperance, H. T. B. Tribe; H. L. Bernays; James Crawford. West Surrey District: II, H. H. Dearsly; H. H. Wright (4); Intemperance, Messrs. Sloman (3); H. G. Plimmer.

South Wales Branch: I, W. D. Shephard (2); T. Hall Redwood, M.A., M.D.; II, W. D. Shephard; XIII, T. Hall Redwood, M.A., M.D.; Intemperance, C. Biddle; J. F. Fry; A. Garrod Thomas, M.D.

South-Western Branch: North Devon District: I, III, J. Elliott Square, F.R.C.S.; Intemperance, W. J. Square, F.R.C.S.

Southern Branch: Dorset District: Intemperance, T. Fielding, M.D.; G. H. Batterbury, M.D.; C. Watts Parkinson. East Hants District: Intemperance, S. Andrews. South Hants District: Intemperance, T. W. Trend, M.D.; R. E. Power; J. Macgregor. Isle of Wight District: X, H. M. Barker, M.D.; Intemperance, C. Meeres; W. E. Green.

Staffordshire Branch: XIII, J. T. Hartill (4); Intemperance, T. P. Massingham; J. A. Lycett, M.D.; E. T. Tylecote, M.D.

Shropshire and Mid Wales Branch: Intemperance, A. Eddowes, M.D.; T. L. Lloyd.

Thames Valley Branch: Intemperance, E. Casey, M.D.; H. W. Seager, M.B.; A. Playne, M.B.

West Somerset Branch: XIII, C. Randolphe; Intemperance, W. V. Lush, M.D.

Worcester and Hereford Branch: I, H. R. Kerr, F.R.C.S. (2); II, J. Bellingham; XIII, J. L. Stretton.

Yorkshire Branch: III, S. T. D. Weston; XIII, W. H. Ellis (2); G. A. Farrer; Intemperance, W. H. Brown; Brook Thorp; Mr. T. Sadler, M.D.; M. R. J. Behrendt; J. F. Cheesewright.

Anonymous: Intemperance (1).

BEQUESTS AND DONATIONS.—Mrs. Firth, widow of a former Rector of Letcombe-Bassett, and sister of the late Mr. Percy Smith, the founder of the Wantage Cottage Hospital, has bequeathed £2,000 to the trustees for the establishing of a dispensary in that town, £250 to the Brompton Cancer Hospital, and £250 to the Oxford Infirmary.—Mr. Peter Atrell, of Tredegar Square, Mile End, has bequeathed £500 to the London Hospital, £500 to the City of London Hospiial for Diseases of the Chest, £500 to the East London Hospital for Children and Dispensary for Women, £300 to St. Mark's Hospital for Fistula, etc., £250 to the Poplar Hospital, and £200 to the Royal Hospital for Incurables.—Mr. W. Smethurst has given £100, and Mr. Robert Groom £100, to the London Temperance Hospital.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 8th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, June 11th, 1885.

NOTICE OF QUARTERLY MEETINGS FOR 1885.

ELECTION OF MEMBERS.

ANY qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member *by the Council* or by any recognised *Branch Council.*

Meetings of the Council will be held on July 8th, and October 14th, 1885. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary, not later than twenty-one days before each meeting, namely, June 17th, and September 24th, 1885.

Candidates seeking election by a Branch Council should apply to the secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made without delay to the General Secretary, at the office of the Association, 161A, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

INQUIRIES are in progress on the subjects of

CHOREA, DIPHTHERIA,
ACUTE RHEUMATISM, OLD AGE,
CANCER OF THE BREAST.

Memoranda on the above, and forms for recording individual cases, may be had on application.

It is requested that returns in Chorea and Acute Rheumatism be sent in at as early a date as possible, as the Reports on these subjects are in preparation.

The greater part of the "Old Age" form may be filled in by a non-medical person, if necessary.

The Committee are also glad to receive reports of cases of the following conditions, memoranda and forms for which are prepared.

PAROXYSMAL HÆMOGLOBINURIA.
ALBUMINURIA IN THE APPARENTLY HEALTHY.
SLEEP-WALKING. ACUTE GOUT.

The "Sleep-walking" form may be filled in by a non-medical person, if necessary.

PUERPERAL PYREXIA.—The Committee will be glad to receive reports of cases illustrative of the points mentioned in the JOURNAL of January 31st, 1885 (p. 249). Separate copies of the article and questions alluded to will be forwarded on application.

THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.—A schedule of inquiry upon this subject has been prepared by the Committee, and was issued with the JOURNAL of May 9th. Replies are requested on the schedule issued with the JOURNAL of May 9th,

Additional copies of the schedule may be had at once on application.

Returns on ACUTE PNEUMONIA are still received.

THE ETIOLOGY OF PHTHISIS.—Continuation of inquiry. The Committee will be glad to receive the names of gentlemen willing to engage in joint investigation of any of the following points in relation to the origin of cases of Phthisis;—*(a)* The influence of residence and occupation; *(b)* the previous state of the patients' thoracic organs and general health; *(c)* heredity and communication. Full particulars will be sent on application.

Application for forms, memoranda, or further information, may be made to any of the Honorary Local Secretaries, or to the Secretary of the Collective Investigation Committee, 161a, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH INDIAN BRANCH.—Meetings are held in the Central Museum, Madras, on the first Saturday in the month, at 9 P.M. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate with the Honorary Secretary. - J. MAITLAND, M.B., Honorary Secretary, Madras.

NORTH WALES BRANCH.—The annual meeting will be held at Wrexham in the first week in July. Any member who desires to read a paper should communicate before June 25th with the Honorary Secretary, W. JONES-MORRIS, Portmadoc.

MIDLAND BRANCH.—The annual meeting of this Branch will be held at Leicester, on Thursday, July 9th. Notice of papers, etc., to be sent to the undersigned. —LEWIS W. MARSHALL, M.D., Honorary Secretary and Treasurer, 2, East Circus Street, Nottingham.

SHROPSHIRE AND MID WALES BRANCH.—The annual general meeting of the Branch will be held at the Salop Infirmary, on Tuesday, June 30th, at 2 P.M. Members desirous of reading papers or opening discussions are requested to communicate with the Honorary Secretary.—EDWARD CURETON, Honorary Secretary, Shrewsbury.—May 13th, 1885.

NORTH OF ENGLAND BRANCH.—The annual meeting of the North of England Branch, will be held at Hexham, on Thursday, July 16th.—DAVID DRUMMOND, Honorary Secretary.

NORTH WALES BRANCH.—The annual meeting will be held, at the Wynnstay Arms Hotel, Wrexham, on Tuesday, July 7th, at 12 o'clock, to transact the usual business of the Branch. The President, Mr. J. Lloyd-Roberts, M.B., will deliver his address, and the following papers and communications have been promised. 1. Dr. Stephen Mackenzie (London): Some Points concerning Acute Rheumatism requiring Investigation. 2. Dr. Isambard Owen: Collective Investigation. 3. Mr. Rich Jones, M.B. (Festiniog): Hydatids of the Liver. 4. Dr. Samuel Griffith (Portmadoc): Abscess of Brain. 5. Dr. F. Imlach (Liverpool): The Early Surgical Treatment of Uterine Tumours. 6. Mr. Damer Harrisson (Liverpool): Injuries to Nerves. 7. Mr. O. S. Williams (Holyhead): An Unusual Case of Erysipelas. The annual dinner at 3.30 P.M.—W. JONES-MORRIS, Honorary Secretary.

NORTH OF IRELAND BRANCH.—The annual meeting of the Branch will be held in the Belfast Royal Hospital, on Thursday, July 9th, at four o'clock P.M. The annual dinner will take place the same evening, at seven o'clock P.M. Members intending to be present at the dinner are requested to communicate with the Honorary Secretary as soon as possible.—ALEXANDER DEMPSEY, Honorary Secretary.

NORTHERN COUNTIES (SCOTLAND) BRANCH.—The annual meeting will be held at Inverness, on Wednesday, July 8th. Gentlemen desirous of reading papers or exhibiting specimens are requested to communicate at once with the Honorary Secretary,—J. W. NORRIS MACKAY, M.D., Elgin.

SOUTH WESTERN BRANCH: ANNUAL MEETING.

The annual meeting of this branch was held at Truro on Tuesday, June 9th, at 12 noon, under the presidency of Mr. EDWARD SHARP, of Truro. Twenty-seven members were present.

New Members.—The following new members were elected at a meeting of the Council: F. C. Bullmore, Falmouth; G. T. Clapp, M.B., Exeter; F. Hickens, Redruth (Association and Branch); E. Head Moore, Falmouth; J. H. Norman, Winkleigh; R. H. Perks, M.D., Devonport (Association and Branch); R. C. M. Pooley, Falmouth; E. Rundle, Helston; G. Serjeant, Launceston; T. N. Shepherd, Launceston.

President's Valedictory Address.—Dr. SHAPTER, in vacating the chair, alluded to the important position to which the British Medical Association, now numbering more than 11,000 members, had attained, and to the great influence which it was in a position to exert in regard to the important Medical Bills which were frequently before Parliament, and in other ways. The Association had become powerful, and was also becoming wealthy. He deprecated, however, any tendency to too much centralisation, and specially alluded to the project now under consideration by the Council of the Association, by which the bulk of the realised funds, now amounting to a very large sum, would be invested in purchasing a freehold property in London, and erecting buildings thereon, to serve as Central Offices and Publishing Offices for the BRITISH MEDICAL JOURNAL. He trusted that this scheme would not be carried out until an opportunity had been afforded to the Association, as a whole, to express its opinion on the subject.

President-Elect.—Dr. SHAPTER introduced the president-elect, Mr. Edward Sharp, in appropriate terms. The latter, on taking the chair, delivered a short address, in the course of which he alluded in feeling terms to the great loss which the medical profession in Cornwall had sustained in the recent death of Dr. Barham, of Truro, who had twice filled the position which he now occupied. He gave, on behalf of himself and the members residing in the neighbourhood, the South-Western Branch a cordial welcome to Truro, which city it had not visited for many years, and trusted that they would not regret spending a portion of their time in a trip on their beautiful river, the Fal.

Vote of Thanks to Retiring President.—On the motion of Dr. HARRIS (Redruth), seconded by Dr. CLAY (Plymouth), a cordial vote of thanks was voted by acclamation to Dr. Shapter for his services as president during the past year, and for his great kindness and hospitality.

Report of Council.—The report of the council was then read as follows.

"The number of members on the roll of the Branch is 196, being 11 less than at date of last annual meeting. As the number does not exceed 200 the Branch, is only entitled this year to elect one representative member on the Council of the Association. It was found necessary to remove from the roll the names of ten gentlemen who had ceased to be members of the Association for some time, some for several years. In addition to these, seven members have resigned, or left the district during the year, and 11 have died. Seventeen new members have been elected. The Council trust that members will exert themselves to induce new members to join the Branch. In the district there were at the end of last year 74 members of the Association who were not members of the Branch; so that there is a large margin for increase, even among those already members of the parent Association.

"Death has been busy in our ranks during the past year, and several well known and highly-esteemed members have been taken from us. Of these, the Council cannot refrain from mentioning particularly the names of Dr. Barham, of Truro, who was twice president of the Branch, and twice delivered the address in medicine at annual meetings of the Association; of Mr. Kempthorne, of Callington, an excellent surgeon, one of the pioneers of ovariotomy, and the first who performed the operation in Cornwall; of Dr. Dalby, of Torquay; of Mr. Marchant Jones, of Plymouth; and, lastly, of one who passed away only the other day at a ripe old age, Dr. Samuel Budd, of Exeter, who was a worthy member of a family who have done much for medical science. Besides the annual meeting at Exeter, which was a most successful one in every way, a meeting was held at Plymouth, in February, on the occasion of the opening of the New South Devon and East Cornwall Hospital; three Council meetings have also been held, and a special meeting at Truro. The financial position of the Branch is satisfactory, the balance in hand being £23 15s. 10d., as compared with £16 9s. 2d. at the date of the last annual meeting. It is recommended that a quarterly meeting be held at Exeter in September or October next; and it is suggested that the next annual meeting be held at Torquay."

On the motion of Dr. BAMPTON (Plymouth), seconded by Mr. J. R. ROLSTON (Devonport), the report of the Council was approved and adopted.

Annual Meeting for 1886: President-Elect.—Dr. SHAPTER proposed that the annual meeting in 1886 be held at Torquay, and that William Powell, Esq., M.B., be nominated as the President-Elect; this was seconded by Dr. MONTGOMERY (Penzance), and carried unanimously.

Council of Branch.—On the motion of Mr. F. G. H. WHITLEY (Truro), seconded by Dr. HENDERSON (Exeter), the following gentlemen were elected as new members of the Branch Council: J. Alexander, M.D. (Paignton); F. A. Davson, M.D. (Dartmouth); S. Hounsell, M.D. (Torquay); C. A. Nankivell, M.B. (Torquay); W. Powell, M.B. (Torquay); W. S. Steele, M.D. (Babbicombe).

Secretary.—Mr. W. SQUARE (Plymouth) proposed, and Dr. HENDERSON (Exeter) seconded, that Dr. P. Maury Deas, of Exeter, be re-elected as honorary secretary.

Representation of the Branch.—On the motion of Mr. W. SQUARE, seconded by Dr. THOMPSON (Bideford), Dr. Deas was elected as the representative member on the Council of the Association, and also as representative member on the Parliamentary Bills Committee.

Patent Medicines Stamp Act.—A petition in favour of the repeal o the Patent Medicines Stamp Act was adopted.

Papers.—The following papers were read:—1. Congenital Incomplete Rectum: Permanent relief afforded by Littrés operation. By Mr. J. R. Rolston (Devonport). 2. Notes of a case of Tetanus. By Mr. E. Sharp (Truro). 3. Sudden Death by Suffocation in a case of Bronchocele. By Dr. Thompson (Launceston). 4. Rare case of Foreign body in the Heart, with specimen. By Dr. P. Maury Deas (Exeter).

Collective Investigation.—A short discussion took place on the subject of Collective Investigation of Disease, and it was resolved that at the next annual meeting a discussion should take place on the subject of "Rheumatism," to be opened by Dr. Henderson (Exeter). This concluded the business of the meeting.

Excursion.—The members afterwards, by invitation of the President, Mr. E. Sharp, and accompanied by some invited guests, went on board the steamer *Resolute*, which proceeded for an excursion on the Fal, extending as far as the outer limit of Falmouth Harbour. An excellent luncheon was served on board, after which Dr. Shapter proposed, and Mr. W. Square seconded, a cordial vote of thanks to the President for his liberal hospitality. On the return voyage, the party landed at Malpas, and were driven back to Truro, four hours having been spent in the most pleasant way in admiring the beauties of the river and of the noble harbour.

Annual Dinner.—This was held in the evening at the Red Lion Hotel, and attended by most of the members present at the meeting.

CAMBRIDGESHIRE AND HUNTINGDONSHIRE BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the New Museums Cambridge, on Friday, June 12th; D. B. BALDING, Esq., President in the chair.

Officers and Council.—Mr. Bridges (Cottenham) was elected a member of the Council of the Branch, in succession to Professor Latham, who has become an *ex officio* member as President of the Branch; Dr. Anningson was re-elected Honorary Secretary, and Representative of the Branch on the Council of the Association; Mr. Balding (Royston) was elected Representative on the Parliamentary Bills Committee, in succession to Mr. Stear (Saffron Walden), who is unable to continue his services.

Next Annual Meeting.—A resolution was adopted to the effect that the next annual meeting of the Branch should be held within the area of the Branch, the place to be selected by the Council.

Consultants and Practitioners.—A resolution was proposed by Dr. ELLIS (Swavesey), and seconded by Mr. BRIDGES (Cottenham), affecting the relation between consultants and practitioners; but, after a long discussion, was withdrawn with the unanimous consent of the meeting.

The members afterwards joined the East Anglian and South Midland Branches in a combined meeting.

SOUTH MIDLAND, EAST ANGLIAN, AND CAMBRIDGESHIRE AND HUNTINGDONSHIRE BRANCHES: COMBINED MEETING.

A COMBINED meeting of the above-named Branches was held at the New Museums, Cambridge, on June 12th, at 2.15 P.M., under the presidency of Dr. P. W. LATHAM. Previously to the meeting, each of the Branches met for the transaction of its own business; and, at 1 P.M., the members had luncheon at the President's house.

President's Address.—Dr. LATHAM, who was introduced to the chair by the retiring President, Mr. Balding, delivered an address, in which special reference was made to the pathology and treatment of rheumatism and diabetes. A well sustained discussion on these points followed the delivery of the address.

Discussions.—1. A discussion on Cancer, with special reference to its pathology and geographical distribution, was opened by Mr. H. T. Butlin (London). 2. A discussion on the Duties and Responsibilities of Medical Practitioners in regard to Lunatic Patients, was opened by Dr. F. Buszard (Northampton), who criticised the Bill now before Parliament.

Papers had been promised by Dr. M. Beverley (Norwich), Dr. Oswald Lane (Northampton), Dr. Sinclair Holden (Sudbury), Mr. W. A. Thomson (Ampthill), Dr. D. Bower (Bedford), and Mr. C. B. Plowright (King's Lynn); but were not read for want of time.

Card Specimens were exhibited in the Pathological Museum by Professor Humphry, Dr. Bradbury, Mr. Wherry, Mr. Laurence Humphry, and others.

The Laboratories.—By invitation of the professors and teachers, the members visited the Physiological and Pathological Laboratories, and were shown the many beautiful instruments, used for demonstrations and research, by Professor Roy and Mr. Sheridan Lea.

Dinner.—At 6.45 P.M., the members of the three Branches dined together in Downing College Hall.

STAFFORDSHIRE BRANCH: GENERAL MEETING.

THE third general meeting of this session was held at the Bell Medical Library, Cleveland Road, Wolverhampton, on Thursday, May 28th, 1885; Present, Dr. E. T. TYLECOTE, President, in the chair, and 31 members, and one visitor, Mr. Mitchell Banks, of London.

Specimens.—The following were shown.

1. Dr. Tylecote: A case of Supposed Scirrhus of the Tonsil.
2. Mr. J. Hartill: Renal Calculi.
3. Mr. Spanton: Photographs of a case of Molluscum Contagiosum.
4. Mr. Spanton: Photographs of a Boy after Severe Gunshot Injury of the Shoulder-Joint.
5. Mr. Spanton: Microscopic Sections from a Malignant Tumour of the Jaws.
6. Mr. Spanton: A Retained Testis.
7. Dr. McAldowie: Pulmonary Calculi from a case of Phthisis Calculosa.
8. Dr. McAldowie: Drawing of Secondary Scirrhus of the Liver.
9. Mr. Vincent Jackson: Portions of Multilocular Ovarian Tumour and Omentum removed by Operation.
10. Mr. Vincent Jackson: Calculus removed by Lithotrity at one sitting.

Papers.—The following were read.

1. Mr. W. H. Folker: Case of Strangulated Umbilical Hernia in which six inches of Bowel were successfully removed.
2. Mr. Vose Solomon: The Prevention of Blindness from Infantile Purulent Ophthalmia among the Indigent Poor.

BRITISH MEDICAL ASSOCIATION.

FIFTY-THIRD ANNUAL MEETING.

THE Fifty-third Annual Meeting of the British Medical Association will be held at Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28th, 29th, 30th, and 31st, 1885.

President: JAMES CUMING, M.D., F.K.Q.C.P., Professor of Medicine in Queen's College, and Physician to the Royal Hospital, Belfast.

President-elect: W. T. EDWARDS, M.D., F.R.C.S., Physician to the Glamorgan and Monmouth Infirmary, Cardiff.

An Address in Therapeutics will be delivered by W. Roberts, M.D., F.R.S., Consulting Physician to the Manchester Royal Infirmary.

An Address in Surgery will be delivered by John Marshall, F.R.C.S., F.R.S., Professor of Surgery in University College, and Senior Surgeon to University College Hospital.

An Address in Public Medicine will be delivered by Thos. Jones Dyke, F.R.C.S., Medical Officer of Health, Merthyr Tydvil.

All Sections will be held in the Town Hall.

SECTION A. MEDICINE. Crown Court.—*President:* S. Wilks, M.D., F.R.S., London. *Vice-Presidents:* T. D. Griffiths, M.D., Swansea; Byrom Bramwell, M.D., Edinburgh. *Secretaries:* W. Price, M.B., Park Place, Cardiff; E. Markham Skerritt, M.D., Richmond Hill, Clifton.

SECTION B. SURGERY. Nisi Prius Court.—*President:* E. H. Bennett, M.D., President of the Royal College of Surgeons in Ireland, Dublin. *Vice-Presidents:* P. R. Cresswell, F.R.C.S., Dowlais; Edmund Owen, F.R.C.S., London. *Secretaries:* G. A. Brown, M.R.C.S., Tredegar. Thomas Jones, F.R.C.S., 96, Mosley Street, Manchester.

SECTION C. OBSTETRIC MEDICINE. Mayor's Court.—*President:* Henry Gervis, M.D., London. *Vice-Presidents:* S. H. Steel, M.B., Abergavenny; W. C. Grigg, M.D., London. *Secretaries:* A. P. Fiddian, M.B., 6, Brighton Terrace, Cardiff; D. Berry Hart, M.D., 65, Frederick Street, Edinburgh.

SECTION D. PUBLIC MEDICINE. Assembly Room.—*President:* D. Davies, M.R.C.S., M.O.H., Bristol. *Vice-Presidents:* E. Davies, M.R.C.S., M.O.H., Swansea; J. Lloyd-Roberts, M.B., Denbigh. *Secretaries:* Edward Rice Morgan, M.R.C.S., Morriston, Swansea; Herbert M. Page, M.D., 16, Prospect Hill, Redditch.

SECTION E. PSYCHOLOGY. Ante-Room.—*President:* D. Yellowlees, M.D., Glasgow. *Vice-Presidents:* G. J. Hearder, M.D., Carmarthen; G. E. Shuttleworth, M.D., Lancaster. *Secretaries:* C. Pegge, M.R.C.S., Vernon House, Briton Ferry, Glamorgan; A. Strange, M.D., County Asylum, Bicton Heath, Shrewsbury.

SECTION F. OPHTHALMOLOGY AND OTOLOGY. Grand Jury Room.—*President:* Henry Power, M.B., F.R.C.S., London. *Vice-Presidents:* E. Woakes, M.D., London; D. C. Lloyd Owen, F.R.C.S., Birmingham. *Secretaries:* J. Milward, M.D., 54, Charles Street, Cardiff; A. Emrys-Jones, M.D., 10, St. John Street, Manchester.

SECTION G. PHARMACOLOGY AND THERAPEUTICS. Council Chamber.—*President:* T. R. Fraser, M.D., F.R.S., Edinburgh. *Vice-Presidents:* J. Talfourd Jones, M.B., Brecon; W. Murrell, M.D., 38, Weymouth Street, London. *Secretaries:* Evan Jones, M.R.C.S., Ty Mawr, 'Aberdare; J. H. Wathen, L.R.C.P., Coburg Villa, Richmond Hill, Clifton.

Local Secretary: Alfred Sheen, M.D., Halswell House, Cardiff

TUESDAY, JULY 28TH, 1885.

2.30 P.M.—Meeting of 1884-85 Council. Council Chamber, Town Hall.
3.30 P.M.—General Meeting. Report of Council and other business. Adjourn at 5 P.M. Assembly Room, Town Hall.
8 P.M.—General Meeting. President's Address, and any business adjourned from meeting at 3.30 o'clock. Assembly Room, Town Hall.

WEDNESDAY, JULY 29TH, 1885.

9.30 A.M.—Meeting of 1885-86 Council. Council Chamber, Town Hall.
11.0 A.M.—Second General Meeting. Address in Therapeutics. Assembly Room, Town Hall.
2 to 5 P.M.—Sectional Meetings.
5 to 7 P.M.—Garden Party by the High Sheriff of Glamorgan and Mrs. Hill.
8 P.M.—A *Conversazione* will be given by the President of the Association and the South Wales and Monmouthshire Branch. Park Hall, Park Place.

THURSDAY, JULY 30TH, 1885.

9.30 A.M.—Meeting of Council. Council Chamber, Town Hall.
11 A.M.—Third General Meeting. Address in Surgery. Assembly Room, Town Hall.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner. Park Hall, Park Place.

FRIDAY, JULY 31ST, 1885.

10 A.M.—Address in Public Medicine. Assembly Room, Town Hall.
11 A.M.—Sectional Meetings.
2 P.M.—Concluding General Meeting. Assembly Room, Town Hall.
8 P.M.—Reception by the Mayor of Cardiff. Park Hall, Park Place.

SATURDAY, AUGUST 1ST, 1885.

Excursions.

*** *Members intending to visit Cardiff during the Meeting, are requested to send in their names, and stating if accompanied by ladies, as soon as possible to the Honorary Secretary of the Reception Committee, Dr. Alfred Sheen, Halswell House, Cardiff.*

Members desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read, on or before July 21st.

EXCURSIONS.

In order to facilitate the arrangements for the excursions, members, in sending in their names, should state if intending to go any of the following excursions.

1. *Tintern Abbey and Raglan Castle.*—The party will leave the Great Western Railway Station, Cardiff, by special train at 10.30, reaching Chepstow at 11.30. Here carriages will be in readiness to drive to the foot of the Windcliff, a perpendicular mass of rocks rising 800 feet above the level of the river, and overhung with thickets; from the summit is obtained a magnificent view of the Wye, and parts of nine counties—namely, Monmouth, Gloucester, Wilts, Somerset, Devon, Glamorgan, Brecon, Hereford, and Worcester. Tintern will be reached at 1 P.M., when luncheon will be served at the Beaufort Arms Hotel. The Abbey will be visited after luncheon; and at 4.50 the special train will leave Tintern Station for Raglan, which will be reached at 5.40. Raglan Castle, one of the most picturesque ruins in Wales, will be visited, and afternoon-tea will be served on the lawn. The party will leave by special train at 7 P.M., and reach Cardiff at 8 P.M.

2. *Glastonbury Abbey and Wells Cathedral.*—The party will leave the Taff Vale Railway Station at 7.25 A.M., and proceed by steamer from the Pier Head at 7.45 A.M., reaching Burnham about 9.30 A.M., and Wells at 10.30. The west front of the Cathedral is one of the noblest Gothic *façades* in the kingdom, and is especially interesting for its sculptures, consisting of upwards of 300 statues. The ruined Bishop's Palace will also be seen, occupying, with its pleasure ground, upwards of fourteen acres. Luncheon will be served at the Swan Hotel at 1 P.M. At 3.35 P.M. the party will leave by train for Glastonbury, which will be reached at 3.47. The ruins of the Abbey will be visited, and afternoon tea will be served at the George Inn, at 5.30. In the cemetery, tradition says, are buried King Arthur and his Queen Guinever, and Joseph of Arimathea. In the garden grows one of the oldest of the Holy-thorn trees, a graft from the miraculous staff of St. Joseph, which sprouted when thrust into the ground, and ever afterwards retained the power of flowering at Christmas. At 7.30 the party will leave for Burnham, and start at 9 P.M. for Cardiff by steamer.

3. *Caerphilly Castle and Dowlais Iron Works.*—By invitation of the Marquess of Bute, a special train will be arranged over the Taff Vale Railway, and down to Caerphilly Castle by the Rhymney Railway, where refreshments will be provided. By kind permission of G. T. Clark, Esq., the Dowlais Iron Works will be visited in this excursion. Caerphilly Castle is one of the largest and grandest old ruins in the kingdom. (The arrangements for this excursion are not yet complete.)

4. *Symonds Yat and the Speech House, Forest of Dean.*—Symonds Yat, near Monmouth, is an elevated cliff, standing 600 feet above the sea-level, and renowned for the singular view which it commands of the numerous and beautiful mazes of the river Wye. The Speech House is charmingly situated in the midst of the Forest of Dean, and is surrounded with forest-drives and open glades. The party will leave the Great Western Railway Station, Cardiff, by special train, at 10.30. At Newport, they will change into the ordinary train for Symonds Yat, which leaves at 11.5, and reaches Symonds Yat at 12.46. Luncheon at 1 P.M., at the Symonds Yat Refreshment House. Tea at 5.30, at Speech House. The party will walk a distance of two miles to Lydbrook Junction, in time to catch the 3.20 train for Speech House, which will be reached at 4 P.M. They will return at 6.24, *vid* Lydney, reaching Cardiff at 8.10.

ANNUAL MUSEUM.

THE nineteenth annual exhibition of objects of interest in connection with medicine, surgery, and sanitary science, will take place in the Public Hall, Queen Street, Cardiff, during July 28th, 29th, 30th, and 31st, 1885. (Floor-space, 9,000 feet.)

The Museum will be divided into the following sections.

SECTION A.—Preparations, diagrams, casts, and models of anatomical and pathological objects, microscopes and microscopical preparations. (Secretary, W. M. Hier Evans, Esq.)

SECTION B.—Surgical and medical instruments and appliances; other instruments for scientific investigation; new medical works. (Secretary, A. Plain, M.B.)

SECTION C.—Foods, drugs, chemicals, and pharmaceutical preparations. (Secretary, Maurice G. Evans, M.D.)

SECTION D. SANITARY SECTION.—1. Books on sanitation. 2. Ambulances and appliances for carrying or moving sick and wounded. 3. Recent improvements in hospital furniture. 4. Personal hygiene, as clothing, beds, educational appliances, domestic appliances, filters, and arrangements for softening water; disinfectants and disinfecting apparatus. (Secretary (1, 2, 3, 4), E. Seward, A.R.I.B.A.) 5. Sanitary appliances, including drawings, models, and apparatus illustrative of the ventilation, lighting, draining, etc., of hospitals, public buildings, and private dwellings. (Illustrations of defects usually found would be of great interest.) (Secretary, E. M. B. Vaughan, A.R.I.B.A.)

In Sections A and D a printed name and description must be attached to each exhibit.

In Sections B and D, and with microscopes in Section A, exhibitors must send a printed list, with the name, number, and price of each article, and a corresponding number on each exhibit.

Unless these instructions are carried out, the exhibits will be declined.

The medical, surgical, and scientific instruments and sanitary appliances must be genuine novelties or improvements on those in common use.

EXHIBITION OF INSTRUMENTS AND APPARATUS.

It is intended to arrange for the exhibition of complete series of instruments, electro-therapeutic apparatus, instruments for physical diagnosis, and appliances relating to sanitary science and public health.

Facilities will also be afforded, when requested, for the display of instruments and apparatus in action.

CATALOGUE.—It is intended to print a catalogue of the exhibits in the Museum, and lithograph-plan. Descriptions should be sent in as early as possible, not later than June 20th, 1885.

TO EXHIBITORS.—All expenses of carriage to be prepaid, and all risks to be borne by the exhibitors; but the committee will exercise every care of the articles entrusted to them. A card bearing the name and address of the exhibitor, with the name of the instrument,

etc., to be enclosed in each package, ready to be fixed on the outside of the exhibit.

All communications with reference to the museum and advertisements for the catalogue to be addressed (prepaid) to C. E. HARDYMAN, Esq., 42, Crockherbtown, Cardiff.

NOTICE OF SPECIAL BUSINESS.

Notice is hereby given that, at the Annual General Meeting to be held at the Town Hall, Cardiff, on Tuesday, Wednesday, Thursday, and Friday, July 28th, 29th, 30th, and 31st, a motion will be made on behalf of the Council that, in Articles 13 and 15, the word "fifty" be altered for "one hundred," so as to read as follows, namely:

13. The Council may, whenever they think fit, and they shall, upon a requisition made in writing by any one hundred or more members, convene an extraordinary general meeting.

15. Upon the receipt of such requisition, the Council shall forthwith proceed to convene a general meeting; and if they do not so within twenty-one days from the date of the requisition, any one hundred members may themselves convene a meeting.

That the following addition be made at the end of By-law No. 27:

"Any casual vacancy occurring in the Council may be filled up by any Branch, the representation of which may have become vacant. The return of the election of a representative member by any Branch to fill a casual vacancy, shall be communicated in writing to the Secretary of the Association by the President or Secretary of such Branch. But any person so chosen shall retain his office so long only as the representative member in respect of whom such casual vacancy may occur would have retained the same."

MR. DIX gives notice that he will move that an addition be made to By-law 22 in the words following:

"The railway fares—first class return—of the Representatives of the Branches who attend the Meetings of the Council shall be paid from the funds of the Association."

Mr. GEORGE BROWN hereby gives notice that he will move an alteration in By-law 17, paragraph (D), so as to read:

"Any member shall be eligible as such representative if he be a member of the Association, and shall not be disqualified to act if not resident within the area of the Branch he has been elected to represent."

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, June 18th, 1885.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Ulceration of the Mouth and Digestive Tract, consequent on Large Doses of Morphine.—A New Method of Testing the Presence of Sugar in Urine.—The New Hospital at Havre.—General News.

DR. SOURROUILLE publishes a history of a patient who, suffering from uterine cancer, had exhausted every palliative. He administered morphia pills, beginning with five centigrammes, and going on to 25. Subcutaneous injections were objected to. The pain was greatly reduced, and there was no sickness; but the patient suffered from thirst and dry mouth and throat, and deglutition became difficult. Food was repugnant to her; she was constipated, and micturition caused great pain. A short time after morphia was administered, the buccal cavity, pharynx, and digestive tract were invaded by a number of small ulcers; some were deep, others superficial. The patient was unable to take any food. Dr. Sourrouille suppressed the morphia, and the ulcers disappeared without applying any detergent. Subsequently, uterine pains reappeared; morphia was again administered, and the ulcerations reappeared.

M. Coignard, at a recent meeting of the Académie de Médecine, stated, on the authority of M. E. Gautrelet, hospital chemist, that the presence of urobilin and indicans in urine causes error when Fehling's fluid is used for estimating sugar. In order to accurately estimate the quantity of glucose in urine, three operations are necessary: a chemical—the use of Fehling's fluid; a physical—polarisation; a physiological—fermentation by yeast. The chemical test is effected by a new method. To 50 centigrammes of urine add 10 centigrammes cube of subacetate of lead, then filter; to 10 cubic centigrammes of clear filtered solution add 20 drops of Fehling's solution, and the fluid becomes slightly blue. Then boil; and, if the fluid lose all colour, indican is present, and discoloration persists when the fluid cools. If the blue colour remain, urobilin is present, and the colour does not become more intense when the fluid cools. If the fluid lose or retain its colour, but deepen by cooling, glucose is present.

The new hospital at Havre was inaugurated last week, in the presence of the mayors of Havre and Calvados, the prefect of the Seine, and the presidents of the Académie de Médecine and the Société de Médecine Publique. The hospital consists of 17 pavilions dispersed over an area of 65,000 square mètres. Eleven of the pavilions are used as wards for the patients. These have ogival roofs, so as to avoid nooks and corners where dust settles; the walls are varnished, and easily washed. There is a mosaic floor, and all the pieces are carefully joined together, in order to prevent interstices from serving as receptacles for dust. The pavilions for patients' use have double walls. The air that fills the space secures the wards against sudden changes of temperature. All the wards are built over underground rooms, and are thus perfectly dry. The hospital is lighted by electricity. In the underground part of the building, there are all possible appliances for disinfecting furniture, linen, etc.; these are also placed at the disposal of the townspeople. There is a perfect system of Russian baths, in addition to every other kind that can be wanted in health or sickness. A pavilion is set apart for contagious and infectious diseases, another for patients whose malady is not defined, and also one for convalescent patients. The total expense of this hospital amounts to 1,875,000 francs (£75,000). It can furnish 312 beds; each bed costs, therefore, £240.

M. Duclaux states that, on examining the retorts M. Pasteur had used for his experiments in 1860, he found that 15 among the 65 contained living microbes, after an interval of twenty years. All the living microbes are aërobic. They absorb the slightest trace of oxygen left in confined air, and their germs live in an atmosphere deprived of oxygen. Those which have the most persistent vitality are the most active. There are six of these: *Aspergillus niger* of M. Raulin, or *Sterigmatocystis nigra* (micrococcus) of M. van Tieghem; the *Urococcus vivax;* the *Tyrothrix tenuis;* the *Tyrothrix filiformis,* discovered by M. Duclaux whilst engaged in his study on milk; the *Tyrothrix tenuior* and the *Tyrothrix tenuissimus,* new species, which, like the two preceding, are bacilli.

The Minister of Commerce has directed Dr. Gibier to go to Spain to study and report on Dr. Ferran's cholera vaccinations. News comes from Belgium that the Government has desired Dr. Van Ermengen to go to Spain on a similar mission. Dr. Van Ermengen studied the cholera epidemic last year at Toulon.

The French National Society of Acclimatisation held its 28th meeting a few days ago at the Vaudeville Theatre. M. Bouley, of the Institute, presided. M. Levasseur gave an interesting lecture on the increase of the European race in the 19th century by colonisation. Dr. Ballay has left Paris to conduct an exploring expedition in Congo.

News comes from Mexico that the Government authorises young soldiers being inoculated with yellow fever, according to Dr. Carmona's method. Experiments have been made on prisoners by their consent. All those thus inoculated exhibited symptoms of yellow fever. It is believed that it is a prophylactic measure, which remains active from four to five years. It will be tested in the Sonora State and on the west coast of Mexico.

The asylums for the insane at Marseilles have apparently a very faulty organisation. A few days ago news came of a patient being scalded to death by another madman in consequence of the negligence of an attendant. Another murder is announced, committed by one of the inmates of the Saint Pierre Asylum in the environs of Marseilles. One of the patients left his bed during the night and broke the head of his neighbour by striking him with a metal basin. He went to another patient, and exclaimed "I have just killed the devil; kill me." Fortunately his fellow patient had sufficient sense to go and fetch the attendant.

M. Deschamps has proposed to the Municipal Council to decree that all hospital directors should admit patients sent in by midwives and medical men attached to the Bureaux de Bienfaisance. This proposition, which is sent in to the Commission of the Assistance Publique, was suggested by a painful incident which occurred. A poor woman was deserted by her husband at an hotel. The proprietor placed her in a small room, where neither light nor air entered. The midwife who attended her wished to remove her to a hospital. Unable to procure a *brancard,* she conducted the mother and infant to the Lariboisière Hospital, where she was refused admittance. She then applied at the Obstetrical Clinic, where she was again refused. The midwife expressed her indignation in unmeasured terms, and was taken to the station-house. Finally, the mother was admitted at the Hôtel Dieu. The incident has attracted public attention, and the Director of Public Assistance has made the following statement concerning it. The porter at Lariboisière sent away the patient without consulting the house-surgeon, and has been severely blamed. The Director explains that the refusals elsewhere were equally ill founded, and regrets the unhappy occurrence, but fears that, as 120,000 patients are

annually admitted in the Paris hospitals, it is difficult to prevent occasional misdoings.

The water-question is again discussed by the Municipal Council. Last year, river-water was sent into Paris in July; this year, a month earlier, it is already flowing into the water-pipes. M. Depasse, a member of the Council, asked the Director of the Public Works to explain this. It appears that, when the hot weather set in, the consumption of water in private houses was so considerably increased that the reservoirs of spring-water threatened to be exhausted; therefore, river-water was also supplied to those districts which had the largest supply of spring-water, in order to obtain a reserve of spring-water; the Director asserted that this river-supply is drawn from the river above Paris, and is not unhealthy; two new springs have been purchased, and will soon be included in the water-supply of Paris.

The Hygienic Section of the Exposition du Travail, which will be opened next month at the Palais de l'Industrie, will include pharmaceutical and chemical products, also hygienic appliances and inventions. A large space will be allotted to mineral waters.

M. Hyades has received news from Terra del Fuego that there is an epidemic of measles. It broke out after the arrival of an Argentine Commission. The deaths have reduced the population to one-half the number it reckoned in June, 1884. According to the census-returns, it was then 1,000. More men have suffered in the epidemic than women. It has been most violent in the territory adjacent to that occupied by the Argentine Commission. Orange Bay is completely exempt from the epidemic, also Cape Horn.

It is now officially announced that Dr. Brouardel, President of the Conseil d'Hygiène, starts for Spain to investigate Dr. Ferran's inoculations. He is accompanied by Dr. Charrin and M. Albarran.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

Cremation in Germany.—Collective Investigation.—University Intelligence.—The New Clinic for Lunacy and Nerve-Diseases at Halle.—Remedy against Cholera in its Initial Stage.—Dr. Ferran's Inoculations.—Children's Hospital at Norderney.—Animal Lymph.—Vacation-Lectures for Practitioners.

AT the meeting of the Berlin Verein für Innere Medicin on June 1st, a petition, drawn up by the Cremation Society, to be presented to the Reichstag, was laid on the table for signature. The object of the petition is to obtain the passing of a law by which cremation may be legal, though not compulsory, in Germany. The petition gives various reasons in favour of cremation; the chief one being "that the latest studies of well known authorities in Germany and abroad in the field of hygiene have clearly proved that cremation is the safest preventive against the spread of infectious diseases by corpses." The petition was signed by several of those present at the meeting. It may be remarked that, in Austria, cremation is forbidden by the Ministries of the Interior, Justice, and Worship, owing to the great prejudice that prevails against it in the minds of the public generally.

I note that a committee has been formed in St. Petersburg for the purpose of organising collective investigation in Russia. The Russian Committee, of which Professor Lesshaft and Dr. Monastyrski have been elected secretaries, will be in communication with the International Committee in London.

The number of students matriculated at the Berlin University this term exceeds that hitherto attained in any preceding term. In the summer of 1873, there were only 1,590 students on the books; in 1880, the number amounted to 3,365; and this year it has reached 5,465. Comparing the figures in the Faculty of Medicine, we find 340 inscribed in 1873, 924 last year, and this summer 1072. There are 11 students from Great Britain, and 89 from America.

An university clinic for lunatics and those suffering from nerve-diseases was opened at Halle on April 1st. It is under the direction of Professor Hitzig, and is provisionally arranged to contain 40 beds. Setting aside the clinics under Westphal's direction, this is the first step taken in Prussia towards the realisation of an idea, originated by Griesinger, to establish clinical lunatic asylums. It is only the medical direction that is proposed to be placed in the hands of the University professor, as the administrative work of the establishment would take up too much of his time. The *Deutsche Medicinische Wochenschrift* considers that the provincial lunatic asylums in Prussia, notwithstanding all that has been done in recent times, and is being done for them still, do not meet the requirements of the country, and that, moreover, the public in general have an indomitable and unfounded prejudice against them. The difficulties connected with the reception of patients are also great. These circumstances often prove fatal to cases which might have been cured; and those who are only slightly deranged are kept at home, where they are naturally not treated in the manner suitable to their state, instead of being taken to a proper asylum, where their case would be carefully attended to. The object of this clinic is to supply an institution much needed, owing to the circumstances just mentioned. Patients will be received under the same conditions as in other clinics.

The *Allgemeine Medicinische Central-Zeitung* mentions a remedy against cholera in its initial stage, which is said to have an excellent effect. The remedy is recommended by an Italian physician, Professor Falconi, of the University of Cagliari. It is the common weed *Polygonum aviculare*. Falconi recommends 100 grammes of this weed to be boiled with 400 grammes of water, which is to be taken as soon as the first warnings of diarrhœa take place. If not taken at once, the remedy is no longer efficacious. Falconi says he used and recommended it on several occasions in the epidemics of 1854 and 1855.

Dr. Ferran's inoculation experiments for the prevention of cholera are criticised in a very sceptical manner here. It is announced that the Belgian Government has sent Van Ermengen, and the French Government Gibier, to examine the nature and value of Ferran's inoculations. It is also supposed that the German Government will take some steps in this direction. But meanwhile the *Deutsche Medicinische Wochenschrift*, referring to the report of the Madrid correspondent in the JOURNAL of June 6th, says: "Criticism is here difficult, because Ferran's statistics are quite inadequate, and because it is not even certain whether the cases which he characterises as cholera really are cholera. The possibility of a preventive inoculation against cholera is not disputed, nor the possibility of obtaining, in a purely empiric manner, a vaccine that is prophylactically effective; but what Ferran tells us does not even satisfy the most modest demands concerning the actual material.....The information given by the correspondent of the BRITISH MEDICAL JOURNAL does not harmonise very well with the claims of Ferran and his followers, as to the absence of danger in inoculating according to his system."

Dr. L. Rohden has been appointed medical director of the large hospital just built at Norderney by the Children's Sea-coast Hospital Society, and will assume the functions as such as soon as the hospital shall be opened. Dr. Rohden will utilise his time till then in visiting similar institutions in Denmark, England, France, and the other hospitals connected with the Society in Germany. The new hospital at Norderney, which was begun last June, will be opened in the spring of next year. Besides the building set apart for the administrative body, which will also contain rooms for eighteen boarders, there are six wings, each arranged for the reception of 40 children, and two buildings for isolating patients. Last year 129 children were received in the provisional hospital, of whom 92.7 per cent. were dismissed considerably improved in health.

Vaccination institutes have been established for the four government districts of the kingdom of Saxony, which are to distribute the necessary quantity of lymph for vaccination and revaccination. The lymph is to be exclusively animal lymph.

The autumn cycle of vacation courses commences on September 25th, and lasts till the end of October. Full details will be shortly published.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

Extension of the Southport Infirmary.—Hospital Saturday Collections in Liverpool and Southport.—Unsatisfactory Mode of conducting Inquests at Birkenhead.—The Death-Rate of Liverpool.—Coffee-House Conference.—Proposed Hospital at Ruabon.—Woolton Convalescent Institution.—Case of Sunstroke.

ON May 31st, the Mayoress of Southport laid the memorial stone of the new children's ward, now in course of erection in connection with the local infirmary and dispensary. The new ward is to be a separate building; and, as it will be connected with the hospital by a wide, well-ventilated corridor, communication could, with ease, be cut off, and the new part, if necessary, used as a separate hospital. It is to be called the "Pilkington" Ward. The estimated cost is £700, exclusive of furnishing, and other incidental expenses; and, up to the present, the amount contributed is over £1,000. The Mayor, Dr. Pilkington, in addressing those assembled, remarked that he hoped that in a few years a new hospital would be built. The present building, even with the recent addition, is altogether on too small a scale for a town as large as Southport. It is stated that Dr. Pilkington, who is very popular, not only with his medical brethren, but also

with the public generally, will be the Liberal candidate for Southport at the general election.

I hear that the amount collected in Liverpool, on Hospital Saturday, this year, exceeds, by a few pounds, the collection of last year, but it will be by no means as large as might be expected. However, it is generally thought that a better result may be confidently looked for in 1886, now that the working-men have taken up the question, and their committee is actively engaged in placing the claims of the hospitals more prominently under the notice of their fellow-workmen. In Southport, the proceeds of the Hospital Saturday collection are £224, against £202 last year.

Great dissatisfaction is expressed among members of the profession in this neighbourhood at the manner in which the Birkenhead coroner has recently treated two medical men. In one case, an inquest was held on the body of an infant, and the jury brought in a verdict of death from natural causes. The medical man who attended the child states that death resulted from starvation; but he was not summoned to the inquest, and, in his absence, most unfair strictures were passed upon his conduct by the coroner's jury. In the second case an inquest was held upon a man who had died after a fracture of the thigh. Here the medical men who attended the patient were in court, but were not permitted to give evidence; although, in this instance also, a rider was attached to their verdict by the jury, severely reflecting upon the surgeon who had charge of the case. Both the surgeon and the consultant, who was called in by him, distinctly state that the man died of old disease of the lungs, heart, and brain, and that there is some reason to believe that the morbid condition of the brain caused the fall which resulted in the fracture. In cases like these, surely the practitioners who have attended the patients should at least be invited to be present at the necropsy, and should also be permitted to give evidence, if thereby any light can be thrown upon the cause of death.

The death-rate for Liverpool for the week ending June 6th was only 20.9 per 1,000, or lower than it has been for many years. In fact, only upon one or two occasions in all has it ever been so low as this. The medical officer of health has issued his annual report for 1884; and, as usual, it is a very interesting and important pamphlet. Last year will be memorable for the low death-rate, 25.1 per 1,000, being the lowest on record. There was a marked decrease in the deaths from lung-disease, owing, doubtless, to the warm summer of 1884; but this was almost counterbalanced by the increase in the deaths from diarrhœa, which was very prevalent during the third quarter of the year. This prevalence of diarrhœa caused some alarm, it being regarded as a presage of the advent of cholera. As is always the case here, the greatest mortality from diarrhœa was in the lowest, dirtiest, most crowded, and most squalid streets.

The second National Coffee-house Conference was held here last week, and was most successful. An exhibition of various teetotal beverages, coffee-house utensils, etc., excited much interest. The local Coffee Tavern Company is briskly extending its operations, and doing most excellent work in offering to working men and sailors some counter-attraction to our far too numerous gin-palaces.

Ruabon is at last to have a hospital, Sir Watkin Wynn having undertaken to erect one to the memory of his late uncle. As the town is in the centre of a mining and industrial district, with a population of upwards of 15,000, the gift will be appreciated most highly.

The annual meeting of the subscribers and friends of the Liverpool Convalescent Institution at Woolton was held on June 20th. During the past year, 936 persons have been admitted, of which number 176 were gratuitous patients. The building has been recently enlarged, and the committee have made arrangements for the reception of a superior class of patients, who will correspond to the "paying-patients" of the hospitals. This innovation is universally regarded as a step in the right direction, for, the charges being moderate, many convalescents will doubtless apply for admission to the Woolton Institution who cannot afford to stay at the seaside, or at costly hotels in the country.

A case of sunstroke occurred here two or three weeks ago, before the onset of the present cold and boisterous weather.

BEQUESTS AND DONATIONS.—Mrs. Robinson has bequeathed £1,000 to the Oswestry Dispensary.—Mr. Thomas Anderton has bequeathed £100 to the Sheffield General Infirmary.—The Eastern Counties Asylum for Idiots, at Colchester, has received £100, under the will of the Rev. G. H. Porter, of Marlesford.—Mrs. Nathaniel Montefiore has given £100, and Mr. Claude Montefiore £10 10s., to University College Hospital.—"A Friend" has given £100 to the London Temperance Hospital.

CORRESPONDENCE.

STATISTICS OF HYSTERECTOMY.

SIR,—In his paper published in the JOURNAL of May 23rd, Mr. Knowsley Thornton alludes to my own results in this particular operation. I would draw his attention to a point which I have unceasingly urged, and which, I trust, he will forgive my saying, is of most special importance in his own instance.

I have always held, and I hold now more strongly than ever, that it is perfectly impossible to place any value whatever upon statistics of such operations unless the whole of the work of each particular operation is given. Unless we know the whole number of exploratory incisions and of incomplete operations which may by any possibility bear upon Mr. Thornton's statistics, those are wholly valueless.

The question of Listerism in abdominal section has been so satisfactorily settled with everybody except Mr. Thornton, that nothing more need be said upon that subject.—I am, sir, yours, etc.,

7, The Crescent, Birmingham. LAWSON TAIT.

WHIP-BOUGIES.

SIR,—I have had numerous inquiries about the "whip-bougies" referred to by Mr. Lund in his College lectures. As they appear to be but little known, permit me to state that they are supplied to me by Mr. Wood, 81, Church Street, Liverpool, whose make I prefer to others I have seen.—Yours truly, REGINALD HARRISON.

38, Rodney Street, Liverpool.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SIR,—Will you kindly allow me to correct an error which appeared in a short article in your last week's issue? You there state that "the Members' Association claim that a Member should be allowed to vote five years after he has received his diploma." The fact is, that the committee of the Association decided that *all* Members of the Royal College of Surgeons duly registered should have the power to vote at the election of Members of the Council.—Yours faithfully,

JOSEPH SMITH,
Vice-President of the Association of Members of the Royal College of Surgeons.

12, Thornton Avenue, Streatham Hill, S.W.

THE INDIAN MEDICAL SERVICE.

SIR,—With reference to your remarks about the reorganisation of the medical service of India, I should like to make a few observations. I shall premise by stating that I have not seen the Blue-book in which the conjoint scheme of Drs. Crawford and Cunningham appears; but in the summary of this scheme which you publish it appears to me that these distinguished gentlemen have both well considered the relative advantages likely to accrue to the two services which they represent, but that a vital point has not had sufficient consideration. The point to which I allude is, whether the British soldier would benefit by the proposed changes. Now, as I have said, I have not seen the Blue-book, but years ago I saw a most important minute written by the late Director-General Sir Wm. Muir on the proposed amalgamation of the two services; and if it be not in the Blue-book, I can only say that a most material paper relative to the proposed changes has been omitted. In it the chief thing considered is the welfare of the English soldier, almost to the exclusion of the advantages or disadvantages likely to fall to the two services. If my memory serve me rightly, Sir William Muir lays it down in the strongest terms that the welfare of the British soldier should not be left in the hands of a body of medical officers who are entirely dependent upon the Government of India for advancement. All medical officers—especially those of high rank—who have served in India know the difficulties experienced in getting even the most trifling sums of money expended for sanitary or other purposes relating to the English soldiers in India; and those now high in authority in the Indian medical service have the credit of having got advancement by supporting the Government of India in economies, to the detriment of the poor white soldier who is obliged to serve a certain number of years in that country. I have no hesitation in affirming that, had it not been for the fearless pressure put upon the Indian Government by the Army Medical Department, very few of the many salutary reforms which have taken place for the benefit of the soldier would have been effected. There could not be a greater evil in a national point of view than to do away with the at present independent services of the officers of the home medical service in India; for, no matter how conscientious may be the medical officers who have made India their

home, it is impossible but that self-interest must weigh with them in the advice they offer. I admit that some scheme for amalgamation is required, for the present system is unjust to both services, and the best men in the Indian army cry aloud against the life of inglorious inactivity which they lead in treating a few sick sepoys, while their brethren attached to the English army have the treatment of all the Europeans. The present system is also absurdly expensive, as it is a common thing to see a surgeon-major in charge of a native regiment with almost nothing to do, while at the same station there is a medical officer of the same rank receiving the same pay with two hundred sick soldiers under his care.

The amalgamation of the two departments could easily be carried out on the lines of the agreement made in 1859 with the artillery and engineers of the two services, that is, separate rosters for promotion, and a right for the Indian officers to claim service in India. There would be then one powerful united department, and a separate service could be organised for civil duties by volunteers from it, the preference being of course given to officers of the Indian Medical Service.

I have made this letter much longer than I intended, but I hope that you will find space for it in the BRITISH MEDICAL JOURNAL. I believe that amalgamation must come in some future time; but when it does come, let every vested right pale before the one great desideratum, the health of the army of occupation in India.—I enclose my card, and remain, faithfully yours, SENTRY.

*** We willingly publish the letter of "Sentry," on our notice of the reorganisation scheme of Drs. Crawford and Cunningham, which found so little favour either in Pall Mall or in the India Office. "Sentry," however, must permit us to remark that, long before Sir William Muir put foot in India, the claims of the British soldier to considerate treatment in all matters relating to his health were persistently kept under the notice of Government by the medical officers of the Indian army—men who had the courage of their opinions, and who were not deterred, as "Sentry" would have us believe, from freely giving expression to their opinions on health-questions by considerations affecting their personal interests. "Sentry" can have but little acquaintance with the history of sanitation in India, or he would not do such injustice to the work of sanitarians there, who were the fearless promoters of sanitary reform when Sir William Muir was a school-boy. "Sentry," like some others whose communications have reached us, sneers at those who have studied disease in the persons of the dark races. According to this gentleman, it is only those who treat disease among Europeans whose opinions are of value. Yet, it is worthy of note that nearly all we know on tropical medicine, on the diseases of India certainly, we owe to the writings of the Annesleys, Martins, Chevers, Moorheads, Goodeves, Macphersons, Cornishes, Ewarts, Scrivens, Fayrers, Macleans, and others, every one of them Indian medical officers. "Sentry" insists on the superior advantages enjoyed by those who have "two hundred sick soldiers" under their care; he must forgive us if we say, when thus as it were challenged, that we should be glad to see those who enjoy this supposed advantage make as good use of their opportunities as the men we have named. We do not allow that the authorities in India are slow to give the British soldiers in India the benefits of improved sanitation, or that such can only be wrung from them by men who fill the position once occupied by Sir William Muir. The Government of India have lavished millions in ameliorating the condition of the men who serve them. At an enormous cost, they have supplied transports to take the soldier to and from India, the like of which, for size, comfort, and reasonable convenience, the world has never seen. Very different are they from the miserable craft on which, in former days, the British Government sent their soldiers to all parts of the world. Arrived in India, the soldier is housed in barracks constructed without regard to cost; he is fed, clothed, and cared for in a way that excites the admiration and envy of officers of foreign armies who visit India. Sanatoria are kept up for him on hill stations; and, when he is sent home in ill health, he is received in an establishment at Netley, nearly the whole cost of which is borne by the finances of India. We have never been backward in fault-finding, when such seemed called for in the interest of the British soldier at home or abroad; but we must be just also. In conclusion, we cannot help reminding "Sentry," and others who try to magnify the importance of their own service, and services, at the expense of others, that the Government of India, in its worst and least enlightened days, never sent an army into the field so miserably provided with all that was needful for the well-being of its sick and wounded, as the British Government sent the "noble army of martyrs" that perished in the Crimea. It has always been the anxious desire of the BRITISH MEDICAL JOURNAL to promote concord, and unity, and good feeling among the medical officers of the public services; and it is because we do not think one or other of the above most desirable objects likely to be forwarded by the tone of the letter under notice, that we have felt it our duty to remind its author that the medical service of the army of India stands on a footing of perfect equality, as regards public usefulness and scientific attainments, with the honourable body of men to which "Sentry" belongs.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MEDICAL CHARGES.

SIR,—I shall be obliged if you will inform me what would be a reasonable charge for 15 visits and seven bottles of physic. I do my own dispensing, and some of the visits were made specially as late as 10 p.m. The patient is well off and lives in a house at a rental of about £50.—Yours truly, GAMMA.

*** In the absence of various essential details, such as the class of patient (not simply the amount of his rental), the distance of his residence from that of the attendant practitioner, we are unable to satisfactorily answer "Gamma's" question. He may, however, consult with advantage the Medico-Chirurgical Tariffs, issued by the late Shropshire Ethical Branch, and published by Mr. W. Wardle, of Shrewsbury, in which he will find the necessary information. We would, at the same time, remark that our correspondent will do well, whenever it be practicable, to ba se his claim to professional remuneration, solely on the value of his time and skill, and altogether to ignore the objectionable (as we regard it) system of "drug-payment."

NOTIFICATION OF CHANGE OF ADDRESS.

SIR,—Will you kindly give me your advice in the following matter? About 12 years ago I bought an old established practice in this town, and have been practising in the same street ever since. Owing to various circumstances I have been obliged to change my residence, and I am now going to live about a mile away from my old residence, but am going to take a room for a consulting room in the old district. A rumour has got about the town that I am going to leave altogether, and I want to know how I can let my patients know my new plans without descending to the advertising plan; would a printed circular sent to all my patients be considered unprofessional? If you could kindly suggest any plan consistent with the dignity of the profession I should be greatly obliged.—I remain, yours truly, X. Y. B.

*** From the general tone of our correspondent's communication, it is scarcely necessary to observe that either an advertisement or printed circular, would be inconsistent with the honoured dignity of the profession, and indefensible. We are inclined to think, however, that the object in view may be attained without transgressing any medico-ethical rule, by writing a private and confidential note to the more important of his friends, to the effect that in consequence of an unfounded rumour having been circulated, etc., or, if that be impracticable, a carefully lithographed fac-simile of a written note may not be inadmissible, but should be carefully restricted to his own circle of patients. The retention, moreover, of the name on the door of the old or other domicile will tend to convey the necessary knowledge, and so disabuse the public mind of the imputed intention.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SERVICE.

BRIGADE-SURGEON NATHANIEL NORRIS has been granted retired pay, with the honorary rank of Deputy Surgeon-General. He entered as Assistant-Surgeon, April 2nd, 1855; became Surgeon, April 1st, 1868; Surgeon-Major, March 1st, 1873; and Brigade-Surgeon, January 9th, 1881. Mr. Norris served in the expedition sent against the Jowaki Afreedees on the North-West Frontier of India in 1877-78, and has the medal with clasp, and in the Afghan war during the years 1878-80 (medal). He went to Egypt in the spring of last year, and returned in April last.

The undermentioned gentlemen have been appointed Acting-Surgeons to the corps specified: ARTHUR HODGE, to the 1st Cornwall (Duke of Cornwall's) Artillery Volunteers; FRANCIS PEIRCE, M.D., to the 1st Cheshire Volunteers; and ALEXANDER THOM, Junior, M.D., to the 1st Perthshire Volunteers.

Surgeon A. KEOGH, M.D., at present serving in Bengal, has passed the higher standard in Hindustani.

According to a telegram received at the War Office, dated Cairo, June 23rd, Surgeons-Major F. FERGUSON and P. R. GABBETT, and Surgeon K. S. WALLIS have left for England invalided, per the *Oregon*.

INDIAN MEDICAL SERVICE.

THE retirement of Surgeon-General W. R. CORNISH, C.I.E., late Surgeon-General with the Madras Government, is gazetted. He ranks as Assistant-Surgeon from April 1st, 1854, and attained to Surgeon-General April 5th, 1880. He is not credited with any war service in the army lists.

The retirement of Brigade-Surgeon S. M. SHIRCORE, Bengal Establishment, announced in the BRITISH MEDICAL JOURNAL some time ago, is also now gazetted.

Deputy Surgeon-General PEARL, Madras Establishment, and Brigade-Surgeons W. H. KIRTON and JOHN JONES, M.D., both of the Bengal Establishment, and whose retirements have been already noticed, have been granted a step of honorary rank.

Surgeon-Major G. C. ROSS, Bengal Establishment, Civil Surgeon, is transferred from Delhi to Gurdaspur, where he assumed charge of his duties on April 17th, relieving Surgeon-Major G. Thomson, transferred.

Surgeon J. A. CUNNINGHAM, Bengal Establishment, officiating Civil Surgeon, from Amritsar to Delhi, where he assumed charge of his duties on April 13th, relieving Surgeon-Major G. C. Ross, transferred.

Surgeon-Major G. THOMSON, M.B., Bengal Establishment, Civil Surgeon, from Gurdaspur to Jullundur, where he assumed his duties on April 20th, relieving Assistant-Surgeon Mehr Chand.

Surgeon J. LEWTAS, M.B., Bengal Establishment, Queen's Own Corps of Guides, assumed charge of the civil medical duties of Mardan on April 28th, relieving Surgeon S. Silcock.

Surgeon-Major J. DUNCAN, M.D., Bengal Establishment, 1st Punjab Infantry, is appointed to the medical charge of Sheikh Budin for the present season, with effect from May 6th.

Surgeon-Major A. L. HACKETT, Madras Establishment, has been appointed to act as principal medical storekeeper at Madras during the absence of Surgeon-Major R. E. Pearse, on leave.

Surgeon D. F. BARRY, M.D., Bengal Establishment, is appointed to the officiating medical charge of the 42nd Assam Native Infantry, at Debrooghur, *vice* Surgeon-Major G. A. Dundas.

The undermentioned gentlemen have been granted leave of absence for the periods specified. Surgeon R. N. CAMPBELL, M.B., officiating Civil Surgeon at Darrang, privilege leave for three months; Surgeon R. BLANEY, of the Bombay Volunteers, for six months, on urgent private affairs.

THE NAVY.

FLEET-SURGEON J. C. MESSER, M.D., has been placed on the Retired List, with permission to assume the rank and title of Deputy Inspector-General of Hospitals and Fleets. Dr. Messer entered the Navy as Surgeon, August 28th, 1852; became Staff-Surgeon, August 30th, 1861; and Fleet-Surgeon, January 27th, 1874. He served as Assistant Surgeon of the *Duke of Wellington*, in 1854, and of the *Centaur*, in 1855, during the Baltic expeditions of those years, and has the Baltic medal.

The following appointments have been made at the Admiralty during the past week. H. M. NASH, Staff-Surgeon to the *Thunderer*; J. H. FOLEY, to be Surgeon and agent at Carnoore and Rosslare; EDWARD GREEVE, M.D., to be Surgeon and Agent at Bonmahon; JOSEPH STEPHENS, M.D., to be Surgeon and Agent at Brighton and Blackrock.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Tuesday, June 23rd.

Disqualification by Medical Relief.—Mr. J. COLLINGS said he saw from the papers that an arrangement had been made between the leaders of the two parties to press forward certain bills, and he did not find that the list included the Bill to prevent disfranchisement by the receipt of medical relief—a Bill which was of the utmost importance to tens of thousands of new electors. He would urge on the leaders of both parties to give some assurance that this measure should be included in the list of those to be pressed forward. Otherwise it would be his duty to take the sense of the House on the question of advancing the Bill another stage at that sitting, which he believed the majority of the House would be willing to do. The same arguments might be used in favour of making an exception in favour of this Bill, which were used by the Prime Minister for considering the Lords' amendments to the Seats Bill; this Bill was necessary to complete the great measure which was on the eve of passing. In the absence of some assurance that this Bill was not excluded from the list of those to be pressed forward, it would be the duty of those who felt the great injustice that was being done to the poor to oppose the motion to adjourn.—Mr. GLADSTONE said he could, he thought, effectually relieve the mind of his hon. friend. There was no foundation whatever, great or small, for the belief that such an arrangement had been made or that any communication of any kind had taken place upon it. The position of the Bill remained absolutely unimpaired; and in these circumstances he (Mr. Gladstone) thought he would feel that the second reading of a Bill of that kind ought to be moved when there was a responsible Government.

OBITUARY.

JOHN M. YOUNG, M.B., C.M.Glasg., M.R.C.S.Eng., Surgeon, Indian Medical Service.

IN the JOURNAL of May 30th, there appeared, amongst the Indian Medical Service news, an announcement of the death of Surgeon John More Young. By his decease, the medical profession has lost a most promising member, a man of rare abilities, and a conscientious worker.

Dr. Young, on the completion of his Arts course at the University of Glasgow, joined the medical classes, and from that time on he was decidedly the first man of his year. During the epidemic of enteric fever which prevailed in the Hillhead district of Glasgow in 1878, he suffered, in common with many of his fellow-students at the University. From this cause, that winter session was lost to him as regards attendance on his classes; but in the following year, he returned to his work, to which he applied himself with his accustomed enthusiasm, and with the same success.

He graduated M.B. and C.M. with highest honours in 1881, and during the summer term of that year he was house-surgeon, and in the following winter house-physician in the Western Infirmary, Glasgow. In 1882, he contributed to the *Glasgow Medical Journal* an article on Agaricus in the Night-sweating of Phthisis. From the hospital, he proceeded to study for a time at Vienna, and on returning home was engaged as assistant at Rothwell, in Northamptonshire, but soon decided to enter the Indian Medical Service. He headed the list of the successful candidates for the Indian Medical Service, after having taken his diploma of Member of the Royal College of Surgeons of England. At the close of the session at the Army Medical School, Netley, his student career was fitly crowned by an achievement seldom, if ever, equalled. In reference to a report of the prize-distribution ceremony on August 6th, 1883, a contemporary remarked that "a notable feature of the present session has been that all the prizes, with a single exception, have been carried off by one of the surgeons on probation, Mr. J. M. Young, of the Indian Medical Service.....In handing to Mr. Young, in succession, the Herbert, Martin, Parkes, and Montefiore medals and prizes, Sir Galbraith Logan made some happy references to the special advantages that might be hoped for to the public service, from the superior ability which Mr. Young had manifested in the various branches of professional knowledge which the rewards represented."

For some time before his death, Dr. Young had been stationed at Gorakpore, where he was appointed officiating medical officer to the 5th Native Infantry. A dog, which proved to be rabid, licked a scratch upon his hand, and he was afterwards attacked by hydrophobia, dying on April 28th, in his 28th year.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE CONWAY BOARD OF GUARDIANS AND THEIR MEDICAL OFFICER.

IN the JOURNAL of the 6th instant, we published an annotation founded on a report which appeared in the *Liverpool Daily Post* of the 30th ult., of the proceedings of the Conway Board of Guardians of the preceding day. This annotation, which was a fair comment on the extraordinary action of this board towards their medical officer, Mr. T. Davies, together with a similar newspaper report (so we learn) which had been forwarded to the Council of the Poor-law Medical Officers' Association, led to that Council adopting a resolution which we published on June 13th, in which the action of the Rev. W. Venables Williams, the chairman of the Conway Board, was commented on. At the same time we inserted a letter from Mr. Williams, in which he took exception to some of our comments, and gave an explanation of his statement that Mr. Davies had given large orders for quinine in revenge for the guardians having stopped his personal supply of quinine and cod-liver oil, and directing, in future, that they should be provided by a local druggist. The letter finished with a threat as to the penal results that would ensue if Mr. Davies still refused to accept the board's offer of £10 annually as compensation for the supply of such drugs and for extra fees.

We further learn from the same source, and also from a copy of the *North Wales Chronicle*, obligingly forwarded by the Rev. W. V. Williams, that, at the meeting of the board on the 12th instant, our comment of the 6th, the resolution of the Poor-law Medical Officers' Association of the 4th, and the distinct refusal of Mr. Davies to accept the terms offered him, formed the material for a lengthened and excited debate, in which this JOURNAL and the Poor-law Medical Officers' Association were severely commented on; and Mr. Davies, having been called in, was subjected to examination and cross-examination by the chairman (Mr. Williams) and his supporters. Ultimately, a resolution was adopted by six against two, by which the board decided that Mr. Davies's salary and extra fees for the current quarter should not be paid. Since then we have received a further letter from Mr. Williams, reflecting so severely on Mr. Davies that we have not published it, together with a variety of local publications, in which the characters of the parties involved in this dispute are more or less impugned.

The subject is one which is so important in its bearing on the relations which should subsist between guardians of the poor and their medical officers, if the interests of the sick poor are to be regarded, that we shall return to it hereafter, contenting ourselves for the present

with the remark that as matters stand the guardians of the Conway Union have placed themselves, by their recent vote, in an illegal, and therefore undignified, position.

WHAT TO DO WITH A DIRTY PATIENT?

SIR,—I am a poor-law medical officer of health, and have an old man, 80 years of age, suffering from congestion of the lungs, receiving 2s. 6d. parish-pay, who has no one to wait on him. He passes all discharges in bed. I have tried to persuade him to go to the workhouse-infirmary, he refuses. How can I get him there, or what should I do? As medical officer of health I certified that he was a nuisance to himself and his neighbours, a probable centre of infection. I gave the certificate to the inspector of nuisances to take to a magistrate, and get an order for his removal. The magistrate refuses on the ground that it is not an "infectious" disease.—I am, etc., INQUIRENS.

*** As the magistrate refuses to interfere in the matter, and to give a peremptory order for the old man's removal to the workhouse-infirmary, which, under the circumstances, it is clearly his duty to do, we advise that our correspondent should apply to the board of guardians for a water-bed, a nurse, etc., and for something beyond the 2s. 6d. per week. If he do that, accompanying his application by a statement of what he has felt it his duty to recommend, we believe that the board of guardians, rather than incur such expense, would order the removal of the patient to the workhouse, and in the event of refusal, stop all out-door relief.

POOR-LAW OFFICERS AND RESIDENCE IN DISTRICTS.

M.D. Would be obliged by answers to the following questions in next week's JOURNAL. 1. Would the Local Government Board sanction the appointment of a surgeon, at present the holder of a large district (mainly worked by an assistant), to another large district in the same union? 2. The surgeon not living in the second district, would the Local Government Board sanction the second appointment, if he caused his assistant to live in it?

*** It is impossible to state, with any certainty, what the Local Government Board might be induced to sanction; if an application were made by an influential board of guardians asking for a departure from the Board's general orders, which are opposed to any appointment, such as our correspondent describes. Should such appointment be made, it would be competent for "M.D.," either personally or through some friend, to lay the facts before the Department, and if the reply should be unsatisfactory, to get a question asked in the House of Commons.

HEALTH OF ENGLISH TOWNS.

DURING the week ending the 20th instant, 5,426 births and 3,129 deaths were registered in the 28 large English towns, including London, dealt with in the Registrar-General's weekly return, which have an estimated population of 8,906,446 persons The annual rate of mortality per 1,000 persons living in these towns, which had declined from 21.1 to 18.6 in the four preceding weeks, further fell last week to 18.3. The rates in the several towns, ranged in order from the lowest, were as follow:—Derby, 10.5; Portsmouth, 13.6; Wolverhampton, 13.8; Halifax, 14.2; Brighton, 15.0; Bristol, 15.1; ; Leicester, 15.7; Bradford, 16.1; London, 16.4; Hull, 17.4; Sunderland, 17.5; Leeds, 17.7; Oldham, 18.2; Norwich, 18.3; Birkenhead, 19.6; Birmingham, 19.8; Preston, 20.3; Plymouth, 20.6; Sheffield, 20.8; Bolton, 21.3; Nottingham, 21.7; Salford, 22.2; Huddersfield, 22.7; Liverpool, 23.2; Newcastle-upon-Tyne, 24.2; Manchester, 25.5; Blackburn, 25.5; and Cardiff, 31.7. The average death-rate for the week in the 27 provincial towns averaged 20.0 per 1,000, and exceeded by as much as 3.8 the rate recorded in London. The 3,129 deaths registered during the week in the 28 towns included 454 which were referred to the principal zymotic diseases, against 520 and 429 in the two preceding weeks; of these, 187, resulted from measles, 104 from whooping-cough, 55 from diarrhœa, 34 from "fever" (principally enteric), 25 from diphtheria, 25 from scarlet fever, and 24 from small-pox. These 454 zymotic deaths were equal to an annual rate of 2.7 per 1,000. The zymotic death-rate In London was equal to 2.7 per 1,000; while in the 27 provincial towns, it averaged 2.6, and ranged from 0.0 in Derby, and 0.7 in Halifax, to 5.9 in Cardiff, 6.5 in Newcastle-upon-Tyne., and 6.5 in Blackburn. The deaths referred to measles, which had been 224 and 178 in the two preceding weeks, rose again last week to 187, and showed the largest proportional fatality in Salford, Liverpool Birkenhead, and Newcastle-upon-Tyne. The fatal cases of whooping-cough, which had been 130 and 102 in the two previous weeks, were last week 104; this disease caused the highest rates in Cardiff, Plymouth, and Blackburn. The deaths referred to "fever" exceeded by two the number in the preceding week, and caused the highest proportional fatality in Norwich, Portsmouth, and Cardiff. The fatal cases of scarlet fever, which had been 31 and 26 in the two preceding weeks, further declined to 25 last week; this disease was somewhat prevalent in Preston and Wolverhampton. The 25 deaths from diphtheria were within two of the number in the preceding week; 16 occurred in London, three in Liverpool, two in Sunderland, and two in Cardiff. Of the 24 fatal cases of small-pox, 21 occurred in London (exclusive of 16 deaths of London residents from this disease which were registered in the Metropolitan Asylum Hospitals situated outside registration London), two in Hull, and one in Manchester. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 1,201 and 1,222 on the two preceding Saturdays, declined to 1119 at the end of last week; the admissions during the week were 193, against 180 and 197 in the two prevous weeks. The death-rate from diseases of the respiratory organs in London was equal to 2.5 per 1,000, and was considerably below the average. The causes of 82, or 2.6 per cent., of the 3,129 deaths registered during the week in the 28 towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

IN the principal Scotch towns, having an estimated population of 1,254,607 persons, 867 births and 508 deaths were registered during the week ending the 20th instant. The annual rate of mortality, which had been 21.8 and 20.6 per 1,000 in the two preceding weeks, was 20.8 last week, and exceeded by 2.5 per 1,000 the averate rate for the same period in the 28 large English towns. Among these Scotch towns, the rate was equal to 15.6 per 1,000 in Aberdeen, 18.5 in Paisley, 18.9 in Edinburgh, 19.1 in Dundee, 19.3 in Perth, 19.8 in Leith, 22.8 in Glasgow, and 28.9 in Greenock. The 508 deaths registered in these towns included 17 which were referred to measles, 16 to whooping-cough, 12 to diarrhœa, 10 to "fever" (principally enteric), six to scarlet fever, two to diphtheria, and one to small-pox; in all, 64 deaths resulted from these principal zymotic diseases, against 59 and 74 in the two preceding weeks. These 64 deaths were equal to an annual rate of 2.6 per 1,000, which almost corresponded with the average zymotic death-rate in the large English towns. The highest zymotic death-rates last week in the Scotch towns were recorded in Paisley, Edinburgh, and Glasgow. The deaths from measles, which had been 15 and 13 in the two preceding weeks, rose last week to 17, and included nine in Glasgow, four in Greenock, and three in Edinburgh. The fatal cases of whooping-cough, which in the three previous weeks had declined from 27 to 22, further fell last week to 16, of which nine occurred in Glasgow, and three in Greenock. The 12 deaths from diarrhœa were considerably below the number in the corresponding week of last year. The 10 fatal cases of "fever" showed a further increase upon recent weekly numbers, and included five in Glasgow, two in Edinburgh, and two in Dundee. Of the six deaths referred to scarlet fever, five occurred in Glasgow, where the fatal case of small-pox was also recorded. The death-rate from diseases of the respiratory organs in these Scotch towns was equal to 3.9 per 1,000, against 2.5 in London. As many as 82, or 16.1 per cent., of the 508 deaths registered during the week in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS.

IN the week ending June 20th, 435 deaths were registered in the 16 principal town-districts of Ireland. The average annual death-rate represented by the deaths registered was 26.3 per 1,000. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000. Armagh, 10.3; Belfast, 32.3; Cork, 21.4; Drogheda, 29.6; Dublin, 27.0; Dundalk, 34.9; Galway, 13.4; Kilkenny, 4.2; Limerick, 29.7; Lisburn, 4.8; Londonderry, 17.8; Lurgan, 10.3; Newry, 10.5; Sligo, 24.1; Waterford, 27.8; Wexford, 25.7. The deaths from the principal zymotic diseases were equal to an annual rate of 4.2 per 1,000, the rates varying from 0.0 in 11 of the districts to 11.2 in Belfast; the 136 deaths from all causes registered in that district comprised 37 from measles (being eight over the number of deaths from that disease registered in Belfast during the preceding week). In the Dublin registration-district the deaths registered during the week amounted to 186. Twenty-four deaths from zymotic diseases were registered; they comprised one from small-pox, six from measles, four from scarlet fever, three from whooping-cough, one from diphtheria, two from cerebro-spinal fever, one from enteric fever, etc. Twenty-six deaths from diseases of the respiratory system were registered; they comprised 13 from bronchitis, and 10 from pneumonia. The deaths of 14 children under five years of age (including 10 infants under one year old) were ascribed to convulsions. Four deaths were caused by apoplexy, two by epilepsy, 11 by other diseases of the brain and nervous system (exclusive of convulsions), and eight by diseases of the circulatory system. Phthisis or pulmonary consumption caused 22 deaths, mesenteric disease five, tubercular meningitis six, and cancer two. Five accidental deaths, one case of infanticide, and one of suicide were registered. In one instance the cause of death was "uncertified," and in 30 other cases there was "no medical attendant."

HEALTH OF FOREIGN CITIES.

IT appears from statistics published in the Registrar-General's return for the week ending June 20th, that the death-rate recently averaged 29.2 per 1,000 in the three principal Indian cities; it was equal to 25.1 in Calcutta, 26.9 in Bombay, and 33.1 in Madras. Cholera caused 31 deaths in Calcutta and 12 in Bombay, and small-pox five in Calcutta and four in Bombay. According to the most recently received weekly returns, the annual death-rate per 1,000 persons estimated to be living in 22 of the largest European cities averaged 26.1, and was no less than 7.8 above the mean rate during the week in the 28 large English towns. The death-rate in St. Petersburg was 29.2, and showed a farther decline from the rates in previous weeks; the 520 deaths included 11 from fever and 11 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 26.1, and ranged from 22.7 in Copenhagen to 30.1 in Stockholm; the 116 deaths in Stockholm included six from scarlet fever and five from measles, and nine deaths resulted from diphtheria and croup in Christiania. In Paris, the death-rate was equal to 23.1, showing a further decline from the rates in recent weeks; 40 deaths resulted from measles, 18 from diphtheria and croup, and 10 from typhoid fever. The 160 deaths in Brussels, including five from scarlet fever, were equal to a rate of 19.7. In Geneva, the 22 deaths gave a rate of only 16.1, and no fatal cases of zymotic disease was reported. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate did not exceed 21.3, the highest rate being 21.6 in the Hague; the 151 deaths in Amsterdam included four from diphtheria and croup, and two from measles. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 28.4, and ranged from 24.6 and 25.1 in Berlin and Hamburg, to 30.6 in Breslau and 40.6 in Prague. Small-pox caused 24 deaths in Vienna, two in Buda-Pesth, and one in Prague. Diphtheria fatality was greatest in Berlin, Hamburg, and Dresden, and diarrhœal diseases showed a marked excess of fatality in Breslau. The death-rate averaged 24.6 in three of the principal Italian cities, the highest rate being 29.5 in Venice. Small-pox caused four deaths both in Rome and in Venice, and seven deaths from typhoid fever occurred in Turin, six in Venice, and five in Rome. No returns have recently been received either from Madrid or Lisbon. The 142 deaths in Alexandria included five from fever, and were equal to a rate of 31.9. In four of the largest American cities, the mean recorded death-rate was 21.3, the several rates ranging from 15.1 in Baltimore to 25.1 in New York. Scarlet fever showed fatal prevalence both in New York and Philadelphia; and the 258 deaths in Brooklyn included 13 from measles and nine from scarlet fever.

AT the first meeting of the ladies' class, which has been formed in connection with the Longton branch of the St. John's Ambulance Association—the first branch formed in the Potteries—Mr. W. D. Spanton delivered the first of a course of five lectures, which are to be given on successive Wednesday afternoons, on "First Aid to the Injured, Home-Nursing, etc."

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations, were admitted Licentiates in Dental Surgery at a meeting of the Board on the 24th instant.

Messrs. P. C. A. Bardet, Geneva; G. G. Campion, Manchester; W. J. England, Hampstead; F. H. Goffe, Birmingham; A. J. Jones, Maida Vale; G. H. Mugford, Exeter; F. S. Peall, Brixton Rise; A. B. Robinson, Liverpool; C. R. Smith, Leamington; H. L. Williams, Llanberis; W. M. Gabriel, Gloucester Gardens; and A. S. Mackrell, Queen Anne Street, W.

Four candidates were referred.

UNIVERSITY OF DURHAM.—At the recent examinations in Medicine and Surgery, the following candidates satisfied the Examiners.

Degree of Doctor in Medicine, for Practitioners of Fifteen Years' Standing.—F. C. Batchelor, M.R.C.S., L.R.C.P., L.S.A.; J. B. Harris, M.R.C.S., L.R.C.P.; J. E. Morris, M.R.C.S., L.S.A.; F. S. Palmer, M.R.C.S., L.R.C.P., L.S.A.; G. Ransford, M.R.C.S., L.R.C.P.; R. P. Simpson, M.R.C.S., L.S.A.

Degree of Doctor in Medicine (Essay).—F. Eastes, M.B., M.R.C.S.; E. L. Prowde, M.B.; S. T. Pruen, M.B., M.R.C.S.

Degree of Master in Surgery.—G. S. Aslett, M.R.C.S., L.S.A., King's College; C. C. Caleb, M.B., M.R.C.S.; J. R. Roberts, M.R.C.S., L.R.C.P., Middlesex Hospital; C. P. Walker, M.R.C.S., Guy's Hospital.

Second Examination for Degree of Bachelor in Medicine: Second-Class Honours in Order of Merit.—J. R. Roberts, M.R.C.S., L.R.C.P., Middlesex Hospital; C. J. Evers, M.R.C.S., L.S.A., Queen's College, Birmingham; F. P. Maynard, St. Bartholomew's Hospital; J. N. Richardson, M.R.C.S., Leeds Medical School.—*Pass-List in Alphabetical Order.*—G. S. Aslett, M.R.C.S., L.S.A., King's College; A. R. Aubrey, Bristol School of Medicine; P. Boobbyer, M.R.C.S, L.S.A., King's College; R. T. Bowden, M.R.C.S., L.S.A., St. Bartholomew's Hospital; G. R. Hall, College of Medicine, Newcastle-upon-Tyne; H. J. Hillstead, M.R.C.S., L.S.A., Guy's Hospital; A. J. Hubbard, M.R.C.S., L.R.C.P., St. Thomas's Hospital; J. L. T. Jones, St. Bartholomew's Hospital; F. H. Mead, St. George's Hospital; W. F. Moore, M.R.C.S., St. Bartholomew's Hospital; S. J. Palmer, M.R.C.S., St. Bartholomew's Hospital; H. B. W. Plummer, College of Medicine, Newcastle-upon-Tyne; F. Proud, College of Medicine, Newcastle-upon-Tyne; F. A. Saw, Charing Cross Hospital; C. J. Tabor, Middlesex Hospital; C. P. Walker, M.R.C.S., Guy's Hospital.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 18th, 1885.

Cones, John Archibald, M.R.C.S.Eng., St. Bartholomew's Hospital.
Randell, Reginald Maurice Henry, M.R.C.S.Eng., Guy's Hospital.

On the same day, the following gentlemen passed their Examination in the Science and Practice of Medicine, Surgery and Midwifery, and received certificates to practise.

Bullen, Frederick St. John, St. Thomas's Hospital.
Warren, Sydney, St. Thomas's Hospital.

MEDICAL VACANCIES.

The following vacancies are announced.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN. Ophthalmic Surgeon. Applications by July 7th.

CHELTENHAM GENERAL HOSPITAL.—House-Surgeon. Salary, £80 per annum. Applications by July 1st.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E. Resident Clinical Assistant. Applications to the Secretary, 24, Finsbury Circus, E.C.

CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park Place, Manchester.—House-Surgeon. Salary, £80. Applications to Mr. Hubert Teague, 38, Barton Arcade, Manchester.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Clinical Assistant. Applications by July 2nd.

EDMONTON UNION.—Medical Officer for the Mill Corner and Cockfoster's District of the Parish of Enfield. Applications by June 30th.

FRENCH HOSPITAL AND DISPENSARY, 10, Leicester Place, Leicester Square.—Resident Medical Officer. Salary, £60 per annum. Applications at once.

GENERAL HOSPITAL, Birmingham.—House Governor. Salary, £250 per annum. Applications by July 1st.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, and Gartside Street, Manchester.—Junior Resident Medical Officer. Salary, £80 per annum. Applications by June 30th.

GENERAL HOSPITAL FOR SICK CHILDREN.—Medical Officer to the Dispensary. Salary, £180 per annum. Applications by June 30th.

GREAT NORTHERN CENTRAL HOSPITAL, Caledonian Road, N.—Physician. Applications by June 29th.

HANTS COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £100 per annum. Applications to the Committee of Visitors, Knowle, Fareham, by July 8th.

KING'S COLLEGE.—Curator of Anatomy. Applications to J. W. Cunningham.

OMAGH UNION.—Medical Officer for the Dispensary. Salary, £120 per annum. Election, June 27th.

RICHMOND HOSPITAL.—House-Surgeon. Salary, £80 per annum. Applications by July 1st.

ROYAL CORNWALL INFIRMARY.—Honorary Physician. Applications by July 8th.

ROYAL SOUTH LONDON DISPENSARY, St. George's Cross, Lambeth Road, S.E.—Surgeon. Honorarium, £20 per annum. Applications to Mr. E. Nundy by June 29th.

SALOP AND MONTGOMERY COUNTIES LUNATIC ASYLUM, Shrewsbury.—Junior Assistant Medical Officer. Salary, £100 per annum. Applications by July 8th.

SUSSEX COUNTY HOSPITAL, Brighton.—Assistant House-Surgeon. Salary, £40 per annum. Applications by July 15th.

TIPPERARY UNION.—Medical Officer for the Cappaghwhite Dispensary District. Salary, £110 per annum, and £20 as Medical Officer of Health. Applications by June 30th.

VICTORIA DOCK DISPENSARY DISTRICT.—Junior Medical Officer. Salary, £120 per annum. Applications to the Secretary.

WEST LONDON HOSPITAL, Hammersmith.—Physician. Applications by June 29th.

MEDICAL APPOINTMENTS.

ALDRIDGE, C., M.D., appointed Second Honorary Physician to the Plymouth Public Dispensary, *vice* E. E. Meeres, M.D., resigned.

BROOKS, J. Pratt, M.R.C.S., appointed Resident Clinical Assistant to the Hospital for Consumption and Diseases of the Chest, Brompton.

DILLON, J. T., M.D., appointed Medical Officer to the Listowel Dispensary of the Union, *vice* U. Fitzmaurice, M.D., deceased.

ELLIOTT, William, L.D.S. Edin. and Dub., F.C.S., appointed Professor of Dental Mechanics in Queen's College, Birmingham.

HERN, William, M.R.C.S., L.D.S., appointed Assistant Dental Surgeon to the Dental Hospital of London.

O'CALLAGHAN, R. T. A., L.R.C.S.I., appointed Surgeon to the County Infirmary, Carlow.

ROYDS, William A. S., L.R.C.P., M.R.C.S., L.S.A., appointed Surgeon to the Royal Berkshire Hospital.

SKENE, W., L.R.C.S., appointed Resident Medical Officer to the West Bromwich Friendly Societies' Medical Alliance, *vice* J. Ashton, L.R.C.P., resigned.

STAWELL, J. Cooper, M.B., appointed Medical Officer to the Bagnalstown Dispensary of Carlow Union, *vice* R. T. A. O'Callaghan, L.R.C.S.I., resigned.

VAUDREY, E., M.B., appointed Resident Assistant House-Surgeon to the Derbyshire General Infirmary.

WOLFHAGEN, J. E., M.B., appointed Assistant House-Surgeon to the Royal Albert Hospital, Devonport.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcements.

BIRTHS.

CARTER.—June 19th, at Savile House, Potter Newton, Leeds, the wife of F. R. Carter, M.R.C.S., of a daughter.

MAWSON.—On June 18th, at Corrie House, Thornton, near Bradford, the wife of J. Hargreave Mawson, L.R.C.P., of a daughter.

MARRIAGE.

COTTELL—MURRAY.—On June 18th, at Crouch Hill, by the Rev. A. C. Murphy, D.Lit., Arthur Bowdich Cottell, Surgeon, Medical Staff, to Helen Mackintosh, daughter of William M. Murray, Esq., of Brambledown. Indian, China, and Australian papers please copy.

DEATH.

BENDALL.—On June 18th, at 9, Titchfield Terrace, Regent's Park, N.W., Howard Bendall, M.D., M.R.C.S., in his thirty-second year.

ST. MARY'S HOSPITAL FESTIVAL DINNER.—The annual festival dinner of St. Mary's Hospital was held on Wednesday, June 24th. The chair was taken by Mr. George Palmer, M.P. for Reading, who was supported by a numerous company of noblemen and gentlemen. The chairman, in proposing the toast of "Prosperity to St. Mary's Hospital," pointed out that a considerably larger income was now required to maintain the additional beds provided in the new wing, which has added very much to the efficiency, not only of the hospital, but of the medical school. At present, the committee were only able to make use of 240 beds, out of the total number of 270. The secretary was subsequently able to announce that the sum of £2,200 had been contributed.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown. Dr. Priestley: Notes of a Visit to some of the Lying-in Hospitals in the North of Europe, and particularly on the Advantages of the Antiseptic System in Obstetric Practice. Dr. Herman: On the Suppuration of Pelvic Dermoid Cysts. Mr. Hine: Case of Obstructed Labour in which Spontaneous Version followed an Unsuccessful Attempt to deliver by the Crotchet after Craniotomy.

FRIDAY.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Living specimens at 8 P.M. Discussion on the President's paper on Reflex Ophthalmitis. Mr. Anderson Critchett: Case of Extreme Retinal Irritability. Mr. J. B. Lawford: Tubercle of Choroid. Mr. Walter Edmunds and Mr. J. B. Lawford: Pathological Anatomy of Optic Neuritis.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M. —Hospital for Women, 2 P.M.

TUESDAY .....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M. —St. Thomas's (Ophthalmic Department), 4 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

WEDNESDAY ..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern Central, 2 P.M.— Samaritan Free Hospital for Women and Children, 2.30 P.M.— Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M. —St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.—King's College, 3 to 4 P.M.

THURSDAY ....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.— Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.— Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY .....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.— Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M —East London Hospital for Children, 2 P.M.

SATURDAY ....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M., —London, 2 P.M.—Cancer Hospital, Brompton, 2.30 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30 Skin M. Th., ; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M.W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12,

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th. 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S 1.30; Eye W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W. 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p. Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F., 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30 Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15: Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th, 1; Dental, W. S, 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

ACUTE MENINGITIS IN RELATION TO DISEASE OF THE NASAL MUCOUS MEMBRANE.

SIR,—Neither Dr. Frank Ogston's report of his case in the JOURNAL of May 16th, nor Dr. McNaught's note of two cases, published in the JOURNAL of May 23rd, seem to prove that the meningitis originated, in any one of these cases, from inflammation of the nasal mucous membrane.

Dr. Ogston gives no history of symptoms pointing to nasal disease, and he does not state that he found the nasal mucous membrane diseased. He apparently relies on the facts that there were signs of inflammation extending from the cribriform plate of the ethmoid, and that, when the bone was cut through here, pus welled from the nasal cavity (ethmoidal cells?) into the brain-cavity. But it is to be remarked that he also found the dura mater thickened and roughened at the parts overlying the middle ears, and the middle ears were "filled with dirty reddish fluid." Does not this rather point to ear-disease as the primary cause of the meniugitis? The inflammation involving the ethmoid might be secondary to that over the tympanum, though continuity were not apparent. There is no note of the condition of the tympanic membrane.

As regards Dr. McNaught's cases, he says there were no signs indicating affection of the nasal mucous membrane, except the sudden purulent discharge, and this he seems to accept as a proof. In connection with these cases, I may relate a third. Two years ago, I saw a case of meningitis unquestionably connected with ear-disease, and not with nasal disease. After the usual symptoms, rigors and stupor came on, and soon a messenger came for me hurriedly, with the information that "an abscess had burst in the head."

I found the man dying, with pus issuing freely from one nostril; but I do not suppose that this came from the frontal sinus.—Your obedient servant,

M.D., C.M.

MR. F. R. HUMPHREYS, of Queen's Crescent, Haverstock Hill, forwards the following notes in relation to the same subject.

A case occurred while I was house-surgeon at the Windsor Royal Infirmary and Dispensary. A boy was admitted on July 8th for "sunstroke." He had been taken suddenly ill while working in an out-house before breakfast. On admission, he complained of intense headache; and, having other symptoms of meningitis, an ice-coil was applied to his head. The symptoms increased, the patient becoming less conscious. On July 10th, he became much worse, and collapse set in. During the night, what appeared to be an abscess burst through his right nostril. The boy recovered steadily after this. Just before leaving the hospital, he had a molar tooth of the right upper jaw extracted for severe toothache, and with it came away a large piece of necrosed bone. The explanation of the case appeared to us, at the time, to be that an abscess had formed in the antrum in connection with the tooth, had set up in some way meningitis, and had ultimately burst through the nose, and so relieved the patient.

A CASE OF SUPERFŒTATION.

SIR,—In the JOURNAL of May 30th, I notice, under the above heading, a letter from Mr. Gordon Nicholls, in which he states that, on going to see his patient a second time, he found "a still-born fœtus of about eight months, and, by the side of it, a fœtus of about four and a half months' duration; the latter was in a state of desquamation; the other had apparently been dead only a few hours. The placentæ were quite separate and distinct, the smaller one breaking down under the touch, while the larger was normal."

As I am somewhat interested in this subject, might I ask Mr. Nicholls what evidence he has that the period of conception was different for each child? and what he would have his readers to understand by the word duration? Is it that the child had been conceived about four months and a half previously? or that it died at about the period of four and a half months from the time of conception?—I am, sir, yours truly,

JOHN W. WATSON.

Limavady.

ACTION OF QUININE ON THE UTERUS.

SIR,—The action of quinine on the pregnant uterus is so generally believed in by Europeans in India, that women who are pregnant are very chary of taking it, even when attacked by ague, for fear that it should cause abortion. One day last year, I was called to see the wife of a warrant-officer in the Ordnance Department, and found her suffering from ague, for which she had not taken quinine, as she was in the family-way. On inquiry, I learned that her time was up, according to her calculation, and that she was expecting any day. I then explained to her husband that, even if quinine did bring on labour, no harm would be done, and he consented that it should be given. She took two five-grain doses that day, and during the night pains came on, and she was safely delivered early in the morning. The ague left her. I may here remark that I have for a long time given quinine in five-grain doses while the ague-fit was actually on, and not only found no harm in the practice, but that the fit was cut short by it.—I am, etc., T. MURTAGH, Surgeon-Major, Medical Staff.

WORMS.

SIR,—I have now under my care a very remarkable case of a young lady, aged 21, who is infested with worms (the common round). Previously to 1879 she was quite healthy. She states she was then seized with a lancinating pain at the back of the head, to the left side, confined to one spot, together with a glazed blush on the left cheek, and partial closure of the eye on that side. The pain was temporarily relieved by local remedies, as morphia, etc., only to return at frequent intervals with the blush. Two years ago she was attacked by a similar pain at the lower part of the abdomen, which consultation decided was an irritable spot on the interior of an undeveloped uterus, being worse at the catamenial periods, these being regular, but scanty. Having a suspicion of worms, male-fern was administered, with no result. Cowhage dislodged them, and enemata of quassia and assafœtida produced the expulsion of a large quantity. The bowel then became, and is now practically free, and the abdominal pain disappeared. Emetics revealed dead worms knotted together; then they escaped to the number of 15 to 20, every twenty-four hours, through the nostril, the external ear, and the inner canthus of the eye in the order stated, always on the left side, the pain in the head being greatly relieved. They are still coming through the ear, nothing making any impression upon them. I have personally observed them actually emerging from the several parts stated, so am able to assert with confidence. If any of your readers can suggest a remedy which can assist in producing their extermination, it will be gratefully received.—Yours faithfully,

414, Stretford Road, Manchester. KENT FAIRCLOUGH, M.D.

MR. W. C. GALLOWAY. The question of precedence of nationalities is not one which we can undertake to settle.

THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS AND THE PROPOSED NEW UNIVERSITY FOR LONDON.

SIR,—I am sure that we students and practitioners, who hail from the London medical schools, will view with intense interest and gratitude the initiative now being taken up by the Royal Colleges of Physicians and Surgeons to reform our grievances.

The way would be much clearer if the London University should definitely refuse to grant our just petitions, and those of the schools to which we belong; it would be, namely, to strive hard to get what we want independently of that body.

London, with its enormous and ever-increasing population, is quite large enough to contain two universities, without their interests clashing, especially as the one it now has appears content with a restricted sphere of influence. I am sure we shall all be pleased to see our Royal Colleges in the van of this much-needed reform in medical education. I trust, however, that not only will they strive to obtain the privilege of allowing us to use the title of Dr. on our cards and door-plates, as has been the case with Edinburgh Licentiates, but an exact, well-defined right to sign M.D., after our names, which none can gainsay, the importance of which was fully pointed out in the BRITISH MEDICAL JOURNAL, of April 11th, 1885, page 749. This, and this alone, will prevent the migration of London students northward and abroad.

To attain this end, might it not be possible for the Royal Colleges of Physicians and Surgeons, with the medical schools affiliated to them, to obtain university powers, and to constitute the medical faculty of a new university, called, as Dr. Lauder Brunton aptly suggested, "the Albert University"? The College of Preceptors might be induced to represent the Arts Faculty, and their preliminary examination the matriculation; the other faculties being recruited, as Sir George Young proposed, from the leading metropolitan schools of theology, law, science, and fine arts.

This would not only meet a great want in our own profession, but, I venture to say, one equally felt by a very numerous class of those engaged in scholastic and clerical work throughout the land, who, owing to deficient means, and not from lack of brains, have to plod on without the titles which, though equally deserved, they have not the same power of obtaining, as their better circumstanced colleagues, a fact which often-times gives rise to invidious comparisons, many heart-burnings and chafing of spirit. To this class the London University offers little or no help. As to our own case, in order to enhance the value of this much coveted title of M.D., I feel confident that very few of us would object to undergoing a final and extra test in the practice of our profession, *plus* those essential to the obtaining of our bare legal qualifications, especially if the latter were deemed sufficient for such book-subjects as theory of medicine, chemistry, and pathology.

This examination might then fairly be limited to purely practical professional subjects, such, for instance, as clinical medicine and surgery, operative surgery (limited to those operations liable to be met with in general practice), practical hygiene (such as pertains to the duties of medical officer of health in rural districts), and medical jurisprudence (so far as it relates to the cases usually met with in county court evidence, lunacy questions, etc.).

An examination of this nature might be passed two or three years subsequently to ordinary qualification, that is, at a time when the want of a degree is beginning to be really felt, namely, after the interval which usually elapses between leaving the medical school and the commencement of settled professional life. During this period, much varied and valuable practical experience is usually obtained whilst filling medical and surgical appointments, or going about the country as *locum tenens* or assistant. An examination conducted on these lines would, I think, involve the minimum amount of book-work, for which most have little time after entering practice, but would mean a very considerable amount of practical observation, which none can deny is most healthy. Many young, and even old practitioners, would thus be stimulated to careful work during the daily routine of their professional life, and to use what time they could spare for reading up thoroughly their more important cases, if, as a reward for their labours, some such title were held out as M.D. Albert University.—Believe me, yours obediently,

JUNIOR PRACTITIONER, L.R.C.P., M.R.C.S.

THE COMPULSORY ISOLATION OF PATIENTS WITH CONTAGIOUS FEVERS.

SIR,—In the JOURNAL of May 2nd, you speak of the spread of scarlet fever by means of children at Board and other schools. It appears to me that the isolation of all persons suffering from such contagious diseases should be made compulsory, and enforced by the State. "If," says the late Sir J. Y. Simpson, "by a law which no one thinks harsh or severe, lunatics are prevented from destroying the lives of their fellow-men, why should it be thought harsh or severe that people affected with small-pox should be prevented from dealing out destruction and death to all the susceptible with whom they happen to come into contact?' No medical man will, I presume, contest this point; and it seems to follow that a law making obligatory the isolation of all cases of nfectious fever, whether in the rich or poor, would be the only effectual means that could be taken to prevent the extension of scarlet fever, small-pox, and typhus fever or cholera. As it is, I know that the Public Health Act of 1875 permits the compulsory removal to some hospital of any fever-patient whom the medical practitioner may certify to be without proper lodging and accommodation. This, however, is a law only for the poor, and not for the rich, although the isolation is of importance in all cases. The law, to be just, and therefore popular, should insist on all fever-patients being isolated in hospitals for the purpose, which might be small buildings, with paying and non-paying wards, situated near the homes of the patients. By this means, patients could at once be prevented from contaminating others, and might be kept in hospital until all risk of infection was past. Any relatives nursing a patient should be required to conform to rules of disinfection made use of by medical practitioners at present. In this way, and in this way alone, it seems to me, could the infection of Board and other schools be avoided. —I am, sir, your obedient servant,

C. R. DRYSDALE, M.D.

23, Sackville Street, W.

TREATMENT OF AMENORRHŒA.

SIR,—I will feel obliged if some of your readers can offer any suggestions as to treatment of a case of amenorrhœa. The patient, aged 20, was quite regular until about a year and a half ago, when she got a severe fright just at the commencement of a period, resulting in complete cessation. She expresses herself as having at regular intervals slight sensations, such as she formerly had at the commencement of a period, but which now pass off without any flow. All treatment up to the present has failed to re-establish the periods.—Yours faithfully,

CELT.

DEGREES AT THE UNIVERSITY OF LONDON.

SIR,—May I record my experiences connected with the University of London? I came to Town in 1859, from a provincial school, having just before matriculated, and found, from examination of the Calendar, that the work required for the 1st and 2nd M.B. would fall in with my ordinary hospital-work, and that, with fair diligence, I could expect to attain the M.B. in four years.

However, a few months afterwards, the University altered their Calendar, interposing the Preliminary Scientific Examination before the 1st M.B. Thus, with the greatest good fortune, one could not expect to get the M.B. for five years, and would have to devote a year at the early part of that period to work that was almost practically useless to a medical man, and for which it would be necessary to go to a special crammer.

I inquired of the well known surgeon whose clinical clerk I happened to be, for his advice in this dilemma. He said, "Well, the worst house-surgeon I ever had was a man who got all the highest honours at the University of London. I was one of their examiners for some little time, and I know that it is most difficult to fulfil their requirements, and attend to practical work."

I therefore gave the matter up, and subsequently graduated elsewhere. However, two of my friends went in for the Preliminary Scientific Examination at the time when I should have presented myself. Both were rejected. One did not come forward again; the second was again rejected, and subsequently graduated with me at Durham. Both were good practical men, who would have done honour to any university; the former is an excellent teacher, and has been for years full surgeon to a London Hospital, and is or was an examiner at the College of Surgeons. The other is equally well known in one of the largest towns outside the metropolis, and is lecturer, and I think examiner, to another university.

These men, who are both of considerable eminence, were unable to get a degree in London, because they had not at their fingers' ends the combining volumes of gases, or something of the kind.

I supply you with their names privately, and remain, sir, yours,

M.D. DURHAM.

SIR,—A movement is now on foot to lower the standard of the London University, with the object, it is said, of placing the medical degrees within reach of a wider circle of students. Many graduates of settled reputation are endeavouring to bring this change about. To such, it is a matter of indifference whether the standard of the examinations be high or low, seeing that their position in the profession rests upon a more substantial basis than the mere passing of examinations; but it is only natural that a junior and obscure member of the profession should feel somewhat anxious, and perhaps a little sore, at the prospect of seeing that vanish from his grasp which he has spent years of honest labour in acquiring—I mean a medical degree of unrivalled reputation. I feel no egotism in thus characterising the London University degrees, seeing that the whole movement against the University tacitly assumes the truth of this. But, sir, my objections rest upon other, and I trust nobler, motives than those of mere selfishness. I have thought not a little on medical education, and I honestly think any such retrogressive change as is proposed would be a mistake.

I venture to suggest the following arguments against lowering the standard of the London M.B. degree. 1. With diligence, a man can graduate with credit at the London University. 2. In spite of the severity of the examinations, the number of yearly graduates is on the steady increase. 3. Many more men would graduate at London, were they not practically debarred from entering for the Preliminary Scientific Examination through not having passed the Matriculation before entering a medical school. 4. London being the metropolis of England—indeed, of the entire empire—should maintain the highest attainable standard of medical education. 5. To lessen the severity of the examinations would be to act unfairly by the present graduates, who have worked for the degree under the conviction that they were striving for a great prize. 6. This is an age of advance; any change should be forwards. 7. The value of the course prescribed by the Preliminary Scientific Examination can only be tested by those who have themselves been through the course. It has been pronounced valueless. A correct conclusion can only be arrived at by consulting all those who have passed the examination, and tabulating the results of this inquiry.

Instead of lowering the standard of London, I propose that that of the other universities be raised, and that London shall at all risks remain faithful to her traditions.—Faithfully yours,

M.B. LOND.

PEAT-MOSS AS A THERAPEUTIC AGENT.

SIR,—Dr. J. E. Morgan's paper on Parasiticides, in the JOURNAL for May 23rd, reminds me that, in the *British and Foreign Medico-Chirurgical Review*, October, 1860, I read his valuable article on the immunity from consumption enjoyed in the north-west of Scotland and the Hebrides. I had forgotten the name of the author of the essay, but never his statement. Indeed, so much did, and do, I believe in its truth, that I have written upon it since, and for twenty-two years have been sending phthisical patients to rusticate in the peat-districts of Cumberland, they being most available from Newcastle-upon-Tyne, where I practised until lately. In Stranraer, we are surrounded by peat-mosses, where peat is 3s. 6d. per cart-load; coal, 10s. per ton by boat, and 13s. per ton by train; where rain off the primitive rocks and moss is collected for water-supply; and where, with the leisure I am likely to have for some time, I purpose studying the effect of clear soft water and peat-fires in diseased constitutions. Should the result warrant it, I will get a seaside sanatorium established for such invalids as are likely to be benefited. Meantime, should any London, Midland, or East Coast medical man wish to send some of his family or patients to this somewhat overlooked health-resort, I will gladly aid them in obtaining the necessary information.

Wigtonshire is termed the Devonshire of Scotland. Stranraer is its largest town. Snow never lies; there are no manufactories to vitiate the air, and, when it rains, you can walk out in an hour or two, as the roads dry immediately —I am, etc.,

J. CARRICK MURRAY, M.D.

7, Windsor Terrace, Stranraer, N.B.

FLORIDA.

SIR,—Can you, or any of your readers, give me any information as to the climate and prospects of practice in Florida, United States? Or advise me as to a part of the world where there is a really good and open field for practice and a warm and healthy climate? Any information will be gratefully received by, yours faithfully,

FLORIDA.

Aphides on Plants.

Sir,—I sympathise with Dr. Browne in his anxiety to cure his out-door patient, and I think I may help him. I have at present under treatment a gentleman who has a large number of patients affected with the same disease as Dr. Browne's interesting sufferer, and he tells me that a never-failing remedy, and one which is now coming generally into use, is to squirt the patient all over with a dilute solution of soft soap. The precautions requisite are, first to dissolve the soft soap in a small quantity of boiling water before mixing it with the requisite volume of cold water, by which means "lumpiness" of the solution is avoided; and then you must squirt upwards as well as downwards, so as to irrigate effectually all the aphides. Plants have skin-diseases as well as man. I am told by the lexicographer Dean Scott (the joint author with Dean Liddell of the *Lexicon*) that so far from the name lichen being derived, as it is commonly thought to be, from λειχήν a tree-moss, the right version of the matter is the very converse of this. The primary signification of λειχήν is "skin-disease;" the tree-moss having been regarded by the ancients as a skin-disease of the tree. It undoubtedly is so. It is a vegetable-parasite skin-disease of the tree, just as the aphides constitute an animal-parasite skin-disease of the tree.—I am, your obedient servant,

Balmanno Squire, M.B.Lond.
Surgeon to the British Hospital for Diseases of the Skin.
24, Weymouth Street, Portland Place, W.

Incontinence of Urine and Fæces.

Sir,—In my hands Liquid Extract of Rhus Aromatica (Parke, Davis, and Co.) has produced very satisfactory results in nocturnal incontinence of urine. I beg to suggest a trial of it to "M.B., C.M." I give it in full doses, proportioned to the patient's age, three times daily. I should probably give his patient 5 to 8 minims in each dose.—Yours truly,

M.D. Brux.

Dr. Simon Barnet.—The communication is too long for insertion. We agree with Dr. Barnet as to the high merits of Dr. Emmet's work, which was reviewed in the Journal of May 16th.

Ajvain or O'mam Seeds.

Sir,—In the British Medical Journal of June 6th, Dr. Waring, in his "Remarks on a few Articles of the Indian Materia Medica," refers to ajvain or o'mam seeds in the treatment of dipsomania; I am sure he will confer a great favour on his professional brethren by kindly stating where they can be procured, also the preparations and doses, if any.—Yours faithfully,

Richard J. Purdon, M.D.
14, College Square East, Belfast.

A Remedy for Hay-Fever.

Sir,—At this time of the year, no excuse will be needed for making as widely known as possible a remedy for this tiresome complaint. The process may sound a little formidable to your lay readers, but it is really simple, and becomes easy after one or two trials. The thing to be done is to pass about a pint of tepid water, containing a powder, up one nostril and down the other. Get a druggist to prepare a fine powder consisting of equal parts of borax and pure alum. Of this powder dissolve about a small salt-spoonful, or 20 grains, in a pint of water rather warmer than tepid. Buy three feet of India-rubber tubing, such as is used for feeding-bottles. Fasten one end of this tubing in the jug of water in such a way as to ensure its remaining at the bottom. Place the jug on a shelf or wardrobe well above the head and exhaust the air by suction at the other end. When the water begins to flow, place this end a little way up one nostril, which should be gently closed about it. On leaning the head over a basin, the water will escape in a continuous stream by the other nostril, and, judging by my own experience, instant alleviation will result. It may be done twice a day, and care should be taken to seize the moment when the patient is feeling pretty well and his nostrils clear. Of course, during the operation, he must breathe through his throat. I am indebted for the above to a London incumbent who had been cured by the application, and have found it remarkably efficacious in my own case.—Yours faithfully,

A. D. G.

Imperforate Vagina.

Sir,—I think the following case is of value when looked at from a medico-legal point. A woman came to consult me whom I deemed it necessary to examine. I found the orifice of the vagina so small that it would only admit the entrance of a No. 1 rectal bougie and undilatable. She had been married 17 years. Both her husband and herself were quite ignorant of the fact that perfect intercourse had never taken place. His penis was of a full average size.—Faithfully yours,

M.R.C.S.E.

Stammering and Stuttering.

Sir,—As much misapprehension exists, perhaps the following brief notice may interest your readers.

1. Speech, or articulated voice, depends for its perfect production on vigour of mind, on sound natural organisation, and on due training of the vocal and articulating apparatus.

2. Stammering is inability to articulate, marked by slowness, stoppage, hesitation, and indistinctness, but not with repetition; whereas stuttering consists in a painful repetition of the same consonants, often attended by flushing and facial contortions.

3. Stammering and stuttering may sometimes be caused by organic defects, such as cleft palate, harelip, enlarged uvula, inflamed tonsils, etc.; but these impediments are far more frequently due to functional causes, that is, habit, imitation, heredity, etc. Nervousness is often the consequence, or concomitant of stammering, rather than its cause. Organic effects must, of course, be treated medically or surgically, but the subsequent cure belongs to the elocutionist; while functional derangements (wrong action of the voice apparatus), are peculiarly his province.

4. The sooner the curative process begins, the greater is the prospect of success. What is easily eradicated at an early age, becomes hard to remove at a later period; though at any time of life, alleviation, if not cure, can be assured as the result of perseverance. "He will grow out of it," is a fatal saying. A fair time ought to be given, according to the nature of the case; for "a few lessons" cannot reasonably be expected to undo the mischief of many years; and the teacher is often accused of failure, when the blame is solely attributable to the patient or the parent.—I am, sir, your obedient servant,

King's College, London. Alex. J. D. D'Orsey.

R. W. (Edinburgh).—Duly received, and is being carefully considered.

The Medical Council and Mr. L. D. Parry.

Sir,—Reading in the Journal of May 16th that the case of Mr. Parry, who was convicted a year or two ago of manslaughter in New Zealand, has been brought before the Medical Council, and has been referred to the Royal College of Surgeons of Edinburgh with a view to erasing his name from the *Medical Register* in this country; as one personally acquainted with that unfortunate gentleman before his departure abroad, I beg to draw attention to the fact that, although his name has been erased from the New Zealand *Register*, there were many petitions at the time of his conviction from all the colonial medical societies, and among others from the affiliated Branch of the British Medical Association, affirming that the conviction had been against the evidence, and asking for a remission of the sentence, but unfortunately it appears without success. All this was reported and commented upon by most of the medical journals at the time, and the general opinion was, I think, decidedly in favour of Mr. Parry. As, therefore, it is by no means improbable that this gentleman may have received but scant justice in New Zealand, being, not unlikely, the victim of popular prejudice, but too apt to be excited against any practitioner unfortunate enough to lose a patient in child-bed, I trust that all the particulars of his case will be carefully considered by the authorities in this country before coming to a final decision, and that the example of the colonial legislature will not be followed as a mere matter of routine.—I am, yours faithfully,

18, Queen's Road, Dalston, E. M. Greenwood, Junr.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. Styrap, Shrewsbury; Mr. J. Walker Downie, Glasgow; Mr. R. Clement Lucas, London; Mr. J. Conyers Morrell, Ealing; Secretary of the National Dental Hospital and College; Mr. J. E. L. Moore, Welshpool; Mr. H. W. White, London; Mr. Richard Davy, London; Dr. Champneys, London; Dr. Myrtle, Harrogate; Dr. C. W. Purdy, Chicago; Mr. F. W. Byden, Fareham; Dr. J. Barron, Belfast; Dr. G. H. R. Dabbs, Shanklin, Isle of Wight; Mr. John Marshall, Dover: Dr. P. Maury Deas, Exeter; Dr. Jackson, Hexham; Dr. William Curran, London; Dr. W. M. Campbell, Liverpool; Dr. David Couper, Dennistoun; Mr. A. A. Knight, Brockley; Dr. David Newman, Glasgow; Mr. J. H. Oliver, London; Mr. W. Donovan, Erdington; Dr. J. Weston Bull, West Chislehurst; Mr. Simeon Snell, Sheffield; Mr. J. Nicholson Stathers, Stokenchurch; Mr. J. Howell Thomas, Wellingborough; Mr. W. E. Green, Sandown; Mr. J. C. R. Crewes, Truro; Dr. Avides, Porto; Mr. E. R. Curtice, London; Dr. W. R. Cossham, Cirencester; Dr. Sinclair, Dundee; Messrs. Clowes and Sons, London; Mr. J. White, London; Messrs. Cassell and Co., London; Dr. J. Sydney Langdon, Seville; Dr. Althaus, London; Mr. G. E. Williamson, Durham; Dr. Macdonald, Liverpool; Mr. George A. Gloag, Bristol; Dr. Maxwell, Woolwich; Dr. John Lindsay Steven, Glasgow; Dr. John Livy, Bolton; Dr. Imlach, Liverpool; Dr. T. Churton, Leeds; Mr. A. Finegan, Morpeth; Mr. C. E. Paget, Kendal; Mr. Reginald Harrison, Liverpool; Mr. Ralph Stockman, Edinburgh; Our Correspondent at Valencia; Our Birmingham Correspondent; Mr. Ackerman-Laurance, London; Dr. Johnson, Tunbridge Wells; Dr. Huggard, Geneva; Mr. W. E. Hacon, Christchurch, New Zealand; Mr. Robert Harris, Southport; Mr. T. A. D. Partridge, Silchar, India; Dr. Makuna, Ystrad; Our Edinburgh Correspondent; Mr. W. Elliott, Birmingham; Our Dublin Correspondent; Mr. W. A. S. Royds, Reading; Mr. C. E. Scragg, London; Mr. W. Hern, London; Mr. J. A. Tapson, London; Mr. G. A. Rae, Devonport; Dr. J. Tweedy, London; Dr. Morton, London; Dr. Savage, Birmingham; etc.

BOOKS, etc., RECEIVED.

Mappin and Co.'s Catalogue (Illustrated) of Surgical Instruments and Appliances Manufactured and Imported by them at Birmingham. 1885.

Elements of Surgical Pathology. By Augustus J. Pepper, M.B., F.R.C.S.Eng. London: Cassell and Co. 1885.

Health Exhibition Literature. Vol. XVII, Miscellaneous, including papers on Japan. Vol. XVIII, Miscellaneous, including Jury Awards and Official Catalogue. Vol. XIX, Miscellaneous, including papers on China. London: W. Clowes and Sons, Limited. 1884.

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